# Department of Defense
# Fiscal Year (FY) 2014 President's Budget Submission

April 2013

## Air Force

*Justification Book Volume 3b of 3*

## *Research, Development, Test & Evaluation, Air Force*

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| Air & Space Operations Center (AOC) | 0207410F | 150 | 07 | Volume 3a - 407 |
| Air & Space Ops Center | 0604458F | 49 | 04 | Volume 2 - 269 |
| Air Force Studies and Analysis Agency | 0901226F | 249 | 07 | Volume 3b - 873 |
| Air Traffic Control, Approach, and Landing System (ATCALS) | 0305114F | 195 | 07 | Volume 3b - 211 |
| Air-Launched Cruise Missile (ALCM) | 0101122F | 122 | 07 | Volume 3a - 87 |
| Airborne Electronic Attack | 0604429F | 69 | 05 | Volume 2 - 529 |
| Airborne Reconnaissance Systems | 0305206F | 213 | 07 | Volume 3b - 353 |
| Airborne SIGINT Enterprise | 0304260F | 187 | 07 | Volume 3b - 129 |
| Airborne Senior Leader C3 (SLC3S) | 0401845F | 98 | 05 | Volume 2 - 891 |
| Airborne Warning and Control System (AWACS) | 0207417F | 152 | 07 | Volume 3a - 453 |
| Aircraft Engine Component Improvement Program | 0207268F | 147 | 07 | Volume 3a - 369 |
| Anti-Tamper Technology Executive Agency | 0605024F | 119 | 07 | Volume 3a - 35 |
| Armament/Ordnance Development | 0604602F | 71 | 05 | Volume 2 - 571 |
| Arms Control Implementation | 0305145F | 200 | 07 | Volume 3b - 251 |
| B-1B Squadrons | 0101126F | 123 | 07 | Volume 3a - 95 |

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| B-2 Defensive Management System | 0605931F | 90 | 05 | Volume 2 - 813 |
| B-2 SQUADRONS | 0101127F | 124 | 07 | Volume 3a - 103 |
| B-52 SQUADRONS | 0101113F | 121 | 07 | Volume 3a - 41 |
| Battle Mgmt Com & Ctrl Sensor Development | 0604283F | 43 | 04 | Volume 2 - 213 |
| Battlespace Knowledge Development and Demonstration | 0603788F | 26 | 03 | Volume 1 - 309 |
| C-130 Airlift Squadron | 0401115F | 230 | 07 | Volume 3b - 637 |
| C-130J Program | 0401132F | 233 | 07 | Volume 3b - 677 |
| C-17 Aircraft (IF) | 0401130F | 232 | 07 | Volume 3b - 667 |
| C-27J Airlift Squadrons | 0401138F | 96 | 05 | Volume 2 - 873 |
| C-5 Airlift Squadrons (IF) | 0401119F | 231 | 07 | Volume 3b - 651 |
| C2ISR Tactical Data Link | 0207448F | 159 | 07 | Volume 3a - 515 |
| CSAR HH-60 Recapitalization | 0605229F | 85 | 05 | Volume 2 - 763 |
| CV-22 | 0401318F | 97 | 05 | Volume 2 - 881 |
| CYBER COMMAND ACTIVITIES | 0208059F | 169 | 07 | Volume 3a - 661 |
| Civilian Compensation Program | 0901218F | 247 | 07 | Volume 3b - 859 |
| Combat Air Intelligence System Activities | 0207431F | 156 | 07 | Volume 3a - 485 |
| Combat Identification Technology | 0603742F | 33 | 04 | Volume 2 - 93 |
| Combat Rescue - Pararescue | 0207227F | 143 | 07 | Volume 3a - 337 |
| Combat Rescue and Recovery | 0207224F | 142 | 07 | Volume 3a - 331 |

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| Combat Training Ranges | 0604735F | 75 | 05 | Volume 2 - 631 |
| Command and Control (C2) Constellation | 0207449F | 160 | 07 | Volume 3a - 523 |
| Common Data Link (CDL) | 0305236F | 219 | 07 | Volume 3b - 513 |
| Common Vertical Lift Support Platform | 0604263F | 116 | 07 | Volume 3a - 17 |
| Compass Call | 0207253F | 146 | 07 | Volume 3a - 361 |
| Control and Reporting Center (CRC) | 0207412F | 151 | 07 | Volume 3a - 445 |
| Conventional Munitions | 0602602F | 10 | 02 | Volume 1 - 139 |
| Conventional Weapons Technology | 0603601F | 23 | 03 | Volume 1 - 289 |
| Counterspace Systems | 0604421F | 67 | 05 | Volume 2 - 477 |
| Cyber Intelligence | 0305193F | 210 | 07 | Volume 3b - 317 |
| Cyber Security Initiative | 0305103F | 191 | 07 | Volume 3b - 181 |
| DCAPES | 0207452F | 161 | 07 | Volume 3a - 543 |
| Defense Joint Counterintelligence Activities | 0305146F | 201 | 07 | Volume 3b - 263 |
| Defense Research Sciences | 0601102F | 1 | 01 | Volume 1 - 1 |
| Depot Maintenance (Non-IF) | 0702207F | 240 | 07 | Volume 3b - 745 |
| Directed Energy Technology | 0602605F | 11 | 02 | Volume 1 - 149 |
| Distributed Common Ground/Surface Systems | 0305208F | 215 | 07 | Volume 3b - 415 |
| Distributed Training and Exercises | 0207697F | 166 | 07 | Volume 3a - 611 |
| DoD Cyber Crime Center | 0305105F | 192 | 07 | Volume 3b - 187 |

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| Dominant Information Sciences and Methods | 0602788F | 12 | 02 | Volume 1 - 157 |
| Dragon U-2 | 0305202F | 211 | 07 | Volume 3b - 323 |
| E-4B National Airborne Operations Center (NAOC) | 0302015F | 180 | 07 | Volume 3b - 15 |
| Electronic Combat Technology | 0603270F | 19 | 03 | Volume 1 - 237 |
| Electronic Warfare Development | 0604270F | 62 | 05 | Volume 2 - 411 |
| Endurance Unmanned Aerial Vehicles | 0305205F | 212 | 07 | Volume 3b - 333 |
| Evolved Expendable Launch Vehicle Program (SPACE) - EMD | 0604853F | 80 | 05 | Volume 2 - 719 |
| F-15E Squadrons | 0207134F | 135 | 07 | Volume 3a - 237 |
| F-16 Squadrons | 0207133F | 134 | 07 | Volume 3a - 223 |
| F-22 Modernization Increment 3.2B | 0605213F | 83 | 05 | Volume 2 - 743 |
| F-22A Squadrons | 0207138F | 137 | 07 | Volume 3a - 265 |
| F-35 - EMD | 0604800F | 78 | 05 | Volume 2 - 657 |
| F-35 Squadrons | 0207142F | 138 | 07 | Volume 3a - 283 |
| Facilities Operation - Administrative | 0901279F | 250 | 07 | Volume 3b - 879 |
| Facilities Restoration and Modernization - Test and Evaluation Support | 0605976F | 107 | 06 | Volume 2 - 949 |
| Facilities Sustainment - Test and Evaluation Support | 0605978F | 108 | 06 | Volume 2 - 953 |
| Financial Management Information Systems Development | 0901538F | 251 | 07 | Volume 3b - 885 |
| Full Combat Mission Training | 0207701F | 94 | 05 | Volume 2 - 849 |
| GPS III Space Segment | 0305265F | 222 | 07 | Volume 3b - 547 |

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| General Skill Training | 0804731F | 112 | 06 | Volume 2 - 977 |
| Global Air Traffic Management (GATM) | 0305099F | 190 | 07 | Volume 3b - 171 |
| Global Broadcast Service (GBS) | 0603840F | 59 | 05 | Volume 2 - 357 |
| Global Combat Support System | 0303141F | 183 | 07 | Volume 3b - 93 |
| Global Command and Control System | 0303150F | 184 | 07 | Volume 3b - 101 |
| Global Positioning System III - Operational Control Segment | 0603423F | 115 | 07 | Volume 3a - 1 |
| Ground Attack Weapons Fuze Development | 0604635F | 51 | 04 | Volume 2 - 285 |
| HC/MC-130 Recap RDT&E | 0605278F | 86 | 05 | Volume 2 - 771 |
| Hard and Deeply Buried Target Defeat System (HDBTDS) Program | 0604327F | 45 | 04 | Volume 2 - 227 |
| High Energy Laser Advanced Technology Program | 0603924F | 27 | 03 | Volume 1 - 327 |
| High Energy Laser Research | 0602890F | 13 | 02 | Volume 1 - 177 |
| High Energy Laser Research Initiatives | 0601108F | 3 | 01 | Volume 1 - 21 |
| Human Effectiveness Advanced Technology Development | 0603456F | 22 | 03 | Volume 1 - 275 |
| Human Effectiveness Applied Research | 0602202F | 6 | 02 | Volume 1 - 57 |
| ICBM Fuze Modernization | 0604933F | 82 | 05 | Volume 2 - 733 |
| ISR Innovations | 0207277F | 148 | 07 | Volume 3a - 385 |
| Information Operations Technology Integration & Tool Development | 0307141F | 228 | 07 | Volume 3b - 619 |
| Information Systems Security Program | 0303140F | 182 | 07 | Volume 3b - 55 |
| Information Warfare Support | 0208021F | 168 | 07 | Volume 3a - 653 |

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| Initial Operational Test & Evaluation | 0605712F | 103 | 06 | Volume 2 - 923 |
| Integrated Broadcast Service (IBS) | 0305179F | 208 | 07 | Volume 3b - 299 |
| Integrated Broadcast Service - Dem/Val | 0603850F | 37 | 04 | Volume 2 - 139 |
| Integrated Command & Control Applications (IC2A) | 0604740F | 76 | 05 | Volume 2 - 643 |
| Intelligence Advanced Development | 0603260F | 28 | 04 | Volume 2 - 1 |
| Intelligence Advanced Development | 0603260F | 58 | 05 | Volume 2 - 349 |
| Intelligence Equipment | 0604750F | 77 | 05 | Volume 2 - 649 |
| Intelligence Support to Information Warfare | 0305887F | 225 | 07 | Volume 3b - 589 |
| Intercontinental Ballistic Missile - Dem/Val | 0603851F | 38 | 04 | Volume 2 - 149 |
| Intercontinental Ballistic Missile - EMD | 0604851F | 79 | 05 | Volume 2 - 685 |
| International Activities | 1001004F | 114 | 06 | Volume 2 - 979 |
| International Space Cooperative R&D | 0603791F | 35 | 04 | Volume 2 - 121 |
| JSPOC Mission System | 0305614F | 223 | 07 | Volume 3b - 561 |
| Joint Air-to-Surface Standoff Missile (JASSM) | 0207325F | 149 | 07 | Volume 3a - 389 |
| Joint Direct Attack Munition | 0604618F | 50 | 04 | Volume 2 - 279 |
| Joint Dual Role Air Dominance Missile | 0604330F | 46 | 04 | Volume 2 - 235 |
| Joint Helmet Mounted Cueing System (JHMCS) | 0207170F | 141 | 07 | Volume 3a - 323 |
| Joint Personnel Recovery Agency | 0901202F | 246 | 07 | Volume 3b - 851 |
| Joint Precision Approach and Landing Systems - Dem/Val | 0603860F | 41 | 04 | Volume 2 - 201 |

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| Joint Surveillance/Target Attack Radar System (JSTARS) | 0207581F | 162 | 07 | Volume 3a - 551 |
| Joint Tactical Radio | 0604280F | 63 | 05 | Volume 2 - 431 |
| KC-10s | 0401219F | 237 | 07 | Volume 3b - 711 |
| KC-135s | 0401218F | 236 | 07 | Volume 3b - 705 |
| KC-46 | 0605221F | 84 | 05 | Volume 2 - 753 |
| Large Aircraft IR Countermeasures (LAIRCM) | 0401134F | 234 | 07 | Volume 3b - 691 |
| Life Support Systems | 0604706F | 74 | 05 | Volume 2 - 621 |
| Light Attack Armed Reconnaissance (LAAR) Squadrons | 0207100F | 92 | 05 | Volume 2 - 839 |
| Light Mobility Aircraft (LiMA) | 0401139F | 235 | 07 | Volume 3b - 701 |
| Logistics Information Technology (LOGIT) | 0708610F | 242 | 07 | Volume 3b - 761 |
| Logistics Support Activities | 0708012F | 241 | 07 | Volume 3b - 753 |
| Long Range Standoff Weapon | 0604932F | 81 | 05 | Volume 2 - 727 |
| Long Range Strike | 0604015F | 42 | 04 | Volume 2 - 209 |
| MC-12 | 0305230F | 95 | 05 | Volume 2 - 867 |
| MILSATCOM Terminals | 0303601F | 185 | 07 | Volume 3b - 109 |
| MQ-1 Predator A UAV | 0305219F | 216 | 07 | Volume 3b - 445 |
| MQ-9 UAV | 0205219F | 131 | 07 | Volume 3a - 193 |
| Major T&E Investment | 0604759F | 100 | 06 | Volume 2 - 907 |
| Management HQ - ADP Support (AF) | 0902998F | 252 | 07 | Volume 3b - 917 |

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| Manned Destructive Suppression | 0207136F | 136 | 07 | Volume 3a - 255 |
| Manned Reconnaissance Systems | 0305207F | 214 | 07 | Volume 3b - 407 |
| Manufacturing Technology Program | 0603680F | 25 | 03 | Volume 1 - 301 |
| Materials | 0602102F | 4 | 02 | Volume 1 - 25 |
| Maui Space Surveillance System (MSSS) | 0603444F | 21 | 03 | Volume 1 - 271 |
| Minimum Essential Emergency Communications Network (MEECN) | 0303131F | 181 | 07 | Volume 3b - 25 |
| Mission Planning Systems | 0208006F | 167 | 07 | Volume 3a - 621 |
| Multi-Platform Electronic Warfare Equipment | 0207040F | 132 | 07 | Volume 3a - 207 |
| Multi-Service Systems Engineering Initiative | 0606323F | 109 | 06 | Volume 2 - 959 |
| NATO AGS | 0305238F | 220 | 07 | Volume 3b - 521 |
| NATO Research and Development | 0603790F | 34 | 04 | Volume 2 - 115 |
| NAVSTAR Global Positioning System (Space and Control Segments) | 0305165F | 204 | 07 | Volume 3b - 277 |
| NAVSTAR Global Positioning System (User Equipment) (SPACE) | 0305164F | 56 | 04 | Volume 2 - 331 |
| NAVSTAR Global Positioning System (User Equipment) (SPACE) | 0305164F | 203 | 07 | Volume 3b - 269 |
| NUDET Detection System (SPACE) | 0305913F | 226 | 07 | Volume 3b - 599 |
| National Polar-Orbiting Operational Environmental Satellite System (NPOESS) | 0305178F | 57 | 04 | Volume 2 - 341 |
| Network-Centric Collaborative Targeting | 0305221F | 218 | 07 | Volume 3b - 503 |
| Night Fist - USSTRATCOM | 0101314F | 126 | 07 | Volume 3a - 165 |
| Nuclear Weapons Modernization | 0101125F | 91 | 05 | Volume 2 - 821 |

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| Nuclear Weapons Support | 0604222F | 60 | 05 | Volume 2 - 365 |
| Operational Support Airlift | 0401314F | 238 | 07 | Volume 3b - 721 |
| Operationally Responsive Space | 0604857F | 52 | 04 | Volume 2 - 293 |
| Other Flight Training | 0804743F | 244 | 07 | Volume 3b - 833 |
| Other Personnel Activities | 0808716F | 245 | 07 | Volume 3b - 845 |
| Personnel Administration | 0901220F | 248 | 07 | Volume 3b - 865 |
| Physical Security Equipment | 0603287F | 29 | 04 | Volume 2 - 35 |
| Physical Security Equipment | 0604287F | 65 | 05 | Volume 2 - 461 |
| Polar MILSATCOM (SPACE) | 0603432F | 31 | 04 | Volume 2 - 67 |
| Polar MILSATCOM (SPACE) | 0605432F | 88 | 05 | Volume 2 - 797 |
| Pollution Prevention - Dem/Val | 0603859F | 40 | 04 | Volume 2 - 195 |
| Precision Attack Systems Procurement | 0207249F | 145 | 07 | Volume 3a - 355 |
| RAND Project Air Force | 0605101F | 101 | 06 | Volume 2 - 915 |
| RQ-4 UAV | 0305220F | 217 | 07 | Volume 3b - 455 |
| Rapid Cyber Acquisition | 0305881F | 224 | 07 | Volume 3b - 581 |
| Readiness Training Ranges, Operations and Maintenance | 0207604F | 93 | 05 | Volume 2 - 843 |
| Region/Sector Operation Control Center Modernization Program | 0102326F | 128 | 07 | Volume 3a - 171 |
| Requirements Analysis and Maturation | 0604337F | 47 | 04 | Volume 2 - 243 |
| Rocket Systems Launch Program (SPACE) | 0605860F | 105 | 06 | Volume 2 - 939 |

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| Satellite Control Network (SPACE) | 0305110F | 193 | 07 | Volume 3b - 193 |
| Security and Investigative Activities | 0305128F | 199 | 07 | Volume 3b - 243 |
| Seek Eagle | 0207590F | 163 | 07 | Volume 3a - 565 |
| Service Support to STRATCOM - Space Activities | 0105921F | 54 | 04 | Volume 2 - 315 |
| Shared Early Warning (SEW) | 0308699F | 229 | 07 | Volume 3b - 627 |
| Small Business Innovation Research | 0605502F | 102 | 06 | Volume 2 - 921 |
| Small Diameter Bomb (SDB) - EMD | 0604329F | 66 | 05 | Volume 2 - 467 |
| Space Based Infrared System (SBIRS) High EMD | 0604441F | 70 | 05 | Volume 2 - 545 |
| Space Control Technology | 0603438F | 32 | 04 | Volume 2 - 77 |
| Space Innovation, Integration and Rapid Technology Development | 0305174F | 207 | 07 | Volume 3b - 293 |
| Space Protection Program (SPP) | 0603830F | 36 | 04 | Volume 2 - 127 |
| Space Situation Awareness Operations | 0305940F | 227 | 07 | Volume 3b - 607 |
| Space Situation Awareness Systems | 0604425F | 68 | 05 | Volume 2 - 497 |
| Space Superiority Intelligence | 0301400F | 179 | 07 | Volume 3b - 1 |
| Space Technology | 0602601F | 9 | 02 | Volume 1 - 121 |
| Space Test Program (STP) | 0605864F | 106 | 06 | Volume 2 - 943 |
| Space and Missile Center (SMC) Civilian Workforce | 0606392F | 110 | 06 | Volume 2 - 963 |
| Space and Missile Test and Evaluation Center | 0305173F | 206 | 07 | Volume 3b - 285 |
| Spacelift Range System (SPACE) | 0305182F | 209 | 07 | Volume 3b - 307 |

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| Special Tactics / Combat Control | 0408011F | 239 | 07 | Volume 3b - 735 |
| Specialized Undergraduate Flight Training | 0604233F | 61 | 05 | Volume 2 - 389 |
| Strat War Planning System - USSTRATCOM | 0101313F | 125 | 07 | Volume 3a - 137 |
| Strategic Aerospace Intelligence System Activities | 0102823F | 129 | 07 | Volume 3a - 179 |
| Submunitions | 0604604F | 72 | 05 | Volume 2 - 595 |
| Support Systems Development | 0708611F | 243 | 07 | Volume 3b - 807 |
| Support to DCGS Enterprise | 0305240F | 221 | 07 | Volume 3b - 531 |
| Sustainment Science and Technology (S&T) | 0603199F | 15 | 03 | Volume 1 - 197 |
| Tactical AIM Missiles | 0207161F | 139 | 07 | Volume 3a - 305 |
| Tactical Air Control Party-Mod | 0207444F | 158 | 07 | Volume 3a - 505 |
| Tactical Airborne Control Systems | 0207418F | 153 | 07 | Volume 3a - 467 |
| Tactical Data Networks Enterprise | 0604281F | 64 | 05 | Volume 2 - 439 |
| Tech Transition Program | 0604858F | 53 | 04 | Volume 2 - 309 |
| Technology Transfer | 0604317F | 44 | 04 | Volume 2 - 221 |
| Test and Evaluation Support | 0605807F | 104 | 06 | Volume 2 - 931 |
| Theater Battle Management (TBM) C4I | 0207438F | 157 | 07 | Volume 3a - 497 |
| Threat Simulator Development | 0604256F | 99 | 06 | Volume 2 - 897 |
| Three Dimensional Long-Range Radar (3DELRR) | 0207455F | 55 | 04 | Volume 2 - 323 |
| USAF Modeling and Simulation | 0207601F | 164 | 07 | Volume 3a - 575 |

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| University Research Initiatives | 0601103F | 2 | 01 | Volume 1 - 17 |
| WIDEBAND GLOBAL SATCOM (SPACE) | 0605433F | 89 | 05 | Volume 2 - 805 |
| Warfighter Rapid Acquisition Process (WRAP) Rapid Transition Fund | 0203761F | 130 | 07 | Volume 3a - 185 |
| Wargaming and Simulation Centers | 0207605F | 165 | 07 | Volume 3a - 603 |
| Weather Service | 0305111F | 194 | 07 | Volume 3b - 201 |
| Weather System Follow-on | 0604422F | 48 | 04 | Volume 2 - 259 |
| Wide Area Surveillance | 0604445F | 117 | 07 | Volume 3a - 21 |
| Wideband Global SATCOM RDT&E (Space) | 0603854F | 39 | 04 | Volume 2 - 187 |

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**In the FY 2014 President's Budget Submission**

**RDT&E Exhibits in Budget Activity 7**

**are split into two books:**

**Vol-III Part 1**

**Vol-III Part 2**

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**The following Program Elements are not providing RDT&E exhibits due to classification:**

| | |
|---|---|
| 0101815F | ADVANCED STRATEGIC PROGRAM |
| 0207424F | EVALUATION AND ANALYSIS PROGRAM |
| 0208161F | SPECIAL EVALUATION SYSTEM |
| 0208162F | ADVANCED TECHNOLOGY PROGRAM |
| 0301310F | NATIONAL AIR INTELLIGENCE CENTER |
| 0301314F | COBRA BALL |
| 0301315F | MISSILE AND SPACE TECHICAL COLLECTION |
| 0301324F | FOREST GREEN |
| 0301386F | GDIP COLLECTION MANAGEMENT |
| 0304111F | SPECIAL ACTIVITES |
| 0304311F | SELECTED ACTIVITIES |
| 0304348F | ADVANCED GEOSPATIAL INTELLIGENCE (AGI) |
| 0305124F | SPECIAL APPLICATIONS PROGRAM |
| 0305127F | FOREIGN COUNTERINTELLIGENCE ACTIVITES |
| 0305159F | DEFENSE RECONNAISSANCE SUPPORT ACTIVITIES |
| 0305172F | COMBINED ADVANCED APPLICATIONS |
| 0605798F | ANALYSIS SUPPORT GROUP |

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## PROGRAM ELEMENT COMPARISON SUMMARY

**PROGRAM ELEMENT (BY BUDGET ACTIVITY)**

| | | **Remarks** |
|---|---|---|
| **BUDGET ACTIVITY #1: BASIC RESEARCH (Volume 1)** | | |
| None | | |
| **BUDGET ACTIVITY #2: APPLIED RESEARCH (Volume 1)** | | |
| None | | |
| **BUDGET ACTIVITY #3: ADVANCED TECHNOLOGY DEVELOPMENT (Volume 1)** | | |
| 0603270F | ELECTRONIC COMBAT TECHNOLOGY | In FY 2014, Project 632432 activities are transferred to Project 63431G to better align efforts. |
| **BUDGET ACTIVITY #4: ADVANCED COMPONENT DEVELOPMENT AND PROTOTYPE (Volume 2)** | | |
| 0105921F | SERVICE SUPPORT TO STRATCOM - SPACE ACTIVITIES | In FY 2014, Svc Supt to Stratcom does not include New Start efforts but does reinstate RDT&E funding to the Joint Navigation Warfare Center (JNWC). For FY12 and prior years, funding for JNWC resided in PE0101313F as RDT&E Funds. In the FY13 POM, JNWC requested ~70% of their $9.6M funding be recolored to reflect increased O&M role and 30% remain as RDT&E. Funds to remain as RDT&E were incorrectly zeroed out by AF Panel under assumption that COCOM didn't need RDT&E funding. This is an effort to restore RDT&E funding in FY14 to support RDT&E activities with the right appropriation. |
| 0207455F | THREE DIMEN LONG RANGE RADAR (3DELRR) | In FY 2014, Project 6002, Three Dimensional Expeditionary Long Range Radar (3DELRR), efforts were transferred from PE 0604283F, Battle Management Command and Control (BMC2) Sensor Development, Project 6002, in order to provide this program its own Program Element. Totals include funding for PRCP Program Number (PNO) 393, 3DELRR. In FY 2014, this is a new start. |

**PROGRAM ELEMENT (BY BUDGET ACTIVITY)**

| | | |
|---|---|---|
| 0603430F | ADVANCED (EHF MILSATCOM (SPACE) | In FY 2014, Project 644050, Advanced MILSATCOM, and Project 64A030, Evolved AEHF MILSATCOM, efforts transferred to PE 0605431F, Advanced EHF MILSATCOM (Space), Project 657103, Advanced MILSATCOM, and Project 657104, Evolved AEHF MILSATCOM, in order to transition to Budget Activity 5. |
| 0603432F | POLAR MILSATCOM (SPACE) | In FY 2014, Project 644052, Polar Satellite Communications, efforts transferred to PE 0605432F, Polar MILSATCOM (Space), Project 657105, Polar Satellite Communications, in order to transition to Budget Activity 5. |
| 0603850F | INTEGRATED BROADCAST SERVICE (DEM/VAL) | In FY 2014, Project 644778, Integrated Broadcast Service, efforts transferred to PE 0305179F, Integrated Broadcast Service, Project Number 674779, Integrated Broadcast Service, in order to realign funds in support of transition to sustainment. |
| 0603854F | WIDEBAND MILSATCOM (SPACE) | In FY 2014, Project 644870, Command and Control System Consolidated (CCS-C), efforts transferred to PE 0605433F, Wideband Global SATCOM (Space), Project 657102, Command and Control System Consolidated (CCS-C), in order to transitions to Budget Activity 5. |
| 0603860F | JOINT PRECISION APPROACH AND LANDING SYSTEMS - DEM/VAL | In FY 2014, JPALS is an Acquisition Category 1D program. System development includes an incremental approach employing a family of Land-Based (fixed and deployable) and Sea-based systems. On 16 March 2007, the Joint Requirements Oversight Council (JROC) approved the Capability Development Document (CDD) for the JPALS family of systems and Increment 1 for the Sea-Based System and designated the Navy as the JPALS lead Department of Defense (DoD) Service and lead Component for the Sea-Based System. On 19 January 2010, the JROC approved Increment 2 CDD for the Land-Based System and designated the Air Force as the lead Component for the Land-Based System.<br>As reflected in the JPALS CDD, JPALS was intended to be the next generation precision approach and landing system which would provide a common interoperable system for both DoD and civil use. A cornerstone of the JPALS implementation strategy was parallel development and implementation with the FAA Local Area Augmentation System (LAAS) which was based on the same GPS Ground Based Augmentation System (GBAS) technology. However, since the CDD was approved, the pace of the FAA LAAS implementation and phase down of the legacy instrument landing system has slowed. This, combined with the several billion dollar cost for aircraft equipage and the need to fund higher Air Force priorities, resulted in the Air Force delaying JPALS implementation for the foreseeable future. The Army has also delayed JPALS implementation beyond the current future years defense plan.<br>As JPALS is now early to need for the Air Force, Land-Based Increment 2 development responsibility is being transferred from the Air Force to the Navy. The Navy has a near term need in FY17 for a shore based system to support Joint Strike Fighter carrier landing training ashore. The Air Force will monitor the progress of |

**PROGRAM ELEMENT (BY BUDGET ACTIVITY)**

| | | |
|---|---|---|
| | | JPALS implementation but, in the interim, continue the use of the legacy Instrument Landing System (ILS). ILS is supportable through the 2030 timeframe and, in its fixed and deployable configuration, will provide an effective and affordable landing system capability. The Air Force will also retain a limited number mobile precision approach radars to provide joint Service interoperability at deployed location as all Navy and Army aircraft are not ILS equipped. |
| 0604283F | BMC2 SENSOR DEVELOPMENT | In FY 2014, Project 6002, Three Dimensional Expeditionary Long Range Radar (3DELRR), transferred to PE 0207455F, Three Dimensional Expeditionary Long Range Radar (3DELRR), Project 6002, in order to provide this pre-Major Defense Acquisition Program its own Program Element. |
| 0604458F | AIR AND SPACE OPERATIONS CENTER (AOC) INCREMENT 10.2 | In FY 2014, Project Number 644945, AOC Inc. 10.2, efforts were transferred from PE 0207410F, AOC WS, Project Number 675117 in order to improve transparency for this major program. AOC 10.2 is PRCP Program Number (PNO) N42. In FY 2014, this is a new start. |
| 0604618F | JOINT DIRECT ATTACK MUNITION | In FY 2014, this is a New Start. |

**BUDGET ACTIVITY #5: SYSTEM DEVELOPMENT AND DEMONSTRATION (SDD) (Volume 2)**

| | | |
|---|---|---|
| 0401318F | CV-22 | In FY 2014, Enhanced Self Deployment Capabilities has been expanded to include new start efforts for Area Navigation (Global Positioning System) [RNAV (GPS)].<br><br>In FY 2014, the Improved Inlet Solution project includes new start efforts. |
| 0603260F | INTELLIGENCE ADVANCED DEVELOPMENT | In FY 2014, Project Number 652053, National Air Intelligence Center, efforts were transferred from PE 0604750F, Intelligence Equipment, Project Number 652053, National Air Intelligence Center, in order to increase management efficiency, reduce administrative actions, and ensure continued minimization of effort duplication. In FY 2014, this is a new start. |

**PROGRAM ELEMENT (BY BUDGET ACTIVITY)**

| | | |
|---|---|---|
| 0604222F | NUCLEAR WEAPONS SUPPORT | In FY 2014, the engineering analysis project is documented in O&M PE 0104222.<br><br>In FY 2014, radiological and nuclear (RN) efforts were transferred from project 654807 to the Engineering Analysis project in O&M PE 0104222.<br><br>In FY 2014 the Nuclear Surety and Certification effort was transferred to the Engineering Analysis program code in O&M PE 0104222. |
| 0604280F | JOINT TACTICAL RADIO SYSTEMS (JTRS) | In FY 2014, Project 655068, Joint Tactical Radio System (JTRS) efforts transferred to PE 0605030F, Joint Tactical Network Center, Project 655068, Joint Tactical Radio System in order to better identify Air Force efforts for this program. |
| 0604281F | TACTICAL DATA NETWORKS ENTERPRISE | In FY 2014, Project Number 657003, Airborne Networking Enterprise, received funds for a classified effort. This is a New Start. This is a classified effort. Details provided upon request. |
| 0604425F | SPACE SITUATIONAL AWARENESS SYSTEMS | In FY 2014, Project 65A026, C-Band Radar is a new start effort. |
| 0604602F | ARMAMENT/ORDNANCE DEVELOPMENT | In FY 2014, Project 653134, BLU-109 and BLU-113 Upgrade, includes new start efforts. |
| 0604617F | AGILE COMBAT SUPPORT | In FY 2014, Project 652895, Civil Engineering Readiness, includes a Basic Airfield Expeditionary Resources (BEAR) New Start. |
| 0604706F | LIFE SUPPORT SYSTEMS | In FY 2014, Project 65412A, Life Support Systems, includes a New Start for Aircrew Laser Eye Protection Block III. |
| 0604750F | INTELLIGENCE EQUIPMENT | In FY 2014, Project Number 652053, National Air Intel Center, efforts transferred to PE 0603260F (BA5), Intelligence Advanced Development, Project Number 652053, National Air Intel Center, in order to increase management efficiency, reduce administrative actions, and ensure continued minimization of effort duplication. |
| 0604851F | ICBM - EMD | In FY 2014, Project Number 655037, Support Equipment, includes the new start efforts for the Instrumentation Wafer Replacement Program (IWRP) and the Signal Conditioner Monitor Group (SCMG) replacement. |
| 0605431F | ADVANCED EHF MILSATCOM (SPACE) | In FY 2014, Project 657103, Advanced MILSATCOM, and Project 657104, Evolved AEHF MILSATCOM, efforts transferred from PE 0603430F, Advanced EHF MILSATCOM (Space), Project 644050, Advanced MILSATCOM, and Project 64A030, Evolved AEHF MILSATCOM, in order to transition to Budget Activity 5. In FY 2014, this is a new start. |

**PROGRAM ELEMENT (BY BUDGET ACTIVITY)**

| | | |
|---|---|---|
| 0605432F | POLAR MILSATCOM (SPACE) | In FY 2014, this is a new Program Element, new start.<br><br>In FY 2014, Project 657105, Polar Satellite Communications, efforts were transferred from PE 0603432F, Polar MILSATCOM (Space), Project 644052, Polar Satellite Communications, in order to transition to Budget Activity 5. |
| 0605433F | WIDEBAND GLOBAL SATCOM RDT&E (SPACE) | In FY 2014, this is a new Program Element, new start.<br><br>In FY 2014, Project 657102, Command and Control System - Consolidated (CCS-C), efforts were transferred from 0603854F, Wideband Global SATCOM (Space), Project 644870, CCS-C, in order to transition to Budget Activity 5. |

**BUDGET ACTIVITY #6: RDT&E MANAGEMENT SUPPORT (Volume 2)**

None

**BUDGET ACTIVITY #7: OPERATIONAL SYSTEMS DEVELOPMENT (Volume 3)**

| | | |
|---|---|---|
| 0101126F | B-1B SQUADRONS | In FY 2014, this is a New Start to replace EMD LRUs for CITS, FIDL and VSDU on two RDT&E funded test jets. |
| 0207410F | AIR AND SPACE OPERATIONS CENTER WEAPON SYSTEM (AOC WS) | In FY 2014, project number 675117, Integration Development, AOC Increment 10.2 efforts transferred to PE 0604458F, AOC Increment 10.2, project number 644945, AOC Increment 10.2, in order to improve transparency for this major program. AOC Inc. 10.2 is PRCP Program Number (PNO) N42.<br><br>In FY 2014, the Personnel Recovery Command and Control (PRC2) efforts transferred from project number 675218, Applications Development, to project number 675221, Personnel Recovery Command and Control (PRC2), in order to improve transparency for this Joint use application. |

**PROGRAM ELEMENT (BY BUDGET ACTIVITY)**

| | | |
|---|---|---|
| 0207449F | C2 CONSTELLATION | In FY 2014, Project 675140, Joint Expeditionary Force Experiments (JEFX), was terminated and $9.479M was reprogrammed to meet Air Force higher priority needs. |
| 0208006F | MISSION PLANNING SYSTEMS | In FY 2014, All MPS Modernization efforts will be centralized in project 675380 starting in FY14, including efforts previously found in project 673858. |
| 0208021F | INFORMATION WARFARE SUPPORT | In FY 2014, 670374, Tech & Spt efforts, 670374, were transferred to PE 0305221F, Network Centric Collaborative Targeting, 675197, NCCT Core Technology, to better support and align with the Suter Program System (SPS). |
| 0208087F | AF OFFENSIVE CYBERSPACE OPERATIONS | In FY 2014, 670374, Tech & Spt, efforts will transfer from PE 0305887F, Electronic Combat Intel Support, to PE 0208087F, Offensive Cyber Operations, 670375, Network Warfare Systems and Support, in order to align offensive cyber programs and projects under one program element. In FY 2014, this is a new start. |
| 0208088F | AF DEFENSIVE CYBERSPACE OPERATIONS | In FY 2014, Information Systems Security Program 667820 RDTE: Firestarter efforts transferred to PE 0208088F, AF Defensive Cyberspace Operations, 667820, Computer Security RDTE: Firestarter, in order to align defensive cyber programs and projects. In FY 2014, this is a new start. |
| 0302015F | E-4B NATIONAL AIRBORNE OPERATIONS CENTER | In FY 2014, PE 0302015F, E-4B National Airborne Operations Center includes new start efforts. |
| 0303131F | MINIMUM ESSENTIAL EMERGENCY COMMUNICATIONS NETWORK (MEECN) | In FY 2014, Funding for this exhibit 667820 contained in PE 0208088F. |
| 0303601F | MILSATCOM TERMINALS | In FY 2014, FY12 Congressional Add funding of $42M for FAB-T Alternative is executed from project 672489 within this program element. FY13 funding for FAB-T continues in project 672487 within this program element. FY14 funding for FAB-T continues in project 672490 within this program element.<br><br>This project was funded prior to FY14 in project 672487 and 672489 within this program. |
| 0304260F | AIRBORNE SIGINT ENTERPRISE (JMIP) | In FY 2014, 675184, RQ-4, efforts were transferred to 675181, High Altitude SIGINT, to provide visibility into all activities for both manned and unmanned high altitude platforms. PMA costs for this project will be covered under Common Development, 675183. |

**PROGRAM ELEMENT (BY BUDGET ACTIVITY)**

| | | |
|---|---|---|
| 0305145F | ARMS CONTROL IMPLEMENTATION | In FY 2014, 675063, Open Skies Sensors includes new start efforts. In FY14 funding totals include $1.430M. The Open Skies Sensor program is per the direction of the Presidential Policy Directive-15 (PPD-15). |
| 0305179F | INTEGRATED BROADCAST SERVICE | In FY 2014, Project 674779, Integrated Broadcast Service, efforts were transferred from PE 0603850F, Integrated Broadcast Service (Dem/Val), Project Number 644778, Integrated Broadcast Service, in order to realign funds in support of transition to sustainment. In FY 2014, this is a new start. |
| 0305205F | ENDURANCE UNMANNED AERIAL VEHICLES | In FY 2014, Reduction of $5M in FY 2014 due to higher Department priorities. |
| 0305206F | AIRBORNE RECONNAISSANCE SYSTEMS | In FY 2014, reduction of $7.889M due to higher Department priorities. |
| 0305208F | DISTRIBUTED COMMON GROUND SYSTEMS | In FY 2014, Project 676028, Dynamic Time Critical Warfighting Capability, is being terminated because the technology development has not met objective requirements and thus has not been fielded in an operational capacity. |
| 0305221F | NETWORK CENTRIC COLLABORATIVE TARGETING | In FY 2014, and through the FYDP, RDT&E funding for Information Operations Battle Management/SUTER Program System software (IOBM/SPS) is embedded in the Network Centric Collaborative Targeting (NCCT) Core Technology project. The funding in the Network Centric Collaborative Targeting (NCCT) RDT&E appropriation associated with Information Operations Battle Management/SUTER Program System software (IOBM/SPS BPAC 675274) is as follows: $2.235M in FY 2014, $2.265M in FY 2015, $2.331M in FY 2016, $2.540M in FY 2017, and $2.586M in FY 2018. The remaining RDT&E funding is associated with Core Technology (BPAC 675197) is as follows: $7.458M in FY 2014, $7.602M in FY 2015, $7.814M in FY 2016, $8.112M in FY 2017, and $8.258M in FY 2018. |
| 0305887F | ELECTRONIC COMBAT INTELLIGENCE SUPPORT | In FY 2014, 670374, Tech & Spt, efforts will transfer from PE 0305887F, Electronic Combat Intel Support, to PE 0208087F, Offensive Cyber Operations, 670375, Network Warfare Systems and Support, in order to align offensive cyber programs and projects under one program element. |
| 0604445F | WIDE AREA SURVEILLANCE | In FY 2014, Project 675895, Wide Area Surveillance includes new start efforts. |
| 0708610F | LOGISTICS INFORMATION TECHNOLOGY (LOGIT) | In FY 2014, Project 675207, Logistics IT System Modernization includes New Start efforts. |

**PROGRAM ELEMENT (BY BUDGET ACTIVITY)**

| | | |
|---|---|---|
| 0708611F | SUPPORT SYSTEMS DEVELOPMENT | In FY 2014, project 673318, Product Data Systems Modernization (PDSM), efforts were transferred from PE 0708012F, Logistics Support Activities, project 673318, Product Data Systems Modernization (PDSM), to PE 0708611F, Support Systems Development (SSD), to better align with RDT&E activities supported by PE 0708611F, Support Systems Development (SSD). |
| 0804743F | OTHER FLIGHT TRAINING | In FY 2014, Project 675304, Aviation Resource Management System (ARMS) is a new start effort. |
| 0901538F | FIRST | In FY 2014, project 675177, Cost Estimating Modeling (CEM) includes new start efforts. |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0301400F: *Space Superiority Intelligence* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 8.866 | 12.056 | 12.197 | - | 12.197 | 12.371 | 12.550 | 12.763 | 12.992 | Continuing | Continuing |
| 670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* | - | 8.866 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 67A051: *Space Superiority - Advanced Intelligence Systems* | - | 0.000 | 12.056 | 12.197 | - | 12.197 | 12.371 | 12.550 | 12.763 | 12.992 | Continuing | Continuing |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY13 all of PE0301400F RDT&E, AF funds and content were transferred into Project 67A051, Space Superiority -- Advanced Intelligence Systems to separate it from unrelated projects.

**A. Mission Description and Budget Item Justification**

Provides Electronic Support (ES) for key find, fix, track, target, engage and assess (F2T2EA) requirements supporting Space Superiority activities. Additionally, funding provides for developmental intelligence collection to support new capability acquisition and development. This program element funds transportable intelligence collection and analysis capabilities that are modular (plug-and-play), and can keep pace with technological advances and emerging threats. It provides intelligence support systems for Space Situational Awareness activities that provide the requisite current and predictive knowledge of space events and threat conditions and intelligence support to Space Protection Programs by providing architectural survivability analyses of critical mission assets for mission assurance. Additionally, funding supports phased threat system analysis and studies (A&S), test support, lab equipment, and Material Acquisition and Exploitation (MAE) for system development and vulnerability/susceptibility assessments to support tactics, techniques and procedures (TTP) development. Also funded are future threat technology studies necessary for mission area success and achievement of space superiority, helping preserve the US space advantage across all domains. This program is in Budget Activity 7, Operational System Development, because it includes development efforts to upgrade systems that have been fielded.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | DATE: April 2013 |
|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | R-1 ITEM NOMENCLATURE<br>PE 0301400F: *Space Superiority Intelligence* | | |
| **B. Program Change Summary ($ in Millions)** | **FY 2012** | **FY 2013** | **FY 2014 Base** | **FY 2014 OCO** | **FY 2014 Total** |
| Previous President's Budget | 8.866 | 12.056 | 12.197 | - | 12.197 |
| Current President's Budget | 8.866 | 12.056 | 12.197 | - | 12.197 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0301400F: *Space Superiority Intelligence* | PROJECT<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* | - | 8.866 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Provides Electronic Support (ES) for key find, fix, track, target, engage and assess (F2T2EA) requirements supporting Space Superiority activities. Additionally funding provides for developmental intelligence collection to support new capability acquisition and development. This project funds transportable intelligence collection and analysis capabilities that are modular (plug-and-play), and can keep pace with technological advances and emerging threats. It provides intelligence support systems for Space Situational Awareness activities that provide the requisite current and predictive knowledge of space events and threat conditions and intelligence support to Space Protection Programs by providing architectural survivability analysis of critical mission assets for mission assurance. Additionally, funding supports phased threat system analysis and studies (A&S), test support, lab equipment, and Material Acquisition and Exploitation (MAE) for system development and vulnerability/ susceptibility assessments to support tactics, techniques and procedures (TTP) development. Also funded are future threat technology studies necessary for mission area success and achievement of space superiority, helping preserve the US space advantage across all domains.

This program is in Budget Activity 7, Operational System Development, because it includes development efforts to upgrade systems that have been fielded.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Develop transportable and fixed collection and analysis capability | 8.866 | 0.000 | 0.000 |
| ***Description:*** Develop transportable and fixed intelligence collection and analysis capabilities that are modular (plug-and-play), and can keep pace with technological advances and emerging threats.<br><br>***FY 2012 Accomplishments:***<br>Continued Space Superiority and Space Control R&D intelligence support; architecture upgrade support to Space Situation Awareness, Space Protection Program & Space Superiority; data analysis and product development for R&D deployment activities; support for testing and data collection. | | | |
| **Accomplishments/Planned Programs Subtotals** | 8.866 | 0.000 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0301400F: *Space Superiority Intelligence* | PROJECT<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • None: *None* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

**Remarks**

**D. Acquisition Strategy**

All contracts funded in this program will be awarded using competitive procedures to the maximum extent possible.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0301400F: *Space Superiority Intelligence* | PROJECT<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Space Superiority and R&D intelligence Development | Various | Various:, | - | 1.894 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 1.894 | 4.399 |
| Architecture upgrades to SSA, SPP, and Space Superiority | Various | Various:, | - | 2.587 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 2.587 | 4.188 |
| Data analysis and product development for R&D | Various | Various:, | - | 3.444 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 3.444 | 8.793 |
| Deployment testing and data collection | Various | Various:, | - | 0.519 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.519 | 1.019 |
| | | **Subtotal** | 0.000 | 8.444 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 8.444 | 18.399 |

**Remarks**

Contract activity will continue in FY13 under project 67A051, Space Superiority - Advanced Intelligence Systems.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0301400F: *Space Superiority Intelligence* | PROJECT<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) | Various | Various:, | - | 0.422 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.422 | |
| | | **Subtotal** | 0.000 | 0.422 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.422 | |

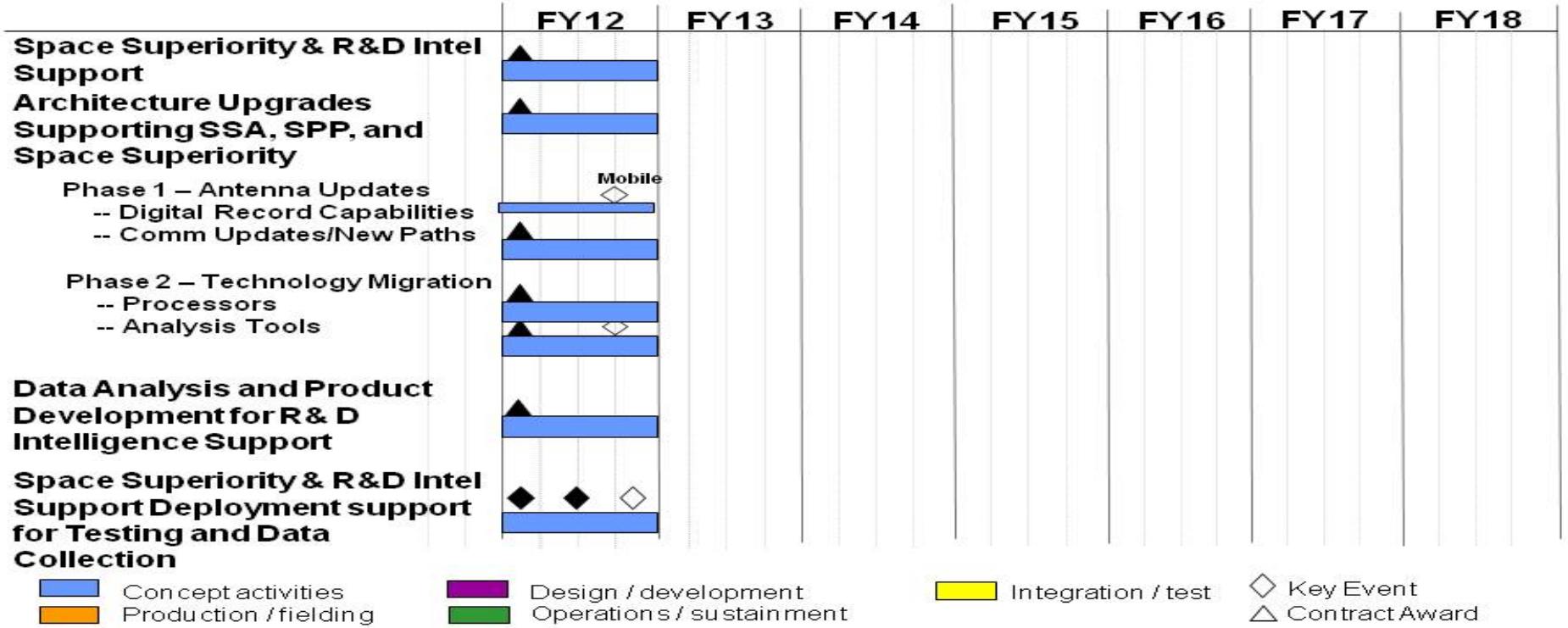
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 8.866 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 8.866 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0301400F: *Space Superiority Intelligence* | PROJECT<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* |

U.S. AIR FORCE

## SSI Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0301400F: *Space Superiority Intelligence* | **PROJECT**<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Space Superiority R&D intelligence development | 1 | 2012 | 4 | 2012 |
| Architecture upgrade for SSA, SPP, and Space Superiority | 1 | 2012 | 4 | 2012 |
| -- Phase 1 | 1 | 2012 | 4 | 2012 |
| -- Phase 2 | 1 | 2012 | 4 | 2012 |
| Data analysis and product development for R&D intelligence | 1 | 2012 | 4 | 2012 |
| Deployment testing and data collection | 1 | 2012 | 4 | 2012 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0301400F: *Space Superiority Intelligence* | PROJECT<br>67A051: *Space Superiority - Advanced Intelligence Systems* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 67A051: *Space Superiority - Advanced Intelligence Systems* | - | 0.000 | 12.056 | 12.197 | - | 12.197 | 12.371 | 12.550 | 12.763 | 12.992 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY2013, all PE0301400F RDT&E, AF funds were transferred into Project 67A051, Space Superiority -- Advanced Intelligence Systems to separate it from unrelated projects.

**A. Mission Description and Budget Item Justification**

Provides Electronic Support (ES) for key find, fix, track, target, engage and assess (F2T2EA) requirements supporting Space Superiority activities. Funds developmental intelligence collection to support new capability acquisition and development. This project also funds transportable intelligence collection and analysis capabilities that are modular (plug-and-play), and can keep pace with technological advances and emerging threats. It provides intelligence support systems for Space Situational Awareness activities that provide the requisite current and predictive knowledge of space events and threat conditions and intelligence support to Space Protection Programs by providing architectural survivability analysis of critical mission assets for mission assurance. It also supports phased threat system analysis and studies (A&S), test support, lab equipment, and Material Acquisition and Exploitation (MAE) for system development and vulnerability/susceptibility assessments to support tactics, techniques and procedures (TTP) development and future threat technology studies necessary for mission area success and achievement of space superiority, and to preserve the US space advantage across all domains. This program is in Budget Activity 7, Operational System Development, because it includes development efforts to upgrade systems that have been fielded.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Advanced Intelligence Systems for Space Superiority | 0.000 | 12.056 | 12.197 |
| ***Description:*** Develop transportable and fixed collection and analysis capability. | | | |
| ***FY 2012 Accomplishments:***<br>N/A | | | |
| ***FY 2013 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0301400F: *Space Superiority Intelligence* | PROJECT<br>67A051: *Space Superiority - Advanced Intelligence Systems* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continuing Space Superiority and Space Control R&D intelligence support; architecture upgrade support to Space Situation Awareness, Space Protection Program & Space Superiority; data analysis and product development for R&D deployment activities; support for testing and data collection.<br>***FY 2014 Plans:***<br>Will continue Space Superiority and Space Control R&D intelligence support; architecture upgrade support to Space Situation Awareness, Space Protection Program & Space Superiority; data analysis and product development for R&D deployment activities; support for testing and data collection. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 12.056 | 12.197 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • None: *None* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

**Remarks**

**D. Acquisition Strategy**

All contracts funded in this program will be awarded using competitive procedures to the maximum extent possible.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0301400F: *Space Superiority Intelligence* | PROJECT<br>67A051: *Space Superiority - Advanced Intelligence Systems* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Space Superiority and R&D intelligence Development | Various | Various:, | - | 0.000 | | 2.738 | Nov 2012 | 2.758 | Nov 2013 | - | | 2.758 | Continuing | Continuing | TBD |
| Architecture upgrades to SSA, SPP, and Space Superiority | Various | Various:, | - | 0.000 | | 3.539 | Nov 2012 | 3.580 | Nov 2013 | - | | 3.580 | Continuing | Continuing | TBD |
| Data analysis and product development for R&D | Various | Various:, | - | 0.000 | | 4.710 | Nov 2012 | 4.765 | Nov 2013 | - | | 4.765 | Continuing | Continuing | TBD |
| Intelligence systems testing and data collection | Various | Various:, | - | 0.000 | | 0.639 | Nov 2012 | 0.647 | Nov 2013 | - | | 0.647 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 11.626 | | 11.750 | | 0.000 | | 11.750 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) | Various | Various:, | - | 0.000 | | 0.430 | Jan 2013 | 0.447 | Nov 2013 | - | | 0.447 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.430 | | 0.447 | | 0.000 | | 0.447 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0301400F: *Space Superiority Intelligence* | PROJECT<br>67A051: *Space Superiority - Advanced Intelligence Systems* | |

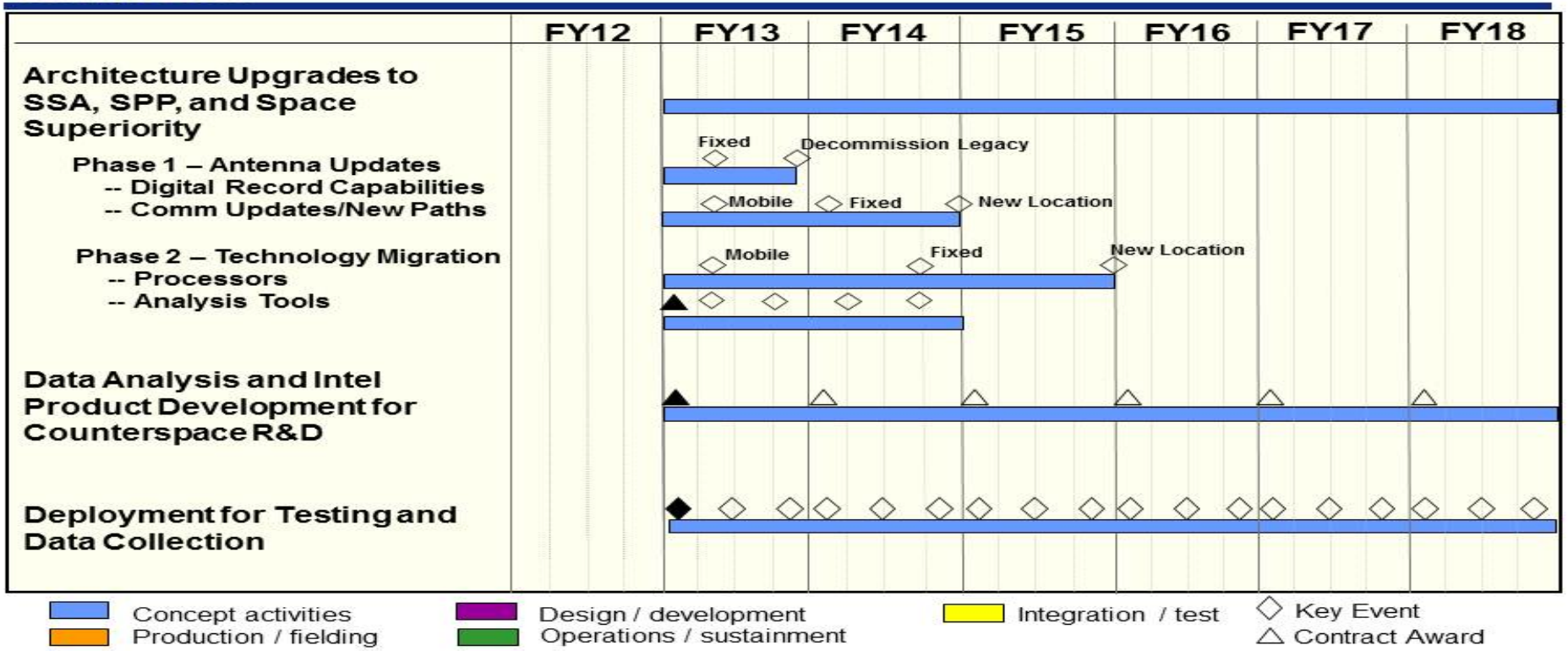
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 12.056 | | 12.197 | | 0.000 | | 12.197 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0301400F: *Space Superiority Intelligence* | PROJECT<br>67A051: *Space Superiority - Advanced Intelligence Systems* |

U.S. AIR FORCE

## SSI Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0301400F: *Space Superiority Intelligence* | **PROJECT**<br>67A051: *Space Superiority - Advanced Intelligence Systems* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Architecture upgrade for SSA, SPP, and Space Superiority | 1 | 2013 | 4 | 2018 |
| -- Phase 1 | 1 | 2013 | 4 | 2014 |
| -- Phase 2 | 1 | 2013 | 4 | 2015 |
| Data analysis and product development for R&D intelligence | 1 | 2013 | 4 | 2018 |
| Deployment for testing and data collection | 1 | 2013 | 4 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0302015F: *E-4B National Airborne Operations Center (NAOC)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 5.101 | 4.159 | 18.267 | - | 18.267 | 11.138 | 2.720 | 1.772 | 1.805 | Continuing | Continuing |
| 674777: *E-4B Aircraft Modernization* | - | 5.101 | 4.159 | 18.267 | - | 18.267 | 11.138 | 2.720 | 1.772 | 1.805 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2014, PE 0302015F, E-4B National Airborne Operations Center includes new start efforts.

**A. Mission Description and Budget Item Justification**

The four aircraft E-4B National Airborne Operations Center (NAOC) fleet satisfies the military need for an airborne operations center with communications capabilities that permit military and civilian leadership to monitor and control military and civil national assets during all phases of nuclear and non-nuclear conflict or natural disaster. The E-4B NAOC fleet also satisfies the military requirement to provide a highly survivable node of the National Military Command System (NMCS).

This PE's developmental modifications include, but are not limited to, upgrades and enhancements to aircraft structures, propulsion system, fuel system, environmental control system, electrical generation and distribution systems, flight safety and navigation systems (with their associated communications equipment), and the related aircraft operations center facilities, equipment, and communications necessary for the E-4B fleet to execute its mission. Additionally, funds may be used to explore modifications, upgrades, and future systems required to meet evolving mission requirements. Developmental modifications and studies/projects currently underway or planned for accomplishment under this program include:

- The Super High Frequency Multiplexor (SHF MUX) effort integrates an upgraded, and logistically supportable, MUX to replace the obsolete legacy solution. The legacy SHF MUX is prone to intermittent disconnects and poor performance. The updated device will allow the E-4B to efficiently combine secure and non-secure digital data streams via satellite.

- The Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) efforts upgrade the air traffic communications systems to improve navigation and instrument approach capabilities. These efforts are necessary to maintain air worthiness certifications for the E-4B platform. CNS/ATM is an incremental program, and this effort will specifically address:
-- Automatic Dependent Surveillance - Broadcast Out (ADS-B Out) capability
-- Mode 5 Identification Friend or Foe (IFF) capability
-- Multi-Mode Receiver for Global Positioning System (GPS) Precision Instrument Approaches
-- Updates to the obsolete Flight Management Computer (FMC)

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0302015F: *E-4B National Airborne Operations Center (NAOC)* |

- The SHF Modernization program updates system to meet immediate needs, and eventual replacement of the SHF System. Upgrade of the current SHF system is required in the near-term to replace the most critically obsolete components to ensure that the system remains operable and logistically supportable until a replacement system is fielded. A replacement to the SHF system is required as secure, survivable communications capability transitions from the Defense Satellite Communications System (DSCS).

- The Advanced Extremely High Frequency (AEHF) Compatible Terminal/ Presidential National Voice Conferencing (PNVC) Program integrates externally provided AEHF Compatible Command Post Terminals and PNVC capability onto the E-4B NAOC platform. This integration is necessary to replace the legacy Military Strategic, Tactical and Relay (MILSTAR) terminal, and provide access to protected wideband AEHF satellite networks. PNVC replaces Survivable Emergency Conferencing Network (SECN), which will not be supported once the AEHF satellite network is in place.

- The Low Frequency Transmit System (LFTS) program will replace the current Very Low Frequency/Low Frequency (VLF/LF) Transmit system that is on the E-4B. The current system has been on the E-4B for over 35 years and is past its useful life. This system must be replaced in order to meet existing National Security Presidential Directive (NSPD)-28 requirements and ensure there is constant and consistent connectivity to National Leaders and Forces in real world situations. The transmit system consists of three primary equipment groups: a Receiver/Transmitter group, a Power Amplifier-Coupler (PA-C) group, and a Trailing Wire Antenna (TWA) group.

- The Secure Data Crypto modification replaces various E-4B cryptographic systems currently scheduled to be decertified by the National Security Agency (NSA). This modification ensures the continued transmission and receipt of critical strategic force orders. Funds for this modification will be used to design an engineering solution, develop compatible software, and conduct pre-production studies for integration of NSA approved and Internet Protocol Version 6 (IPv6) compliant secure data cryptographic devices and associated peripherals on the aircraft.

Activities also include studies and analysis to support both current program planning, execution, and future program planning.

This program is in Budget Activity 7, Operational System Development, these budget activities include development efforts to upgrade systems currently fielded or has approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0302015F: *E-4B National Airborne Operations Center (NAOC)* |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 4.845 | 4.159 | 0.677 | - | 0.677 |
| Current President's Budget | 5.101 | 4.159 | 18.267 | - | 18.267 |
| Total Adjustments | 0.256 | 0.000 | 17.590 | - | 17.590 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.256 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 17.590 | - | 17.590 |

**Change Summary Explanation**

FY14 $17.590M increase due to design and engineering work required to start up LFTS Replacement effort.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** SHF MUX | 0.068 | 0.000 | 0.000 |
| ***Description:*** Develops, installs, and tests a more capable and logistically supportable SHF MUX.<br><br>***FY 2012 Accomplishments:***<br>FY12 funds supported design, prototype and initial install of a E-4B specific SHF MUX replacement kit.<br><br>***FY 2013 Plans:***<br>Program FY13 activities executed under P-1 Line Item EOO400 E-4.<br><br>***FY 2014 Plans:***<br>No FY14 RDT&E activities planned for SHF MUX. | | | |
| ***Title:*** CNS/ATM | 0.300 | 0.000 | 0.000 |
| ***Description:*** Develops, installs, and tests a tailored E-4B installation kit to modernize applicable CNS/ATM systems to meet domestic and foreign air traffic management requirements.<br><br>***FY 2012 Accomplishments:***<br>Successful prototype, kit build, initial install and testing complete.<br><br>***FY 2013 Plans:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0302015F: *E-4B National Airborne Operations Center (NAOC)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Program FY13 activities executed under P-1 Line Item EOO400 E-4.<br>***FY 2014 Plans:***<br>No FY14 RDT&E activities planned for CNS/ATM. | | | |
| ***Title:*** SHF Modernization<br>***Description:*** Develops, installs, and tests E-4B prototype installation kit for replacement of critically obsolete components of legacy SHF System.<br>***FY 2012 Accomplishments:***<br>Successfully installed capability on the first aircraft of the E-4B NAOC fleet.<br>***FY 2013 Plans:***<br>Program FY13 activities executed under P-1 Line Item EOO400 E-4.<br>***FY 2014 Plans:***<br>No FY14 RDT&E activities planned for SHF Modernization. | 3.177 | 0.000 | 0.000 |
| ***Title:*** AEHF Compatible Terminal/PNVC<br>***Description:*** Integrate AEHF Compatible Terminal/PNVC capability onto the E-4B NAOC Platform, to replace the existing MILSTAR SECN system.<br>***FY 2012 Accomplishments:***<br>No FY12 RDT&E activities planned for AEHF Compatible Terminal/PNVC.<br>***FY 2013 Plans:***<br>Supports communication with Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) program office to coordinate on terminal delivery schedule and technical expectations. Terminal delivery anticipated in FY16, and FY13 funds support significant engineering planning activities required to integrate the FAB-T capability onto the E-4B NAOC.<br>***FY 2014 Plans:***<br>Continues E-4B Program Office engineering activities necesasry for the integration of the AEHF Terminal/PNVC Capability onto an airborne platform. Specifically, activities will address technical issues associated with a change in antenna location from the kit design, a modified power amplifier to accomodate the change in antenna location and fire supression system required to install the capability on the platform. | 0.000 | 3.859 | 0.677 |
| ***Title:*** Low Frequency Transmit System (LFTS) | 0.000 | 0.000 | 17.290 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0302015F: *E-4B National Airborne Operations Center (NAOC)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** NAOC's legacy (VLF/LF) system was built in the late 1970's timeframe, and faces extreme obselences issues. The LFTS program will replace the obselete system, with a modern airborne LF transmit system. This system must be replaced in order to meet existing NSPD-28 requirements.<br><br>***FY 2012 Accomplishments:***<br>No FY12 RDT&E activities planned for LFTS.<br><br>***FY 2013 Plans:***<br>No FY13 RDT&E activities planned for LFTS.<br><br>***FY 2014 Plans:***<br>Supports program startup activities (development of acquisition lifecycle documentation, source selection, etc.), early engineering (refined solution analysis, legacy system removal, etc.), development, prototyping, testing, and evaluation activities. This effort is a new start in FY 2014. | | | |
| ***Title:*** Secure Data Crypto<br><br>***Description:*** Produce tailored E-4B kit to integrate updated National Security Agency (NSA) developed crypto solution.<br><br>***FY 2012 Accomplishments:***<br>Kit purchase on contract, with anticipated delivery in late FY13 timeframe.<br><br>***FY 2013 Plans:***<br>Program FY13 activities executed under P-1 Line Item EOO400 E-4.<br><br>***FY 2014 Plans:***<br>No FY14 RDT&E activities planned for Secure Data Crypto. | 1.000 | 0.000 | 0.000 |
| ***Title:*** Program Management Administration<br><br>***Description:*** Supports activities required to field and install new and developing capabilities. These include, but are not limited to: travel, studies, analysis, planning, etc.<br><br>***FY 2012 Accomplishments:***<br>Funding was for program support activities required to support the fielding and installation of new and developing capabilities. This included operational testing, technical interchange meetings and events incident to fielding both hardware and software products.<br><br>***FY 2013 Plans:*** | 0.300 | 0.300 | 0.300 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0302015F: *E-4B National Airborne Operations Center (NAOC)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Supports program activities required to support fielding and installation of new and developing capabilities.<br>***FY 2014 Plans:***<br>Supports Program activities required for fielding and installation of new and developing capabilities. | | | |
| ***Title:*** Nuclear Command, Control, & Communications (NC3) Blue Team Studies<br>***Description:*** Federally Funded Research and Development Centers (FFRDC) support for actions items stemming from multiple recent NC3 study determinations. Specifics of the deliverables and study topics are classified.<br>***FY 2012 Accomplishments:***<br>FFRDC support for actions items stemming from multiple recent NC3 study determinations. | 0.256 | 0.000 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 5.101 | 4.159 | 18.267 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # E00400: *E-4B Nat Airborne Ops Center (NAOC)* | 57.116 | 46.941 | 13.618 | | 13.618 | 25.859 | 38.376 | 36.737 | 37.093 | Continuing | Continuing |
| • APAF: BA05: Line Item # 833140: *Worldwide Joint Strategic Communication* | 0.663 | 0.675 | 0.686 | | 0.686 | 0.699 | 0.712 | 0.725 | 0.738 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

Implementation of modifications will be contracted under the sole source Product Support Integration (PSI) with Boeing - Wichita.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0302015F: *E-4B National Airborne Operations Center (NAOC)* | PROJECT<br>674777: *E-4B Aircraft Modernization* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Secure Data Crypto | SS/CPIF | Boeing, Wichita Development & Modification Center:Wichita, KS | - | 0.950 | Feb 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.950 | 0.950 |
| SHF MUX Upgrade Development and Integration | SS/CPIF | Boeing, Wichita Development & Modification Center:Wichita, KS | - | 0.065 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.065 | 1.289 |
| CNS/ATM Development and Integration | SS/CPIF | Boeing, Wichita Development & Modification Center:Wichita, KS | - | 0.285 | Feb 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.285 | 13.890 |
| SHF Modernization Development and Integration | SS/CPIF | Boeing, Wichita Development & Modification Center:Wichita, KS | - | 2.968 | Mar 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 2.968 | 11.177 |
| Nuclear Command, Control, & Communications (NC3) Blue Team Studies | MIPR | MITRE:Bedford, MA | - | 0.256 | May 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| AEHF Compatible Terminal/PNVC | SS/CPIF | Boeing, Wichita Development & Modification Center:Wichita, KS | - | 0.000 | | 3.264 | Mar 2013 | 0.677 | May 2014 | - | | 0.677 | Continuing | Continuing | TBD |
| LFTS Replacement | TBD | TBD:TBD, NA | - | 0.000 | | 0.000 | | 15.853 | May 2014 | - | | 15.853 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 4.524 | | 3.264 | | 16.530 | | 0.000 | | 16.530 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0302015F: *E-4B National Airborne Operations Center (NAOC)* | PROJECT<br>674777: *E-4B Aircraft Modernization* |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| E-4B Post-Modifcation Testing | SS/CPIF | Boeing Wichita Development & Modification Center:Wichita, KS | - | 0.277 | Jan 2012 | 0.745 | Mar 2013 | 0.685 | Jun 2014 | - | | 0.685 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.277 | | 0.745 | | 0.685 | | 0.000 | | 0.685 | | | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| E-4B Non-Contract PMA Costs | Various | N/A:N/A, OK | - | 0.300 | Oct 2011 | 0.150 | Oct 2012 | 1.052 | Dec 2013 | - | | 1.052 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.300 | | 0.150 | | 1.052 | | 0.000 | | 1.052 | | | |

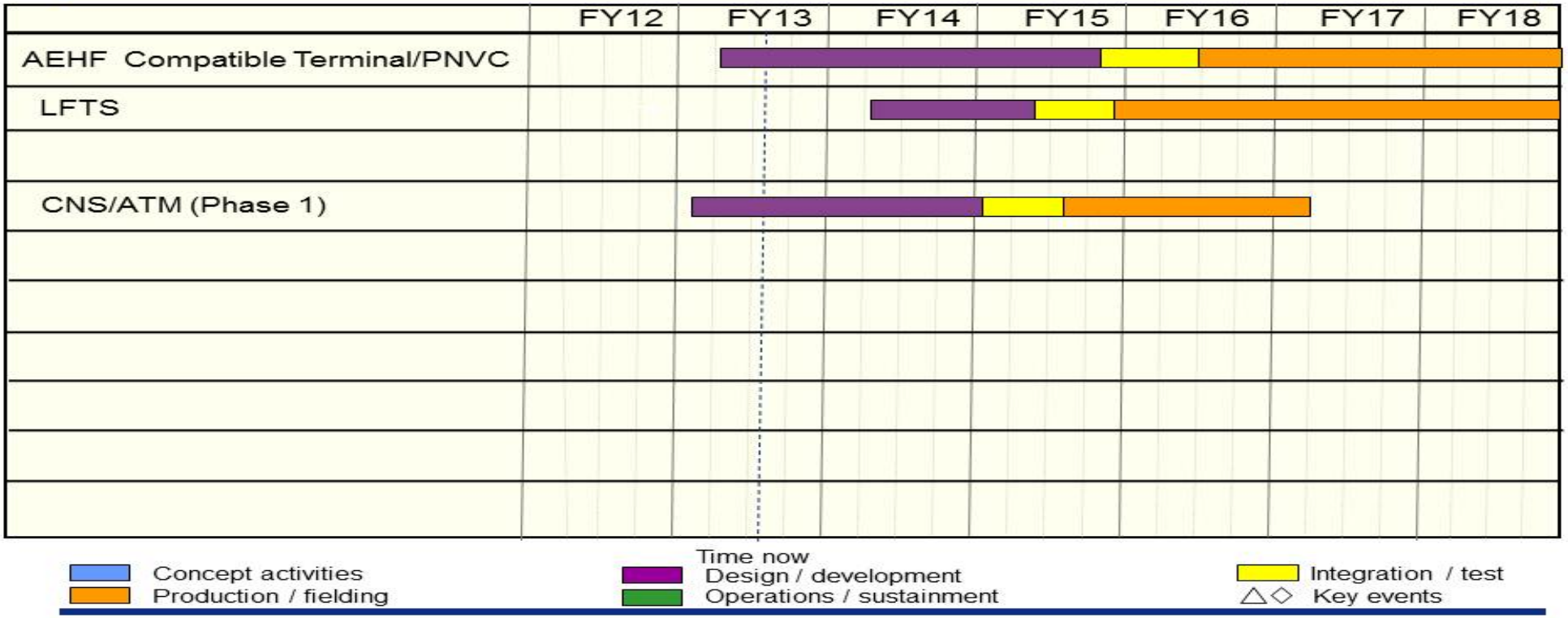
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 5.101 | | 4.159 | | 18.267 | | 0.000 | | 18.267 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0302015F: *E-4B National Airborne Operations Center (NAOC)* | PROJECT<br>674777: *E-4B Aircraft Modernization* |

U.S. AIR FORCE

# E-4B NAOC Modification Schedule




**FY14 Staffer Brief**

* Average procurement lead time ~ 6 months

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0302015F: *E-4B National Airborne Operations Center (NAOC)* | **PROJECT**<br>674777: *E-4B Aircraft Modernization* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| AEHF Compatible Terminal/PNVC Design and Development | 1 | 2013 | 4 | 2014 |
| AEHF Compatible Terminal/PNVC Production and Integration | 3 | 2013 | 2 | 2015 |
| LFTS Modification Design and Development | 1 | 2014 | 4 | 2015 |
| LFTS Modification Production and Integration | 1 | 2015 | 4 | 2018 |
| CNS/ATM Phase 1 (Phase I) | 1 | 2013 | 2 | 2017 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 23.445 | 20.124 | 36.288 | - | 36.288 | 53.441 | 50.236 | 16.928 | 17.233 | Continuing | Continuing |
| 672832: *MEECN System Improvements* | - | 1.186 | 0.825 | 0.873 | - | 0.873 | 0.870 | 0.911 | 0.928 | 0.945 | Continuing | Continuing |
| 674610: *Minuteman MEECN Program (MMP)* | - | 9.772 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 9.772 |
| 675047: *Ground Element MEECN System (GEMS)* | - | 7.491 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 675378: *Long Term Solution* | - | 4.996 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 676029: *Global Aircrew Strategic Network Terminal* | - | 0.000 | 19.299 | 35.415 | - | 35.415 | 52.571 | 49.325 | 16.000 | 16.288 | Continuing | Continuing |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

Project 675047, Ground Element MEECN System (GEMS) contract was terminated for convenience in Jun 2011. Remaining FY12 GEMS funding was authorized for Global Aircrew Strategic Network Terminal (Global ASNT) program which will provide Nuclear Command and Control (NC2) connectivity to bombers, tankers, and reconnaissance wing command posts and mobile relocation teams. BPAC 676029 was established in FY13 for the Global ASNT program.

Nuclear Command, Control, and Communications (NC3) Long Term Solution (LTS) was a FY12 New Start, but was cancelled during FY13 budget development due to higher Air Force priorities.

**A. Mission Description and Budget Item Justification**

Nuclear Deterrence Operations (NDO) is an Air Force Core Function. Within this core function, Nuclear Command and Control (NC2) is the exercise of authority and direction by the President, as Commander in Chief, through established command lines, over nuclear weapon operations of military forces. The President's authority and direction are exercised through the Nuclear Command and Control System (NCCS). The NCCS is the designated combination of flexible and enduring elements including facilities, equipment, communications, procedures, personnel, and the structure in which these elements are integrated, all of which are essential for planning, directing, and controlling nuclear weapon operations.

The Minimum Essential Emergency Communications Network (MEECN) portfolio modernizes the systems necessary to effectively provide assured communications connectivity between the President and the strategic deterrence forces in stressed environments. There are several on-going MEECN activities working to modernize strategic forces' communication networks.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* |

MEECN System Improvements (MSI) is a long-range planning process with users (Air Force Global Strike Command (AFGSC), Air Combat Command (ACC), Air Force Space Command (AFSPC), Air Mobility Command (AMC), US Strategic Command (USSTRATCOM), and the Navy) to develop positions for current and future requirements/issues based on available technology. MSI is used to conduct technology testing, develop technology strategies and build technology roadmaps as pro-active support to the Nuclear Command, Control, and Communications (NC3) community.

The Minuteman MEECN Program Upgrade (MMPU) modernizes existing Minuteman Intercontinental Ballistic Missile (ICBM) Launch Control Center (LCC) Extremely High Frequency (EHF) communications to provide an Advanced EHF (AEHF) capability and a capability for Missile Combat Crew Members to have operator control of the terminal in the LCC to switch rapidly among various satellite constellations. This upgrade will be compatible with the AEHF satellite and the supporting key management infrastructure (crypto interoperability). AEHF is an eXtended Data Rate (XDR) waveform that provides more secure transmit/receive capability at higher data rate frequencies than the low data rate frequencies currently used on MILSTAR satellites. The AEHF terminal will provide both receive and report-back capability. These modifications comply with the USSTRATCOM requirement for strategic terminals to communicate at higher data rates.

Global Aircrew Strategic Network Terminal (Global ASNT) will be comprised of EHF/AEHF, Very Low Frequency (VLF)/Low Frequency (LF), High Frequency (HF), Ultra High Frequency (UHF) and the Aircrew Alerting System (AAS) components (pagers/klaxons), and will provide secure, survivable inter-site, intra-site and mobile communications to bomber, tanker and reconnaissance Wing Command Posts (WCPs) and mobile relocation teams with strategic responsibilities. Global ASNT terminals will be developed and fielded to replace strategic mobile and fixed-site Single Channel Anti-jam Man-Portable (SCAMP) terminals and Aircraft Alerting Communications Electromagnetic Pulse System/Electromagnetic Pulse Hardened Dispersal Communications (AACE/EHDC) systems. The primary mission of Global ASNT is to provide strategic WCPs and mobile support teams with survivable communication paths to receive Emergency Action Messages (EAMs) and Force Management messages from NC2 nodes and disseminate them to bomber, tanker, and reconnaissance aircrews. Global ASNT will provide solutions to existing capability shortfalls for NC2 and has significant potential to provide distributed and transportable command and control capabilities beyond the traditional NC2 mission. Global ASNT will be fielded in separate increments; the first increment fields the EHF/AEHF capability; the second increment fields HF/UHF/AAS capability; and the third increment fields VLF/LF capability. Global ASNT is the last line of operational communications when all other peacetime links fail.

This program is in Budget Activity 07, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal years.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | DATE: April 2013 |
|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | | |
| **B. Program Change Summary ($ in Millions)** | **FY 2012** | **FY 2013** | **FY 2014 Base** | **FY 2014 OCO** | **FY 2014 Total** |
| Previous President's Budget | 43.360 | 20.124 | 39.673 | - | 39.673 |
| Current President's Budget | 23.445 | 20.124 | 36.288 | - | 36.288 |
| Total Adjustments | -19.915 | 0.000 | -3.385 | - | -3.385 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | -10.627 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.788 | 0.000 | | | |
| • Other Adjustments | -8.500 | 0.000 | -3.385 | - | -3.385 |

**Change Summary Explanation**

FY12: Other Adjustments (PL 112-74 Section 8074 $8.5M transfer)

FY12 Reprogramming reduction from cancellation of GEMS and LTS. Funds used for higher AF priorities.

FY14 Reduction due to higher Air Force priorities.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>672832: *MEECN System Improvements* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 672832: *MEECN System Improvements* | - | 1.186 | 0.825 | 0.873 | - | 0.873 | 0.870 | 0.911 | 0.928 | 0.945 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

MEECN System Improvements (MSI) is a long-range planning process with users (Air Force Global Strike Command (AFGSC), Air Combat Command (ACC), Air Force Space Command (AFSPC), Air Mobility Command (AMC), US Strategic Command (USSTRATCOM), and the Navy) to develop positions for current and future requirements/issues based on available technology. MSI is used to conduct technology testing, develop technology strategies, and build technology roadmaps as pro-active support to the Nuclear and National C2 community.

Very Low Frequency/Low Frequency (VLF/LF) receivers are currently used as one of the means for secure/survivable connectivity from the President to strategic forces. Over the years, the AF and Navy have pursued their own VLF products, which meet the unique application and environmental situations for each platform. MSI is investigating technical feasibility of a future common core of processing hardware and software that supports all VLF receiver platforms. MSI will perform risk reduction and pre-program planning for future technical refresh or replacement efforts. MSI will develop the technology of a Uniform MEECN Mode (UMM) which will result in a common set of waveform software.

This program is in Budget Activity 07, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal years.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** MEECN System Improvements | 0.805 | 0.414 | 0.406 |
| ***Description:*** Conduct NC2 technology testing, developing comprehensive technology strategies and building technology roadmaps. Conduct VLF/LF tradeoff analysis. | | | |
| ***FY 2012 Accomplishments:***<br>Developed NC2 Architecture Roadmap. Continued Common VLF Receiver Trade-off Analysis | | | |
| ***FY 2013 Plans:***<br>Develop NC2 Architecture Roadmap. | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>672832: *MEECN System Improvements* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continue Common VLF Receiver Trade-off Analysis.<br>***FY 2014 Plans:***<br>Develop NC2 Architecture Roadmap.<br>Continue Common VLF Receiver Trade-off Analysis. | | | |
| ***Title:*** PMA<br>***Description:*** Program Management Administration<br>***FY 2012 Accomplishments:***<br>Program Management Administration<br>***FY 2013 Plans:***<br>Program Management Administration<br>***FY 2014 Plans:***<br>Program Management Administration | 0.381 | 0.411 | 0.467 |
| **Accomplishments/Planned Programs Subtotals** | 1.186 | 0.825 | 0.873 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • N/A: *None* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

**Remarks**

**D. Acquisition Strategy**

Johns Hopkins University (JHU) Applied Physics Lab (APL) is on contract to provide updates to the NC2 Roadmap. This effort is a "time and materials" type contract.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>672832: *MEECN System Improvements* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NC2 Roadmap | MIPR | JHU APL:Laurel, MD | - | 0.783 | Apr 2012 | 0.414 | Jan 2013 | 0.406 | Oct 2013 | - | | 0.406 | Continuing | Continuing | TBD |
| VLF/LF Modernization Support & UMM Development | MIPR | SPAWAR:San Diego, CA | - | 0.022 | Dec 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.805 | | 0.414 | | 0.406 | | 0.000 | | 0.406 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA (Eng/Acq Spt/MITRE/ Travel/IMPAC) | Various | Various:Various, | - | 0.381 | Jan 2012 | 0.411 | Jan 2013 | 0.467 | Jan 2014 | - | | 0.467 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.381 | | 0.411 | | 0.467 | | 0.000 | | 0.467 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 1.186 | | 0.825 | | 0.873 | | 0.000 | | 0.873 | | | |

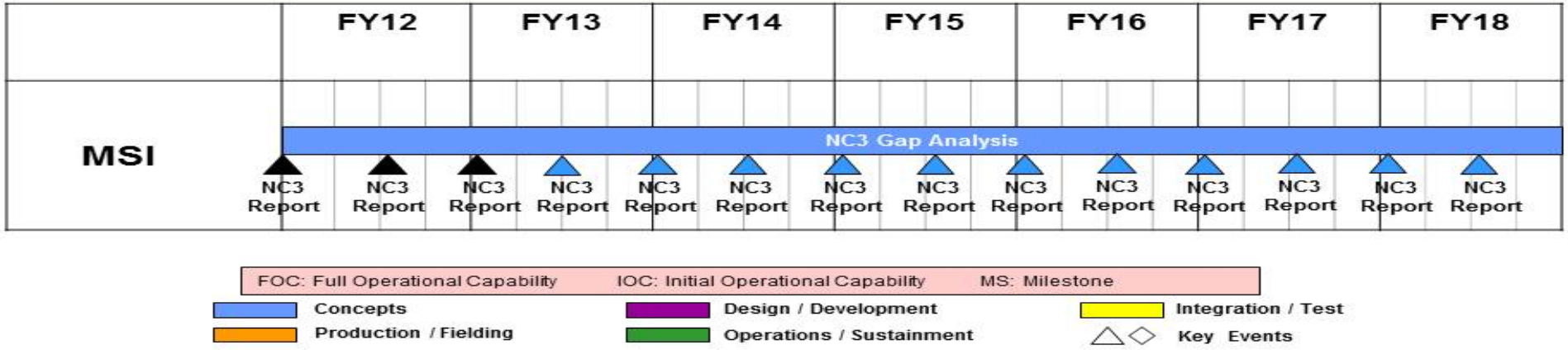
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>672832: *MEECN System Improvements* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | **PROJECT**<br>672832: *MEECN System Improvements* |

# MSI Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | **PROJECT**<br>672832: *MEECN System Improvements* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| NC2 Roadmap Semi-annual Debriefs | 1 | 2014 | 3 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>674610: *Minuteman MEECN Program (MMP)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 674610: *Minuteman MEECN Program (MMP)* | - | 9.772 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 9.772 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Minuteman Minimum Essential Emergency Communications Network (MEECN) Program Upgrade (MMPU) modernizes existing Minuteman Intercontinental Ballistic Missile (ICBM) Launch Control Center (LCC) Extremely High Frequency (EHF) communications to provide an Advanced EHF (AEHF) capability and a capability for Missile Combat Crew Members to have operator control of the terminal in the LCC to switch rapidly among various satellite constellations. This upgrade will be compatible with AEHF satellites and the supporting key management infrastructure (crypto interoperability). AEHF is an eXtended Data Rate (XDR) waveform that provides more secure transmit/receive capability at higher data rate frequencies than the low data rate frequencies currently used on MILSTAR satellites. The EHF terminal will provide both receive and report-back capability using the higher data rate frequencies. Due to late availability of the AEHF satellite and its ground and supporting over-the-air infrastructure, there will be MMPU regression testing following the start of production. These modifications comply with the USSTRATCOM requirement for strategic terminals to communicate at higher data rates.

This program is in Budget Activity 07, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and antipcate production funding in the current or subsequent fiscal years.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** MMP Upgrade Engineering and Manufacturing Development | 8.112 | 0.000 | 0.000 |
| ***Description:*** MMP Upgrade Engineering and Manufacturing Development | | | |
| ***FY 2012 Accomplishments:***<br>Complete integration and test with MILSTAR low data rate. Complete AEHF XDR weapon system testing and operational assessment using on-orbit satellite and supporting communications/cryptographic infrastructure. | | | |
| ***FY 2013 Plans:***<br>N/A | | | |
| ***FY 2014 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | **PROJECT**<br>674610: *Minuteman MEECN Program (MMP)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| N/A | | | |
| ***Title:*** PMA | 1.660 | 0.000 | 0.000 |
| ***Description:*** Program Management Administration<br><br>***FY 2012 Accomplishments:***<br>Program Management Administration<br>***FY 2013 Plans:***<br>N/A<br>***FY 2014 Plans:***<br>N/A | | | |
| **Accomplishments/Planned Programs Subtotals** | 9.772 | 0.000 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • MPAF: BA03: Line Item # M30MLG: *MM III Modifications* | 40.991 | 6.325 | 19.049 | | 19.049 | 3.000 | 0.000 | 0.000 | 0.000 | 0.000 | 79.111 |

**Remarks**

**D. Acquisition Strategy**

The ICBM Prime Integrating Contract (IPIC), through OO-ALC, Hill AFB, UT, was used as a contracting vehicle for the legacy Minuteman MEECN Program (MMP) and the contractor will continue to serve in an advisory role for integration support for the MMPU program. Due to the end of IPIC, MMPU deployment and sustainment will transition to a bridge Communications Installation Sustainment and Support Contract (CISSC) in FY13.

Two Concept and Technology Demonstration (C&TD) contracts were awarded to separate vendors following full and open competition. The MMPU EMD effort was a full and open competition and was awarded to Raytheon Company, Marlborough, MA on 15 Jan 08.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>674610: *Minuteman MEECN Program (MMP)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MMP Upgrade Program Integrator (Advisor) | C/CPAF | Northrop Grumman:Layton, UT | - | 2.597 | Mar 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| MMP Upgrade Engineering & Manufacturing Development | C/CPAF | Raytheon Company:Marlboro, MA | - | 4.455 | Feb 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 7.052 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MITRE DMS | SS/CPFF | MITRE:Bedford, MA | - | 0.816 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.816 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Various | Various | Various:Various, | - | 0.109 | Mar 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.109 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA (Eng/Acq Spt/Travel) | Various | Various:, | - | 0.999 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| MITRE PMA | SS/CPFF | MITRE:Bedford, MA | - | 0.796 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.795 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

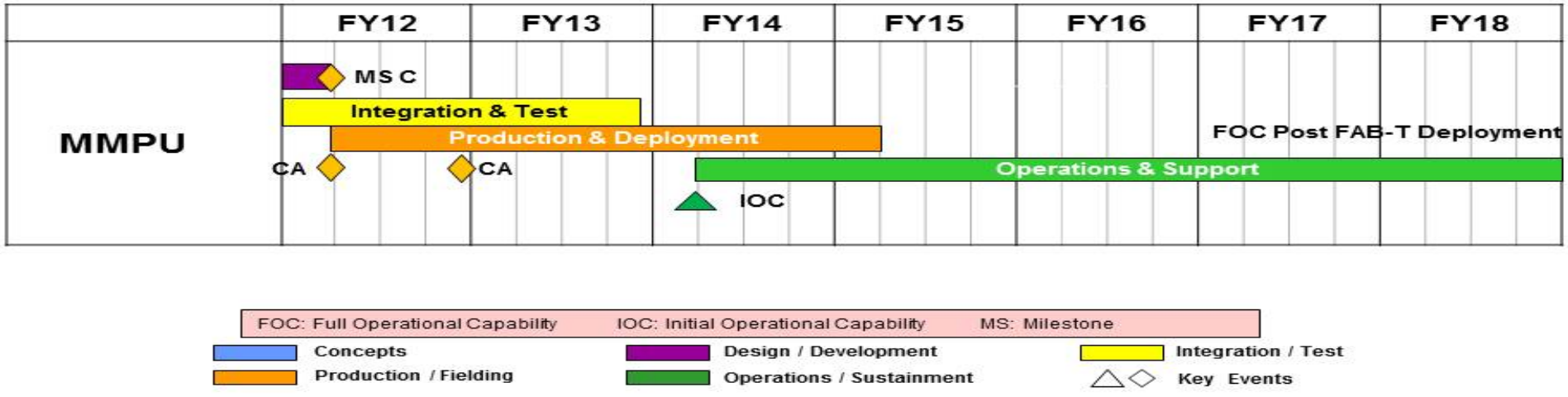
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>674610: *Minuteman MEECN Program (MMP)* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 9.772 | 0.000 | 0.000 | 0.000 | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | **PROJECT**<br>674610: *Minuteman MEECN Program (MMP)* |

# MMPU Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | **PROJECT**<br>674610: *Minuteman MEECN Program (MMP)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Integration and Test | 1 | 2012 | 4 | 2013 |
| Milestone C | 1 | 2012 | 1 | 2012 |
| Initial Opertional Capabilty | 1 | 2014 | 1 | 2014 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>675047: *Ground Element MEECN System (GEMS)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675047: *Ground Element MEECN System (GEMS)* | - | 7.491 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

The Ground Element MEECN System (GEMS) contract was terminated for convenience on 16 Jun 2011. FY11 and FY12 funds were used to establish the Global Aircrew Strategic Network Terminal (Global ASNT) program.

**A. Mission Description and Budget Item Justification**

Ground Element MEECN System (GEMS) contract was terminated for convenience on 16 Jun 2011. FY12 GEMS funding was used for execution of the Global Aircrew Strategic Network Terminal (Global ASNT) program. Global ASNT continues in BPAC 676029 beginning in FY13.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** DMS<br>***Description:*** Direct Mission Support<br>***FY 2012 Accomplishments:***<br>Transition from terminated GEMS program to begin incremental development efforts under Global ASNT program. Completed MDD (entered acq life cycle at pre-MS B); generated acquisition strategy, CDD, SRD, and RFP. Released RFP to industry on 26 Nov 12.<br>***FY 2013 Plans:***<br>N/A<br>***FY 2014 Plans:***<br>N/A | 2.531 | 0.000 | 0.000 |
| ***Title:*** PMA<br>***Description:*** Program Management Administration<br>***FY 2012 Accomplishments:*** | 4.960 | 0.000 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>675047: *Ground Element MEECN System (GEMS)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Global ASNT PMA funds for Milestone B and pre-contract award activities.<br>***FY 2013 Plans:***<br>N/A<br>***FY 2014 Plans:***<br>N/A | | | |
| **Accomplishments/Planned Programs Subtotals** | 7.491 | 0.000 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • N/A: *None* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

**Remarks**

**D. Acquisition Strategy**

GEMS Program Terminated 16 Jun 11.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>675047: *Ground Element MEECN System (GEMS)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Satellite Simulations | SS/FFP | MIT/Lincoln Laboratory:Lexington, MA | - | 0.335 | Aug 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.335 | TBD |
| | | **Subtotal** | 0.000 | 0.335 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.335 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Global ASNT DMS (MITRE) | SS/CPFF | MITRE:Bedford, MA | - | 2.199 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 2.199 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Global ASNT PMA (MS B & pre-contract activities for FY12) | Various | Various:Various, | - | 2.333 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 2.333 | TBD |
| Global ASNT PMA (MITRE for FY12) | SS/CPFF | MITRE:Bedford, MA | - | 2.624 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 2.624 | TBD |
| | | **Subtotal** | 0.000 | 4.957 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 4.957 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>675047: *Ground Element MEECN System (GEMS)* | |

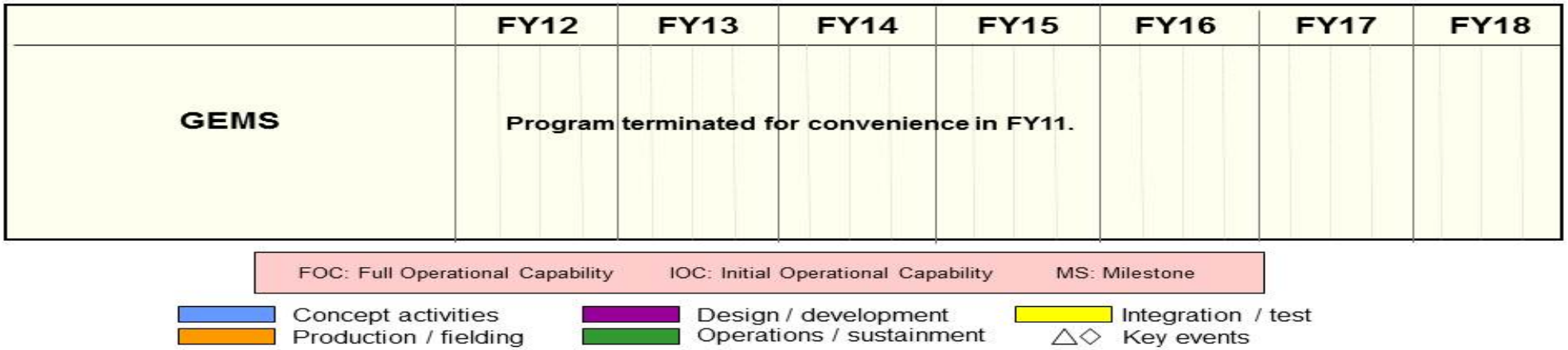
| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 7.491 | 0.000 | 0.000 | 0.000 | 0.000 | | | |

**Remarks**

$7.491M of FY12 money is for execution of the Global Aircrew Strategic Network Terminal (Global ASNT) program.

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | **PROJECT**<br>675047: *Ground Element MEECN System (GEMS)* |

## GEMS Schedule



| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>675378: *Long Term Solution* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675378: *Long Term Solution* | - | 4.996 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

Long Term Solution (LTS) was cancelled in FY11 due to higher Air Force priorities.

**A. Mission Description and Budget Item Justification**

LTS will replace the current Nuclear Command Control and Communications (NC3) Hybrid Solution which consists of Navy's NOVA system and Air Force's Strategic Automated Command and Control System (SACCS), and will provide a worldwide, robust, non-survivable NC3 network for specialized messaging services to meet Nuclear Technical Performance Criteria (NTPC) requirements for Emergency Action Message (EAM) dissemination. The mission of the NC3 message service is to provide accurate and reliable delivery of time-critical messages from the Executing Command Authority to nuclear forces and other authorized subscribers. NC3 LTS provides NC3 messaging services to the JS-approved NC2 subscribers and critical interfaces (~350).

NC3 LTS was planned to be a FY12 New Start, but was cancelled due to higher Air Force priorities.

This program is in Budget Activity 07, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal years.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Engineering and Manufacturing Development | 4.996 | 0.000 | 0.000 |
| ***Description:*** Design & develop IP based NC3 communications network.<br><br>***FY 2012 Accomplishments:***<br>LTS program was terminated due to higher Air Force priorities. | | | |
| **Accomplishments/Planned Programs Subtotals** | 4.996 | 0.000 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>675378: *Long Term Solution* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • N/A: *None* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

(NC3) Long Term Solution (LTS) was cancelled due to higher Air Force priorities.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>675378: *Long Term Solution* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Higher Air Force Priorities | Various | TBD:TBD, | - | 4.996 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | Subtotal | 0.000 | 4.996 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 4.996 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | **PROJECT**<br>675378: *Long Term Solution* |

## LTS Schedule



| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>676029: *Global Aircrew Strategic Network Terminal* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 676029: *Global Aircrew Strategic Network Terminal* | - | 0.000 | 19.299 | 35.415 | - | 35.415 | 52.571 | 49.325 | 16.000 | 16.288 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Global Aircrew Strategic Network Terminal (Global ASNT) will be comprised of Extremely High Frequency (EHF)/Advanced Extremely High Frequency (AEHF), Very Low Frequency (VLF)/Low Frequency (LF), High Frequency (HF), Ultra High Frequency (UHF) and the Aircrew Alerting System (AAS) components (pagers/ klaxons), and will provide secure, survivable inter-site, intra-site and mobile communications to bomber, tanker and reconnaissance Wing Command Posts (WCPs) and mobile relocation teams with strategic responsibilities. Global ASNT terminals will be developed and fielded to replace strategic mobile and fixed-site Single Channel Anti-jam Man-Portable (SCAMP) terminals and Aircraft Alerting Communications Electromagnetic Pulse System/Electromagnetic Pulse Hardened Dispersal Communications (AACE/EHDC) systems. Global ASNT primary mission is to provide strategic WCPs and mobile support teams with survivable communication paths to receive Emergency Action Messages (EAMs) and Force Management Messages from Nuclear Command and Control (NC2) nodes and disseminate them to bomber, tanker, and reconnaissance aircrews. Global ASNT will provide solutions to existing capability shortfalls for NC2 and has significant potential to provide distributed and transportable command and control capabilities beyond the traditional NC2 mission. Global ASNT will be fielded in separate increments: the first increment fields the EHF/AEHF capability; the second increment fields the HF/UHF/AAS capability; and the third increment fields the VLF/LF capability. Global ASNT is the last line of operational communication when all other peacetime links fail.

This program is in Budget Activity 07, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal years.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Engineering & Manufacturing Development | 0.000 | 14.440 | 29.374 |
| ***Description:*** Engineering & Manufacturing Development. | | | |
| ***FY 2012 Accomplishments:***<br>Pre Milestone B efforts for the Global ASNT program funded in BPAC 675047. | | | |
| ***FY 2013 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | **PROJECT**<br>676029: *Global Aircrew Strategic Network Terminal* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Release RFP, conduct technical evaluation, and award an EMD contract. Begin development to include EHF and AEHF integration of modem design, cryptographic upgrade, software development, antenna integration and test of developed hardware and software.<br>***FY 2014 Plans:***<br>Conduct SRR and PDR. Continue Engineering and Manufacturing Development to include EHF and AEHF integration of modem design, cryptographic upgrade, software development, antenna integration and test of developed hardware and software. | | | |
| ***Title:*** PMA<br>***Description:*** Program Management Administration<br>***FY 2012 Accomplishments:***<br>Program Management Administration for the Global ASNT program funded in BPAC 675047.<br>***FY 2013 Plans:***<br>Program Management Administration<br>***FY 2014 Plans:***<br>Program Management Administration | 0.000 | 4.859 | 6.041 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 19.299 | 35.415 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: Line item # 834210: *Global ASNT* | 0.000 | 0.000 | 0.000 | | 0.000 | 20.401 | 98.077 | 109.445 | 111.415 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

Global ASNT is using full and open competitive source selection to award an Engineering & Manufacturing Development (EMD) contract for Increment One. Global ASNT will continue to use an incremental approach to fulfill the overall requirements of the program.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>676029: *Global Aircrew Strategic Network Terminal* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering & Manufacturing Development | TBD | TBD:, | - | 0.000 | | 11.804 | Jun 2013 | 26.413 | Jan 2014 | - | | 26.413 | Continuing | Continuing | TBD |
| Satellite Simulations | SS/FFP | MIT/Lincoln Laboratory:Lexington, MA | - | 0.000 | | 0.459 | Feb 2013 | 0.569 | Feb 2014 | - | | 0.569 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 12.263 | | 26.982 | | 0.000 | | 26.982 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MITRE Lab | SS/CPFF | MITRE:Bedford, MA | - | 0.000 | | 1.552 | Oct 2012 | 1.731 | Oct 2013 | - | | 1.731 | Continuing | Continuing | |
| Software Support | Various | Various:, | - | 0.000 | | 0.243 | Jul 2013 | 0.247 | Jul 2014 | - | | 0.247 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 1.795 | | 1.978 | | 0.000 | | 1.978 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Government Test and Evaluation | Various | Various:, | - | 0.000 | | 0.382 | Dec 2012 | 0.414 | Dec 2013 | - | | 0.414 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.382 | | 0.414 | | 0.000 | | 0.414 | | | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA (Eng/Acq Support, Travel) | Various | Various:, | - | 0.000 | | 1.756 | Dec 2012 | 3.067 | Dec 2013 | - | | 3.067 | Continuing | Continuing | TBD |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>676029: *Global Aircrew Strategic Network Terminal* |

**Management Services ($ in Millions)**

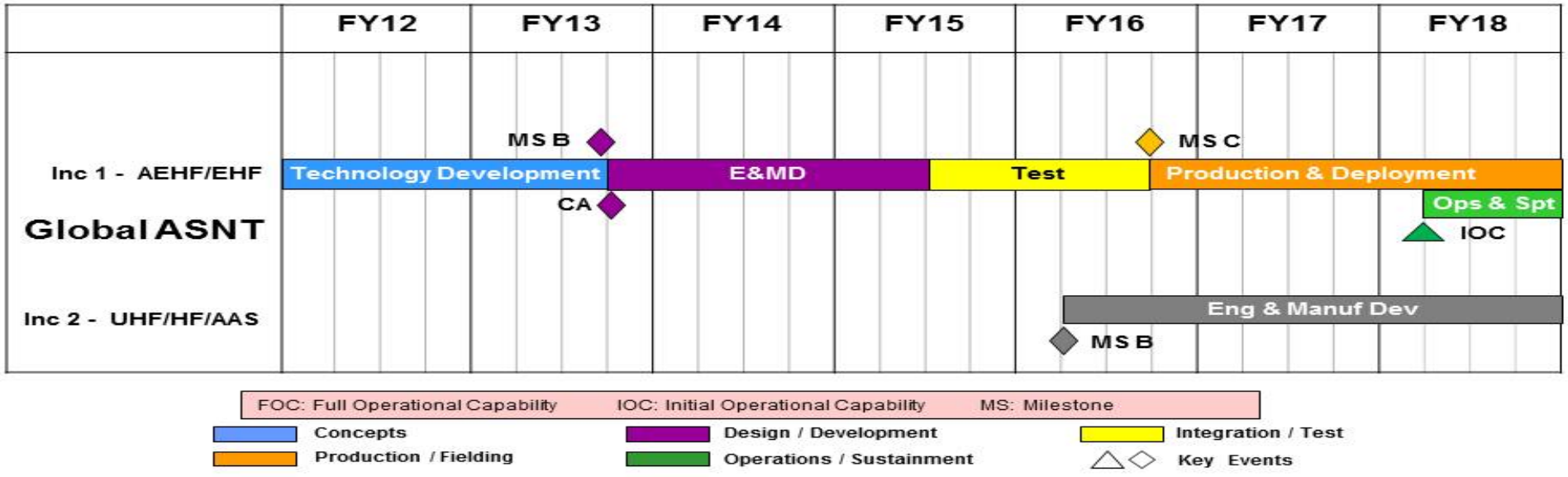
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA (MITRE) | SS/CPFF | MITRE:Bedford, MA | - | 0.000 | | 3.103 | Oct 2012 | 2.974 | Oct 2013 | - | | 2.974 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 4.859 | | 6.041 | | 0.000 | | 6.041 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 19.299 | | 35.415 | | 0.000 | | 35.415 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | PROJECT<br>676029: *Global Aircrew Strategic Network Terminal* |

# Global ASNT Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303131F: *Minimum Essential Emergency Communications Network (MEECN)* | **PROJECT**<br>676029: *Global Aircrew Strategic Network Terminal* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| EHF/AEHF Milestone B Decision | 3 | 2013 | 3 | 2013 |
| EHF/AEHF Contract Award | 3 | 2013 | 3 | 2013 |
| UHF/HF/AAS Milestone B | 2 | 2016 | 2 | 2016 |
| UHF/HF/AAS Milestone B (1) | 2 | 2016 | 2 | 2016 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 88.257 | 69.133 | 90.231 | - | 90.231 | 79.946 | 93.386 | 75.121 | 63.743 | Continuing | Continuing |
| 674861: *EKMS (Electronic Key Management System)* | - | 1.719 | 2.033 | 2.059 | - | 2.059 | 0.599 | 0.637 | 0.938 | 0.955 | Continuing | Continuing |
| 675100: *Cryptographic Modernization* | - | 64.949 | 51.086 | 77.621 | - | 77.621 | 69.868 | 82.505 | 63.463 | 51.874 | Continuing | Continuing |
| 675231: *AF Key Management Infrastructure (AF KMI)* | - | 15.808 | 10.342 | 10.551 | - | 10.551 | 9.479 | 10.244 | 10.720 | 10.914 | Continuing | Continuing |
| 677820: *Computer Security RDTE: Firestarter* | - | 5.781 | 5.672 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2014, Project 677820, Computer Security Firestarter efforts were transferred to PE 0208088F, Air Force Defensive Cyberspace Operations to better align efforts.

**A. Mission Description and Budget Item Justification**

The Information Systems Security Program Element provides cradle-to-grave research, development, acquisitions, supply, sustainment, depot maintenance, and demilitarization of the Air Force (AF) cryptographic and key distribution/management systems. Additionally, it funds the AF operation one of two US National Security Agency Tier 1 key distribution centers, the AF Public Key Infrastructure System Program Office, the AF Call Sign function, and a special computer security program designated, Firestarter.

The overall focus of the Research, Development, Test, and Evaluation (RDT&E) efforts within this program is two-fold. The major focus is transforming electronic key delivery and DoD cryptographic devices to meet the next generation warfighting requirements. This focus is driven by the National Security Agency's tenets calling for (1) a totally "man-out-of-the-loop" electronic crypto key distribution system from the actual generation of the key in the key processor all the way into the using End Crypto Unit (ECU) (eliminates the current key vulnerability to compromise by individuals transporting or loading the key); and (2) an inventory of cryptographic devices that are more robust, modular, scalable, capable, net-centric, and durable (allows more effective and efficient performance including reduced inventory, expanded data rates, simplified upgrades, and ensured global information grid-compatibility). The second focus is to rapidly provide new/improved capabilities to 24 AF-led forces further enabling them to protect and defend USAF Command, Control, Communications, Computers, and Intelligence, Surveillance, and Reconnaissance (C4ISR) and Weapon Systems from Information Warfare (IW) attacks and to ensure affected system recovery from such attacks. To this end, the project does research and development of information protection tools and transitions them to operational systems. These efforts not only provide AF passive Net Defense capabilities but also an increasing share of the active Net Defense capabilities.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* |

This program is in Budget Activity 7, Operational System Development, these budget activities include development efforts to upgrade systems currently fielded or has approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 91.657 | 69.133 | 85.696 | - | 85.696 |
| Current President's Budget | 88.257 | 69.133 | 90.231 | - | 90.231 |
| Total Adjustments | -3.400 | 0.000 | 4.535 | - | 4.535 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | -0.777 | 0.000 | | | |
| • SBIR/STTR Transfer | -2.623 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 4.535 | - | 4.535 |

**Change Summary Explanation**

FY14 funding increase due to higher Air Force priorities to address NSA planned crypto algorithm decertifications.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>674861: *EKMS (Electronic Key Management System)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 674861: *EKMS (Electronic Key Management System)* | - | 1.719 | 2.033 | 2.059 | - | 2.059 | 0.599 | 0.637 | 0.938 | 0.955 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Air Force Electronic Key Management System (AFEKMS) Program consists of multiple developments supporting the Air Force requirements portion of the DoD EKMS Program. (The National Security Agency [NSA] acts as the Executive Agency for the DoD EKMS Program.) AFEKMS, in concert with the overarching DoD EKMS program, provides a secure and flexible capability for the electronic generation, distribution, accounting, and management of key material, voice callwords, and communications security (COMSEC) publications for the current generation of DoD Command, Control, Communications, Computers, and Intelligence (C4I) and for current generation of weapon systems. DoD EKMS replaced the previous manual distribution and management system providing cryptographic keying material for U.S. DoD Information Assurance. Information Assurance emphasizes confidentiality, access control, multi-level secure databases, trusted computing, and information integrity. DoD EKMS has a three-tier hierarchical structure. This tiered structure provides capability to distribute, manage, and account for COMSEC keying material. Tier 1 installations comprise the key material general and control capability. Tier 2 installations comprise the local distribution network (COMSEC accounts) and Tier 3 is where keying material is transferred from the EKMS infrastructure to the consumers End Cryptographic Units (ECUs).

EKMS improved protection of national security-related information by substantially enhancing confidentiality, integrity, and non-repudiation characteristics over the legacy manual key management systems. EKMS has and continues to greatly accelerate availability of crypto key materials through electronic transmission through Public Switched Telephone Network (PSTN) versus the manual handling and shipping of materials. While the current EKMS level-of-effort is directed at enhancing current and developing systems, the ultimate goal is for it to seamlessly transition to the net-centric DoD Key Management Infrastructure (KMI). The AFEKMS Program continues to provide software development to support emerging requirements during the KMI transition period. Activities also include studies and analysis to support both current program planning and execution and future program planning.

NOTE: Software development (e.g., Data Management Device - DMD, Common User Application Software - CUAS, and Simple Key Loader - SKL) is rolled up into Tier 2/Tier 3 Development. Software upgrades can be bundled and tracked as a unit, thereby allowing less management overhead and more focus on configuration management and control.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Tier 2/Tier 3 Software Modification | 1.294 | 1.566 | 1.590 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>674861: *EKMS (Electronic Key Management System)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Software modification that address emerging requirements for Tier 2 (base COMSEC account)/Tier 3 (Key material field devices)<br><br>***FY 2012 Accomplishments:***<br>Continued to update software releases for Tier 2/Tier 3 EKMS cryptographic devices in order to deliver software enhancements for AF Systems emerging requirements. These components require software upgrades until such time as KMI is capable of providing support to the respective operational communities.<br><br>***FY 2013 Plans:***<br>Will continue to update software releases for Tier 2/Tier 3 cryptographic devices as development for EKMS continues to ensure emerging requirements meet operational timelines<br><br>***FY 2014 Plans:***<br>Will continue to update software releases for Tier 2/Tier 3 cryptographic devices as development for EKMS continues to ensure emerging requirements meet operational timelines | | | |
| ***Title:*** Fill/Load Device<br><br>***Description:*** Fill/Load Device Post Production Software Development<br><br>***FY 2012 Accomplishments:***<br>Continued to develop, test and evaluate new Simple Key Loader User Application Software and develop SKL load profiles to enable new End Crypto Units the abilities to be loaded using the SKL.<br><br>***FY 2013 Plans:***<br>Will continue to develop, test and evaluate new Simple Key Loader User Application Software and develop SKL load profiles to enable new End Crypto Units the abilities to be loaded using the SKL.<br><br>***FY 2014 Plans:***<br>Will continue to develop, test and evaluate new Simple Key Loader User Application Software and develop SKL load profiles to enable new End Crypto Units the abilities to be loaded using the SKL. | 0.371 | 0.382 | 0.393 |
| ***Title:*** Program Management Administration<br><br>***Description:*** Includes non-personal services to support organizational activities; decision making; management, program, technical, and financial management; and, administration activities for lifecycle acquisition. Outputs may take the form of: documented information; advice; opinions; alternatives; evaluations; recommendations; analytical assessments to understand | 0.054 | 0.085 | 0.076 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>674861: *EKMS (Electronic Key Management System)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| and/or evaluate complex issues; and training (i.e.; Advisory and Assistance Service; Specialized Cost Services; and Federally Funded Research and Development Centers).<br><br>***FY 2012 Accomplishments:***<br>Provided program management and engineering support to all the Information Systems Security Program (ISSP) program efforts listed above.<br>***FY 2013 Plans:***<br>Providing program management and engineering support to all the ISSP program efforts listed above.<br>***FY 2014 Plans:***<br>Will provide program management and engineering support to all the ISSP program efforts listed above. | | | |
| **Accomplishments/Planned Programs Subtotals** | 1.719 | 2.033 | 2.059 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF:BA03: 831010: *COMSEC Equipment* | 10.505 | 4.288 | 4.753 | | 4.753 | 2.242 | 1.108 | 1.555 | 1.583 | Continuing | Continuing |

**Remarks**

Remarks: Other Program Funding reflects AFEKMS portion of ISSP OPAF total.

**D. Acquisition Strategy**

All major contracts within this Project are open to full and open competition with technology knowledge, expertise, and prior experience on similar projects weighted heavily in the evaluation process.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>674861: *EKMS (Electronic Key Management System)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tier 2/3 software modifications and updates | C/T&M | Various:, | - | 1.294 | Jan 2012 | 1.566 | Jul 2013 | 1.593 | Jan 2014 | - | | 1.593 | Continuing | Continuing | 18.919 |
| Fill/Load Device Post Production Software Development | C/T&M | Mantech Sensor Technologies, Inc.:Red Bank, NY | - | 0.371 | Apr 2012 | 0.382 | Apr 2013 | 0.390 | Apr 2014 | - | | 0.390 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.665 | | 1.948 | | 1.983 | | 0.000 | | 1.983 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) | C/CPFF | Various:, | - | 0.054 | Jan 2012 | 0.085 | Jan 2013 | 0.076 | Jan 2014 | - | | 0.076 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.054 | | 0.085 | | 0.076 | | 0.000 | | 0.076 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 1.719 | | 2.033 | | 2.059 | | 0.000 | | 2.059 | | | |

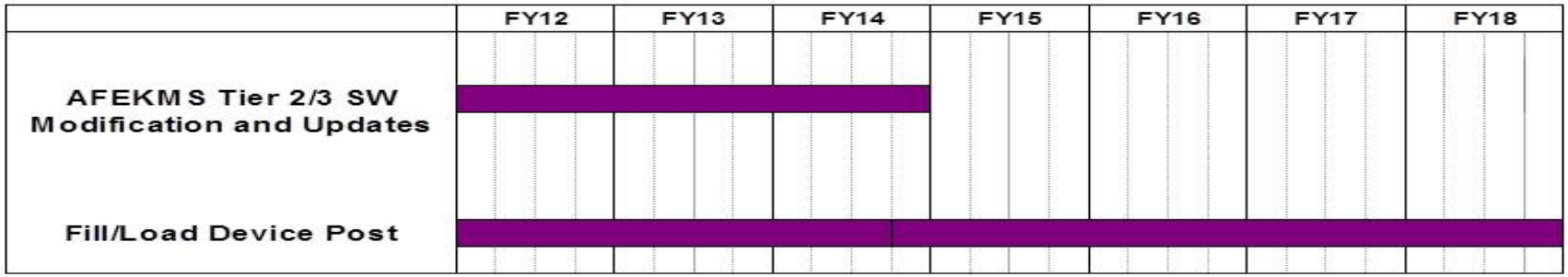
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>674861: *EKMS (Electronic Key Management System)* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>674861: *EKMS (Electronic Key Management System)* |

# AF EKMS Schedule




Concept activities  Design / development  Production / fielding

1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303140F: *Information Systems Security Program* | **PROJECT**<br>674861: *EKMS (Electronic Key Management System)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| AFEKMS Tier 2/3 SW Modification and Updates | 1 | 2012 | 4 | 2014 |
| Fill/Load Device Post Production SW Development | 1 | 2012 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675100: *Cryptographic Modernization* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675100: *Cryptographic Modernization* | - | 64.949 | 51.086 | 77.621 | - | 77.621 | 69.868 | 82.505 | 63.463 | 51.874 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Cryptographic Modernization Program modernizes cryptographic devices protecting critical information across the cyber domain operations and national security. In September 2000, the Defense Review Board (DRB) tasked National Security Agency (NSA) to evaluate the security posture of the cryptographic inventory. Systems with aging algorithms, those approaching non-sustainability, and those generally incompatible with modern key management systems were identified. Priority systems that required immediate replacement were also identified. In addition, NSA documented the need to modernize the cryptographic inventory with capabilities designed to enable network-centric operations. Replacements/Modernization of the near term vulnerable systems must occur within the timeframe specified in Chairman Joint Chiefs of Staff Notice (CJCSN) 6510. The DoD Cryptographic Modernization Program was established to develop a modern cryptographic base that provides assured security robustness, interoperability, advanced algorithms, releasability, programmability, and compatibility with the future Key Management Infrastructure (KMI). The program supports an integrated effort across the cyber domain to transform to next generation cryptographic capabilities providing U.S. forces and multinational and interagency partners the security needed to protect the flow and exchange of operational decision making information in accordance with national and international policy/standards, the validated operational requirements of the warfighters, and the intelligence communities.

The Cryptographic Modernization Program is a collection of projects accomplished in three phases: replacement, modernization, and transformation. The replacement phase of the program focused on updating and/or replacing out-of-date algorithms along with unsustainable cryptographic products. The modernization phase provides crypto devices with common solutions that are more robust, modular, scalable, and provide the durability to existing cryptographic end items, as well as updating mid-term aging/unsupportable crypto equipment. Manpower and logistics requirements will be reduced and manpower efficiencies gained, while incremental capability enhancements and footprint reduction are provided. The third phase of the Cryptographic Modernization Program, transformation, provides common joint solutions which enable secure transparent network-centric capabilities across the cyber domain. Activities also include studies and analysis to support both current program planning and execution and future program planning. FY14 funding increased to address pending crypto key/algorithm decertifications due to increased threats identified by NSA.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Remote Rekey (RRK) | 5.359 | 0.125 | 0.000 |
| ***Description:*** The Remote ReKey (RRK) program will develop, acquire and install replacement of the CI-13 cryptographic system at remote and unmanned North American Aerospace Defense Command (NORAD) surveillance sites. Sites facilitate NORAD's aerospace control ensuring air sovereignty and air defense of the airspace of the United States. Modernized RRK system | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675100: *Cryptographic Modernization* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| complements Identification Friend or Foe (IFF) Mode 5 system upgrade and will distribute cryptographic key for 14 different end cryptographic units. The RRK system is net ready and compatible across multiple communication paths.<br><br>***FY 2012 Accomplishments:***<br>Completed development and continued test efforts of replacement cryptographic system. Received NSA Type 1 Certification Feb 2012.<br><br>***FY 2013 Plans:***<br>Complete development and complete test efforts of replacement cryptographic system and complete system certification. | | | |
| ***Title:*** VINSON/ANDVT Cryptographic Modernization (VACM)<br><br>***Description:*** VINSON/ANDVT Cryptographic Modernization will develop and acquire cryptographic capability to replace the legacy capability on VINSON/ANDVT secure voice communications on aircraft, ships, and ground fixed and mobile platforms (Devices: KY-57/58, KY-99/100, KYV-5 and ARC-234 with Embedded Crypto).<br><br>***FY 2012 Accomplishments:***<br>Continued development and initiated testing and test production representative engineering models, perform NSA certification testing and developmental testing. Continued ARC 234 modification development using VACM technology.<br><br>***FY 2013 Plans:***<br>Completing engineering manufacturing development and initiate production of 100 Low Rate InitialProduction (LRIP) VACM units (to be delivered in FY13/14). Completing ARC 234 modification development using VACM technology. | 30.842 | 34.603 | 0.000 |
| ***Title:*** Space Telemetry Tracking & Commanding (TT&C)<br><br>***Description:*** TT&C develops and acquires appropriate upgraded, modernized cryptographic devices to secure TT&C functions of all future DoD satellites.<br><br>***FY 2012 Accomplishments:***<br>Completed TT&C AVE (KG-327/327A) development through MS C incorporating modifications driven by changing user requirements. Began activities required to upgrade future AVE crypto with updated algorithms in response to NSA mandates. Continued pre-Milestone (MS) B activities toward a modular concept for future space crypto. Modular work funded as separate activity beginning in FY13.<br><br>***FY 2013 Plans:***<br>Will continue efforts to update algorithms in response to NSA mandates. Will pursue Carousel algorithm development activity.<br><br>***FY 2014 Plans:*** | 6.688 | 4.074 | 7.885 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675100: *Cryptographic Modernization* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Will continue efforts to update algorithms in response to NSA mandates. Will pursue Carousel algorithm development activity. | | | |
| ***Title:*** CONCEPT REFINEMENT | 0.000 | 3.497 | 7.451 |
| ***Description:*** Concept refinement monitors, investigates and refines solutions to meet emerging warfighter requirements across the AF cryptographic enterprise. Coordinates, facilitates and assists with funding of collaborative efforts designed to meet specific future needs of the AF cryptographic community. Develops and maintains a classified CM analysis tool database system that tracks the use and status of the AF crypto device types that is accessible by the CM community via SIPRNET. Assesses the current state of AF crypto across the enterprise.<br>Includes: CM engineering support, several multi-level security (MLS) efforts, high assurance commerical-off-the-shelf mobility (HACM), air and ground common modular crypto analysis, communications standards investigations and other CM related studies.<br><br>***FY 2012 Accomplishments:***<br>Continued efforts for MLS Deployment Enablers, MLS Multi-Core Processor research, and MLS Formal Methods Toolsets. Continued MLS Real Time Operating System (RTOS) Graphic Controller development. Concluded Black Channel Workstation Study. Initiated Trusted Computing studies and delayed development until FY13. Initiated Dynamic Group Keying(DGK) certification efforts. Funded database software support to the Crypto Modernization portfolio. Core engineering support moved to the PMA line in mid-FY12. Initiate and conclude technical solution analysis for High Assurance COTS Mobility (HACM).<br>***FY 2013 Plans:***<br>Continuing efforts for MLS Deployment Enablers and MLS Formal Methods Toolsets. Transitioning MLS Multi-Core Processor research to development. Concluding MLS RTOS Graphic Controller development and DGK certification. Funding continued database support to the CM community. Initiating MLS Trusted Labeling Interoperability Standard development. Initiating development of HACM. Beginning analysis of feasibility of common modular cryptographic solutions for the air and ground environment. Conducting annual assessment of the state of the AF cryptographic enterprise.<br>***FY 2014 Plans:***<br>Will complete efforts for MLS Deployment Enablers and MLS Formal Methods Toolsets. Will fund database support to the Crypto Modernization portfolio. Will continue MLS Trusted Labeling Interoperability Standard development. Will continue development of HACM. Will continue the analysis of common modular cryptographic solutions for the air and ground environment. Will conduct annual assessment of the state of the AF cryptographic enterprise. | | | |
| ***Title:*** TECHNICAL DEVELOPMENT | 7.886 | 0.794 | 23.134 |
| ***Description:*** Technology Development plans and executes technology maturation and initiates developmental programs to meet emerging and existing warfighter requirements. Includes but is not limited to: Mini Crypto Secure Micro-digital Data Link | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675100: *Cryptographic Modernization* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| (SMDDL), Type 1 Data at Rest (T1DAR), Remote Operational Management of End-crypto-units (ROME), Multi-Level Security (MLS) Multi-Port Crypto (MPC) Development, Advanced Message Oriented Data Security Module (AMODSM), and Minuteman Entry Encryption Device (MEED), Enhanced Firefly(EFF) replacement development.<br><br>***FY 2012 Accomplishments:***<br>Initiated NSA certification of the SMDDL module and MLS MPC. Initiate development/competitive prototyping effort for a T1DAR solution and Advanced Message-Oriented Data Security Module (AMODSM). Completed Missile Electronic Encryption Device (MEED) study efforts. Continued development of ROME Reference Implementation. Continued to plan to develop common miniaturized cryptographic solution(s) for use in protecting Secret and Below information on Size, Weight, and Power (SWaP) constrained platforms for small unmanned aerial systems. Funded Positive Inventory Control (PIC) Fusion requirements.<br><br>***FY 2013 Plans:***<br>Directly supporting development/competitive prototyping effort for identified solutions. Completing pre-MS B activities and continuing development of common miniaturized cryptographic solution(s) for use in protecting Classified information on Size, Weight, and Power (SWaP) constrained platforms. Moving development of Mini Crypto high assurance crypto device into separate program line. Completing the NSA certification of the SMDDL module.<br><br>***FY 2014 Plans:***<br>Will complete development/competitive prototyping effort for a T1DAR and AMODSM solutions. Will continue MEED development. Will initiate implementation of the T1DAR solution for specific uses (flight data recorders, EW pods, AWACS). Will complete MLS MPC development and initiate testing. Will initiate ROME preliminary MS-B activities. Will initiate MLS Multi-Core Processor development. Will continue/complete development/competitive prototyping effort for a T1DAR and AMODSM solutions. Will initiate MEED development. Will initiate implementation of the T1DAR solution for specific uses (flight data recorders, EW pods, AWACS). Will complete MLS MPC development and initiate testing. Will complete ROME Reference Implementation development.<br><br>Will complete development/competitive prototyping effort for AMODSM solutions. Will continue MEED development. Will complete MLS MPC development and initiate testing. Will initiate MLS Multi-Core Processor development. Will continue/complete development/competitive prototyping effort for AMODSM solutions. Will initiate MEED development. Will complete MLS MPC development and initiate testing. Will complete ROME Reference Implementation development. Will begin development of replacement devices that incorporate enhanced firefly keying material. | | | |
| ***Title:*** MINI CRYPTO<br><br>***Description:*** Mini Crypto plans to develop common miniaturized cryptographic solution(s) for use in protecting Secret and Below information on Size, Weight, and Power (SWaP) constrained platforms. | 0.000 | 0.000 | 5.632 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675100: *Cryptographic Modernization* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***FY 2014 Plans:***<br>Will complete tech development phase. Will release RFP for EMD contract and award development contract to vendor after formal source selection. Will hold contract kick-off meeting with vendor and begin EMD phase. This is not a new start effort; moved from Technical Development line. | | | |
| ***Title:*** SPACE MODULAR COMMON CRYPTO (SMCC)<br>***Description:*** Space Modular Common Crypto (SMCC) develops a modular approach to maintain compliance with NSA and National Security Policies for space cryptographic products. Configurable functionality allows timely delivery of COMSEC and TRANSEC capabilities. (CNSSP-12, CNSSP-19, NSA Policy 3-9)<br>***FY 2013 Plans:***<br>Continue pre-Milestone B activities of Space Modular Common Crypto solutions for satellite applications including future TT&C, Mission Data, TRANSEC and secure network connectivity (e.g. HAIPE, IPSEC). Hold Materiel Development Decision. This is not a new start effort; moved from Space TT&C line.<br>***FY 2014 Plans:***<br>Will continue pre-Milestone B activity, development and risk reduction activities for Space Modular Common Crypto solutions. Hold SMCC-Cubesat Milestone B. Award SMCC-Cubesat development contract. | 0.000 | 0.367 | 19.821 |
| ***Title:*** Algorithm Decertification, Compliance and Support<br>***Description:*** Supports decertification and governance efforts to be able to effectively analyze 30 different classified algorithms, thousands of associated COMSEC keying material short titles, hundreds of equipment types and then track and report migration across the AF enterprise. Based on analysis, determine mitigation strategy, implementation, and monitor compliance. Current efforts support NC3 and FYDP efforts will affect NC3, ISR, all AF platforms, and most ground networks. Develop plans and execute technology maturation efforts to ensure new algorithms can be successfully integrated into the AF enterprise.<br>***FY 2014 Plans:***<br>Will support decertification and governance efforts to effectively track, analyze, and report on AF use of 30 different classified algorithms in over 270,000 devices across the AF enterprise comprised of over 300 equipment types/families and requiring thousands of associated COMSEC keying material short titles. | 0.000 | 0.000 | 3.200 |
| ***Title:*** Program Management Administration<br>***Description:*** Includes non-personal services to support organizational activities; decision making; management, program, technical, and financial management; and, administration activities for lifecycle acquisition. Outputs may take the form of: documented information; advice; opinions; alternatives; evaluations; recommendations; analytical assessments to understand | 14.174 | 7.626 | 10.498 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675100: *Cryptographic Modernization* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| and/or evaluate complex issues; and training (i.e.; Advisory and Assistance Service; Specialized Cost Services; and Federally Funded Research and Development Centers). These services enable Cryptologic Systems Division to quickly and efficiently size manning to meet the demands of the surge and future ebb in crypto and key management device development required to meet the DoD Crypto Modernization Initiative and maintain a superior cyber passive defense capability for Air Force secure communications.<br><br>***FY 2012 Accomplishments:***<br>Providing program management and engineering support to all the ISSP program efforts listed above.<br>***FY 2013 Plans:***<br>Providing program management and engineering support to all the ISSP program efforts listed above.<br>***FY 2014 Plans:***<br>Will provide program management and engineering support to all the ISSP program efforts listed above. | | | |
| **Accomplishments/Planned Programs Subtotals** | 64.949 | 51.086 | 77.621 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: 831010: *COMSEC Equipment* | 61.751 | 108.840 | 79.309 | | 79.309 | 42.314 | 30.979 | 16.009 | 20.382 | Continuing | Continuing |

**Remarks**

Remarks: Other Program Funding reflects CM portion of ISSP OPAF total.

**D. Acquisition Strategy**

The Crypto Modernization portfolio of component acquisition projects is executing using a variety of approaches that vary from an evolutionary acquisition strategy using spiral development (for new component development) to incremental improvement leveraging leading-edge, certified non-developmental items (for modernization). Contract type is selected for each of the individual projects based upon its acquisition approach and its unique technology risks. A mixture of fixed-price and cost-reimbursement contracts have been selected which maximize the best value for the Government.

Program Management Administration (PMA) costs are defined as those direct, unique program costs, other than payroll costs for government personnel, which are required for operation of a program office and its management and oversight role. These include costs such as Advisory and Assistance Service (A&AS) (Specialized Cost Services - SCS, Professional Acquisition Support Services - PASS, Engineering and Technology Acquisition Support Services - ETASS, Federally Funded Research and Development Centers - FFRDC) contracted support to a program office. Under PMA, A&AS personnel support the functions of government personnel in managing a weapon system or common item.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675100: *Cryptographic Modernization* |

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675100: *Cryptographic Modernization* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Remote ReKey (CI-33) | C/CPIF | General Dynamics C4 Systems:Needham, MA | - | 4.547 | Oct 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 4.547 | 50.192 |
| VINSON/ANDVT Cryptographic Modernization (VACM) | C/CPIF | Raytheon Company:Ft Wayne, IN | - | 19.734 | Oct 2011 | 24.730 | Apr 2013 | 0.000 | | - | | 0.000 | 0.000 | 44.464 | 47.863 |
| VINSON/ANDVT/ Cryptographic Modernization (Embedded) | MIPR | Defense Microelectronic Activity:McClellan, CA | - | 11.742 | Jan 2012 | 8.173 | Apr 2013 | 0.000 | | - | | 0.000 | 0.000 | 19.915 | 32.737 |
| Space Telemetry, Tracking & Commanding Crypto Mod (TT&C) Aerospace Vehicle Equipment (AVE) CAROUSEL | C/TBD | TBD:TBD, | - | 0.000 | | 3.647 | Jul 2013 | 7.196 | Jan 2014 | - | | 7.196 | Continuing | Continuing | TBD |
| Space Telemetry, Tracking & Commanding Crypto Mod (TT&C) Aerospace Vehicle Equipment (AVE) | C/CPFF | General Dynamics C4 Systems:Scottsdale, AZ | - | 5.600 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 64.553 |
| Concept Refinement | Various | MULTIPLE:MULTIPLE, | - | 0.000 | Feb 2012 | 3.497 | Jul 2013 | 7.451 | Nov 2013 | - | | 7.451 | Continuing | Continuing | TBD |
| Tech Development | Various | MULTIPLE:MULTIPLE, | - | 6.036 | Feb 2012 | 0.794 | Apr 2013 | 23.134 | Nov 2013 | - | | 23.134 | Continuing | Continuing | TBD |
| Mini Crypto | C/CPAF | TBD:TBD, | - | 0.000 | | 0.000 | | 5.041 | Nov 2013 | - | | 5.041 | Continuing | Continuing | TBD |
| Space Modular Common Crypto (SMCC) | C/CPAF | MULTIPLE:MULTIPLE, | - | 0.000 | | 0.000 | | 19.444 | Aug 2014 | - | | 19.444 | Continuing | Continuing | TBD |
| Algorithm Decertification, Compliance and Support | Various | MULTIPLE:MULTIPLE, | - | 0.000 | | 0.000 | | 3.200 | Dec 2013 | - | | 3.200 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 47.659 | | 40.841 | | 65.466 | | 0.000 | | 65.466 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675100: *Cryptographic Modernization* | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mini Crypto | MIPR | VARIOUS:VARIOUS, | - | 0.000 | | 0.000 | | 0.422 | Oct 2013 | - | | 0.422 | Continuing | Continuing | |
| Remote ReKey (CI-33) | Various | VARIOUS:VARIOUS, | - | 0.600 | Aug 2012 | 0.125 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 0.725 | 5.513 |
| | | **Subtotal** | 0.000 | 0.600 | | 0.125 | | 0.422 | | 0.000 | | 0.422 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Remote ReKey (CI-33) | C/CPIF | General Dynamics C4 Systems:Needham, MA | - | 0.212 | Aug 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.212 | 2.480 |
| VINSON/ANDVT Crypto Mod (VACM) | MIPR | MULTIPLE:MULTIPLE, | - | 0.846 | Nov 2011 | 1.392 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 2.238 | 5.001 |
| VINSON/ANDVT Crypto Mod-Embedded (Embedded) | MIPR | NSA:, | - | 0.092 | Nov 2011 | 0.308 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 0.400 | 0.610 |
| Space Telemetry, Tracking & Commanding Crypto Mod (TT&C) Aerospace Vehicle Equipment (AVE) CAROUSEL | Various | MULTIPLE:MULTIPLE, | - | 1.088 | Mar 2012 | 0.427 | Nov 2012 | 0.689 | Nov 2013 | - | | 0.689 | Continuing | Continuing | 8.777 |
| Tech Development | Various | MULTIPLE:MULTIPLE, | - | 0.278 | Jan 2012 | 0.000 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Mini Crypto | MIPR | MULTIPLE:MULTIPLE, | - | 0.000 | | 0.000 | | 0.169 | Oct 2013 | - | | 0.169 | Continuing | Continuing | TBD |
| Space Modular Common Crypto | Various | MULTIPLE:MULTIPLE, | - | 0.000 | | 0.367 | Apr 2013 | 0.377 | Nov 2013 | - | | 0.377 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 2.516 | | 2.494 | | 1.235 | | 0.000 | | 1.235 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675100: *Cryptographic Modernization* |

**Management Services ($ in Millions)**

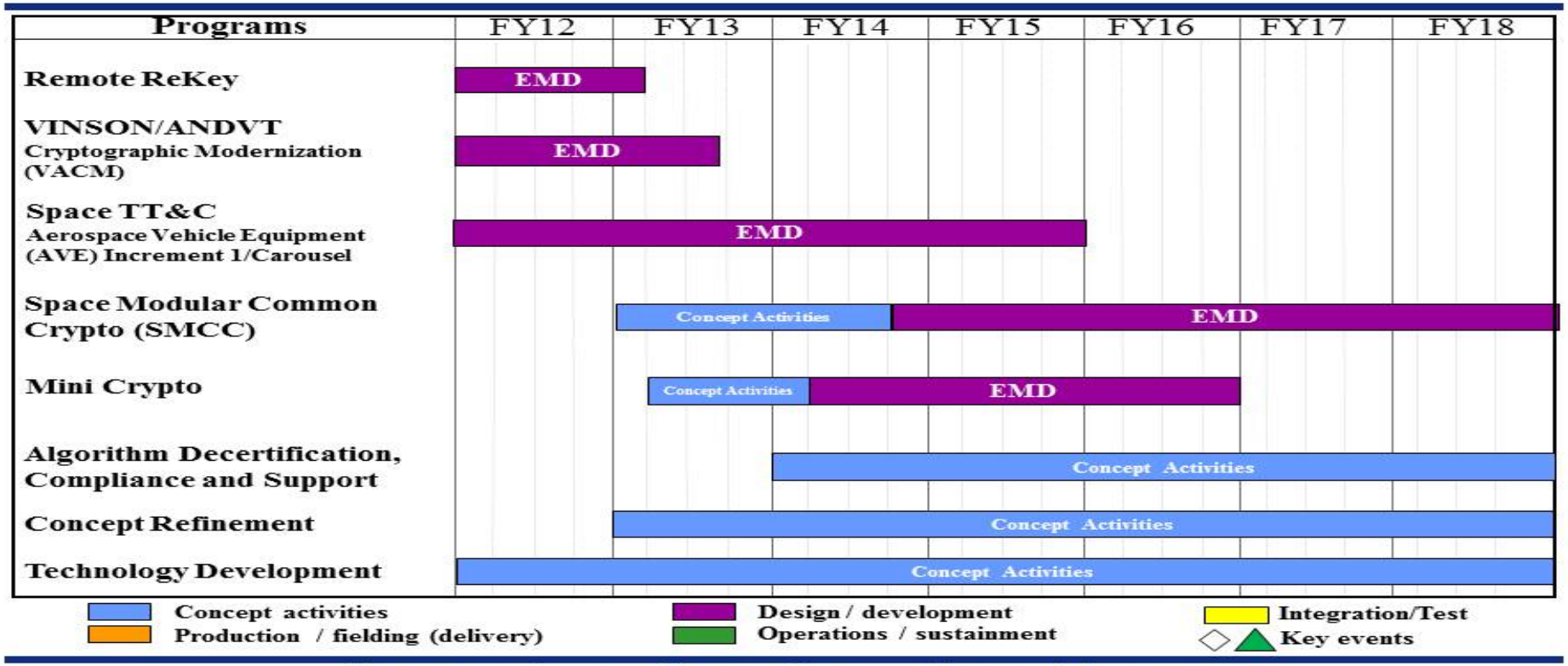
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) | Various | Various:Various, | - | 14.174 | Oct 2011 | 7.626 | Dec 2012 | 10.498 | Nov 2013 | - | | 10.498 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 14.174 | | 7.626 | | 10.498 | | 0.000 | | 10.498 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 64.949 | | 51.086 | | 77.621 | | 0.000 | | 77.621 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675100: *Cryptographic Modernization* |

# Cryptographic Modernization Schedule




*Integrity - Service - Excellence*

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303140F: *Information Systems Security Program* | **PROJECT**<br>675100: *Cryptographic Modernization* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Remote Rekey concept refinement and development | 1 | 2012 | 1 | 2013 |
| VINSON-ANDVT Cryptographic Modernization (VACM) concept refinement and development | 1 | 2012 | 4 | 2013 |
| Space Telemetry Tracking and Commanding (Aerospace Vehicle Equipment [AVE] Increment 1, Carousel development | 1 | 2012 | 4 | 2015 |
| Space Modular Common Crypto (SMCC) | 1 | 2013 | 4 | 2018 |
| Mini Crypto | 1 | 2013 | 4 | 2016 |
| Algorithm decertification, Compliance and Support | 1 | 2014 | 4 | 2018 |
| Concept Refinement | 1 | 2013 | 4 | 2018 |
| Technology Development (includes Mini-Crypto, T1DAR, MLS MPC, AMODSM, and MEED | 1 | 2012 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675231: *AF Key Management Infrastructure (AF KMI)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675231: *AF Key Management Infrastructure (AF KMI)* | - | 15.808 | 10.342 | 10.551 | - | 10.551 | 9.479 | 10.244 | 10.720 | 10.914 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Air Force Key Management Infrastructure (AF KMI) Program consists of multiple developments supporting the AF requirements/portion of the DoD Key Management Infrastructure (KMI). (The National Security Agency [NSA] acts as the Executive Agency for the DoD KMI Program.) AF KMI, in concert with this overarching DoD KMI Program, will provide a secure and flexible capability for the electronic generation, distribution, accounting, and management of key material and other communications security (COMSEC) materials for all DoD Command, Control, Communications, Computers, and Intelligence (C4I) and for the Services' weapon systems. KMI represents a broad-scale replacement of the current Electronic Key Management System (EKMS). KMI will provide capabilities that will allow networked operation in consonance with the Global Information Grid (GIG) and other DoD, fellow Service, and AF enterprise objectives. It thereby will assure a viable support infrastructure for future weapons and C4I programs to incorporate key management into their system designs.

The DoD KMI will greatly improve protection of national, security-related information by substantially enhancing confidentiality, integrity, and non-repudiation characteristics over the legacy EKMS. KMI will greatly accelerate the availability of crypto key materials through electronic transmission versus shipping of materials, will enhance mission responsiveness and flexibility, and will eventually take the man "out-of-the-loop" in the distribution of crypto key materials.

The AF KMI Program in concert with the DoD KMI Program is transitioning the Air Force from the legacy EKMS to modern DoD KMI and building the AF KMI Last Mile architecture. This R&D effort includes system engineering and testing to successfully accomplish the transition and defining of the AF KMI Last Mile architecture. AF KMI Transition is supporting the DoD KMI program as it progresses through the development, testing, and production and fielding phase of the DoD KMI Program. AF KMI efforts includes the transitioning of existing key management capabilities to KMI. Re-engineering of repair parts may be required. The AF KMI Last Mile program is a holistic solution integrating the legacy and new and evolving cryptographic programs, materials, products, sources and consumers. The AF KMI Last Mile capabilities include distribution, management, and load of cryptographic materials from the KMI (COMSEC account) to the End Crypto Units (ECUs). It builds the linkage interfaces that will allow KMI systems to communicate and integrates other related developments to meet operational needs. AF KMI Last Mile is currently performing early system engineering and risk reduction activities supporting those capabilities including analysis of existing equipment and developing technologies, concept refinement studies, and prototyping of existing technologies. Activities also include studies and analysis to support both current program planning and execution and future program planning.

In parallel with AFKMI, DoD and the Services are developing a new generation of End Crypto Units (ECUs) under the Joint Crypto Modernization Initiative that will be capable of direct interaction with the KMI. (PE0303140F, BPAC 675100, Cryptographic Modernization, supports this initiative). In some cases these new ECUs,

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675231: *AF Key Management Infrastructure (AF KMI)* |

although needing to be supported by KMI, will not be KMI network-connected. "Last mile" transport of black (aka benign, or encrypted) and red (unencrypted) keying material from a KMI client to a new generation ECU or current legacy ECU will need to be handled in the early years by one of two data transfer devices.

This program is in Budget Activity 7, Operational System Development, these budget activities include development efforts to upgrade systems currently fielded or has approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Key Management Infrastructure Transition | 4.268 | 5.381 | 4.992 |
| ***Description:*** Support includes architectural planning, systems engineering, and studies and analyses for migration to the Key Management Infrastructure (KMI) (includes acquisition planning, systems integration, engineering support and System Program Office (SPO) support). Transitioning existing key management capabilities to KMI.<br><br>***FY 2012 Accomplishments:***<br>Continued architectural planning and systems engineering for migration to DoD Key Management Infrastructure CI-2 Spiral 1. Conducted operational testing of KMI CI-2 components such as the Management Client (MGC) in addition to supporting NSA?s operational testing plans. Initiated deployment of the DoD KMI MGC to remaining AF COMSEC accounts.<br><br>***FY 2013 Plans:***<br>Continuing architectural planning, systems engineering, in support of KMI CI-2 Spiral 2 Spin 1. Continuing support testing of DoD KMI CI-2 components as new hardware/software versions are completed. Initiates the transition of existing key management capabilities to KMI.<br><br>***FY 2014 Plans:***<br>Will continue architectural planning, systems engineering, in support of KMI CI-2 Spiral 2 Spin 1. Will continue support testing of DoD KMI CI-2 components as new hardware/software versions are completed. Initiates the transition of existing key management capabilities to KMI. | | | |
| ***Title:*** Air Force KMI "Last Mile" | 8.003 | 1.340 | 1.856 |
| ***Description:*** Air Force KMI Last Mile early system engineering and risk reduction to include: concept development; for distribution, load and management elements of last mile; studies and analyses for technology possibilities and prototyping efforts for the last mile.<br><br>***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675231: *AF Key Management Infrastructure (AF KMI)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continued early system engineering activities and acquisition planning for the KMI LM. Focused on acquisition planning, system engineering, and concept development to support KMI LM system acquisition. Conducted pre-MS B activities to develop and support an acquisition plan spotlighting cost, performance, and schedule.<br>***FY 2013 Plans:***<br>Continuing acquisition planning and system engineering to mature the proposed system concepts to meet the CDD requirements and complete MS B documentation in preparation for system development.<br>***FY 2014 Plans:***<br>Will continue acquisition planning and system engineering to mature the proposed system concepts to meet the CDD requirements and complete MS B documentation in preparation for system development. | | | |
| ***Title:*** Program Management Administration<br>***Description:*** Includes non-personal services to support organizational activities; decision making; management, program, technical, and financial management; and, administration activities for lifecycle acquisition. Outputs may take the form of: documented information; advice; opinions; alternatives; evaluations; recommendations; analytical assessments to understand and/or evaluate complex issues; and training (i.e.; Advisory and Assistance Service; Specialized Cost Services; and Federally Funded Research and Development Centers).<br>***FY 2012 Accomplishments:***<br>Provided program management and engineering support to all the Information Systems Security Program (ISSP) program efforts listed above.<br>***FY 2013 Plans:***<br>Providing program management and engineering support to all the ISSP program efforts listed above.<br>***FY 2014 Plans:***<br>Will provide program management and engineering support to all the ISSP program efforts listed above. | 3.537 | 3.621 | 3.703 |
| **Accomplishments/Planned Programs Subtotals** | 15.808 | 10.342 | 10.551 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: 831010: *COMSEC Equipment* | 6.926 | 8.591 | 11.606 | | 11.606 | 14.585 | 11.042 | 12.194 | 12.414 | Continuing | Continuing |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675231: *AF Key Management Infrastructure (AF KMI)* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

Remarks: Other Program Funding reflects AFKMI portion of ISSP OPAF total.

**D. Acquisition Strategy**

All major contracts within this project are open to full and open competition with technology knowledge, expertise, and prior experience on similar projects weighted heavily in the evaluation process.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675231: *AF Key Management Infrastructure (AF KMI)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Systems Engineering | SS/T&M | MITRE:San Antonio, TX | - | 0.515 | Oct 2011 | 0.526 | Apr 2013 | 0.587 | Oct 2013 | - | | 0.587 | Continuing | Continuing | |
| Operational Capability Engineering Direct Mission Support | C/CPFF | Jacobs Engineering:San Antonio, TX | - | 0.208 | Jan 2012 | 0.213 | Apr 2013 | 0.234 | Jan 2014 | - | | 0.234 | Continuing | Continuing | TBD |
| AF KMI Last Mile | C/Various | Various:Various, | - | 9.428 | Jan 2012 | 3.814 | Jul 2013 | 3.863 | Jan 2014 | - | | 3.863 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 10.151 | | 4.553 | | 4.684 | | 0.000 | | 4.684 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering & Technical Documentation | SS/T&M | MITRE:San Antonio, TX | - | 1.416 | Oct 2011 | 1.447 | Apr 2013 | 1.447 | Oct 2013 | - | | 1.447 | Continuing | Continuing | |
| Engineering & Technical Acquisition Support Service | C/CPFF | Jacobs Engineering:San Antonio, TX | - | 0.372 | Jan 2012 | 0.382 | Apr 2013 | 0.382 | Jan 2014 | - | | 0.382 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.788 | | 1.829 | | 1.829 | | 0.000 | | 1.829 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| KMI Transition Support | C/CPFF | Jacobs Engineering:San Antonio, TX | - | 0.332 | Feb 2012 | 0.339 | Apr 2013 | 0.335 | Feb 2014 | - | | 0.335 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.332 | | 0.339 | | 0.335 | | 0.000 | | 0.335 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675231: *AF Key Management Infrastructure (AF KMI)* | |

**Management Services ($ in Millions)**

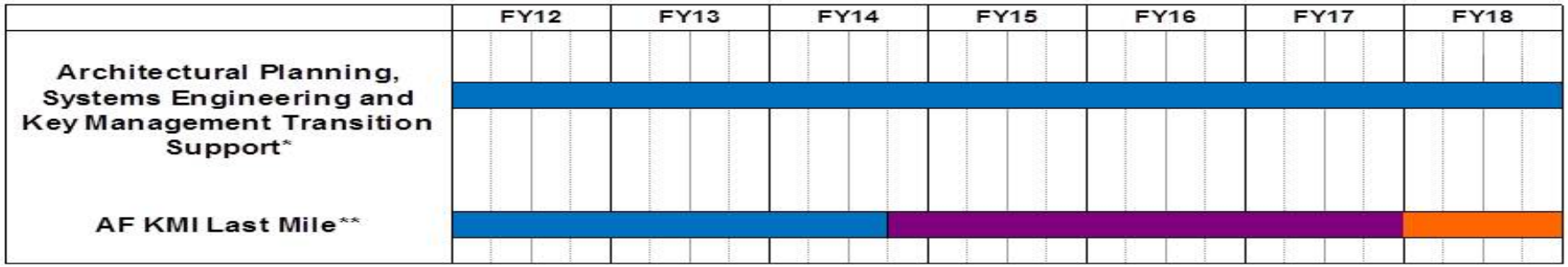
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) | C/T&M | P.E. Systems:San Antonio, TX | - | 3.537 | Jan 2012 | 3.621 | Apr 2013 | 3.703 | Jan 2014 | - | | 3.703 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 3.537 | | 3.621 | | 3.703 | | 0.000 | | 3.703 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 15.808 | | 10.342 | | 10.551 | | 0.000 | | 10.551 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>675231: *AF Key Management Infrastructure (AF KMI)* |

# AF KMI Schedule




* Represents the AF planning and migration from EKMS to KMI. AF support is required to accomplish the transition of EKMS Tier 0/1 to KMI: LMD/KP to MGC/AKP and Core Nodes.

** Represents the AF planning, modernization, and procurement of AF KMI systems not replaced by the DoD KMI transition. The new KMI infrastructure creates gaps in existing key management systems supporting over-the-network keying and KMI aware/enabled systems.

Concept activities | Design / development | Production / fielding

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303140F: *Information Systems Security Program* | **PROJECT**<br>675231: *AF Key Management Infrastructure (AF KMI)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Architectural Planning, System Engineering and Key Management Transition Support | 1 | 2012 | 4 | 2018 |
| AF KMI Last Mile | 1 | 2012 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>677820: *Computer Security RDTE: Firestarter* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 677820: *Computer Security RDTE: Firestarter* | - | 5.781 | 5.672 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2014, Project 677820, Computer Security Firestarter efforts were transferred to PE 0208088F.

**A. Mission Description and Budget Item Justification**

The Firestarter program provides technical transition opportunities for research in the area of Information Assurance (IA) technologies and tools needed to defend Air Force (AF) Command, Control, Communications, Computer, and Intelligence (C4I) systems from Information Warfare (IW) attacks, and ensure recovery in the event of an attack. The emphasis of the program is directed toward defensive cyber operations; computer and network systems security; damage assessment and recovery; cyber threat recognition, attribution, and mitigation; and active response methodologies in response to evolving threats and changes to cyber environment. These areas of emphasis are realized through research and development in the areas of: cyberspace surveillance; cyber indications and warning (CI&W); high-speed and host-based network intrusion detection; fusion and correlation of cyber intelligence; decision support; recovery; digital forensics; active response, etc. Current Air Force systems, such as the Combat Information Transport System/Base Information Protection (CITS/BIP) leverage this technology to meet their information assurance needs/requirements. Additionally, this program utilizes IA and cyber technology investments by the Defense Advanced Research Projects Agency (DARPA), the National Security Agency (NSA), Director of National Intelligence (DNI), Intelligence Advanced Research Projects Activity (IARPA), and the Department of Homeland Security (DHS) to jump-start its development of solutions to existing Air Force IA and cyber requirements.

This program coordinates and cooperates with 24th AF (AF component to Cyber Command (CYBERCOM)), Joint Task Force - Global Network Operation (JTF-GNO), Strategic Command (STRATCOM), Defense Information Systems Agency (DISA), National Security Agency (NSA) and other services to ensure Global Information Grid (GIG) IA requirements are being met. Activities performed include those designed to identify, analyze, test, rapidly acquire, and integrate emerging IA and cyber technology into all regions of the GIG - terrestrial, airborne, and space systems. Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program is in Budget Activity 7, Operational System Development, these budget activities include development efforts to upgrade systems currently fielded or has approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Cyber Forensic Tools & Methodologies | 1.305 | 1.459 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>677820: *Computer Security RDTE: Firestarter* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Cyber forensic tools & methodologies. Includes: Initial metrics for reliable info assurance; secure coalition IA data management, collaboration and visualization; analysis of cyber security bots.<br><br>***FY 2012 Accomplishments:***<br>Developed methods and technologies to enhance "real time" cyber network forensic analysis.<br><br>***FY 2013 Plans:***<br>Continuing the development of methods and technologies to enhance "real time" cyber network forensic analysis.<br><br>***FY 2014 Plans:***<br>N/A | | | |
| ***Title:*** Cyber Threat Recognition<br><br>***Description:*** Cyber Threat Recognition. Includes: extended effort for info assurance metrics; integrated airborne network security IO platform<br><br>***FY 2012 Accomplishments:***<br>Enhanced IO platform technology to identify zero-day threats in real time.<br><br>***FY 2013 Plans:***<br>Developing non-signature based detection methods for discovery of malicious network activity.<br><br>***FY 2014 Plans:***<br>N/A | 1.452 | 1.357 | 0.000 |
| ***Title:*** Cyber Threat Attribution & Mitigation<br><br>***Description:*** Cyber Threat Attribution and Mitigation. Includes: risk mitigation techniques for wireless networks and systems; active response, dynamic policy enforcement and computer/net attack attribution efforts.<br><br>***FY 2012 Accomplishments:***<br>Enhanced and transition data mining and analysis technologies to attribute low and slow computer network attacks, occurring over time, to specific adversaries.<br><br>***FY 2013 Plans:***<br>Will continue development of technologies to detect and attribute distributed computer network attacks, over time and distance, to specific adversaries.<br><br>***FY 2014 Plans:*** | 1.645 | 1.462 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303140F: *Information Systems Security Program* | **PROJECT**<br>677820: *Computer Security RDTE: Firestarter* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| N/A | | | |
| ***Title:*** Transition of IA Technology<br>***Description:*** Transition DARPA/DTO/IARPA/DHS information assurance (IA) technology into AF Information Protection, Detection, & Response architecture. Includes: space systems IA solutions; terrestrial net defense technology development; airborne IP network IA tools; IA/cyber modeling & sim; secure interoperable distributed agent computing.<br>***FY 2012 Accomplishments:***<br>Continued enhancing and transitioning customer funded IA technology to operational USAF components in accordance with rapid requirements documentation provided by Air Force Space Command (AFSPC).<br>***FY 2013 Plans:***<br>Will continue enhancing and transitioning customer funded IA technology to operational USAF components in accordance with rapid requirements documentation provided by AFSPC.<br>***FY 2014 Plans:***<br>N/A | 0.979 | 0.994 | 0.000 |
| ***Title:*** Program Management Administration<br>***Description:*** Program management support, to include FFRDC support, travel and laboratory infrastructure.<br>***FY 2012 Accomplishments:***<br>Provided program management support, to include FFRDC support, travel and laboratory infrastructure.<br>***FY 2013 Plans:***<br>Providing program management support, to include FFRDC support, travel and laboratory infrastructure.<br>***FY 2014 Plans:***<br>N/A | 0.400 | 0.400 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 5.781 | 5.672 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>677820: *Computer Security RDTE: Firestarter* |

**D. Acquisition Strategy**

All major contracts within this project are awarded after full and open competition utilizing evolutionary capability and incremental development.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>677820: *Computer Security RDTE: Firestarter* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FFRDC (MITRE) | C/CPFF | Various:Various, | - | 2.200 | Jan 2012 | 0.706 | Jan 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Multiple Contractors | C/CPFF | Various:Various, | - | 1.296 | Jan 2012 | 3.390 | Jan 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Multiple Universities | C/CPFF | Various:Various, | - | 1.885 | Jan 2012 | 1.176 | Jan 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 5.381 | | 5.272 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

Multiple contractors & multiple universities reflect on-going efforts with over a dozen contractors & universities. Each has a different contract date depending on when that particular contract was awarded.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Mangement Administration | C/CPFF | Various:, | - | 0.400 | Jan 2012 | 0.400 | Jan 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.400 | | 0.400 | | 0.000 | | 0.000 | | 0.000 | | | |

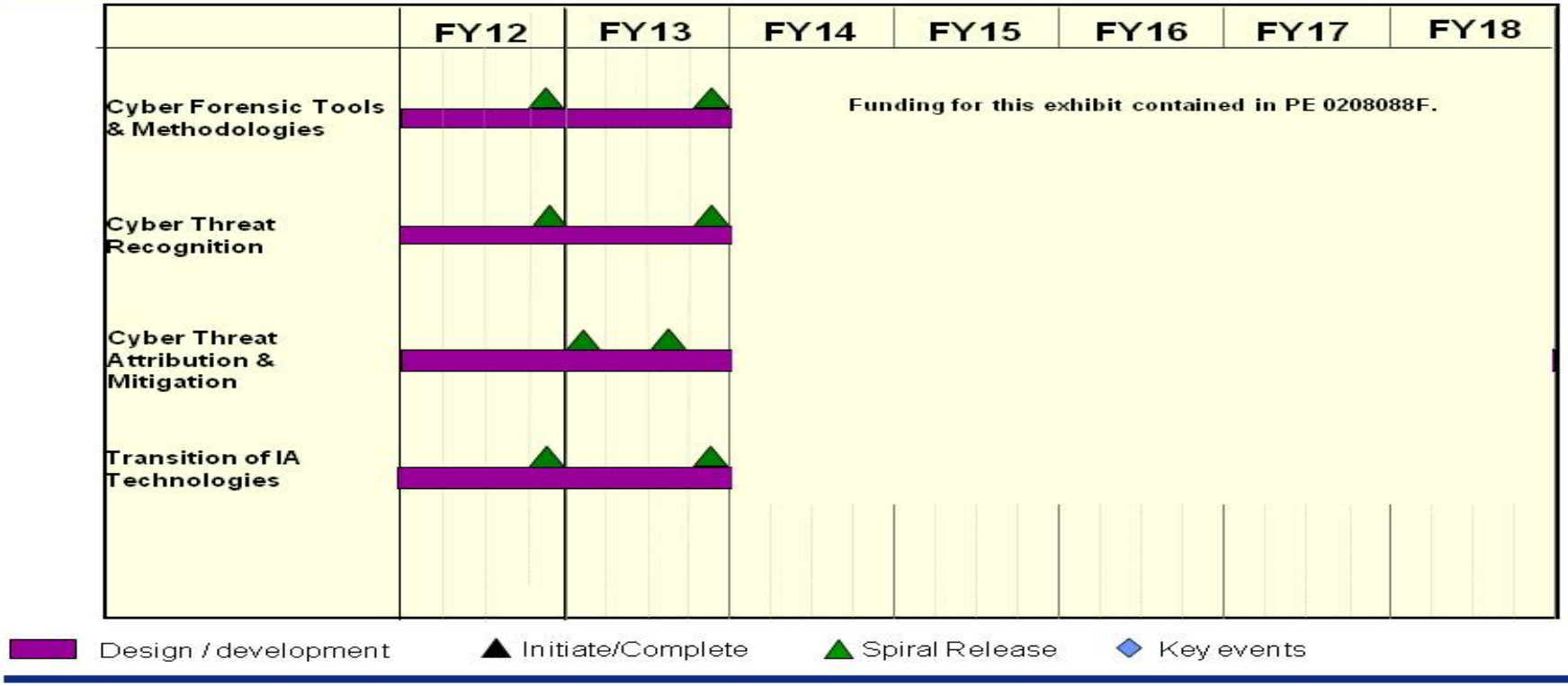
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>677820: *Computer Security RDTE: Firestarter* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 5.781 | | 5.672 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303140F: *Information Systems Security Program* | PROJECT<br>677820: *Computer Security RDTE: Firestarter* |

# PE 0303140F Project 677820: Firestarter Program Schedule




1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303140F: *Information Systems Security Program* | **PROJECT**<br>677820: *Computer Security RDTE: Firestarter* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Cyber forensic tools and methodologies | 1 | 2012 | 4 | 2013 |
| Cyber Threat Recognition | 1 | 2012 | 4 | 2013 |
| Cyber Threat Attribution and Mitigation | 1 | 2012 | 4 | 2013 |
| Transition of IA technologies | 1 | 2012 | 4 | 2013 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0303141F: *Global Combat Support System* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.435 | 6.512 | 0.725 | - | 0.725 | 0.700 | 0.270 | 0.002 | 0.002 | Continuing | Continuing |
| 675046: *Systems Engineering & Integration* | - | 0.435 | 6.512 | 0.725 | - | 0.725 | 0.700 | 0.270 | 0.002 | 0.002 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

**A. Mission Description and Budget Item Justification**

Global Combat Support System-Air Force (GCSS-AF) provides the warfighter and supporting elements with timely, accurate, and trusted Agile Combat Support (ACS) information. This information will have the appropriate level of security needed for the Air Expeditionary Forces (AEF) to execute the Air Force mission throughout the full spectrum of military operations. The GCSS-AF program modernizes, consolidates, develops, and integrates Air Force and Department of Defense combat support information systems.

The modernized system is being developed in compliance with and hosted on the Net-Centric Enterprise Services (NCES), DISA's solution to connect people and systems that have information (data and services) with those who need information, replacing the DII COE. The modernized system is implemented and sustained worldwide and supports both wartime and peacetime requirements using hardware, software, and communications capabilities available from standard open systems government contracts and communications infrastructure programs.

In this manner, GCSS-AF avoids added costs, removes business processing inefficiencies, reduces deployment footprint, and improves the speed with which information flows. GCSS-AF also supports the Global Force Management - Data Initiative (GFM-DI) as a hosted application within its common infrastructure.

Activities also include: Studies and analysis to support both current program planning and execution and future program planning and continued test and evaluation critical to avoid technical obsolescence of this critical infrastructure. Development of an automated risk management tool to mitigate increased cyber threats to Air Force Information Technologies and provide an automated risk management tool that integrates assessment and analysis from an enterprise level, address increased threat to Air Force data, and revamp stove-piped responses to attacks, including associated testing and evaluation as well as potential engineering of COTS-based solutions. Other development activities for Platform as a Service (PAAS) and Software as a Service (SAAS) are directly aligned with GCSS-AF's service oriented framework and the movement of infrastructure and services to a Cloud Computer Environment (CCE).

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303141F: *Global Combat Support System* |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.449 | 6.512 | 0.930 | - | 0.930 |
| Current President's Budget | 0.435 | 6.512 | 0.725 | - | 0.725 |
| Total Adjustments | -0.014 | 0.000 | -0.205 | - | -0.205 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.014 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -0.205 | - | -0.205 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Consume Authoritative Force Structure | 0.435 | 0.000 | 0.000 |
| ***Description:*** Progressive modification of GCSS-AF (and its supported systems) to consume authoritative force structure from GFM DI Org Servers, linking the identifiers to or replacing current identifiers and, as applicable, exposing the data in a net-centric fashion. This effort may include associated testing and evaluation as well as potential engineering of COTS-based solutions.<br><br>***FY 2012 Accomplishments:***<br>Modified GCSS-AF and its supported systems to consume authoritative force structure from GFM DI Org Servers, linking the identifiers to or replacing current identifiers and, as applicable, exposing the data in a net-centric fashion. This effort may have included associated testing and evaluation as well as potential engineering of COTS-based solutions.<br><br>***FY 2013 Plans:***<br>N/A<br><br>***FY 2014 Plans:***<br>N/A | | | |
| ***Title:*** Develop Enterprise Protection Risk Management (EPRM) | 0.000 | 1.512 | 0.725 |
| ***Description:*** Develop an automated risk management tool to mitigate increased cyber threats to Air Force Information Technologies.<br><br>***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303141F: *Global Combat Support System* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| N/A<br>***FY 2013 Plans:***<br>Progressively modifies GCSS-AF (and its supported systems) to provide an automated risk management tool that integrates assessment and analysis from an enterprise level, address increased threat to Air Force data, and revamp stove-piped responses to attacks. The EPRM further provides information security and assurances measures to mitigate unauthorized removal of information from the network. This effort may include associated testing and evaluation as well as potential engineering of COTS-based solutions.<br>***FY 2014 Plans:***<br>Will continue to progressively modify GCSS-AF (and its supported systems) to provide an automated risk management tool that integrates assessment and analysis from an enterprise level, address increased threat to Air Force data, and revamp stove-piped responses to attacks. The EPRM will further provide information security and assurances measures to mitigate unauthorized removal of information from the network. This effort may include associated testing and evaluation as well as potential engineering of COTS-based solutions. | | | |
| ***Title:*** Cloud Computing Environment (CCE)<br>***Description:*** Studies and Analysis, Engineering and Development to implement a CCE to support the net-centric concepts, expose authoritative data sources, increase agility, and reduce infrastructure costs.<br>***FY 2012 Accomplishments:***<br>N/A<br>***FY 2013 Plans:***<br>Establishes an Architecture Services and Integration Team to formalize organizational and process change with a focus on Architecture and Standards, Managed Services and Enterprise Licenses & Services. These activities will result in the development of the initial, technically-detailed USAF Implementation Baseline and associated platform-specific Profiles and begin the establishment of the Integration Test Lifecycle Capability (ITLC).<br>***FY 2014 Plans:***<br>N/A | 0.000 | 4.500 | 0.000 |
| ***Title:*** Program Management Administration (PMA)<br>***Description:*** PMA funding supports engineering and technical development, and implementation activities, along with acquisition support efforts.<br>***FY 2012 Accomplishments:*** | 0.000 | 0.500 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303141F: *Global Combat Support System* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| N/A<br>***FY 2013 Plans:***<br>Cloud Computing Environment PMA funding supports acquisition support services, travel, supplies and equipment, and other requirements.<br>***FY 2014 Plans:***<br>N/A | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.435 | 6.512 | 0.725 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA07: Line Item # 834330: *GCSS-AF Fos* | 1.393 | 4.736 | 3.038 | | 3.038 | 1.346 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

Place task orders against the fourth quarter FY11 awarded, $791,000,000 maximum, firm-price-incentive-fee, firm-fixed-price, cost-plus-fixed-fee, cost-reimbursable contract to provide a set of over 70 reusable, common services to Air Force combat support automated information systems based on integration of COTS, free and open source software, and government-off-the-shelf software components. ESC/HIIK, Maxwell Air Force Base, Alabama is the contracting activity (FA8771-11-D-1006) and Lockheed Martin Corp., King of Prussia, Pennsylvania is the prime contractor.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303141F: *Global Combat Support System* | PROJECT<br>675046: *Systems Engineering & Integration* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Modify GCSS-AF to better support GFM-DI Org Servers | C/FPIF | TBD:TBD, | - | 0.435 | Mar 2013 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.435 | 0.449 |
| Develop Enterprise Protection Risk Management (EPRM) | C/FFP | TBD:TBD, | - | 0.000 | | 1.512 | May 2013 | 0.725 | Jan 2014 | - | | 0.725 | Continuing | Continuing | TBD |
| Develop Cloud Computing Environment | C/Various | TBD:TBD, | - | 0.000 | | 4.500 | Jul 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.435 | | 6.012 | | 0.725 | | 0.000 | | 0.725 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) | Various | VARIOUS:VARIOUS, | - | 0.000 | | 0.500 | Apr 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.500 | | 0.000 | | 0.000 | | 0.000 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303141F: *Global Combat Support System* | PROJECT<br>675046: *Systems Engineering & Integration* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.435 | | 6.512 | | 0.725 | | 0.000 | | 0.725 | | | |

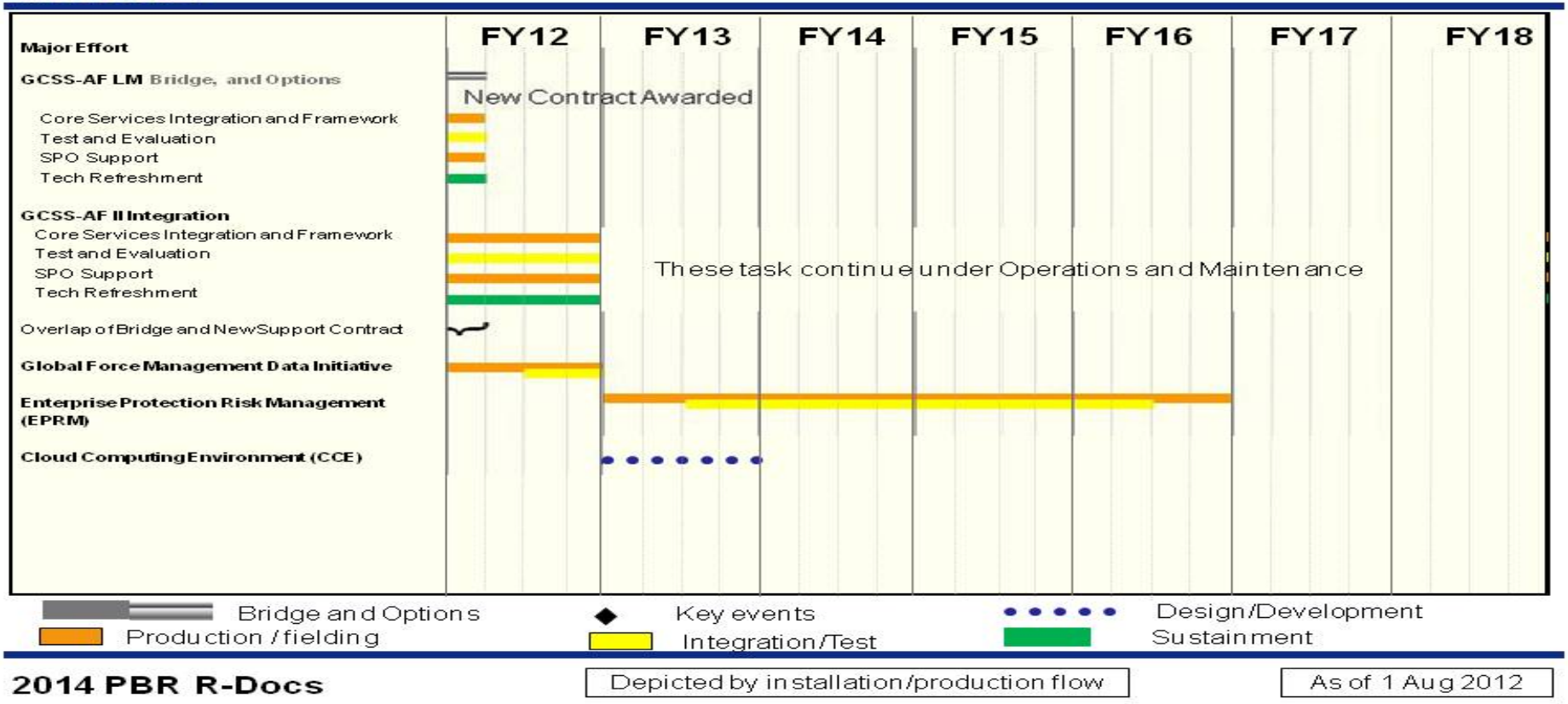
**Remarks**

None.

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303141F: *Global Combat Support System* | PROJECT<br>675046: *Systems Engineering & Integration* |

U.S. AIR FORCE

# Global Combat Support System – Air Force



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303141F: *Global Combat Support System* | PROJECT<br>675046: *Systems Engineering & Integration* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| GCSS-AF/Lockheed Martin, Bridge, and Option(s) | 1 | 2012 | 1 | 2012 |
| Core Services Integration and Framework I | 1 | 2012 | 1 | 2012 |
| Test and Evaluation I | 1 | 2012 | 1 | 2012 |
| SPO Support I | 1 | 2012 | 1 | 2012 |
| Tech Refreshment I | 1 | 2012 | 1 | 2012 |
| GCSS-AF II Integration | 1 | 2012 | 4 | 2012 |
| Core Services Integration and Framework II | 1 | 2012 | 4 | 2012 |
| Test and Evaluation II | 1 | 2012 | 4 | 2012 |
| SPO Support II | 1 | 2012 | 4 | 2012 |
| Tech Refreshment II | 1 | 2012 | 4 | 2012 |
| Overlap of Bridge Options and New Contract | 1 | 2012 | 1 | 2012 |
| Global Force Management Data Initiative | 1 | 2012 | 4 | 2012 |
| Enterprise Protection Risk Management | 1 | 2013 | 4 | 2016 |
| Cloud Computing Environment | 1 | 2013 | 4 | 2013 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0303150F: *Global Command and Control System* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 2.433 | 4.316 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 674667: *Global Command and Control System - AF* | - | 2.433 | 4.316 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2013, 674667, Global Command and Control Systems - Air Force (Infrastructure) will be completed.

**A. Mission Description and Budget Item Justification**

The Global Command and Control System (GCCS) is the Joint Command and Control (C2) System of Record and the designated C2 migration system for the DoD. It is an integrated Command, Control, Communications, Computer, and Intelligence (C4I) system capable of supporting all echelons of the US military command structure. GCCS solves C4I interoperability problems between Service components by establishing a Common Core Operating Environment supporting net-centric objectives. The GCCS-Air Force program provides C2, intelligence, surveillance, reconnaissance (ISR), Cyber, and operational information to the Commander Air Force Forces (COMAFFOR) for planning and execution, air space deconfliction, targeting, weaponeering, and many other applications supporting air operational command and control, and fully supports the Aerospace Expeditionary Force (AEF) concept.

The Air Force is responsible for integration of Air Force unique mission applications with the Common Core Operating Environment. Integration efforts are directed towards future aerospace C2 concepts supporting requirements for the AOC, including ISR, and intended to automate operational systems with an objective of providing the right people with the right information at the right time while reducing the overall footprint of the system. As they migrate to the GCCS Joint (GCCS-J) core environment, GCCS-AF will integrate applications into the WINx environment satisfying warfighter requirements for the Common Operational Picture (COP), Joint Warning and Reporting Network (JWARN), Joint Targeting Toolbox (JTT), Logistics Feasibility Analysis Capability (LOGFAC), Deliberate Crisis Action Planning and Execution Segment (DCAPES) capabilities, and other information assurance mechanisms.

Activities also include studies and analysis to support both current program planning and execution and future program planning. The GCCS-AF program is actively supporting planning for transition of functionality to DOD's emerging next generation joint C2 enabler. The GCCS-AF funding will be used to implement evolving Joint and Air Force GCCS functional capability as well as facilitate transition, development and delivery of functionality to DoD's next generation joint C2 enabler.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303150F: *Global Command and Control System* |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 3.825 | 4.316 | 0.000 | - | 0.000 |
| Current President's Budget | 2.433 | 4.316 | 0.000 | - | 0.000 |
| Total Adjustments | -1.392 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | -1.277 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.115 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

**Change Summary Explanation**

AF FY12-47 IR DOD FY12-25 IR GCCS Realignment of $1.277M from RDT&E to O&M to support program sustainment.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Synchronization, Integration, Test, and Planning | 2.173 | 3.273 | 0.000 |

***Description:*** This effort consists of: synchronization, integration and testing of current/upgraded capabilities; operational baseline problem analysis and technical solution implementation; and systems engineering for infrastructure migration to the next generation joint C2 architecture.

***FY 2012 Accomplishments:***

Provided systems engineering support to GCCS synchronization and migration objective. Conducted GCCS 4.2.x/ joint C2 operational problem analysis and technical solutions implementation. Conducted studies and analysis to develop stronger configuration control and security protection strategies. Strengthened configuration management performance engineering and security protection to strategies to facilitate migration to the DOD?s emerging joint C2 architecture.

***FY 2013 Plans:***

Continues to provide systems engineering support to GCCS synchronization and migration objectives with emerging new joint C2 ( e.g. APEX, JPES). Conducts GCCS 4.2.1 / joint C2 operational problem analysis and technical solutions implementation following joint C2 Objective Architecture. Performs analysis for implementation strategy for transition of baseline systems to new x86 hardware architecture implementations, authentication/authorizations, net-centric core services, and cyber protection

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303150F: *Global Command and Control System* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| mechanisms. FY13 is the final year of development efforts for the program. Future support to sustain the X86 and other services will use Operations and Maintenance funding.<br>***FY 2014 Plans:***<br>No FY 2014 funding. | | | |
| ***Title:*** GCCS support of Global Force Management<br>***Description:*** This effort is to modify GCCS to consume authoritative force structure from GFM DI Org Servers, linking the identifiers to or replacing current identifiers and, as applicable, exposing the data in a net-centric fashion.<br>***FY 2012 Accomplishments:***<br>Per FY12 GFM-DI guidance, modified GCCS to consume authoritative force structure from GFM DI Org Servers, linking the identifiers to or replacing current identifiers and, as applicable, exposing the data in a net-centric fashion.<br>***FY 2013 Plans:***<br>Per FY13 GFM-DI guidance, further modifies GCCS to consume authoritative force structure from GFM DI Org Servers, linking the identifiers to or replacing current identifiers and, as applicable, exposing the data in a net-centric fashion. Future related work to maintain and sustain the GCCS to GFM interfaces will use Operations and Maintenance funding.<br>***FY 2014 Plans:***<br>No FY 2014 funding. | 0.123 | 0.650 | 0.000 |
| ***Title:*** Program Management Administration (PMA)<br>***Description:*** Program Management Administration (PMA) funding supports engineering and technical development, and implementation activities, along with acquisition support efforts.<br>***FY 2012 Accomplishments:***<br>GCCS-AF (I) Program Management Administration (PMA) funding support acquisition support services, supplies and Equipment, etc. The costs are included in the GCCS-AF (I) PMA.<br>***FY 2013 Plans:***<br>GCCS-AF (I) Program Management Administration (PMA) funding support acquisition support services, supplies and Equipment, etc. The costs are included in the GCCS-AF (I) PMA.<br>***FY 2014 Plans:*** | 0.137 | 0.393 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303150F: *Global Command and Control System* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| No FY 2014 funding. | | | |
| **Accomplishments/Planned Programs Subtotals** | 2.433 | 4.316 | 0.000 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA07: Line Item # 834040: *AF Global Command & Control Sys* | 13.906 | 15.829 | 13.559 | | 13.559 | 12.179 | 12.460 | 11.897 | 12.111 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

GCCS-AF is developed and fielded using a spiral acquisition approach, synchronized with Common Operating Environment (COE) and compliant with the GCCS-Joint (GCCS-J) baseline. All deployment of GCCS-AF capabilities are synchronized with the GCCS-J program fielding schedule, which is led by DISA. The GCCS-AF program is actively supporting DOD planning for transition of functionality to DOD's emerging next generation joint C2 enabler.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303150F: *Global Command and Control System* | PROJECT<br>674667: *Global Command and Control System - AF* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Client/Core Upgrade | C/FFP | Northrup Grumman Information Technolohgy:McLean, VA | - | 1.668 | Jul 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 1.668 |
| Client/Core Upgrade Phase 2 | C/TBD | TBD:TBD, | - | 0.000 | | 2.968 | Jul 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | 2.968 |
| | | **Subtotal** | 0.000 | 1.668 | | 2.968 | | 0.000 | | 0.000 | | 0.000 | | | 4.636 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Systems Engineering Support | C/CPAF | Mitre / ESC:Hanscom AFB, MA | - | 0.410 | Nov 2011 | 0.711 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | 1.121 |
| Miscellaneous | Various | Various:Various, | - | 0.118 | | 0.132 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.250 |
| | | **Subtotal** | 0.000 | 0.528 | | 0.843 | | 0.000 | | 0.000 | | 0.000 | | | 1.371 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Test and Accreditation | MIPR | Various:Various, | - | 0.100 | Nov 2011 | 0.112 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.212 |
| | | **Subtotal** | 0.000 | 0.100 | | 0.112 | | 0.000 | | 0.000 | | 0.000 | | | 0.212 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Analysis (PMA) Program | Various | various:, | - | 0.137 | Oct 2011 | 0.393 | Oct 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.530 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303150F: *Global Command and Control System* | PROJECT<br>674667: *Global Command and Control System - AF* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Management Office (PMO) Support | | | | | | | | | | | | | | | |
| **Subtotal** | | | 0.000 | 0.137 | | 0.393 | | 0.000 | | 0.000 | | 0.000 | | | 0.530 |

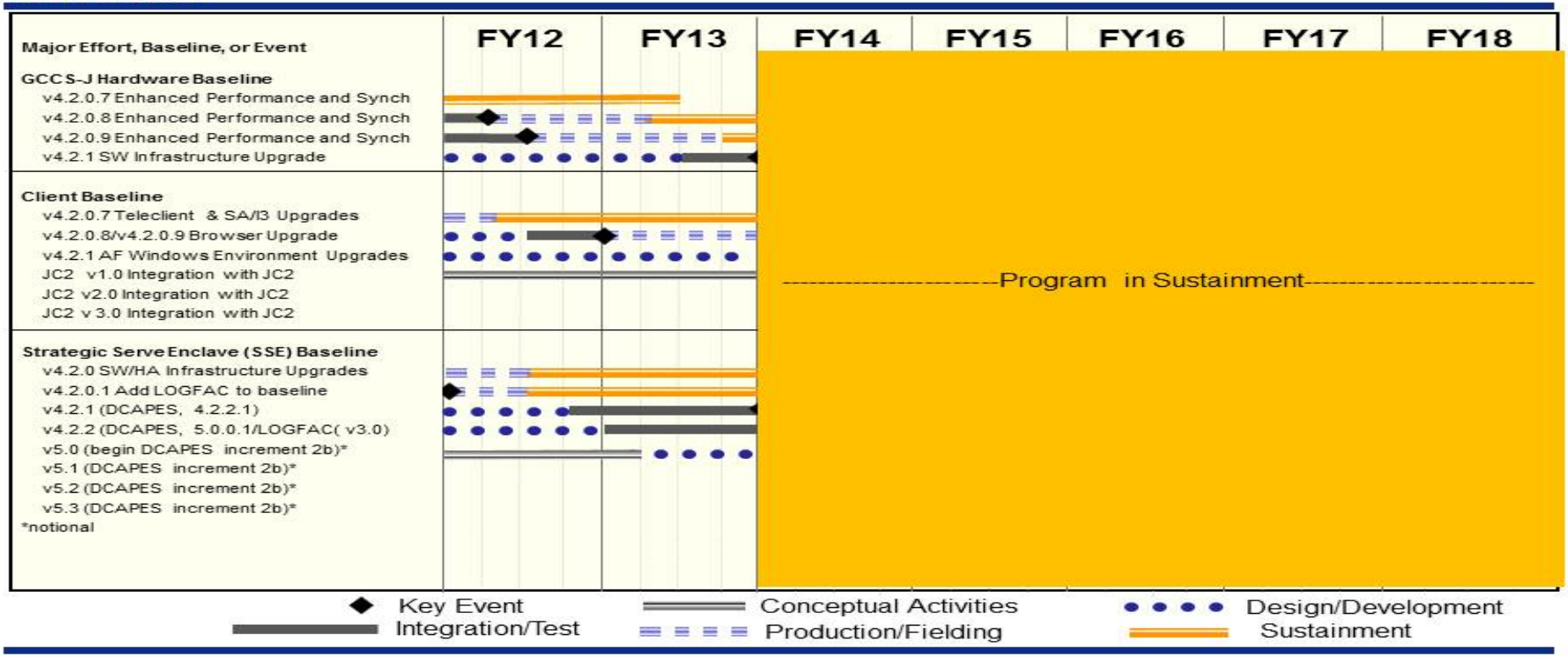
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 2.433 | | 4.316 | | 0.000 | | 0.000 | | 0.000 | | | 6.749 |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303150F: *Global Command and Control System* | PROJECT<br>674667: *Global Command and Control System - AF* |

U.S. AIR FORCE

# Global Command and Control System - Air Force (Infrastructure)




**FY14 PB**

Depicted by installation/production flow

As of 31 Dec 2012

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303150F: *Global Command and Control System* | **PROJECT**<br>674667: *Global Command and Control System - AF* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| --- v4.2.0.8 Enhanced Performance and Synch Integration and Prod | 2 | 2012 | 2 | 2013 |
| --- v4.2.0.9 Enhanced Performance and Synch Integration and Prod | 3 | 2012 | 3 | 2013 |
| ---v4.2.1 SW Infrastructure Upgrade Design and Integration | 1 | 2012 | 4 | 2013 |
| --- v4.2.0.7 Teleclient & SA/I3 Upgrades Fielding | 1 | 2012 | 2 | 2012 |
| --- v4.2.0.8/v4.2.0.9 Browser Upgrade Design, Integrate, Field | 1 | 2012 | 4 | 2013 |
| --- v4.2.1 AF Windows Environment Upgrades Design Develop | 1 | 2012 | 4 | 2013 |
| --- JC2 v1.0 Integration with JC2 Conceptual Activities | 1 | 2012 | 4 | 2013 |
| --- v4.2.0 SW/HA Infrastructure Upgrades Production | 1 | 2012 | 3 | 2012 |
| --- v4.2.0.1 Add LOGFAC to baseline Production | 1 | 2012 | 3 | 2012 |
| --- v4.2.1 (DCAPES, 4.2.2.1) Design and Integration | 1 | 2012 | 4 | 2013 |
| --- v4.2.2 (DCAPES, v5.0.0.1/LOGFAC, v3.0) Design and Integration | 1 | 2012 | 4 | 2013 |
| --- v5.0 (begins DCAPES, Increment 2b) Concept and Design | 1 | 2012 | 4 | 2013 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | 1,841.726 | 235.769 | 107.237 | 140.170 | - | 140.170 | 55.897 | 3.979 | 0.000 | 0.000 | Continuing | Continuing |
| 672487: *MILSATCOM Terminals* | 1,841.726 | 193.769 | 107.237 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 672489: *FAB-T Alternative* | 0.000 | 42.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 672490: *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)* | 0.000 | 0.000 | 0.000 | 140.170 | - | 140.170 | 55.897 | 3.979 | 0.000 | 0.000 | Continuing | Continuing |
| **MDAP/MAIS Code(s):** 199 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

FY12 Congressional Add funding of $42M for FAB-T Alternative is executed from project 672489 within this program element. FY13 funding for FAB-T continues in project 672487 within this program element. FY14 funding for FAB-T continues in project 672490 within this program element.

**A. Mission Description and Budget Item Justification**

The Military Satellite Communications (MILSATCOM) terminals program develops and fields equipment enabling users to communicate via legacy and future systems to include Milstar, Advanced Extremely High Frequency (AEHF), Ultra High Frequency (UHF) Follow-On (UFO), Wideband Global SATCOM (WGS), Defense Satellite Communication System (DSCS), Enhanced Polar Systems (EPS), and other military and commercial satellites, to support tactical Air and Space Expeditionary Force requirements and maintain essential connectivity for strategic forces. Program RDT&E currently includes the following program efforts:

1) Concept development work to identify commercial/military technology solutions to improve MILSATCOM terminal capabilities for the warfighters. Focus includes, but is not limited to, increasing throughput, facilitating sustainability, reducing footprint on existing user platform and future concept terminals to provide more resilient and/or higher data rate satellite communications to warfighters.

2) The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) program replaces legacy Milstar terminals and will provide Extremely High Frequency (EHF), protected high data rate communication for nuclear and conventional forces to include Presidential National Voice Conferencing (PNVC). FAB-T will provide this new, highly secure, state-of-the-art capability to strategic and tactical airborne and ground command posts via Milstar, AEHF, and Enhanced Polar System (EPS) satellites. FAB-T terminals will also support the critical command and control (C2) of the Milstar, AEHF, and EPS satellite constellations. In FY14, the Air Force will continue development of the FAB-T terminal.

3) The Joint Terminal Engineering Office (JTEO) provides tri-service coordination of terminal development, acquisition and fielding activities.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | DATE: April 2013 |
|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | | |
| **B. Program Change Summary ($ in Millions)** | **FY 2012** | **FY 2013** | **FY 2014 Base** | **FY 2014 OCO** | **FY 2014 Total** |
| Previous President's Budget | 236.581 | 107.237 | 157.787 | - | 157.787 |
| Current President's Budget | 235.769 | 107.237 | 140.170 | - | 140.170 |
| Total Adjustments | -0.812 | 0.000 | -17.617 | - | -17.617 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | -0.812 | 0.000 | -17.617 | - | -17.617 |

**Change Summary Explanation**

FY14 Other Adjustments: -$17.617M for higher department priorities

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672487: *MILSATCOM Terminals* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 672487: *MILSATCOM Terminals* | 1,841.726 | 193.769 | 107.237 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Military Satellite Communications (MILSATCOM) terminals program develops and fields equipment enabling users to communicate via legacy and future systems to include Milstar, Advanced Extremely High Frequency (AEHF), Ultra High Frequency (UHF) Follow-On (UFO), Wideband Global SATCOM (WGS), Defense Satellite Communication System (DSCS), Enhanced Polar Systems (EPS), and other military and commercial satellites, to support tactical Air and Space Expeditionary Force requirements and maintain essential connectivity for strategic forces. Program RDT&E currently includes the following program efforts:

1) Concept development work to identify commercial/military technology solutions to improve MILSATCOM terminal capabilities for the warfighters. Focus includes, but is not limited to, increasing throughput, facilitating sustainability, reducing footprint on existing user platform and future concept terminals to provide more resilient and/or higher data rate satellite communications to warfighters.

2) The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) program replaces legacy Milstar terminals and will provide Extremely High Frequency (EHF), protected high data rate communication for nuclear and conventional forces to include Presidential National Voice Conferencing (PNVC). FAB-T will provide this new, highly secure, state-of-the-art capability to strategic and tactical airborne and ground command posts via Milstar, AEHF, and Enhanced Polar System (EPS) satellites. FAB-T terminals will also support the critical command and control (C2) of the Milstar, AEHF, and EPS satellite constellations. In FY14, the Air Force will continue development of the FAB-T terminal.

3) The Joint Terminal Engineering Office (JTEO) provides tri-service coordination of terminal development, acquisition and fielding activities.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** FAB-T Boeing Development | 184.616 | 79.723 | 0.000 |
| ***Description:*** Develop FAB-T command post and airborne wideband terminals. | | | |
| ***FY 2012 Accomplishments:***<br>Continued software development, integration and testing for the FAB-T terminals and converted Boeing development contract to Firm Fixed-Price | | | |
| ***FY 2013 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672487: *MILSATCOM Terminals* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continue software development; will begin Flight Testing and Functional Qualificational Testing for FAB-T. | | | |
| ***Title:*** FAB-T Raytheon Development<br>***Description:*** Develop FAB-T command post terminals.<br>***FY 2013 Plans:***<br>Raytheon will continue development and accomplish Preliminary and Critical Design Review | 0.000 | 18.000 | 0.000 |
| ***Title:*** MILSATCOM Terminals<br>***Description:*** Conduct concept development, prototype demonstrations and maintain the MILSATCOM Terminal roadmap. Support the JTEO.<br>***FY 2012 Accomplishments:***<br>1. Continued concept development/prototype demonstrations/MILSATCOM terminal roadmap.<br>2. Continued support for the JTEO.<br>***FY 2013 Plans:***<br>1. Continue concept development/prototype demonstrations/MILSATCOM terminal roadmap.<br>2. Continue support for the JTEO. Continue program support and other related activities | 9.153 | 9.514 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 193.769 | 107.237 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05, OTHACF: *Other Aircraft* | 3.791 | 4.580 | 1.920 | | 1.920 | 37.939 | 27.773 | 12.904 | 13.136 | Continuing | Continuing |
| • OPAF: BA03, 836780: *MILSATCOM Space* | 36.229 | 47.333 | 105.674 | | 105.674 | 108.005 | 259.947 | 239.457 | 243.875 | Continuing | Continuing |
| • OPAF: BA05, 86190A: *Spares and Repair Parts* | 0.000 | 0.000 | 0.000 | | 0.000 | 12.220 | 45.820 | 48.880 | 49.760 | Continuing | Continuing |

**Remarks**

NOTE: Related RDT&E costs for MILSATCOM satellite systems to which terminal development is linked can be found in RDT&E Budget Item Justification Sheets.

OPAF funds in FY14-18 shown here are for all MILSATCOM Terminals to include FAB-T.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672487: *MILSATCOM Terminals* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|

The APAF BA05 (OTHACF) line includes spares funding from BP16

**D. Acquisition Strategy**

In FY12, the FAB-T program restructured to introduce competition into the acquisition strategy in order to reduce risk in delivering this capability as well as to drive down production costs. To ensure the best value to the government, the Air Force will award a production readiness planning contract to both contractors (Boeing and Raytheon) in the 3Q of FY13. The Air Force will then downselect and award a production contract to one vendor in 1Q FY14.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672487: *MILSATCOM Terminals* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FAB-T Development (Boeing) | C/FFP | Boeing Corp:Huntington Beach, CA | 1,654.536 | 152.671 | Apr 2012 | 57.624 | Oct 2012 | 0.000 | | - | | 0.000 | 0.000 | 1,864.831 | |
| FAB-T Development (Raytheon) | C/FFP | Raytheon:Marlborough, MA | 0.000 | 0.000 | | 18.000 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 18.000 | |
| FAB-T INC 2 | C/CPFF | Boeing/ Northrop:Seattle/ Melbourne, WA | 54.206 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 54.206 | |
| (1) High Data Rate (HDR) RF Ground Terminal Development | C/FFP | Comtech:Tempe, AZ | 5.993 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 5.993 | |
| (2) High Data Rate (HDR) RF Ground Terminal Development | C/FFP | Raytheon:Marlborough, MA | 6.365 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 6.365 | |
| (3) High Data Rate (HDR) RF Ground Terminals Development | C/FFP | L3 Comm:Hauppauge, NY | 1.767 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 1.767 | |
| (4) High Data Rate (HDR) RF Ground Terminals Development | SS/CPFF | MITRE:Bedford, MA | 3.305 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 3.305 | |
| High Data Rate (HDR) RF Air Terminal Development (merged with FAB-T beginning in FY06) | C/CPAF | Boeing Corp:Huntington Beach, CA | 13.787 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 13.787 | |
| Lasercom Terminal Development Studies | C/CPFF | Northrop-Raytheon-MITRE-MIT/ LL:Various, | 30.395 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 30.395 | |
| Global Broadcast Service (GBS) | C/CPFF | Booz Allen-Windmill:McLeans, VA | 3.882 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 3.882 | |
| (1) High Data Rate Airborne Terminal (HDRAT) AFSPC AoA | C/FP | LinQuest:Colorado Springs, CO | 2.000 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 2.000 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672487: *MILSATCOM Terminals* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (2) High Data Rate Airborne Terminal (HDRAT) Development | SS/CPFF | MITRE:Bedford, MA | 5.421 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 5.421 | |
| Teminals Development MIT Lincoln Lab | SS/CPFF | MIT/LL:Bedford, MA | 7.100 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 7.100 | |
| JTEO Development | C/CPFF | Booz Allen Hamilton:McLeans, VA | 5.716 | 4.443 | Dec 2011 | 4.569 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 14.728 | |
| | | **Subtotal** | 1,794.473 | 157.114 | | 80.193 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 2,031.780 | |

**Remarks**

FY12 funding of $42M for FAB-T Alternate Source will be executed from project 672489 within this program element.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MILSATCOM Terminals System Integration | Various | Various:Various, | 14.592 | 13.704 | Jan 2012 | 5.520 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 33.816 | |
| | | **Subtotal** | 14.592 | 13.704 | | 5.520 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 33.816 | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MILSATCOM Terminals T&E | Various | AF Research Lab, AFOTEC, Various:, | 14.237 | 10.017 | Jan 2012 | 8.202 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 32.456 | |
| | | **Subtotal** | 14.237 | 10.017 | | 8.202 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 32.456 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672487: *MILSATCOM Terminals* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Systems Engineering Support | SS/CPAF | MITRE:Bedford, MA | 11.416 | 9.024 | Dec 2011 | 9.295 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 29.735 | |
| ETASS (Engineering & Technology Acq Spt Services), (PMA) | C/CPFF | Jacobs:Lincoln, MA | 3.402 | 1.661 | Dec 2011 | 1.711 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 6.774 | |
| PASS (Professional Acq Spt Services), (PMA) | C/CPAF | Oasis:Lexington, MA | 3.606 | 2.249 | Dec 2011 | 2.316 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 8.171 | |
| | | **Subtotal** | 18.424 | 12.934 | | 13.322 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 44.680 | |

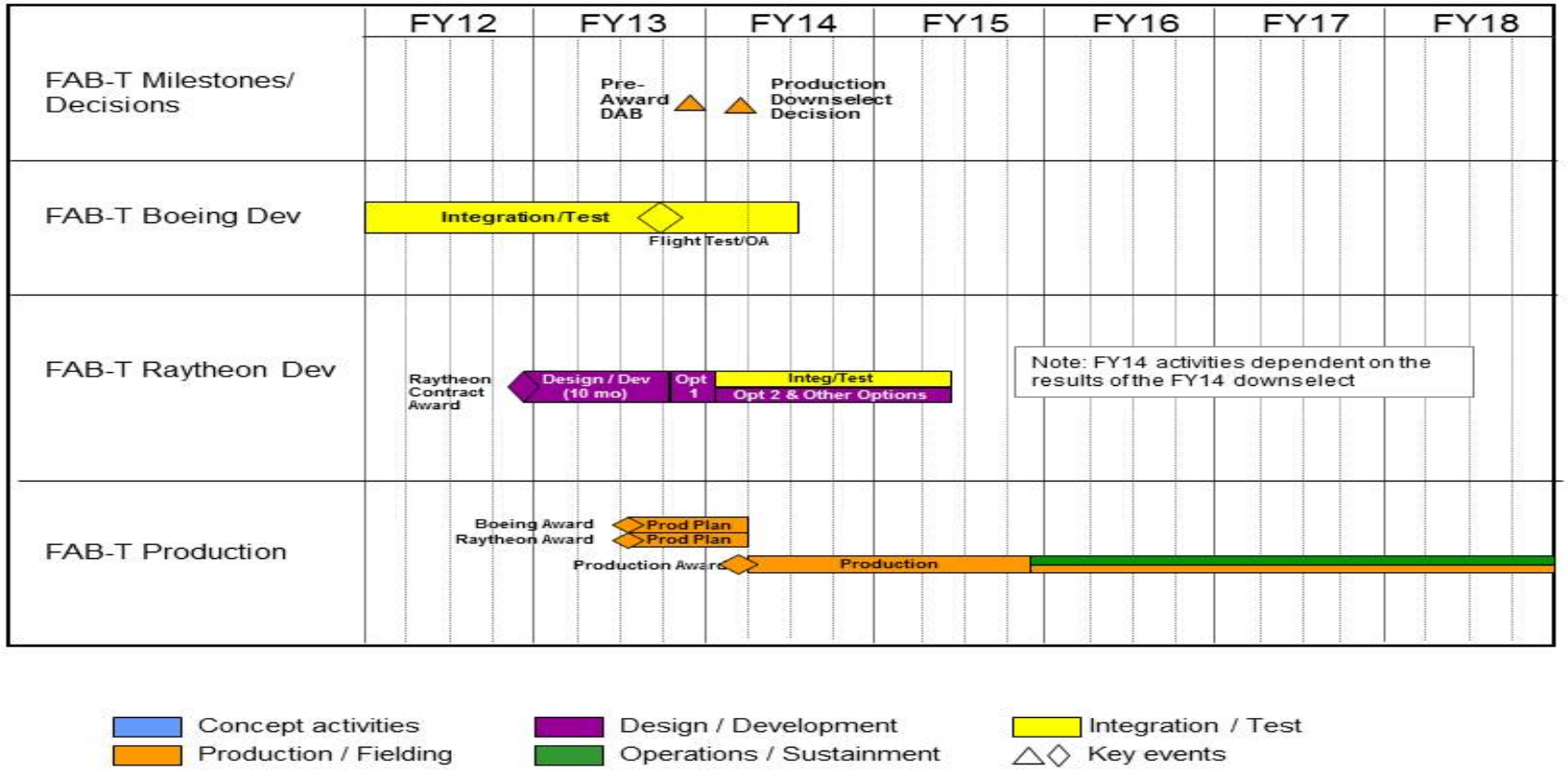
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 1,841.726 | 193.769 | | 107.237 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 2,142.732 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672487: *MILSATCOM Terminals* |

# MILSATCOM Terminals Schedule Rdoc

BPAC: 672487



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303601F: *MILSATCOM Terminals* | **PROJECT**<br>672487: *MILSATCOM Terminals* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| FAB-T Raytheon Development Contract | 4 | 2012 | 2 | 2015 |
| FAB-T Pre-Award Defense Acquisition Board (DAB) | 4 | 2013 | 4 | 2013 |
| Boeing and Raytheon Production Planning Contract | 3 | 2013 | 1 | 2014 |
| FAB-T Production Downselect Decision | 1 | 2014 | 1 | 2014 |
| FAB-T Production Contract | 1 | 2014 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672489: *FAB-T Alternative* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 672489: *FAB-T Alternative* | 0.000 | 42.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) program replaces legacy Milstar terminals and will provide Extremely High Frequency (EHF), protected high data rate communication for nuclear and conventional forces to include Presidential National Voice Conferencing (PNVC). FAB-T will provide this new, highly secure, state-of-the-art capability to strategic and tactical airborne and ground command posts via Milstar, AEHF, and Enhanced Polar System (EPS) satellites. FAB-T terminals will also support the critical command and control (C2) of the Milstar, AEHF, and EPS satellite constellations. In FY14, the Air Force will continue development of the FAB-T terminal

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** FAB-T Raytheon Development | 42.000 | 0.000 | 0.000 |
| ***Description:*** Develop FAB-T command post terminals.<br><br>***FY 2012 Accomplishments:***<br>Congressional add for alternate source (Raytheon) to bring competition to the FAB-T program. | | | |
| **Accomplishments/Planned Programs Subtotals** | 42.000 | 0.000 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

In FY12, the FAB-T program restructured to introduce competition into the acquisition strategy in order to reduce risk in delivering this capability as well as to drive down production costs. To ensure the best value to the government, the Air Force will award a production readiness planning contract to both contractors (Boeing and Raytheon) in the 3Q of FY13. The Air Force will then downselect and award a production contract to one vendor in 1Q FY14.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672489: *FAB-T Alternative* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FAB-T Raytheon Development | C/FFP | Raytheon:Marlborough, MA | 0.000 | 42.000 | Sep 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 42.000 | 0.000 |
| | | **Subtotal** | 0.000 | 42.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 42.000 | 0.000 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

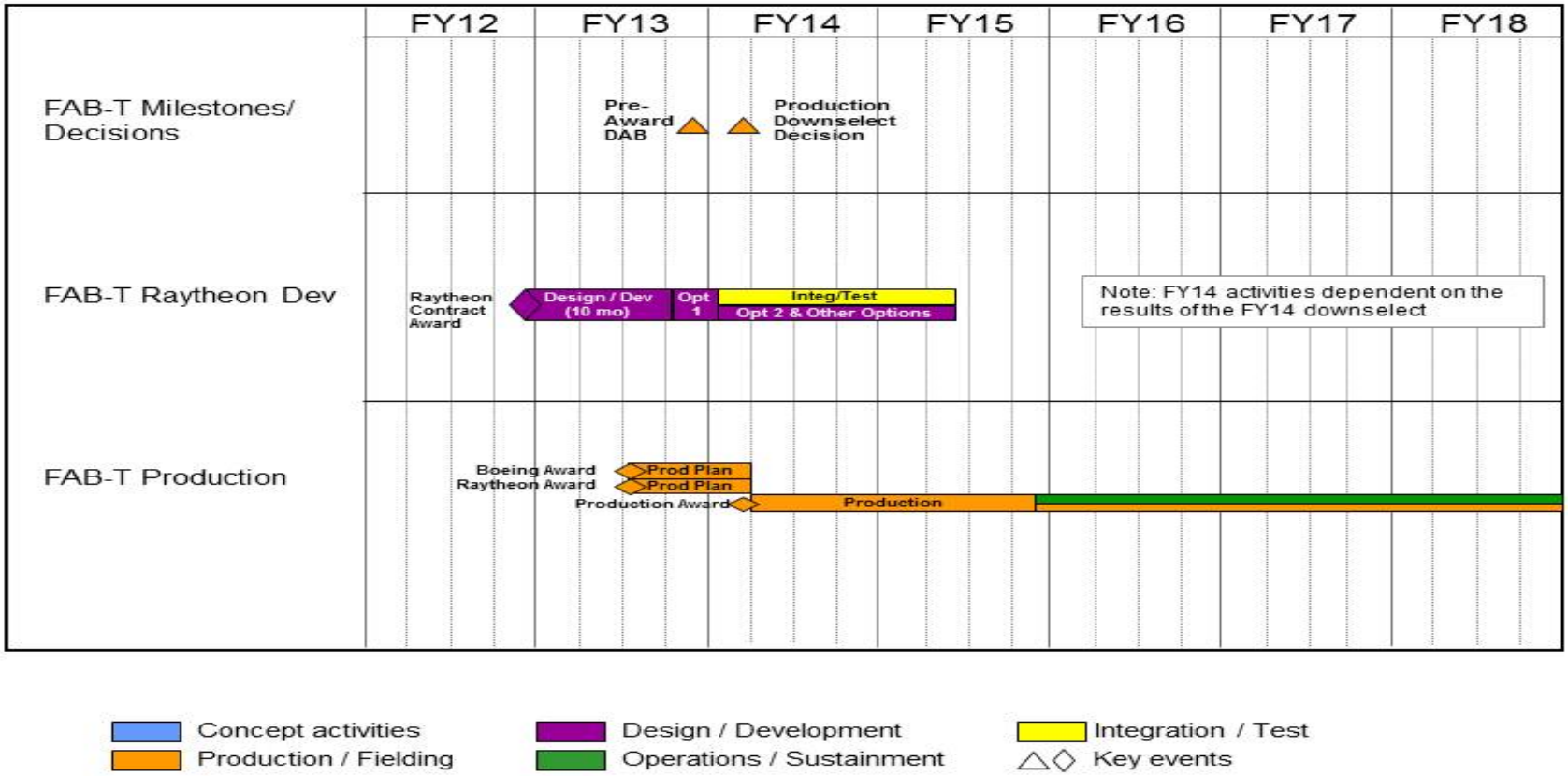
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 42.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 42.000 | 0.000 |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672489: *FAB-T Alternative* |

# MILSATCOM Terminals Schedule Rdoc

BPAC: 672489



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672489: *FAB-T Alternative* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| FAB-T Raytheon Development Contract | 4 | 2012 | 2 | 2015 |
| FAB-T Pre-Award DAB | 4 | 2013 | 4 | 2013 |
| Boeing and Raytheon Production Planning Contract | 3 | 2013 | 4 | 2014 |
| FAB-T Production Downselect Decision | 1 | 2014 | 1 | 2014 |
| FAB-T Production Contract | 1 | 2014 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672490: *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 672490: *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)* | 0.000 | 0.000 | 0.000 | 140.170 | - | 140.170 | 55.897 | 3.979 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

This project was funded prior to FY14 in project 672487 and 672489 within this program.

**A. Mission Description and Budget Item Justification**

The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) program replaces legacy Milstar terminals and will provide Extremely High Frequency (EHF), protected high data rate communication for nuclear and conventional forces to include Presidential National Voice Conferencing (PNVC). FAB-T will provide this new, highly secure, state-of-the-art capability to strategic and tactical airborne and ground command posts via Milstar, AEHF, and Enhanced Polar System (EPS) satellites. FAB-T terminals will also support the critical command and control (C2) of the Milstar, AEHF, and EPS satellite constellations. In FY14, the Air Force will continue development of the FAB-T terminal

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** FAB-T Development | 0.000 | 0.000 | 140.170 |
| ***Description:*** The FAB-T program will provide EHF voice and data MILSATCOM for nuclear and conventional forces as well as airborne and ground command posts with connectivity to Milstar, AEHF, and EPS satellites.<br><br>***FY 2014 Plans:***<br>Continue development of FAB-T Terminal. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 0.000 | 140.170 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05, OTHACF: *Other Aircraft* | 0.000 | 0.000 | 1.920 | | 1.920 | 37.939 | 27.773 | 12.904 | 13.136 | 0.000 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672490: *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03, 836780: *MILSATCOM Space* | 0.000 | 0.000 | 73.000 | | 73.000 | 69.865 | 226.013 | 205.000 | 208.910 | 0.000 | 0.000 |
| • OPAF: BA05, 86190A: *Spares and Repair Parts* | 0.000 | 0.000 | 0.000 | | 0.000 | 12.220 | 45.820 | 48.880 | 49.760 | 0.000 | 156.680 |

**Remarks**

Other program funding listed in FY14-18 is only for the FAB-T program

The APAF BA05 (OTHACF) line includes spares funding from BP16

**D. Acquisition Strategy**

In FY12, the FAB-T program restructured to introduce competition into the acquisition strategy in order to reduce risk in delivering this capability as well as to drive down production costs. To ensure the best value to the government, the Air Force will award a production readiness planning contract to both contractors (Boeing and Raytheon) in the 3Q of FY13. The Air Force will then downselect and award a production contract to one vendor in 1Q FY14.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672490: *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FAB-T Development | C/FFP | TBD:TBD, | 0.000 | 0.000 | | 0.000 | | 116.511 | Jan 2014 | - | | 116.511 | 59.876 | 176.387 | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 116.511 | | 0.000 | | 116.511 | 59.876 | 176.387 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MITRE DMS | SS/CPAF | MITRE:Bedford, MA | 0.000 | 0.000 | | 0.000 | | 4.774 | Jan 2014 | - | | 4.774 | 0.000 | 4.774 | |
| Crypto Support | MIPR | NSA:TBD, MD | 0.000 | 0.000 | | 0.000 | | 1.391 | Jan 2014 | - | | 1.391 | 0.000 | 1.391 | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 6.165 | | 0.000 | | 6.165 | 0.000 | 6.165 | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Government Test & RTO Support | TBD | TBD:TBD, | 0.000 | 0.000 | | 0.000 | | 1.550 | Jan 2014 | - | | 1.550 | 0.000 | 1.550 | |
| Developmental Test Support | SS/CPAF | MIT/LL:Bedford, MA | 0.000 | 0.000 | | 0.000 | | 7.500 | Jan 2014 | - | | 7.500 | 0.000 | 7.500 | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 9.050 | | 0.000 | | 9.050 | 0.000 | 9.050 | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Systems Engineering Support | SS/CPAF | MITRE:Bedford, MA | 0.000 | 0.000 | | 0.000 | | 2.387 | Jan 2014 | - | | 2.387 | 0.000 | 2.387 | |
| ETASS (Engineering & Technology Acq Spt Services) (PMA) | C/CPFF | Jacobs:Lincoln, MA | 0.000 | 0.000 | | 0.000 | | 1.596 | Jan 2014 | - | | 1.596 | 0.000 | 1.596 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672490: *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PASS (Professional Acq Spt Services) (PMA) | C/CPAF | Oasis:Lexington, MA | 0.000 | 0.000 | | 0.000 | | 1.914 | Jan 2014 | - | | 1.914 | 0.000 | 1.914 | |
| SCS (Specialized Cost Services) (PMA) | C/CPAF | Tecolote:Bedford, MA | 0.000 | 0.000 | | 0.000 | | 0.347 | Jan 2014 | - | | 0.347 | 0.000 | 0.347 | |
| SPO Cost & Indirect (PMA) | TBD | Not specified.:, | 0.000 | 0.000 | | 0.000 | | 2.200 | Jan 2014 | - | | 2.200 | 0.000 | 2.200 | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 8.444 | | 0.000 | | 8.444 | 0.000 | 8.444 | |

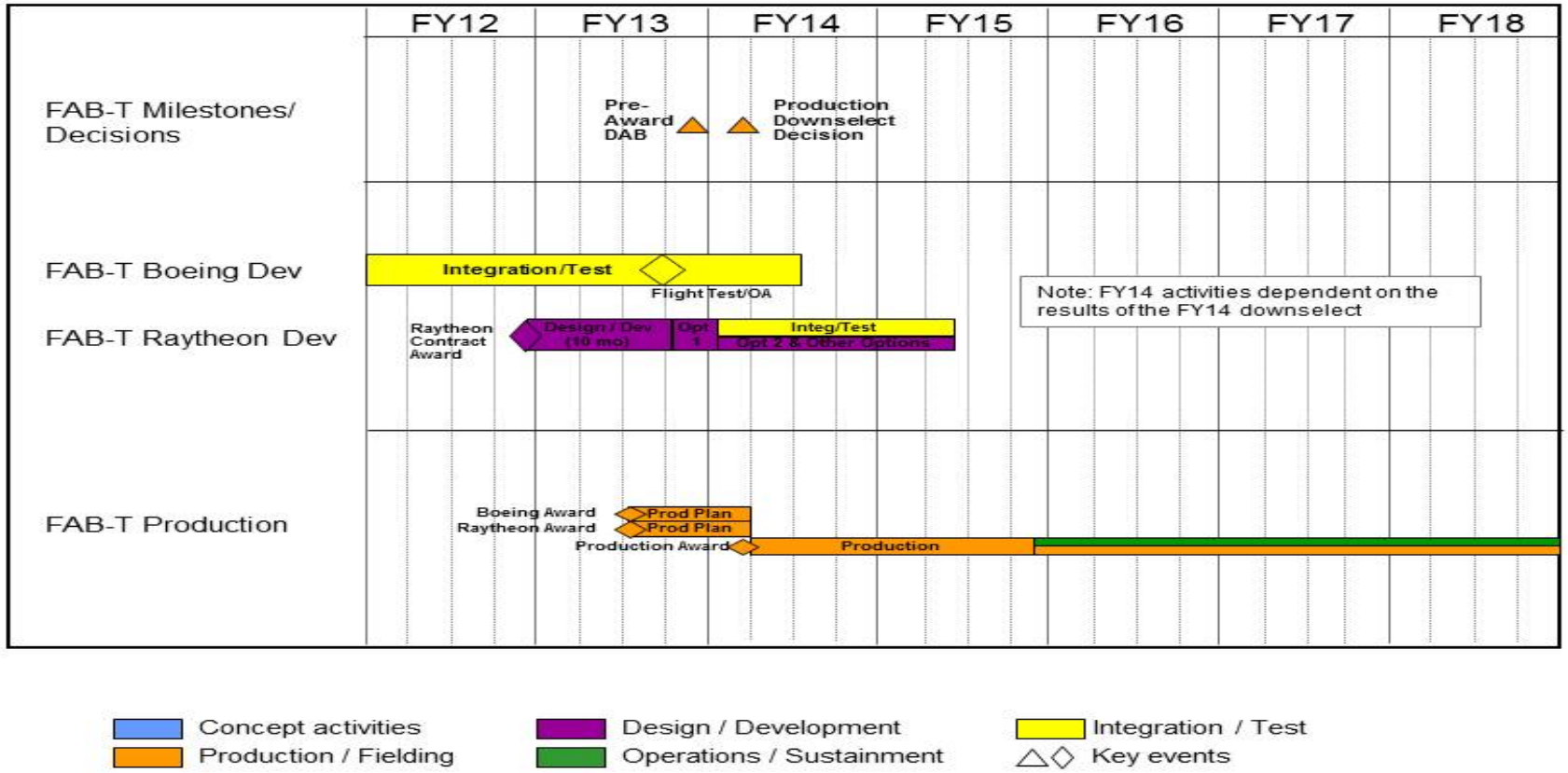
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 0.000 | | 140.170 | | 0.000 | | 140.170 | 59.876 | 200.046 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303601F: *MILSATCOM Terminals* | PROJECT<br>672490: *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)* |

# MILSATCOM Terminals Schedule Rdoc

BPAC: 672490



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303601F: *MILSATCOM Terminals* | **PROJECT**<br>672490: *Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| FAB-T Raytheon Development Contract | 4 | 2012 | 2 | 2015 |
| FAB-T Pre-Award DAB | 4 | 2013 | 4 | 2013 |
| Boeing and Raytheon Production Planning Contract | 3 | 2013 | 4 | 2014 |
| FAB-T Production Downselect Decision | 1 | 2014 | 1 | 2014 |
| FAB-T Production Contract | 1 | 2014 | 4 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 108.313 | 129.106 | 117.110 | - | 117.110 | 136.119 | 136.339 | 133.703 | 136.109 | Continuing | Continuing |
| 675180: *RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)* | - | 34.809 | 40.160 | 32.331 | - | 32.331 | 13.185 | 35.243 | 36.810 | 37.472 | Continuing | Continuing |
| 675181: *High Altitude SIGINT Development - High Altitude* | - | 0.000 | 0.000 | 4.066 | - | 4.066 | 6.004 | 7.177 | 7.271 | 7.402 | Continuing | Continuing |
| 675182: *Medium Altitude SIGINT Development - Medium Altitude* | - | 25.874 | 35.340 | 19.818 | - | 19.818 | 28.354 | 27.561 | 33.198 | 33.795 | Continuing | Continuing |
| 675183: *Common Development (Airborne SIGINT Development - Common Development)* | - | 38.855 | 45.403 | 53.544 | - | 53.544 | 80.739 | 46.722 | 36.218 | 36.870 | Continuing | Continuing |
| 675184: *RQ-4 (Airborne SIGINT Development - Global Hawk* | - | 2.108 | 0.998 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 675185: *Compass Bright (Airborne SIGINT Development - Compass Bright)* | - | 6.169 | 6.324 | 7.351 | - | 7.351 | 7.837 | 7.865 | 8.115 | 8.261 | Continuing | Continuing |
| 675186: *Special Programs (Airborne SIGINT Development - Special Platforms)* | - | 0.498 | 0.881 | 0.000 | - | 0.000 | 0.000 | 11.771 | 12.091 | 12.309 | Continuing | Continuing |
| **MDAP/MAIS Code(s):** 375 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2014, 675184, RQ-4, efforts were transferred to 675181, High Altitude SIGINT, in order to provide visibility into all activities for both manned and unmanned high altitude platforms.

**A. Mission Description and Budget Item Justification**

(U) This PE provides signals intelligence (SIGINT) development efforts for all USAF airborne platforms. The funds in this PE are distributed among all Airborne SIGINT Enterprise (ASE) projects based on the development priorities established by the USAF SIGINT Capabilities Working Group (SCWG) in order to build a total SIGINT

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* |

capability. As a result, the USAF will move funds between projects periodically to develop the highest priority projects in response to urgent warfighter needs. This PE will participate in the development, integration, testing, and implementation of international and Air Force standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability. Modernization efforts include sensors for the platforms and their appropriate interfaces with the Air Force Distributed Common Ground System (AF DCGS). This approach will allow a synergistic development effort to be accomplished while developing a true Air Force-wide capability.

(U) This enterprise will use the Air Force Cryptologic Architecture (AFCA) for planning and decision-making and, in turn, employ open architecture standards whenever possible to allow maximum ease of future upgrades and system interoperability. The primary goal of the ASE is to produce an architecture-based, capability-focused SIGINT investment strategy for the USAF. Funds in any project may be used to fund initiatives in other projects within this PE at the discretion of the SCWG. Funds in any project can also cover activities to include studies and analysis to support both current program planning and execution and future program planning.

(U) This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 108.313 | 129.106 | 127.986 | - | 127.986 |
| Current President's Budget | 108.313 | 129.106 | 117.110 | - | 117.110 |
| Total Adjustments | 0.000 | 0.000 | -10.876 | - | -10.876 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -10.876 | - | -10.876 |

**Change Summary Explanation**

Reduction of $10.876M in FY14 due to higher AF priorities

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675180: *RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675180: *RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)* | - | 34.809 | 40.160 | 32.331 | - | 32.331 | 13.185 | 35.243 | 36.810 | 37.472 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

PMA costs for the RC-135 project are paid for in the Manned Reconaissance PE, 0305207F.

**A. Mission Description and Budget Item Justification**

(U) This project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the integration and modification of the RC-135 SIGINT sensors and their associated air and ground components. Through extensive utilization of commercial-off-the-shelf (COTS)-based solutions to fielding of needed capabilities, it also incurs the need for continuous diminishing manufacturing sources integration efforts consistent with the COTS technology cycle. These efforts provide the required engineering for preliminary assessments of technical feasibility, operability, or military utility as well as specific engineering implementations integrated into the various baseline modifications. These funds will be split between the RIVET JOINT, COMBAT SENT, and COBRA BALL programs. Funding reflects the SIGINT Capabilities Working Group (SCWG) priorities and the accomplishment of other ASE initiatives.

(U) This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** SIGINT Development | 34.809 | 40.160 | 32.331 |
| ***Description:*** Non-Recurring Engineering (NRE) for the RC-135 SIGINT Systems. See Classified Budget Exhibits (PE 0305207F) | | | |
| ***FY 2012 Accomplishments:***<br>Continued SIGINT development efforts for the RC-135 fleet including new signal development. | | | |
| ***FY 2013 Plans:***<br>Continue SIGINT development efforts for the RC-135 fleet to include new signal sets and upgrades to current capabilities. | | | |
| ***FY 2014 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675180: *RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Will continue SIGINT development efforts for the RC-135 fleet to include new signal sets and upgrades to current capabilities. | | | |
| **Accomplishments/Planned Programs Subtotals** | 34.809 | 40.160 | 32.331 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # DARP01: *RC-135* | 162.211 | 165.237 | 171.813 | | 171.813 | 174.256 | 177.641 | 180.887 | 184.143 | Continuing | Continuing |

**Remarks**

(U) The funds within the PE 0305207F procure all necessary aircraft modifications for the RC-135 program and include those funds necessary to field SIGINT capabilities developed under Project 675180 of this Airborne SIGINT Enterprise. Not all Procurement funds in PE 0305207F are for ASE SIGINT projects.

**D. Acquisition Strategy**

(U) Aircraft, aircraft sensor systems, and associated ground support system modifications planned include the procurement, fielding and logistical support for future RIVET JOINT, COMBAT SENT and COBRA BALL baseline configurations. Development and integration is managed by the Big Safari Systems Group. They employ evolutionary acquisition approaches to field incremental capability improvements.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675180: *RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SIGINT Sensor Development and Integration | SS/ Various | L3COM:Greenville, TX | - | 34.809 | Jan 2012 | 40.160 | Jan 2013 | 32.331 | Jan 2014 | - | | 32.331 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 34.809 | | 40.160 | | 32.331 | | 0.000 | | 32.331 | | | |

**Remarks**

Above contract method/type will be CPFF and FFP

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

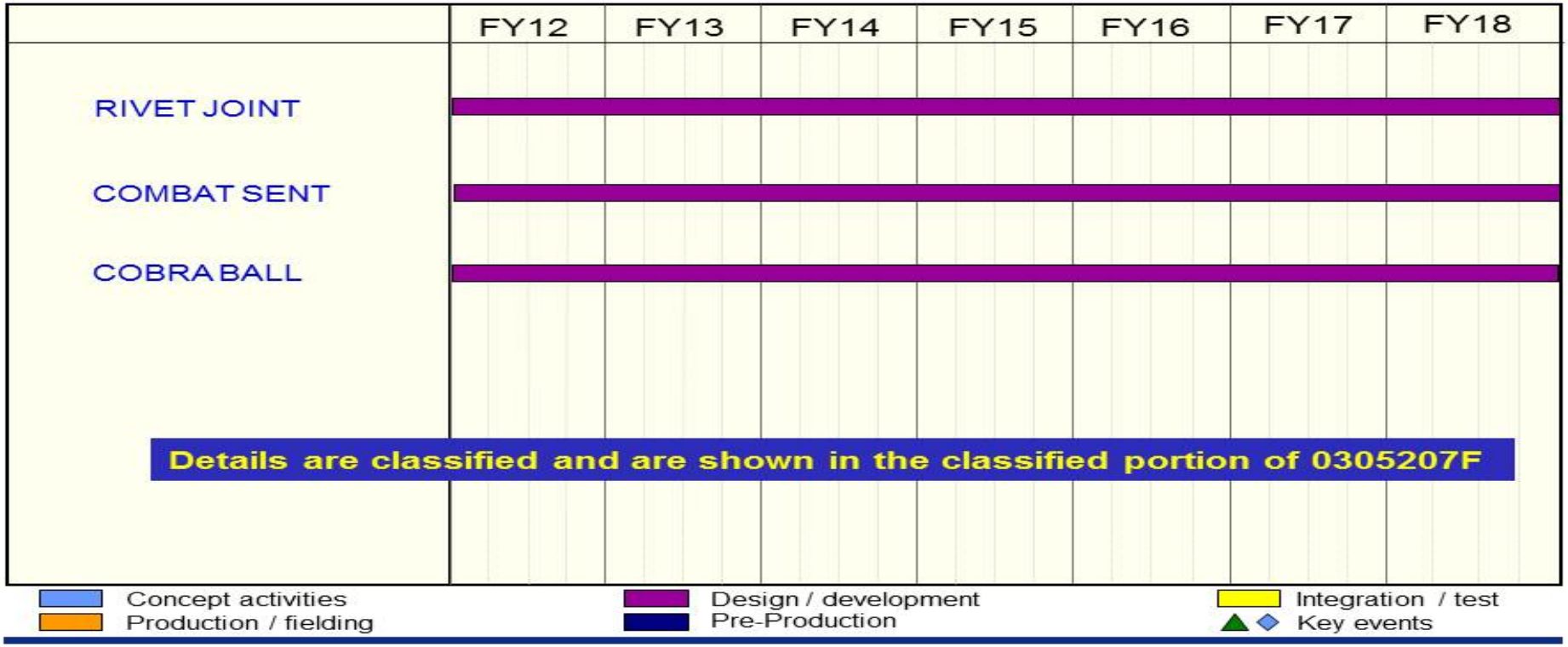
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 34.809 | | 40.160 | | 32.331 | | 0.000 | | 32.331 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675180: *RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)* |

U.S. AIR FORCE

# ASE RC-135 Development Efforts




*Integrity - Service - Excellence*

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| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0304260F: *Airborne SIGINT Enterprise* | **PROJECT**<br>675180: *RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Development of RIVET JOINT mission sensors | 1 | 2012 | 4 | 2018 |
| Development of COMBAT SENT mission sensors | 1 | 2012 | 4 | 2018 |
| Development of COBRA BALL mission sensors | 1 | 2012 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675181: *High Altitude SIGINT Development - High Altitude* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675181: *High Altitude SIGINT Development - High Altitude* | - | 0.000 | 0.000 | 4.066 | - | 4.066 | 6.004 | 7.177 | 7.271 | 7.402 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2014, 675181, High Altitude SIGINT, efforts were transferred from 675184, RQ-4, in order to provide visibility into all activities for both manned and unmanned high altitude platforms.

**A. Mission Description and Budget Item Justification**

(U) This project will cover the costs of SIGINT integration for high altitude ISR begining in FY14.

(U) This project supports sensor integration and test, flight test, design studies, engineering analysis, non-recurring engineering and other efforts associated with the insertion of new capabilities integrated into the ASIP or other SIGINT sensors and their associated air and ground components for the High Altitude SIGINT platforms. Also identifies suitable replacements for components affected by diminishing manufacturing sources. This project provides the warfighter with a near-term, increased combat capability. Enhancements are implemented as soon as technology and risk achieve satisfactory levels. Capability improvements will be inserted into the sensors through individual development efforts that exploit signals of interest identified as service priorities by the Air Force SIGINT Capabilities Working Group. Funding includes completion of developmental logistics tasks associated with the design, development, and integration of ASIP and the ASIP Depot standup; to include all 12 Product Support Elements. Additional requirements include the Logistics Support Analysis (LSA) Taskings which consists of design and development of support equipment, technical orders, training courses/aids/devices, and shipping containers common to High Altitude platforms.

(U) This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** High Altitude SIGINT | 0.000 | 0.000 | 3.666 |
| ***Description:*** Integration and test of SIGINT sensors into high altitude platforms. | | | |
| ***FY 2012 Accomplishments:***<br>FY 2012 efforts described in project 675184, RQ-4. | | | |
| ***FY 2013 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675181: *High Altitude SIGINT Development - High Altitude* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| FY 2013 efforts described in project 675184, RQ-4.<br>***FY 2014 Plans:***<br>Will continue logistics efforts and development of new signals capabilities and enhancements of SIGINT sensors as necessary. | | | |
| ***Title:*** Program Management Activity<br>***Description:*** Providing management services to support the development and fielding of high altitude SIGINT capabilities.<br>***FY 2012 Accomplishments:***<br>N/A<br>***FY 2013 Plans:***<br>N/A<br>***FY 2014 Plans:***<br>Will provide management services to support the development and fielding of high altitude SIGINT capabilities. | 0.000 | 0.000 | 0.400 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 0.000 | 4.066 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # 11U200: *U-2 Mods* | 0.000 | 0.000 | 45.591 | | 45.591 | 61.120 | 20.233 | 43.900 | 52.835 | Continuing | Continuing |

**Remarks**

Above APAF includes both production and mods. Not all funds are associated with SIGINT.

**D. Acquisition Strategy**

(U) SIGINT capabilities will be integrated into these platforms using an evolutionary approach.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675181: *High Altitude SIGINT Development - High Altitude* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SIGINT Sensors Development | SS/ Various | Northrop Grumman:San Jose, CA | - | 0.000 | | 0.000 | | 3.666 | Jan 2014 | - | | 3.666 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 3.666 | | 0.000 | | 3.666 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | Various | TBD:Dayton, OH | - | 0.000 | | 0.000 | | 0.400 | Jan 2014 | - | | 0.400 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.400 | | 0.000 | | 0.400 | | | |

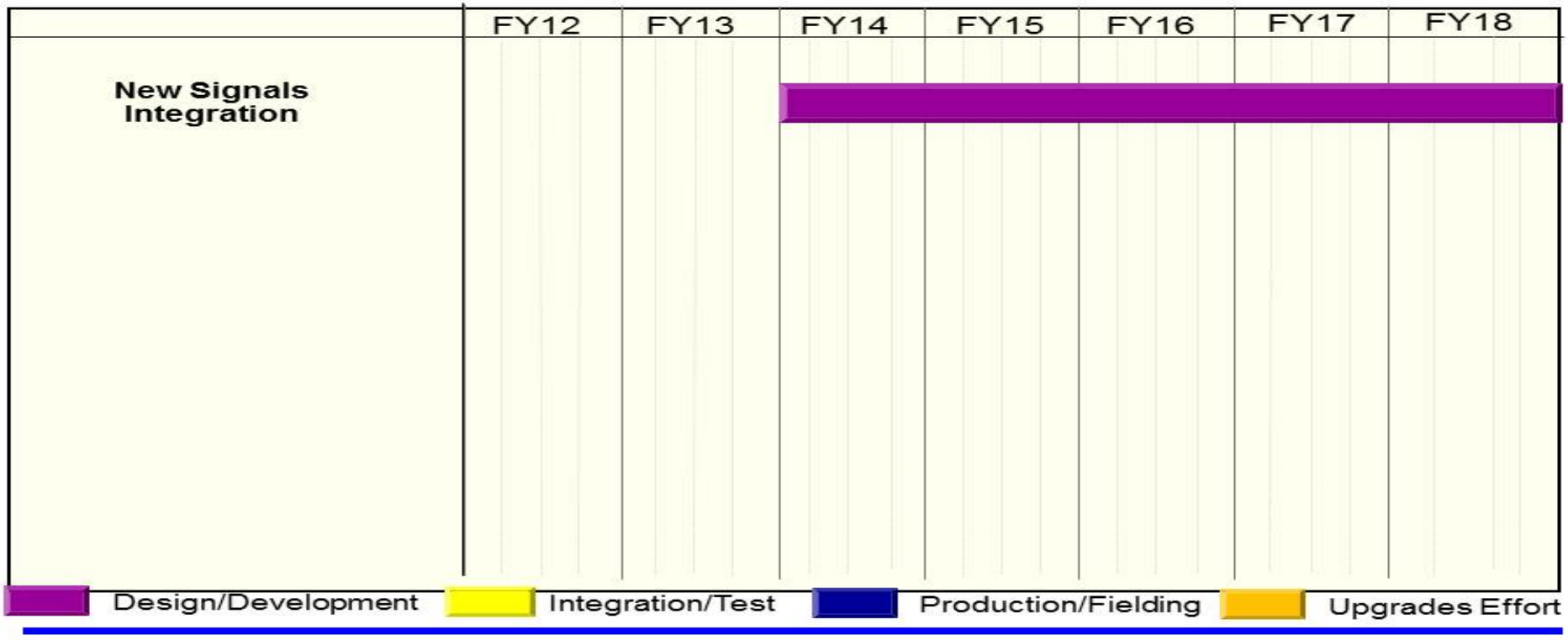
| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 0.000 | | 4.066 | | 0.000 | | 4.066 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675181: *High Altitude SIGINT Development - High Altitude* |

# High Altitude ASIP Schedule

*Birthplace, Home & Future of Aerospace*




1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0304260F: *Airborne SIGINT Enterprise* | **PROJECT**<br>675181: *High Altitude SIGINT Development - High Altitude* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| New signals integration | 1 | 2014 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675182: *Medium Altitude SIGINT Development - Medium Altitude* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675182: *Medium Altitude SIGINT Development - Medium Altitude* | - | 25.874 | 35.340 | 19.818 | - | 19.818 | 28.354 | 27.561 | 33.198 | 33.795 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

(U) This project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the integration and modification of the MQ-1/MQ-9 and other medium altitude platforms as required with SIGINT sensors and their associated air and ground components. This RDT&E effort integrates SIGINT capability on to the MQ-1/MQ-9 and other platforms as required. The sensors shall be capable of collecting technical data and geolocating signals of interest and providing sensor data to a workstation. The integration effort shall include the use of existing sensor suites to the maximum extent possible to minimize design costs and reduce development time lines.

(U) Design efforts specific to the Predator or Reaper and other medium altitude systems may include, but not be limited to, antennas, electromagnetic interference reduction, encryption techniques, and changes to the aircraft, ground station, data link, and simulator necessary to accommodate a SIGINT payload and its data throughput. Funding will begin efforts on antennas, receivers, processors, software development, aircraft integration and ground station upgrades to allow a persistent reconnaissance, surveillance, targeting, and acquisition capability against mission specific threats. Development of a networked capability to other SIGINT platforms will also be initiated. In accordance with an evolutionary acquisition strategy, a series of Airborne Signals Intelligence Payload (ASIP) 2C capability improvements are continuing development in FY13 and FY14. These upgrades are designed to exploit signals of interest identified as service priorities by the Air Force SIGINT Capabilities Working Group (SCWG). These development activities will continue through future years, to include but not be limited to, integrating capabilities developed under separate efforts.

(U) This project provides the warfighter with near term increased combat capability. Enhancements are implemented as soon as technology and risk achieve satisfactory levels and exploit signals of interest identified as Service priorities by the AF SCWG. FY14 funds will continue to develop and integrate the ASIP 2C sensor on the MQ-9 containing an enhanced signal set. Blue Moon development efforts began in FY11.

(U) This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** MQ-1/9 SIGINT Development | 17.027 | 33.120 | 18.275 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675182: *Medium Altitude SIGINT Development - Medium Altitude* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Develop and test a common/scalable SIGINT system for multiple SIGINT platforms (MQ-1 and MQ-9) using an open system architecture.<br><br>***FY 2012 Accomplishments:***<br>Continued current ASIP 2C payload development and integration activities and incorporated upgrades as appropriate.<br><br>***FY 2013 Plans:***<br>Continue SIGINT payload development and integration activities and incorporate upgrades as appropriate. Continue Ground Station modification to align integration and flight test.<br><br>***FY 2014 Plans:***<br>Will continue payload development and integration activities and incorporate upgrades as appropriate. Continue Ground Station modification to align integration and flight test. | | | |
| ***Title:*** Blue Moon<br><br>***Description:*** Blue Moon QRC to deliver a new antenna capability to collect against signals of interest.<br><br>***FY 2012 Accomplishments:***<br>Continued development of Blue Moon capability upgrade for MQ-9. Integrated software packages on platforms.<br><br>***FY 2013 Plans:***<br>Finalize integration of Blue Moon capability improvements on MQ-9. | 8.000 | 1.000 | 0.000 |
| ***Title:*** Program Management Activity<br><br>***Description:*** Providing management services to support the development and fielding of medium altitude SIGINT capabilities.<br><br>***FY 2012 Accomplishments:***<br>Provided management services to support the development and fielding of medium altitude SIGINT capabilities.<br><br>***FY 2013 Plans:***<br>Provide management services to support the development and fielding of medium altitude SIGINT capabilities.<br><br>***FY 2014 Plans:***<br>Will provide management services to support the development and fielding of medium altitude SIGINT capabilities. | 0.847 | 1.220 | 1.543 |
| **Accomplishments/Planned Programs Subtotals** | 25.874 | 35.340 | 19.818 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675182: *Medium Altitude SIGINT Development - Medium Altitude* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA04: Line Item # PRDTB1: *MQ-9* | 659.592 | 553.530 | 272.217 | | 272.217 | 433.705 | 494.319 | 541.534 | 559.942 | Continuing | Continuing |
| • APAF: BA05: Line Item # PRDTB2: *MQ-9* | 110.744 | 238.360 | 102.970 | | 102.970 | 104.102 | 128.052 | 205.537 | 160.998 | Continuing | Continuing |
| • APAF: BA06: Line Item # PRDTB1: *MQ-9* | 188.815 | 124.060 | 37.070 | | 37.070 | 126.657 | 128.408 | 125.169 | 131.616 | Continuing | Continuing |

**Remarks**

Above APAF includes both production and mods. Not all funds are associated with SIGINT.

**D. Acquisition Strategy**

(U) SIGINT capabilities will be integrated onto MQ-1/9 platforms using an evolutionary acquisition approach.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675182: *Medium Altitude SIGINT Development - Medium Altitude* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SIGINT Sensor Integration and Test | Various | General Atomics:San Diego, CA | - | 0.000 | | 0.500 | Feb 2013 | 1.280 | Jan 2014 | - | | 1.280 | 0.000 | 1.780 | 17.671 |
| SIGINT Sensors Development | SS/CPIF | Northrop Grumman ESL:San Jose, CA | - | 15.607 | Aug 2012 | 29.670 | Jan 2013 | 9.845 | Jan 2014 | - | | 9.845 | Continuing | Continuing | TBD |
| Blue Moon | SS/CPFF | MIT LL:Lexington, MA | - | 8.000 | Feb 2012 | 1.000 | Aug 2013 | 0.000 | | - | | 0.000 | 0.000 | 9.000 | 25.000 |
| | | **Subtotal** | 0.000 | 23.607 | | 31.170 | | 11.125 | | 0.000 | | 11.125 | | | |

**Remarks**

Cost to complete is for the intial ASIP 2C variant. Upgrades will continue for this program throughout the FYDP

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Various Integration Efforts, & Flight Test | Various | Various:, | - | 1.248 | Jan 2012 | 2.950 | Jan 2013 | 7.150 | Jan 2014 | - | | 7.150 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.248 | | 2.950 | | 7.150 | | 0.000 | | 7.150 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | Various | Various:Dayton, OH | - | 1.019 | Jan 2012 | 1.220 | Jan 2013 | 1.543 | Jan 2014 | - | | 1.543 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 1.019 | | 1.220 | | 1.543 | | 0.000 | | 1.543 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675182: *Medium Altitude SIGINT Development - Medium Altitude* | |

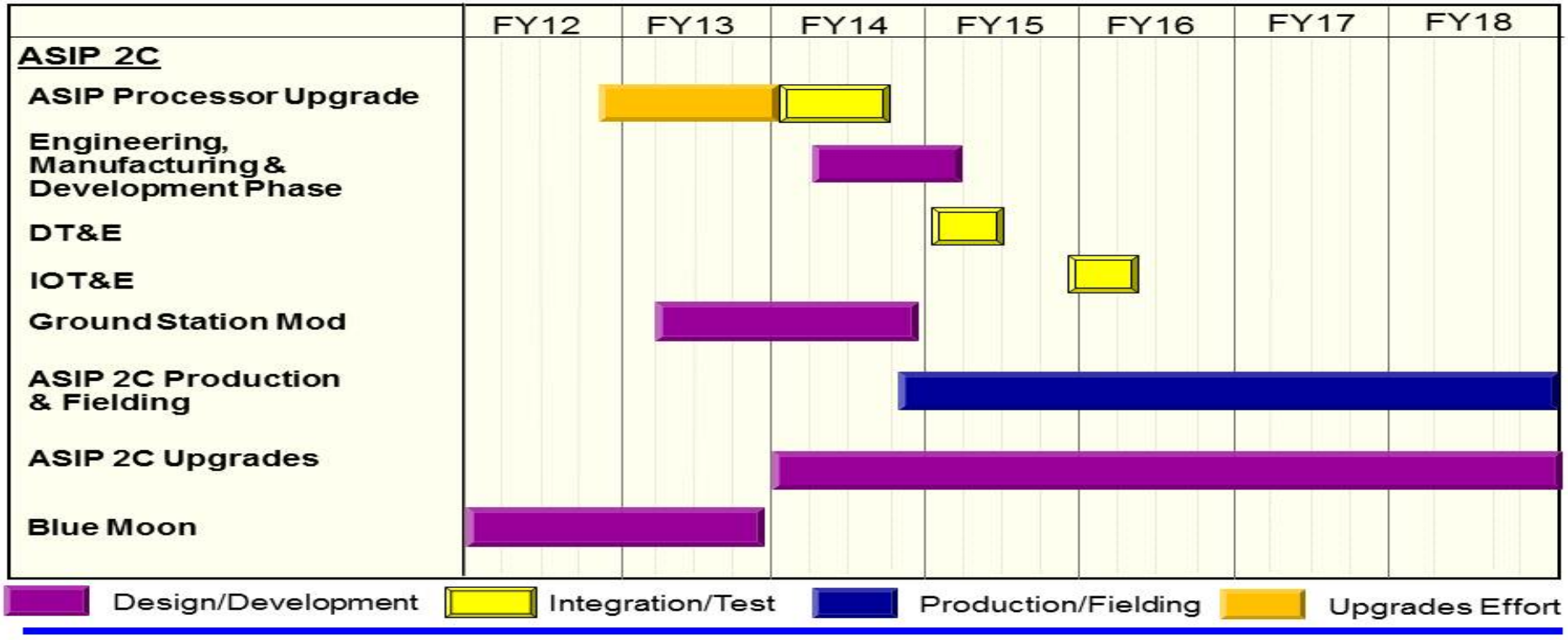
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 25.874 | | 35.340 | | 19.818 | | 0.000 | | 19.818 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675182: *Medium Altitude SIGINT Development - Medium Altitude* |

# ASIP Medium Altitude Schedule

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| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0304260F: *Airborne SIGINT Enterprise* | **PROJECT**<br>675182: *Medium Altitude SIGINT Development - Medium Altitude* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| ASIP Processor Upgrade | 4 | 2012 | 3 | 2014 |
| Engineering, Manufacturing & Development Phase | 2 | 2014 | 1 | 2015 |
| DT&E | 1 | 2015 | 2 | 2015 |
| IOT&E | 4 | 2015 | 2 | 2016 |
| Ground Station Mod | 2 | 2013 | 4 | 2014 |
| ASIP 2C Production & Fielding | 4 | 2014 | 4 | 2018 |
| ASIP 2C Upgrades | 1 | 2014 | 4 | 2018 |
| Blue Moon | 1 | 2012 | 4 | 2013 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675183: *Common Development (Airborne SIGINT Development - Common Development)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675183: *Common Development (Airborne SIGINT Development - Common Development)* | - | 38.855 | 45.403 | 53.544 | - | 53.544 | 80.739 | 46.722 | 36.218 | 36.870 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

(U) This project supports the development of SIGINT payloads, including the Airborne Signals Intelligence Payload (ASIP) for use on multiple platforms as well as projects common to the ASE PE overall to include, but not limited to: Air Force Cryptologic Architecture (AFCA) maintenance, modeling and simulation efforts and NATO SIGINT efforts.

**A. Mission Description and Budget Item Justification**

(U) This project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the insertion of new capabilities integrated into the ASIP and other sensors and their associated air and ground components that will be used on/by more than one platform. The common development SIGINT project also supports development of new sensors capabilities, normalization of quick reaction capabilities, and identifies suitable replacements for components affected by diminishing manufacturing sources. New capabilities are developed by separate projects.

(U) The current sensors being developed are the ASIP (which is operational on the U-2 and Global Hawk (RQ-4)), and the scalable ASIP payloads for the MQ-9 (ASIP 2C). The systems' open architecture and Joint Airborne SIGINT Architecture (JASA) compliant design supports streamlined integration of ASIP onto additional ISR platforms. The ASIP Family of Sensors (FoS) will design and build a common/scalable SIGINT system designed for maximum coverage of the electromagnetic spectrum through the use of an integrated high and low band system. ASIP 2C will develop a SIGINT sensor for the MQ-9.

(U) Capability improvements will be inserted into the ASIP family of sensors through individual development efforts that exploit signals of interest identified as service priorities by the Air Force SIGINT Capabilities Working Group (SCWG). This project provides the warfighter with near term increased combat capability. Enhancements are implemented as soon as technology and risk achieve satisfactory levels. Compatability improvements will be inserted into the ASIP FoS through individual development efforts that exploit signals of interest identified as Service priorities by the AF SCWG. Sensors will be integrated and tested on the various platforms as funding permits. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675183: *Common Development (Airborne SIGINT Development - Common Development)* |

(U) Some parts of ASIP Upgrades are funded within the Common Development project of this PE and some parts are funded within the High Altitude SIGINT project (675181). Parts that have applicability to other platforms such as the MQ-9 are funded in Common Development project.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** SIGINT Development<br><br>***Description:*** Develop and test a common/scalable SIGINT system for multiple SIGINT platforms (U-2, Global Hawk, MQ-9, etc) using an open system architecture.<br><br>***FY 2012 Accomplishments:***<br>Began ASIP Upgrade Increment 1 and Increment 2 to bring new capabilities into the existing sensor. Began effort for integration on the high altitude platforms. Began ASIP Processor Upgrade chassis effort to improve the ASIP Capabilities to capture new/ complex signals.<br><br>***FY 2013 Plans:***<br>Continue new signals capabilities and enhancements for the ASIP sensor. Continue ASIP Processor Upgrade development, integration activities, and incorporate upgrades as appropriate. Details are classified.<br><br>***FY 2014 Plans:***<br>Will continue new signals capabilities and enhancements for the ASIP sensor. Will complete ASIP Upgrade Increments 1 and Increment 2, and ASIP Processor Upgrade chassis. Will continue integration activities, and incorporate upgrades as appropriate. Details are classified. | 37.755 | 44.329 | 51.944 |
| ***Title:*** Program Management Activity<br><br>***Description:*** Providing management services to support the development and fielding of SIGINT capabilities.<br><br>***FY 2012 Accomplishments:***<br>Provided management services to support the development and fielding of SIGINT capabilities.<br><br>***FY 2013 Plans:***<br>Provide management services to support the development and fielding of SIGINT capabilities.<br><br>***FY 2014 Plans:***<br>Will provide management services to support the development and fielding of SIGINT capabilities. | 1.100 | 1.074 | 1.600 |
| **Accomplishments/Planned Programs Subtotals** | 38.855 | 45.403 | 53.544 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675183: *Common Development (Airborne SIGINT Development - Common Development)* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA04: Line Item # HAEUAV: *RQ-4* | 687.771 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • APAF: BA05: Line Item # 11U200: *U-2 Mods* | 62.275 | 53.664 | 67.404 | | 67.404 | 66.158 | 25.000 | 51.900 | 52.835 | Continuing | Continuing |

**Remarks**

Not all funds are associated with SIGINT.

**D. Acquisition Strategy**

Signals Intelligence capabilities will be developed and integrated onto various platforms using an evolutionary acquisition approach.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675183: *Common Development (Airborne SIGINT Development - Common Development)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASIP Upgrades Development | SS/CPIF | Northrop Grumman:San Jose, CA | - | 32.940 | Feb 2012 | 27.149 | Jan 2013 | 33.024 | Jan 2014 | - | | 33.024 | Continuing | Continuing | TBD |
| ASIP Processor Upgrade Chassis | SS/CPIF | Northrop Grumman:San Jose, CA | - | 0.000 | | 13.172 | Oct 2012 | 14.653 | Jan 2014 | - | | 14.653 | Continuing | Continuing | |
| Various SIGINT Efforts | Various | Northrop Grumman:San Jose, CA | - | 2.820 | Feb 2012 | 3.008 | Jan 2013 | 3.200 | Jan 2014 | - | | 3.200 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 35.760 | | 43.329 | | 50.877 | | 0.000 | | 50.877 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (U) Various Integration Efforts, & Flight Test | Various | Various:San Jose, CA | - | 1.995 | Feb 2012 | 1.000 | Aug 2013 | 1.167 | Jan 2014 | - | | 1.167 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.995 | | 1.000 | | 1.167 | | 0.000 | | 1.167 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | Various | Various:Dayton, OH | - | 1.100 | Jan 2012 | 1.074 | Jan 2013 | 1.500 | Jan 2014 | - | | 1.500 | Continuing | Continuing | TBD |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675183: *Common Development (Airborne SIGINT Development - Common Development)* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 1.100 | | 1.074 | | 1.500 | | 0.000 | | 1.500 | | | |

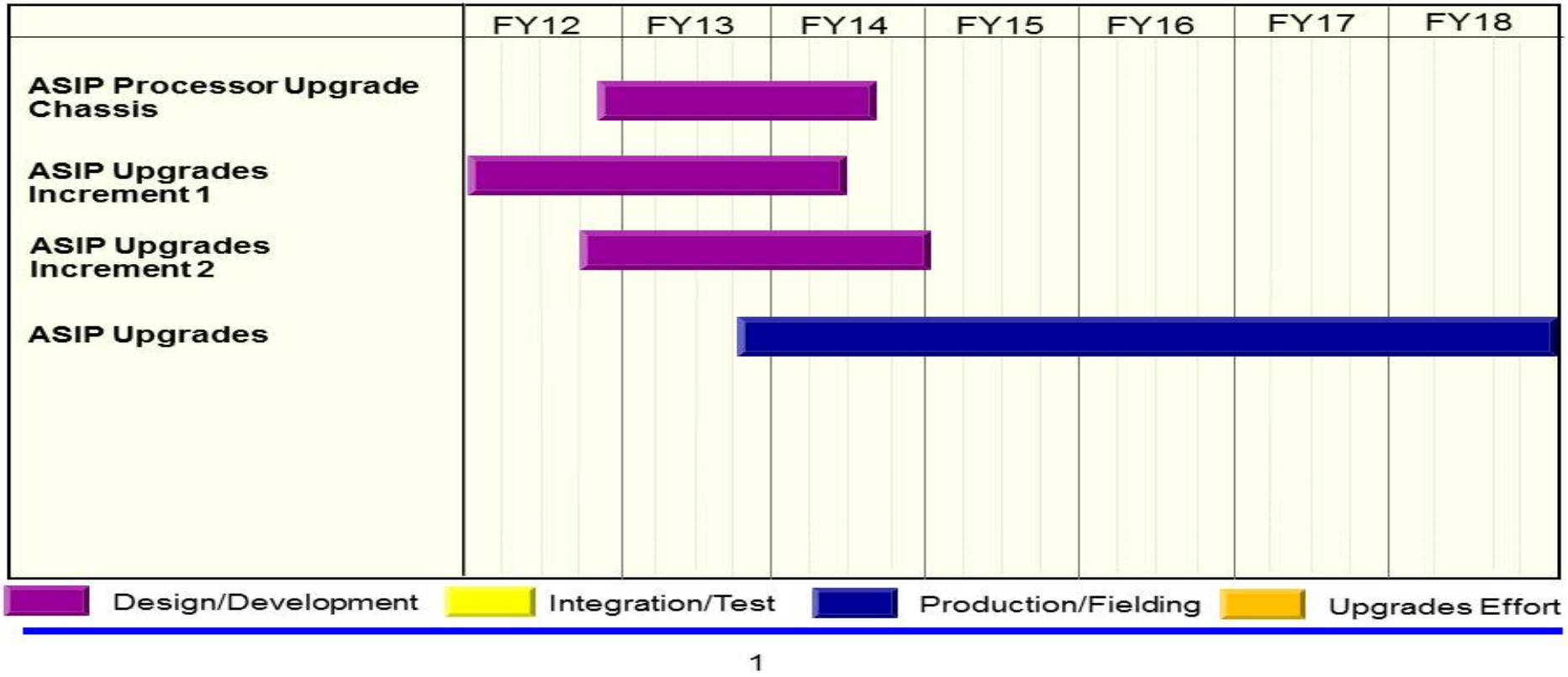
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 38.855 | | 45.403 | | 53.544 | | 0.000 | | 53.544 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675183: *Common Development (Airborne SIGINT Development - Common Development)* |

# Common Development SIGINT

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| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0304260F: *Airborne SIGINT Enterprise* | **PROJECT**<br>675183: *Common Development (Airborne SIGINT Development - Common Development)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| ASIP Processor Upgrade Chassis | 4 | 2012 | 3 | 2014 |
| ASIP Upgrades Increment 1 | 1 | 2012 | 2 | 2014 |
| ASIP Upgrades Increment 2 | 4 | 2012 | 1 | 2015 |
| ASIP Upgrades | 4 | 2013 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675184: *RQ-4 (Airborne SIGINT Development - Global Hawk* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675184: *RQ-4 (Airborne SIGINT Development - Global Hawk* | - | 2.108 | 0.998 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2014, 675184, RQ-4, efforts were transferred to 675181, High Altitude SIGINT, to provide visibility into all activities for both manned and unmanned high altitude platforms. PMA costs for this project will be covered under Common Development, 675183.

**A. Mission Description and Budget Item Justification**

(U) This project will cover the costs of integration for high altitude ISR for both manned and unmanned platforms.

(U) This project supports sensor integration and test, flight test, design studies, engineering analysis and non-recurring engineering of the air and ground components for the High Altitude SIGINT sensors. Also identifies suitable replacements for components affected by diminishing manufacturing sources. This project provides the warfighter with a near-term, increased combat capability. Enhancements are implemented as soon as technology and risk achieve satisfactory levels. Capability improvements will be inserted into the sensor through individual development efforts that exploit signals of interest identified as service priorities by the Air Force SIGINT Capabilities Working Group Funding includes completion of developmental logistics tasks associated with the design, development, and integration of ASIP and the ASIP Depot standup; to include all 12 Product Support Elements. Additional requirements include the Logistics Support Analysis (LSA) Taskings which consists of design and development of support equipment, technical orders, training courses/aids/devices, and shipping containers common to ASIP for U-2 and Global Hawk.

(U) This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** RQ-4 SIGINT | 2.092 | 0.998 | 0.000 |
| ***Description:*** Design, develop, and test SIGINT capabilities for ASIP sensors, support equipment, technical orders, training, shipping containers, and support the ASIP depot stand-up. | | | |
| ***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675184: *RQ-4 (Airborne SIGINT Development - Global Hawk* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continued logistics efforts, including updating technical data and support equipment. Supported baseline ASIP depot stand-up and system integration.<br>***FY 2013 Plans:***<br>Continue logistics efforts, including updating technical data, test and support equipment, and related activities in support of High Altitude programs. Continue system integration. | | | |
| ***Title:*** Program Management Activity<br>***Description:*** Providing management services to support the development and fielding of high altitude SIGINT capabilities.<br>***FY 2012 Accomplishments:***<br>Provided management services to support the development and fielding of high altitude SIGINT capabilities. | 0.016 | 0.000 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 2.108 | 0.998 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA04: Line Item # HAEUAV: *RQ-4* | 395.464 | 75.000 | 27.000 | | 27.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • APAF: BA05: Line Item # 11U200: *U-2 Mods* | 0.000 | 44.477 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

Note: Not all of the above funding is for ASIP. Procurement funding shown represents all PE 0305220F Procurement funding and includes production and mods.

**D. Acquisition Strategy**

(U) SIGINT capabilities will be integrated on to this platform using an Evolutionary Acquisition approach utilizing various contracting methods.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675184: *RQ-4 (Airborne SIGINT Development - Global Hawk* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ASIP Baseline Development | SS/ Various | Northrop Grumman Mission Sys:San Jose, CA | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 108.245 |
| ASIP Upgrades Development | Various | Northrop Grumman Mission Sys:San Jose, CA | - | 1.467 | Feb 2012 | 0.998 | Jan 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| ASIP LSA Taskings | Various | Northrop Grumman Mission Sys:San Jose, CA | - | 0.625 | Feb 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 2.092 | | 0.998 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | Various | Various:Dayton, OH | - | 0.016 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.489 |
| | | **Subtotal** | 0.000 | 0.016 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 0.489 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675184: *RQ-4 (Airborne SIGINT Development - Global Hawk* | |

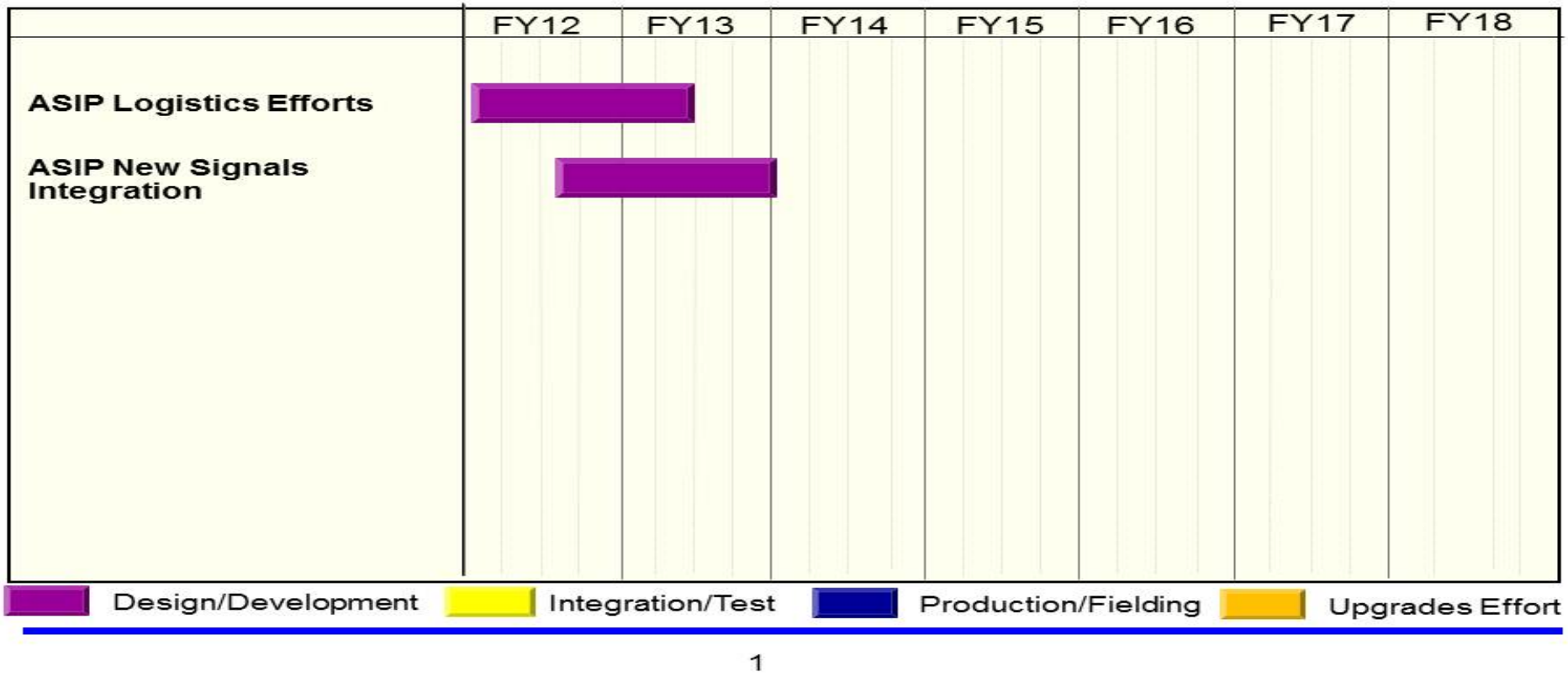
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 2.108 | | 0.998 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675184: *RQ-4 (Airborne SIGINT Development - Global Hawk* |

# RQ-4 SIGINT Schedule

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| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0304260F: *Airborne SIGINT Enterprise* | **PROJECT**<br>675184: *RQ-4 (Airborne SIGINT Development - Global Hawk* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| ASIP Logistics Efforts | 1 | 2012 | 2 | 2013 |
| ASIP New Signals Integration | 3 | 2012 | 4 | 2013 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675185: *Compass Bright (Airborne SIGINT Development - Compass Bright)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675185: *Compass Bright (Airborne SIGINT Development - Compass Bright)* | - | 6.169 | 6.324 | 7.351 | - | 7.351 | 7.837 | 7.865 | 8.115 | 8.261 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

(U) The COMPASS BRIGHT program develops, demonstrates, and rapidly transitions advanced Air Force-specific SIGINT and Radio Frequency (RF) measurement and signature intelligence (MASINT) capabilities against emerging and future target signals. It is the only USAF program that pursues SIGINT and RF MASINT technology transition. The COMPASS BRIGHT program objective is to develop technologies for application in SIGINT and RF MASINT systems/subsystems. Acquisition and production of these developed technologies will occur within the appropriate platform programs. COMPASS BRIGHT projects are selected through a data call process whereby the USAF evaluates proposals from the labs and industry to select those projects that are most promising. This process is completed the year prior to award.

(U) FY12 activities included (but were not limited to) improving capabilities in the areas of digital SIGINT, cross cueing, audio/speech extraction, and confidence measure improvements.

(U) FY13 continues to enhance the ability to geo-locate signals of interest, improve the audio quality of signals and improve the collection capabilities of our receivers. We will continue to improve our collection against low probability of detection signals.

(U) FY14 will continue to enhance search and intercept capabilities, improve single aircraft geolocation, and improve real time communications systems.

(U) This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** SIGINT Tech Devlopment | 5.397 | 5.529 | 6.532 |
| ***Description:*** Develops projects in the Signals Intelligence and Radio Frequency Measurement & Signature Intelligence areas for transition to platforms. | | | |
| ***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675185: *Compass Bright (Airborne SIGINT Development - Compass Bright)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Initiated, continued or completed various SIGINT projects including search and intercept improvements, digital SIGINT.<br>***FY 2013 Plans:***<br>Initiate, continue or complete various SIGINT projects to include search and intercept improvements, enhanced ELINT exploitation, Open Set ID, and real time communications systems.<br>***FY 2014 Plans:***<br>Will initiate, continue or complete various SIGINT projects to include search and intercept improvements, enhanced ELINT exploitation, and real time communications systems. | | | |
| ***Title:*** Program Management Activity<br>***Description:*** Providing management services to support the development and fielding of SIGINT capabilities.<br>***FY 2012 Accomplishments:***<br>Provided management services to support the development and fielding of SIGINT capabilities.<br>***FY 2013 Plans:***<br>Provide management services to support the development and fielding of SIGINT capabilities.<br>***FY 2014 Plans:***<br>Will provide management services to support the development and fielding of SIGINT capabilities. | 0.772 | 0.795 | 0.819 |
| **Accomplishments/Planned Programs Subtotals** | 6.169 | 6.324 | 7.351 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

(U) Ongoing COMPASS BRIGHT technology development and demonstration contracts will continue through existing laboratory relationships and other existing contractual vehicles, with future development projects emphasizing full and open competition.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675185: *Compass Bright (Airborne SIGINT Development - Compass Bright)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Various | Various | Multiple:Various, V | - | 5.397 | Jan 2012 | 5.529 | Jan 2013 | 6.532 | Jan 2014 | - | | 6.532 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 5.397 | | 5.529 | | 6.532 | | 0.000 | | 6.532 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | Various | Various:Dayton, OH | - | 0.772 | Oct 2011 | 0.795 | Oct 2012 | 0.819 | Oct 2013 | - | | 0.819 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.772 | | 0.795 | | 0.819 | | 0.000 | | 0.819 | | | |

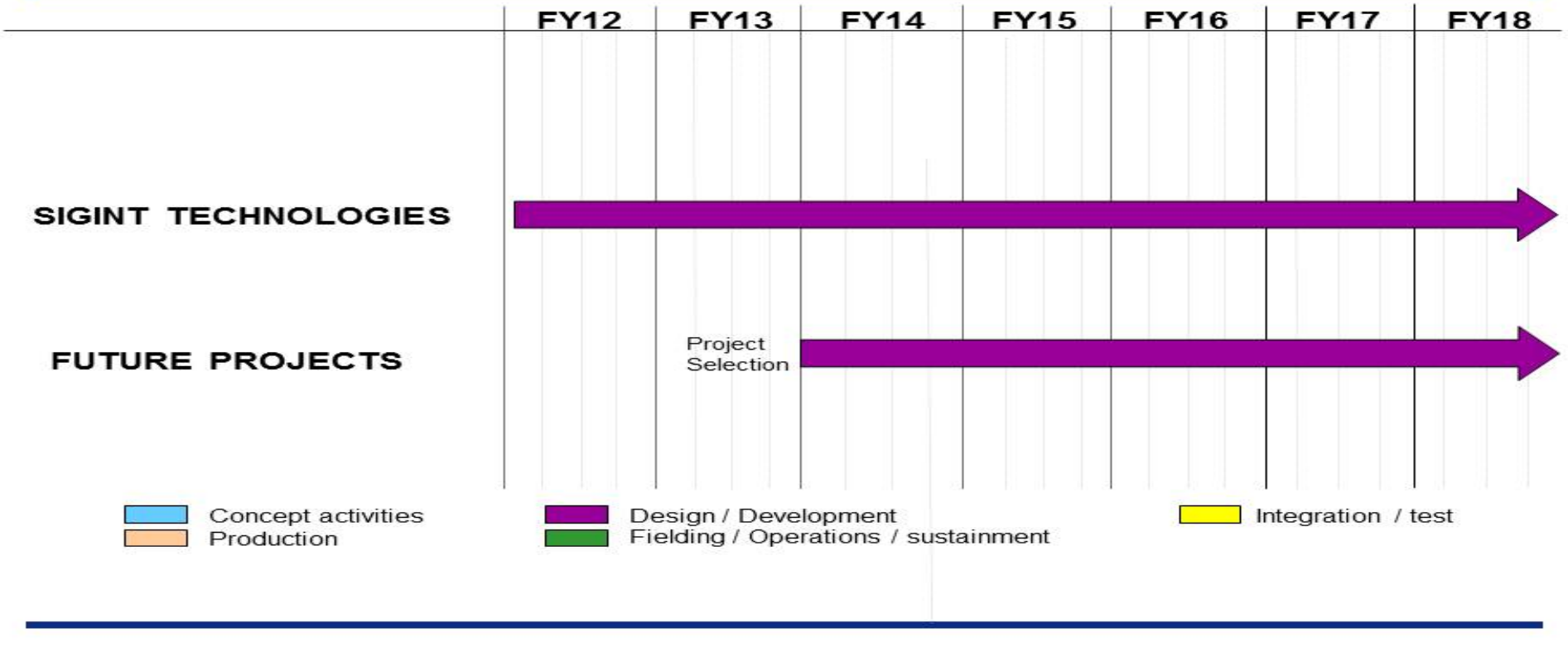
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 6.169 | | 6.324 | | 7.351 | | 0.000 | | 7.351 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675185: *Compass Bright (Airborne SIGINT Development - Compass Bright)* |

# Compass Bright Schedule

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| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675185: *Compass Bright (Airborne SIGINT Development - Compass Bright)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| SIGINT Technologies | 1 | 2012 | 4 | 2018 |
| Future Projects | 1 | 2014 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675186: *Special Programs (Airborne SIGINT Development - Special Platforms)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675186: *Special Programs (Airborne SIGINT Development - Special Platforms)* | - | 0.498 | 0.881 | 0.000 | - | 0.000 | 0.000 | 11.771 | 12.091 | 12.309 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

(U) This project supports special Signals Intelligence (SIGINT) studies as well as the development and integration of advanced SIGINT capabilities for special programs such as Liberty Project Aircraft (MC-12W), Network Centric Collaborative Targeting (NCCT) SIGINT, and other projects approved by the SIGINT Capabilities Working Group (SCWG). Development efforts will include, but are not limited to such things as antenna improvements, sensitivity upgrades, and radio frequency distribution upgrades. Additionally, these funds will develop the capability to allow networking with other SIGINT assets to increase collection accuracy. This project provides the warfighter with a near term combat capability with increased capability improvements accomplished as soon as technology and risk achieve satisfactory levels. Sensors will be integrated and tested on various platforms as funding permits.

(U) FY 2013 continues to focus development capabilities to collect against signals that are difficult to intercept due to power levels and other characteristics.

(U) This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** SIGINT Development | 0.498 | 0.881 | 0.000 |
| ***Description:*** Develops SIGINT capabilities for special programs such as Liberty Project Aircraft, NCCT projects and others.<br><br>***FY 2012 Accomplishments:***<br>Continued to develop low level signal detection capabilities.<br><br>***FY 2013 Plans:***<br>Continue to develop low level signal detection capabilities. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.498 | 0.881 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675186: *Special Programs (Airborne SIGINT Development - Special Platforms)* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # C012WM: *MC-12W* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 12.689 | 12.917 | Continuing | Continuing |

**Remarks**

Note: Not all of the above funding applies to SIGINT systems.

**D. Acquisition Strategy**

(U) SIGINT capabilities will be integrated on to various classified platforms using an evolutionary acquisition approach.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675186: *Special Programs (Airborne SIGINT Development - Special Platforms)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Low Level Signal Detection | SS/ Various | Lockheed Martin IS&GS:Denver, CO | - | 0.385 | Nov 2011 | 0.719 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.385 | | 0.719 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | Various | Various:Dayton, OH | - | 0.113 | Mar 2012 | 0.162 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.113 | | 0.162 | | 0.000 | | 0.000 | | 0.000 | | | |

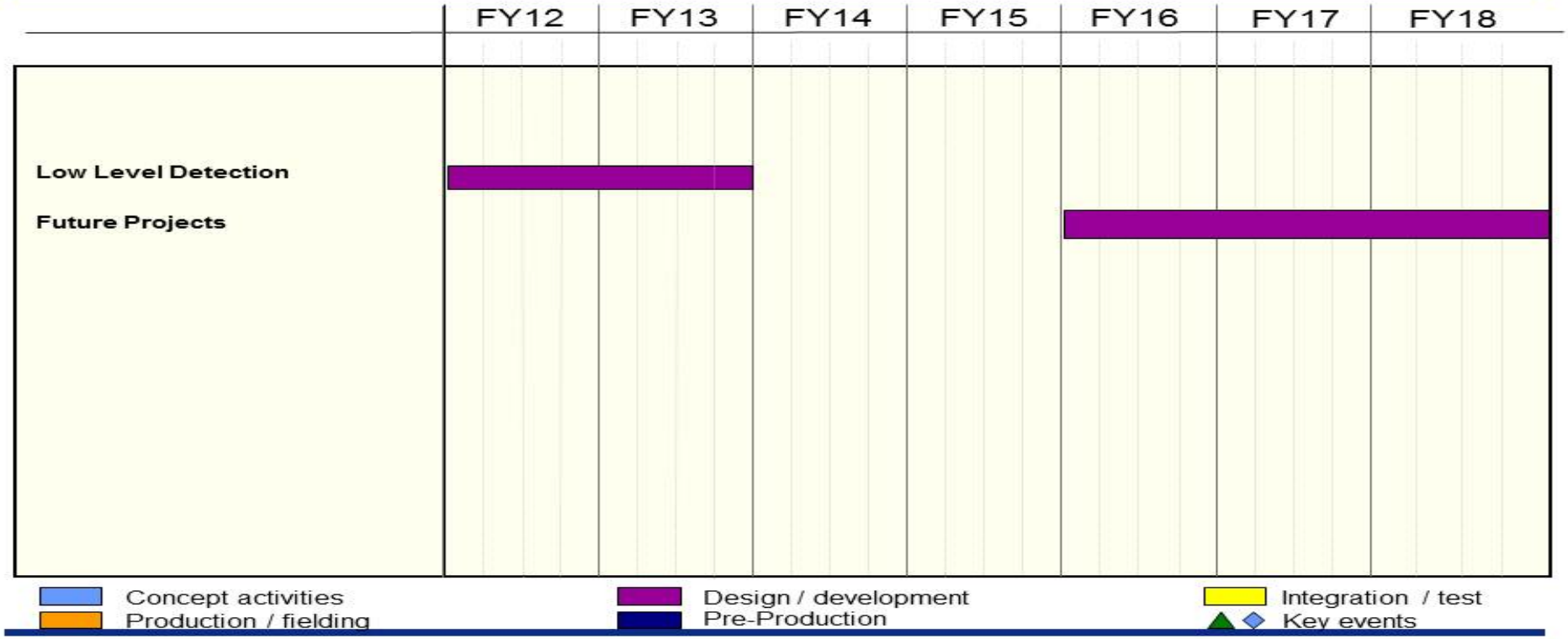
| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.498 | | 0.881 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0304260F: *Airborne SIGINT Enterprise* | PROJECT<br>675186: *Special Programs (Airborne SIGINT Development - Special Platforms)* |

U.S. AIR FORCE

# ASE Special Projects Schedule




*Integrity - Service - Excellence*

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| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0304260F: *Airborne SIGINT Enterprise* | **PROJECT**<br>675186: *Special Programs (Airborne SIGINT Development - Special Platforms)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Low Level Signal Detection | 1 | 2012 | 4 | 2013 |
| Future Projects | 1 | 2016 | 4 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305099F: *Global Air Traffic Management (GATM)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 4.604 | 4.461 | 4.430 | - | 4.430 | 4.209 | 4.312 | 4.478 | 4.559 | Continuing | Continuing |
| 674689: *Global Access Architecture* | - | 4.604 | 4.461 | 4.430 | - | 4.430 | 4.209 | 4.312 | 4.478 | 4.559 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Unfettered access to civil airspace is required for all Air Force platforms to perform their operational mission.

To meet that requirement this program funds the AF Life Cycle Management Center (LCMC) Aerospace Management Systems Division (AMSD), the designated AF Communication, Navigation, Surveillance/Air Traffic Management and Navigational Safety (CNS/ATM) Center of Excellence (COE). This COE provides expertise to the Air Staff, MAJCOMs and all platform program offices, manned and un-manned, on meeting civil CNS/ATM performance standards necessary to operate in the US National Airspace System (NAS) and international civil airspace. This centralized capability precludes the necessity for the MAJCOMs and over 50 AF platform program offices to have resident technical CNS/ATM expertise.

The COE monitors and evaluates ever-evolving international civil aviation standards for operations in sovereign airspace worldwide. Analyzing civil documents, CNS/ATM experts identify specific technical and engineering criteria and document them for AF stakeholders in Generic Performance Matrices (GPMs). Once identified, the Air Staff and MAJCOMs determine how the AF will address these civil standards for each platform to best perform the AF specific mission. When a material solution is required, CNS/ATM experts, considering the platform's engineering characteristics, work with the platform program office to meet the civil standards in the GPM. Once the work is complete, the COE verifies and validates the CNS/ATM performance meets the standards necessary to operate in the civil airspace. This is an iterative process to address both changes in civil airspace standards and shifts in AF military operational requirements.

The COE manages Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts for centralized procurement of CNS/ATM and Nav Safety products. These contracts are used by platform programs across the AF and DOD, other federal agencies and in support of foreign military sales; they provide the benefits of quantity cost savings and industry-unique warranty clauses.

The CNS/ATM COE performs periodic audits on the processes and procedures used to develop and distribute the Digital Aeronautical Flight Information File (DAFIF). This electronic navigation database, created by the National Geospatial Intelligence Agency (NGA), contains safety of flight critical information and is used by AF and DOD aircrews to fly instrument departure and arrival procedures worldwide. The COEs unique expertise is recognized and accepted by the NGA, the FAA, AF and DOD operating organizations.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305099F: *Global Air Traffic Management (GATM)* |

The AF is the Lead Service for DOD to coordinate the department's support of the Congressionally mandated Next Generation Air Transportation System (NextGen) program to upgrade the US NAS over the next 25+ years. In 2012 the CNS/ATM COE was designated DOD's NextGen Joint Program Office (JPO). They are to provide acquisition and engineering support to coordinate activities across DOD and advocate for DOD interests as NextGen (and similar CNS/ATM programs being initiated worldwide) is implemented.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 4.604 | 4.461 | 4.430 | - | 4.430 |
| Current President's Budget | 4.604 | 4.461 | 4.430 | - | 4.430 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Contract Support and Administration for DOD Avionics Equipment Catalog | 0.538 | 1.059 | 0.562 |
| ***Description:*** Overarching contract vehicles that are actually individual contracts with multiple avionics vendors for multiple products. To date current versions have generated in excess of $220M in purchases. Supports DoD, US Federal Agencies, and Foreign Military Sales. Provides price reasonableness and 10 year equipment warranty. | | | |
| ***FY 2012 Accomplishments:***<br>Generated $42M+ in sales. Facilitated DoD compliance with European surveillance, Mode S upgrade requirements. Provided growth capable equipment for DoD ADS-B and RNAV/RNP requirements. | | | |
| ***FY 2013 Plans:***<br>Continuing administration of current catalog and preparation of Request for Proposal (RFP) for follow on CNS/ATM II contract. Ensure availability of avionics required for Congressionally mandated NextGen ADS-B requirements. | | | |
| ***FY 2014 Plans:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305099F: *Global Air Traffic Management (GATM)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Implement and advertise new CNS/ATM II ID/IQ contract. Continue to provide option for DoD equipment requirements for NextGen compliance. | | | |
| ***Title:*** Digital Aeronautical Flight Information File (DAFIF) Management<br><br>***Description:*** Perform periodic audits of the processes and procedures utilized by stakeholder organizations involved in the development and distribution of safety of flight critical electronic databases used by aircrews flying instrument procedures worldwide. Ensure validity of multiple sources of information critical to implementation of international Performance Based Navigation standards.<br><br>***FY 2012 Accomplishments:***<br>Joint CNS/ATM Senior Leadership Review validated Joint standards for database accuracy and error reporting. Directed Services to standardize qualifications and criteria for geodetic survey personnel and reporting format.<br><br>***FY 2013 Plans:***<br>Work with other Services and National Geospatial Intelligence Agency (NGA) to validate accuracy of data input and investigate improved automation capabilities in order to continue to increase database accuracy. Work with AF Flight Standards Agency Terminal Instrument Approach Procedure Specialists to continue development and publication GPS based instrument procedures.<br><br>***FY 2014 Plans:***<br>Work with other services and FAA to develop the Performance Based procedures required to operate unrestricted in the NextGen and international civil aviation environment. Continue the publication of procedures with the required degree of accuracy/ performance required for unrestricted aircraft and Remotely Piloted Aircraft (RPA) in the National Airspace System (NAS). | 2.114 | 1.592 | 2.071 |
| ***Title:*** Program Management and Administration<br><br>***Description:*** All program management support to include, but not limited to, government costs and contracted services.<br><br>***FY 2012 Accomplishments:***<br>Continued PMA support<br><br>***FY 2013 Plans:***<br>Continue PMA support<br><br>***FY 2014 Plans:***<br>Continue PMA support. | 0.369 | 0.540 | 0.536 |
| ***Title:*** Generic Performance Matrix (GPM) Development | 1.583 | 1.270 | 1.261 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305099F: *Global Air Traffic Management (GATM)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Drafting and revising the 28+ GPMs used by AF platform program offices to ensure their aircraft comply with civil aviation requirements. Tailoring GPMs for customers, including developing T&E plans, executing and analyzing Performance Assessments, and certifying data chains for 50+ aircraft and RPA programs.<br><br>***FY 2012 Accomplishments:***<br>Completed Automatic Dependent Surveillance-Broadcast (ADS-B) GPM. Provided standard for platform program offices to plan to equip to meet Congressionally mandated 1 Jan 2020 mandate. Facilitated short notice Reduced Vertical Separation Minima (RVSM) certification for Battlefield Airborne Command Node (BACN) aircraft thereby expediting deployment supporting Combatant Commander warfighting requirement.<br><br>***FY 2013 Plans:***<br>Continue to refine CNS/ATM performance matrices used to identify specific NextGen requirements and provide acquisition and engineering support services to AF and DoD entities as they program and equip to meet NextGen requirements.<br><br>***FY 2014 Plans:***<br>Continue development of performance matrices to ensure AF aircraft, manned and unmanned, are certifiable under emerging International Civil Aviation Organization Performance Based requirements. | | | |
| **Accomplishments/Planned Programs Subtotals** | 4.604 | 4.461 | 4.430 |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

AMSD CNS/ATM Acquisition Strategy guides CNS and NAV safety equipment procurements for AF aircraft/UAS single managers. This strategy ensures systems standardization and interoperability and directly supports the airworthiness certification of AF aircraft/UAS that operate in national and international air traffic environments. The AMSD will collaborate to provide technical support and expertise, execute system performance assessments and will interface with product/support centers, battle labs, and DoD research facilities in the execution of the assigned task. Program research and development agreements, cooperative research and development agreements, and Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts will be competitively awarded.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305099F: *Global Air Traffic Management (GATM)* | PROJECT<br>674689: *Global Access Architecture* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Develop systems to monitor avionics equipage of US military aircraft, participate in US/ international specification and standards-setting, and develop resource material in support of CNS/ATM | C/T&M | MIT/Lincoln Laboratory:Lexington, MA | - | 0.539 | Apr 2012 | 0.000 | Apr 2013 | 0.490 | Apr 2014 | - | | 0.490 | Continuing | Continuing | |
| Providing various technical support, operational requirements, and assessments for Generic Performance Matrices. | C/T&M | MITRE Corporation:Bedford, MA | - | 0.794 | Oct 2011 | 0.658 | Oct 2012 | 0.653 | Oct 2013 | - | | 0.653 | Continuing | Continuing | |
| Provide various technical support for execution and compilation of Generic Performance Matricies - A&AS-ETASS | C/CPFF | Jacobs Technology:Lincoln, MA | - | 0.520 | Jan 2012 | 0.613 | Jan 2013 | 0.608 | Jan 2014 | - | | 0.608 | Continuing | Continuing | |
| Providing various technical support, operational requirements, and assessments for Navigation Data Chain Certification | C/T&M | MITRE Corporation:Bedford, MA | - | 1.588 | Oct 2011 | 1.316 | Oct 2012 | 1.306 | Oct 2013 | - | | 1.306 | Continuing | Continuing | |
| Provide various technical support for execution and compilation for Navigation Data Chain Certification - A&AS-ETASS | C/CPFF | Jacobs Technology:Lincoln, MA | - | 0.173 | Dec 2011 | 0.204 | Dec 2012 | 0.203 | Dec 2013 | - | | 0.203 | Continuing | Continuing | |
| Providing various technical support, operational requirements, and assessments for User CNS/ATM support and ID/ IQ Contract Management | C/T&M | MITRE Corporation:Bedford, MA | - | 0.124 | Oct 2011 | 0.616 | Oct 2012 | 0.128 | Oct 2013 | - | | 0.128 | Continuing | Continuing | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305099F: *Global Air Traffic Management (GATM)* | PROJECT<br>674689: *Global Access Architecture* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Provide various technical support for execution and compiliation for User CNS/ ATM support and ID/IQ Contract -A&AS-ETASS | C/CPFF | Jacobs Technology:Lincoln, MA | - | 0.414 | Dec 2011 | 0.443 | Dec 2012 | 0.434 | Dec 2013 | - | | 0.434 | Continuing | Continuing | |
| Provide various technical support for execution for Navigation Data Chain Certification -RCAT | C/FP | ARINC:Annapolis, MD | - | 0.083 | Aug 2012 | 0.071 | Aug 2013 | 0.072 | Aug 2014 | - | | 0.072 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 4.235 | | 3.921 | | 3.894 | | 0.000 | | 3.894 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Provide Program office support-A&AS-PASS | C/T&M | Quantech Services:Bedford, MA | - | 0.095 | Feb 2012 | 0.216 | Feb 2013 | 0.215 | Dec 2013 | - | | 0.215 | Continuing | Continuing | |
| Provide Program office support-A&AS-SCS | C/T&M | Tecolote:Bedford, MA | - | 0.055 | Nov 2011 | 0.083 | Nov 2012 | 0.082 | Dec 2013 | - | | 0.082 | Continuing | Continuing | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305099F: *Global Air Traffic Management (GATM)* | PROJECT<br>674689: *Global Access Architecture* |

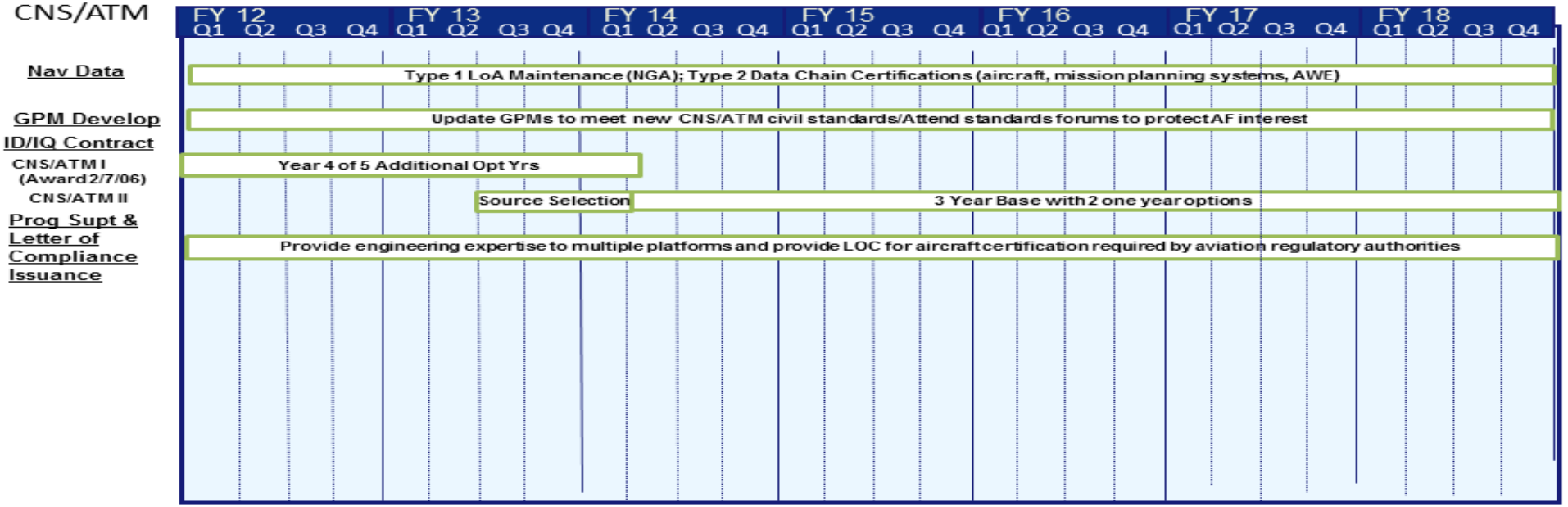
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Office Support | Various | TBD:Bedford, MA | - | 0.219 | Oct 2011 | 0.241 | Oct 2012 | 0.239 | Oct 2013 | - | | 0.239 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.369 | | 0.540 | | 0.536 | | 0.000 | | 0.536 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 4.604 | | 4.461 | | 4.430 | | 0.000 | | 4.430 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305099F: *Global Air Traffic Management (GATM)* | PROJECT<br>674689: *Global Access Architecture* |




POC: SAF/AQQX DSN 260-0499

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305099F: *Global Air Traffic Management (GATM)* | **PROJECT**<br>674689: *Global Access Architecture* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Nav Data: Type 1 LoA Maintenance (NGA); Type 2 Data Chain Cert. | 1 | 2012 | 4 | 2018 |
| Update GPMs to meet new CNS/ATM civ standards/Attend industry standards development forums | 1 | 2012 | 4 | 2018 |
| ID/IQ Contract CNS/ATM I Year 4 of 5 Additional Opt Yrs | 1 | 2012 | 2 | 2014 |
| ID/IQ Contract CNS/ATM II Source Selection | 3 | 2013 | 2 | 2014 |
| ID/IQ Contract CNS/ATM II 3 Year Base with 2 one year options | 2 | 2014 | 4 | 2018 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305103F: *Cyber Security Initiative* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 1.920 | 2.055 | 2.048 | - | 2.048 | 2.049 | 2.085 | 2.120 | 2.158 | Continuing | Continuing |
| 671931: *TECH SURVEIL COUNTER MEAS EQPT* | - | 1.920 | 2.055 | 2.048 | - | 2.048 | 2.049 | 2.085 | 2.120 | 2.158 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The DoD Cyber Crime Center (DC3) was created as a DoD Center of Excellence to efficiently organize, equip, train, and employ scarce resources to more effectively address the proliferation of computer crimes affecting the DoD. DC3 has a digital forensics laboratory, training program, institute, and National Cyber Investigative Joint Task Force Analytical Group. To enable its operations, through the Defense Cyber Crime Institute (DCCI), DC3 will remain on the leading edge of computer technologies and techniques through research, development, testing and evaluation applied to digital evidence processing and computer forensic analysis; and by conducting liaison and by partnering with governmental, university, and private industry computer security officials. DC3 will develop imaging tools, steganalysis and stegextraction tools, and password over-ride tools. These software tools will enable DC3 to increase the probability of data recovery that would otherwise remain undetected. The Intrusions/Intruders Signature Program (IISP) provides for the R&D of products and technologies that detect trace and profile hostile cyber adversaries. This capability provides network monitoring and the framework for sharing and automating reverse engineering techniques. Computer Incident Batch Oriented Recursive Examination (CIBORE) is used to aid the counterintelligence and law enforcement communities to respond to computer intrusions. It is also a data reduction tool that takes a large volume of data, identifies the known “good” and “bad” files and eliminates them from consideration, leaving several GBs of files as candidate malicious code files.

This program is in Budget Activity 7, Operational System Development, these budget activities includes development efforts to upgrade systems currently fielded or has received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305103F: *Cyber Security Initiative* | |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 1.920 | 2.055 | 2.048 | - | 2.048 |
| Current President's Budget | 1.920 | 2.055 | 2.048 | - | 2.048 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Digital Forensic Tools | 1.920 | 2.055 | 2.048 |
| ***Description:*** Develops technologies used to aid the counterintelligence and law enforcement communities in detecting, tracing, profiling, and responding to computer intrusions due to continuously evolving tactics, techniques, and procedures. Tools are uniquely suited for consideration of both civilian generics and military specific purposes. These software tools will enable the LE/CI community to increase the probability of data recovery that would otherwise remain undetected. The On-Scene Triage Tool (OTT) provides special agents with the ability to obtain information immediately from a live computer at a crime scene in order to determine media relevancy to an investigation. The TrueCrypt Detect tool is a special purpose tool for 1st responders to rapidly search thousands of files from suspected media embedded in MP4 or MOV videos using the program TCSteg.<br><br>***FY 2012 Accomplishments:***<br>Continued to develop and test Version 1.0 for the On-Scene Triage and Truecrypt Detect tools for LE/CI communities and the National Media Exploitation Center (NMEC).<br><br>***FY 2013 Plans:***<br>Start development of Version 2.0 for both On-Scene Triage and Truecrypt Detect tool. Provides program support and infrastructure operations costs to include hardware/software, general supplies, and equipment.<br><br>***FY 2014 Plans:***<br>Continue development and testing of Version 2.0 for both On-Scene Triage and Truecrypt Detect tools for LE/CI communities and NMEC. | | | |
| **Accomplishments/Planned Programs Subtotals** | 1.920 | 2.055 | 2.048 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305103F: *Cyber Security Initiative* |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

All contracts will be awarded based on full and open competition, and tools will be evaluated based on customer input for necessary modifications which will be addressed in updated contract requirements.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305103F: *Cyber Security Initiative* | PROJECT<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Digital Forensic Tools | C/FFP | General Dynamics:Lithicum, MD | - | 1.920 | Dec 2012 | 2.055 | Dec 2013 | 2.048 | Dec 2014 | - | | 2.048 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.920 | | 2.055 | | 2.048 | | 0.000 | | 2.048 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

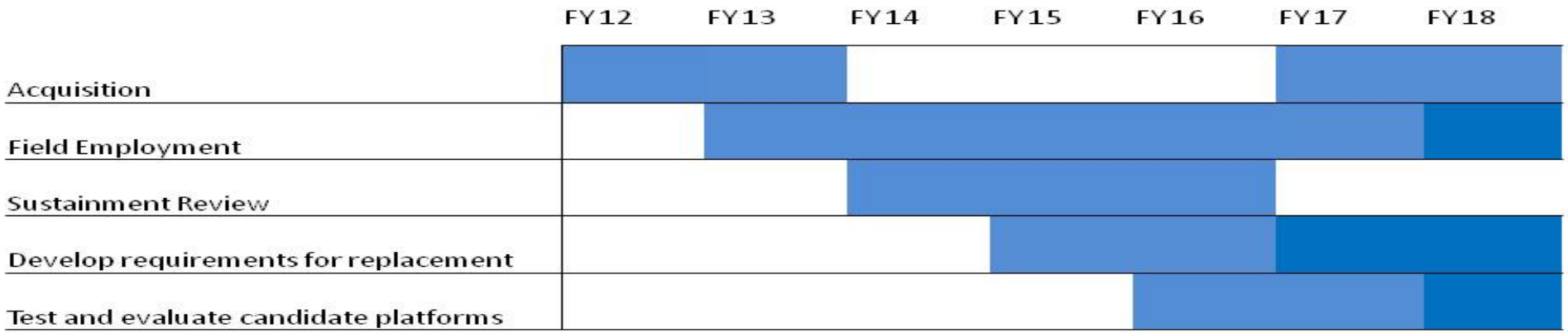
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 1.920 | | 2.055 | | 2.048 | | 0.000 | | 2.048 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305103F: *Cyber Security Initiative* | PROJECT<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* |

# Cyber Tools

(Aid Law Enforcement/Counterintelligence agencies to detect, trace, profile, and respond to computer intrusions)



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305103F: *Cyber Security Initiative* | PROJECT<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Develop software tools | 1 | 2012 | 4 | 2018 |
| Evaluate software using digital evidence processing | 1 | 2012 | 4 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305105F: *DoD Cyber Crime Center* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.274 | 0.285 | 0.288 | - | 0.288 | 0.293 | 0.300 | 0.305 | 0.310 | Continuing | Continuing |
| 671931: *TECH SURVEIL COUNTER MEAS EQPT* | - | 0.274 | 0.285 | 0.288 | - | 0.288 | 0.293 | 0.300 | 0.305 | 0.310 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Defense Cyber Crime Institute (DCCI) continues RDT&E collaboration efforts with law enforcement/counterintelligence and cyber communities to identify digital forensic technology gaps, research potential solutions and develop tools based on those solutions to address the gaps. DCCI leverage research into cutting edge investigative challenges within the digital forensics discipline to advance efforts aimed at securing networks, to include deep dive research into metamorphic and polymorphic techniques embedded in malicious code.

This program is in Budget Activity 7, Operational System Development, these budget activities includes development efforts to upgrade systems currently fielded or has received approval for full rate production and anticipate production funding in the current or subsequent fiscal year

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.274 | 0.285 | 0.288 | - | 0.288 |
| Current President's Budget | 0.274 | 0.285 | 0.288 | - | 0.288 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Forensic Technology Gap | 0.274 | 0.285 | 0.288 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305105F: *DoD Cyber Crime Center* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Tools are developed after specific consultation with law enforcement and counterintelligence agencies after analysis of domestic and foreign intrusion attempts. Automated Malware Processor (AMP) 2.0 file processing includes extraction, carving and analysis operations which improves the efficiency of forensics examiners by automating tasks that do not require the application of human intelligence. 3GPCarver provides rapid carving of video taken from cell phones and MP4 files. The tool is also effective at reconstructing video files which are mildly fragmented.<br><br>***FY 2012 Accomplishments:***<br>Continued research of potential solutions and developed tools to identify technology gaps. AMP 2.0 and 3GPCarver 1.0 released.<br><br>***FY 2013 Plans:***<br>Continues research of potential solutions and develop tools to identify technology gaps. Continue development and testing of AMP 3.0 and 3GPCarver 2.0<br><br>***FY 2014 Plans:***<br>Start development of AMP 4.0 and 3GPCarver 3.0. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.274 | 0.285 | 0.288 |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

Contracts will be awarded based on full and open competition. On a semi-annual basis, or as evaluated based on customer input, new tools may be necessary for modifications which will be addressed in updated contract requirements.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305105F: *DoD Cyber Crime Center* | PROJECT<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Intrusion Signature Tools | MIPR | Mitre:MA, | - | 0.274 | Nov 2011 | 0.285 | Nov 2012 | 0.288 | Nov 2013 | - | | 0.288 | Continuing | Continuing | |
| | | Subtotal | 0.000 | 0.274 | | 0.285 | | 0.288 | | 0.000 | | 0.288 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

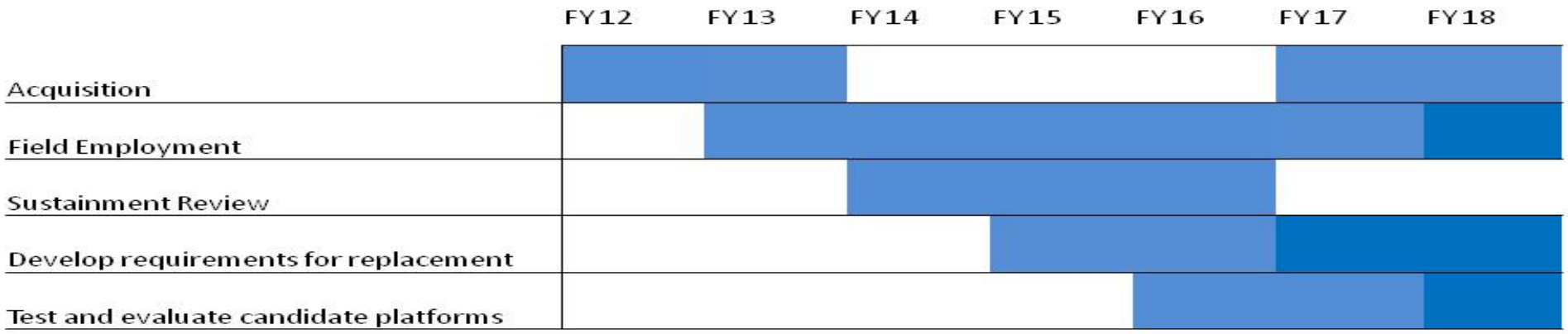
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 0.274 | | 0.285 | | 0.288 | | 0.000 | | 0.288 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305105F: *DoD Cyber Crime Center* | PROJECT<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* |

# Cyber Tools

(Aid Law Enforcement/Counterintelligence agencies to detect, trace, profile, and respond to computer intrusions)



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305105F: *DoD Cyber Crime Center* | **PROJECT**<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Forensic Data Extraction | 1 | 2012 | 4 | 2018 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305110F: *Satellite Control Network (SPACE)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 17.788 | 33.773 | 35.698 | - | 35.698 | 21.065 | 14.248 | 15.554 | 15.834 | Continuing | Continuing |
| 673276: *Satellite Control Network* | - | 17.788 | 33.773 | 35.698 | - | 35.698 | 21.065 | 14.248 | 15.554 | 15.834 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Air Force Satellite Control Network (AFSCN) mission is to command and control space systems and to distribute space system information in support of DoD, Intelligence Community (IC), and Civil operational and RDT&E missions, and other designated users. The AFSCN is a fielded, globally-distributed infrastructure of control centers, Remote Tracking Stations (RTSs), and communications links that provides unique capability for designated users to deploy and operate their satellites. AFSCN provides the highly reliable command and control, communications, and range systems required to support the nation's surveillance, navigation, communications, warning, and weather satellite operations. Air Force Space Command (AFSPC) performs operations, maintenance, modernization, and sustainment of the system to provide operational capabilities validated by a US Strategic Command (USSTRATCOM) Initial Capabilities Document and a Headquarters USAF-approved Operational Requirements Document (ORD). This program element funds the development and acquisition of AFSCN Improvement and Modernization (I&M), an ongoing program of replacements and upgrades which will meet validated USSTRATCOM and AFSPC operational requirements to replace non-standard, unsupportable equipment with more reliable, maintainable, interoperable, and standardized hardware and software. This new equipment is intended to enable AFSPC satellite operations to be performed with reduced hardware/software maintenance costs. The principal efforts within this program are currently focused on Range Upgrades, Network Operations Upgrades, training tools, and associated studies.

RANGE UPGRADES include the RTS Block Change (RBC), which will provide standardization, automatation, and interoperability to the remote tracking stations through the replacement of outdated government-unique equipment with standardized equipment and technology, in order to reduce failures, correct operational deficiencies, and reduce operating and sustainment costs; the Unified S-band (USB) development to enable dual frequency band uplink commanding of satellites; and systems engineering to ensure integrated upgrade efforts. FY14 funds include, but are not limited to, systems engineering, integration, and test support to continue USB high power amplifier development.

NETWORK OPERATIONS UPGRADES improve AFSCN resource management capabilities. The focus of these efforts is on the upgrade of the Electronic Scheduling and Dissemination (ESD) system, which enables satellite operators at over 40 geographically separated locations to request contact time with their satellites via the shared AFSCN antennas, and allows AFSCN schedulers to de-conflict overlapping requests to create and publish a schedule. FY14 funds continue development of ESD 3.0 software builds and testing.

This effort is in Budget Activity 7, Operational System Development, because it supports a fielded system.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305110F: *Satellite Control Network (SPACE)* |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 18.143 | 33.773 | 35.698 | - | 35.698 |
| Current President's Budget | 17.788 | 33.773 | 35.698 | - | 35.698 |
| Total Adjustments | -0.355 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | -0.355 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** RTS Block Change (RBC)<br><br>***Description:*** Continue RBC development to replace outdated, unique RTS equipment with standardized equipment and technology to reduce failures and enhance sustainability<br><br>***FY 2012 Accomplishments:***<br>Completed Segment Verification Testing for Transportable RBC in all configurations and began Integrated System Testing<br><br>***FY 2013 Plans:***<br>Complete systems engineering, integration, testing and turnover for Transportable RBC | 3.912 | 1.669 | 0.000 |
| ***Title:*** Unified S-band (USB) uplink<br><br>***Description:*** Develop USB uplink transmitter to enable commanding of satellites using USB frequency in addition to the legacy L-band frequency uplink commanding<br><br>***FY 2013 Plans:***<br>Continue development begun with FY11 funding; refine design into detailed configuration-item level design; complete Preliminary Design Review for first article<br><br>***FY 2014 Plans:***<br>Complete Critical Design Review; complete hardware and software integration and installation; begin testing | 0.000 | 6.671 | 10.211 |
| ***Title:*** Systems Engineering | 3.367 | 4.658 | 4.628 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305110F: *Satellite Control Network (SPACE)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Provide test, Information Assurance (IA), requirements management, and system architecture support to the AFSCN<br><br>***FY 2012 Accomplishments:***<br>Provided testing, IA, and work package planning for RBC electronics core activities; continued future requirements development; completed AFSCN architecture roadmap<br><br>***FY 2013 Plans:***<br>Provide test, IA, and work package planning for RBC electronics core activities; design RTS performance monitoring at RBC sites; continue future requirements development; update AFSCN architecture roadmap<br><br>***FY 2014 Plans:***<br>Provide test, IA, and work package planning for RBC electronics core activities; design RTS performance monitoring at RBC sites; continue future requirements development; update AFSCN architecture roadmap | | | |
| ***Title:*** Electronic Scheduling and Dissemination System (ESD) 3.0<br><br>***Description:*** Develop an upgrade for the aging, increasingly-unsustainable resource scheduling system needed to coordinate and manage satellite supports using the AFSCN antennas<br><br>***FY 2012 Accomplishments:***<br>Completed addtional software builds and tested multiple functions on operational AFSCN to verify architecture<br><br>***FY 2013 Plans:***<br>Complete additional software builds, installation and check-out<br><br>***FY 2014 Plans:***<br>Complete Segment Verification testing and complete final software builds | 9.212 | 18.000 | 18.000 |
| ***Title:*** Management Services<br><br>***Description:*** Program support to include FFRDC (Aerospace)<br><br>***FY 2012 Accomplishments:***<br>FFRDC services provided in support of program office management processes to include program oversight and milestone and schedule tracking<br><br>***FY 2013 Plans:*** | 1.297 | 2.775 | 2.859 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305110F: *Satellite Control Network (SPACE)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| FFRDC services in support of program office management processes including program oversight as well as milestone and schedule tracking<br>***FY 2014 Plans:***<br>FFRDC services in support of program office management processes to include program oversight and milestone and schedule tracking | | | |
| **Accomplishments/Planned Programs Subtotals** | 17.788 | 33.773 | 35.698 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: Line Item # 836760: *AF Satellite Control Network Space* | 60.592 | 44.219 | 30.237 | | 30.237 | 60.445 | 66.290 | 60.172 | 61.256 | Continuing | Continuing |

**Remarks**

Procures the mission critical electronics and telecommunications equipment to upgrade the aging AFSCN Range and Network Operations segments.

**E. Acquisition Strategy**

The AF uses the competitively awarded Satellite Control Network Contract (SCNC), managed by Space and Missile Systems Center, to modernize and sustain the AFSCN on a non-interference basis as it continues to support operational, RDT&E, and other designated users. The AF has also awarded sole source modifications to Honeywell to continue to modernize the AFSCN. The AF uses the existing SMC Technical Services Contract for information assurance systems engineering for AFSCN modernization.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305110F: *Satellite Control Network (SPACE)* | PROJECT<br>673276: *Satellite Control Network* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Satellite Control Network Contract | Various | Honeywell:Colorado Springs, CO | - | 14.118 | Dec 2011 | 28.918 | Dec 2012 | 30.697 | Dec 2013 | - | | 30.697 | Continuing | Continuing | TBD |
| Systems Engineering and Integration Contract | C/T&M | SAIC:El Segundo, CA | - | 2.373 | Dec 2011 | 2.080 | Dec 2012 | 2.142 | Dec 2013 | - | | 2.142 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 16.491 | | 30.998 | | 32.839 | | 0.000 | | 32.839 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FFRDC support to program office management (PMA) | RO | Aerospace Corp:El Segundo, CA | - | 1.297 | Dec 2011 | 2.775 | Dec 2012 | 2.859 | Dec 2013 | - | | 2.859 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.297 | | 2.775 | | 2.859 | | 0.000 | | 2.859 | | | |

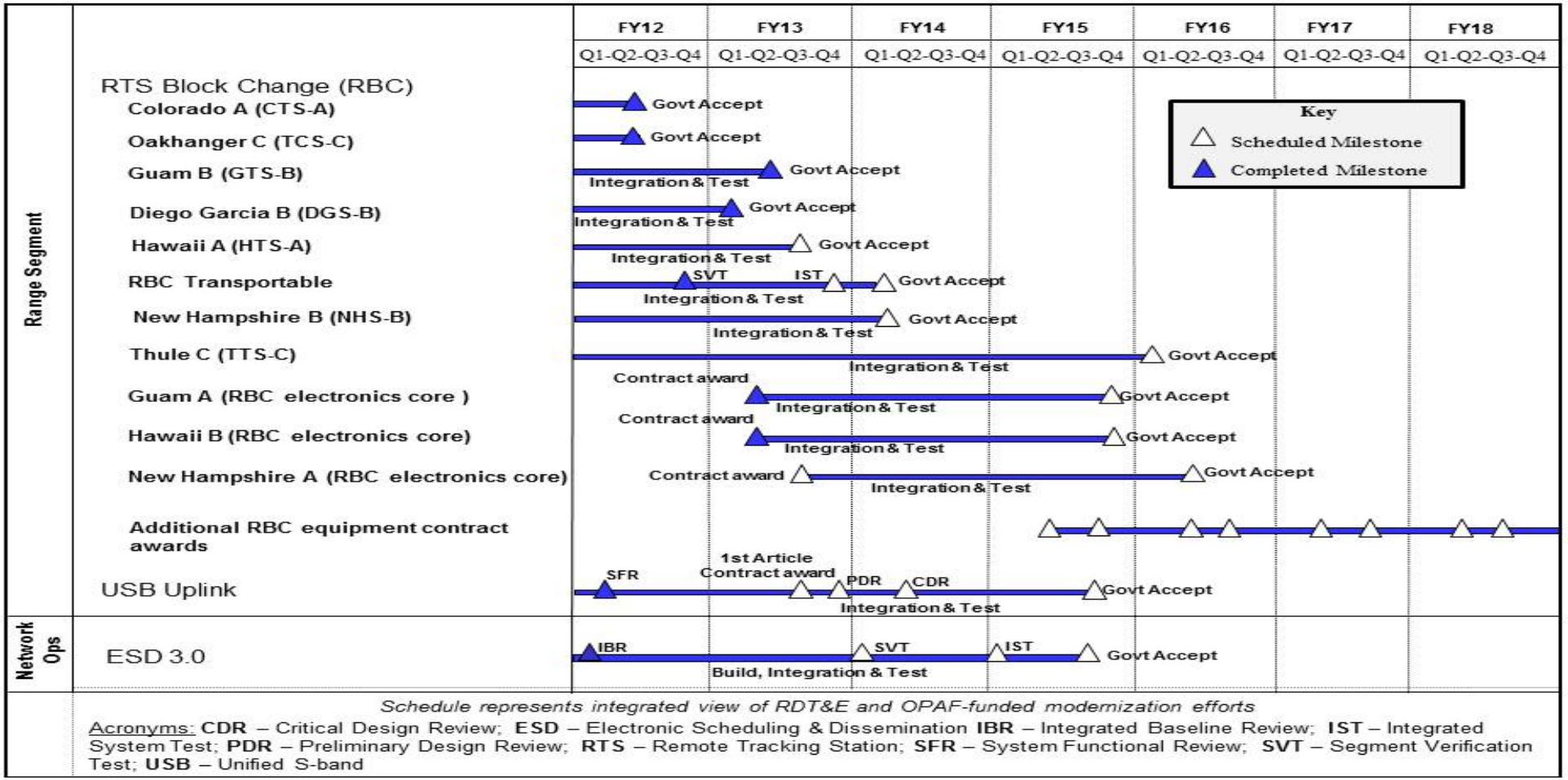
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 17.788 | | 33.773 | | 35.698 | | 0.000 | | 35.698 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305110F: *Satellite Control Network (SPACE)* | PROJECT<br>673276: *Satellite Control Network* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305110F: *Satellite Control Network (SPACE)* | PROJECT<br>673276: *Satellite Control Network* |




*Schedule represents integrated view of RDT&E and OPAF-funded modernization efforts*

Acronyms: **CDR** – Critical Design Review; **ESD** – Electronic Scheduling & Dissemination **IBR** – Integrated Baseline Review; **IST** – Integrated System Test; **PDR** – Preliminary Design Review; **RTS** – Remote Tracking Station; **SFR** – System Functional Review; **SVT** – Segment Verification Test; **USB** – Unified S-band

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305110F: *Satellite Control Network (SPACE)* | PROJECT<br>673276: *Satellite Control Network* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Colorado-A RBC integration/test/Gov't accept | 1 | 2012 | 2 | 2012 |
| Guam-B RBC integration/test/Gov't accept | 1 | 2012 | 2 | 2013 |
| Oakhanger-C RBC integration/test/Gov't accept | 1 | 2012 | 2 | 2012 |
| Diego Garcia-B RBC integration/test/Gov't accept | 1 | 2012 | 1 | 2013 |
| Transportable RBC integration/test/Gov't accept | 1 | 2012 | 1 | 2014 |
| Hawaii-A RBC contract award/integration/test/Gov't accept | 1 | 2012 | 3 | 2013 |
| New Hampshire-B RBC contract award/integration/test/Gov't accept | 1 | 2012 | 1 | 2014 |
| Thule-C RBC contract award/integration/test/Gov't accept | 1 | 2012 | 1 | 2016 |
| Guam-A RBC core contract award/integration/test/Gov't accept | 2 | 2013 | 4 | 2015 |
| Hawaii-B RBC core contract award/integration/test/Gov't accept | 2 | 2013 | 4 | 2015 |
| New Hampshire-A RBC core contract award/integration/test/Gov't accept | 3 | 2013 | 2 | 2016 |
| Additional RBC contract awards | 2 | 2015 | 4 | 2018 |
| USB Uplink first article contract award | 3 | 2013 | 3 | 2013 |
| USB Uplink Preliminary Design Review | 4 | 2013 | 4 | 2013 |
| USB Uplink Critical Design Review/integration/test/Gov't accept | 2 | 2014 | 3 | 2015 |
| Electronic Scheduling & Dissemination (ESD) Integrated Baseline Review | 1 | 2012 | 1 | 2012 |
| ESD Segment Verification Test | 1 | 2014 | 1 | 2014 |
| ESD Integrated System Test | 1 | 2015 | 1 | 2015 |
| ESD Gov't accept | 3 | 2015 | 3 | 2015 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305111F: *Weather Service* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 29.977 | 29.048 | 24.667 | - | 24.667 | 31.681 | 30.842 | 29.774 | 30.309 | Continuing | Continuing |
| 672738: *Weather Service* | - | 29.977 | 29.048 | 24.667 | - | 24.667 | 31.681 | 30.842 | 29.774 | 30.309 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

This budget activity funds operational development necessary to acquire, sustain, and enhance segments of the Air Force Weather Weapon System (AFWWS). Activities also include studies and analysis to support both current program planning and execution and future program planning. The AFWWS provides timely, accurate, consistent and relevant space and terrestrial weather information for global battlespace situational awareness. The AFWWS supports worldwide operations of Air Force and Army warfighters, Special Operation Forces (SOF), and other government agencies with weather observing and forecasting capabilities at in-garrison and deployed locations as well as centralized, reach-back capabilities. Air Force Weather (AFW) programs align under the five capability areas of Weather Data Collection (WDC), Weather Data Analysis (WDA), Weather Forecasting, Product Tailoring/Warfighter Applications (PT/WA), and Weather Dissemination (presently relies on Commercial-off-the-Shelf products and so does not use RDT&E funding). Through this alignment, AFW ensures an integrated and systems-oriented approach to program management decisions. WDC provides automated terrestrial and space environmental sensing capabilities at fixed and deployed locations worldwide. WDA provides a net-centric infrastructure that assimilates worldwide sources of terrestrial and space weather data and produces decision-quality information for warfighters. Improved weather analysis of real-time information also supports DoD's role in transformation of the National Airspace System through the Next Generation Air Transportation System (NextGen) and enhances Air Force energy security plans. Weather Forecasting provides advanced scientific numerical weather prediction capabilities for automated, high resolution forecast products for mission planning, rehearsal, and execution. Additionally, WDA and Forecasting capabilities will be expanded to integrate and exploit data from a new generation of environmental sensing satellites. PT/WA provides timely, local and regional target-scale weather information to operational commanders for a given Area of Responsibility, and at tactical levels, provides front-line weather information to warfighters in support of combat operations. PT/WA supports the 'train as you fight' concept by assuring fixed and deployable systems have a similar look and feel. FY14 funding will enhance current and develop new computations based on dual-polarization technology for improved severe weather detection and rainfall amount forecasting. During FY14, the weather data analysis capability will continue to develop incremental software enhancements and integrate improved analysis capabilities including processing of data from a new generation of environmental sensing satellites. In FY14, the program plans to continue development of software to integrate advanced terrestrial and space weather forecast capabilities to improve models for warfighter operations. In PT/WA program, the FY14 funding will continue developing software for warfighter tailoring and exploitation products and integrate regional and tactical weather systems with warfighter C4I systems. These efforts will enhance the availability and integration of weather information in multiple Wings, Squadrons, Air and Space Operations Centers, Army decision processes, ATC operations, and exploitation of weather at global, regional, and tactical levels.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305111F: *Weather Service* |

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 30.919 | 29.048 | 28.903 | - | 28.903 |
| Current President's Budget | 29.977 | 29.048 | 24.667 | - | 24.667 |
| Total Adjustments | -0.942 | 0.000 | -4.236 | - | -4.236 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.942 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -4.236 | - | -4.236 |

**Change Summary Explanation**

FY14 funding decrease is due to higher Air Force priorities.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Weather Data Collection | 0.075 | 0.339 | 0.342 |
| ***Description:*** WDC provides automated terrestrial and space environmental sensing capabilities at fixed and deployed locations worldwide.<br><br>***FY 2012 Accomplishments:***<br>Developed improved software for ground-based space environmental sensing.<br><br>***FY 2013 Plans:***<br>Participating with National Weather Service and Federal Aviation Administration in Product Improvement Plans for automated weather sensors and the Next Generation Weather Radar.<br><br>***FY 2014 Plans:***<br>Will participate with National Weather Service and Federal Aviation Administration in Product Improvement Plans for automated weather sensors and the Next Generation Weather Radar. | | | |
| ***Title:*** Weather Data Analysis | 3.805 | 2.748 | 2.704 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305111F: *Weather Service* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** WDA provides a net-centric infrastructure that assimilates worldwide sources of terrestrial and space weather data and produces decision-quality information for warfighters.<br><br>***FY 2012 Accomplishments:***<br>Continued incremental software development and integration of enhanced analysis capabilities including processing of data from a new generation of environmental sensing satellites.<br><br>***FY 2013 Plans:***<br>Continuing incremental software development and integration of enhanced analysis capabilities including processing of data from a new generation of environmental sensing satellites.<br><br>***FY 2014 Plans:***<br>Will continue incremental software development and integration of enhanced analysis capabilities including processing of data from a new generation of environmental sensing satellites. | | | |
| ***Title:*** Weather Forecasting<br><br>***Description:*** Forecasting provides advanced scientific numerical weather prediction capabilities for automated, high resolution forecast products for mission planning, rehearsal, and execution.<br><br>***FY 2012 Accomplishments:***<br>Continued integration of advanced terrestrial and space weather forecast capabilities including exploitation of a new generation of environmental sensing satellites.<br><br>***FY 2013 Plans:***<br>Continuing integration of advanced terrestrial and space weather forecast capabilities including exploitation of a new generation of environmental sensing satellites.<br><br>***FY 2014 Plans:***<br>Will continue integration of advanced terrestrial and space weather forecast capabilities including exploitation of a new generation of environmental sensing satellites. | 18.686 | 21.668 | 17.272 |
| ***Title:*** Product Tailoring/Warfighter Applications<br><br>***Description:*** PT/WA provides timely, local and regional target-scale weather information to operational commanders for a given Area of Responsibility, and at tactical levels, provides front-line weather information to warfighters in support of combat operations.<br><br>***FY 2012 Accomplishments:*** | 5.495 | 3.184 | 3.165 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305111F: *Weather Service* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continued software development and integration of regional and tactical weather systems and integration with warfighter C4I systems.<br>***FY 2013 Plans:***<br>Continuing software development and integration of regional and tactical weather systems and integration with warfighter C4I systems.<br>***FY 2014 Plans:***<br>Will continue software development and integration of regional and tactical weather systems and integration with warfighter C4I systems. | | | |
| ***Title:*** Program Management Administration<br>***Description:*** Program Management Administration activities to support System Program Office management and oversight.<br>***FY 2012 Accomplishments:***<br>Program Management Administration activities to support System Program Office management and oversight in FY12.<br>***FY 2013 Plans:***<br>Program Management Administration activities to support System Program Office management and oversight in FY13.<br>***FY 2014 Plans:***<br>Program Management Administration activities to support System Program Office management and oversight in FY14. | 1.916 | 1.109 | 1.184 |
| **Accomplishments/Planned Programs Subtotals** | 29.977 | 29.048 | 24.667 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA07: Line Item # 833070: *Weather Observation Forecast* | 16.360 | 17.864 | 17.166 | | 17.166 | 16.493 | 16.899 | 21.313 | 21.697 | Continuing | Continuing |
| • OPAF: BA07: Line Item # 837100: *Tactical C-E Equipment* | 0.427 | 0.430 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • OPAF: BA07: Line Item # 838010: *Comm Elect Mods* | 8.019 | 6.902 | 11.507 | | 11.507 | 12.227 | 11.102 | 7.367 | 7.500 | Continuing | Continuing |
| • OPAF: BA07: Line Item # 86190A: *Spares and Repair Parts* | 1.642 | 1.770 | 1.366 | | 1.366 | 2.082 | 2.029 | 1.891 | 1.925 | Continuing | Continuing |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305111F: *Weather Service* |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

**E. Acquisition Strategy**

AFWWS employs an incremental development strategy with a series of incremental Initial Operational Capabilities (IOCs) and software releases to enable rapid development and fielding of capabilities using full and open competition.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305111F: *Weather Service* | PROJECT<br>672738: *Weather Service* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Development and integration of weather forecast software | C/CPAF | Northrop Grumman:Bellevue, NE | - | 9.786 | Jan 2012 | 10.793 | Jan 2013 | 9.863 | Jan 2014 | - | | 9.863 | Continuing | Continuing | TBD |
| Development and integration of weather analysis software | C/CPFF | Raytheon:Long Beach, CA | - | 3.661 | Sep 2012 | 2.534 | May 2013 | 2.565 | May 2014 | - | | 2.565 | Continuing | Continuing | TBD |
| Integrate weather systems with warfighter C4I systems | C/CPIF | Raytheon:Omaha, NE | - | 4.217 | Jun 2012 | 2.847 | Apr 2013 | 2.807 | Apr 2014 | - | | 2.807 | Continuing | Continuing | TBD |
| Improve numerical weather prediction | MIPR | NCAR:Boulder, CO | - | 3.531 | Feb 2012 | 6.845 | Feb 2013 | 4.039 | Feb 2014 | - | | 4.039 | Continuing | Continuing | TBD |
| Improve weather forecast capabilities | MIPR | NASA:Greenbelt, MD | - | 0.908 | Feb 2012 | 0.750 | Feb 2013 | 0.700 | Feb 2014 | - | | 0.700 | Continuing | Continuing | TBD |
| Various | Various | Various:Various, | - | 5.351 | Oct 2011 | 3.619 | Feb 2013 | 3.012 | Feb 2014 | - | | 3.012 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 27.454 | | 27.388 | | 22.986 | | 0.000 | | 22.986 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Various | MIPR | Various:, | - | 0.607 | Oct 2011 | 0.551 | Oct 2012 | 0.497 | Oct 2014 | - | | 0.497 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.607 | | 0.551 | | 0.497 | | 0.000 | | 0.497 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305111F: *Weather Service* | PROJECT<br>672738: *Weather Service* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration ESC | Various | ESC:Hanscom AFB, MA | - | 1.881 | Oct 2011 | 1.074 | Oct 2013 | 1.149 | Oct 2014 | - | | 1.149 | Continuing | Continuing | TBD |
| Program Management Administration DMSG | Various | DMSG:Los Angeles AFB, CA | - | 0.035 | Oct 2011 | 0.035 | Oct 2012 | 0.035 | Oct 2014 | - | | 0.035 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.916 | | 1.109 | | 1.184 | | 0.000 | | 1.184 | | | |

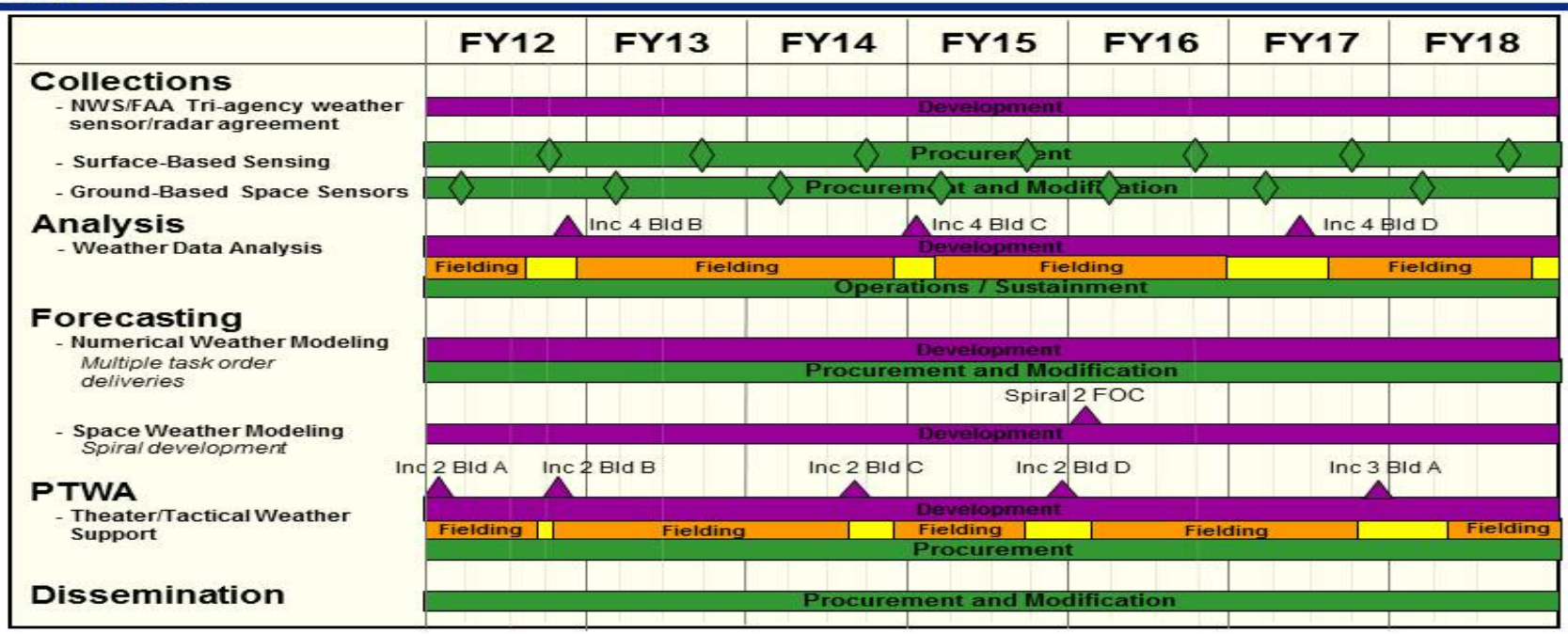
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 29.977 | | 29.048 | | 24.667 | | 0.000 | | 24.667 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305111F: *Weather Service* | PROJECT<br>672738: *Weather Service* |

U.S. AIR FORCE

# Weather Services Schedule




1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305111F: *Weather Service* | **PROJECT**<br>672738: *Weather Service* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Collections -- National Weather Service/Federal Aviation Administration (NWS/FAA) Tri-agency weather sensor/radar agreement | 1 | 2012 | 4 | 2018 |
| Collections -- Surface-Based Sensing | 1 | 2012 | 4 | 2018 |
| Collections -- Ground-Based Space Sensors | 1 | 2012 | 4 | 2018 |
| Analysis -- Weather Data Analysis | 1 | 2012 | 1 | 2015 |
| Weather Data Analysis Increment 4 Build B Delivery | 4 | 2012 | 4 | 2012 |
| Weather Data Analysis Increment 4 Build C Delivery | 1 | 2015 | 1 | 2015 |
| Weather Data Analysis Increment 4 Build D Delivery | 2 | 2017 | 2 | 2017 |
| Forecasting -- Numerical Weather Modeling | 3 | 2012 | 3 | 2018 |
| Forecasting -- Space Weather Modeling | 1 | 2012 | 1 | 2018 |
| Forecasting -- Space Weather Modeling Spiral 2 FOC | 1 | 2016 | 1 | 2016 |
| Product Tailoring/Warfighter Applications (PT/WA) -- Theater/Tactical Weather Support | 1 | 2012 | 4 | 2018 |
| PT/WA Increment 2 Build A Delivery | 1 | 2012 | 1 | 2012 |
| PT/WA Increment 2 Build B Delivery | 4 | 2012 | 4 | 2012 |
| PT/WA Increment 2 Build C Delivery | 3 | 2014 | 3 | 2014 |
| PT/WA Increment 2 Build D Delivery | 4 | 2015 | 4 | 2015 |
| PT/WA Increment 3 Build A Delivery | 4 | 2017 | 4 | 2017 |
| Dissemination | 1 | 2012 | 4 | 2018 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305114F: *Air Traffic Control, Approach, and Landing System (ATCALS)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 20.644 | 43.187 | 35.674 | - | 35.674 | 26.811 | 9.432 | 5.162 | 5.255 | Continuing | Continuing |
| 673587: *Air Traffic Control Systems* | - | 20.644 | 43.187 | 35.674 | - | 35.674 | 26.811 | 9.432 | 5.162 | 5.255 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 2 | 2 | | 2 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

RDT&E articles are shown in year completed. In FY13 two Deployable Instrument Landing System (D-ILS) pre-production units are completed. In FY14 two Deployable Radar Approach Control (D-RAPCON) pre-produciton units are completed. The two D-ILS PPUs are funded in FY13. The two D-RAPCONs are incrementally funded in FY13 and FY14.

**A. Mission Description and Budget Item Justification**

To support the Air Force worldwide flying mission, this program element funds research, development and management of new air traffic control surveillance, positioning, and precision approach landing systems. When applicable, this includes joint efforts with the Federal Aviation Administration (FAA) and coordination with the International Civil Aviation Organization and the North Atlantic Treaty Organization (NATO). ATCALS funding focuses on three main efforts as follows:

Deployable Instrument Landing System (D-ILS). This effort develops a deployable Category I (200ft decision height/2400ft runway visual range) ILS with remote monitoring and maintenance capabilities. D-ILS will provide precision approach capability in adverse weather conditions for contingency operations and humanitarian or disaster relief operations. D-ILS will replace the current Air Force mobile Precision Approach Radar (PAR) system used to support operations at deployed locations which were procured in the 1970s, are manpower intensive, and logistically unsupportable. On average, only 18% (three of 17 systems) of the mobile PAR systems are operational on a daily basis. Development and deployment of D-ILS will support increased operations in the area of responsibility, allow phase out of the currently obsolete legacy systems and provide interoperability with the Civil Reserve Air Fleet (CRAF). FY14 funds complete engineering and manufacturing development (EMD) under the EMD contract awarded in Aug 11. Due to a contractor protest, the start of EMD execution was delayed until Dec 11. EMD execution includes assembling two EMD pre-production units for test and evaluation. D-ILS Milestone C is scheduled for FY14. Related OPAF funds are in program element (PE) 0305114F (Weapon System Code 833010).

Deployable Radar Approach Control (D-RAPCON). D-RAPCON will replace the 40 year old AN/MPN-14K and AN/TPN-19 Airport Surveillance Radar (ASR) and Operations Shelter (OPS) subsystems with state of the art digital systems. Modification and overhaul of the existing systems has proven to be ineffective due to diminishing manufacturing sources. The D-RAPCON will be used to provide both a terminal and enroute surveillance capability. The D-RAPCON will also be used with the D-ILS and a fixed or mobile control tower to provide a complete air traffic control capability. The D-RAPCON will support tactical military and worldwide humanitarian operations and also provide a capability to support domestic disaster relief. The primary surveillance radar coverage (non-cooperative targets) is out

to 60 nautical miles (nm) and the secondary surveillance radar coverage (cooperative targets) is out to 120 nm. FY14 funds continue EMD efforts which include the completion of two pre-production systems and the start of contractor testing. Related OPAF funds are in PE 0305114F (Weapon System Code 833010).

Next Generation Air Transportation System (NextGen). This is an interagency effort designed to enable the transition from a ground infrastructure dominated Air Traffic Management capability for the U.S. National Airspace System (NAS) to a capability that leverages advances in Performance Based Navigation (PBN), non-radar based surveillance services, and transition from voice communications to digital data exchange. Per Deputy Secretary of Defense direction, the Air Force is the DoD lead Service for NextGen implementation and architecture development. NextGen will be built on key elements from existing programs and technologies and on new systems under development. As these technologies and architectures mature, ground system upgrades will be coordinated and fielded concurrently with aircraft avionics capabilities that are acquired and integrated into Air Force aircraft (manned and unmanned). These efforts will also run in close parallel with the Communication, Navigation and Surveillance/Air Traffic Management (CNS/ATM) program in PE 0305099F. FY14 efforts will continue proof of concept demonstrations and analysis leading to Remotely Piloted Aircraft (RPA) Ground Based Sense and Avoid (GBSAA), RPA Pilot/Controller Communications, and Automatic Dependent Surveillance-Broadcast (ADS-B) ground system implementation. These efforts will improve the display of aircraft position to air traffic controllers, enhance flight safety, and support the seamless integration of RPAs into the National Airspace System and the airspaces of other nations. FY14 funding also begins development/test of new Instrument Procedures Development System (IPDS) software (joint effort with FAA and Services); upgrade of surveillance radar and automation systems with new capabilities such as Mode 5 Identification Friend or Foe; and continues NextGen Lead Service Office efforts which include preparation of NextGen Concept of Operations and Implementation Plans, PBN and ADS-B Benefits/Business Cases, a DoD Integrated Work Plan, RPA GBSAA Engagement Plan, and a DoD NextGen Enterprise Architecture Strategic Roadmap.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program is in Budget Activity 7, Operational System Development, these budget activities include development efforts to upgrade systems currently fielded or has approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 20.644 | 43.187 | 28.526 | - | 28.526 |
| Current President's Budget | 20.644 | 43.187 | 35.674 | - | 35.674 |
| Total Adjustments | 0.000 | 0.000 | 7.148 | - | 7.148 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 7.148 | - | 7.148 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305114F: *Air Traffic Control, Approach, and Landing System (ATCALS)* |

**Change Summary Explanation**

FY14 funding adjustment reflects requested funds for D-RAPCON to fully fund development which will lead to a Milestone C in FY16.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** NextGen | 7.945 | 3.512 | 2.914 |
| ***Description:*** Includes efforts to implement NextGen efficiencies and capabilities. Focus is on seamlessly integrating Remotely Piloted Aircraft (RPAs) into civil airspace, ADS-B implementation, windfarm clutter mitigation, Instrument Procedures Development System software development, and Lead Service Office technical support/architecture development.<br><br>***FY 2012 Accomplishments:***<br>Continued efforts to implement NextGen efficiencies focusing on integrating RPAs into civil airspace (GBSAA at Cannon AFB), ADS-B ground system integration, radar windfarm clutter mitigation, initiation of pilot/controller RPA communications demo, preparation of CNS/ATM Initial Capability Document, NextGen Concept of Operations and Implementation Plans, NextGen architecture development/capability mapping and benefits/ business case development for Performance Based Navigation and ADS-B.<br><br>***FY 2013 Plans:***<br>Continues efforts to implement NextGen efficiencies. Tasks include RPA GBSAA demo at Cannon AFB, pilot/controller RPA communications demo at Creech, Nellis, and Cannon AFBs, installation of ADS-B equip for capability assessment at McGuire/ Nellis, continuation of CNS/ATM ICD preparation, radar windfarm clutter mitigation flight tests, NextGen architecture development, capability mapping, preparation of implementation roadmaps, Concept of Operations Implementation Plans, and Performance Based Navigation and ADS-B benefits/business case development.<br><br>***FY 2014 Plans:***<br>Will continue maturing GBSAA technology at Cannon AFB, refinement of pilot/controller communications procedures (demo at Cannon/Creech/Nellis) and civil approval of the GBSAA concept of operations (GBSAA Engagement Plan), and completion of ADS-B CNS/ATM ICD efforts. Additional tasks will include start of development of the Instrument Procedures Development System (IPDS) with the other Services and FAA, integration of Mode 5 IFF into legacy surveillance radars and automation systems, and through the Lead Service Office, refinement of NextGen implementation roadmaps, Concept of Operations and Implementation Plans, and NextGen benefits/business cases. | | | |
| ***Title:*** D-RAPCON | 0.937 | 27.888 | 25.149 |
| ***Description:*** Effort leads to award of D-RAPCON engineering, manufacturing and development (EMD) contract and test of two pre-production units and two automation system test units.<br><br>***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305114F: *Air Traffic Control, Approach, and Landing System (ATCALS)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Finalized SRD and Draft Request for Proposal (RFP) package; analyzed vendor feedback; completed the RFP package to include conducting the appropriate Multi-Independent Review Teams (MIRTs); released revised RFP package to industry; continued Milestone (MS) B documentation preparation, preparation and start of source selection.<br>***FY 2013 Plans:***<br>Continues source selection briefings to the Source Selection Authority and completion of source selection efforts; supports obtaining MS B approval from the Milestone Decision Authority (MDA)/award of the EMD contract, conduct of the preliminary and critical design reviews, begins fabrication/integration/assembly of two pre-production units and continues development and coordination of test, evaluation and certification related plans and procedures.<br>***FY 2014 Plans:***<br>Will continue fabrication, integration and assembly of two D-RAPCON pre-production systems and two automation system test units, begin contractor testing and continue support of government test plans, procedures and certifications. | | | |
| ***Title:*** D-ILS<br>***Description:*** Includes conduct of design, development, and testing of pre-production units leading to the fielding of the new Deployable Instrument Landing System (D-ILS).<br>***FY 2012 Accomplishments:***<br>Continued Engineering Manufacturing Development (EMD) tasks which included successful completion of the functional, preliminary, and critical design reviews.<br>***FY 2013 Plans:***<br>Supports execution of the EMD phase to include development/integration/assembly of two pre-production units for contractor testing and preparation/review of Government DT/OT test plans and procedures.<br>***FY 2014 Plans:***<br>Will support and conduct Government developmental and operational testing and preparation of all required documentation to achieve Production Readiness Review and Milestone C decision. Also includes initial preparation of the production line for units ordered in the FY14 timeframe. | 2.049 | 2.667 | 0.955 |
| ***Title:*** Program Management Administration<br>***Description:*** Provides engineering, cost, test, logistics, and implementation planning and analysis support as applicable for the D-RAPCON, D-ILS, and NextGen programs.<br>***FY 2012 Accomplishments:*** | 9.713 | 9.120 | 6.656 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305114F: *Air Traffic Control, Approach, and Landing System (ATCALS)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Provided analysis and supported preparation of D-RAPCON system requirements document, request for proposal package, and Milestone B approval documents. Supported D-ILS and D-RAPCON source selections. Continued to support NextGen RPA Ground Based Sense and Avoid, ADS-B integration demonstrations and NextGen program office.<br>***FY 2013 Plans:***<br>Supports D-RAPCON sources selection, preparation of Milestone B approval document and follow-on EMD efforts to include preliminary and critical design reviews. Provides technical support for fabrication of two D-ILS pre-production units and follow-on developmental and operational testing. Continues NextGen efforts to develop technical solution for integration of RPAs into civil airspace and develop NextGen implementation plans and roadmaps.<br>***FY 2014 Plans:***<br>Will continue engineering and program support for: D-RAPCON pre-production system integration and preparation/review of DT/OT test plans and procedures;completion of D-ILS DT/OT; and continue with implementation of NextGen GBSAA solutions (GBSAA, pilot controller communications), asessment of surveillance and air traffic control automation upgrades, and updates to NextGen Enterprise Architecture and benefits/business cases. | | | |
| **Accomplishments/Planned Programs Subtotals** | 20.644 | 43.187 | 35.674 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: 833010: *Air Traffic Control and Landing Systems* | 0.000 | 0.000 | 22.170 | | 22.170 | 30.738 | 65.612 | 89.804 | 86.313 | Continuing | Continuing |
| • OPAF: BA 05: 861900: *Spares and Repair Parts* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.135 | 2.340 | 3.420 | 2.260 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

Acquisition strategy includes the award of competitive fixed price incentive firm contracts for the D-ILS and D-RAPCON acquisitions emphasizing off-the-shelf technology and maximizing the use of non-developmental items (NDIs). Contracts will include production options.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305114F: *Air Traffic Control, Approach, and Landing System (ATCALS)* | PROJECT<br>673587: *Air Traffic Control Systems* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Instrument Procedure Development System (IPDS) | SS/T&M | FAA:Washington, DC | - | 0.000 | | 0.000 | | 1.810 | Jan 2014 | - | | 1.810 | 0.000 | 1.810 | TBD |
| D-RAPCON | C/FPIF | TBD:TBD, | - | 0.000 | | 26.125 | Mar 2013 | 23.342 | Feb 2014 | - | | 23.342 | 0.000 | 49.467 | TBD |
| D-ILS | C/FPIF | Northrop Grumman:San Diego, CA | - | 1.787 | Mar 2012 | 1.667 | Mar 2013 | 0.000 | | - | | 0.000 | 0.000 | 3.454 | TBD |
| | | **Subtotal** | 0.000 | 1.787 | | 27.792 | | 25.152 | | 0.000 | | 25.152 | 0.000 | 54.731 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lead Service Office Technical Support/ Requirements Documentation | Various | Various:, | - | 2.410 | Jul 2012 | 2.153 | Apr 2013 | 0.441 | Feb 2014 | - | | 0.441 | Continuing | Continuing | TBD |
| D-RAPCON Support Cost | Various | Various:, | - | 0.611 | Nov 2012 | 0.161 | Apr 2013 | 0.000 | | - | | 0.000 | 0.000 | 0.772 | TBD |
| D-ILS Support Cost | Various | Various:, | - | 0.000 | | 0.500 | Mar 2013 | 0.116 | Feb 2014 | - | | 0.116 | 0.000 | 0.616 | TBD |
| | | **Subtotal** | 0.000 | 3.021 | | 2.814 | | 0.557 | | 0.000 | | 0.557 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NextGen ADS-B Integration/Demo | SS/FFP | ITT/Volpe Center:Herdon, VA | - | 0.235 | Jul 2012 | 0.165 | Apr 2013 | 0.165 | Feb 2014 | - | | 0.165 | 0.000 | 0.565 | TBD |
| RPA GBSAA Demo | SS/T&M | Volpe Center:Cambridge, MA | - | 3.274 | Mar 2012 | 1.094 | May 2013 | 0.100 | Jan 2014 | - | | 0.100 | 0.000 | 4.468 | TBD |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305114F: *Air Traffic Control, Approach, and Landing System (ATCALS)* | PROJECT<br>673587: *Air Traffic Control Systems* |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RPA Pilot/Controller Comm Demo | SS/T&M | 412th Test Wing:Edwards AFB, CA | - | 0.526 | Mar 2013 | 0.100 | May 2013 | 0.100 | Jan 2014 | - | | 0.100 | 0.000 | 0.726 | TBD |
| Surveillance Radar/ Automation System Upgrades | C/T&M | FAA:Washington, DC | - | 0.000 | | 0.000 | | 0.350 | Feb 2014 | - | | 0.350 | 0.000 | 0.350 | TBD |
| AF/DoE Joint Windfarm Clutter Mitigation | SS/T&M | Massachusetts Institute of Technology Lincoln Labs:Bedford, MA | - | 1.500 | Apr 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 1.500 | TBD |
| D-RAPCON | MIPR | Various:Various, | - | 0.326 | Mar 2012 | 1.602 | Mar 2013 | 1.807 | Mar 2014 | - | | 1.807 | 0.000 | 3.735 | TBD |
| D-ILS | MIPR | 46th Test Wing:Eglin AFB, FL | - | 0.262 | Jan 2012 | 0.500 | Jan 2013 | 0.839 | Oct 2013 | - | | 0.839 | 0.000 | 1.601 | TBD |
| | | **Subtotal** | 0.000 | 6.123 | | 3.461 | | 3.361 | | 0.000 | | 3.361 | 0.000 | 12.945 | |

**Remarks**

D-RAPCON contract award delayed due to funding changes which caused reassessment of user requirements, update of the acquisition strategy, and preparation of a revised request for proposal.

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) - NextGen | Various | ESC/HBA:Bedford, MA | - | 3.073 | Oct 2011 | 1.418 | Apr 2013 | 0.835 | Oct 2013 | - | | 0.835 | Continuing | Continuing | TBD |
| Program Management Administration (PMA) - D-RAPCON | Various | ESC/HBA:Bedford, MA | - | 3.823 | Oct 2011 | 4.777 | Oct 2012 | 5.031 | Oct 2013 | - | | 5.031 | 0.000 | 13.631 | TBD |
| Program Management Administration (PMA) - D-ILS | Various | ESC/HBA:Bedford, MA | - | 2.817 | Oct 2011 | 2.925 | Oct 2012 | 0.738 | Oct 2013 | - | | 0.738 | 0.000 | 6.480 | TBD |
| | | **Subtotal** | 0.000 | 9.713 | | 9.120 | | 6.604 | | 0.000 | | 6.604 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305114F: *Air Traffic Control, Approach, and Landing System (ATCALS)* | PROJECT<br>673587: *Air Traffic Control Systems* | |

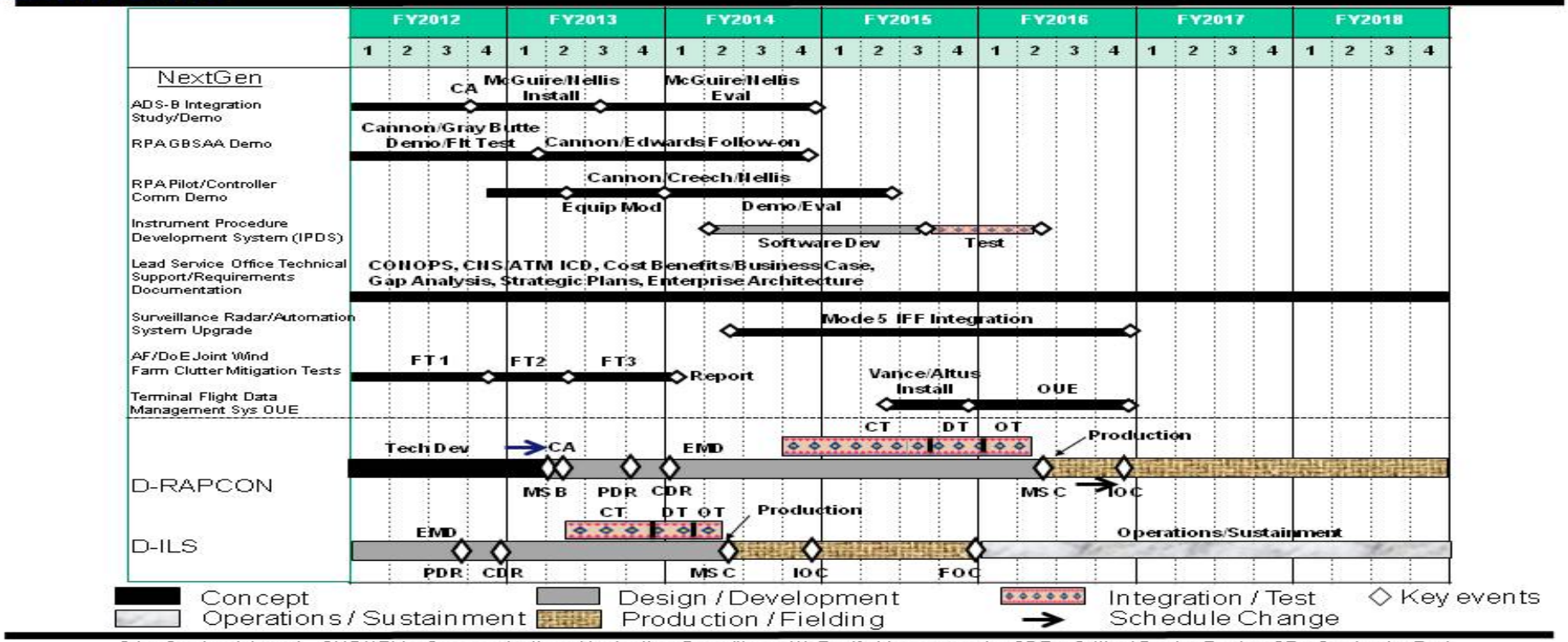
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 20.644 | | 43.187 | | 35.674 | | 0.000 | | 35.674 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305114F: *Air Traffic Control, Approach, and Landing System (ATCALS)* | PROJECT<br>673587: *Air Traffic Control Systems* |

# Air Traffic Control and Landing Systems (ATCALS)

U.S. AIR FORCE




CA—Contract Award CNS/ATM—Communications, Navigation, Surveillance/Air Traffic Management CDR—Critical Design Review CT—Contractor Test CONOPS—Concept of Operations DT—Developmental Test EMD—Engineering, Manufacturing, and Development FT—Flight Test ICD—Initial Capability Document IOC/FOC—Initial/Full Operational Capability MS—Milestone OT—Operational Test OUE—Operational Utility Evaluation PDR—Preliminary Design Review

*Integrity — Service - Excellence*

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305114F: *Air Traffic Control, Approach, and Landing System (ATCALS)* | **PROJECT**<br>673587: *Air Traffic Control Systems* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| ADS-B Integration Study/Demo Contract Award | 4 | 2012 | 4 | 2012 |
| ADS-B Integration Study/Demo Install | 4 | 2012 | 3 | 2013 |
| ADS-B Integration Study/Demo Data Collection/Eval | 3 | 2013 | 4 | 2014 |
| RPA GBSAA Demo Cannon/Gray Butte Demo/Flt Test | 1 | 2012 | 1 | 2013 |
| RPA GBSAA Demo Cannon/Edwards Follow-on | 1 | 2013 | 4 | 2014 |
| RPA Pilot/Controller Comm Demo | 4 | 2012 | 2 | 2015 |
| RPA Pilot/Controller Comm Demo Equip Mod | 2 | 2013 | 4 | 2013 |
| RPA Pilot/Controller Comm Demo/Eval | 1 | 2014 | 2 | 2015 |
| Instrument Procedure Development System (IPDS) Software Dev | 2 | 2014 | 3 | 2015 |
| IPDS Test | 3 | 2015 | 2 | 2016 |
| Lead Service Office Technical Support/Requirements Documentation | 1 | 2012 | 4 | 2018 |
| Surveillance Radar and Automation System Upgrade | 2 | 2014 | 4 | 2016 |
| AF/DOE Joint Wind Farm Clutter Mitigation Tests 1, 2, and 3 | 1 | 2012 | 1 | 2014 |
| AF/DoE Joint Wind Farm Clutter Mitigation Report | 1 | 2014 | 1 | 2014 |
| Terminal Flight Data Management Sys OUE Vance/Altus Install | 2 | 2015 | 4 | 2015 |
| Terminal Flight Data Management Sys OUE | 4 | 2015 | 4 | 2016 |
| D-RAPCON | 1 | 2012 | 4 | 2018 |
| D-RAPCON Milestone B | 2 | 2013 | 2 | 2013 |
| D-RAPCON PDR | 4 | 2013 | 4 | 2013 |
| D-RAPCON CDR | 1 | 2014 | 1 | 2014 |
| D-RAPCON CT/DT/OT | 4 | 2014 | 2 | 2016 |
| D-RAPCON Milestone C | 2 | 2016 | 2 | 2016 |

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305114F: *Air Traffic Control, Approach, and Landing System (ATCALS)* | PROJECT<br>673587: *Air Traffic Control Systems* |

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| D-RAPCON IOC | 4 | 2016 | 4 | 2016 |
| D-ILS | 1 | 2012 | 4 | 2018 |
| D-ILS PDR | 3 | 2012 | 3 | 2012 |
| D-ILS CDR | 4 | 2012 | 4 | 2012 |
| D-ILS CT/DT/OT | 2 | 2013 | 2 | 2014 |
| D-ILS Milestone C | 2 | 2014 | 2 | 2014 |
| D-ILS Initial Operational Capability (IOC) | 4 | 2014 | 4 | 2014 |
| D-ILS Full Operational Capability (FOC) | 4 | 2015 | 4 | 2015 |
| D-ILS Operations/Sustainment | 1 | 2016 | 4 | 2018 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 27.708 | 50.496 | 21.186 | - | 21.186 | 8.746 | 4.996 | 1.763 | 1.492 | Continuing | Continuing |
| 675136: *Target Systems Development* | - | 6.287 | 6.945 | 9.993 | - | 9.993 | 3.917 | 1.777 | 1.763 | 1.492 | Continuing | Continuing |
| 675366: *QF-16* | - | 21.421 | 43.551 | 11.193 | - | 11.193 | 4.829 | 3.219 | 0.000 | 0.000 | Continuing | Continuing |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Full-scale and subscale targets assure warfighters weapon systems will perform effectively against real-world enemy fighters and cruise missiles. Aerial Targets provide adherence to Public Law Title 10, Section 2366 "Live Fire/Lethality" developmental/operational test requirements. Target drones are used to validate operational missile/weapon system effectiveness and fighter Operational Flight Program (OFP) updates. Target drones are essential for development testing/ operational testing for all air-to-air and surface-to-air missiles, and for the F-22A, F-35, F-18, F-16, F-15, etc., aircraft. The objective is to provide realistic targets for missile testing to enable the development of offensive counter-air systems (air-to-air and surface-to-air) capable of defeating changing enemy airborne threats. This program element funds development, improvements, and updates of full-scale/subscale aerial targets and target control systems to ensure aerial targets represent enemy threat airborne systems. Specialized target payload subsystems are developed for requirements to include but not limited to missile scoring, electronic attack, electronic countermeasures and infrared (IR) countermeasures, radar and IR signature augmentation, and chaff and flare dispensing systems.

In FY13, Digital Radio Frequency Memory (DRFM) funds execute in BPAC 675366. In FY14, DRFM funds are moved to BPAC 675136.

This program is in budget activity 7 - RDT&E Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year. It provides aerial targets, target payloads, and target control systems in support of operational and developmental testing.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 45.620 | 50.496 | 29.627 | - | 29.627 |
| Current President's Budget | 27.708 | 50.496 | 21.186 | - | 21.186 |
| Total Adjustments | -17.912 | 0.000 | -8.441 | - | -8.441 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | -9.028 | 0.000 | | | |
| • SBIR/STTR Transfer | -1.684 | 0.000 | | | |
| • Other Adjustments | -7.200 | 0.000 | -8.441 | - | -8.441 |

**Change Summary Explanation**

FY12: Reprogramming (Omnibus 2012 $7.7M, Other $1.328M)

FY12: Other Adjustments (PL 112-74 Section 8074 $7.2M transfer to test and evaluation)

FY14: Funding removed to align with execution schedule

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675136: *Target Systems Development* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675136: *Target Systems Development* | - | 6.287 | 6.945 | 9.993 | - | 9.993 | 3.917 | 1.777 | 1.763 | 1.492 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Full-scale and subscale targets assure warfighters weapon systems will perform effectively against real-world enemy fighters and cruise missiles. The BQM-167A Air Force Subscale Aerial Target (AFSAT) is a jet powered drone aircraft measuring approximately 20 feet long with a mission to simulate threat aircraft for testing and evaluation of surface-to-air, ship-to-air, or air-to-air missiles. The target accomplishes this mission through the use of optional payloads including chaff and flare, electronic attack, and infrared devices. Funding supports continued improvement of launch phase performance and overall performance enhancement efforts. Funding supports development, improvements, and updates of target control systems and specialized target payload subsystems for requirements to include but not limited to missile scoring, electronic attack and infrared (IR) countermeasures, radar and IR signature augmentation, and chaff and flare dispensing systems. Electronic Attack (EA) pod upgrade provides new techniques and capabilities critical to subscales to realistically emulate foreign threat systems.

This program is in budget activity 7 - RDT&E Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year. It provides aerial targets, target payloads, and target control systems in support of operational and developmental testing.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** BQM-167A Development | 0.900 | 1.008 | 1.000 |
| ***Description:*** Provide enhancements to the radar cross section and infrared signature with accompanying test and integration. Begin design of an alternate launch system. | | | |
| ***FY 2012 Accomplishments:***<br>Continue Radar Cross Section (RCS) augmentation, design integration, and test. Perform infrared (IR) augmentation | | | |
| ***FY 2013 Plans:***<br>Continue RCS enhancement/implementation and initiate BQM-167 improvement efforts to include Alternate Launch System (ALS) study. | | | |
| ***FY 2014 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675136: *Target Systems Development* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continue RCS implementation and BQM-167 improvement efforts. | | | |
| ***Title:*** Target Control System<br>***Description:*** Provide system modernization enhancements to Target Control System (Gulf Range Drone Control System, GRDCS) for command and control and tracking of Aerial Targets.<br>***FY 2012 Accomplishments:***<br>Provide system modernization enhancements to Target Control System (Gulf Range Drone Control System, GRDCS) for command and control and tracking of Aerial Targets.<br>***FY 2013 Plans:***<br>Continue advanced command and destruct systems and other system modernization enhancements to Target Control System for command and control and tracking of Aerial Targets.<br>***FY 2014 Plans:***<br>Continue system modernization enhancements to Target Control System for command and control and tracking of Aerial Targets. | 4.902 | 5.434 | 5.474 |
| ***Title:*** Digital Radio Frequency Memory (DRFM)<br>***Description:*** Upgrade existing and develop new electronic attack (EA) pod hardware and software used on QF-4, QF-16, and subscales to emulate adversary EA tactics and techniques.<br>***FY 2012 Accomplishments:***<br>N/A<br>***FY 2013 Plans:***<br>EA Pod development executed with funds from BPAC 675366 (QF-16) in FY13<br>***FY 2014 Plans:***<br>Upgrade existing and develop new electronic attack (EA) pod hardware and software used on QF-4, QF-16, and subscales to emulate adversary EA tactics and techniques. | 0.000 | 0.000 | 3.000 |
| ***Title:*** PMA<br>***Description:*** Travel, office supplies, equipment, program office computer and communication expenses, Advisory and Assistance Service contractor support Aerial Targets specific<br>***FY 2012 Accomplishments:*** | 0.485 | 0.503 | 0.519 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675136: *Target Systems Development* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Travel, office supplies, equipment, program office computer and communication expenses, Advisory and Assistance Service contractor support Aerial Targets specific | | | |
| ***FY 2013 Plans:***<br>Travel, office supplies, equipment, program office computer and communication expenses, Advisory and Assistance Service contractor support Aerial Targets specific | | | |
| ***FY 2014 Plans:***<br>Travel, office supplies, equipment, program office computer and communication expenses, Advisory and Assistance Service contractor support Aerial Targets specific | | | |
| **Accomplishments/Planned Programs Subtotals** | 6.287 | 6.945 | 9.993 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF:BA04: 10TRGT: *Target Drones* | 59.268 | 129.866 | 138.669 | | 138.669 | 99.531 | 123.067 | 126.921 | 128.351 | Continuing | Continuing |
| • APAF: BA06: 000999: *Initial Spares/Repair Parts* | 0.468 | 0.522 | 0.437 | | 0.437 | 0.659 | 0.623 | 0.578 | 0.598 | Continuing | Continuing |
| • APAF: BA07: 000074: *War Consumables* | 4.198 | 2.171 | 5.599 | | 5.599 | 5.262 | 4.503 | 4.584 | 4.667 | Continuing | Continuing |
| • APAF: BA07: 000075: *Other Production Charges* | 10.298 | 5.275 | 13.515 | | 13.515 | 19.596 | 10.746 | 10.939 | 11.136 | Continuing | Continuing |
| • OPAF: BA03: 834190: *Combat Training Ranges* | 0.000 | 0.795 | 2.492 | | 2.492 | 3.081 | 2.154 | 2.723 | 2.535 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

The AFSAT acquisition strategy is sole source follow-on with fixed price and time and materials contracts. The Target Control System acquisition strategy includes several small projects to provide enhancements to Target Control System (to include GRDCS) and will be accomplished with other government agencies and contracts as needed.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675136: *Target Systems Development* |

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675136: *Target Systems Development* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Air Force Subscale Aerial Target (AFSAT) Product Improvements | SS/FFP | NAWC:Pt Mugu, CA | - | 0.900 | Jan 2012 | 1.008 | Jan 2013 | 1.000 | Jan 2014 | - | | 1.000 | Continuing | Continuing | |
| Target Control System | Various | Various:, | - | 4.902 | Dec 2012 | 5.434 | Apr 2013 | 5.573 | Jan 2014 | - | | 5.573 | Continuing | Continuing | |
| Digital Radio Frequency Memory (DRFM) | Various | Various:Pt Mugu, CA | - | 0.000 | | 0.000 | Jan 2013 | 3.000 | Jan 2014 | - | | 3.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 5.802 | | 6.442 | | 9.573 | | 0.000 | | 9.573 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Target Control System Program Management Administration (PMA) | Various | Various:Eglin AFB, FL | - | 0.485 | Jan 2012 | 0.503 | Jan 2013 | 0.420 | Jan 2014 | - | | 0.420 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.485 | | 0.503 | | 0.420 | | 0.000 | | 0.420 | | | |

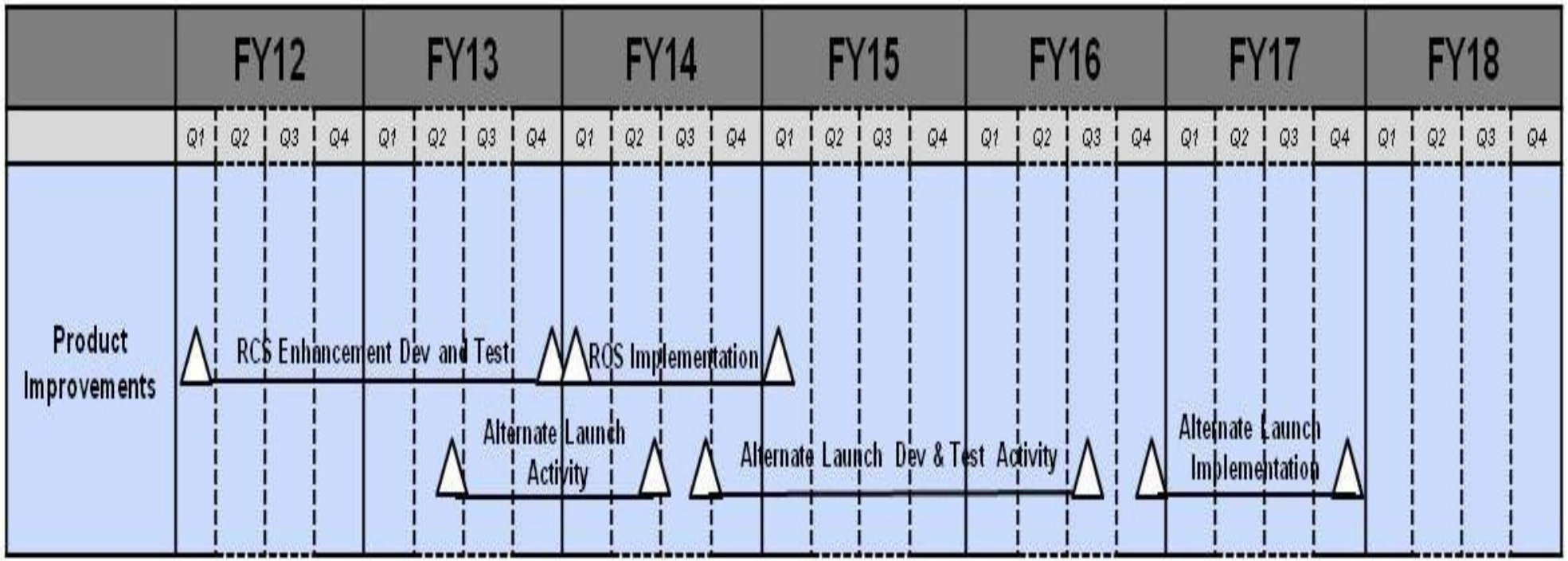
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675136: *Target Systems Development* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 6.287 | | 6.945 | | 9.993 | | 0.000 | | 9.993 | | | |

**Remarks**

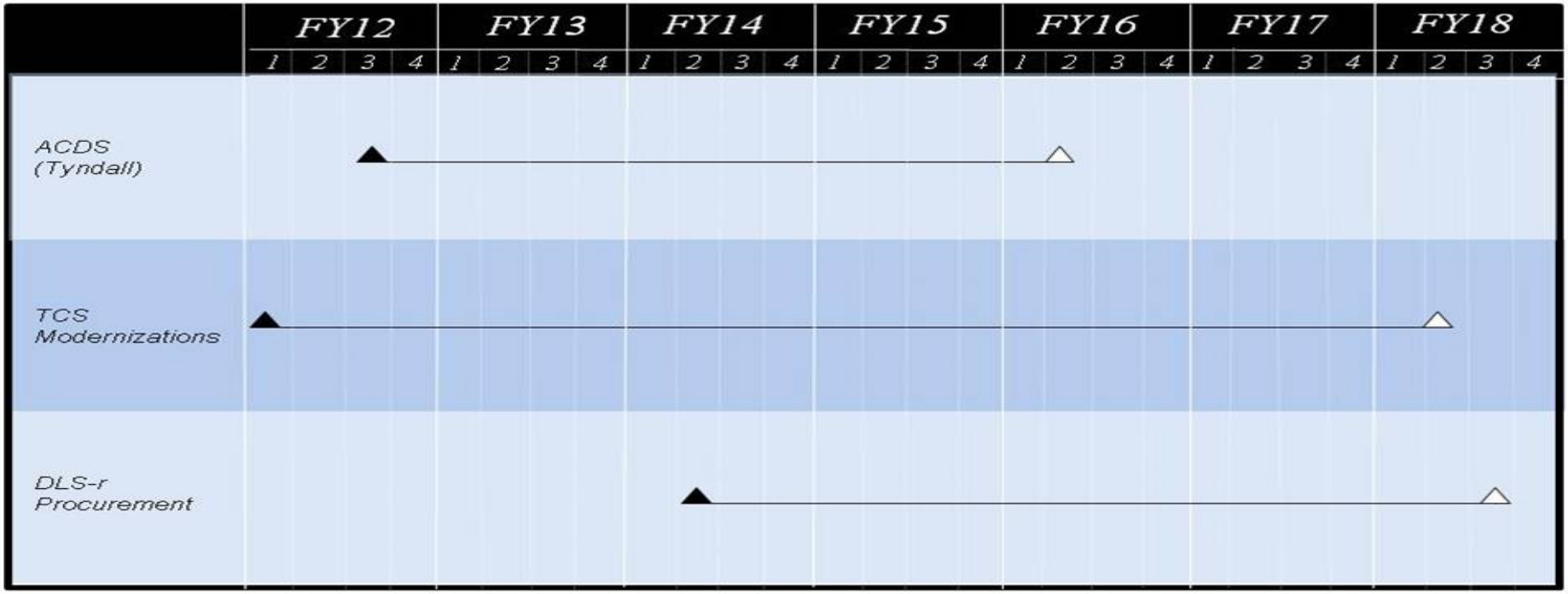
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675136: *Target Systems Development* |

# AFSAT Product Improvement Schedule



| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675136: *Target Systems Development* |

# Target Control Systems Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305116F: *Aerial Targets* | **PROJECT**<br>675136: *Target Systems Development* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| BQM-167A: RCS Enhancement Dev and Test | 1 | 2012 | 2 | 2013 |
| BQM-167A: RCS Implementation | 1 | 2014 | 1 | 2015 |
| BQM-167A: Alternate Launch Activity | 2 | 2013 | 4 | 2017 |
| TCS: GRDCS Modernization | 1 | 2012 | 2 | 2018 |
| TCS: GRDCS Data Link SubSystem - Replacement (DLS-r) Test Set Procurement | 2 | 2014 | 3 | 2018 |
| TCS: Advanced Command Destruct Systems (ACDS) Development | 3 | 2012 | 2 | 2016 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675366: *QF-16* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675366: *QF-16* | - | 21.421 | 43.551 | 11.193 | - | 11.193 | 4.829 | 3.219 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Full-scale targets assure warfighters weapon systems perform effectively against real-world enemy fighters and cruise missiles. Aerial Targets support adherence to Public Law Title 10, Section 2366, which requires major systems and munitions programs to conduct survivability and lethality testing before full-rate production. The Aerial Targets program provides drones to satisfy "Live Fire/Lethality" developmental/operational test requirements. Target drones are used to validate operational missile/weapon system effectiveness and fighter operational flight program (OFP) updates. Target drones are required for developmental/operational testing for all air-to-air and surface-to-air missiles, and for the F-22A, F-35, F-18, F-16, F-15, etc., aircraft. The United States Air Force's (USAF) Air Superiority Modernization/ Mission Area Plan has identified aerial targets as a capability shortfall; the QF-16 program will fulfill this requirement. Funding supports continued development of the follow-on full-scale aerial target (QF-16) and simulators, development, improvements, and updates of target control systems and specialized target payload subsystems for requirements such as: missile scoring, electronic attack and infrared (IR) countermeasures, radar and IR signature augmentation, and chaff and flare dispensing systems. Electronic Attack (EA) pod upgrade provides new techniques and capabilities critical to QF-16s to realistically emulate foreign threat systems.

This program is in budget activity 7 - RDT&E Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year. It provides aerial targets, target payloads, and target control systems in support of operational and developmental testing.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** QF-16 Development Program | 12.898 | 16.850 | 3.150 |
| ***Description:*** QF-16 Development Program | | | |
| ***FY 2012 Accomplishments:***<br>Continued design/development/integration of drone package into F-16; efforts include design/development of drone peculiar equipment, build/install drone hardware prototypes, contractor system test and evaluation, target control system integration and contractor ground and flight testing. | | | |
| ***FY 2013 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675366: *QF-16* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continued design/development/integration of drone package into F-16; efforts include design/development of drone peculiar equipment, build/install drone hardware prototypes, contractor system test and evaluation, threat realism analysis, target control system integration and support of government development testing and operational testing (DT/OT).<br>***FY 2014 Plans:***<br>Finalization of EMD development contract, drone package integration, threat realism improvements and DT/OT. | | | |
| ***Title:*** F-16 Regeneration<br>***Description:*** F-16 Regeneration<br>***FY 2012 Accomplishments:***<br>Continued support of F-16 aircraft withdrawal and refurbishment, engine maintenance and refurbishment, acquisition of support equipment, programmatic efforts in support of QF-16 development program. Beginning of government development and operational testing (DT/OT).<br>***FY 2013 Plans:***<br>Continued support of F-16 aircraft withdrawal and refurbishment, engine maintenance and refurbishment, acquisition of support equipment, programmatic efforts in support of QF-16 development program. Continuation and completeion of Government DT/OT.<br>***FY 2014 Plans:***<br>Continued support of Government DT/OT & programmatic efforts in support of QF-16 development program. | 6.649 | 22.826 | 7.418 |
| ***Title:*** Digital Radio Frequency Memory (DRFM)<br>***Description:*** Digital Radio Frequency Memory (DRFM)<br>***FY 2012 Accomplishments:***<br>N/A<br>***FY 2013 Plans:***<br>Upgrade existing and develop new electronic attack (EA) pod hardware and software used on QF-4, QF-16, and subscales to emulate adversary EA tactics and techniques.<br>***FY 2014 Plans:***<br>N/A | 0.000 | 3.000 | 0.000 |
| ***Title:*** PMA | 1.874 | 0.875 | 0.625 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675366: *QF-16* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Travel, office supplies, equipment, program office computer and communication expenses, Advisory and Assistance Service contractor support Aerial Targets specific<br><br>***FY 2012 Accomplishments:***<br>Travel, office supplies, equipment, program office computer and communication expenses, Advisory and Assistance Service contractor support Aerial Targets specific<br><br>***FY 2013 Plans:***<br>Travel, office supplies, equipment, program office computer and communication expenses, Advisory and Assistance Service contractor support Aerial Targets specific<br><br>***FY 2014 Plans:***<br>Travel, office supplies, equipment, program office computer and communication expenses, Advisory and Assistance Service contractor support Aerial Targets specific | | | |
| **Accomplishments/Planned Programs Subtotals** | 21.421 | 43.551 | 11.193 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA 04: 10TRGT: *Target Drones* | 59.268 | 129.866 | 138.669 | | 138.669 | 99.531 | 123.067 | 126.921 | 128.351 | Continuing | Continuing |
| • APAF: BA 06: 000999: *Initial Spares/Repair Parts* | 0.468 | 0.522 | 0.437 | | 0.437 | 0.659 | 0.623 | 0.578 | 0.598 | Continuing | Continuing |
| • APAF: BA 07: 000074: *War Consumables* | 4.198 | 2.171 | 5.599 | | 5.599 | 5.262 | 4.503 | 4.584 | 4.667 | Continuing | Continuing |
| • APAF: BA 07: 000075: *Other Production Charges* | 10.298 | 5.275 | 13.515 | | 13.515 | 19.596 | 10.746 | 10.939 | 11.136 | Continuing | Continuing |
| • OPAF: BA 03: 834190: *Combat Training Ranges* | 0.000 | 0.795 | 2.492 | | 2.492 | 3.081 | 2.154 | 2.723 | 2.535 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

The QF-16 acquisition strategy is a fixed price incentive firm, time and materials development contract with fixed price production options (Lots 1-5).

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675366: *QF-16* |

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675366: *QF-16* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Development of Drone Peculiar Equipment | C/Various | The Boeing Company:Saint Louis, MO | - | 12.898 | Aug 2012 | 16.850 | Dec 2012 | 3.150 | Mar 2014 | - | | 3.150 | Continuing | Continuing | |
| Airframe/Engine - Government Furnished Equipment (GFE) | Various | AAC/EBYA: Eglin AFB, FL; AMARG: Tucson, AZ, 162d ANG: Tucson, AZ; OC-ALC, Tinker AFB, OK:Various, | - | 3.005 | | 12.535 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 15.903 | | 29.385 | | 3.150 | | 0.000 | | 3.150 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QF-16 Program Support | Various | AAC/EBYA: Eglin AFB, FL; AMARG: Tucson, AZ; 162d ANG: Tucson, AZ; OO-ALC: Hill AFB, UT:Various, | - | 3.644 | | 10.192 | | 7.034 | | - | | 7.034 | Continuing | Continuing | |
| Digital Radio Frequency Memory (DRFM) | Various | Various:Pt Mugu, CA | - | 0.000 | | 3.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 3.644 | | 13.192 | | 7.034 | | 0.000 | | 7.034 | | | |

**Remarks**

The funds for the DRFM Electronic Attack Pods will be sent via MIPR to Pt Mugu for obligation and execution.

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675366: *QF-16* | |

**Management Services ($ in Millions)**

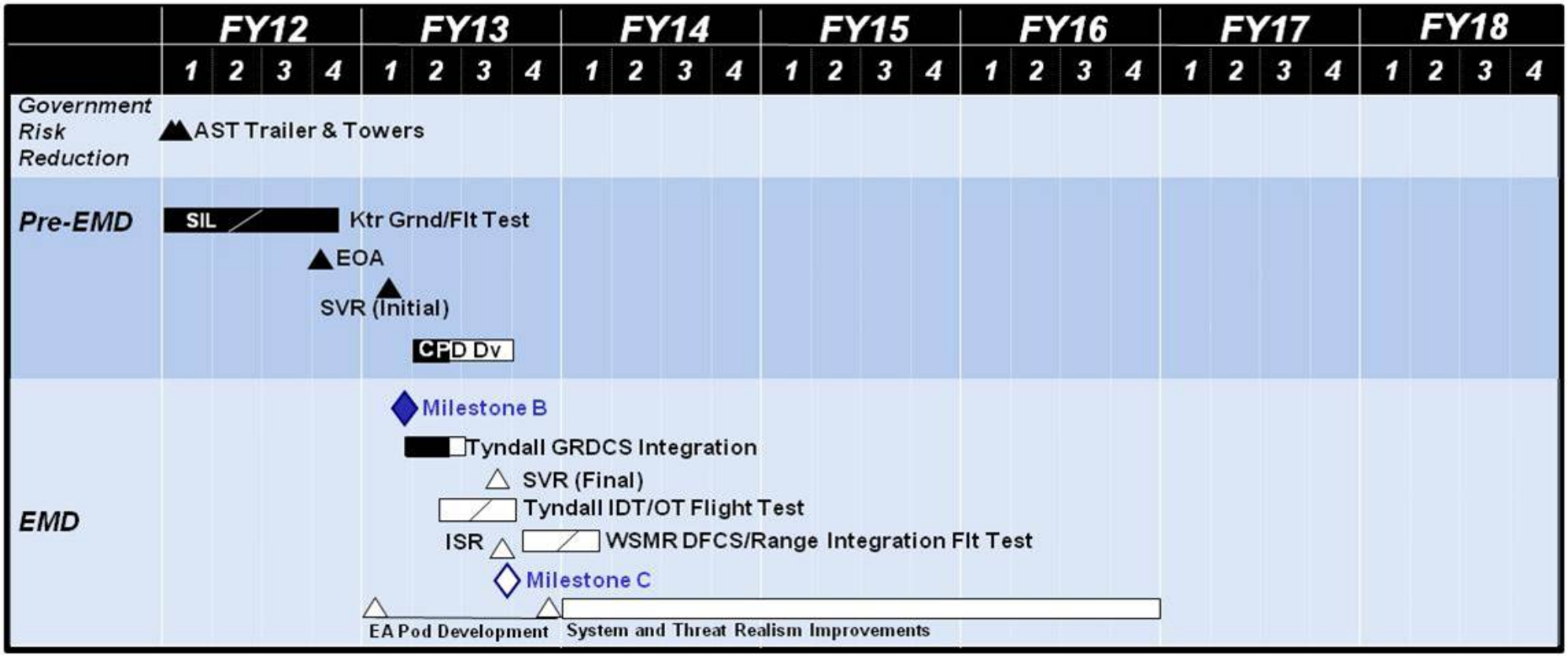
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| QF-16 Program Mangement Administration (PMA) | Various | Various:Eglin AFB, FL | - | 1.874 | | 0.974 | | 1.009 | | - | | 1.009 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 1.874 | | 0.974 | | 1.009 | | 0.000 | | 1.009 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 21.421 | | 43.551 | | 11.193 | | 0.000 | | 11.193 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305116F: *Aerial Targets* | PROJECT<br>675366: *QF-16* |

# QF-16 Master Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305116F: *Aerial Targets* | **PROJECT**<br>675366: *QF-16* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| System Verification Review (SVR), Initial | 1 | 2013 | 1 | 2013 |
| Milestone B (MS B) | 1 | 2013 | 1 | 2013 |
| Development Testing/Operational Testing (DT/OT) | 4 | 2012 | 1 | 2014 |
| SVR, Final | 3 | 2013 | 3 | 2013 |
| EA Pod Development | 1 | 2013 | 4 | 2013 |
| Threat Realism Improvements | 1 | 2014 | 4 | 2014 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305128F: *Security and Investigative Activities* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.355 | 0.354 | 0.195 | - | 0.195 | 0.504 | 0.480 | 0.417 | 0.424 | Continuing | Continuing |
| 671931: *TECH SURVEIL COUNTER MEAS EQPT* | - | 0.355 | 0.354 | 0.195 | - | 0.195 | 0.504 | 0.480 | 0.417 | 0.424 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Air Force Office of Special Investigations (AFOSI) conducts specialized investigative activities and force protection support for Air Force (AF) commanders worldwide. This assists AF commanders in protecting their people and resources. AFOSI's mission includes investigating criminal matters affecting AF personnel, contract fraud and economic crimes involving AF weapons systems and spare parts, the investigation of environmental crime, counterdrugs, computer intrusion detection and forensic media analysis of computer crimes. This element supports Technical Surveillance Countermeasures (TSCM), Computer Crime Investigations (CCI), and technical support to criminal and counterintelligence investigations and operations conducted by AFOSI. AFOSI's TSCM mission conducts counterintelligence investigations for both AF and DoD facilities and programs in order to deter and detect technical surveillance operations conducted by Foreign Intelligence Services to compromise classified or sensitive information. The purpose of CCI research is to improve AF and DoD Information Operations capability by enhancing AFOSI's ability to deter or prevent spies, hackers, or saboteurs from manipulating, damaging, or stealing sensitive war fighting data or systems. Failing that, to investigate, identify, and prosecute those who do. While most research to meet operational requirements is Operational System Development, there is also research in the category of Engineering and Manufacturing Development due to a need for modifications to present technology. The equipment required to provide technical support to investigations is unique and complex. This equipment must be continually updated to provide state-of-the-art capabilities to detect and neutralize criminal activities targeted against the AF and DoD. In an era of advancing technology, reduced manning, and increasingly high level fraud, environmental crime and computer crime investigations, technical investigative equipment must be continuously updated to enable AFOSI special agents to have the most cost effective and best possible means of thwarting criminal acts. The evolution of a new wave of computer crimes has made AFOSI responsible for the collection, investigative analysis, national level law enforcement coordination, and dissemination of hacker activity and intrusion incidents for the Air Force. AFOSI's computer crime equipment must stay on the leading edge of technology to collect criminal information as well as pursue and apprehend criminals through a global medium. AFOSI must continually update its existing high tech computer surveillance equipment to support ongoing and future investigative operations to identify hackers and hacker groups, as well as potential hostile government activities targeting Air Force communication and control systems. Critical Infrastructure Protection identifies weaknesses in the Air Force Critical infrastructure, highlights critical countermeasures and acquires and deploys cost-effective solutions. The intent is to provide an Air Force-wide review of current infrastructure vulnerabilities; prioritize AF protection planning and integrate with existing programs; identify gaps based on AF needs; direct studies to refine AF requirements.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | DATE: April 2013 |
|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | R-1 ITEM NOMENCLATURE<br>PE 0305128F: *Security and Investigative Activities* | | |
| **B. Program Change Summary ($ in Millions)** | **FY 2012** | **FY 2013** | **FY 2014 Base** | **FY 2014 OCO** | **FY 2014 Total** |
| Previous President's Budget | 0.355 | 0.354 | 0.363 | - | 0.363 |
| Current President's Budget | 0.355 | 0.354 | 0.195 | - | 0.195 |
| Total Adjustments | 0.000 | 0.000 | -0.168 | - | -0.168 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -0.168 | - | -0.168 |

| **C. Accomplishments/Planned Programs ($ in Millions)** | **FY 2012** | **FY 2013** | **FY 2014** |
|---|---|---|---|
| ***Title:*** TSCM | 0.258 | 0.271 | 0.109 |

***Description:*** Next Generation Technical Surveillance Countermeasures (TSCM) receiver. TSCM detects, deters and neutralizes traditional and emerging technical collection efforts of foreign intelligence entities and insider threats while identifying physical security vulnerabilities in sensitive information processing facilities. Developments in technologies provide for increased frequency spectrum and information network awareness and advanced automated analytical tools in a man-portable form factor. Additionally, the potential increased speed and resolution reduces man hours and time on target resulting in inherent efficiencies as related to human and capital resources.

***FY 2012 Accomplishments:***
Continued development of Next Generation Technical Surveillance, Countermeasures (TSCM) receiver. Efforts thus far have focused on creating a sophisticated battery of technical surveillance targets. These targets are used to test and evaluate performance, response, classification, and analytical capabilities of the candidate receiver systems.

***FY 2013 Plans:***
Continue development of Next Generation Technical Surveillance Countermeasures (TSCM) receiver. FY 13 activities will support ongoing efforts to identify, develop and test and evaluate receivers against state-of-the-art commercial and state-sponsored technical collection tools and capabilities. Evaluation and acceptance testing will facilitate the objective and technical evaluation towards meeting validated requirements prior to full-rate acquisition.

***FY 2014 Plans:***
Continue development of Next Generation Technical Surveillance Countermeasures (TSCM) receiver. FY 14 activities (based on FY13 results) will transition into more robust activities to identify, develop and test and evaluate receivers against state-of-the-art

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305128F: *Security and Investigative Activities* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| commercial and state-sponsored technical collection tools and capabilities. Evaluation and acceptance testing will facilitate the objective and technical evaluation towards meeting validated requirements prior to full-rate acquisition. | | | |
| ***Title:*** CCI<br>***Description:*** Continue development of Computer Crimes Investigative (CCI) Equipment & Software<br>***FY 2012 Accomplishments:***<br>Continued development of Computer Crimes Investigative (CCI) Equipment & Software.<br>***FY 2013 Plans:***<br>Further research and develop tools to exploit cyberspace, digital media and mobile devices for the collection of evidence and counterintelligence information and methods of neutralizing threats from intrusions and insider threats.<br>***FY 2014 Plans:***<br>Further research and develop tools to exploit cyberspace, digital media and mobile devices for the collection of evidence and counterintelligence information and methods of neutralizing threats from intrusions and insider threats. | 0.097 | 0.083 | 0.086 |
| **Accomplishments/Planned Programs Subtotals** | 0.355 | 0.354 | 0.195 |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

Market Research is accomplished jointly within the DoD, Counterintelligence, and Law Enforcement communities with the various government laboratories and major defense contractors to identify locations with the ability to develop investigative tools unique to our mission needs. These technologies, capabilities, and limitations of current and future investigative tools is sometimes highly sensitive or classified. Market Research also allows inter-agency coordination and deconfliction to occur, reducing or eliminating duplicitous development efforts. Annually, stakeholders meet to discuss initiatives, challenges and organizational goals to coordinate or consolidate requirements to increase efficiency. Once Market Research and any applicable coordination/deconfliction is completed, acquisition channels are analyzed and selected based on the ability to meet operational and technical security requirements.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305128F: *Security and Investigative Activities* | PROJECT<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sandia Natl Lab | MIPR | TBD:TBD, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| AFWIC | MIPR | TBD:TBD, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Other Agency | MIPR | TBD:TBD, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Armed Forces Experimental Training Activity | MIPR | TBD:TBD, | - | 0.272 | Dec 2013 | 0.354 | Dec 2014 | 0.195 | Dec 2014 | - | | 0.195 | Continuing | Continuing | |
| US Naval Research Lab | MIPR | TBD:TBD, | - | 0.083 | Dec 2013 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | Subtotal | 0.000 | 0.355 | | 0.354 | | 0.195 | | 0.000 | | 0.195 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 0.355 | | 0.354 | | 0.195 | | 0.000 | | 0.195 | | | |

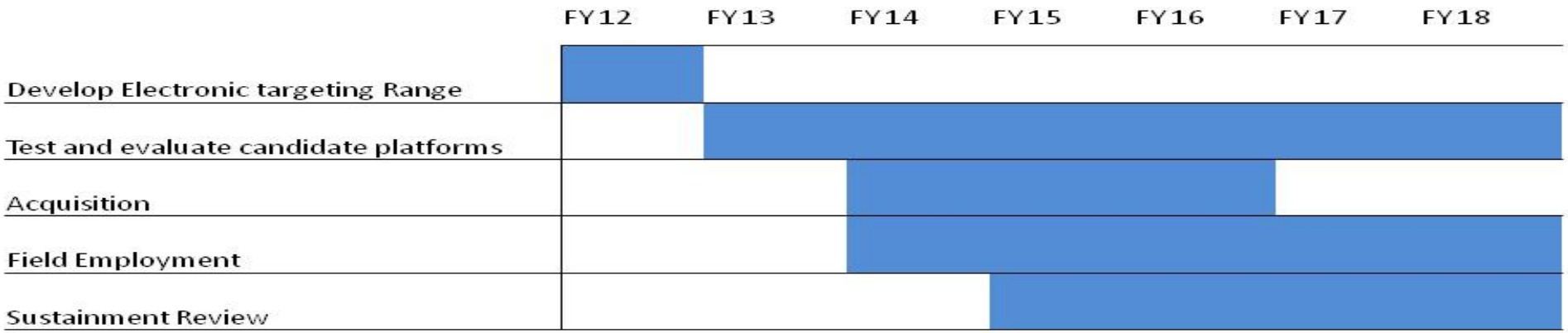
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305128F: *Security and Investigative Activities* | PROJECT<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305128F: *Security and Investigative Activities* | PROJECT<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* |

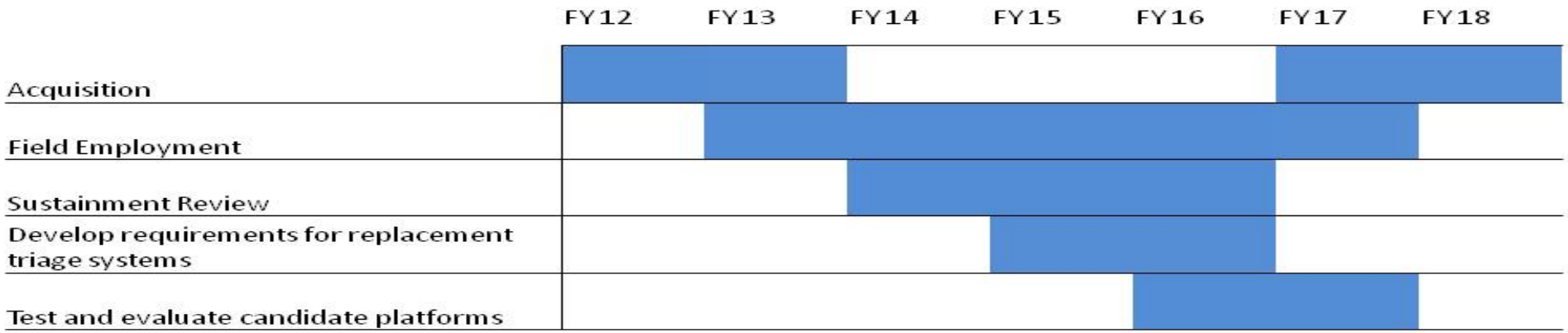
# Technical Countermeasures Receiver



| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305128F: *Security and Investigative Activities* | **PROJECT**<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* |

# Field Cyber Triage Toolset

(Near or on site search and preservation of Loose media, computers, portable devices)



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305128F: *Security and Investigative Activities* | PROJECT<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| TSCM Receiver | 1 | 2012 | 2 | 2017 |
| CCI Software/Equipment | 1 | 2012 | 2 | 2017 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305145F: *Arms Control Implementation* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.000 | 4.000 | 1.430 | - | 1.430 | 15.100 | 7.640 | 0.760 | 0.000 | Continuing | Continuing |
| 675039: *B-52 Modernization* | - | 0.000 | 4.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 675063: *Open Skies Sensors* | - | 0.000 | 0.000 | 1.430 | - | 1.430 | 15.100 | 7.640 | 0.760 | 0.000 | Continuing | Continuing |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

New Start Effort:

In FY14 675063, Open Skies Sensors includes new start efforts.
In FY14 funding totals include $1.430M.
The Open Skies Sensor program is per the direction of the Presidential Policy Directive-15 (PPD-15).

**A. Mission Description and Budget Item Justification**

BA7 - These programs are in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have recieved approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

Strategic Plans & Policy Division (A5XP) Mission - Develops future national security strategy concepts including those involving space systems, nuclear weapons and other strategic and high consequence capabilities. Directs, integrates and synchronizes advances in USAF capability to combat Weapons of Mass Destruction. Focal point for USAF arms control policy, implementation and compliance with international treaties and agreements, diplomatic clearances and airspace/aircraft sovereignty issues. Defines and defends the USAF role in ballistic missile defense. Represents USAF in international, interagency, DoD, Joint, inter-Service, COCOM and MAJCOM forums and implementation groups on matters involving national security policy and strategy.

Open Skies Sensors - This program addresses the requirements in the Presidential Policy Directive-15 (PPD-15). The Open Skies Treaty allows signatories to conduct observation flights over each other's territory using fixed-wing, unarmed observation aircraft. The aircraft can use optical cameras, video cameras, sideways-looking synthetic aperture radar, and infrared line scanning devices. There are 34 participating states to the Open Skies Treaty. The Air Force is required to allow overflight of USAF bases per multilateral request; to acquire, operate, and maintain the aircraft and equipment utilized during overflights of partner countries; to provide required sensor media and initial media processing; and to provide airfield servicing, logistics, and maintenance for foreign overflights of the US.

Open Skies Sensors - The OC-135B aircraft supports the implementation of the United States Government (USG) Open Skies Treaty. Mission equipment on the OC-135B includes wet film optical framing and panoramic cameras. The installed cameras are nearly obsolete, frequently unreliable, hard and increasingly expensive to maintain, and repair parts must be individually manufactured. The wet film manufacturers are discontinuing production of the film stock. And, the ultimate imagery

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305145F: *Arms Control Implementation* |

product customer desires digital format products. This camera replacement program will replace the wet film cameras with modern, digital cameras. Modern, digital cameras will be more reliable, maintainable and cost effective. The customer will be able to more readily use the imagery products. Equipment service life will be extended significantly.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.000 | 4.000 | 0.000 | - | 0.000 |
| Current President's Budget | 0.000 | 4.000 | 1.430 | - | 1.430 |
| Total Adjustments | 0.000 | 0.000 | 1.430 | - | 1.430 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 1.430 | - | 1.430 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305145F: *Arms Control Implementation* | PROJECT<br>675039: *B-52 Modernization* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675039: *B-52 Modernization* | - | 0.000 | 4.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Arms Control Activities activation under the New Start Treaty drives the need to modify approximately 28 B-52s to a conventional only role by removing the Nuclear Code Enable Switch and associated equipment. This requires a complete design to remove the equipment from the aircraft and install metal plates prohibiting reinstallation of removed equipment to comply with treaty protocols.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Arms Control Activities | 0.000 | 4.000 | 0.000 |
| ***Description:*** Develops and validates modification to remove nuclear capability | | | |
| ***FY 2012 Accomplishments:***<br>N/A | | | |
| ***FY 2013 Plans:***<br>Develop hardware kit to de-mod B-52 aircraft removing the Nuclear Code Enable Switch including technical data. | | | |
| ***FY 2014 Plans:***<br>N/A | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 4.000 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # B05200: *B-52* | 0.000 | 0.000 | 0.500 | | 0.500 | 0.200 | 0.100 | 0.200 | 0.000 | 0.000 | 1.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305145F: *Arms Control Implementation* | PROJECT<br>675039: *B-52 Modernization* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

**D. Acquisition Strategy**

Arms Control Activities will be Sole Source to Boeing on the Engineering Sustainment Program (ESP) Contract

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305145F: *Arms Control Implementation* | PROJECT<br>675039: *B-52 Modernization* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Arms Control, New Start Treaty | SS/CPFF | Boeing:Wichita, KS | - | 0.000 | | 4.000 | Jan 2013 | 0.000 | | - | | 0.000 | 0.000 | 4.000 | 4.000 |
| | | **Subtotal** | 0.000 | 0.000 | | 4.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 4.000 | 4.000 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

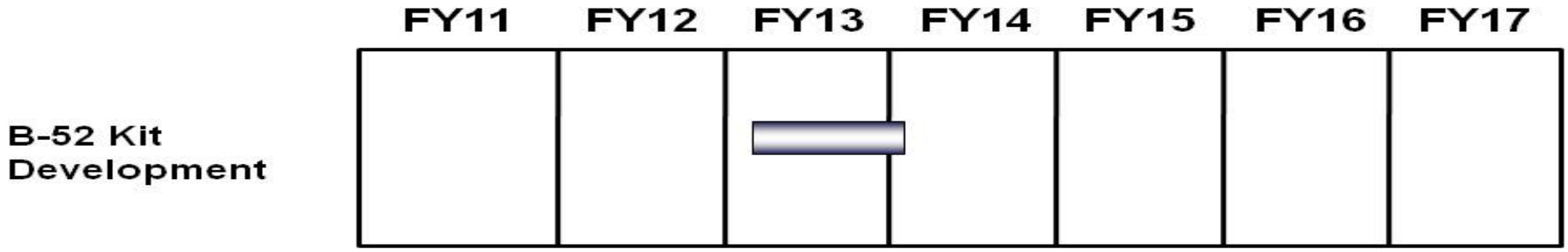
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 4.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 4.000 | 4.000 |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305145F: *Arms Control Implementation* | PROJECT<br>675039: *B-52 Modernization* |

# Arms Control Activities, New Start Treaty



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305145F: *Arms Control Implementation* | PROJECT<br>675039: *B-52 Modernization* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| Kit Development | 1 | 2013 | 4 | 2013 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305145F: *Arms Control Implementation* | PROJECT<br>675063: *Open Skies Sensors* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675063: *Open Skies Sensors* | - | 0.000 | 0.000 | 1.430 | - | 1.430 | 15.100 | 7.640 | 0.760 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY14 675063, Open Skies Sensors includes new start efforts.
In FY14 funding totals include $1.430M per the direction of the Presidential Policy Directive-15 (PPD-15).

**A. Mission Description and Budget Item Justification**

The OC-135B Support implementation of the United States Government (USG) Open Skies Treaty commitment. Mission equipment includes wet film optical framing and panoramic cameras. Installed cameras are nearly obsolete, frequently unreliable, hard and increasingly expensive to maintain, and repair parts must be individually manufactured. In addition, the web film manufacturers are discontinuing production of the film stock. And, the ultimate imagery product customer desires digital format products. This camera replacement program will replace the wet film cameras with modern, digital cameras. This program will result in modern, digital cameras with higher reliability, maintainability and cost effective. The customer of the imagery will be able to more readily use the imagery products. Equipment service life will be extended significantly.

Open Skies Sensors - This program addresses the requirements in the Presidential Policy Directive-15 (PPD-15). The Open Skies Treaty allows signatories to conduct observation flights over each other's territory using fixed-wing, unarmed observation aircraft. The aircraft can use optical cameras, video cameras, sideways-looking synthetic aperture radar, and infrared line scanning devices. There are 34 participating states to the Open Skies Treaty. The Air Force is required to allow over flight of USAF bases per multilateral request; to acquire, operate, and maintain the aircraft and equipment utilized during over flights of partner countries; to provide required sensor media and initial media processing; and to provide airfield servicing, logistics, and maintenance for foreign over flights of the US.

Open Skies Sensors - The OC-135B aircraft supports the implementation of the United States Government (USG) Open Skies Treaty. Mission equipment on the OC-135B includes wet film optical framing and panoramic cameras. The installed cameras are nearly obsolete, frequently unreliable, hard and increasingly expensive to maintain, and repair parts must be individually manufactured. The wet film manufacturers are discontinuing production of the film stock. And, the ultimate imagery product customer desires digital format products. This camera replacement program will replace the wet film cameras with modern, digital cameras. Modern, digital cameras will be more reliable, maintainable and cost effective. The customer will be able to more readily use the imagery products. Equipment service life will be extended significantly.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Open Skies Sensors | 0.000 | 0.000 | 1.430 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305145F: *Arms Control Implementation* | PROJECT<br>675063: *Open Skies Sensors* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Replace existing Open Skies aircraft with digital cameras.<br><br>***FY 2014 Plans:***<br>Conduct research supporting design and intergration of the new digital cameras. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 0.000 | 1.430 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDTE: BA07: PE0305145F: *Open Skies Sensors* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 3.684 | 8.100 | 5.045 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

Open Skies Sensors - The strategy is a full and open competition contract to accomplish the task of performing analysis, testing, software development, prototypes, documentation of source data, and integrating a new digital camera system on the OC-135B and updating the Open Skies Medial Processing Facility (OSMPF). Undetermined industry provider will be responsible for acquiring the necessary information and personnel to integrate each item stated above into the OC-135B legacy systems and for developing and subcontracting the components.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305145F: *Arms Control Implementation* | PROJECT<br>675063: *Open Skies Sensors* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Open Skies Sensors - NRE, Engineering, Development and Prototype Subtotal Product Development | C/FFP | Various:Various, | - | 0.000 | | 0.000 | | 0.500 | May 2014 | - | | 0.500 | Continuing | Continuing | 15.500 |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.500 | | 0.000 | | 0.500 | | | 15.500 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sub Total Support | Various | Various:Various, | - | 0.000 | | 0.000 | | 0.430 | Apr 2014 | - | | 0.430 | Continuing | Continuing | 1.900 |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.430 | | 0.000 | | 0.430 | | | 1.900 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Open Skies Sensor development ground and flight testing for imagery collection | PO | Various:Various, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 2.500 |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 2.500 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Open Skies Sensors TDY (PMA) SubTotal Management Services | Various | Various:Various, | - | 0.000 | | 0.000 | | 0.500 | Mar 2014 | - | | 0.500 | Continuing | Continuing | 1.550 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305145F: *Arms Control Implementation* | PROJECT<br>675063: *Open Skies Sensors* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.500 | | 0.000 | | 0.500 | | | 1.550 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 0.000 | | 0.000 | | 1.430 | | 0.000 | | 1.430 | | | 21.450 |

**Remarks**

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305146F: *Defense Joint Counterintelligence Activities* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.039 | 0.342 | 0.330 | - | 0.330 | 0.365 | 0.368 | 0.368 | 0.375 | Continuing | Continuing |
| 671931: *TECH SURVEIL COUNTER MEAS EQPT* | - | 0.039 | 0.342 | 0.330 | - | 0.330 | 0.365 | 0.368 | 0.368 | 0.375 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

TECHNICAL SURVEILLANCE COUNTERMEASURES (TSCM): TECHNICAL SURVEILLANCE COUNTERMEASURES (TSCM): The requested funds will be used for the development of future technologies capable of thwarting advanced, hostile force technical capabilities. They will be developed to provide secure environments safe locations, austere mission planning locations, theater commander centers, and collection of information for counterthreat operations in support of DoD and AF requirements.

**A. Mission Description and Budget Item Justification**

TECHNICAL SURVEILLANCE COUNTERMEASURES (TSCM): TECHNICAL SURVEILLANCE COUNTERMEASURES (TSCM): The requested funds will be used for the development of future technologies capable of thwarting advanced, hostile force technical capabilities. They will be developed to provide secure environments safe locations, austere mission planning locations, theater commander centers, and collection of information for counterthreat operations in support of DoD and AF requirements.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.039 | 0.342 | 0.330 | - | 0.330 |
| Current President's Budget | 0.039 | 0.342 | 0.330 | - | 0.330 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305146F: *Defense Joint Counterintelligence Activities* |

**Change Summary Explanation**

Increased from FY12 to FY13 are due to the need to routinely upgrade systems in order to stay ahead of technical threats and countermeasure developments on the part of adversaries, as well as continued upgrdes to softwares related to use of systems.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Defense Joint Counterintelligence Program | 0.039 | 0.342 | 0.330 |
| ***Description:*** TECHNICAL SURVEILLANCE COUNTERMEASURES (TSCM): TECHNICAL SURVEILLANCE COUNTERMEASURES (TSCM): The requested funds will be used for the development of future technologies capable of thwarting advanced, hostile force technical capabilities. They will be developed to provide secure environments safe locations, austere mission planning locations, theater commander centers, and collection of information for counterthreat operations in support of DoD and AF requirements.<br>***FY 2012 Accomplishments:***<br>FY12 dollars were expended in development of systems which were used in support of final operational activities in Iraq and continued technical support to operations in Afghanistan.<br>***FY 2013 Plans:***<br>FY13 dollars expended on further development of equipment in order to maintain operational support capability to DoD and AF operations in Afghanistan and others austere and contingency areas.<br>***FY 2014 Plans:***<br>FY14 dollars will be used for continued research and development of advanced systems to provide support to counterthreat operations in Afghanistan and other austere and contingency areas as needed. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.039 | 0.342 | 0.330 |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

Procurement will occur in a cyclical fashion, with upgrades to older systems occuring first, and more recent systems upgraded at the end of the cycle. Procurement of newer systems will be awarded based on full and open competition.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305146F: *Defense Joint Counterintelligence Activities* | PROJECT<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Naval Research Lab | MIPR | TBD:TBD, | - | 0.039 | Mar 2012 | 0.342 | May 2013 | 0.330 | May 2014 | - | | 0.330 | Continuing | Continuing | |
| | | Subtotal | 0.000 | 0.039 | | 0.342 | | 0.330 | | 0.000 | | 0.330 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 0.039 | | 0.342 | | 0.330 | | 0.000 | | 0.330 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305146F: *Defense Joint Counterintelligence Activities* | PROJECT<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* |

| | FY 2012 | | | | FY 2013 | | | | FY 2014 | | | | FY 2015 | | | | FY 2016 | | | | FY 2017 | | | | FY 2018 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Schedule is classified. Further details are available upon request. | | | | | | | | | | | | | [redacted] | | | | | | | | | | | | | | | |

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305146F: *Defense Joint Counterintelligence Activities* | **PROJECT**<br>671931: *TECH SURVEIL COUNTER MEAS EQPT* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Schedule is classified. Further details are available upon request. | 3 | 2013 | 3 | 2017 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305164F: *NAVSTAR Global Positioning System (User Equipment) (SPACE)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | 1,272.800 | 125.935 | 29.621 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 673028: *Navstar GPS* | 1,272.800 | 125.935 | 29.621 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |
| **MDAP/MAIS Code(s):** 166 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

No FY2014 funding requested for project 673028 in this Program Element (PE). In FY2013, Navstar GPS Project 673028 is complete. Beginning in FY13, funds for Military GPS User Equipment (MGUE) are transferred to Project 643833 in this PE.

**A. Mission Description and Budget Item Justification**

The Navstar Global Positioning System (GPS) is a space-based radio Positioning, Navigation, and Time (PNT) distribution system. GPS User Equipment (UE) consists of standardized receivers, antennas, antenna electronics, etc., grouped together in sets to derive navigation and time information transmitted from GPS satellites. These receiver sets are used by DoD. RDT&E funds UE development, test, and analysis for new PNT receiver capabilities in Navigation Warfare (Navwar) across all military platforms using GPS services.

The Modernized User Equipment (MUE) program serves as a technology demonstration and risk reduction effort to provide the technical foundation for the Military GPS User Equipment (MGUE) program which is the next generation of GPS UE. The objectives of the MUE program are to demonstrate that enhanced modernized capabilities are achievable in ground embedded and aviation form factor solutions, successfully mature the Critical Technologies Elements (CTE), establish a modernized Information Assurance architecture, implement the USD(AT&L) Trusted Foundry process, and subject the receiver prototypes to the Government's pilot Security Certification and Performance Evaluation process.

This program element is in Budget Activity 7 - Operational System Development, because UE supports operational systems.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305164F: *NAVSTAR Global Positioning System (User Equipment) (SPACE)* |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 131.832 | 29.621 | 0.000 | - | 0.000 |
| Current President's Budget | 125.935 | 29.621 | 0.000 | - | 0.000 |
| Total Adjustments | -5.897 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -1.487 | 0.000 | | | |
| • Other Adjustments | -4.410 | 0.000 | 0.000 | - | 0.000 |

**Change Summary Explanation**

Starting in FY13, MGUE funding is transferred in this PE to Project 643833 in BA-04. Current User Equipment (CUE) including MUE remains in Project 673028 in this PE.

FY12: -$4.410M decrease due to higher Department priorities; -$1.487M for SBIR.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** GPS User Equipment | 117.535 | 29.621 | 0.000 |

***Description:*** The MUE program serves as a technology demonstration and risk reduction effort to provide the technical foundation for the MGUE program.

***FY 2012 Accomplishments:***

Executed the MUE completion effort. Initiated the design and fabrication of new Application Specific Integrated Circuits (ASICs) to resolve performance and security deficiencies identified in contractor and government testing of the ground embedded prototype receiver cards. Designed additional processing and memory capacity to support updated system requirements. Updated GPS system Interface Control Documents (ICDs). Completed development and functional qualification testing (FQT) of the aviation form factor, GPS Receiver Application Module-Standard Electronics Module (GRAM-S/M); evaluated performance/security with government independent testing. Provided program and technical support, receiver testing, integration and security/performance certification efforts.

***FY 2013 Plans:***

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305164F: *NAVSTAR Global Positioning System (User Equipment) (SPACE)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Conclude the MUE effort; complete ASIC redesign and deliver to government as tech samples. This effort will conclude shortly before MGUE Increment 1 Preliminary Design Review (PDR) ensuring discovery and risk reduction activities for the MGUE Increment 1 Technology Development phase. | | | |
| ***Title:*** MGUE<br><br>***Description:*** MGUE program is responsible for the development of standard modernized receiver form factors for the service nominated lead platforms identified in the draft MGUE Capability Development Document (CDD).<br><br>***FY 2012 Accomplishments:***<br>Awarded and executed the Technology Development phase contracts for MGUE Increment 1. Three sole source contracts were awarded to the current MUE contractors for the completion of MGUE Increment 1 Preliminary Design Review (PDR). Provided program and technical support as well as receiver testing, integration and security/performance certification efforts. | 8.400 | 0.000 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 125.935 | 29.621 | 0.000 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA07: Line Item # 000075: *Other Production Charges* | 10.201 | 1.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 11.201 |
| • OPAF: BA03: Line Item # 836730: *Navstar GPS Space* | 2.008 | 2.031 | 2.061 | | 2.061 | 2.093 | 3.661 | 13.907 | 16.193 | 2.245 | 44.199 |
| • RDTE: BA04: PE 0305164F: *NAVSTAR Global Positioning System (User Equipment) (SPACE)* | 0.000 | 96.840 | 137.233 | | 137.233 | 158.614 | 153.769 | 157.390 | 98.840 | 30.360 | 833.046 |

**Remarks**

**E. Acquisition Strategy**

The MUE program awarded three competitive MUE technology demonstration contracts to develop and produce Ground-Based GPS Receiver Application Module (GB-GRAM-M) (ground) and GRAM-S/M (aviation) receiver form factors to mature the five critical technology elements (CTEs), test and demonstrate these CTEs in a relevant environment to achieve Technology Readiness Level (TRL) 6, and subject the prototypes to the Government's pilot security certification and performance evaluation processes. To further reduce technology and manufacturing risk in MGUE Increment 1, the three contractors will continue risk reduction activities under the MUE completion effort. This activity is a two part effort: (1) Refining software to resolve any deficiencies revealed during FQT and independent government test & evaluation, and (2) Initiating ASIC modifications to accommodate new updates to GPS system ICDs. This effort will conclude shortly before MGUE Increment 1 PDR, ensuring each contractor has completed discovery and technology maturation in preparation for entry into the Engineering, Manufacturing, and Development phase.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305164F: *NAVSTAR Global Positioning System (User Equipment) (SPACE)* |

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305164F: *NAVSTAR Global Positioning System (User Equipment) (SPACE)* | PROJECT<br>673028: *Navstar GPS* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Receiver Technology | Various | Various:Various, | 49.425 | 3.000 | Jan 2012 | 1.800 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 54.225 | |
| Advanced Antenna Technology | C/CPAF | Various:Various, | 136.285 | 4.061 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 140.346 | |
| Selective Availability Anti-Spoofing Module (SAASM) | MIPR | Sandia National Labs:Kirtland AFB, NM | 53.040 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 53.040 | |
| SAASM/GB-GRAM | Various | Various:Various, | 35.589 | 1.000 | Jan 2012 | 1.861 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 38.450 | |
| Modernized User Equipment (MUE) | C/CPAF | Rockwell Collins:Cedar Rapids, IA | 189.457 | 15.286 | Jan 2012 | 6.853 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 211.596 | |
| MUE (Raytheon) | C/CPAF | Raytheon:Garland, TX | 197.574 | 26.197 | Jan 2012 | 1.882 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 225.653 | |
| MUE (L-3) | C/CPAF | L-3:Anaheim, CA | 188.924 | 19.697 | Jan 2012 | 9.804 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 218.425 | |
| Integration | PO | 46th Test Group:Holloman AFB, NM | 10.258 | 1.200 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 11.458 | |
| MGUE (Rockwell) | C/CPIF | Rockwell Collins:Cedar Rapids, IA | 0.000 | 2.800 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 2.800 | |
| MGUE (Raytheon) | C/CPIF | Raytheon:El Segundo, CA | 0.000 | 2.800 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 2.800 | |
| MGUE (L3) | C/CPIF | L3:Anaheim, CA | 0.000 | 2.800 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 2.800 | |
| Performance Certification | Various | Various:Various, | 0.000 | 0.290 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.290 | |
| Information Assurance and Testing | Various | Various:Various, | 0.000 | 3.904 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 3.904 | |
| SE&I | C/CPAF | SAIC:Various, CA | 0.000 | 5.328 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 5.328 | |
| | | **Subtotal** | 860.552 | 88.363 | | 22.200 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 971.115 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305164F: *NAVSTAR Global Positioning System (User Equipment) (SPACE)* | PROJECT<br>673028: *Navstar GPS* | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FFRDC | Various | Various:Various, | 29.670 | 14.155 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 43.825 | |
| SE/Program Spt/Joint Navwar Center (JNWC) | Various | Various:Various, | 135.969 | 6.268 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 142.237 | |
| Completed Support Efforts | Various | Various:Various | 62.490 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 62.490 | |
| | | **Subtotal** | 228.129 | 20.423 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 248.552 | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| User Equipment Development Testing | PO | 46th Test Group:Holloman AFB, NM | 68.268 | 2.607 | Jan 2012 | 2.800 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 73.675 | |
| | | **Subtotal** | 68.268 | 2.607 | | 2.800 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 73.675 | |

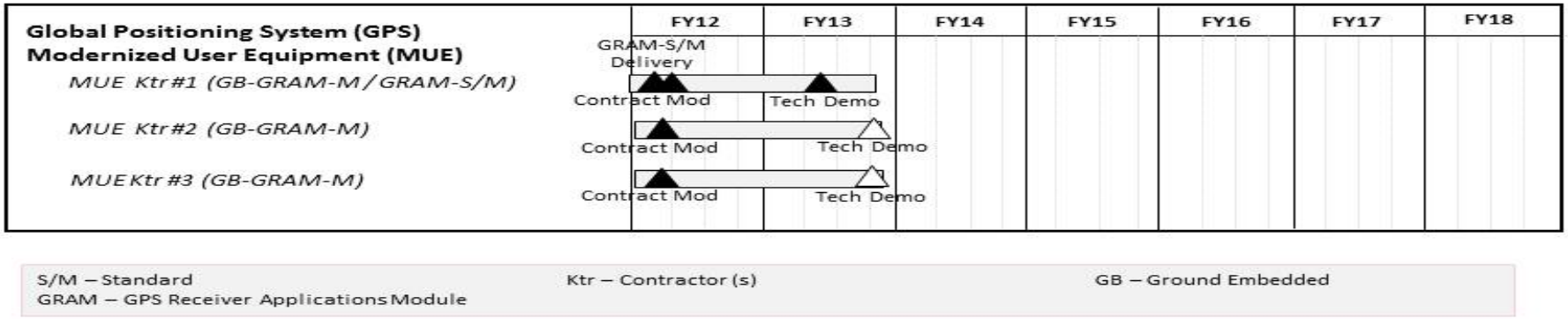
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Office Support (PMA) | Various | Various:Various, | 0.000 | 1.336 | Jan 2012 | 1.291 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 2.627 | |
| Directorate Support | Various | Various:Various, | 115.851 | 13.206 | Jan 2012 | 3.330 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 132.387 | |
| | | **Subtotal** | 115.851 | 14.542 | | 4.621 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 135.014 | |

| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 1,272.800 | 125.935 | | 29.621 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 1,428.356 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305164F: *NAVSTAR Global Positioning System (User Equipment) (SPACE)* | **PROJECT**<br>673028: *Navstar GPS* |




S/M – Standard
GRAM – GPS Receiver Applications Module
Ktr – Contractor (s)
GB – Ground Embedded

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305164F: *NAVSTAR Global Positioning System (User Equipment) (SPACE)* | PROJECT<br>673028: *Navstar GPS* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| Delivery of GRAM S/M Aviation Receivers | 1 | 2012 | 1 | 2012 |
| MUE Contract Mod | 1 | 2012 | 1 | 2012 |
| MUE Tech Demo | 3 | 2013 | 3 | 2013 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305165F: *NAVSTAR Global Positioning System (Space and Control Segments)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 16.820 | 14.335 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 673030: *NAVSTAR GPS (Space & Control)* | - | 16.820 | 14.335 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |
| **MDAP/MAIS Code(s):** 166 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

No FY2014 funding requested. In FY2013, Navstar GPS (Space & Control) Project 673030 is complete.

**A. Mission Description and Budget Item Justification**

This Program Element (PE) funds Research and Development (R&D) for the Navstar Global Positioning System (GPS) Space and Control segments for GPS Block II satellites. It includes, but is not limited to: training simulators, Integrated Logistics Support (ILS) products, ground control segment development, sustaining engineering, space and ground segments upgrades, and R&D efforts to support GPS Block II system deployment including efforts to provide anti-jam capability through increased Military(M)-Code signal power. The Operational Control Segment (OCS) delivers control segment capabilities to support Block IIF satellites as well as the existing constellation of Block IIA/IIR/IIR-M satellites.

Funding provides development of upgrades to integrate the Selective Availability Anti-Spoofing Module (SAASM) mission planning system (SMPS) and implement the new STRATCOM/SAASM operations concept. FY13 is the final year of funding.

This program is in Budget Activity 7 - Operational Systems Development because it supports operational systems.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305165F: *NAVSTAR Global Positioning System (Space and Control Segments)* |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 17.704 | 14.335 | 0.000 | - | 0.000 |
| Current President's Budget | 16.820 | 14.335 | 0.000 | - | 0.000 |
| Total Adjustments | -0.884 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.240 | 0.000 | | | |
| • Other Adjustments | -0.644 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** OCS | 16.820 | 14.335 | 0.000 |
| ***Description:*** Development of GPS Block II Operational Control System (OCS).<br><br>***FY 2012 Accomplishments:***<br>Continued ground segment upgrades and System Engineering & Integration (SE&I).<br><br>***FY 2013 Plans:***<br>Complete ground segment upgrades and System Engineering & Integration (SE&I). | | | |
| **Accomplishments/Planned Programs Subtotals** | 16.820 | 14.335 | 0.000 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • MPAF: BA05: Line Item # MGPS00: *Global Positioning (Space)* | 107.689 | 58.147 | 55.997 | | 55.997 | 20.262 | 8.642 | 0.000 | 0.000 | 0.000 | 3,883.803 |
| • OPAF: BA03: Line Item # 836790: *Space Mods Space* | 4.399 | 7.353 | 11.431 | | 11.431 | 12.768 | 12.026 | 2.000 | 0.000 | 0.000 | 52.780 |
| • OPAF: BA05: Line Item # 861900: *Spares and Repair Parts* | 0.377 | 0.388 | 0.394 | | 0.394 | 0.404 | 0.412 | 0.417 | 0.425 | 1.327 | 4.144 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305165F: *NAVSTAR Global Positioning System (Space and Control Segments)* |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

**E. Acquisition Strategy**

GPS OCS upgrade was competitively awarded to a single contractor (Lockheed Martin) in July 1995. Block IIF satellite and IIF ground systems development contract was competitively awarded to a single contractor (Boeing) in April 1996. The Single Prime Initiative (SPI) consolidated these efforts and was added to the Boeing IIF contract (with Lockheed Martin as a subcontractor) on 1 Oct 1999. GPS Modernization efforts for the Block IIR were awarded sole source to Lockheed Martin under a new contract in August 2000. Modernization efforts for Block IIF were added to the existing contract with Boeing in 2002 as Engineering Change Proposals (ECPs).

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305165F: *NAVSTAR Global Positioning System (Space and Control Segments)* | PROJECT<br>673030: *NAVSTAR GPS (Space & Control)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OCS Development & IIF Modernization | C/Various | Boeing:Seal Beach, CA | - | 3.982 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 3.982 | |
| IIF Development | C/Various | Boeing:Seal Beach, CA | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| Control Segment Support | MIPR | Various:Various, | - | 3.783 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 3.783 | |
| Completed GPS Development Efforts | Various | Various:Various, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| OCS Prime Contract | C/Various | Boeing:Seal Beach, CA | - | 0.000 | | 10.405 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 10.405 | |
| | | **Subtotal** | 0.000 | 7.765 | | 10.405 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 18.170 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System Engineering/ Support | C/CPAF | Various:Various, | - | 0.333 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.333 | |
| FFRDC | Various | Aerospace:El Segundo, CA | - | 0.764 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.764 | |
| Directorate Support | Various | Various:Various, | - | 0.000 | | 0.143 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 0.143 | |
| | | **Subtotal** | 0.000 | 1.097 | | 0.143 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 1.240 | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Completed GPS T&E Efforts | Various | Various:Various | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| Integrated System Test (IST) | PO | Various:Various, | - | 3.635 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 3.635 | |
| | | **Subtotal** | 0.000 | 3.635 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 3.635 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305165F: *NAVSTAR Global Positioning System (Space and Control Segments)* | PROJECT<br>673030: *NAVSTAR GPS (Space & Control)* |

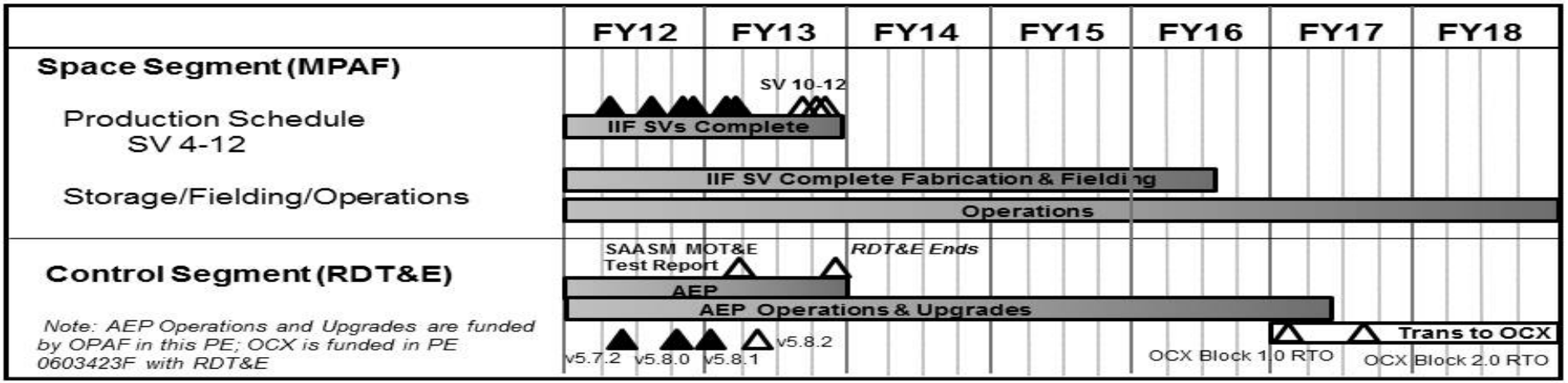
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) | Various | Various:, | - | 4.323 | Nov 2011 | 3.787 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 8.110 | |
| | | **Subtotal** | 0.000 | 4.323 | | 3.787 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 8.110 | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 16.820 | | 14.335 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 31.155 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305165F: *NAVSTAR Global Positioning System (Space and Control Segments)* | **PROJECT**<br>673030: *NAVSTAR GPS (Space & Control)* |




AEP – Architecture Evolution Plan
MOT&E – Multi-Service Operational Test & Evaluation
OCX – Next Generation Operational Control System
RDT&E – Research, Development, Test and Evaluation
RTO – Ready to Transition to Operations
SAASM – Selective Availability Anti-Spoofing Module
SV – Space Vehicle

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305165F: *NAVSTAR Global Positioning System (Space and Control Segments)* | **PROJECT**<br>673030: *NAVSTAR GPS (Space & Control)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Critical Ops Modifications | 1 | 2012 | 2 | 2013 |
| Certification for SAASM Multi-Service Operational Test & Evaluation (MOT&E) | 1 | 2013 | 1 | 2013 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305173F: *Space and Missile Test and Evaluation Center* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 1.542 | 3.680 | 3.696 | - | 3.696 | 3.720 | 3.751 | 3.781 | 3.849 | Continuing | Continuing |
| 67A014: *R&D Space and Missile Operations* | - | 1.542 | 3.680 | 3.696 | - | 3.696 | 3.720 | 3.751 | 3.781 | 3.849 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

R&D Space and Missile Operations (RDSMO) develops and acquires systems to: operate experimental, demonstration, and operational satellites; operate fixed and deployable satellite ground systems; perform satellite compatibility testing; act as the focal point and center of expertise for DoD experimental and demonstration space and missile operations; support space and missile R&D; and conduct/support experimental/demonstration of space and missile Developmental Test and Evaluation (DT&E) and Initial Operational Test and Evaluation (IOT&E) activities. It consists of the Space Test and Operations organization at Kirtland AFB which is the focal point for (1) the Multi-Mission Satellite Operations Center (MMSOC) which is installed in the RDT&E Support Complex (RSC) at Kirtland AFB, NM which operates R&D satellites, and the 1 Space Operations Squadron (1 SOPS) at Schriever AFB, CO which operates operational satellites; (2) satellite ground system development and integration; and (3) deployable test systems which deploy mobile antennas worldwide to support space RDT&E activities.

FY14 funds include incremental development and establishing new capabilities for the MMSOC, systems engineering, special studies, integration and test efforts in support of demonstrations and operational architectures designed to increase operations and maintenance efficiency and resiliency for global satellite command and control through military and commercial capabilities. It also includes development of additional capabilities of a mobile test system, known as the Remote Tracking Station Block Change Transportable Space Test Resource (RBC TSTR).

The main objective of MMSOC is to develop the capability to rapidly support R&D and operational systems and to transition R&D space vehicle technology with residual military utility to operational status for immediate war-fighter support. MMSOC is a multiple mission operation system that uses standard software (1) to perform satellite command and control (C2) in support of launch requirements; (2) develop and test tactics, techniques, procedures and concepts to conduct satellite operations; (3) provide a satellite C2 incremental block evolution resource for RDT&E of new systems and concepts; and (4) deliver operational flexibility for new and currently-flying assigned satellites.

The main objective of RBC TSTR is to verify satellite compatibility with the Air Force Satellite Control Network (AFSCN) Remote Block Change architecture, currently being fielded worldwide. The system will be capable of being deployed around the world to perform compatibility testing in the factory as well as launch ranges to include Kodiak, AK, Wallops Island, VA, and Kwajalein Atoll where there is no other existing or planned capability.

This effort is in Budget Activity 7, Operational System Development, and it supports research and development of space systems.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305173F: *Space and Missile Test and Evaluation Center* |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 1.629 | 3.680 | 3.696 | - | 3.696 |
| Current President's Budget | 1.542 | 3.680 | 3.696 | - | 3.696 |
| Total Adjustments | -0.087 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | -0.087 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** MMSOC Development | 1.542 | 3.680 | 3.196 |
| ***Description:*** Multi-Mission Satellite Operations Center (MMSOC) development/integration | | | |
| ***FY 2012 Accomplishments:***<br>Implemented hardware virtualization, began implementation of new capability, began port of 3 satellites flying on legacy systems onto MMSOC architecture (Comm/Nav Outage Forcasting System (C/NOFS), Space Environment Nanosat Experiment (SENSE), and CloudSat) and maintained 99.7% operational availability. Supported operations of multiple satellites and enhanced automation. Continued program office support and related support activities such as, but not limited to, mission support, special studies, Systems Engineering and Technical Assistance (SETA) , Federally Funded Research and Development Centers (FFRDC), etc. | | | |
| ***FY 2013 Plans:***<br>Provide capability to AFSPC for reduced cost of operations through use of MMSOC architecture. Continue to port satellites on to MMSOC and continue to support operations of multiple satellites and enhance automation capability. Continue program office support and related support activities such as, but not limited to missions support, special studies, SETA, FFRDC, etc. | | | |
| ***FY 2014 Plans:***<br>Continue providing capability to AFSPC for reduced cost of operations through use of MMSOC architecture. Continue to port satellites on to MMSOC and continue to support operations of multiple satellites and enhance automation capability. Continue | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305173F: *Space and Missile Test and Evaluation Center* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| program office support and related support activities such as, but not limited to missions support, special studies, SETA, FFRDC, etc. | | | |
| ***Title:*** RBC TSTR<br>***Description:*** Remote Tracking Station Block Change Transportable Space Test Resource (RBC TSTR) development/integration<br>***FY 2014 Plans:***<br>Begin incorporation of Unified S-Band (USB) test capability. | 0.000 | 0.000 | 0.500 |
| **Accomplishments/Planned Programs Subtotals** | 1.542 | 3.680 | 3.696 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • 834010: *General Information Technology* | 3.470 | 1.586 | 1.639 | | 1.639 | 1.698 | 1.764 | 1.832 | 1.865 | Continuing | Continuing |

**Remarks**

Due to a database error, the RDSMO program in General Information Technology incorrectly reflects $7.497M in FY12, but actually only has $3.47M in FY12 to execute.

**E. Acquisition Strategy**

The AF uses the competitively-awarded Engineering, Development, and Sustainment (EDS) Contract, managed by Space and Missile System Center, Space Development & Test Directorate, to modernize and sustain MMSOC. The AF uses the competitively-awarded AFSCN RBC contract to develop RBC TSTR.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305173F: *Space and Missile Test and Evaluation Center* | PROJECT<br>67A014: *R&D Space and Missile Operations* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering, Development, and Sustainment (EDS) Follow-on Contract (MMSOC) | C/CPAF | Lockheed Martin:Santa Maria, CA | - | 1.392 | Oct 2011 | 2.118 | Oct 2012 | 1.675 | Oct 2013 | - | | 1.675 | Continuing | Continuing | TBD |
| RBC TSTR Contract | C/CPAF | Honeywell:Colorado Springs, CO | - | 0.000 | | 0.000 | | 0.500 | Oct 2013 | - | | 0.500 | Continuing | Continuing | TBD |
| NASA Support (MMSOC) | MIPR | NASA Goddard:Greenbelt, MD | - | 0.000 | | 0.200 | Oct 2012 | 0.200 | Oct 2013 | - | | 0.200 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.392 | | 2.318 | | 2.375 | | 0.000 | | 2.375 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Information Assurance Support (MMSOC) | Various | Various:, | - | 0.000 | | 0.300 | Oct 2012 | 0.300 | Oct 2013 | - | | 0.300 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.300 | | 0.300 | | 0.000 | | 0.300 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System Test and Engineering (STEC) Contract (MMSOC) | C/CPAF | LINQUEST:Kirtland, AFB, NM | - | 0.000 | | 0.200 | Oct 2012 | 0.200 | Oct 2013 | - | | 0.200 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.200 | | 0.200 | | 0.000 | | 0.200 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305173F: *Space and Missile Test and Evaluation Center* | PROJECT<br>67A014: *R&D Space and Missile Operations* |

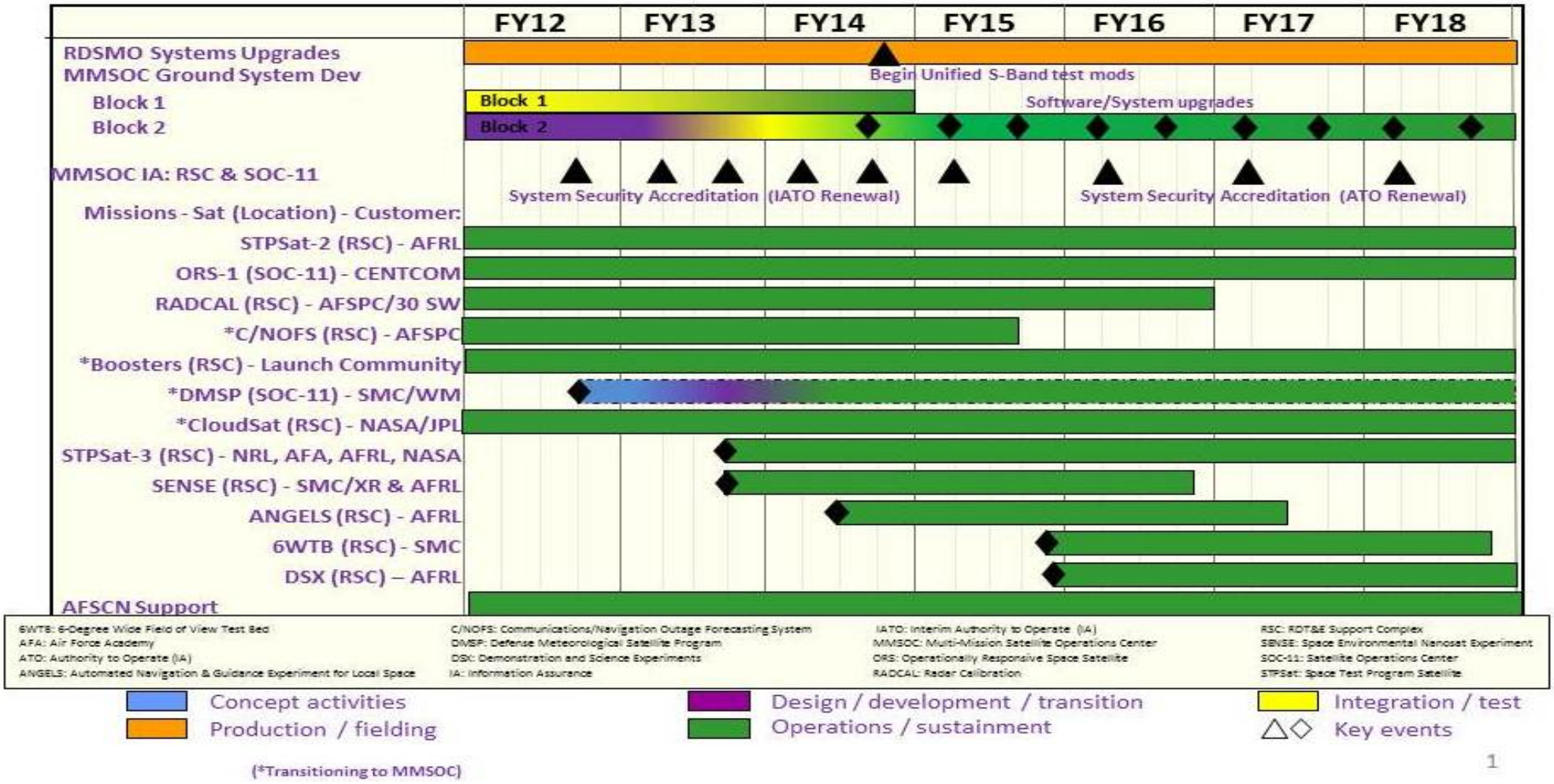
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Support (PMA) | Various | Various:, | - | 0.150 | Dec 2011 | 0.862 | Dec 2012 | 0.821 | Oct 2013 | - | | 0.821 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.150 | | 0.862 | | 0.821 | | 0.000 | | 0.821 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 1.542 | | 3.680 | | 3.696 | | 0.000 | | 3.696 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305173F: *Space and Missile Test and Evaluation Center* | PROJECT<br>67A014: *R&D Space and Missile Operations* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305173F: *Space and Missile Test and Evaluation Center* | **PROJECT**<br>67A014: *R&D Space and Missile Operations* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| RDSMO Systems Upgrades | 1 | 2012 | 4 | 2018 |
| MMSOC Block I | 1 | 2012 | 4 | 2014 |
| MMSOC Block II | 1 | 2012 | 4 | 2018 |
| MMSOC Information Assurance | 3 | 2012 | 1 | 2018 |
| MMSOC STP-2 Supt | 1 | 2012 | 4 | 2018 |
| MMSOC ORS-1 Supt | 1 | 2012 | 4 | 2018 |
| MMSOC RADCAL Supt | 1 | 2012 | 4 | 2016 |
| MMSOC C/NOFS Supt | 1 | 2012 | 3 | 2015 |
| MMSOC DMSP Supt | 4 | 2012 | 4 | 2015 |
| MMSOC CloudSat Supt | 1 | 2012 | 4 | 2018 |
| MMSOC STPSat-3 Supt | 4 | 2013 | 4 | 2018 |
| MMSOC SENSE Supt | 4 | 2013 | 4 | 2016 |
| MMSOC ANGELS Supt | 3 | 2014 | 2 | 2017 |
| MMSOC 6WTB Supt | 4 | 2015 | 4 | 2018 |
| MMSOC DSX Supt | 4 | 2015 | 4 | 2018 |
| AFSCN Support | 1 | 2012 | 4 | 2018 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305174F: *Space Innovation, Integration and Rapid Technology Development* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 2.862 | 2.430 | 2.469 | - | 2.469 | 2.511 | 2.554 | 2.597 | 2.644 | Continuing | Continuing |
| 67A011: *Space Analysis and Application Development* | - | 2.862 | 2.430 | 2.469 | - | 2.469 | 2.511 | 2.554 | 2.597 | 2.644 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Located at Schriever Air Force Base, Colorado, the Space Innovation and Development Center (SIDC) develops, evaluates, tests, and integrates space application and utility concepts, as well as new technologies, while providing combat effects to warfighters, such as aid in mission planning of Global Positioning System (GPS) aided/guided munitions. Its innovation, education, and training activities foster solutions to operational deficiencies and enhance the integration of space systems into Air Force operations, thereby enabling service and joint warfighters to realize the full potential of existing and planned space capabilities. The Space Analysis and Application Development project develops and modifies modeling and simulation tools that Air Force Space Command's Space Analysis Center uses for operations research, military utility analyses, tradeoff studies, and other evaluations of space mission areas to guide planning, programming, requirements generation, analyses of alternatives, and other activities. Development activities incorporate changes in fielded and projected space operational capabilities, as well as technical improvements, into the group's software tools to ensure their data and technology remain current.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | DATE: April 2013 |
|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | R-1 ITEM NOMENCLATURE<br>PE 0305174F: *Space Innovation, Integration and Rapid Technology Development* | | |
| **B. Program Change Summary ($ in Millions)** | **FY 2012** | **FY 2013** | **FY 2014 Base** | **FY 2014 OCO** | **FY 2014 Total** |
| Previous President's Budget | 2.952 | 2.430 | 2.469 | - | 2.469 |
| Current President's Budget | 2.862 | 2.430 | 2.469 | - | 2.469 |
| Total Adjustments | -0.090 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.090 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Model Development/Modification | 1.367 | 1.121 | 1.136 |
| ***Description:*** Develops, verifies, and validates new models for space mission areas and modifies existing models to portray new capabilities. Models used by the Air Force Space Command's (AFSPC) Space Analysis Center for military utility analyses, trade studies, and other evaluations of space programs supporting program offices at the Space and Missile Center, HQ AFSPC and other activities with a space focus.<br><br>***FY 2012 Accomplishments:***<br>Modified Models.<br><br>***FY 2013 Plans:***<br>Modified Models.<br><br>***FY 2014 Plans:***<br>Model modification. | | | |
| ***Title:*** Model Verification | 0.615 | 0.500 | 0.518 |
| ***Description:*** Verification of model changes.<br><br>***FY 2012 Accomplishments:***<br>Verified model changes.<br><br>***FY 2013 Plans:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305174F: *Space Innovation, Integration and Rapid Technology Development* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Verified model changes<br>***FY 2014 Plans:***<br>Verification of model changes | | | |
| ***Title:*** Model Validation<br>***Description:*** Validation of model change results.<br>***FY 2012 Accomplishments:***<br>Validated model change results.<br>***FY 2013 Plans:***<br>Validated model change results.<br>***FY 2014 Plans:***<br>Validation of model change results. | 0.880 | 0.809 | 0.815 |
| **Accomplishments/Planned Programs Subtotals** | 2.862 | 2.430 | 2.469 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: Line Item # 834010: *General Information Technology* | 1.384 | 1.429 | 1.450 | | 1.450 | 1.300 | 1.500 | 1.527 | 1.555 | Continuing | Continuing |

**Remarks**

Funding and content procures equipment for the SIDC distributed communications architecture and computing equipment supporting analysis capabilities.

**E. Acquisition Strategy**

Any new projects funded in this program will be awarded using competitive procedures to the maximum extent possible.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305174F: *Space Innovation, Integration and Rapid Technology Development* | PROJECT<br>67A011: *Space Analysis and Application Development* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Develop/modify software tools/models | C/FP | Various:Various, | - | 0.995 | Sep 2012 | 0.893 | Sep 2013 | 0.907 | Sep 2014 | - | | 0.907 | Continuing | Continuing | TBD |
| Develop/modify software tools and models | C/FP | CENTECH:Colorado Springs, CO | - | 1.867 | Dec 2011 | 1.537 | Jan 2013 | 1.562 | Jan 2014 | - | | 1.562 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 2.862 | | 2.430 | | 2.469 | | 0.000 | | 2.469 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

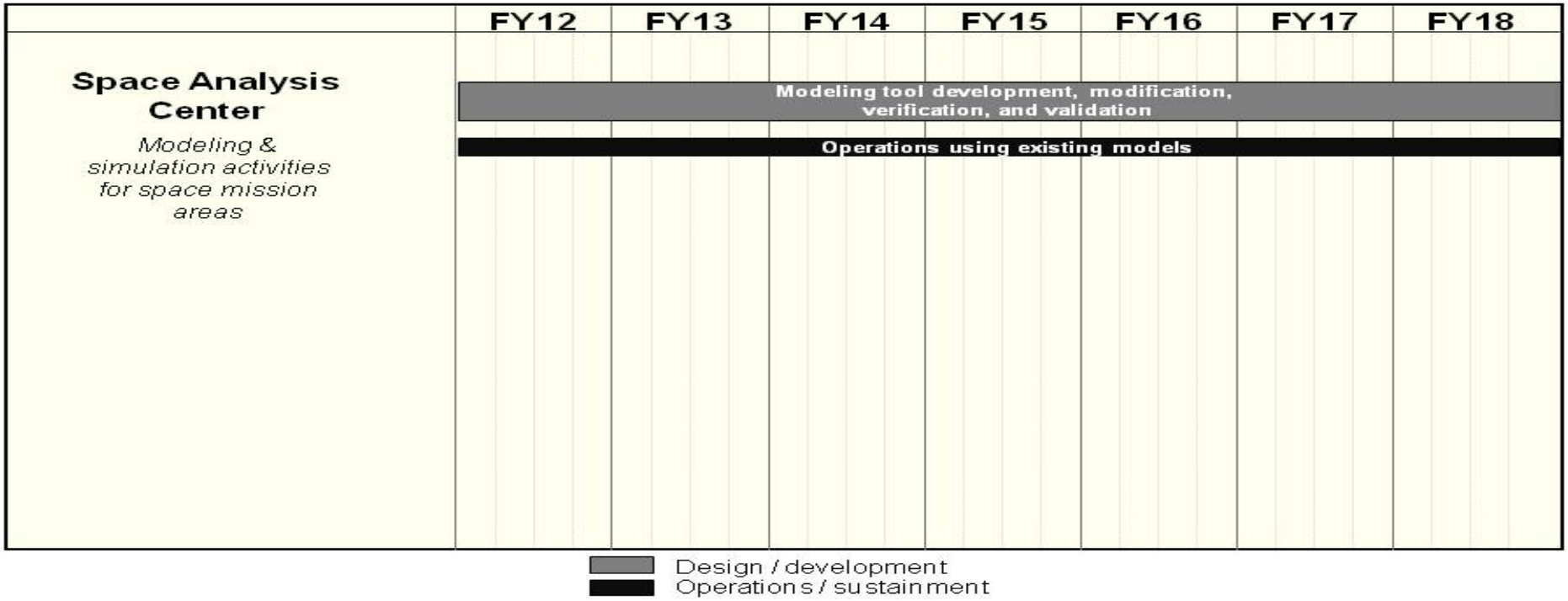
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 2.862 | | 2.430 | | 2.469 | | 0.000 | | 2.469 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305174F: *Space Innovation, Integration and Rapid Technology Development* | PROJECT<br>67A011: *Space Analysis and Application Development* |

U.S. AIR FORCE

# SIDC Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305174F: *Space Innovation, Integration and Rapid Technology Development* | **PROJECT**<br>67A011: *Space Analysis and Application Development* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Model development/modification, verification, and validation | 1 | 2012 | 4 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305179F: *Integrated Broadcast Service (IBS)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.000 | 0.000 | 8.289 | - | 8.289 | 8.699 | 8.655 | 8.693 | 8.696 | Continuing | Continuing |
| 674779: *Integrated Broadcast Service* | - | 0.000 | 0.000 | 8.289 | - | 8.289 | 8.699 | 8.655 | 8.693 | 8.696 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2014, Project 674779, Integrated Broadcast Service, efforts were transferred from PE 0603850F, Integrated Broadcast Service (Dem/Val), Project Number 644778, Integrated Broadcast Service, in order to realign funds in support of transition to sustainment.

**A. Mission Description and Budget Item Justification**

The Integrated Broadcast Service (IBS) fulfills the warfighter's requirements for worldwide threat warning and situational awareness information with timely production and simultaneous dissemination of Intelligence, Surveillance, and Reconnaissance (ISR) derived combat information. It also provides target tracking data to support threat avoidance, targeting, force protection, and situational awareness. This information is continually refined in near real time by strategic, operational and tactical sensors.

This PE funds IBS system development and sustainment programs as described below:
- A Common Interactive Broadcast (CIB) on UHF satellite channel using a Common Message Format (CMF) and a MIL-STD Demand Assigned Multiple Access (DAMA) compliant waveform and Line of Sight (LOS) using the Wideband Networking Waveform (WNW) and Joint Tactical Terminal (JTT).

- IBS-Network Services (IBS-NS) includes two Global IBS Network Servers (GINS) and four Theater Interface Nodes (TINs) to support the geographic Combatant Commanders; all built to validated warfighter requirements.
-- Two GINS receive data from each theater and integrate this data into a worldwide picture available to all network/broadcast users.
-- Four regional TINs allow local and out-of-theater users (not directly receiving IBS broadcast) to receive the CIB information broadcast. Additionally, the TIN will receive and inject data into the CIB for producers without access to the theater CIB.

Funds development of evolving suite of interoperable planning and decision support capabilities comprised of software hardware and communication products. This project will identify and implement an open, scalable system architecture that will accommodate growth as the virtual world grows and cyber operations change.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305179F: *Integrated Broadcast Service (IBS)* |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.000 | 0.000 | 20.389 | - | 20.389 |
| Current President's Budget | 0.000 | 0.000 | 8.289 | - | 8.289 |
| Total Adjustments | 0.000 | 0.000 | -12.100 | - | -12.100 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -12.100 | - | -12.100 |

**Change Summary Explanation**

In FY14, $12.1M transferred to PE 0305179F, OPAF ($4M) and O&M ($8.1M), in order to realign funds in support of transition to sustainment.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** IBS-NS (GINS/TINs) Development<br>***Description:*** Continue Advanced Development of IBS-NS(GINS/TINs).<br>***FY 2014 Plans:***<br>Will continue Advanced Development of IBS-NS (GINS/TINs). | 0.000 | 0.000 | 1.482 |
| ***Title:*** IBS (IBS-NS, CIB, and CMF) Modernization<br>***Description:*** Modernizes IBS (IBS-NS, CIB, and CMF).<br>***FY 2014 Plans:***<br>Will modernize IBS (IBS-NS, CIB, and CMF). | 0.000 | 0.000 | 4.700 |
| ***Title:*** Enterprise Systems<br>***Description:*** Enterprise Systems Engineering/CMF Integration/CIB Integration.<br>***FY 2014 Plans:***<br>Will continue Enterprise Systems Engineering/CMF Integration/CIB Integration. | 0.000 | 0.000 | 0.689 |
| ***Title:*** Test & Evaluation | 0.000 | 0.000 | 1.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305179F: *Integrated Broadcast Service (IBS)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Tests & Evaluates the IBS system.<br><br>***FY 2014 Plans:***<br>Will test & evaluate the IBS system. | | | |
| ***Title:*** PMA<br>***Description:*** Maintains a Program Management Office, including program supervision, systems engineering, finance and acquisition strategy execution.<br><br>***FY 2014 Plans:***<br>Will maintain a Program Management Office, including program supervision, systems engineering, finance and acquisition strategy execution. | 0.000 | 0.000 | 0.418 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 0.000 | 8.289 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDTE: BA04: 0603850F: *Integrated Broadcast Service (IBS) (Dem/Val)* | 19.442 | 19.938 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • OPAF: BA03: Line Item # 832070: *Intelligence Comm Equipment* | 9.993 | 13.095 | 14.121 | | 14.121 | 15.082 | 14.064 | 15.300 | 16.485 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

IBS uses evolutionary acquisition approach. The Program Definition/Risk Reduction phase (Spiral 1) was awarded via a full and open competition. BTG/Titan/L-3 Comm/L-3 STRATIS/L-3 National Security Solutions was awarded for the Engineering, Manufacturing and Development (EMD) phase (Spiral 2-4). The acquisition will continue with a Sole Source Award to L-3 National Security Solutions for Advanced Development.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305179F: *Integrated Broadcast Service (IBS)* | PROJECT<br>674779: *Integrated Broadcast Service* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IBS-NS Advanced Development of Spiral 4 release of GINS/TINs | SS/CPIF | L-3 National Security Solutions:Reston, VA | - | 0.000 | | 0.000 | | 1.482 | Jan 2014 | - | | 1.482 | Continuing | Continuing | TBD |
| IBS (IBS-NS, CIB, and CMF) Modernization | SS/FFP | L-3 National Security Systems:Reston, VA | - | 0.000 | | 0.000 | | 4.700 | Oct 2013 | - | | 4.700 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 6.182 | | 0.000 | | 6.182 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Interoperability and Development Testing | MIPR | JITC:Ft Huachuca, AZ | - | 0.000 | | 0.000 | | 0.500 | Oct 2013 | - | | 0.500 | Continuing | Continuing | TBD |
| Responsible Test Organization (RTO) | PO | 46th Test Squadron:Eglin AFB, FL | - | 0.000 | | 0.000 | | 0.500 | Oct 2013 | - | | 0.500 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 1.000 | | 0.000 | | 1.000 | | | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPO/Professional Acquisition Support Services (PASS) and | C/FP | Various:Bedford, MA | - | 0.000 | | 0.000 | | 0.418 | Jan 2014 | - | | 0.418 | Continuing | Continuing | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305179F: *Integrated Broadcast Service (IBS)* | PROJECT<br>674779: *Integrated Broadcast Service* |

**Management Services ($ in Millions)**

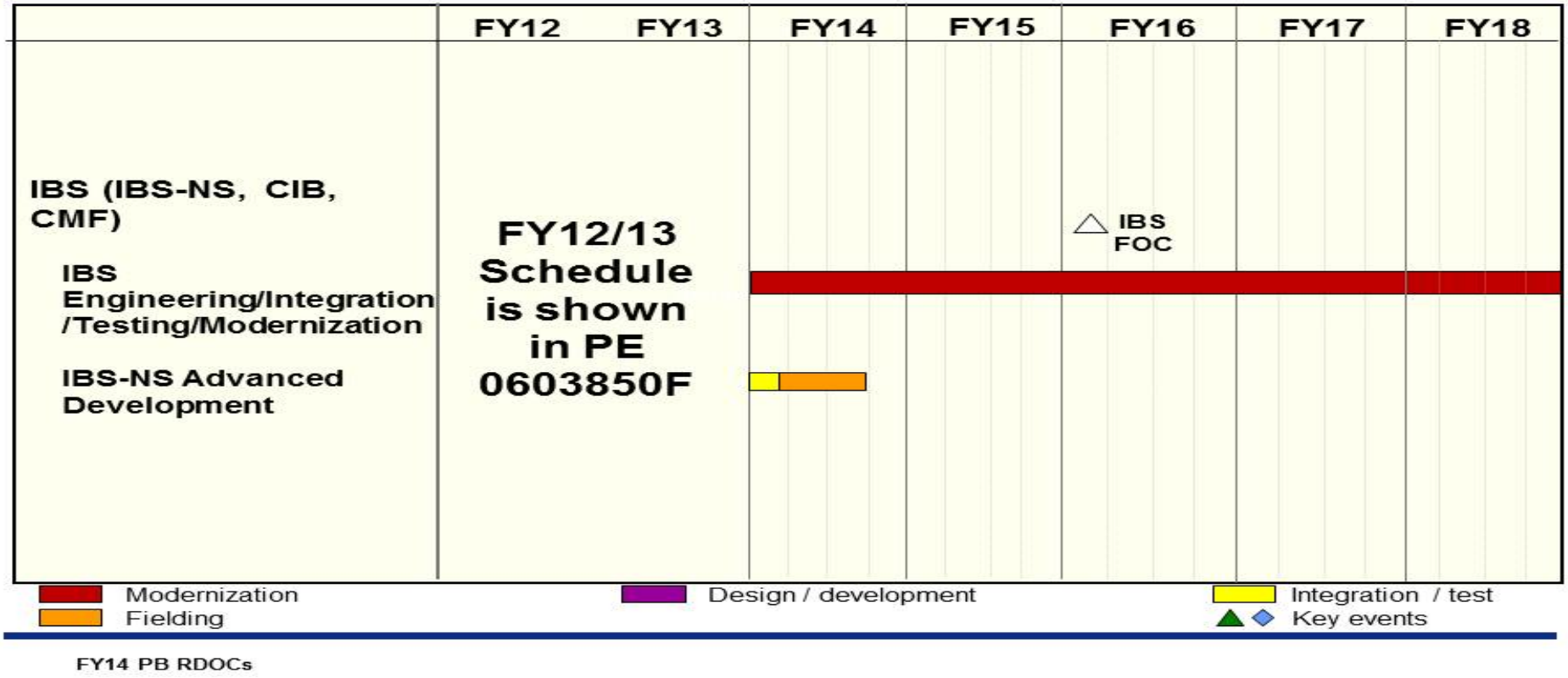
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering and Technical Acquisition Support Service (ETASS) | | | | | | | | | | | | | | | |
| Enterprise Engineering/ CMF Integration/CIB Integration | SS/CPFF | L3 Comm, IS:Greenville, TX | - | 0.000 | | 0.000 | | 0.689 | Mar 2013 | - | | 0.689 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 1.107 | | 0.000 | | 1.107 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 0.000 | | 8.289 | | 0.000 | | 8.289 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305179F: *Integrated Broadcast Service (IBS)* | PROJECT<br>674779: *Integrated Broadcast Service* |

# IBS Broadcast Segment Schedule
# PE 0305179F




FY14 PB RDOCs

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305179F: *Integrated Broadcast Service (IBS)* | **PROJECT**<br>674779: *Integrated Broadcast Service* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| IBS (IBS-NS, CIB, and CMF) FOC | 1 | 2016 | 1 | 2016 |
| Engineering/Integration/Testing/Modernization of IBS (IBS-NS, CIB, and CMF) | 1 | 2014 | 4 | 2018 |
| IBS-NS Advanced Development | 1 | 2014 | 3 | 2014 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305182F: *Spacelift Range System (SPACE)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 9.245 | 8.760 | 13.345 | - | 13.345 | 13.630 | 9.171 | 10.607 | 10.798 | Continuing | Continuing |
| 674137: *Launch and Test Range System (LTRS) Modernization* | - | 9.245 | 8.760 | 13.345 | - | 13.345 | 13.630 | 9.171 | 10.607 | 10.798 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Eastern Range (ER) at Patrick Air Force Base (AFB)/Cape Canaveral Air Force Station, FL, and the Western Range (WR) at Vandenberg AFB, CA, make up the Spacelift Range System (SLRS), also known as the Launch and Test Range System (LTRS). The ER and WR provide tracking, telemetry, communications, flight safety, and other capabilities to enable: national security, civil, and commercial space launches; ballistic missile and missile defense test launches; and aeronautical and guided weapons tests. Decreasing reliability of aging range systems leads to higher operations and maintenance costs and increased risk of launch delays.

The AF will address range deficiencies in FY14 via multiple contracts, including the LTRS Integrated Support Contract (LISC), a command destruct modernization contract, small business set-aside contracts for ER and WR network modernization, and the Systems Engineering and Integration (SE&I) Contract. As a follow-on to the Spacelift Range System Contract (SLRSC) which runs through FY13, the AF will award LISC as a consolidated sustainment, operations, and maintenance contract in FY14. LISC will provide interface systems engineering, technical studies, and requirements analysis to integrate future maintenance and sustainment upgrades with modernization efforts. Also, the separate Systems Engineering and Integration (SE&I) contract supporting the program management office will expand efforts to provide systems engineering and integration support for future modernization efforts, in terms of system baselines,configurations, and architectures. These efforts will comply with OSD policies and standards for interface with IT systems.

In addition to these system upgrades, the Standard Space Trainer program will provide a complementary training application for the Spacelift Ranges, incorporating Range Modernization functionality, as part of the common platform for all space system operational training.

All of these upgrades to fielded systems at operating ranges are categorized as Budget Activity 7, Operational Systems Development.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305182F: *Spacelift Range System (SPACE)* | |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 9.877 | 8.760 | 13.345 | - | 13.345 |
| Current President's Budget | 9.245 | 8.760 | 13.345 | - | 13.345 |
| Total Adjustments | -0.632 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.632 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Range Modernization (SLRSC) | 6.172 | 6.210 | 0.000 |
| ***Description:*** SLRSC continues systems engineering, special studies, and requirements analysis for modernization of selected telemetry, radar, and command destruct instrumentation site systems through FY13. Subsequently, the AF will accomplish systems engineering, special studies, and requirements analysis via the Launch and Test Range System Integrated Support Contract (LISC) to integrate its range operations, maintenance, and sustainment (OM&S) functions with future range modernization efforts.<br><br>***FY 2012 Accomplishments:***<br>SLRSC continued systems engineering, special studies, and requirements analysis for modernization of selected command destruct, radar, and telemetry instrumentation site systems.<br><br>***FY 2013 Plans:***<br>SLRSC will complete systems engineering, special studies, and requirements analysis for modernization of selected command destruct, radar, and telemetry instrumentation site systems.<br><br>***FY 2014 Plans:***<br>N/A | | | |
| ***Title:*** LISC Systems Engineering and Tech Support | 0.000 | 0.000 | 1.900 |
| ***Description:*** Beginning in FY14, the AF will accomplish interface systems engineering, special studies, and requirements analysis via the Launch and Test Range System Integrated Support Contract (LISC) to integrate its future range operations, maintenance, | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305182F: *Spacelift Range System (SPACE)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| and sustainment (OM&S) functions with future range modernization efforts. Additionally, LISC will integrate its future OM&S functions with the primary systems engineering and integration contract supporting the program management office.<br><br>***FY 2012 Accomplishments:***<br>N/A<br><br>***FY 2013 Plans:***<br>N/A<br><br>***FY 2014 Plans:***<br>LISC will initiate interface systems engineering, special studies, and requirements analysis to integrate its future range operations, maintenance, and sustainment (OM&S) functions with future range modernization efforts. Additionally, LISC will integrate its future OM&S functions with the primary systems engineering and integration contract supporting the program management office. | | | |
| ***Title:*** Systems Engineering and Integration<br><br>***Description:*** Provide independent, comprehensive systems engineering and integration efforts, via the SE&I contract. These efforts are focused on future system definition, baselines, range architectures, and integration planning for modernization and sustainment efforts. SE&I ensures modernization and sustainment efforts address operational requirements; launch enterprise transformation plans; reliability, maintainibility, and availability factors; and necessary interfaces with IT systems.<br><br>***FY 2012 Accomplishments:***<br>Continued independent SE&I efforts to integrate modernization and sustainment efforts into the ranges for the future. Provided systems definition, baseline, architecture, integration planning and support for future systems. Included products of completed SLRSC instrumentation modernization and sustainment efforts in future plans, as well as sustainment products from follow-on LISC and modernization products from OPAF-funded network and command destruct contracts.<br><br>***FY 2013 Plans:***<br>Continue independent SE&I efforts to integrate modernization and sustainment efforts into future ranges. Provide systems definition, baseline, architecture, integration planning and support for future systems. Refine plans to include LISC sustainment products and network and command destruct modernization products in future architecture.<br><br>***FY 2014 Plans:***<br>Expand independent SE&I efforts to integrate modernization and sustainment efforts into future ranges. Provide systems definition, baseline, architecture, integration planning and support for future systems. Add integration of LISC sustainment efforts, ER and WR network modernization, and command destruct modernization in range future architecture. | 2.717 | 2.157 | 6.566 |
| ***Title:*** Program Management Administration | 0.356 | 0.393 | 0.405 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305182F: *Spacelift Range System (SPACE)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Provide program management support, to include System Program Office operations, Systems Engineering and Technical Assistance (SETA), and Federally Funded Research and Development Centers (FFRDC).<br><br>***FY 2012 Accomplishments:***<br>Continued program management support, to include System Program Office operations, SETA, and engineering support from Aerospace (FFRDC).<br><br>***FY 2013 Plans:***<br>Continue program management support, to include System Program Office operations, SETA, and engineering support from Aerospace (FFRDC).<br><br>***FY 2014 Plans:***<br>Continue program management support, to include System Program Office operations, SETA, and engineering support from Aerospace (FFRDC). | | | |
| ***Title:*** Standard Space Trainer<br><br>***Description:*** Develops the Standard Space Trainer (SST) application for the spacelift ranges. SST is the AFSPC/CC-directed training system for all Combat Mission Ready (CMR) space systems. It provides a common platform for all space operational training systems for both AFSPC and AETC. The Spacelift Range SST will be developed to support CMR training for the ranges' Aerospace Control Officer (ACO), Range Control Officer (RCO)/Range Operations Commander (ROC), Mission Flight Control Officer (MFCO) and Launch Weather Officer (LWO) positions.<br><br>***FY 2012 Accomplishments:***<br>N/A<br><br>***FY 2013 Plans:***<br>N/A<br><br>***FY 2014 Plans:***<br>Begins development of Standard Space Trainer application for ranges to provide more responsive, cost effective, and adaptive training capability than current training on operational system. | 0.000 | 0.000 | 4.474 |
| **Accomplishments/Planned Programs Subtotals** | 9.245 | 8.760 | 13.345 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305182F: *Spacelift Range System (SPACE)* |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: Line item # 836770: *Spacelift Range System Space* | 124.967 | 109.545 | 98.062 | | 98.062 | 96.092 | 101.490 | 105.041 | 106.931 | Continuing | Continuing |
| • OPAF: BA05: Line Item # 86190A: *Spares and Repair Parts* | 2.976 | 3.076 | 3.120 | | 3.120 | 3.172 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

The AF will use competitively awarded, complementary contracts managed by the Space and Missile Systems Center (SMC) to modernize and sustain the ranges in FY14 on a minimal-interference basis as they continue to support operational launches and tests. These include the new Launch and Test Range System Integrated Support Contract (LISC) to be awarded in FY14, the Systems Engineering and Integration (SE&I) contract to be re-awarded in FY14, and the new Standard Space Trainer contract to be awarded in FY14. Additionally, SMC will obtain program management support via the Aerospace (FFRDC) contract.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305182F: *Spacelift Range System (SPACE)* | PROJECT<br>674137: *Launch and Test Range System (LTRS) Modernization* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Spacelift Range System Contract (SLRSC) | C/CPAF | ITT Exelis:Cape Canaveral, FL | - | 6.172 | Nov 2011 | 6.210 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| LTRS Integrated Support Contract (LISC) | C/FPIF | TBD:TBD, | - | 0.000 | | 0.000 | | 1.900 | Jan 2014 | - | | 1.900 | Continuing | Continuing | TBD |
| Standard Space Trainer | SS/CPFF | Sonalysts, Inc:Waterford, CT | - | 0.000 | | 0.000 | | 4.474 | Dec 2013 | - | | 4.474 | Continuing | Continuing | 9.129 |
| Systems Engineering and Integration Contract | C/CPIF | Booz Allen and Hamilton:McLean, VA | - | 2.717 | Dec 2011 | 2.157 | Dec 2012 | 6.566 | Dec 2013 | - | | 6.566 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 8.889 | | 8.367 | | 12.940 | | 0.000 | | 12.940 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

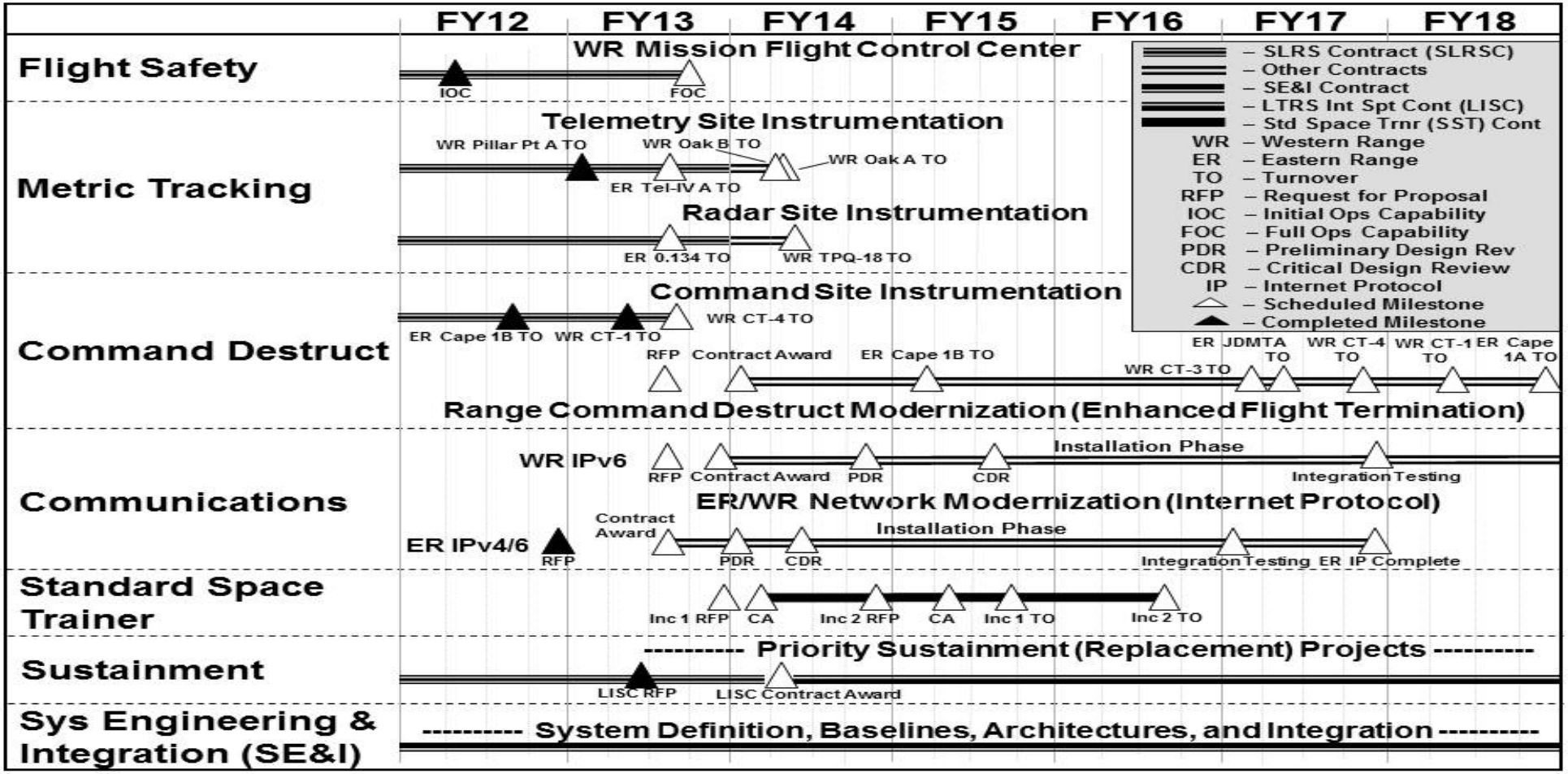
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Support (FFRDC) | RO | Aerospace:El Segundo, CA | - | 0.356 | Nov 2011 | 0.393 | Jan 2013 | 0.405 | Jan 2014 | - | | 0.405 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.356 | | 0.393 | | 0.405 | | 0.000 | | 0.405 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305182F: *Spacelift Range System (SPACE)* | PROJECT<br>674137: *Launch and Test Range System (LTRS) Modernization* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 9.245 | 8.760 | 13.345 | 0.000 | 13.345 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305182F: *Spacelift Range System (SPACE)* | PROJECT<br>674137: *Launch and Test Range System (LTRS) Modernization* |




Note: Schedule represents integrated view of RDT&E and OPAF funded modernization/sustainment efforts

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305182F: *Spacelift Range System (SPACE)* | **PROJECT**<br>674137: *Launch and Test Range System (LTRS) Modernization* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| - WR Mission Flight Control Center Ops Acceptance | 1 | 2012 | 2 | 2012 |
| - WR Mission Flight Control Center IOC | 2 | 2012 | 2 | 2012 |
| - WR Mission Flight Control Center FOC | 4 | 2013 | 4 | 2013 |
| - Metric Tracking (Telemetry) WR Pillar Point Info Assurance Fixes Complete | 1 | 2012 | 2 | 2012 |
| - Metric Tracking (Telemetry) WR Pillar Point Ops Turnover | 2 | 2012 | 1 | 2013 |
| - Metric Tracking (Telemetry) ER Tel-IV Authority to Operate | 1 | 2012 | 3 | 2012 |
| - Metric Tracking (Telemetry) ER Tel-IV Ops Turnover | 4 | 2012 | 3 | 2013 |
| - Metric Tracking (Telemetry) WR Oak Mtn B T&E | 4 | 2012 | 1 | 2013 |
| - Metric Tracking (Telemetry) WR Oak Mtn B Ops Turnover | 2 | 2013 | 2 | 2014 |
| - Metric Tracking (Telemetry) WR Oak Mtn A Antenna Turnover | 2 | 2012 | 4 | 2012 |
| - Metric Tracking (Telemetry) WR Oak Mtn A Site Ops Turnover | 1 | 2013 | 2 | 2014 |
| - Metric Tracking (Radar) ER Patrick Site Ops Turnover | 1 | 2012 | 3 | 2013 |
| - Metric Tracking (Radar) WR VAFB Site T&E | 1 | 2013 | 2 | 2013 |
| - Metric Tracking (Radar) WR VAFB Site Ops Turnover | 3 | 2013 | 2 | 2014 |
| - Command Instrumentation Site WR CT-1 Ops Testing | 1 | 2012 | 2 | 2012 |
| - Command Instrumentation Site WR CT-1 Ops Turnover | 2 | 2012 | 2 | 2013 |
| - Command Instrumentation Site ER Cape 1B Ops Testing | 1 | 2012 | 2 | 2012 |
| - Command Instrumentation Site ER Cape 1B Ops Turnover | 2 | 2012 | 3 | 2012 |
| - Command Instrumentation Site WR CT-4 Ops Testing | 3 | 2012 | 2 | 2013 |
| - Command Instrumentation Site WR CT-4 Ops Turnover | 3 | 2013 | 3 | 2013 |
| - Standard Space Trainer Increment 1 Contract Award | 1 | 2014 | 1 | 2014 |
| - Standard Space Trainer Increment 1 Turnover | 3 | 2015 | 3 | 2015 |

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305182F: *Spacelift Range System (SPACE)* | PROJECT<br>674137: *Launch and Test Range System (LTRS) Modernization* |

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| - Standard Space Trainer Increment 2 Contract Award | 2 | 2015 | 2 | 2015 |
| - Standard Space Trainer Increment 2 Turnover | 3 | 2016 | 3 | 2016 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | | DATE: April 2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305193F: *Cyber Intelligence* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 1.271 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.271 |
| 674871: *Information Operations Technology* | - | 1.271 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.271 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY2013, 674871 Information Operations Technology, efforts were transferred to PE 0208059F, CYBERCOM Activities, 676002, Cyber Systems Modernization, in order to align all CYBERCOM funding into one PE.

**A. Mission Description and Budget Item Justification**

The US Cyber Command (USCYBERCOM) responsibilities include planning, integrating, and coordinating computer Computer Network Operations (CNO) capabilities; operational and tactical level planning and day-to-day employment of assigned and attached Offensive Cyber Operations (OCO) forces; integration of OCO forces with Defensive Cyber Operations (DCO) forces and planning and coordination of cyber capabilities that have trans-regional effects or that directly support national objectives; providing OCO/DCO support for assigned missions and OCO/DCO planning and integration in support of other Combatant Commanders (COCOMs) as directed.

This project funds research, development, testing, and systems modifications of the technologies and capabilities that allow USCYBERCOM to plan, facilitate coordination and integration, deconflict, and synchronize Department of Defense (DoD) CNO. Activities also include studies and analysis to support both current program planning and execution, and future program planning. This program also provides the ability for other COCOMs to conduct CNO planning. The USCYBERCOM accomplishes part of its mission via systems engineering, testing and development across the primary functions of technical assurance, risk assessments, requirements management, capability development, and gap analysis. The technical assurance function provides world-class "assurance-in-depth" products and services enabling COCOMs to confidently, legally, safely, and securely apply CNO capabilities as one of the elements of national power. Further detail is classified and can be provided upon request.

USCYBERCOM provides support for US Strategic Command (USSTRATCOM) and other geographic and functional COCOM exercises, war games, and experimentation requirements. USCYBERCOM integrates and synchronizes its effort with the USSTRATCOM development of CNO military utility assessments, research, and development efforts, and advocacy of capability needs for the Joint Capabilities Integration Development System (JCIDS) process.

USCYBERCOM supports the Information Operations (IO) community by providing a cadre of experts on CNO technology use, and renders technical assistance in the development, review and coordination of CNO plans and operations.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305193F: *Cyber Intelligence* |

USCYBERCOM coordinates CNO capability research and development in order to achieve global military objectives. USCYBERCOM specifically is responsible for advocating on behalf of the COCOMs for CNO capability development. It is also responsible for partnering with the CNO development community to seek resource advocacy from USSTRATCOM, and fund CNO capability development with service sponsorship and coordination. Additionally, USCYBERCOM focuses capability developer's efforts on addressing COCOM requirements, fosters collaboration between OCO/DCO developers, intelligence providers, and operational planners to shorten the development cycle, transfers end-result capabilities to service components, and supports research and development of OCO/DCO capabilities for the conduct operational planning activities.

USCYBERCOM supports research and development of OCO/DCO capabilities based upon COCOM and USCYBERCOM operational requirements to include supporting and conducting quick reaction development of OCO/DCO capabilities in support of OCO/DCO operations as required. A small in-house development team will perform research as required to support this mission. The Special Projects, Vulnerability Assessment Team provides analytical support to exploitable vulnerabilities. Additionally, this team will "re-tool" existing OCO/DCO capabilities to satisfy immediate USCYBERCOM operational needs.

This program is in Budget Activity 7, Operational System Development, these budget activities include development efforts to upgrade systems currently fielded or has approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 1.271 | 0.000 | 0.000 | - | 0.000 |
| Current President's Budget | 1.271 | 0.000 | 0.000 | - | 0.000 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Joint Threat Incident (JTID) Global Network Ops (GNO) Analysis | 1.208 | 0.000 | 0.000 |
| ***Description:*** Intelligence activities focused on the development, integration and assessment of systems or applications in support of non-traditional and contingency warfare. | | | |
| ***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305193F: *Cyber Intelligence* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continued modifications to near real-time database that contains foreign CNO specific threat information to DoD's command and control infrastructure, to include intentions and capabilities. Continued development of tools for production of automated intelligence reports on computer network attacks against US systems in accordance with CJCSM 6510.03. Continued to develop better incident assessments and analysis modules to improve means of supplying appropriate response options and courses-of-action in defense of DoD networks. Activities also included studies and analysis to support both current program planning and execution and future program planning.<br><br>N/A | | | |
| ***Title:*** Program Management Administration<br><br>***Description:*** Program Management Administration (PMA) funding support engineering and technical development, and implementation activities, along with acquisition support efforts.<br><br>***FY 2012 Accomplishments:***<br>Funding will support engineering and acquisition support | 0.063 | 0.000 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 1.271 | 0.000 | 0.000 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • NA: *NA* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

The acquisition strategy is to provide continuous improvements to the Joint Threat Incident Database through incremental updates. Systems engineering, development, and testing is accomplished using a Time & Materials (T&M) contract through full and open competition.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305193F: *Cyber Intelligence* | PROJECT<br>674871: *Information Operations Technology* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JTID Global Network Ops Analysis | C/T&M | Northrop Grumman IT-TASC:Lorton, VA | - | 1.271 | Dec 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | Subtotal | 0.000 | 1.271 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

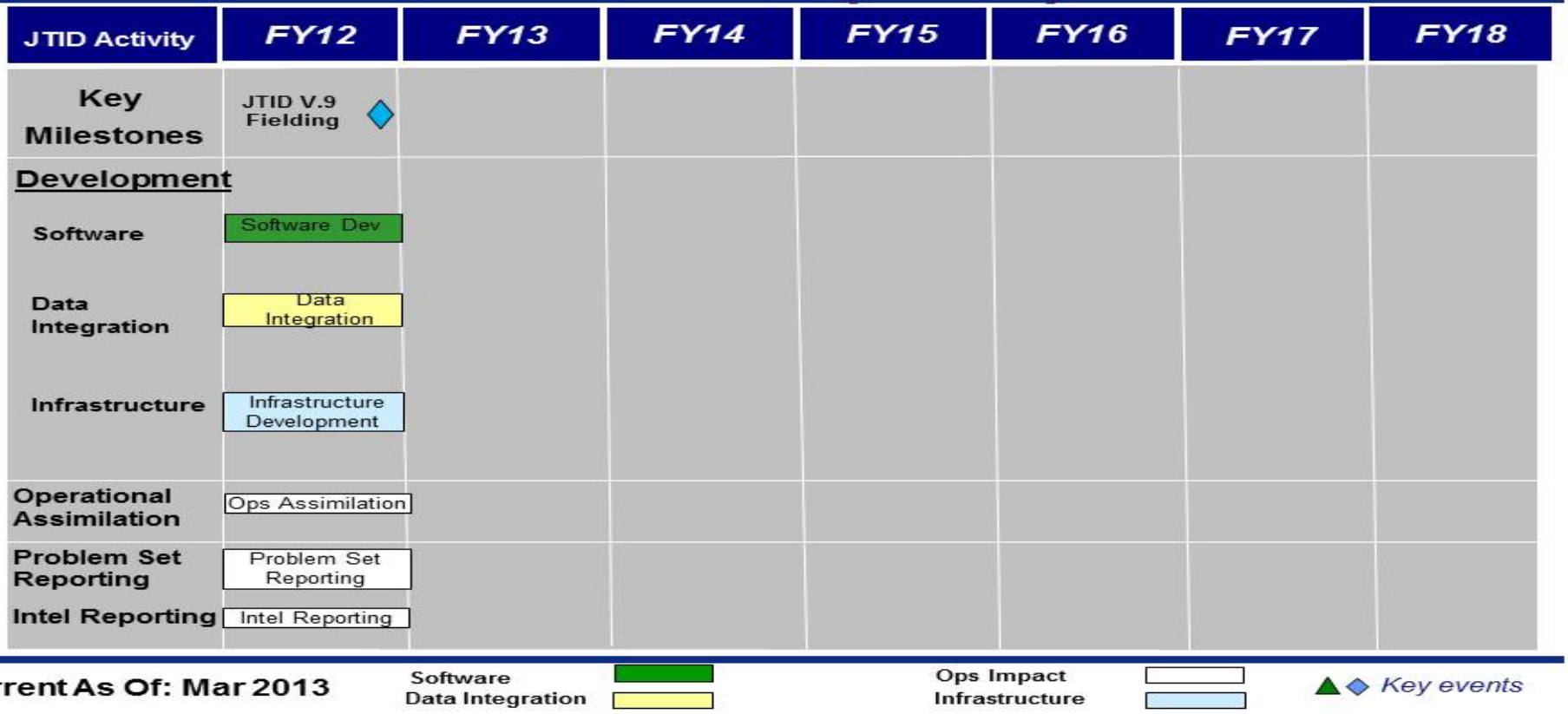
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 1.271 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305193F: *Cyber Intelligence* | PROJECT<br>674871: *Information Operations Technology* |

# Joint Threat Incident Database (JTID) Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305193F: *Cyber Intelligence* | **PROJECT**<br>674871: *Information Operations Technology* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Fielding of V.9 | 4 | 2012 | 4 | 2012 |
| Software Development | 1 | 2012 | 4 | 2012 |
| Data Integration | 1 | 2012 | 4 | 2012 |
| Infrastructure Development | 1 | 2012 | 4 | 2012 |
| Ops Assimilation | 1 | 2012 | 4 | 2012 |
| Problem Set Reporting | 1 | 2012 | 4 | 2012 |
| Intel Reporting | 1 | 2012 | 4 | 2012 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305202F: *Dragon U-2* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.000 | 23.644 | 18.700 | - | 18.700 | 11.300 | 12.100 | 8.600 | 8.755 | Continuing | Continuing |
| 674820: *Sensor Development* | - | 0.000 | 23.644 | 18.700 | - | 18.700 | 11.300 | 12.100 | 8.600 | 8.755 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

**A. Mission Description and Budget Item Justification**

The CIA established the Senior Year Program in 1955. The program has evolved to include the U-2 airframe, engines, sensors, cameras, recorders, data links life support systems, test facilities, and equipment. The U-2S model airframes were constructed in the late 1980s, with the last aircraft rolling off the assembly line in 1989. The U-2S provides global reconnaissance signals intelligence (SIGINT) and geospatial intelligence (GEOINT) 24 hours a day, seven days a week in support of national and DoD worldwide missions. The U-2 is currently deployed to forward operating locations (FOL) around the world.

FY13 funding includes Lithium-Ion Battery, U-2 Sump Tank, U-2 Global Positioning System (GPS) Receiver, and Fuel conversion.

FY14 funding includes Advanced Synthetic Aperature Radar System (ASARS) Next Generation, Generator Upgrade/Accessory Mounted Auxiliary Drive (AMAD), Avionics Processor/Airborne Recce Toolkit (ART) Analysis, Conformal Equipment Group, Airborne Signet Intelligence Payload (ASIP) Dual Pod Only and Inertial Navigation System (INS) Upgrade/GPS Tech Refresh.

Activities also include, but are not limited to support both current program planning and execution, and future program planning.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305202F: *Dragon U-2* | |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.000 | 23.644 | 18.700 | - | 18.700 |
| Current President's Budget | 0.000 | 23.644 | 18.700 | - | 18.700 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

**Change Summary Explanation**

None

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Lithium-Ion Batteries<br>***Description:*** Provides extended power availability with loss of engine/generator during flight.<br>***FY 2013 Plans:***<br>Complete development of Li-Ion Battery replacement. | 0.000 | 8.400 | 0.000 |
| ***Title:*** Sump Tank Replacement<br>***Description:*** Develop new composite material sump tank to replace current aluminum sump tank.<br>***FY 2013 Plans:***<br>Complete development of new composite material tank. | 0.000 | 2.100 | 0.000 |
| ***Title:*** Global Position Satellite (GPS) Receiver Replacement<br>***Description:*** Develop a replacement GPS receiver for the U-2 to address vanishing vendor issue/diminishing manufacturing sources (VVI/DMS) issues.<br>***FY 2013 Plans:***<br>Complete development of a replacement U-2 GPS receiver, a critical navigation component | 0.000 | 3.100 | 0.000 |
| ***Title:*** Fuel Conversion | 0.000 | 5.044 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305202F: *Dragon U-2* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Identify a replacement option for Jet Propellant Thermally Stable (JPTS) fuel, the current high altitude fuel.<br><br>***FY 2013 Plans:***<br>Complete testing a JP8 additive for use with U-2, leading towards its certification. | | | |
| ***Title:*** Program Management & Administrative (PMA) Costs<br>***Description:*** Funds for the management of the program to include travel, A&AS contracts and any other PMA requirements.<br><br>***FY 2013 Plans:***<br>Provide for the management of the program to include travel, A&AS contracts and any other PMA requirements.<br><br>***FY 2014 Plans:***<br>Will continue providing for the management of the program to include travel, A&AS contracts and any other PMA requirements. | 0.000 | 5.000 | 3.000 |
| ***Title:*** Advanced Synthetic Aperature Radar System (ASARS) Next Generation<br>***Description:*** Reduce ASARS footprint to nose only installation with smaller process and multi-channel Digital REX. Driven by DMS of antenna. Next Gen ASARS will meet future operational requirements.<br><br>***FY 2014 Plans:***<br>Will design new chassis combining chassis Air Cooled Chassis #6 (ACC6) and Spray Cooled Chassis #7 (SCC7), re-design and relocate Field Support Equipment (FSE)/DCE, Asynchronous Transfer Mode (ATM) and Encrypted File Server (EFS) (includes software). Next Gen ASARS will meet future operational requirements. | 0.000 | 0.000 | 4.500 |
| ***Title:*** Generator Upgrade/Accessory Mounted Auxiliary Drive (AMAD)<br>***Description:*** Upgrade Power System to increase safety, lower maintenance/support cost, address VVI/DMS issues, and support future avionics/payload upgrades included in the roadmap.<br><br>***FY 2014 Plans:***<br>Will upgrade A/C generator from the 45KVA to 65kVA to support future sensors requirements. | 0.000 | 0.000 | 1.500 |
| ***Title:*** Avionics Processor (AVP) Upgrade/Airborne Recce Toolkit (ART) Analysis<br>***Description:*** Update or Replace outdated/overburdened AVP. Current AVP technology does not allow for upgrades and will not meet future requirements for the cockpit.<br><br>***FY 2014 Plans:*** | 0.000 | 0.000 | 3.200 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305202F: *Dragon U-2* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Will Update or replace outdated/overburdened AVP. Current AVP technology does not allow for upgrades and will not meet future requirements for the cockpit. | | | |
| ***Title:*** Conformal Equipment Grp(Canoe)<br>***Description:*** Incorporates a backbone equipment bay onto the U-2 Airframe. Provides additional payload capability for future systems. Decrease aircraft drag from current design improving aircraft performance.<br>***FY 2014 Plans:***<br>Will incorporate a backbone equipment bay onto the U-2 Airframe. Provides additional payload capability for future systems. Decrease aircraft drag from current design improving aircraft performance. | 0.000 | 0.000 | 4.400 |
| ***Title:*** Airborne Signet Intelligence Payload (ASIP) Dual Pod Only Installation<br>***Description:*** Reconfiguration of ASIP Line Replacement Units (LRU) to open SWAP in Q-bay while maintaining current capability. This will allow additional payloads to be flown simultaneously with ASIP.<br>***FY 2014 Plans:***<br>Will design new chasis combining ACC6 and SCC7, re-design and relocate FSE/DCE, ATM and EFS (includes software) | 0.000 | 0.000 | 1.000 |
| ***Title:*** INS Upgrade and GPS Tech Refresh<br>***Description:*** Replace/Update INS/GPS due to VVI/DMS Contexted/Degraded Operations (CDO)<br>***FY 2014 Plans:***<br>Will perform study to determine best way ahead. | 0.000 | 0.000 | 1.100 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 23.644 | 18.700 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # 11U200: *U-2 Mods* | 0.000 | 53.664 | 67.404 | | 67.404 | 66.158 | 25.000 | 51.900 | 52.835 | Continuing | Continuing |
| • OPAF: BA02: Line Item # 821800: *Passenger Carring Vehicles* | 0.118 | 0.123 | 0.126 | | 0.126 | 0.130 | 0.134 | 0.137 | 0.139 | Continuing | Continuing |
| • RDT&E: BA07: 0305206F: *Airborne Reconnaissance Systems* | 115.471 | 96.735 | 37.828 | | 37.828 | 55.591 | 60.256 | 48.795 | 49.672 | Continuing | Continuing |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305202F: *Dragon U-2* |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

A portion of funds in Airborne Reconnaissance Systems will be used to support sensor refurbishment.

**E. Acquisition Strategy**

Modifications to existing platform and associated ground control equipment via Engineering Change Proposals (ECPs)/Task Orders on existing USAF contracts. Details are classified and available on a need-to-know basis. There is associated procurement funding tied to this development activity.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305202F: *Dragon U-2* | PROJECT<br>674820: *Sensor Development* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lithium-Ion Battery | SS/CPFF | Lockheed Martin Aeronautics:Palmdale, CA | - | 0.000 | | 8.400 | May 2013 | 0.000 | | - | | 0.000 | 0.000 | 8.400 | |
| Sump Tank | SS/CPFF | Lockheed Martin Aeronautics:Palmdale, CA | - | 0.000 | | 2.100 | Apr 2013 | 0.000 | | - | | 0.000 | 0.000 | 2.100 | |
| GPS Receiver Replacement | SS/CPFF | Lockheed Martin Aeronautics:Palmdale, CA | - | 0.000 | | 3.100 | Jun 2013 | 0.000 | | - | | 0.000 | 0.000 | 3.100 | |
| Fuel Conversion | SS/CPFF | Lockheed Martin Aeronautics:Palmdale, CA | - | 0.000 | | 5.044 | Aug 2013 | 0.000 | | - | | 0.000 | 0.000 | 5.044 | |
| ASARS Next Gen | SS/CPFF | Raytheon/Lockheed Martin:El Segunda, CA | - | 0.000 | | 0.000 | | 4.500 | May 2014 | - | | 4.500 | Continuing | Continuing | TBD |
| Generator Upgrade/AMAD | SS/CPFF | Lockheed Martin Aeronautics:Palmdale, CA | - | 0.000 | | 0.000 | | 1.500 | Jun 2014 | - | | 1.500 | Continuing | Continuing | TBD |
| Avionics AVP Upgrade/ ART Analysis | TBD | TBD:TBD, | - | 0.000 | | 0.000 | | 3.200 | Jul 2014 | - | | 3.200 | Continuing | Continuing | TBD |
| Conformal Equipment Grp (Canoe) | SS/CPFF | Lockheed Martin Aero:Palmdale, CA | - | 0.000 | | 0.000 | | 4.400 | May 2014 | - | | 4.400 | Continuing | Continuing | TBD |
| ASIP Dual Pod Only Installation | SS/CPFF | NGIS:San Jose, CA | - | 0.000 | | 0.000 | | 1.000 | Jun 2014 | - | | 1.000 | Continuing | Continuing | |
| INS Upgrade and GPS Tech Refresh | SS/CPFF | Lockheed Martin Aeronautics:Palmdale, CA | - | 0.000 | | 0.000 | | 1.100 | May 2014 | - | | 1.100 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 18.644 | | 15.700 | | 0.000 | | 15.700 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305202F: *Dragon U-2* | PROJECT<br>674820: *Sensor Development* |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA: Other Gov't Cost | SS/T&M | Spectrum:Warner Robins, GA | - | 0.000 | | 5.000 | Oct 2012 | 3.000 | Oct 2013 | - | | 3.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 5.000 | | 3.000 | | 0.000 | | 3.000 | | | |

| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 23.644 | | 18.700 | | 0.000 | | 18.700 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305202F: *Dragon U-2* | PROJECT<br>674820: *Sensor Development* |

U.S. AIR FORCE

# U-2 Schedule




1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305202F: *Dragon U-2* | **PROJECT**<br>674820: *Sensor Development* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Lithium-Ion Batteries | 2 | 2013 | 4 | 2014 |
| Sump Tank Replacement | 3 | 2013 | 4 | 2014 |
| GPS Receiver Replacement | 3 | 2013 | 4 | 2014 |
| Fuel Conversion | 4 | 2013 | 4 | 2014 |
| ASARS Next Gen | 1 | 2014 | 3 | 2016 |
| Generator Upgrade/AMAD | 2 | 2014 | 1 | 2015 |
| AVP Upgrade/ART Analysis | 2 | 2014 | 4 | 2015 |
| Conformal Equipment Grp (Canoe) | 2 | 2014 | 2 | 2015 |
| ASIP Dual Pod Only Installation | 3 | 2014 | 2 | 2015 |
| INS Upgrade and GPS Tech Refresh | 2 | 2014 | 1 | 2016 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 108.021 | 21.000 | 3.000 | - | 3.000 | 3.000 | 2.000 | 0.000 | 0.000 | Continuing | Continuing |
| 675372: *Integrated Sensor IS Structure* | - | 23.620 | 21.000 | 3.000 | - | 3.000 | 3.000 | 2.000 | 0.000 | 0.000 | Continuing | Continuing |
| 676019: *Blue Devil* | - | 65.401 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 65.401 |
| 67A026: *MAGIC* | - | 19.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| **MDAP/MAIS Code(s):** 252 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

FY 2012 funding totals included $63.0M appropriated for Overseas Contingency Operations for Blue Devil Block 2 (airship) development.

**A. Mission Description and Budget Item Justification**

This PE focuses USAF efforts on long endurance platforms which allow days, months, or years of endurance, as well as their associated sensors and communications suites. Efforts include, but are not limited to, optionally piloted airships, remotely piloted aircraft (RPA) or more standard aircraft structures which could be flown as manned or unmanned.

The Integrated Sensor IS Structure (ISIS) project was planned to develop a radar which is fully integrated into a station-keeping, stratospheric airship. ISIS supports the nation's need for persistent wide-area surveillance, tracking, and engagement of time-critical air and ground targets. Automated surveillance and tracking includes air targets to the radar horizon of 600 km and all ground targets to a range of 300 km. The radar aperture is intended to provide track data directly to users in-theater. The objective system was planned to launch from CONUS locations with a multi-year operational life.

The Blue Devil Block 2 (BD2) project was an Air Force-led single ship technology and concept demonstration of multi-intelligence, cross-platform tipping and cueing of fused SIGINT, wide area and high-definition (HD) EO/IR motion imagery on a persistent lighter-than-air (LTA) airship. BD2 was intended to employ a payload integration infrastructure (PII) with a Command and Control (C2) and Processing, Exploitation, and Dissemination (PED) Ground Station in mid FY 2012 through FY 2013. The development effort was stopped in the 3rd Quarter of FY 2012 and all BD2 equipment was packed and shipped to the 645 AESG (BIG SAFARI) managed short term storage facility in Greenville, TX during the 4th Quarter of FY 2012.

The Medium Altitude Global ISR and Communications (MAGIC) project develops a multiple day, medium altitude ISR unmmanned aircraft system (UAS) to provide long endurance surveillance with a multiple sensor payload. This concept was initiated by OSD/DD&R as a Joint Capabilities Technology Demonstration (JCTD) in the 3rd Quarter FY 2010 with a competition between five defense industry partners. Aurora Flight Sciences' Orion remotely piloted aircraft (RPA) concept was chosen

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* |

as the JCTD candidate by OSD/DDR&E per the recommendation of the Combatant Commands. The MAGIC/Orion RPA initiative was subsequently released from the JCTD process and transitioned to the Air Force as the sponsor of this developmental initiative in the 3rd Quarter FY 2011. The Air Force is scheduling the first flight series for Aurora Flight Sciences' Orion RPA, as a proof of concept for air worthiness; this flight test is projected to take place at NAWS China Lake, CA in the 3rd Quarter of FY 2013.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 127.925 | 21.000 | 8.000 | - | 8.000 |
| Current President's Budget | 108.021 | 21.000 | 3.000 | - | 3.000 |
| Total Adjustments | -19.904 | 0.000 | -5.000 | - | -5.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | -19.904 | 0.000 | -5.000 | - | -5.000 |

**Change Summary Explanation**

Reduction of $19.904M in FY 2012 reflects an incorrect database. Actual funding was $127.925M.

Reduction of $5M in FY 2014 due to higher Department priorities.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>675372: *Integrated Sensor IS Structure* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675372: *Integrated Sensor IS Structure* | - | 23.620 | 21.000 | 3.000 | - | 3.000 | 3.000 | 2.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

Reduction of $5M in FY 2014 due to higher Department priorities.

**A. Mission Description and Budget Item Justification**

The Integrated Sensor IS Structure (ISIS) Program intended to develop a radar fully integrated into a station-keeping stratospheric airship. ISIS supports the nation's need for persistent wide-area surveillance, tracking, and engagement of time-critical air and ground targets. Automated surveillance and tracking objectives includes air targets to the radar horizon of 600 km and all ground targets to a range of 300 km. The radar aperture also is intended to provide track data directly to users in-theater. The objective system was planned to launch from CONUS locations with a multi-year operational life.

DARPA funded development of the prototype in FY09-12. Air Force contributes funding from FY10-FY14 to this joint DARPA - Air Force project. This project includes completion of the designs for the radar, propulsion, power systems, and the airframe, but is focused on demonstrating the ability to manufacture and demonstrate performance objectives of the radar and material objectives of the airship. The radar elements and airship materials will be demonstrated in FY 2014.

Funds also cover studies and analysis to support current program planning and execution and future program planning.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** ISIS | 23.620 | 21.000 | 3.000 |
| ***Description:*** Design, develop, and demonstrate radar technologies involving large apertures and low power. | | | |
| ***FY 2012 Accomplishments:***<br>Fabricated prototype design; modeled and demonstrated initial radar element performance. | | | |
| ***FY 2013 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>675372: *Integrated Sensor IS Structure* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continue radar modeling and demonstration activities; conduct air ship material risk reduction activities.<br>***FY 2014 Plans:***<br>Will complete radar demonstration and air ship risk reduction activities. | | | |
| **Accomplishments/Planned Programs Subtotals** | 23.620 | 21.000 | 3.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDTE: BA07: PE0603283E: *Advanced Aerospace Systems* | 5.000 | 5.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 267.900 |
| • RDTE: BA07: PE0603203F: *Advanced Aerospace Sensors* | 1.900 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.900 |

**Remarks**

0603203F, Advanced Aerospace Sensors (AAS), funds many efforts. The funding line shown here is that portion of AAS dedicated to ISIS support.

**D. Acquisition Strategy**

This is a Cost-Plus-Fixed-Fee contract with a total value of $462M. The project is being funded with a cost sharing agreement between the Air Force and DARPA under a Memorandum of Agreement. Air Force funds intended for the contract are being provided to DARPA via a Military Interdepartmental Purchase Request (MIPR) for obligation. The Air Force Research Laboratory is acting as the Contracting Officer's Technical Representative for DARPA. The prime contractor is Lockheed Martin Aeronautics of Palmdale, CA and the radar sub is Raytheon Space and Airborne Systems, El Segundo, CA.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>675372: *Integrated Sensor IS Structure* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Prototype Development | C/CPFF | Lockheed Martin:Palmdale, CA | - | 23.620 | Nov 2011 | 21.000 | Jan 2013 | 3.000 | Dec 2013 | - | | 3.000 | Continuing | Continuing | 462.000 |
| | | **Subtotal** | 0.000 | 23.620 | | 21.000 | | 3.000 | | 0.000 | | 3.000 | | | 462.000 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

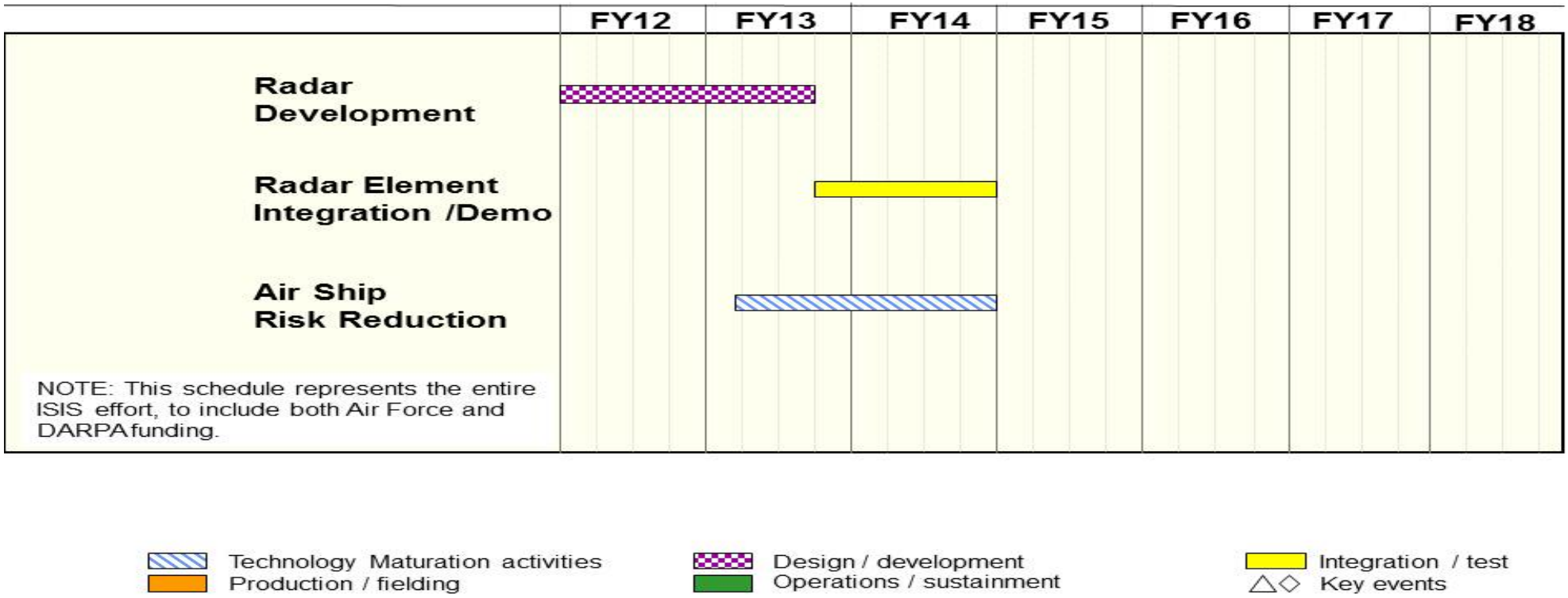
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 23.620 | | 21.000 | | 3.000 | | 0.000 | | 3.000 | | | 462.000 |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>675372: *Integrated Sensor IS Structure* |

# ISIS Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>675372: *Integrated Sensor IS Structure* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Radar Development | 1 | 2012 | 3 | 2013 |
| Radar Element Integration/Demo | 4 | 2013 | 4 | 2014 |
| Air Ship Risk Reduction | 1 | 2013 | 4 | 2014 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>676019: *Blue Devil* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 676019: *Blue Devil* | - | 65.401 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 65.401 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

FY 2012 appropriation includes $63.0M of Overseas Contingency Operations (OCO) funding for Blue Devil Block 2 (airship) development.

**A. Mission Description and Budget Item Justification**

The Blue Devil Block 2 (BD2) system was an Air Force led single ship technology and concept demonstation of multiple intelligence sensors, cross-platform tipping and cueing of fused SIGINT data, wide area and high-definition (HD) EO/IR motion imagery on a persistent lighter-than-air (LTA) airship. BD2 was being developed to employ a payload integration infrastructure (PII) with a Command and Control (C2) and Processing, Exploitation, and Dissemination (PED) Ground Station. This effort would have directly supported multiple validated CENTCOM urgent operational needs, and contributed directly to force protection and counter Improvised Explosive Device (IED) missions for coalition Forces. BD2 was a rapid acquisition technology demonstration that was initiated under an Army contract in the 1st Quarter of FY 2010.

The BD2 project development was stopped by the Air Force, with concurrence from DEPSECDEF, in the 2nd Quarter of FY 2012 due to multiple technical challenges and the Air Force determination that the BD2 airship could not reliably be delivered and employed within acceptable cost, schedule and performance risks. All previously planned efforts on this project were stopped after the release of a Congressional Defense Committees notification memo signed by the DEPSECDEF on 27 March 2012. The BD2 assets developed and acquired to date, to include the government furnish equipment (GFE), have been packed and shipped to a short term facility in Greenville, TX managed by the 645 AESG (BIG SAFARI SPO). Disposition of the BD2 stored assets and components will be made available to other projects, programs or initiatives; how, what, and when aspects have not been determined to date.

This program was in Budget Activity 7, Operational System Development because this budget activity included development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Blue Devil 2 | 65.401 | 0.000 | 0.000 |
| ***Description:*** Develop and rapidly field an integrated multi-intelligence system on a persistant lighter-than-air airship with organic tipping and cueing of fused SIGINT to on-board wide field of view and narrow field of view EO/IR motion imagery systems. Procurement of the ARGUS IS Electro-Optical/Infra-Red (EO/IR) camera system for enhanced high resolution imagery. | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>676019: *Blue Devil* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***FY 2012 Accomplishments:***<br>The development, integration, test and preparation for transport and deployment efforts of the Blue Devil 2 system were stopped by the Air Force in 3rd Quarter FY 2012. Efforts to address and satisfy COCOM operational needs for long dwell / persistent ISR requirements were re-directed to the development and integration of multi-INT sensor solutions on existing or other developmental air vehicles assessed to be able to deliver this long endurance capability to the warfighter with lesser risk to cost, schedule and performance. | | | |
| **Accomplishments/Planned Programs Subtotals** | 65.401 | 0.000 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • N/A: . | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

The Blue Devil Block 2 (BD2) initiative was being executed by the 645 AESG (BIG SAFARI SPO) to field this COCOM requested, SECDEF mandated, long endurance quick reaction capability to address COCOM urgent operational needs for long dwell, persistent ISR requirements. The acquisition strategy to develop a long endurance, persistent ISR capability for the COCOMs was re-evaluated and based on the Air Force's decision, with DEPSECDEF concurrence, the effort was stopped in the 4th Quarter of FY 2012 due to unforeseen technological challenges and the inability for the BD2 development team to deliver within planned cost, schedule and performance.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>676019: *Blue Devil* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Airship Development | SS/CPFF | MAV-6:Vicksburg, MS | - | 63.000 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| ARGUS EO Sensor Development | SS/FFP | BAE:Nashua, NH | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Sensors, Datalinks, GFE Integration | C/FFP | Various:Location not provided. | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Sensor Integration and Test Support | SS/CPFF | L-3Com:Greenville, TX | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Operational Demonstration Support | C/CPAF | Various:, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 63.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | SS/CPFF | 645 AESG:Dayton, OH | - | 2.401 | Dec 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 2.401 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>676019: *Blue Devil* | |

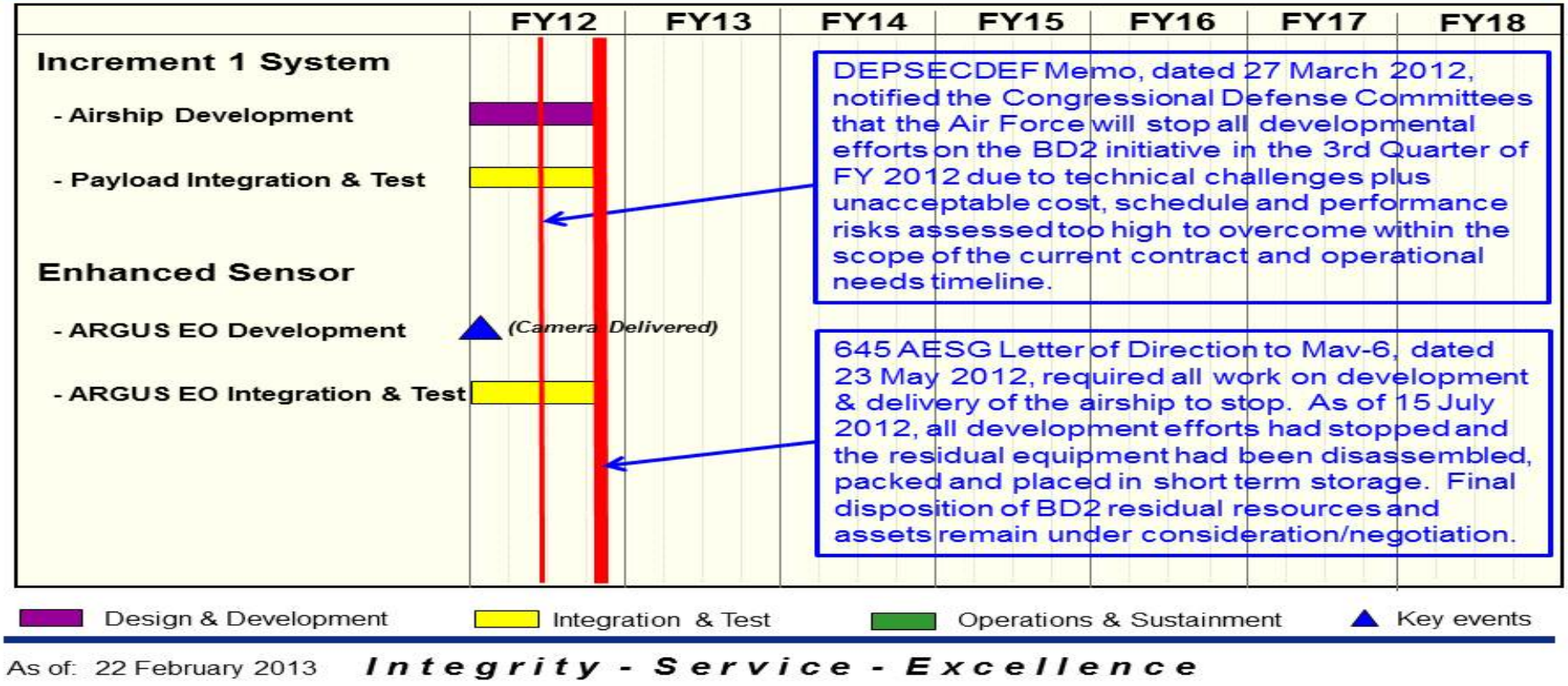
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 65.401 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>676019: *Blue Devil* |

U.S. AIR FORCE

# Blue Devil Block 2 Schedule




As of: 22 February 2013 *Integrity - Service - Excellence*

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | **PROJECT**<br>676019: *Blue Devil* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Increment 1 - Airship Design & Development | 1 | 2012 | 4 | 2012 |
| Increment 1 - Integration and Test | 1 | 2012 | 4 | 2012 |
| Increment 2 - ARGUS EO Integration and Test | 1 | 2012 | 4 | 2012 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>67A026: *MAGIC* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 67A026: *MAGIC* | - | 19.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Medium Altitude Global ISR and Communications (MAGIC) project is an Air Force led technology and concept development to test the ability for a remotely piloted aircraft (RPA) to stay aloft in the medium altitude structure for a multiple day duration with a minimum of 1,000 pounds payload capacity of intelligence, surveillance and reconnaissance sensor sytems. The MAGIC concept was initiated by OSD/DDR&E in FY 2010 in response to five COCOMs ranking this type of initiative as the highest priority for a joint concept and tecnology demonstration (JCTD). In FY 2011, the Air Force accepted this initiative as the sponsor and MAGIC was subsequently removed from consideration as a JCTD and transitioned into the Air Force as a developmental project.

Data gathered from the development of the MAGIC project will support end-to-end long endurance ISR planning. Persistent ISR supports both regular and irregular warfare. The challenge to supporting regular and irregular warfare is the integration of legacy ISR architectures with emerging end-to-end infrastructures. The MAGIC project will provide the USAF with critically needed data regarding sensor and aircraft performance parameters at a multiple day duration at medium altitude flight. This data will augment the Persistent ISR study completed by ACC and AFMC in 2nd Quarter FY 2011 and the AF/A9 Endurance UAV study completed in 3rd Quarter of FY 2012. This project is designed to address the requirement laid out in two separate joint urgent operational needs (JUON) for long dwell and persistent ISR. The objectives laid out in the JCTD competition and selection is being honored by the Air Force which will test the MAGIC project on an RPA for a flight duration of five days (120 hours) with a minimum sensor payload of 1,000 pounds at 20,000 feet altitude.

In FY 2010, OSD/DDR&E (now ASD/R&E) provided $5M of initial funding to AFRL to initiate the MAGIC project. In FY 2011, ASD/R&E provided an additional $5M to keep the MAGIC project development moving forward. The Air Force followed suit and provided $10M of FY 2011 below threshold reprogramming (BTR) to allow the Aurora Flight Sciences' RPA development team to set up an operational endurance engine bench test and software integrations lab in preparation for an inflight five-day duration demonstration of the Orion RPA at a later date.

The last week of January 2012, Aurora Flight Science performed a 123 hour duration endurance engine bench test. In December 2012, Aurora Flight Sciences assembled all the aircraft components of the Orion RPA at their Manassas, VA facility to begin a series of ground testing efforts in preparation for the first flight series of tests projected to be conducted at NAWS China Lake, CA in the 3rd Quarter of FY 2013. As of February 2013, the majority of the electrical and avionics continuity checks to include multiple engine runs have been completed. Slow speed taxi tests are the next milestone in their master schedule and they should commence and complete in March 2013. First flight series testing is projected for 3rd and 4th Quarters of FY 2013 at NAWS China Lake, CA.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>67A026: *MAGIC* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** MAGIC | 19.000 | 0.000 | 0.000 |
| ***Description:*** Development of a systems integration labratory (SIL) for aircraft controls and fault tolerance maturation through modeling and simulation tools, and continuation of endurance studies to identify mean time between failures on key airframe and flight control components, sensor system components, and communication data links in preparation for the integration of components in the development of a long duration, ISR sensor carrying Remotely Piloted Aircraft with the capacity to stay aloft for five days with a minimum of 1,000 pounds of sensor payload in a flight structure at or above 20,000 feet altitude.<br><br>***FY 2012 Accomplishments:***<br>Continued development of avionics and flight controls software, sensor systems and data links, and airframe and power plant components that will enable the ground, taxi and short duration first flight testing of the long duration, ISR sensor carrying RPA concept with a proposed capacity to stay aloft for five days with a minimum of 1,000 pounds of sensor payload in a flight structure at or above 20,000 feet altitude. | | | |
| **Accomplishments/Planned Programs Subtotals** | 19.000 | 0.000 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • N/A: . | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

The Medium Altitude Global ISR and Communications (MAGIC) initiative is being executed by the 645 AESG (BIG SAFARI SPO) to develop a COCOM requested long endurance remotely piloted aircraft (RPA) to address urgent operational needs for long swell, persistent ISR requirements. The acquisition strategy for the Air Force to develop a long endurance, persistent ISR capability for the COCOMs was an outgrowth of a joint capabilities technology demonstration (JCTD) started in FY 2010. Current status of this initiative, contracted with Aurora Flight Sciences and their Orion RPA, are: the completion of the studies analysis, development of a prototype air vehicle, bench testing of engines and other aircraft components, ground continuity testing of select avionics, flight controls, and engine components and slow speed ground taxi. Next milestone for this initiative will be to determine airworthiness by flight testing the Orion RPA in a series of short duration flights in 3rd Quarter FY 2013. Those results will determine if the Air Force continues this development effort to a follow-on 120-hour duration flight test demonstration projected for 2nd Quarter FY 2014. Concurrent efforts will continue through FY 2013 between the Aurora Flight Sciences production and management teams and the BIG SAFARI SPO to identify best of bred sensor systems and the availability of government furnished equipment (GFE) to fulfill the proposed payload configurations for this developmental project.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>67A026: *MAGIC* |

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>67A026: *MAGIC* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product Design and Development | C/CPAF | Not specified.:Manassas, VA | - | 19.000 | Mar 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 19.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

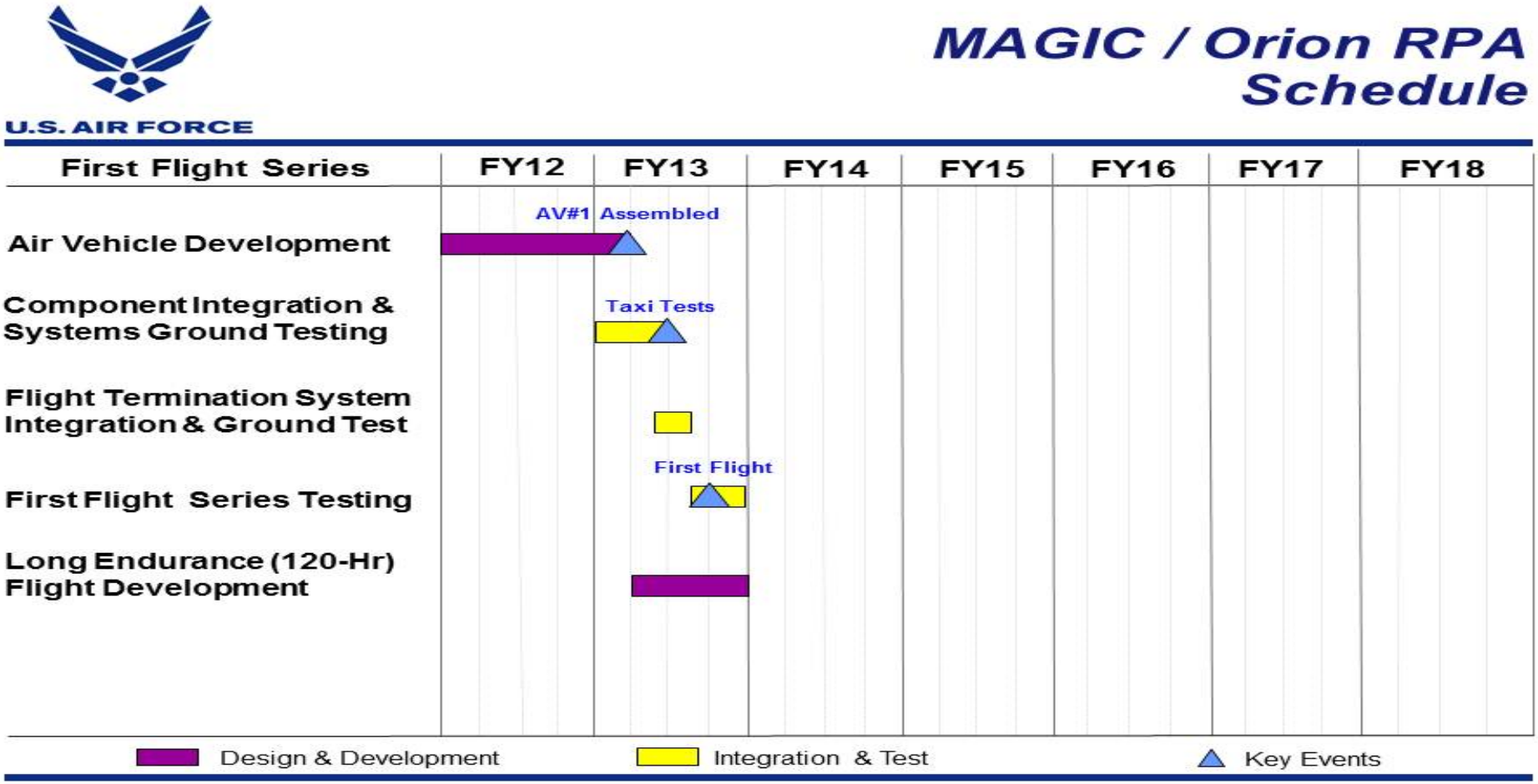
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 19.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | PROJECT<br>67A026: *MAGIC* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305205F: *Endurance Unmanned Aerial Vehicles* | **PROJECT**<br>67A026: *MAGIC* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Air Vehicle Design and Development of Test Prototype | 1 | 2012 | 1 | 2013 |
| Component Integration & Systems Ground Testing | 1 | 2013 | 2 | 2013 |
| Flight Termination System Integration & Ground Test | 2 | 2013 | 3 | 2013 |
| First Flight Series Testing | 3 | 2013 | 4 | 2013 |
| Long Endurance (120-Hour) Flight Development | 2 | 2013 | 4 | 2013 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 115.471 | 96.735 | 37.828 | - | 37.828 | 55.591 | 60.256 | 48.795 | 49.672 | Continuing | Continuing |
| 674818: *Imaging and Targeting Support* | - | 57.403 | 28.968 | 3.335 | - | 3.335 | 20.891 | 24.497 | 13.746 | 13.993 | Continuing | Continuing |
| 674819: *Common Data Link (CDL)* | - | 36.001 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 36.001 |
| 675092: *JTC/SIL MUSE* | - | 3.235 | 3.464 | 2.472 | - | 2.472 | 3.983 | 4.044 | 3.445 | 3.507 | Continuing | Continuing |
| 675291: *Gorgon Stare* | - | 16.047 | 16.359 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 675292: *Hyperspectral Sensors* | - | 2.760 | 2.844 | 1.221 | - | 1.221 | 3.590 | 3.555 | 2.802 | 2.852 | Continuing | Continuing |
| 675382: *Wide Area Motion Imagery (WAMI)* | - | 0.025 | 0.000 | 0.000 | - | 0.000 | 27.127 | 28.160 | 28.802 | 29.320 | Continuing | Continuing |
| 676031: *Dismount Detection RADAR* | - | 0.000 | 45.100 | 30.800 | - | 30.800 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

FY 2012 funding totals include $10.0M appropriated for Overseas Contingency Operations.

**A. Mission Description and Budget Item Justification**

The Airborne Reconnaissance Systems program coordinates the development of advanced airborne reconnaissance system technologies (sensors, data links, targeting networks and products, and quick reaction capabilities) in support of multiple airborne reconnaissance platforms, both manned and unmanned. Its objective is to develop, demonstrate, and rapidly transition advanced, interoperable, multi-platform solutions to reduce the find, fix, target, and track kill chain timeline. In addition, it provides for modeling/simulation, training and systems engineering. This program also coordinates the development of common collection, processing, and dissemination solutions for near-real time intelligence, surveillance, and reconnaissance (ISR).

Funds in any project can also cover activities to include studies and analysis to support both current program planning and execution and future program planning.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 103.877 | 96.735 | 71.994 | - | 71.994 |
| Current President's Budget | 115.471 | 96.735 | 37.828 | - | 37.828 |
| Total Adjustments | 11.594 | 0.000 | -34.166 | - | -34.166 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 1.594 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 10.000 | 0.000 | -34.166 | - | -34.166 |

| Congressional Add Details ($ in Millions, and Includes General Reductions) | FY 2012 | FY 2013 |
|---|---|---|
| **Project:** 674818: *Imaging and Targeting Support* | | |
| Congressional Add: *ISR Innovations* | 10.000 | 0.000 |
| Congressional Add Subtotals for Project: 674818 | 10.000 | 0.000 |
| Congressional Add Totals for all Projects | 10.000 | 0.000 |

**Change Summary Explanation**

Increase of $10M in FY 2012 due to Congressional Add.

Increase of $1.594M in FY 2012 due to higher AF priorities.

Reduction of $34.166M in FY 2014 due to higher Department priorities.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674818: *Imaging and Targeting Support* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 674818: *Imaging and Targeting Support* | - | 57.403 | 28.968 | 3.335 | - | 3.335 | 20.891 | 24.497 | 13.746 | 13.993 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

FY 2012 funding totals include $10.0M appropriated for Overseas Contingency Operations.

**A. Mission Description and Budget Item Justification**

The purpose of the Imaging and Targeting Support (I&TS) program is to develop and demonstrate next-generation, persistent, wide area surveillance, aircraft avoidance, and common imagery reconnaissance sensor capabilities (radar and electro-optical systems), including onboard processing, for multiple airborne platforms, and sensor products to aid in rapid targeting (geolocation models, sensor-based exploitation tools, sensor networking capabilities).

Developmental efforts pursued are improved sensor capabilities (such as hyperspectral imagery [HSI], measurement and signature intelligence [MASINT], polarimetric imaging, ground moving target indication, foliage penetration, and additional radar, electro-optical, and other modalities), increased geolocation accuracy, increased dismount detection capability, advanced sensor data correlation, automated target detection, network centric warfare, and other Intelligence, Surveillance, and Reconnaissance (ISR) and associated Tasking Processing Exploitation and Dissemination (TPED) capabilities, to reduce both target search and kill chain timelines; as well as supporting traditional intelligence activities. This project will also increase interoperability among developed systems by developing common standards and tools.

The funds in this project, less OCO and Congressional adds, are distributed in priority order for the goal of building a comprehensive geospatial intelligence (GEOINT) capability for the USAF. On an annual basis, developmental technologies are reviewed against warfighter capabilities and requirements. Projects advancing the technological maturity of promising sensors and processing capabilities are reviewed and prioritized into a recommended list for senior executive direction to implement in the coming year.

Traditional focus areas include, but are not limited to: development and demonstration of common radar and electro-optical sensors (Synthetic Aperture Radar [SAR], Low Frequency SAR, and antenna, Electo-Optical [EO], Infrared [IR], HSI, Low Light, Laser Radar [LADAR], Light Detection And Ranging [LIDAR]) and their operational modes (High Resolution Imagery, Moving Target Indication, Dismount Detection, Persistent Surveillance, Wide Area Motion Imagery, Spectral Identification) for multiple airborne platforms, including medium and high altitude platforms. Development and demonstration of advanced tactical sensor and associated TPED processing algorithms and tools (automatic registration, automatic and assisted target detection, network centric warfare). Development of integrated multi-sensor capabilities to detect and identify obscured targets (OT). Development and implementation of imagery standards (Common Ground/Dismount Moving Target Indicator

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674818: *Imaging and Targeting Support* |

(GMTI/DMTI), National Imagery Transmission Format (NITF)). Monitoring and enhancement of Imagery Intelligence (IMINT) product quality (radar and EO/IR imagery, GMTI data, and spectral information) and timeliness throughout the image chain (from sensor to user). These efforts focus on reducing the find, fix and track elements of the time critical targeting kill-chain timeline while improving operator and decision-maker efficiency and effectiveness.

FY 2012 included funds for the design and development of a Dismount Detection Radar (DDR). Beginning in FY 2013, DDR funding will be discussed in project 676031.

FY 2012 - FY14 includes funds for the maturation of Wide Area Motion Imagery (WAMI) technologies paired with near vertical direction finding (NVDF) technologies to increase geolocation accuracy. This effort matures various wide area motion imagery critical technology elements in support of Combatant Commands' requirements for end-to-end persistent surveillance. This includes emphasis on the development of airborne sensor suites, processing, data links, and associated ground support elements for near real-time surveillance of city-sized areas. Products will be provided for large-scale intelligence data users as well as for situational awareness. Beginning in FY 2015, WAMI and NVDF technology developments will be discussed in project 675382.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** I&TS | 11.637 | 18.956 | 2.175 |
| ***Description:*** Develop/demonstrate and advance technical maturity of promising sensors and processing capabilities (ex: radar improvement, next-generation HSI, LADAR/LIDAR, and OT mitigation technologies). | | | |
| ***FY 2012 Accomplishments:***<br>Continued development of advanced LADAR sensor on-board processing and unmanned aerial vehicle (UAV) integration. Continued development of long wave infrared (LWIR) HSI sensor and detection algorithms, updated sensor library, and completed High Altitude Long Range (HALRGC) draft report. Continued development of advanced SAR technology in support of OT mitigation. Continued development of DB-110 demo and ISR Sensor Testbed. | | | |
| ***FY 2013 Plans:***<br>Continue development of advanced HSI focal plane array material, sensors, and detection algorithms, multiband EO/IR sensors, other GEOINT sensor modalities, high volume on-board data storage, hypertemporal EO technologies. Update the sensor library, and complete HALRGC and LIDAR analyses and final reports. Develop and modernize advanced SAR sensors, both | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674818: *Imaging and Targeting Support* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| for demonstration in the combatant command (COCOM) area of responsibility and for future high-altitude applications. Mature common module spectrometer (HSI) technology. Complete DB-110 demonstration. Complete development of ISR Testbed.<br>***FY 2014 Plans:***<br>Will continue development of advanced HSI and radar sensors, and detection algorithms, multiband, multispectral EO/IR sensors, other GEOINT sensor modalities, high volume on-board data storage, near real time on-board processing, hypertemporal EO, and advanced SAR/LADAR technology. Will continue SAR and HSI sensor developments in support of high-altitude platforms. Complete sensor library. | | | |
| ***Title:*** DDR<br>***Description:*** Design, develop, integrate, test, field, and sustain a more persistent GMTI/DMTI capability in theater for employment on MQ-9 Reaper.<br>***FY 2012 Accomplishments:***<br>Awarded contract to begin design/development of the DDR radar array, and began modifing hardware and software to Open System Architecture (OSA). Began third party advanced modes development.<br>***FY 2013 Plans:***<br>Effort moved to project 676031.<br><br>N/A. | 15.134 | 0.000 | 0.000 |
| ***Title:*** WAMI<br>***Description:*** This effort matures the development of various wide area airborne critical technology elements in support of Combatant Command requirements for end-to-end persistent surveillance. This includes the development of airborne sensor suites, processing, data links, and associated ground support elements for near real-time surveillance of city-sized areas.<br>***FY 2012 Accomplishments:***<br>Integrated and tested a dial-a-rate gigabit data link. Began test of next generation airborne processing methods. Continued development and testing of wide area electo-optic and infrared sensors. Operated and supported a persistent surveillance laboratory (PSL) for advanced persistent ISR technologies.<br>***FY 2013 Plans:*** | 14.080 | 5.737 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674818: *Imaging and Targeting Support* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continue development of network communications and information dissemination. Integrate next generation airborne processing with wide area sensors. Continue studies, development, and testing of single and multi-INT wide area sensors. Continue to operate and support a PSL for advanced persistent ISR technologies. | | | |
| ***Title:*** Studies and Analysis<br>***Description:*** This effort involves supporting studies and analyses that identify and prioritize future acquisition initiatives.<br>***FY 2012 Accomplishments:***<br>Conducted studies and analysis in support of changing strategic investments.<br>***FY 2013 Plans:***<br>N/A<br>***FY 2014 Plans:***<br>N/A | 1.594 | 0.000 | 0.000 |
| ***Title:*** Program Management Activity<br>***Description:*** Provides support to the projects listed above.<br>***FY 2012 Accomplishments:***<br>Provided support to the I&TS, WAMI, and DDR projects.<br>***FY 2013 Plans:***<br>Provide support to the I&TS and WAMI projects.<br>***FY 2014 Plans:***<br>Will provide support to the I&TS project. | 4.958 | 4.275 | 1.160 |
| **Accomplishments/Planned Programs Subtotals** | 47.403 | 28.968 | 3.335 |

| | FY 2012 | FY 2013 |
|---|---|---|
| ***Congressional Add:*** ISR Innovations<br>***FY 2012 Accomplishments:*** This innovation included developing a sensor testbed to relieve the testing burden on the MQ-9 platforms.<br>***FY 2013 Plans:*** Continuing integration and flight testing of Sensor Testbed. | 10.000 | 0.000 |
| **Congressional Adds Subtotals** | 10.000 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674818: *Imaging and Targeting Support* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDTE:BA07: PE 0305202F:: *Dragon U-2 (JMIP)* | 0.000 | 23.644 | 18.700 | | 18.700 | 11.300 | 12.100 | 8.600 | 8.755 | Continuing | Continuing |

**Remarks**

A portion of the funding within the U-2 RDTE line will be used to advance ASARS refurbishment and modernization and Common Module Spectrometer (HSI) technology maturation.

**D. Acquisition Strategy**

Acquisition strategy is to maximize commercial and national development efforts and investment through multiple contracting methods; including the use of Engineering Change Proposals (ECP) to modify existing contracts and new contracts that were awarded both competitively or on a sole source basis.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674818: *Imaging and Targeting Support* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPIRITT | C/CPFF | BAE Systems:Greenlawn, NY | - | 2.143 | Sep 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 2.143 | 26.299 |
| MB-SAR | C/CPFF | Northrop Grumman:Columbia, MD | - | 2.000 | Feb 2012 | 2.400 | Feb 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | 19.150 |
| 3-D LADAR NRT Processing | C/CPFF | Northrop Grumman:Columbia, MD | - | 1.500 | Mar 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 1.500 | 1.500 |
| 3-D LADAR Design Study | C/CPFF | Georgia Tech Research Institute:Dayton, OH | - | 1.517 | Mar 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 1.517 | 1.517 |
| HALRGC Analysis | C/CPFF | BAH:Norfolk, VA | - | 0.517 | Aug 2012 | 0.060 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 0.577 | 1.692 |
| Georgia Tech Research Institute | SS/CPFF | GTRI:Atlanta, GA | - | 0.050 | Feb 2012 | 0.050 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 0.100 | 1.570 |
| GOTCHA Motion Imagery SAR | C/CPFF | Various:Various, | - | 0.000 | | 2.400 | Mar 2013 | 0.200 | Jan 2014 | - | | 0.200 | 0.000 | 2.600 | 5.000 |
| Statistical Compression Solutions Investigation | C/CPFF | SAIC:Dayton, OH | - | 0.031 | Mar 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| MTS-C | C/CPFF | PRA:San Diego, CA | - | 1.332 | Aug 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| C-B4 Mission Tailorable Multi-Spectral Sensor Platform | C/CPFF | Goodrich ISR Systems:Westford, MA | - | 0.000 | | 1.600 | Apr 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | 4.450 |
| Gemini RF & Hypertemporal EO | SS/CPFF | LANL:Los Alamos, NM | - | 0.000 | | 1.100 | Mar 2013 | 0.900 | Jan 2014 | - | | 0.900 | 0.000 | 2.000 | 2.000 |
| Gallium Doped Silicon FPA Initiative | C/CPFF | DRS Sensors & Targeting Systems:Cypress, CA | - | 0.000 | | 1.200 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 1.200 | 1.200 |
| ASARS | SS/TBD | Raytheon:El Segundo, CA | - | 0.000 | | 4.000 | May 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Common Module Spectrometer | SS/CPFF | Raytheon:El Segundo, CA | - | 0.800 | Aug 2013 | 3.200 | Jun 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674818: *Imaging and Targeting Support* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other Tech Efforts (prioritized by GCWG) | Various | Various:Various, | - | 0.000 | | 2.946 | Sep 2013 | 1.075 | Aug 2014 | - | | 1.075 | Continuing | Continuing | TBD |
| Dismount Detection Radar-Development | C/CPIF | Raytheon:El Segundo, CA | - | 4.258 | Jul 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Dismount Detection Radar-Development & T-PED Effort | Various | Various:Various, | - | 8.435 | Sep 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Dismount Detection Radar-GMTI/DMTI Study | MIPR | Various:Various, | - | 0.405 | Apr 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Dismount Detection Radar - Maritime | Various | Various:Various, | - | 1.600 | Aug 2013 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Wide Area Motion Imagery (WAMI) | Various | Various:Various, | - | 12.851 | Feb 2012 | 5.029 | Feb 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| I&TS | Various | Various:Various, | - | 0.146 | Nov 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| ISR TESTBED | Various | Various:Various, | - | 10.000 | Feb 2013 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 10.000 | 10.000 |
| MIT/LL | Various | Various:Various, | - | 1.594 | Mar 2013 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 49.179 | | 23.985 | | 2.175 | | 0.000 | | 2.175 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WAMI | Various | Various:Various, | - | 1.230 | Jun 2012 | 0.708 | Jun 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| DDR - MITRE | PO | MITRE:Boston, MA | - | 1.546 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 2.776 | | 0.708 | | 0.000 | | 0.000 | | 0.000 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674818: *Imaging and Targeting Support* |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

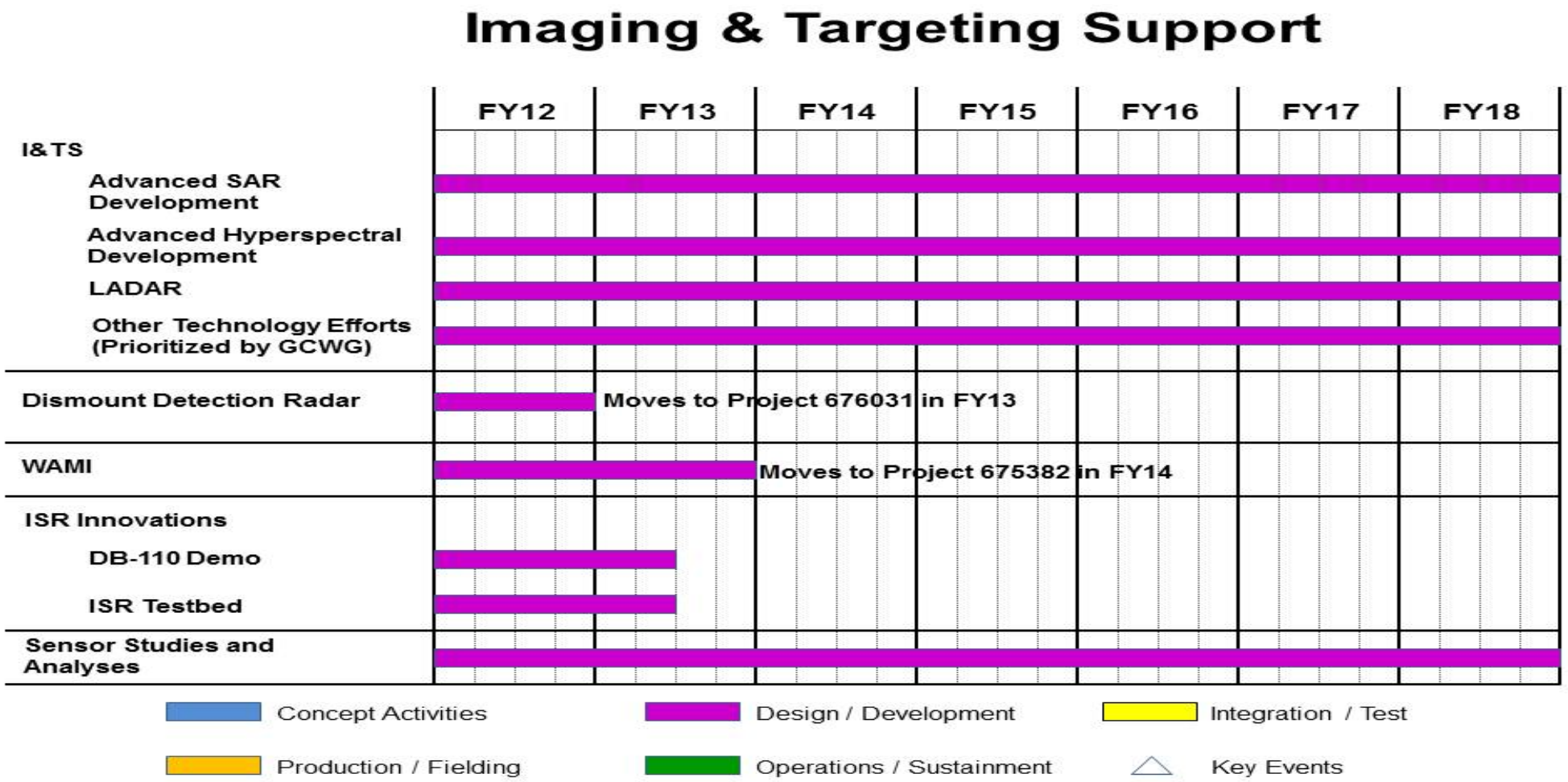
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Activity (PMA) | Various | Various:Dayton, OH | - | 2.192 | Oct 2011 | 4.275 | Oct 2012 | 1.160 | Oct 2012 | - | | 1.160 | Continuing | Continuing | TBD |
| DDR PMA (A&AS) | PO | Various:Various, | - | 3.256 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 5.448 | | 4.275 | | 1.160 | | 0.000 | | 1.160 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 57.403 | | 28.968 | | 3.335 | | 0.000 | | 3.335 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674818: *Imaging and Targeting Support* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305206F: *Airborne Reconnaissance Systems* | **PROJECT**<br>674818: *Imaging and Targeting Support* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Advanced SAR Development | 1 | 2012 | 4 | 2018 |
| Advanced Hyperspectral Development | 1 | 2012 | 4 | 2018 |
| LADAR | 1 | 2012 | 4 | 2018 |
| Sensor Studies & Analysis | 1 | 2012 | 4 | 2018 |
| Other Technology Efforts (Prioritized by GCWG) | 1 | 2012 | 4 | 2018 |
| Dismount Detection Radar (DDR) | 1 | 2012 | 4 | 2012 |
| DB-110 Demo | 1 | 2012 | 2 | 2013 |
| ISR Testbed | 1 | 2012 | 2 | 2013 |
| WAMI | 1 | 2012 | 4 | 2013 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674819: *Common Data Link (CDL)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 674819: *Common Data Link (CDL)* | - | 36.001 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 36.001 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In Fiscal Year 2013, Project 674819, Common Data Link, efforts transferred to Program Element 0305236F, Project 674819, Common Data Link, in order to provide greater visibility into this Congressionally mandated capability and prepare for expanded applications as new operational concepts come into existence.

**A. Mission Description and Budget Item Justification**

In Fiscal Year 2012, Common Data Link (CDL) provided the DoD standard for interoperable, multi-service, multi-agency, wideband datalinks for manned/unmanned platforms performing Intelligence, Surveillance, and Reconnaissance (ISR) missions.

As the CDL Executive Agent (EA), the Air Force is responsible for cross-service application of CDL RDT&E funds facilitating compliance to Congressional and DoD mandates. Military Intelligence Program (MIP) funds are used to maintain, distribute, and upgrade the CDL specifications while ensuring design configuration, commonality, and interoperability among ISR platforms. Additionally, funds are used for the management of resources allocated for development and migration of CDL technologies. Updates to the CDL specification and developmental systems impact 10,000+ DoD airborne and ground ISR systems. The CDL program enables compliance with OSD and Congressional mandates to minimize spectrum usage, use of cryptographic equipment, and direct support to current operations. The CDL specifications permit current and future ISR assets to operate worldwide by providing sensor data directly via point-to-point broadcast to ground sites, airborne platforms and dismounted users. CDL is a vital link in DoD's emerging communication architectures. CDL provides the capability to relay data via air-to-air or compatible satellite links when the asset and ground site are not in line-of-sight. CDL provides the largest bandwidth datalink in DoD, accommodating numerous sensors collecting Signals Intelligence (SIGINT), Imagery Intelligence (IMINT), and video data. Research and development activities include achieving higher data rates for CDL, operations in other spectral bands, and support of large area surveillance missions, while supporting continuous improvements and implementation of line-of-sight platform and CDL terminal Command and Control, plus increased Intelligence, Surveillance, and Reconnaissance (C2ISR) capabilities. CDL terminal designs provide for future technology insertion and reduce non-recurring engineering and life-cycle costs to the user.

Activities also included studies and analysis to support current and future program planning and execution.

This program is in Budget Activity 7, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674819: *Common Data Link (CDL)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** CDL evolutionary terminal development<br>***Description:*** CDL evolutionary terminal development per CDL IPT direction to the CDL Executive Agent (CDL EA)<br>***FY 2012 Accomplishments:***<br>Continued the development and testing of High Data Rate terminal and additional Size, Weight and Power (SWaP) improvements. | 8.675 | 0.000 | 0.000 |
| ***Title:*** CDL specification maintenance, development and distribution<br>***Description:*** CDL specification maintenance, development, and distribution per CDL IPT direction to CDL EA.<br>***FY 2012 Accomplishments:***<br>Continued to research and/or develop upgrades to support specification employment profiles including High Data Rate. Enhanced spectrally efficient CDL waveform specification. Continued to maintain configuration control of the CDL architecture, standards, specifications, and modules. | 2.858 | 0.000 | 0.000 |
| ***Title:*** CDL advanced technology insertion and studies<br>***Description:*** CDL advanced technology insertion, demonstrations, and studies per CDL WIPT direction to CDL EA.<br>***FY 2012 Accomplishments:***<br>Continued technology developments with efforts in: High Data Rate CDL terminal advancements, adapting/testing phased array and portable antennas, multispectral flexibility, increased spectrum efficiency, and integration of improved transmission components. Also, continued the development of enhanced, CDL-based ISR communications capabilities and prototyping. Supported emerging communication backbone architecture development across space, air, and terrestrial layers included agile high capacity data transport. | 20.153 | 0.000 | 0.000 |
| ***Title:*** Program Management Administration (PMA)<br>***Description:*** Program supports management with engineering and technical expertise towards development and implementation efforts.<br>***FY 2012 Accomplishments:***<br>Supported the acquisition program with engineering and technical support. | 4.315 | 0.000 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 36.001 | 0.000 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674819: *Common Data Link (CDL)* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • None: *N/A* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

The CDL Executive Agent, supported by the Airborne Network Division (AFLCMC/HNA) and in concert with other program offices and laboratories, provides for development of interoperable wideband ISR data links as mandated by Assistant Secretary of Defense (Networks and Information Integration) (ASD(NII)) policy. Once CDL technology development matures, platforms are responsible for program CDL procurement, NSA/JITC certifications, integration, and installation. Acquisition strategy varies by contract. When possible, contracts are awarded under full and open competition.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674819: *Common Data Link (CDL)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mini CDL, AF High Data Rate, Interleaved Diplexer, Multi Spectral, Army VHR, MIDS JTRS, Multi Use PAA | C/CPFF | L-3 Communications:Salt Lake City, UT | - | 12.041 | Apr 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 12.041 | 12.041 |
| Team Portable, Advanced Waveform Verification, Phased Array (AESA) Demo, Spectrum Diversity, TDLA, Marine ISR Comm, Joint Spec Support | C/CPFF | Cubic:San Diego, CA | - | 6.165 | Mar 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 6.165 | 6.165 |
| Marine AH-1/UH-1 Full Motion Video | C/CPFF | Bell Hellicopter Textron Inc.:Hurst, TX | - | 3.795 | May 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 3.795 | 3.795 |
| Under Threshold Combined | Various | Various:Various, | - | 3.877 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 3.877 | TBD |
| | | **Subtotal** | 0.000 | 25.878 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 25.878 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Service Tech Supp & Spec Development | MIPR | Various:Various, | - | 4.408 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 4.408 | TBD |
| | | **Subtotal** | 0.000 | 4.408 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 4.408 | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Joint Interoperability Test Center | MIPR | JITC:Fort Huachuca, AZ | - | 1.400 | Dec 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 1.400 | TBD |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674819: *Common Data Link (CDL)* |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 1.400 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 1.400 | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA - MITRE Engineering Support | SS/T&M | MITRE Corp,:Bedford, MA | - | 0.496 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.496 | TBD |
| PMA - PASS Financial and PM Support | C/T&M | PE Systems:Littleton, MA | - | 1.154 | Feb 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 1.154 | TBD |
| PMA - Under Threshold Program Mgmt/Tech Support | Various | Various:Various, | - | 2.665 | Dec 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 2.665 | TBD |
| | | **Subtotal** | 0.000 | 4.315 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 4.315 | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 36.001 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 36.001 | |

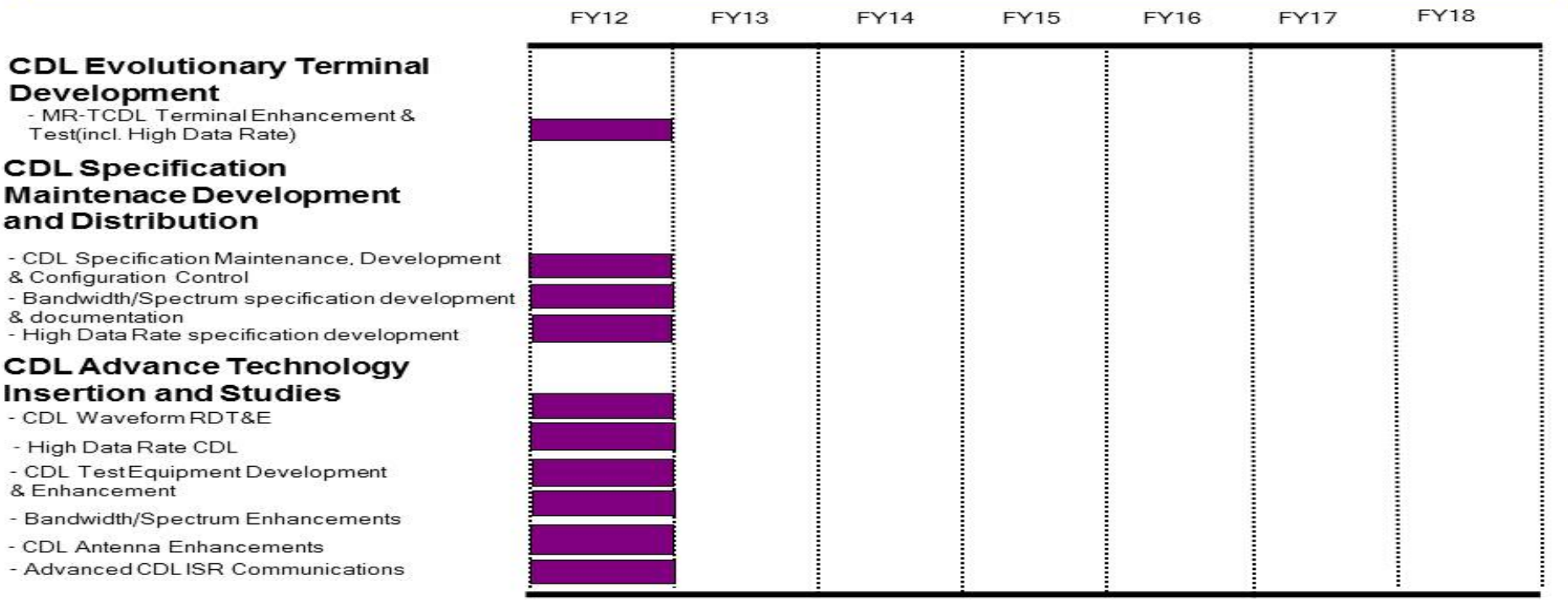
**Remarks**

In FY 2013, Project 674819, Common Data Link, efforts transferred to Program 0305236F, Common Data Link, Project 674819, in order to provide greater visibility into this Congressionally mandated capability and prepare for expanded applications as new operational concepts come into existence.

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>674819: *Common Data Link (CDL)* |

U.S. AIR FORCE

# CDL Schedule




*Integrity - Service - Excellence*

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305206F: *Airborne Reconnaissance Systems* | **PROJECT**<br>674819: *Common Data Link (CDL)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Evolutionary Terminal Dev - MR-TCDL Test & Enhancement (incl. High Data Rate) | 1 | 2012 | 4 | 2012 |
| Specification Maintenance - CDL Specification Maintenance, Development, & Control | 1 | 2012 | 4 | 2012 |
| Spec Maint - Bandwidth/Spectrum spec development/documentation | 1 | 2012 | 4 | 2012 |
| Spec Maint - High Data Rate Spec development | 1 | 2012 | 4 | 2012 |
| Adv Tech - CDL Waveform RDT&E | 1 | 2012 | 4 | 2012 |
| Adv Tech - High Data Rate CDL | 1 | 2012 | 4 | 2012 |
| Adv Tech - CDL Test Equipment Development/Enhancement | 1 | 2012 | 4 | 2012 |
| Adv Tech - Bandwidth/Spectrum Enhancements | 1 | 2012 | 4 | 2012 |
| Adv Tech - CDL Antenna Enhancements | 1 | 2012 | 4 | 2012 |
| Adv Tech - Advanced CDL ISR Communications | 1 | 2012 | 4 | 2012 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675092: *JTC/SIL MUSE* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675092: *JTC/SIL MUSE* | - | 3.235 | 3.464 | 2.472 | - | 2.472 | 3.983 | 4.044 | 3.445 | 3.507 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Joint Technology Center/Systems Integration Laboratory (JTC/SIL) is a center of technical excellence to support Unmanned Aircraft Systems (UAS) programs within the services. The mission includes Service-specific and Joint Command, Control, Communications, Computers and Intelligence, Surveillance, and Reconnaissance (C4ISR) programs throughout DoD. The JTC/SIL provides a Government testbed for interoperability, rapid prototyping, technology insertion and transition, systems engineering, modeling/simulation, training and C4ISR optimization. The cornerstone of JTC/SIL's diverse tool set is the Multiple Unified Simulation Environment (MUSE), which is the DoD simulation/training system of choice for many UAS and ISR systems. The MUSE is also known as the Air Force Synthetic Environment for Reconnaissance and Surveillance (AFSERS) in its Air Force application. The MUSE/AFSERS simulates Air Vehicles, Sensors, Datalinks, Takeoff and Landing Systems, and to some degree, surrogate UAS ground stations, when actual UAS ground stations are unavailable.

The Services and combatant commanders have a requirement for the capability to train with a system that provides a real-time simulation environment containing multiple intelligence systems that can be integrated with larger force-on-force simulations. The MUSE creates a realistic operational environment which supports the ability to assess military utility, architecture and concept of employment development, and Tactics, Techniques, and Procedures (TTP) refinement; conduct emerging concepts experimentation; and optimize C4ISR within warfighting exercises and experiments. It is the preferred simulation system used by the combatant commanders and Joint Services to support command and battle staff C4ISR training.

The MUSE/AFSERS also creates a realistic operational environment that supports: an embedded training capability for multiple Program Managers; tools to minimize acquisition and life cycle cost and schedule impacts; the ability to conduct emerging concepts experimentation, future systems exploration, systems integration, and technology insertion; applications for Joint and Service-specific warfighting exercises; and C4ISR optimization.

MUSE/AFSERS is currently in use within all services and most unified commands simulating Predator, Reaper, Global Hawk (RQ-4), Gray Eagle, Hunter, and RQ-7 Shadow, national and commercial satellite collectors, P-3, JSTARS, and the U-2. During warfighting exercises, the JTC/SIL integrates imagery simulations with associated C4ISR systems to support execution of critical imagery processes. For those assets normally not available for training, the JTC/SIL provides surrogate systems and interfaces. Distributed training environments, virtually linking participants from various locations worldwide, are routinely supported within the MUSE architecture. The MUSE/AFSERS is also used as a mission rehearsal tool for current, on-going military combat operations.

The JTC/SIL is supporting the OSD UAS Task Force Staff and the Standards and Interoperability IPT, as well as the joint team working the Ground Segment Interface (GSI). The JTC/SIL is the primary custodian of this interface and in that role performs various supporting tasks including development of tools for helping the definition

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675092: *JTC/SIL MUSE* |

and execution of open architecture for joint service ground control systems, developing and maintaining standardization agreement (STANAG) 45 joint interoperability tasks to be defined on an annual basis.

Activities also include studies and analysis supporting current and future program planning and project execution.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** AFSERS Development | 0.829 | 1.057 | 0.770 |
| ***Description:*** DoD's simulation/training system of choice for ISR systems, sensors, and platforms. Includes AFSERS, Common Ground Station Interface, and infrastructure support.<br><br>***FY 2012 Accomplishments:***<br>Continued AFSERS development, focusing on the modeling of MQ-9, modeling of new sensor capabilities, and on integration into operational networks.<br><br>***FY 2013 Plans:***<br>Continue AFSERS development for MQ-9, including improvements to simulations of existing and emerging platforms and sensors as well as improvements in integrating AFSERS into other networks.<br><br>***FY 2014 Plans:***<br>Will continue AFSERS development for MQ-9, and provide improvements to both simulate existing and emerging platforms and sensors and better integrate AFSERS into other networks. | | | |
| ***Title:*** OSD Interoperability Support | 2.000 | 2.000 | 1.300 |
| ***Description:*** JTC/SIL support to OSD interoperability requirements. Air Force portion of joint funding requirement.<br><br>***FY 2012 Accomplishments:***<br>Continued Air Force support to OSD interoperability efforts.<br><br>***FY 2013 Plans:***<br>Continue Air Force support to OSD interoperability efforts.<br><br>***FY 2014 Plans:***<br>Will continue Air Force support to OSD interoperability efforts. | | | |
| ***Title:*** Program Management Activity | 0.406 | 0.407 | 0.402 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675092: *JTC/SIL MUSE* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Providing management services and support for AFSERS development.<br><br>***FY 2012 Accomplishments:***<br>Provided management services and support for AFSERS development.<br><br>***FY 2013 Plans:***<br>Provide management services and support for AFSERS development.<br><br>***FY 2014 Plans:***<br>Will provide management services and support for AFSERS development. | | | |
| **Accomplishments/Planned Programs Subtotals** | 3.235 | 3.464 | 2.472 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDTE: BA07: PE 0305204A: *Tactical Unmanned Aerial Vehicles* | 4.316 | 4.326 | 3.285 | | 3.285 | 4.775 | 4.584 | 4.200 | 4.824 | Continuing | Continuing |
| • RDTE: BA07: PE 0603261N: *Tactical Airborne Reconnaissance* | 3.573 | 2.000 | 2.000 | | 2.000 | 2.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

All contracts are awarded after full and open competition.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675092: *JTC/SIL MUSE* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AFSERS Development | MIPR | Redstone Arsenal:Huntsville, AL | - | 0.829 | Jan 2012 | 1.057 | Jan 2013 | 0.770 | Jan 2014 | - | | 0.770 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.829 | | 1.057 | | 0.770 | | 0.000 | | 0.770 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OSD Interoperability Support | Allot | Redstone Arsenal:Huntsville, AL | - | 2.000 | Jan 2012 | 2.000 | Jan 2013 | 1.300 | Jan 2014 | - | | 1.300 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 2.000 | | 2.000 | | 1.300 | | 0.000 | | 1.300 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | Allot | Redstone Arsenal:Huntsville, AL | - | 0.406 | Jan 2012 | 0.407 | Jan 2013 | 0.402 | Jan 2014 | - | | 0.402 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.406 | | 0.407 | | 0.402 | | 0.000 | | 0.402 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675092: *JTC/SIL MUSE* | |

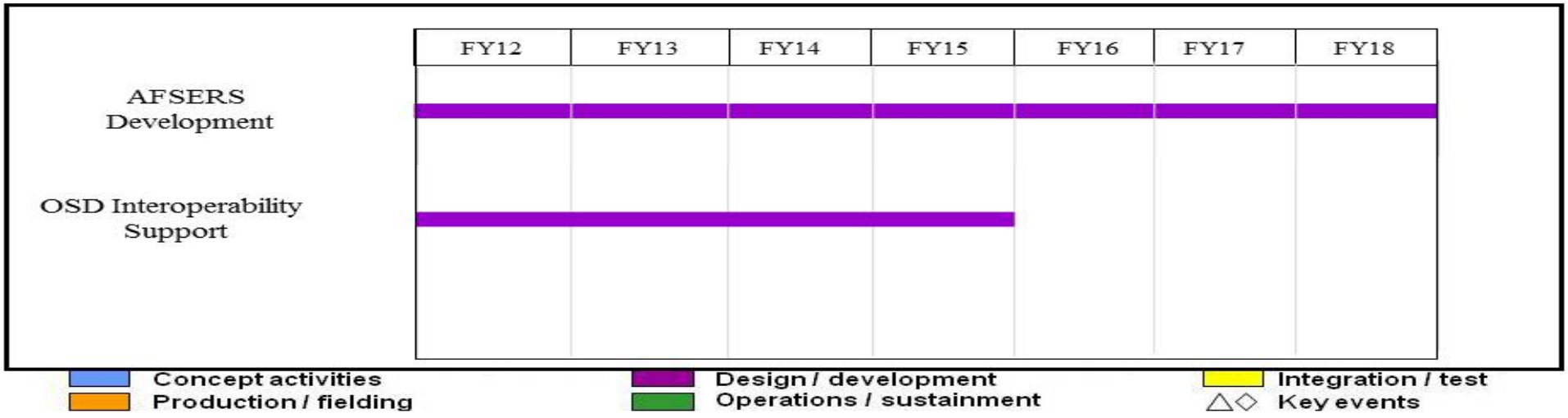
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 3.235 | | 3.464 | | 2.472 | | 0.000 | | 2.472 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675092: *JTC/SIL MUSE* |

U.S. AIR FORCE

# Joint Technology Center / Systems Integration Laboratory (JTC/SIL) Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305206F: *Airborne Reconnaissance Systems* | **PROJECT**<br>675092: *JTC/SIL MUSE* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| AFSERS Development | 1 | 2012 | 4 | 2018 |
| Interoperability Support | 1 | 2012 | 4 | 2015 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675291: *Gorgon Stare* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675291: *Gorgon Stare* | - | 16.047 | 16.359 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In the 4th Quarter of FY 2013, 675291, Gorgon Stare Quick Reaction Capability was completed with delivery of the last three of six Gorgon Stare Increment 2 pod sets.

**A. Mission Description and Budget Item Justification**

Gorgon Stare Quick Reaction Capability (QRC) supports the Combatant Commander (COCOM) urgent operational need for wide area airborne surveillance capability and is managed in the Air Force through the 645th Aeronautical Systems Group (AESG, a.k.a. BIG SAFARI Systems Program Office or SPO), Intelligence, Surveillance, and Reconnaissance and Special Operations Forces (ISR&SOF) Directorate, Air Force Life Cycle Management Center (AFLCMC), Air Force Material Command. Development of the Gorgon Stare QRC system provides a podded wide area airborne sensor suite integrated on dedicated MQ-9 Reaper remotely piloted aircraft (RPA) to provide a city-sized surveillance capability for the COCOMs. The Joint Requirements Oversight Council Memorandum (JROCM 106-08, dated 27 May 2008) approved the Air Force concept for a program plan to address Service requirements for broad area airborne sensors capability on existing manned and unmanned aircraft system platforms. This plan evolved into the current incremental delivery of ten pod sets of Gorgon Stare QRC carried on MQ-9 Reaper RPAs. The acquisition strategy for this Air Force QRC podded sensor suite solution includes delivery of incremental capability upgrades, with development of each capability upgrade expanding the capabilities of the previous increment. Provisions to consider integrating pre-planned product improvements (P3I) and/or multi-INT enhanced capabilities to address evolving and emerging technology advancements are within the scope of the acquisition strategy.

Activities also include studies and anlysis to support both current program planning and execution as well as future program planning.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** GS2, P3I | 16.047 | 16.359 | 0.000 |
| ***Description:*** Gorgon Stare QRC development including Airborne System, C2, Tactical Dissemination, and Fixed Site processing elements. | | | |
| ***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675291: *Gorgon Stare* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Began pre-planned product improvement (P3I) researching efforts and multi-INT crossflowing development to airborne system, C2, tactical dissemination, and fixed site processing elements. Continued Increment 2 development.<br>***FY 2013 Plans:***<br>Continue pre-planned product improvement (P3I) and multi-INT research and development to airborne system, C2, tactical dissemination, and fixed site processing elements. Development will lead to a procurement / retrofit capability that could be integrated to improve older pod capabilities. Complete development and fielding of Increment 2 pods. Begin replacement of Increment 1 pods. | | | |
| **Accomplishments/Planned Programs Subtotals** | 16.047 | 16.359 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # PRDTB3: *MQ-9 UAS Payloads* | 74.611 | 93.461 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • APAF: BP16: *MQ-9 Initial Spares* | 0.000 | 12.725 | 8.256 | | 8.256 | 15.039 | 1.239 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

In response to a COCOM urgent operational need, the wide area airborne surveillance requirement will be delivered via the Gorgon Stare QRC effort and executed by the 645 AESG (BIG SAFARI SPO) using an incremental acquisition strategy to mitigate risk, find affordable end-to-end architecture solutions and field requested multi-INT capabilities quickly. Gorgon Stare QRC addresses Service requirements for broad area surveillance using existing, dedicated MQ-9 Reaper RPA. The BIG SAFARI SPO, as tasked by the Air Force Service Acquisition Executive (SAE) and Program Execution Officer for Intelligence, Surveillance and Reconnaissance and Special Operations Forces (PEO/ISR & SOF), will continue with their development efforts to rapidly respond to COCOM urgent operational needs.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675291: *Gorgon Stare* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sensor Development | SS/CPFF | L3:Rockwall, TX | - | 3.560 | Dec 2011 | 5.000 | Jun 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Sensor Development (Prime) | SS/FFP | Sierra Nevada Corporation:Sparks, NV | - | 7.040 | Dec 2011 | 7.020 | Jun 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Sensor Integration | SS/CPFF | GA:Grey Butte, CA | - | 2.447 | Dec 2011 | 0.689 | Jun 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 13.047 | | 12.709 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Technical | SS/CPFF | Riverside Research:Dayton, OH | - | 1.200 | Jan 2012 | 2.550 | Jun 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.000 |
| | | **Subtotal** | 0.000 | 1.200 | | 2.550 | | 0.000 | | 0.000 | | 0.000 | | | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Incremental Development Test & Evaluation | Various | 645 AESG:Dayton, OH | - | 1.800 | Dec 2011 | 1.100 | Jun 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.800 | | 1.100 | | 0.000 | | 0.000 | | 0.000 | | | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | SS/ Various | SNC:Denver, CO | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675291: *Gorgon Stare* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

Through FY 2011, Gorgon Stare QRC PMA was covered by RDT&E funding due to the preponderance of this effort was to develop a wide area airborne surveillance capability. Starting in FY 2012, Gorgon Stare PMA is covered by APAF funding since the primary effort for this capability has shifted to procuring, integrating and delivering of 10 pod sets to fulfilling the PDM II language plus pre-planned product improvements (P3I) to enhance and maintain a technological edge in the world of emerging and evolving capabilities and techniques employed by our adversaries. In the future, PMA will be covered under the appropriation that constitues the preponderance of the program effort.

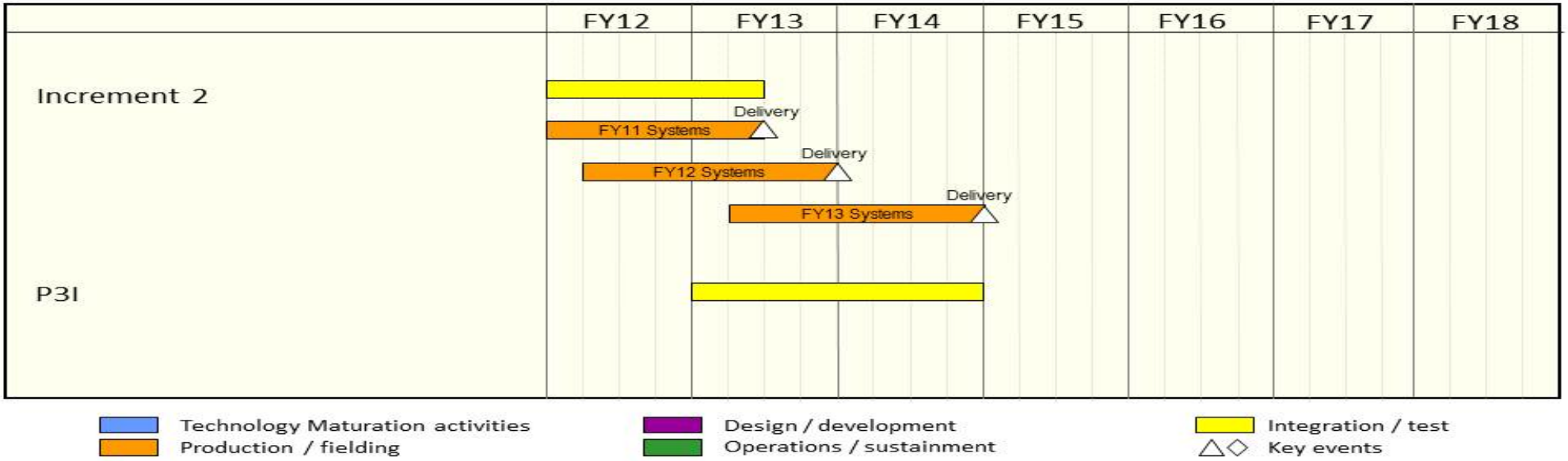
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 16.047 | | 16.359 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675291: *Gorgon Stare* |

U.S. AIR FORCE

# Gorgon Stare QRC Schedule




**FY14 Staffer Brief**

1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675291: *Gorgon Stare* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Increment 2: Integration & Test | 1 | 2012 | 2 | 2013 |
| Increment 2: FY11 Systems Delivery | 1 | 2012 | 2 | 2013 |
| Increment 2: FY12 Systems Delivery | 2 | 2012 | 4 | 2013 |
| Increment 2: FY13 Systems Delivery | 2 | 2013 | 4 | 2014 |
| P3I: Integration & Test | 1 | 2013 | 4 | 2014 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675292: *Hyperspectral Sensors* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675292: *Hyperspectral Sensors* | - | 2.760 | 2.844 | 1.221 | - | 1.221 | 3.590 | 3.555 | 2.802 | 2.852 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Hyperspectral Sensors project develops Hyperspectral Imagery (HSI) sensors and capabilities for MQ-1/MQ-9 Remotely Piloted Aircraft (RPA) and other manned or unmanned aircraft. Within this project, the Airborne Cueing & Exploitation System-Hyperspectral (ACES HY) program helps to fulfill a portion of the sponsoring combatant command and Central Command (CENTCOM) current HSI requirements. The ACES HY program initially developed sensors for the MQ-1B Predator Block 15 and included development of the required training, maintenance and fielding plans to support a working architecture.

Activities within this project also include studies and analysis supporting current and future program planning and tech development for advanced HSI sensors and capabilities, including high altitude HSI sensor developments.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** ACES HY | 2.277 | 2.349 | 1.013 |
| ***Description:*** Develop capability enhancements and perform technical refresh on the ACES HY sensor system. Provide support data to accompany sensors and modifications. Tech development supporting sensor improvements and possible integration on other platforms. | | | |
| ***FY 2012 Accomplishments:***<br>Fielded ACES HY. Conducted HSI capability study. Began developing on-board processing and storage improvements for ACES HY sensors and development of future HSI capabilities for other platforms. | | | |
| ***FY 2013 Plans:***<br>Enhance real-time target detection and identification capability through algorithm development and processing optimizations. Complete MQ-9 HSI study. Implement National Imagery Transmission Format compliance in data streams. Prepare for integration of OSD funded processor upgrade. | | | |
| ***FY 2014 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675292: *Hyperspectral Sensors* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Will continue ACES HY upgrades. Will develop HSI solutions for alternate platforms, including high-altitude platforms. Will continue developing organizational level diagnostic support equipment. Will continue integration & qualification of OSD funded processor upgrade. | | | |
| ***Title:*** Program Management Activity<br>***Description:*** Providing management services to the development and fielding of ACES HY.<br>***FY 2012 Accomplishments:***<br>Provided management services to support the development and fielding of ACES HY.<br>***FY 2013 Plans:***<br>Provide management services to support the development and fielding of ACES HY.<br>***FY 2014 Plans:***<br>Will provide management services to support the development and fielding of ACES HY. | 0.483 | 0.495 | 0.208 |
| **Accomplishments/Planned Programs Subtotals** | 2.760 | 2.844 | 1.221 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF:BA 07:0305219F: *Mod PRDT02* | 38.200 | 6.800 | 4.300 | | 4.300 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

**Remarks**

ACES HY - Platform (Predator) responsible for Operations and Maintenance (in sustainment line).
A portion of the Predator modification funding listed above is used to support ACES HY integration.

**D. Acquisition Strategy**

Partner with industry to procure improved, baseline deployable, supportable HSI sensor systems. The systems should support the joint warfighter and ensure evolutional upgrade capability. Complete production sensor deliveries using the Advanced Technology Support Program process developed by OSD DMEA at McClellan, CA. All future contracts will be awarded by AFLCMC. The contractors should provide a disciplined design process that is the lowest risk solution (cost, schedule, and performance) and ensures logistics support with initial test spares and associated source data to support training and TO development.

ACES HY: The MQ-1 and MQ-9 developers will be included for sensor technology efforts as they mature and for planning possible future integration on MQ-9. ACES HY utilizes a competitively selected, cost plus fixed fee prime contract to Raytheon (Mc Kinney, TX) for system production and a sole source Basic Ordering Agreement with Raytheon (McKinney, TX) for system modificaions.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675292: *Hyperspectral Sensors* |

Acquisition strategy for high-altitude HSI remains TBD.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675292: *Hyperspectral Sensors* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ACES HY Sensor Integration | SS/CPFF | General Atomics:San Diego, CA | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | 3.166 |
| Mod Study | SS/CPFF | Raytheon:McKinney, TX | - | 1.859 | Aug 2012 | 0.383 | Jan 2013 | 0.000 | | - | | 0.000 | 0.000 | 2.242 | 2.242 |
| Capability Processor Upgrades | SS/CPFF | Raytheon:McKinney, TX | - | 0.260 | Aug 2012 | 0.782 | Jan 2013 | 0.000 | | - | | 0.000 | 0.000 | 1.042 | 1.042 |
| Processor Integration | SS/CPFF | Raytheon:McKinney, TX | - | 0.000 | | 0.994 | Jan 2013 | 0.511 | Jan 2014 | - | | 0.511 | 0.000 | 1.505 | 1.505 |
| Hard Drive Update | SS/CPFF | Raytheon:McKinney, TX | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.332 |
| Organization Level Diagnostics Support Equipment | SS/CPFF | Raytheon:McKinney, TX | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.275 |
| GPS Update | SS/CPFF | Raytheon:McKinney, TX | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 1.540 |
| | | **Subtotal** | 0.000 | 2.119 | | 2.159 | | 0.511 | | 0.000 | | 0.511 | | | 10.102 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering Support | SS/CPFF | MIT/LL:Cambridge, MA | - | 0.158 | Apr 2012 | 0.190 | Jan 2013 | 0.190 | Jan 2014 | - | | 0.190 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.158 | | 0.190 | | 0.190 | | 0.000 | | 0.190 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675292: *Hyperspectral Sensors* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | Various | Various:Various, | - | 0.483 | Jan 2012 | 0.495 | Jan 2013 | 0.520 | Jan 2014 | - | | 0.520 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.483 | | 0.495 | | 0.520 | | 0.000 | | 0.520 | | | |

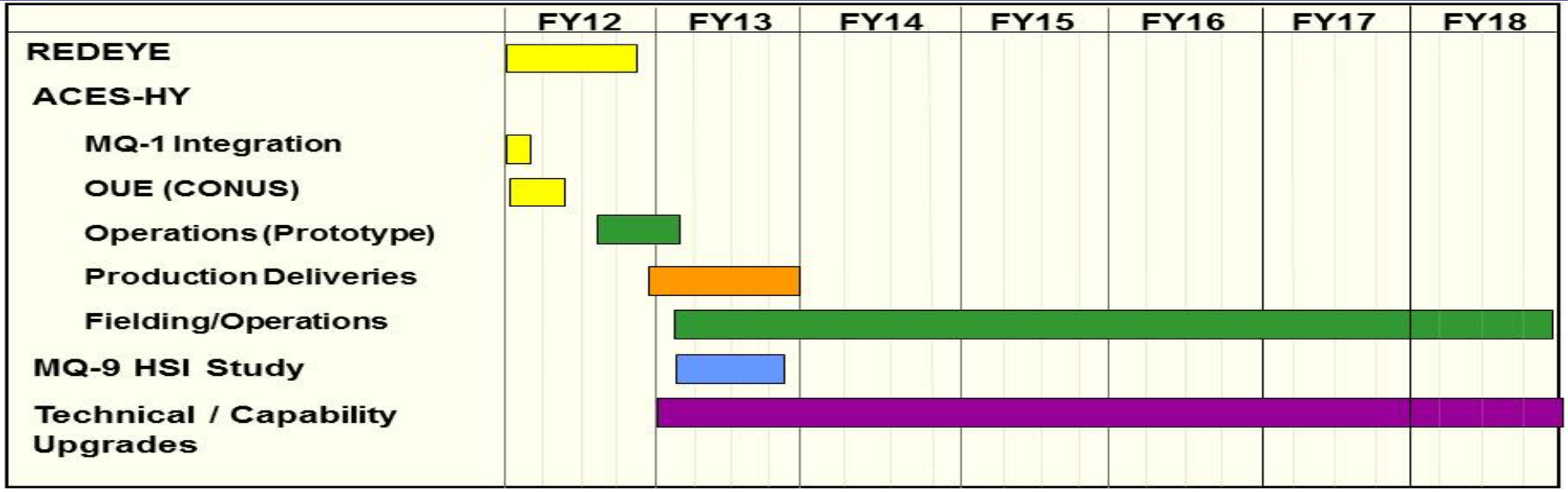
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 2.760 | | 2.844 | | 1.221 | | 0.000 | | 1.221 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675292: *Hyperspectral Sensors* |

U.S. AIR FORCE

# ARS Hyperspectral Sensors Schedule




NOTE: ACES HY Operations funded under MQ-1 PE

Technology Maturation / Analysis
Production / fielding
Design / development
Operations / sustainment
Integration / test
Key events

FY14 Staffer Brief

1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675292: *Hyperspectral Sensors* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| REDEYE | 1 | 2012 | 4 | 2012 |
| MQ-1 Integration | 1 | 2012 | 1 | 2012 |
| Operational User Evaluation (CONUS) | 1 | 2012 | 2 | 2012 |
| Operations (Prototype) | 3 | 2012 | 1 | 2013 |
| Production Deliveries | 4 | 2012 | 4 | 2013 |
| Fielding/Operations | 1 | 2013 | 4 | 2018 |
| MQ-9 HSI Study | 1 | 2013 | 4 | 2013 |
| Technical/Capability Upgrades | 4 | 2012 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675382: *Wide Area Motion Imagery (WAMI)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675382: *Wide Area Motion Imagery (WAMI)* | - | 0.025 | 0.000 | 0.000 | - | 0.000 | 27.127 | 28.160 | 28.802 | 29.320 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2012, Congress directed the removal of FY 2012/FY 2013 funding from the Broad Area Surveillance Sensors program. Monies in FY 2012/FY 2013 were transferred to project 674818, Imaging and Targeting Support, for Wide Area Motion Imagery (WAMI) development, per Congressional direction.

Project 675382, Wide Area Motion Imagery (WAMI), changed from project 675382, Broad Area Surveillance Sensors.

In FY 2014, reduction of $7.889M due to higher Department priorities.

In FY 2015-2018, funds are resident in this project to continue a WAMI program to enable cross-cueing to other sensors and enhance size, weight, and power (SWaP) tradeoffs.

**A. Mission Description and Budget Item Justification**

This project develops wide area motion imagery capabilities paired with near vertical direction finding (NVDF) capabilities in support of Combatant Command (COCOM) requirements for end-to-end persistent surveillance to provide airborne sensor suites, data links, and associated ground support elements for city-sized and similar WAMI surveillance capabilities on manned and unmanned aircraft.

In FY 2015-2018, funds will continue WAMI developments that will enable cross-cueing to other sensors, including Near Vertical Direction Finding sensors, and improve SWaP tradeoffs.

This project has been aligned to respond to COCOM's greater need for wide area surveillance. Quick reaction capability (QRC) has been delivered in the near term while allowing time for the Department to incorporate lessons learned from previously initiated QRC activities into this WAMI project. Continued development of critical wide area surveillance technologies will support existing QRCs supporting various aircraft size, weight, and power configurations; sensor performance attributes; Processing, Exploitation, and Dissemination (PED) architectures, and operational missions. Pre-program planning activities will continue to support formal ACC program of record (PoR) activities. The proposed funding profile shown here reflects this strategy.

Activities also include studies, analysis, and technology development, maturation, and demonstration to support current and future program planning and execution.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675382: *Wide Area Motion Imagery (WAMI)* |

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Wide Area Motion Imagery | 0.025 | 0.000 | 0.000 |
| ***Description:*** WAMI bridge project to include wide area surveillance sensors technology development, maturation, and capability demonstrations for manned and unmanned aircraft system platforms.<br><br>***FY 2012 Accomplishments:***<br>Supported transition of WAMI efforts to Project 674818, Imaging and Targeting Support. Efforts are further described under Project 674818, Imaging and Targeting Support (I&TS).<br><br>***FY 2013 Plans:***<br>WAMI efforts described under Project 674818, I&TS.<br><br>***FY 2014 Plans:***<br>WAMI efforts described under Project 674818, I&TS. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.025 | 0.000 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • None: *N/A* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

Competitive; specific strategy TBD.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675382: *Wide Area Motion Imagery (WAMI)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IR Image Resolution (AFRL-SAFEGARD) | C/CPFF | Lockheed Martin:Orlando, FL | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| Integration (AFRL-SAFEGARD) | C/CPFF | Northrop Grumman:Baltimore, MD | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| Data Links/Fusion (AFRL-SAFEGARD) | C/CPFF | L-3 Comm:Salt Lake City, UT | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| PED Forward (AFRL-SAFEGARD) | C/CPFF | BAE:Arlington, VA | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| IR Image Resolution (Office of Naval Research) | C/CPFF | Cincinnati Electronics:Mason, OH | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| EO Image Resolution (Office of Naval Research) | C/CPFF | Logos Technology:Arlington, VA | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| PED Forward (Office of Naval Research) | C/CPFF | Sarnoff Corporation:Princeton, NJ | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| Persistent Surveillance Laboratory (PSL)/Analysis Support | Various | TBD:TBD, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Geolocation Accuracy/ Target Support | Various | TBD:TBD, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| MDD Planning & Support | Various | TBD:TBD, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Phase II Integration/ Requirements Flow Down | C/CPFF | TBD:TBD, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Tech Maturation (SAFEGARD) | C/TBD | TBD:TBD, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675382: *Wide Area Motion Imagery (WAMI)* |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ARGUS Demo- Data Links | C/CPFF | L-3 Comm:Salt Lake City, UT | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| ARGUS Demo- Platform | C/CPFF | Northrop Grumman:Baltimore, MD | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| Data Link Equipment | C/CPFF | L-3 Comm:Salt Lake City, UT | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA - Aeronautical Systems Center | Various | Govt/ Contractors:Dayton, OH | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| TBD | TBD | TBD:TBD, | - | 0.025 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.025 | 0.025 |
| | | **Subtotal** | 0.000 | 0.025 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

$0.025M in FY 2012 will be removed from this project to meet Congressional intent. FY 2012 and FY 2013 WAMI funds are executed in project 674818.

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.025 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

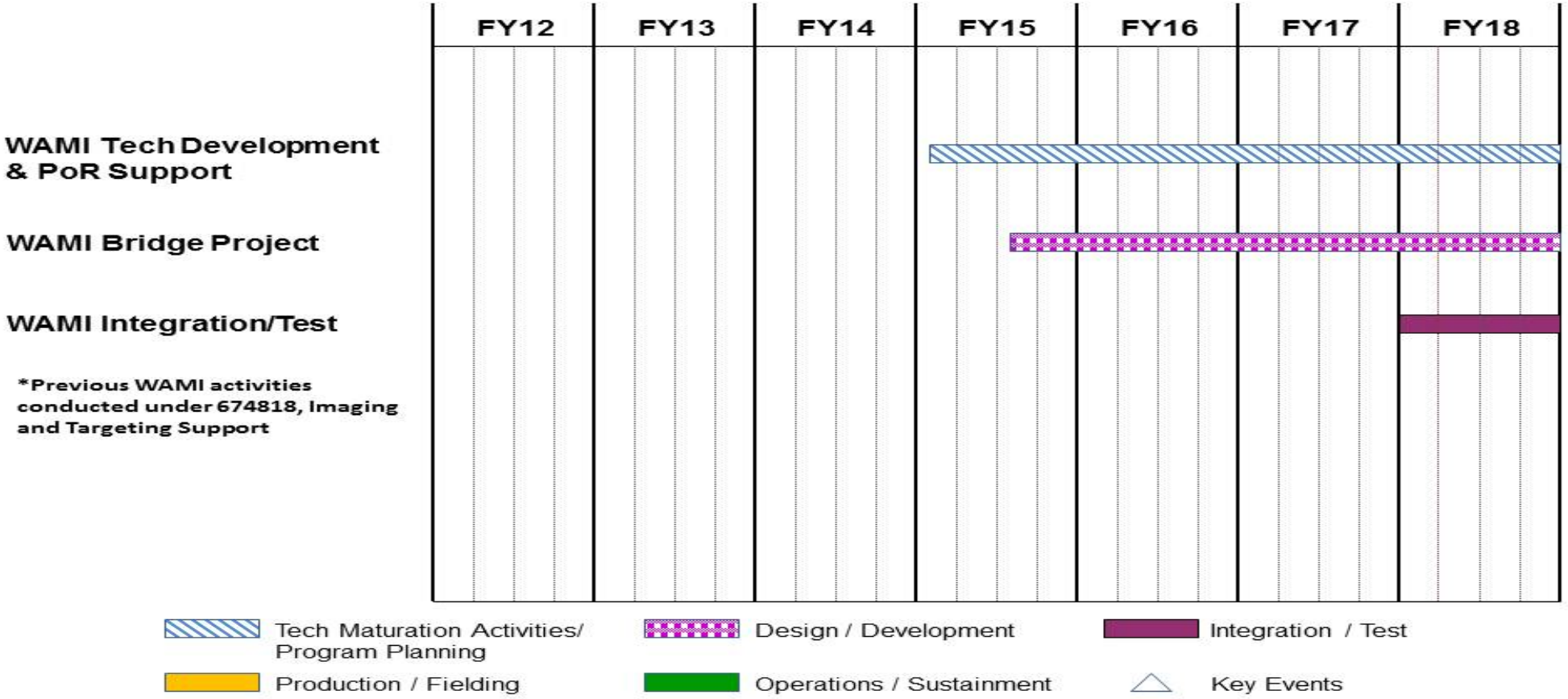
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675382: *Wide Area Motion Imagery (WAMI)* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>675382: *Wide Area Motion Imagery (WAMI)* |

# Wide Area Motion Imagery



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305206F: *Airborne Reconnaissance Systems* | **PROJECT**<br>675382: *Wide Area Motion Imagery (WAMI)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| WAMI Tech Development & PoR Support | 1 | 2015 | 4 | 2018 |
| WAMI Bridge Project | 3 | 2015 | 4 | 2018 |
| WAMI Integration & Test | 1 | 2018 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>676031: *Dismount Detection RADAR* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 676031: *Dismount Detection RADAR* | - | 0.000 | 45.100 | 30.800 | - | 30.800 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2013, Project 676031, Dismount Detection Radar, efforts were transferred from Project 674818, Imaging and Targeting Support, in order to provide greater visibility into the development activities.

**A. Mission Description and Budget Item Justification**

The Dismount Detection Radar (DDR) project designs, develops, integrates, tests, fields, and sustains Ground Moving Target Indicator / Dismount Moving Target Indicator (GMTI/DMTI) and Synthetic Aperture Radar (SAR) capability for improved dismount and moving target detection, identification, tracking, and classification. DDR is advancing the Open Systems Architecture (OSA) in the area of sensors and mission systems. DDR includes associated Tasking Processing Exploitation and Dissemination (TPED) capabilities, and will be applicable to other combatant command (COCOM) GMTI requirements. DDR helps to fulfill the sponsoring COCOM and Central Command (CENTCOM) dismount detection requirements. DDR will be employed on medium altitude air vehicles, such as the MQ-9 Reaper. The DDR program also studies, develops, tests, and implements new concepts, hardware and software capabilities that can be leveraged by the OSA design in the radar and associated TPED for GMTI, and various technical analysis/studies to support future advanced radar development.

Activities also include studies, analysis, and technology development, maturation, and demonstration to support current and future program planning and execution.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production fielding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** DDR | 0.000 | 41.188 | 27.470 |
| ***Description:*** Design, develop, integrate, test, field, and sustain a persistent GMTI/DMTI capability in theater for employment on medium altitude air vehicles and various technical studies/analysis to support future advanced radar development. | | | |
| ***FY 2012 Accomplishments:***<br>FY 2012 DDR efforts described under Project 674818, Imaging and Targeting Support. | | | |
| ***FY 2013 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>676031: *Dismount Detection RADAR* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continue development of the radar system; develop air and ground hardware and software to support an OSA design and to prepare for sensor integration onto the platform.<br>Continue the development and integration of advanced third-party modes to confirm the OSA of radar systems through a software spiral upgrade (i.e. maritime modes, etc.) and associated TPED.<br>***FY 2014 Plans:***<br>Will complete sensor testing, integration of radar system. Will plan and execute flight testing, and will plan for deployment of system in theater.<br>Will develop warfighter needed software enhancements. Will begin planning for future capabilities required by COCOMs to include various technical studies/analysis to support future advanced radar development. | | | |
| ***Title:*** Program Management Activity<br>***Description:*** Providing management services to the development of DDR and the open architecture that it incorporates and supports.<br>***FY 2012 Accomplishments:***<br>N/A<br>***FY 2013 Plans:***<br>Provide management services to the development of DDR and the open architecture that it incorporates and supports.<br>***FY 2014 Plans:***<br>Will provide management services to the development of DDR and the open architecture that it incorporates and supports. | 0.000 | 3.912 | 3.330 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 45.100 | 30.800 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • None:: *N/A* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

The acquisition strategy for DDR includes a competitive source selection that began in 1QFY12 and was awarded in February 2012. After a ~100 day protest, the GAO denied all protest allegations allowing the Prime Contractor, Raytheon, to begin the design and development of the radar system in June 2012. The radar design includes an OSA approach, which will be tested when MIT/LL develops and integrates their advanced modes into the radar system. Testing will begin in

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>676031: *Dismount Detection RADAR* |

2014 and anticipate fielding in 2015. In addition, DDR will incorporate warfighter needed software enhancements with a spiral acquisition plan and contractual model. Enhancements will be developed in 2014 with integration and testing in 2015.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>676031: *Dismount Detection RADAR* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DDR Development | C/CPIF | Raytheon:El Segundo, CA | - | 0.000 | Feb 2012 | 23.997 | Mar 2013 | 14.834 | Jan 2014 | - | | 14.834 | Continuing | Continuing | |
| DDR Integration | SS/TBD | General Atomics:San Diego, CA | - | 0.000 | | 6.000 | Jan 2013 | 5.000 | Jan 2014 | - | | 5.000 | Continuing | Continuing | |
| BA Delta (Trouble Ticket filed 31Jul12) | TBD | SAF/ AQIJ:Washington, DC | - | 0.000 | | 0.000 | | 0.200 | Aug 2012 | - | | 0.200 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 29.997 | | 20.034 | | 0.000 | | 20.034 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MIT Lincoln Laboratories | SS/T&M | MIT L/L FFRDC:Lexington, MA | - | 0.000 | | 8.605 | Jan 2013 | 4.350 | Jan 2014 | - | | 4.350 | Continuing | Continuing | |
| MITRE Corp FFRDC | C/T&M | MITRE Corp FFRDC:Lexington, MA | - | 0.000 | | 1.086 | Oct 2012 | 1.086 | Oct 2013 | - | | 1.086 | 0.000 | 2.172 | |
| | | **Subtotal** | 0.000 | 0.000 | | 9.691 | | 5.436 | | 0.000 | | 5.436 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 46th Test Wing, Eglin AFB | PO | 46th Test Wing:Eglin AFB, FL | - | 0.000 | | 1.500 | Jan 2013 | 2.000 | Jan 2014 | - | | 2.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 1.500 | | 2.000 | | 0.000 | | 2.000 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>676031: *Dismount Detection RADAR* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA (A&AS) | Various | Various:Various, MA | - | 0.000 | | 3.293 | Jan 2013 | 2.711 | Jan 2014 | - | | 2.711 | Continuing | Continuing | |
| PMA (MITRE FFRDC) | C/T&M | MITRE Corp FFRDC:Lexington, MA | - | 0.000 | | 0.469 | Oct 2012 | 0.469 | Oct 2013 | - | | 0.469 | Continuing | Continuing | |
| PMA (Gov't Travel/ Supplies & Equip) | Various | Various:Various, MA | - | 0.000 | | 0.150 | Oct 2012 | 0.150 | Oct 2013 | - | | 0.150 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 3.912 | | 3.330 | | 0.000 | | 3.330 | | | |

**Remarks**

NOTE: Prior to FY13, the Dismount Detection Radar (DDR) efforts were captured in Project 674818.

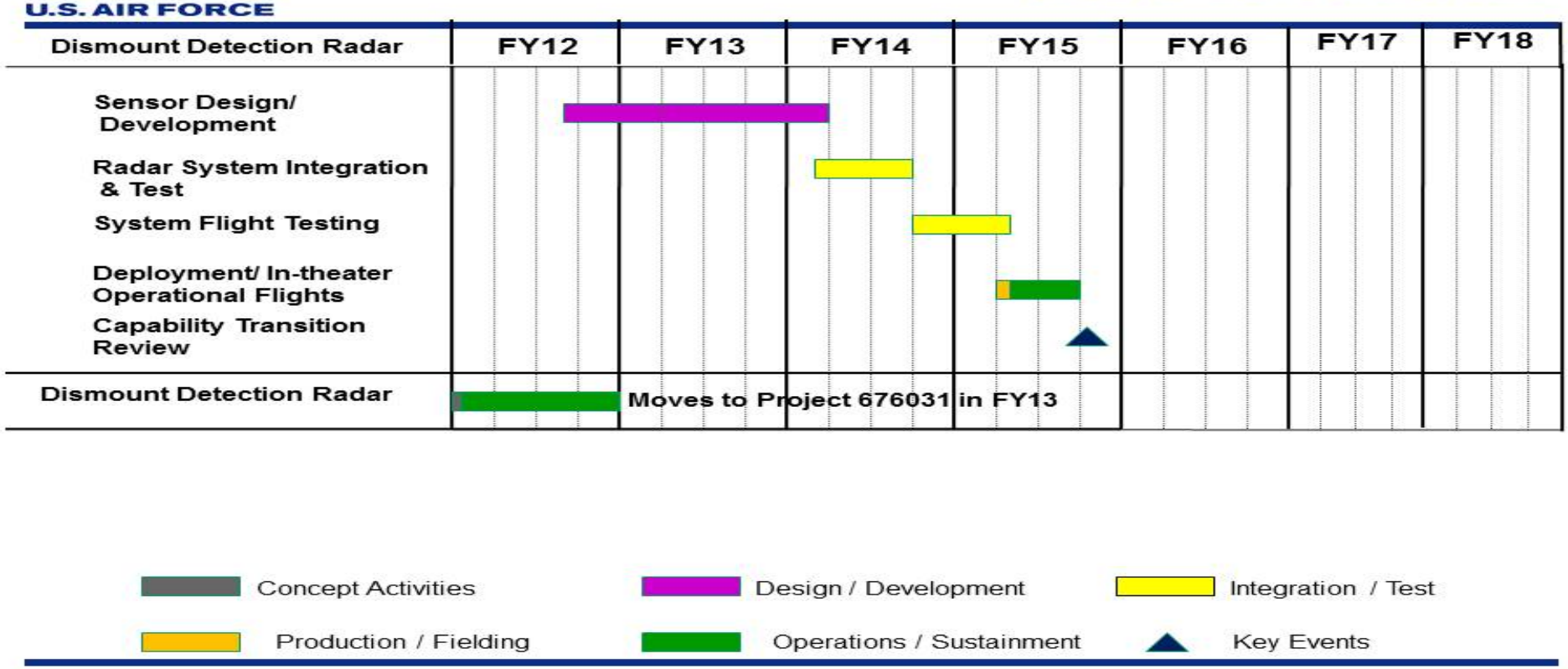
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 45.100 | | 30.800 | | 0.000 | | 30.800 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305206F: *Airborne Reconnaissance Systems* | PROJECT<br>676031: *Dismount Detection RADAR* |

U.S. AIR FORCE

# ARS DDR Schedule




FY14 Staffer Brief

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| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305206F: *Airborne Reconnaissance Systems* | **PROJECT**<br>676031: *Dismount Detection RADAR* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Sensor Design / Development | 3 | 2012 | 1 | 2014 |
| Radar System Integration & Test | 1 | 2014 | 3 | 2014 |
| System Flight Testing | 4 | 2014 | 2 | 2015 |
| Deployment / In-theater Operational Flights | 2 | 2015 | 4 | 2015 |
| Capability Transition Review | 4 | 2015 | 4 | 2015 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305207F: *Manned Reconnaissance Systems* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 13.049 | 13.316 | 13.491 | - | 13.491 | 13.685 | 13.926 | 14.177 | 14.432 | Continuing | Continuing |
| 674754: *RC-135 Systems* | - | 13.049 | 13.316 | 13.491 | - | 13.491 | 13.685 | 13.926 | 14.177 | 14.432 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The RC-135 Operational Systems Development and enhancement activities project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the integration and modification of the RC-135 programs and their specialized mission systems -both air and ground. Extensive utilization of commercial-off the-shelf (COTS) based solutions allows rapid fielding of needed capabilities through continuous technology refresh cycles and diminishing manufacturing sources (DMS)/vanishing vendor items (VVI) logistics mitigation efforts. The results of these efforts provide for preliminary assessments of technical feasibility, operability, or military utility as well as specific engineering implementations for integration into the various systems baseline configurations.

These activities are managed by the Air Force through the 645th Aeronautical System Group (645 AESG, a.k.a. BIG SAFARI Systems Program Office or SPO), Aeronautical Systems Center, Air Force Materiel Command, Wright Patterson AFB, OH. BIG SAFARI manages engineering, ground and support systems modifications, integration, flight testing, product assurance, acceptance testing, logistics, and training activities.

Aircraft, aircraft sensor systems, and associated ground support system engineering planned for FY 2014 include support for two distinct RC-135V/W RIVET JOINT configurations [Baselines 11 & 12], two distinct RC-135U COMBAT SENT configurations [Baselines 4 & 5] and two distinct RC-135S COBRA BALL configurations [Baselines 4+ & 5]. The world-wide challenge of keeping pace against technologically agile targets used by both nation and non-nation-state adversaries and the rapid evolution of COTS technologies demands a responsive and adaptive acquisition strategy for fielding "baseline capabilities" that are logistically supportable at all locations. BIG SAFARI uses an incremental "baseline" strategy to mitigate risk, find affordable solutions and field needed capabilities on the aircraft and ground support and training systems. Obsolescence and diminished manufacturing sources/vanishing vendor items (DMS/VVI) are addressed with each baseline upgrade as well as annually as part of the sustainment responsibilities.

RIVET JOINT Baseline 11 upgrades consist of, but not limited to, precision multi-angle directional finding communications intelligence (DF COMINT) capability, electronic intelligence (ELINT) recorder expansion, precision ELINT digital signals intelligence system (DSS) integration, wideband global satellite communications (WGS) enhanced integration, continued communications, navigation, surveillance/air traffic management (CNS/ATM) and required navigational performance (RNP) compliant cockpit avionics enhancements, and new steerable beam antenna. RIVET JOINT Baseline 12 upgrades consist of, but not limited to, increased digital signal exploitation, increased digital signal recorder bandwidth, enhanced spatial processing/exploitation, enhanced weather radar, AF-DCGS interoperability, operator work station 3-D map projection, and new steerable beam antenna.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305207F: *Manned Reconnaissance Systems* |

COMBAT SENT Baseline 4 upgrades consist of, but not limited to, LN-120 nav system, new radio frequency distribution (RFD), precision ELINT (DSS), airborne parametric measurement system (APMS) upgraded digital backend, aircrew capability extension system (ACES) reachback connectivity, RJ Baseline 9 COMINT, and NCCT integration. COMBAT SENT Baseline 5 upgrades consist of, but not limited to, continued CNS/ATM and RNP compliant cockpit avionics enhancements, active ranging and geolocation capability, cooling duct improvements, precision ELINT (CORVUS) super wideband compressive receiver, RJ Baseline 11 COMINT, WGS enhanced integration, and communications upgrade to include Multifunctional Information Distribution System Joint Tactical Radio System (MIDS-J).

COBRA BALL Baseline 4+ upgrades consist of, but not limited to, LN-120 nav system, ACES reachback connectivity, RJ Baseline 9 COMINT, COMINT directional finder (DF), foreign instrumentation signals intelligence(FISINT) intercept coordinator, continued CNS/ATM and RNP compliant cockpit avionics enhancements, and liquid cooling system. COBRA BALL Baseline 5 upgrades consist of, but not limited to, RJ Baseline 11 COMINT, MIRA sensor/processor upgrade, MCS optical upgrade, WGS enhanced integration, communications upgrade to include MIDS-J, continued CNS/ATM and RNP compliant cockpit avionics enhancements.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program is in Budget Activity 7, Operational Systems Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production fielding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 13.049 | 13.316 | 13.491 | - | 13.491 |
| Current President's Budget | 13.049 | 13.316 | 13.491 | - | 13.491 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Baseline Configuration Development | 13.049 | 13.316 | 13.491 |
| ***Description:*** Non-recurring engineering (NRE) for Baseline system developments and enhancements to improve mission capabilities | | | |
| ***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305207F: *Manned Reconnaissance Systems* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Supports design studies, engineering analysis, NRE and other efforts associated with the integration and modification of the RC-135 programs (RJ BL-11, CS BL-5, and CB BL-5) and their specialized mission systems for the collection of both air and ground signals<br>***FY 2013 Plans:***<br>Continue to support design studies, engineering analysis, NRE and other efforts associated with the integration and modification of the RC-135 programs (RJ BL-12, CS BL-5, and CB BL-5) and their specialized mission systems for the collection of both air and ground signals<br>***FY 2014 Plans:***<br>Will continue to support design studies, engineering analysis, NRE and other efforts associated with the integration and modification of the RC-135 programs (RJ BL-12, CS BL-5, and CB BL-5) and their specialized mission systems for the collection of both air and ground signals | | | |
| **Accomplishments/Planned Programs Subtotals** | 13.049 | 13.316 | 13.491 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: DARP01: *RC-135 Modifications and Spares* | 201.596 | 209.361 | 204.708 | | 204.708 | 232.289 | 231.893 | 229.756 | 233.892 | Continuing | Continuing |
| • OPAF: BA04: 846070: *DARP/ RC-135 Other Procurement* | 27.841 | 24.176 | 24.528 | | 24.528 | 24.929 | 25.376 | 25.833 | 26.298 | Continuing | Continuing |
| • RDT&E: BA07: PE 0304260F/675180: *RC-135 Airborne SIGINT Enterprise Development* | 34.809 | 40.160 | 32.331 | | 32.331 | 13.185 | 35.243 | 36.810 | 37.472 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

The RC-135 RIVET JOINT, COBRA BALL, and COMBAT SENT aircraft are maintained and baseline / incremental upgrades and quick reaction capabilities (QRC) developments are acquired through the 645th Aeronautical Systems Group (BIG SAFARI Program Office) in accordance with the BIG SAFARI Program Management Directive (PMD), and the BIG SAFARI Class Justification and Approval (J&A) document for acquisition of supplies and services using other than full and open competition criteria. The supplies and services procured by 645 AESG under their J&A to satisfy National Security (FAR 6.302-6) requirements are supported by the BIG SAFARI Life Cycle Management Plan (LCMP) across the full spectrum of system life cycle management from developmental engineering to system retirement

("cradle to grave" support). Due to the rapidly changing threat environment encountered during our prolonged commitment to Overseas Contingency Operations (OCO), the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Commander requirements.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305207F: *Manned Reconnaissance Systems* | PROJECT<br>674754: *RC-135 Systems* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L-3 Communications | SS/ Various | L-3 Com:Greenville, TX | - | 13.049 | Dec 2011 | 13.316 | Dec 2012 | 13.491 | Dec 2013 | - | | 13.491 | Continuing | Continuing | TBD |
| | | Subtotal | 0.000 | 13.049 | | 13.316 | | 13.491 | | 0.000 | | 13.491 | | | |

**Remarks**

All activity is based around the Programmed Depot Maintenance (PDM) airframe schedule which includes multiple contracts and organizations with overlapping and continuous periods of performance. Due to the rapidly changing threat environment encountered during our prolonged commitment to Overseas Contingency Operations (OCO), the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Commander requirements.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 13.049 | | 13.316 | | 13.491 | | 0.000 | | 13.491 | | | |

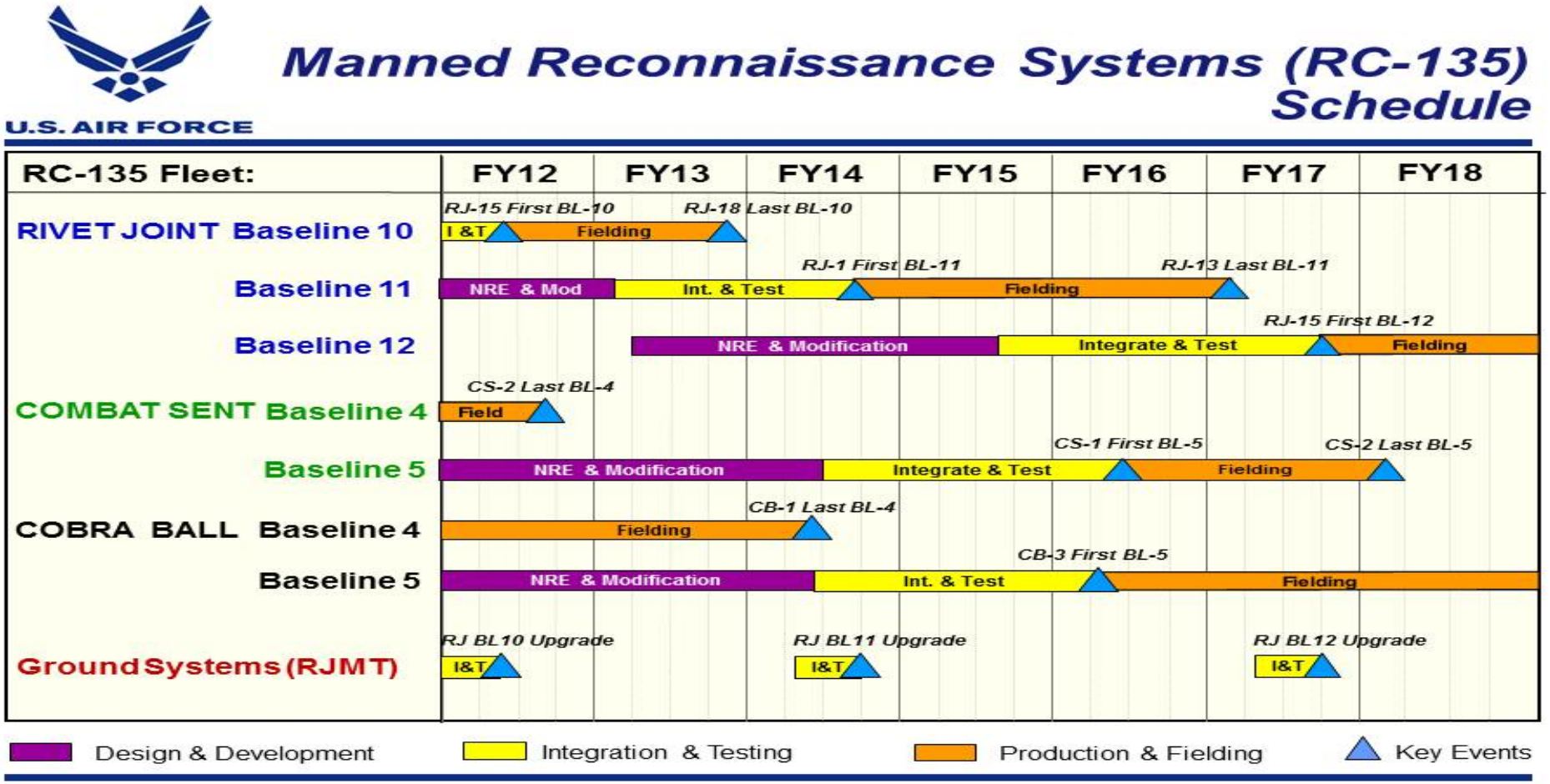
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305207F: *Manned Reconnaissance Systems* | PROJECT<br>674754: *RC-135 Systems* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|

**Remarks**

RC-135 Program Manager has determined that PMA will be funded with RIVET JOINT APAF appropriation and included in the P-Doc, Mod 4263.

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305207F: *Manned Reconnaissance Systems* | PROJECT<br>674754: *RC-135 Systems* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305207F: *Manned Reconnaissance Systems* | **PROJECT**<br>674754: *RC-135 Systems* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| RIVET JOINT Baseline 10 Integration, Test & Fielding | 1 | 2012 | 4 | 2013 |
| RIVET JOINT Baseline 11 Development, Integration, Test & Fielding | 1 | 2012 | 1 | 2017 |
| RIVET JOINT Baseline 12 Development, Integration, Test & Fielding | 2 | 2013 | 4 | 2018 |
| COMBAT SENT Baseline 4 Fielding | 1 | 2012 | 3 | 2012 |
| COMBAT SENT Baseline 5 Development, Integration, Test & Fielding | 1 | 2012 | 1 | 2018 |
| COBRA BALL Baseline 4 Fielding | 1 | 2012 | 2 | 2013 |
| COBRA BALL Baseline 5 Development, Integration, Test & Fielding | 1 | 2012 | 4 | 2018 |
| Ground Systems / RJMT Baseline 10 Integration & Test | 1 | 2012 | 2 | 2012 |
| Ground Systems / RJMT Baseline 11 Integration & Test | 2 | 2014 | 3 | 2014 |
| Ground Systems / RJMT Baseline 12 Integration & Test | 2 | 2017 | 3 | 2017 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/Surface Systems* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 82.348 | 63.514 | 7.498 | - | 7.498 | 27.606 | 24.988 | 23.410 | 23.831 | Continuing | Continuing |
| 674826: *Common Imagery Ground / Surface Systems* | - | 57.215 | 26.854 | 7.471 | - | 7.471 | 20.001 | 20.097 | 21.918 | 22.312 | Continuing | Continuing |
| 675265: *Common Imagery Processor (CIP)* | - | 10.709 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 676025: *Data Compression* | - | 14.424 | 29.699 | 0.027 | - | 0.027 | 7.605 | 4.891 | 1.492 | 1.519 | Continuing | Continuing |
| 676028: *Dynamic Time Critical Warfighting Capability* | - | 0.000 | 6.961 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

The R-1 FY13 amount of $63.501M reflects an incorrect database. Actual funding of $63.514M is reflected in this R-DOC.

**A. Mission Description and Budget Item Justification**

AF Distributed Common Ground Systems (DCGS) is a network-centric weapon system capable of tasking Intelligence, Surveillance and Reconnaissance (ISR) sensors and receiving, processing, exploiting, and disseminating (PED) data, information and intelligence from airborne, national, and commercial platforms and sensors. The weapon system consists of numerous active duty, Air National Guard, and mission partner sites interconnected by a robust communications infrastructure that allows collaborative reach-back operations. Operators correlate collected Geospatial Intelligence (GEOINT), Signals Intelligence (SIGINT), and Measurement and Signature Intelligence (MASINT) data to provide decision-quality information to the Joint Task Force (JTF) and below, including significant support to time-critical targeting. AF DCGS is the primary PED capability for the U-2, Global Hawk, Predator, Reaper and Project Liberty.

AF DCGS is modernizing through sustainment by integrating the necessary technologies and tools to provide increased capabilities and meet emerging and urgent operational needs. These efforts will also integrate commercial and government fact-of-life version upgrades to provide current technologies and achieve necessary application services. The next series of upgrades will meet the operational need to integrate new and/or improved sensor capabilities and enhance interoperability by migrating to service oriented architectures and improving data sharing ability compliance with DoD direction.

DCGS Data Compression provides the warfighter a capability to efficiently compress and decompress airborne ISR sensor data and transmit real/near-real time to tactical users through current and future band-width limited commercial SATCOM or military SATCOM. The effort will develop, test and implement new sensor data compression/decompression algortihms for current and emerging airborne ISR sensors. Correspondingly, the program develops compression/decompression

capabilities for manned and unmanned airborne platforms, associated ground stations, and DCGS. Outputs will meet standard certification for use within the DoD Imagery Intelligence (IMINT)/Measurement and Signatures (MASINT) architecture.

Activities include studies and analysis to support both current program planning and execution and future program planning.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 82.348 | 63.514 | 36.222 | - | 36.222 |
| Current President's Budget | 82.348 | 63.514 | 7.498 | - | 7.498 |
| Total Adjustments | 0.000 | 0.000 | -28.724 | - | -28.724 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -28.724 | - | -28.724 |

**Change Summary Explanation**

FY14 total decrease of $28.724: $7.059M for termination of Dynamic Time Critical Warfighter Capability; $21.665M for higher Department of Defense priorities.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 674826: *Common Imagery Ground / Surface Systems* | - | 57.215 | 26.854 | 7.471 | - | 7.471 | 20.001 | 20.097 | 21.918 | 22.312 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2013 Project Number 674826, Common Imagery Ground / Surface Systems, three efforts were transferred to PE 0305240F, Support to Distributed Common Ground System (DCGS) Enterprise, 674826, Common Imagery Ground / Surface Systems, in order to improve visibility into this effort. AF is lead service under the auspices of USD(I). The three efforts transferred are: Distributed Common Ground System (DCGS) Integrated Backbone (DIB); DCGS-Imagery (DCGS-I), and DCGS Enterprise. The amount transferred to PE 0305240F was $24.5M.

**A. Mission Description and Budget Item Justification**

AF Distributed Common Ground Systems (DCGS) is a network-centric weapon system capable of tasking Intelligence, Surveillance and Reconnaissance (ISR) sensors and receiving, processing, exploiting, and disseminating (PED) data, information and intelligence from airborne, national, and commercial platforms and sensors. The weapon system consists of numerous active duty, Air National Guard, and mission partner sites interconnected by a robust communications infrastructure that allows collaborative reach-back operations. Operators correlate collected Geospatial Intelligence (GEOINT), Signals Intelligence (SIGINT), and Measurement and Signature Intelligence (MASINT) data to provide decision-quality information to the Joint Task Force (JTF) and below, including significant support to time-critical targeting. AF DCGS is the primary PED capability for the U-2, Global Hawk, Predator, Reaper and Project Liberty.

AF DCGS is modernizing through sustainment by integrating the necessary technologies and tools to provide increased capabilities and meet emerging and urgent operational needs. These efforts will also integrate commercial and government fact-of-life version upgrades to provide current technologies and achieve necessary application services. The next series of upgrades will meet the operational need to integrate new and/or improved sensor capabilities and enhance interoperability by migrating to service oriented architectures and improving data sharing ability compliance with DoD direction.

Program actions are categorized by four distinct efforts. The GEOINT effort provides the capability for planning, collecting, processing, analysis and dissemination (PCPAD) of imagery intelligence. The Systems Release effort provides the capability for PCPAD of SIGINT. The Data Links effort provides Line-of-Site (LOS) and Satellite Communications (SATCOM) capabilities that allow AF DCGS to send and receive information between airborne Intelligence, Surveillance, and Reconnaissance (ISR) assets and the AF DCGS weapon system. The Network Communications effort involves modernizing AF DCGS infrastructure to improve data ingest, transfer, and storage capabilities while migrating the network toward a cloud architecture.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* |

AF DCGS also participates in the development, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Geospatial Intelligence | 25.927 | 9.014 | 1.474 |
| ***Description:*** Integrate new and improved sensors for exploitation and analysis of imagery and geospatial information.<br><br>***FY 2012 Accomplishments:***<br>Continued efforts to meet operational need to integrate new and improved sensors, increase capacity and imagery and geospatial data availability, and comply with DoD direction to improve interoperability through migration to a service oriented architecture construct.<br><br>***FY 2013 Plans:***<br>Continuing efforts to meet operational need to integrate new and improved sensors, increase capacity and imagery and geospatial data availability, and comply with DoD direction to improve interoperability through migration to a service oriented architecture construct.<br><br>***FY 2014 Plans:***<br>Will continue efforts to meet operational need to integrate new and improved sensors, increase capacity and imagery and geospatial data availability, and comply with DoD direction to improve interoperability through migration to a service oriented architecture construct. | | | |
| ***Title:*** Systems Release | 2.000 | 3.670 | 0.000 |
| ***Description:*** Continue efforts to meet operational need to integrate new and improved sensors, increase capacity and signals intelligence data availability, and comply with DoD direction to improve interoperability through migration to a service oriented architecture construct.<br><br>***FY 2012 Accomplishments:***<br>Continued efforts to meet operational need to integrate new and improved sensors, increase capacity and signals intelligence data availability, and comply with DoD direction to improve interoperability through migration to a service oriented architecture construct.<br><br>***FY 2013 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continuing efforts to meet operational need to integrate new and improved sensors, increase capacity and signals intelligence data availability, and comply with DoD direction to improve interoperability through migration to a service oriented architecture construct. | | | |
| ***Title:*** Data Links<br>***Description:*** Upgrade the AF DCGS capability to transmit and receive information via data link architecture.<br>***FY 2012 Accomplishments:***<br>Continued the upgrade of AF DCGS capability to transmit and receive information via data link architecture.<br>***FY 2013 Plans:***<br>Continuing the upgrade of AF DCGS capability to transmit and receive information via data link architecture. | 4.500 | 3.500 | 0.000 |
| ***Title:*** Network Communications<br>***Description:*** Upgrade and evolve the AF DCGS communications network across the various architectures.<br>***FY 2012 Accomplishments:***<br>Upgraded and evolved the AF DCGS communications network across the various architectures.<br>***FY 2013 Plans:***<br>Continuing to upgrade and evolve the AF DCGS communications network across the various architectures.<br>***FY 2014 Plans:***<br>Will continue to upgrade and evolve the AF DCGS communications network across the various architectures. | 4.735 | 5.200 | 4.247 |
| ***Title:*** DCGS Integration Backbone<br>***Description:*** Upgrade, improve and manage the DCGS Integration Backbone (DIB).<br>***FY 2012 Accomplishments:***<br>Upgraded, improved and managed the DCGS Integration Backbone (DIB).<br>***FY 2013 Plans:***<br>Starting in FY13, effort transferred to PE 0305240F, Support to DCGS Enterprise. | 7.170 | 0.000 | 0.000 |
| ***Title:*** DCGS-Imagery Testbed<br>***Description:*** Continues DCGS-I Testbed development and upgrades.<br>***FY 2012 Accomplishments:*** | 4.111 | 0.000 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continued DCGS-I Testbed development and upgrades.<br>***FY 2013 Plans:***<br>Starting in FY13, effort transferred to PE 0305240F, Support to DCGS Enterprise. | | | |
| ***Title:*** DCGS Enterprise<br>***Description:*** Evolve DCGS architectures and standards and manage DCGS IPT efforts for USD(I).<br>***FY 2012 Accomplishments:***<br>Evolved DCGS architectures and standards for commonality and interoperability across intelligence disciplines to include NATO interoperability and management of DCGS IPT effort for USD(I).<br>***FY 2013 Plans:***<br>Starting in FY13, effort transferred to PE 0305240F, Support to DCGS Enterprise. | 2.552 | 0.000 | 0.000 |
| ***Title:*** Geospatial Product Library (GPL)<br>***Description:*** Develop and integrate a greater variety of Imagery Intelligence sources and geospatial visualization capabilities in the GPL.<br>***FY 2012 Accomplishments:***<br>Continued to develop and integrate a greater variety of Imagery Intelligence sources and geospatial visualization capabilities in the GPL.<br>***FY 2013 Plans:***<br>Continuting to develop and integrate a greater variety of Imagery Intelligence sources and geospatial visualization capabilities in the GPL. | 2.970 | 2.970 | 0.000 |
| ***Title:*** PMA<br>***Description:*** Maintain a program management office, including engineering, finance, and acquisition strategy execution<br>***FY 2012 Accomplishments:***<br>Maintained a program management office, including engineering, finance, and acquisition strategy execution<br>***FY 2013 Plans:***<br>Maintaining a program management office, including engineering, finance, and acquisition strategy execution<br>***FY 2014 Plans:*** | 3.250 | 2.500 | 1.750 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Will maintain a program management office, including engineering, finance, and acquisition strategy execution | | | |
| **Accomplishments/Planned Programs Subtotals** | 57.215 | 26.854 | 7.471 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDT&E: BA07: PE 0305240F: *Support to DCSG Enterprise* | 0.000 | 24.500 | 23.016 | | 23.016 | 25.350 | 26.026 | 26.497 | 26.974 | Continuing | Continuing |
| • OPAF: BA07: Line Item #: 846080: *DCGS-AF* | 215.146 | 99.466 | 115.801 | | 115.801 | 159.988 | 116.904 | 121.748 | 123.939 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

The Air Force has changed the AF DCGS acquisition strategy from a single block upgrade to programs that will deliver the following families of capabilities to the fielded baseline while meeting emerging operational requirements and continuing to develop and integrate new/upgraded sensors: GEOINT, Systems Release Upgrades, Data Links, and NetComms.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Capabilities Upgrade | C/Various | Various:Various, | - | 1.135 | Feb 2012 | 0.509 | Feb 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Geospatial Intelligence (GEOINT) Upgrades | C/Various | Various:Various, | - | 25.927 | Apr 2012 | 14.114 | Apr 2013 | 1.474 | Jan 2014 | - | | 1.474 | Continuing | Continuing | TBD |
| System Release Upgrades | C/Various | Various:Various | - | 2.000 | Jun 2012 | 1.428 | Jun 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Datalink Upgrades | C/Various | Various:Various | - | 4.500 | Mar 2012 | 3.213 | Mar 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Network Communications Upgrade | C/Various | Various:Various, | - | 3.600 | May 2012 | 2.570 | May 2013 | 4.247 | Dec 2013 | - | | 4.247 | Continuing | Continuing | TBD |
| DCGS IPT for USD(I) | C/Various | Science Applications Int'l:Mclean, VA | - | 2.552 | Mar 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Testbed Modernization and Licenses | C/Various | Various:Various, | - | 4.111 | Mar 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| DIB Management, Migration & Interoperability | C/Various | Various:Various, | - | 7.170 | Apr 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Geospatial Product Library | C/Various | AR Gov't Systems Group:Thousand Oaks, CA | - | 2.970 | Mar 2012 | 2.970 | Mar 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 53.965 | | 24.804 | | 5.721 | | 0.000 | | 5.721 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* | |

**Management Services ($ in Millions)**

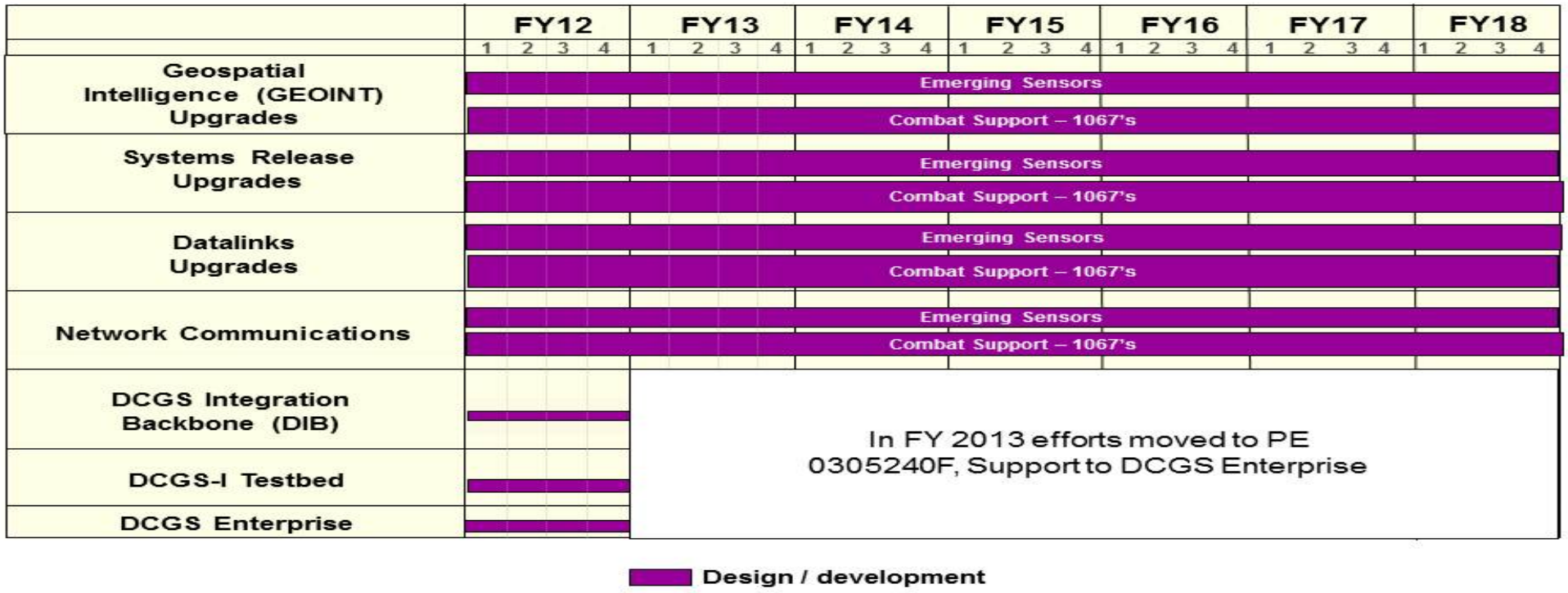
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | Various | Various:Various, | - | 3.250 | Sep 2012 | 2.050 | Sep 2013 | 1.750 | Sep 2014 | - | | 1.750 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 3.250 | | 2.050 | | 1.750 | | 0.000 | | 1.750 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 57.215 | | 26.854 | | 7.471 | | 0.000 | | 7.471 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* |

# AF DCGS Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | **PROJECT**<br>674826: *Common Imagery Ground / Surface Systems* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Geospatial Intelligence (GEOINT) Upgrades | 1 | 2012 | 4 | 2018 |
| Systems Release Upgrades | 1 | 2012 | 4 | 2018 |
| Datalink Upgrades | 1 | 2012 | 4 | 2018 |
| Network Communications upgrades | 1 | 2012 | 4 | 2018 |
| DCGS Integration Backbone (DIB) | 1 | 2012 | 4 | 2012 |
| DCGS-I Testbed | 1 | 2012 | 4 | 2012 |
| DCGS Enterprise | 1 | 2012 | 4 | 2012 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>675265: *Common Imagery Processor (CIP)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675265: *Common Imagery Processor (CIP)* | - | 10.709 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2013, Project Number 675265, Common Imagery Processor (CIP), efforts transferred to PE 0305240F, Support to Distributed Common Ground System (DCGS) Enterprise, 675265, Common Imagery Processor (CIP) in order to improve visibility into this effort. AF is lead service under the auspices of USD(I).

**A. Mission Description and Budget Item Justification**

The Common Imagery Processor (CIP) is a major interoperability initiative to develop a common sensor processing element within the DCGS Imagery architecture. The function of the CIP is to accept imagery data, process it into an exploitable image, and output the image to other elements within DCGS. Efforts are underway to augment the CIP baseline to process data from upgraded/new sensors.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Common Imagery Processor<br>***Description:*** Continued development of the imagery processor to keep pace with growing sensor baseline.<br>***FY 2012 Accomplishments:***<br>Continued development of the imagery processor to keep pace with growing sensor baseline.<br>***FY 2013 Plans:***<br>Starting in FY13 effort transferred to PE 0305240F, Support to DCGS Enterprise. | 10.397 | 0.000 | 0.000 |
| ***Title:*** PMA<br>***Description:*** Maintained a program management office, including engineering, finance, and acquisition strategy execution.<br>***FY 2012 Accomplishments:***<br>Maintained a program management office, including engineering, finance, and acquisition strategy execution.<br>***FY 2013 Plans:*** | 0.312 | 0.000 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>675265: *Common Imagery Processor (CIP)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Starting in FY13 effort transferred to PE 0305240F, Support to DCGS Enterprise. | | | |
| **Accomplishments/Planned Programs Subtotals** | 10.709 | 0.000 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA07: Line Item #: 846080: *DCGS-AF* | 215.146 | 99.466 | 115.801 | | 115.801 | 159.988 | 116.904 | 121.748 | 123.939 | Continuing | Continuing |
| • RDT&E: BA07: PE 0305240F: *Support to DCGS Enterprise* | 0.000 | 24.500 | 23.016 | | 23.016 | 25.350 | 26.026 | 26.497 | 26.974 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

For imagery processing the Air force uses an evolutionary acquisition approach with blocks (increments) and spirals to develop, field, and upgrade the system and structure contracts for the improved capabilities through full and open competition to the maximum extent possible.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>675265: *Common Imagery Processor (CIP)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CIP Software Development | C/CPFF | Northrop Grumman:Baltimore, MD | - | 10.160 | Apr 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 10.160 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ISR&SOF Directorate | C/Various | ASC/WI:Wright-Patterson AFB, OH | - | 0.154 | Mar 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| PMA | Various | Various:Various, | - | 0.395 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.549 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 10.709 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

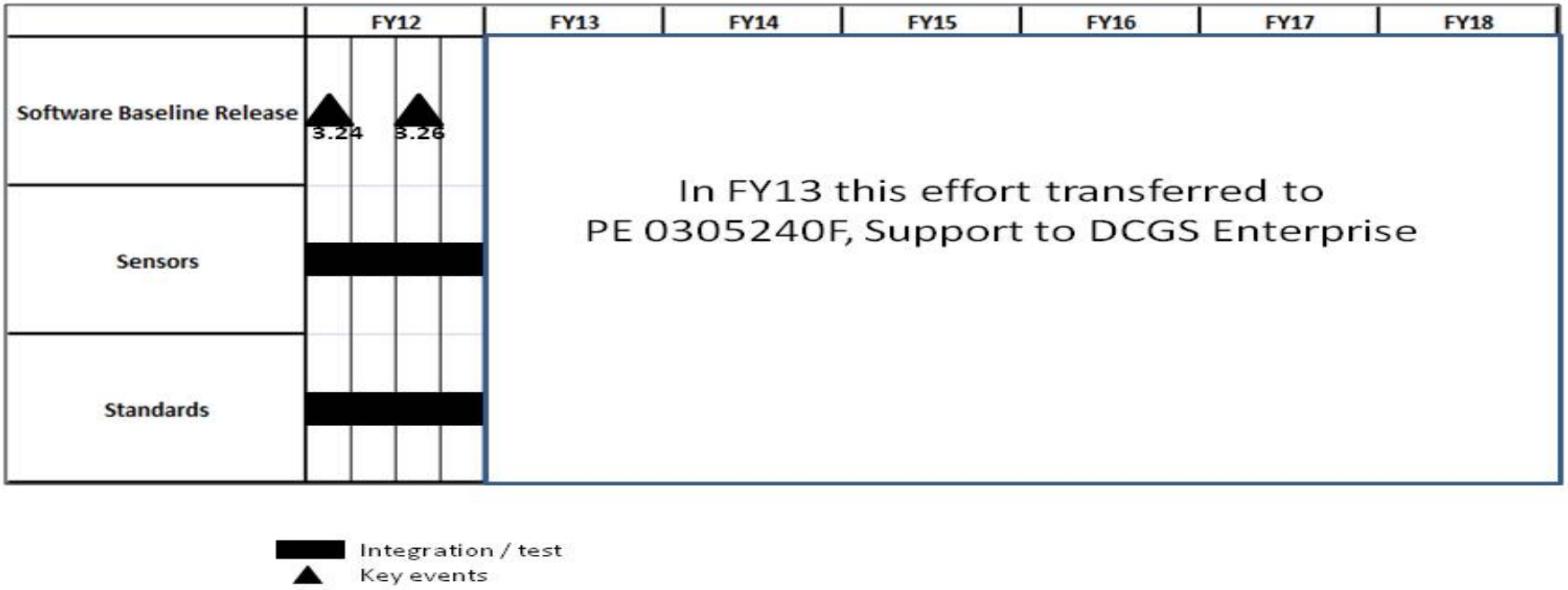
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>675265: *Common Imagery Processor (CIP)* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>675265: *Common Imagery Processor (CIP)* |

# Imagery Processing Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | **PROJECT**<br>675265: *Common Imagery Processor (CIP)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Software Baseline Release (3.24) | 1 | 2012 | 1 | 2012 |
| Software Baseline Release (3.26) | 3 | 2012 | 3 | 2012 |
| Sensors - Evolutionary Development | 1 | 2012 | 4 | 2012 |
| Standards - Evolutionary Development | 1 | 2012 | 4 | 2012 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>676025: *Data Compression* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 676025: *Data Compression* | - | 14.424 | 29.699 | 0.027 | - | 0.027 | 7.605 | 4.891 | 1.492 | 1.519 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

This initiative will provide the warfighter a capability to efficiently compress and decompress airborne ISR sensor data and transmit real/near-real time to tactical users through current and future band-width limited commercial SATCOM or military SATCOM. The effort will develop, test and implement new sensor data compression/ decompression algortihms for current and emerging airborne ISR sensors. Correspondingly, the program develops compression/decompression capabilities for manned and unmanned airborne platforms, associated ground stations, and DCGS. Outputs will meet standard certification for use within the DoD Imagery Intelligence (IMINT)/Measurement and Signatures (MASINT) architecture.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Data Compression | 13.855 | 26.190 | 0.000 |
| ***Description:*** The program began developing and testing compression/ decompression algorithms for airborne ISR sensor data, then will eventually build, integrate and test sensor specific hardware(with the algorithms embedded) for onboard data compression. The effort focused initially on compression/decompression of complex/detected Synthetic Aperture Radar (SAR) data followed by applications of compression technologies to other DoD IMINT/MASINT sensor data (i.e., Spectral, Electro-Optical/Infrared (EO/IR), Light Detection and Ranging (LIDAR), Laser Radar (LADAR), Video) and ground architecture. Outputs will meet DoD standard certification.<br><br>***FY 2012 Accomplishments:***<br>Developed compression/decompression capabilities for complex/ detected SAR spectral, LiDAR, & Wide Area Motion Imagery (WAMI) sensor data. Developed DoD standard certification plan. Prepared technology demonstration effort(s) for future integration of new data compression capabilities.<br><br>***FY 2013 Plans:***<br>Continue development and testing of complex/ detected SAR, spectral, LIDAR,& WAMI sensor data compression capabilities. Continue to prepare<br>technology demonstration effort(s). | | | |
| ***Title:*** PMA | 0.569 | 3.509 | 0.027 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>676025: *Data Compression* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Maintain a Program Management Office, including program supervision, engineering support, finance, and acquisition strategy execution.<br><br>***FY 2012 Accomplishments:***<br>Maintained a Program Management Office, including program supervision, engineering support, finance, and acquisition strategy execution.<br><br>***FY 2013 Plans:***<br>Maintaining a Program Management Office, including program supervision,engineering support, finance, and acquisition strategy execution<br><br>***FY 2014 Plans:***<br>Will continue to maintain a Program Management Office, including program supervision,engineering support, finance, and acquisition strategy execution | | | |
| **Accomplishments/Planned Programs Subtotals** | 14.424 | 29.699 | 0.027 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The Data Compression acquisition approach will be to design and develop compression/decompression technology hardware and software components, interfaces and standards for various airborne ISR platforms and ground stations utilizing existing contracts and with full and open competition where appropriate.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>676025: *Data Compression* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Technology Development-SAR Phase 1 (SAIC) | C/CPFF | SAIC:McLean, VA | - | 2.238 | Aug 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Development-SAR Phase 1 (KEYW) | C/CPFF | KEYW:Hanover, MD | - | 1.272 | Aug 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Development-SAR Phase 2 (TBD) | C/CPFF | TBD:TBD, | - | 0.000 | | 4.393 | Oct 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Development-HSI Phase 1 (ATA) | C/CPFF | ATA:Albuquerque, NM | - | 2.393 | Nov 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Development-HSI Phase 1 (NASA/JPL) | C/CPFF | NASA/ JPL:Pasadena, CA | - | 0.000 | | 1.727 | Jan 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Development-HSI Phase 2 (TBD) | C/CPFF | TBD:TBD, | - | 0.000 | | 4.773 | Jan 2014 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Development-LIDAR Phase 1 (SAIC) | C/CPFF | SAIC:McLean, VA | - | 1.500 | Dec 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Development-LIDAR Phase 2 (SAIC) | C/CPFF | SAIC:McLean, VA | - | 0.000 | | 4.773 | Feb 2014 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Development-WAMI (ISS/UDRI) | C/TBD | ISS/UDRI:Dayton, OH | - | 1.700 | Nov 2012 | 0.600 | Mar 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Development-WAMI (BAE) | C/TBD | BAE:Baltimore, MD | - | 0.700 | Sep 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Demonstration- Study (Global Hawk) | SS/TBD | Northrop Grumman:Rancho Bernardo, CA | - | 0.000 | | 0.300 | Jan 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Demonstration- Study (Reaper) | SS/TBD | General Atomics:San Diego, CA | - | 0.000 | | 0.670 | Jun 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Demonstration- Study (ACES HY) | SS/CPAF | Raytheon:los Angeles, CA | - | 0.000 | | 0.500 | Jul 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Demonstration (Global Hawk) | SS/TBD | Northrop Grumman:Rancho Bernardo, CA | - | 0.000 | | 6.996 | Aug 2014 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Other | TBD | TBD:TBD, | - | 3.472 | Jun 2013 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>676025: *Data Compression* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 13.275 | | 24.732 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Technology Development-AFRL Support | C/Various | Various:Various, | - | 0.300 | Sep 2012 | 1.408 | May 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technology Development-Other Support | C/Various | Various:Various, | - | 0.280 | Dec 2012 | 0.050 | Mar 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.580 | | 1.458 | | 0.000 | | 0.000 | | 0.000 | | | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Office Support | Various | Govt/ Contractors:TBD, | - | 0.569 | Oct 2011 | 3.509 | Oct 2012 | 0.027 | Oct 2013 | - | | 0.027 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.569 | | 3.509 | | 0.027 | | 0.000 | | 0.027 | | | |

| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 14.424 | | 29.699 | | 0.027 | | 0.000 | | 0.027 | | | |

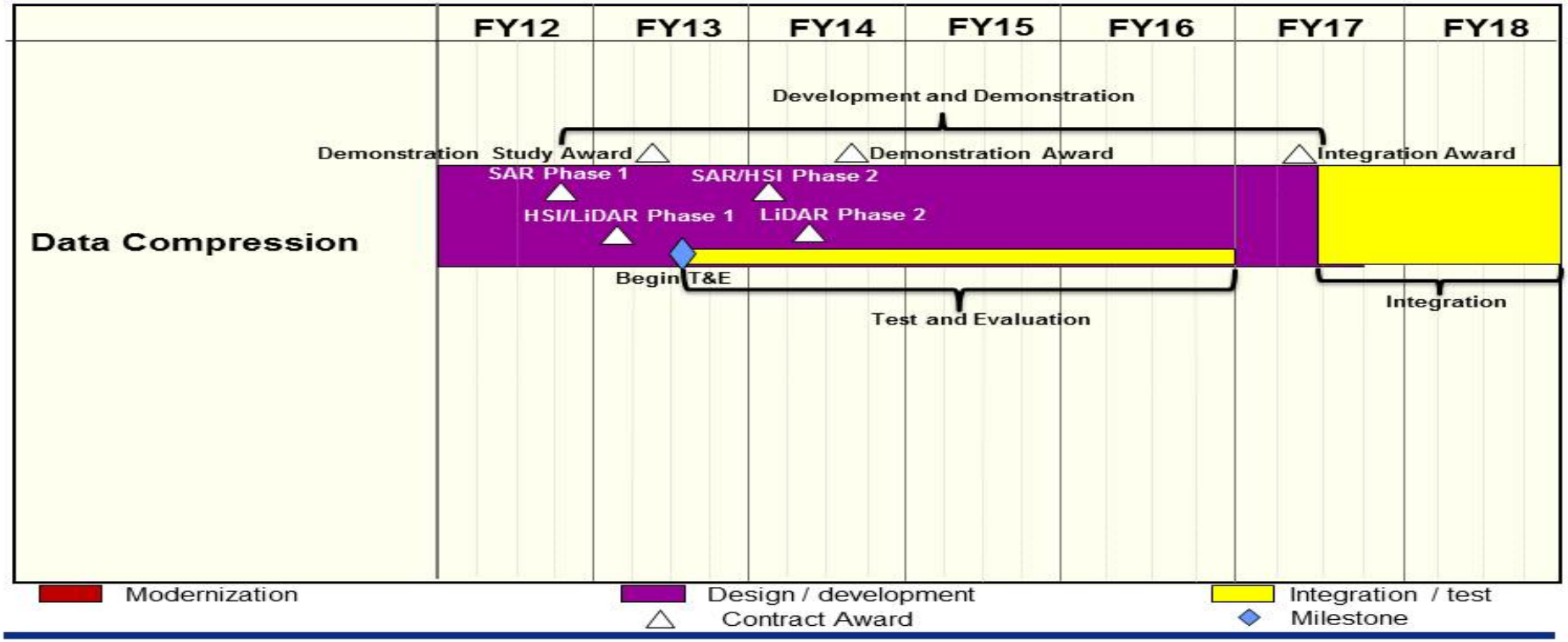
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>676025: *Data Compression* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>676025: *Data Compression* |

# Data Compression Schedule




FY14 PBR RDOCs

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | **PROJECT**<br>676025: *Data Compression* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Data Compression | 1 | 2012 | 4 | 2018 |
| Development and Demonstration | 4 | 2012 | 2 | 2017 |
| SAR Phase 1 Development Contract Award | 4 | 2012 | 4 | 2012 |
| Spectral (HSI/LiDAR) Phase 1 Development Contract Award | 1 | 2013 | 1 | 2013 |
| SAR/HSI Phase 2 Development Contract Award | 1 | 2014 | 1 | 2014 |
| LIDAR Phase 2 Development Contract Award | 2 | 2014 | 2 | 2014 |
| Test/Evaluation | 3 | 2013 | 4 | 2016 |
| Begin Test and Evaluation | 3 | 2013 | 3 | 2013 |
| Demonstration Study Award | 2 | 2013 | 2 | 2013 |
| Demonstration Award | 3 | 2014 | 3 | 2014 |
| Integration Award | 2 | 2017 | 2 | 2018 |
| Integration | 2 | 2017 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>676028: *Dynamic Time Critical Warfighting Capability* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 676028: *Dynamic Time Critical Warfighting Capability* | - | 0.000 | 6.961 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2014, Project 676028, Dynamic Time Critical Warfighting Capability, is being terminated because the technology development has not met objective requirements and thus has not been fielded in an operational capacity.

**A. Mission Description and Budget Item Justification**

Dynamic Time Critical Warfighting Capability (DTCWC) fuses Electronics Intelligence (ELINT) and Imagery in an upstream data fusion methodology that greatly improves target of interest identification and geolocation timeliness and accuracy. While not part of the AF DCGS weapon system, this Military Intelligence Program funded capability will initially fuse ISR feeds outside of AF DCGS while leveraging AF DCGS for access to multiple raw ISR data feeds. The primary aim of this capability is to support the targeting process, with likely outputs to the AOC.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Dynamic Time Critical Warfighting Capability (DTCWC)<br>***Description:*** Fuse ELINT and Imagery in an up-stream data fusion methodology that greatly improves target of interest identification and geolocation timeliness and accuracy.<br>***FY 2013 Plans:***<br>Continuing efforts to add additional sensors and sensor modalities to DTCWC fusion engine. Will refine current algorithms to allow for target detection in added environments and terrain types. Will add new target sets to the existing DTCWC targets list.<br>***FY 2014 Plans:***<br>In FY 2014 Dynamic Time Critical Warfighting Capability was terminated. | 0.000 | 6.848 | 0.000 |
| ***Title:*** PMA<br>***Description:*** Maintain a Program Management Office, including program supervision, finance and acquisition strategy execution.<br>***FY 2013 Plans:*** | 0.000 | 0.113 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>676028: *Dynamic Time Critical Warfighting Capability* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Maintaining a Program Management Office, including program supervision, finance and acquisition strategy execution. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 6.961 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

DTCWC uses the acquisition strategy of providing spiral releases of software and capabilities. A sole-source contract has been awarded to Johns Hopkins University Applied Physics Lab due to their evolutionary approach to upstream data fusion.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>676028: *Dynamic Time Critical Warfighting Capability* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Develop DTCWC | SS/FFP | Johns Hopkins University, Applied Physics Lab:Columbia, MD | - | 0.000 | | 6.961 | Jul 2013 | 0.000 | | - | | 0.000 | 0.000 | 6.961 | 6.961 |
| | | Subtotal | 0.000 | 0.000 | | 6.961 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 6.961 | 6.961 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

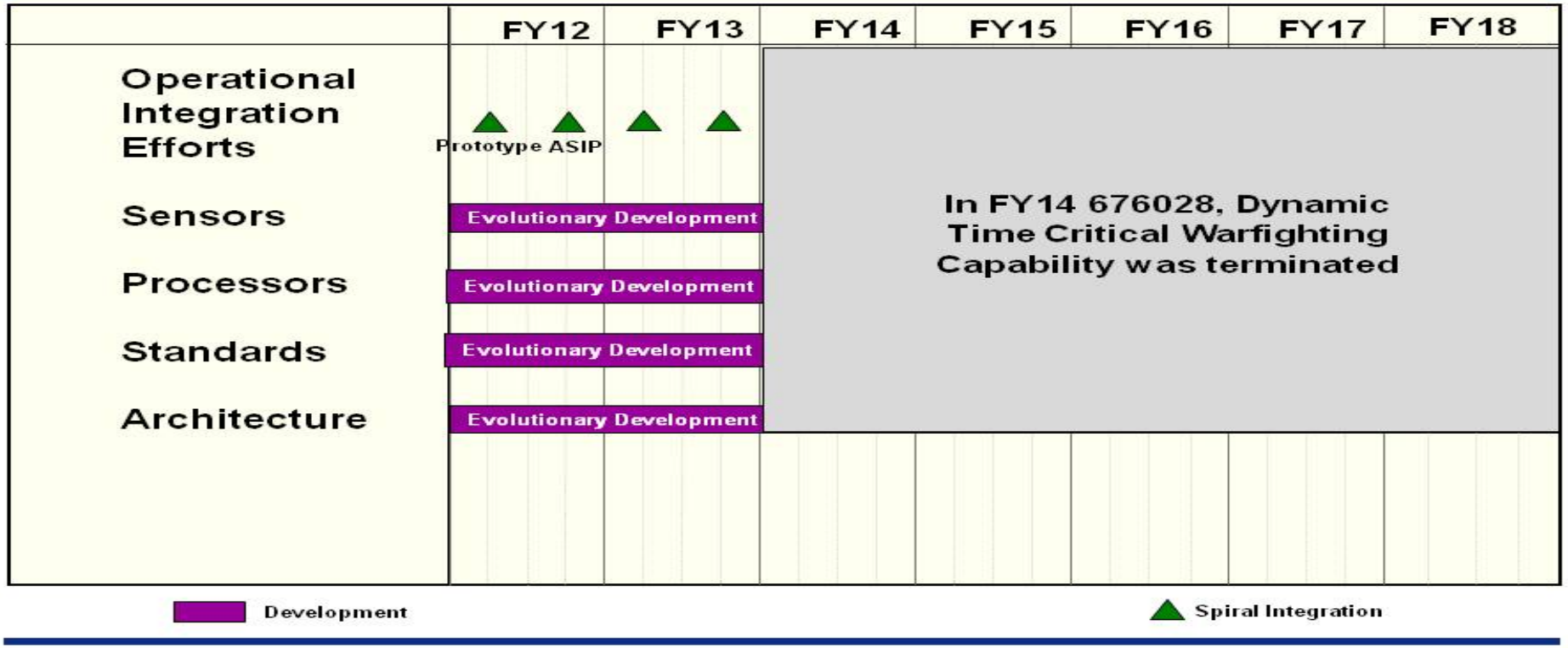
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 0.000 | | 6.961 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 6.961 | 6.961 |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | PROJECT<br>676028: *Dynamic Time Critical Warfighting Capability* |

# DTCWC Program Schedule




1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305208F: *Distributed Common Ground/ Surface Systems* | **PROJECT**<br>676028: *Dynamic Time Critical Warfighting Capability* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Operational Integration Efforts | 1 | 2012 | 3 | 2013 |
| Sensors - Evolutionary Development | 1 | 2012 | 4 | 2013 |
| Processors - Evolutionary Development | 1 | 2012 | 4 | 2013 |
| Standards - Evolutionary Development | 1 | 2012 | 4 | 2013 |
| Architecture - Evolutionary Development | 1 | 2012 | 4 | 2013 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | | DATE: April 2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305219F: *MQ-1 Predator A UAV* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | 335.638 | 51.642 | 9.122 | 3.326 | - | 3.326 | 1.396 | 0.930 | 0.279 | 0.284 | 0.000 | 402.617 |
| 675143: *Predator* | 335.638 | 51.642 | 9.122 | 3.326 | - | 3.326 | 1.396 | 0.930 | 0.279 | 0.284 | 0.000 | 402.617 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |
| **MDAP/MAIS Code(s):** 271 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The basic MQ-1 system consists of the aircraft, a control station, communications equipment, support equipment, simulator and training devices, Readiness Spares Packages (RSP), technical data/training, and personnel required to operate, maintain, and sustain the system. This funding supports development and enhancements to the Predator weapon system to include: aircraft and Ground Control Stations (GCS) and associated software, sensors, communication equipment, training systems and support elements. The system is designed to be modular and open-ended. Mission-specific equipment is employed in a 'plug-and-play' mission kit concept allowing specific aircraft and control station configurations to be tailored to fit mission needs.

The MQ-1 aircraft is a single-engine, propeller-driven, remotely piloted aircraft (formerly called Unmanned Aircraft Vehicle, UAV) designed to operate over-the-horizon for long endurance sorties. The aircraft is designed to provide real-time Intelligence, Surveillance, Reconnaissance, and Target Acquisition (ISR TA), and attack capability to aggressively prosecute Time Sensitive Targets (TSTs). The aircraft is configured to carry Hellfire laser-guided missiles. The MQ-1 operates primarily at medium altitudes, integrating with joint aerospace, ground, and maritime forces as well as coalition and Allied forces, to execute combatant commander priority missions. The aircraft carries a Multi-spectral Targeting System (MTS) (a sensor turret that incorporates Electro-Optical (EO), Infra-Red (IR), laser designator, and IR illuminator) capable of transmitting real-time Full Motion Video (FMV) imagery throughout the operational theater.

Major changes will be classified as distinct blocks or Mission Design Series (MDS) updates. The overarching MQ-1 modernization activity is known as the Critical Capabilities Integration Program (CCIP). CCIP will integrate Predator Primary Data Link (PPDL) into the GCS, upgrade the aircraft GPS, and integrate Hellfire R Software, Digital Video, Video Orientated Transceiver for Exchange of Information FMV encrypted data link, and Airborne Cueing and Exploitation System Hyperspectral Sensor (ACES HY). This program will also address interoperability among developed systems through common standards and tools. Additionally, this program will continue to address reliability and maintainability, safety of flight, and warfighter needs as they arise.

The GCS, common with the MQ-9 Reaper, functions as the aircraft cockpit and can control the aircraft either within line-of-sight (LOS) or beyond LOS (BLOS) via a combination of satellite relay and terrestrial communications. The GCS is either mobile to support forward operating locations or fixed at a facility to support Remote Split Operations (RSO). The GCS has the capability to perform mission planning; provide a means for manual control; allow control of multiple aircraft and payloads; allow personnel to launch, recover, and monitor aircraft, payloads, and system communications status; secure data links to receive payload sensor data and command

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305219F: *MQ-1 Predator A UAV* |

links; monitor threats to the aircraft; display a common operational picture; and provide support functions. Additionally, GCS allows for servicing, systems checks, maintaining, launching, and recovering aircraft under LOS control for hand-off to a mobile or fixed facility GCS.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 11.642 | 9.122 | 5.652 | - | 5.652 |
| Current President's Budget | 51.642 | 9.122 | 3.326 | - | 3.326 |
| Total Adjustments | 40.000 | 0.000 | -2.326 | - | -2.326 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 40.000 | 0.000 | -2.326 | - | -2.326 |

**Change Summary Explanation**

Reduction of $2.326M in FY14 due to higher AF priorities.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** OGC and Urgent Services | 0.871 | 0.632 | 0.579 |
| ***Description:*** Other Government Costs (OGC) and Urgent Services<br><br>***FY 2012 Accomplishments:***<br>Continued OGC and Urgent Services<br><br>***FY 2013 Plans:***<br>Will continue OGC and Urgent Services<br><br>***FY 2014 Plans:***<br>Will complete OGC and Urgent Services | | | |
| ***Title:*** Program Management Administration (PMA) | 0.496 | 0.820 | 0.784 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305219F: *MQ-1 Predator A UAV* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Program Management Administration<br><br>***FY 2012 Accomplishments:***<br>Continued Program Management Administration<br><br>***FY 2013 Plans:***<br>Will continue Program Management Administration<br><br>***FY 2014 Plans:***<br>Will continue Program Management Administration | | | |
| ***Title:*** ST&E<br><br>***Description:*** Systems Test & Evaluation (ST&E)<br><br>***FY 2012 Accomplishments:***<br>Continued ST&E<br><br>***FY 2013 Plans:***<br>Will continue ST&E<br><br>***FY 2014 Plans:***<br>Will complete ST&E | 0.618 | 1.445 | 0.613 |
| ***Title:*** PMATS<br><br>***Description:*** Predator Mission Aircrew Training System (PMATS)<br><br>***FY 2012 Accomplishments:***<br>Continued PMATS development activity to keep the training system current with other MQ-1 CCI development activities<br><br>***FY 2013 Plans:***<br>Will continue PMATS development to keep the training system current with other MQ-1 CCI development activities<br><br>***FY 2014 Plans:***<br>Will complete PMATS development to keep the training system current with other MQ-1 CCI development activities | 0.304 | 1.242 | 1.350 |
| ***Title:*** VORTEX<br><br>***Description:*** Video Oriented Transceiver for Exchange of Information (VORTEX) | 3.698 | 1.902 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305219F: *MQ-1 Predator A UAV* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***FY 2012 Accomplishments:***<br>Continued development of VORTEX, a system which enables encrypted line of sight data transmission across multiple frequencies, channels, and waveforms. Includes aircraft integration and software development.<br>***FY 2013 Plans:***<br>Will continue development on VORTEX, a system which enables encrypted line of sight data transmission across multiple frequencies, channels, and waveforms. Includes aircraft integration and software development.<br>***FY 2014 Plans:***<br>N/A | | | |
| ***Title:*** CCI<br>***Description:*** Critical Capabilities Integration (CCI)<br>***FY 2012 Accomplishments:***<br>Continued development of the overarching integration strategy as well as development for the integration of differential Global Positioning System (dGPS).<br>***FY 2013 Plans:***<br>Will complete development of the overarching integration strategy as well as development for the integration of dGPS.<br>***FY 2014 Plans:***<br>N/A | 1.765 | 0.987 | 0.000 |
| ***Title:*** Hellfire Software<br>***Description:*** Hellfire Software<br>***FY 2012 Accomplishments:***<br>Continued development required to integrate the next generation Hellfire air-to-ground missile (AGM-114R) on the MQ-1<br>***FY 2013 Plans:***<br>Will complete development and conduct testing required to integrate the next generation Hellfire missile (AGM-114R) on the MQ-1<br>***FY 2014 Plans:***<br>N/A | 3.000 | 0.798 | 0.000 |
| ***Title:*** Digital Video | 0.890 | 1.296 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305219F: *MQ-1 Predator A UAV* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Digital Video<br><br>***FY 2012 Accomplishments:***<br>Continued development activities including engineering, design, integration and testing to improved image quality from analog to 720p and synchronized metadata for the MQ-1<br>***FY 2013 Plans:***<br>Will complete development activities including engineering, design, integration and testing to improved image quality from analog to 720p and synchronized metadata for the MQ-1<br>***FY 2014 Plans:***<br>N/A | | | |
| ***Title:*** Predator C Sensors<br>***Description:*** Predator C Sensors<br><br>***FY 2012 Accomplishments:***<br>Integrated and tested EO/IR sensor for Predator C demonstration<br>***FY 2013 Plans:***<br>N/A<br>***FY 2014 Plans:***<br>N/A | 40.000 | 0.000 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 51.642 | 9.122 | 3.326 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # PRDT01: *MQ-1 MODS* | 161.246 | 30.861 | 9.734 | | 9.734 | 4.800 | 3.200 | 0.000 | 0.000 | 0.000 | 0.000 |
| • APAF: BA06: Line Item # PRDT01: *INITIAL SPARES* | 7.729 | 4.845 | 2.466 | | 2.466 | 4.033 | 0.310 | 0.000 | 0.000 | 0.000 | 0.000 |
| • MILCON: PE 0305219: *OTHER CONTINGENCIES* | 15.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 15.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305219F: *MQ-1 Predator A UAV* |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

**E. Acquisition Strategy**

The MQ-1 Predator system will be acquired via sole-source acquisition strategies with General Atomics-ASI and Raytheon as the prime contractors.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305219F: *MQ-1 Predator A UAV* | PROJECT<br>675143: *Predator* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMATS | Various | L3 Comm:Binghamton, NY | 28.022 | 0.304 | Mar 2012 | 1.242 | Feb 2013 | 1.350 | Dec 2013 | - | | 1.350 | 0.000 | 30.918 | 30.918 |
| VORTEX | SS/CPIF | General Atomics - ASI:Poway, CA | 4.594 | 3.698 | Aug 2012 | 1.902 | Feb 2013 | 0.000 | | - | | 0.000 | 0.000 | 10.194 | 10.194 |
| CCI | SS/CPIF | General Atomics - ASI:Poway, CA | 15.732 | 1.765 | Jul 2012 | 0.987 | Feb 2013 | 0.000 | | - | | 0.000 | 0.000 | 18.484 | 18.484 |
| Hellfire Software | SS/CPIF | General Atomics - ASI:Poway, CA | 0.589 | 3.000 | Jul 2012 | 0.798 | Feb 2013 | 0.000 | | - | | 0.000 | 2.326 | 6.713 | 6.713 |
| Digital Video | SS/CPIF | General Atomics - ASI:Poway, CA | 5.243 | 0.890 | Jul 2012 | 1.296 | Feb 2013 | 0.000 | | - | | 0.000 | 0.000 | 7.429 | 7.429 |
| Predator C Sensors | SS/CPFF | United Technologies:Westford, MA | 16.300 | 40.000 | Apr 2013 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 56.300 | 56.300 |
| Prior Year Completed Projects | Various | Not specified.:, | 230.174 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 230.174 | 230.174 |
| | | **Subtotal** | 300.654 | 49.657 | | 6.225 | | 1.350 | | 0.000 | | 1.350 | 2.326 | 360.212 | 360.212 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OGC and Urgent Services | Various | Various:Various, | 22.208 | 0.871 | Dec 2011 | 0.632 | Dec 2012 | 0.579 | Dec 2013 | - | | 0.579 | 0.563 | 24.853 | 24.853 |
| | | **Subtotal** | 22.208 | 0.871 | | 0.632 | | 0.579 | | 0.000 | | 0.579 | 0.563 | 24.853 | 24.853 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Test Support | Various | Various:Various, | 7.250 | 0.618 | Mar 2012 | 1.445 | Dec 2012 | 0.613 | Dec 2013 | - | | 0.613 | 0.000 | 9.926 | 9.926 |
| | | **Subtotal** | 7.250 | 0.618 | | 1.445 | | 0.613 | | 0.000 | | 0.613 | 0.000 | 9.926 | 9.926 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305219F: *MQ-1 Predator A UAV* | PROJECT<br>675143: *Predator* | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) | Various | Various:Various, | 5.526 | 0.496 | Nov 2011 | 0.820 | Nov 2012 | 0.784 | Nov 2013 | - | | 0.784 | 0.000 | 7.626 | 7.626 |
| | | **Subtotal** | 5.526 | 0.496 | | 0.820 | | 0.784 | | 0.000 | | 0.784 | 0.000 | 7.626 | 7.626 |

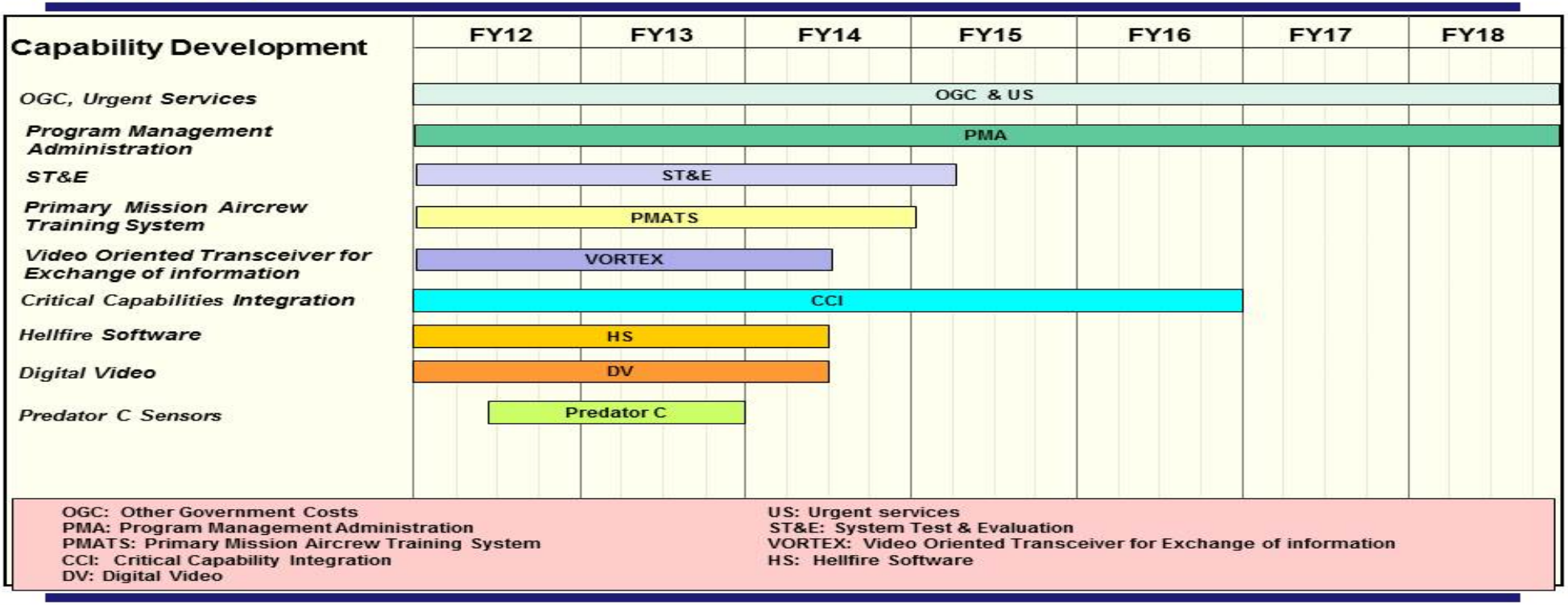
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 335.638 | 51.642 | | 9.122 | | 3.326 | | 0.000 | | 3.326 | 2.889 | 402.617 | 402.617 |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305219F: *MQ-1 Predator A UAV* | PROJECT<br>675143: *Predator* |

U.S. AIR FORCE

# MQ-1 Predator Program Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305219F: *MQ-1 Predator A UAV* | **PROJECT**<br>675143: *Predator* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| OGC, Urgent Services | 1 | 2012 | 4 | 2018 |
| Program Management Administration | 1 | 2012 | 4 | 2018 |
| ST&E | 1 | 2012 | 1 | 2015 |
| Predator Mission Aircrew Training System | 1 | 2012 | 4 | 2014 |
| Video Oriented Transceiver tor Exchange of Information | 1 | 2012 | 2 | 2014 |
| Critical Capabilities Integration | 1 | 2012 | 4 | 2016 |
| Hellfire Software | 1 | 2012 | 2 | 2014 |
| Digital Video | 1 | 2012 | 2 | 2014 |
| Predator C Sensors | 2 | 2012 | 4 | 2013 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | 1,840.693 | 423.301 | 236.265 | 134.406 | - | 134.406 | 200.896 | 114.927 | 77.246 | 78.538 | Continuing | Continuing |
| 675144: *Global Hawk Baseline* | 1,700.381 | 300.269 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 2,000.650 |
| 675146: *RQ-4 Block 40* | 0.000 | 0.000 | 144.179 | 67.980 | - | 67.980 | 39.842 | 7.456 | 0.000 | 0.000 | 0.000 | 259.457 |
| 675147: *RQ-4 Grnd Segment/ Comm System* | 0.000 | 0.000 | 55.343 | 34.448 | - | 34.448 | 83.131 | 42.421 | 27.557 | 28.053 | 0.000 | 270.953 |
| 675148: *RQ-4 Airborne Sense & Avoid (ABSAA)* | 0.000 | 0.000 | 19.036 | 20.815 | - | 20.815 | 66.477 | 53.477 | 37.477 | 38.053 | Continuing | Continuing |
| 676001: *NATO AGS* | 0.000 | 82.745 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 82.745 |
| 67RTIP: *MP-RTIP* | 140.312 | 40.287 | 17.707 | 11.163 | - | 11.163 | 11.446 | 11.573 | 12.212 | 12.432 | 0.000 | 257.132 |

**MDAP/MAIS Code(s):** 252,293

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2012, Project 676001, NATO Alliance Ground Surveillance (AGS) efforts were transferred from OSD PE 1001018D8Z, NATO AGS, Project P018, NATO AGS, to PE 0305220F, RQ-4 Global Hawk (GH), Project 676001, NATO AGS in order to transfer control of this effort from OSD to the USAF.

In FY 2013, Project 676001, NATO AGS, efforts were transfered from PE 0305220F, RQ-4 GH, NATO AGS, Project 676001, to PE 0305238F, NATO AGS, Project 676001, NATO AGS in order to manage NATO AGS as a separate OSD special interest program.

Totals include funding for PRCP Program Number (PNO) 252, Global Hawk.

In two related Acquisition Decision Memorandums (ADM) signed by USD (AT&L) in January and June 2011, the Global Hawk program was directed to restructure into four major sub-programs: (1) Global Hawk baseline, (2) Block 30, (3) Block 40, and (4) Ground Segment/Communications System. Additionally, the Air Force created a RQ-4 Preplanned Product Improvement (P3I) for Airborne Sense and Avoid line item (name has been changed to RQ-4 Airborne Sense & Avoid (ABSAA)) to accommodate inclusion of required capability to meet warfighter needs beyond those requirements satisfied in the directed sub-programs.

Subsequent to the decision to establish subprograms, the Global Hawk budget was significantly reduced by the 2013 President's Budget Request, and the Ground Segment/Communications System subprogram tasks were only funded to address key DMS/obsolescence problems that affect service life.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* |

The program is progressing to an FY13 Defense Acquisition Board (DAB) decision planned as a Milestone C decision. The program will maintain capability and interoperability with system of system's partners and regulatory agencies examples include: Distributed Common Ground Segment (DCGS-A), AF DCGS, tactical ground segment/operational (TGS/OGS), Virtual Image Processing-Common (VIP-C), Real Time Dissemination Operational Transmission Services (RDOTS) National Geospatial Intelligence Agency (NGA), Extended Tether Program (ETP), Federal Aviation Agency (FAA).

The Cost to Complete and Total Cost for MDAP projects in this program element are documented in the R3. Total Cost on the R2 is not reflective of the total cost for MDAP projects since the R2 does not account for prior years funding for previous PEC.

**A. Mission Description and Budget Item Justification**

This program element funds five (5) related Air Force projects sharing the Global Hawk platform in common: the Global Hawk Baseline (Block 10/20/30) subprogram, the RQ-4 Block 40 subprogram, the RQ-4 Ground Segment/ Communications System subprogram, the RQ-4 Airborne Sense & Avoid (ABSAA) subprogram, and the Multi-Platform Radar Technology Insertion Program (MP-RTIP).

Global Hawk:

The Global Hawk Unmanned Aircraft System (UAS) provides a high altitude, deep look, long-endurance intelligence, surveillance, and reconnaissance (ISR) capability that compliments space and other airborne collectors during peacetime, crisis, and war-fighting scenarios.

This funding supports the development of Global Hawk aircraft, payloads and ground and support segments. The RQ-4B remotely piloted aircraft (RPA) is the successor to the Block 10 RQ-4A, and is designed to employ 3000 pounds of payload and enable multi-intelligence (multi-INT) collecting. The Block 20 employs the Battlefield Airborne Communications Node (BACN) payload and Block 30I employs upgraded Synthetic Aperture Radar (SAR) and Electro-Optical/Infrared (EO/IR) sensors known as the Enhanced Integrated Sensor Suite (EISS) in the imagery intelligence (IMINT) - only configuration. The Block 30M employs the same EISS sensors as the Block 30I, but adds the Airborne Signals Intelligence Payload (ASIP) sensor. The Block 40 will only integrate the Multi-Platform Radar Technology Insertion Program (MP-RTIP) radar sensor. The ground segment includes the Mission Control Element (MCE) and the Launch and Recovery Element (LRE). The support segment includes aerospace ground equipment, tech orders, spares, support equipment, and training to enable operation of the Global Hawk system.

When judged feasible and affordable, this program will participate in the development, testing, and implementation of international standards to enhance joint, allied, and coalition interoperability. Studies and activities may be initiated to explore the utility of incorporating the emerging architectural standards such as the USAF UAV Command and Control Initiative (UCI) or the DoD's UAV Control Segment standards.

The Global Hawk program will maintain capability and interoperability for Blocks 20/30/40 including efforts with system of system's partners and continue to incorporate applicable synergies with other platforms such as the U.S. Navy's Triton, USAF Predator/Reaper, other RPA weapon systems, and Processing, Exploitation & Dissemination (PED) elements.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305220F: *RQ-4 UAV* |

Activities also include studies and analysis supporting current and future program planning, mission planning upgrade development and testing, program protection and project execution. FY14 funding continues MP-RTIP sensor integration and funds Block 40 IOT&E.

Multi Platform - Radar Technology Insertion Program (MP-RTIP):

The MP-RTIP sensor was designed as a family of modular, scalable sensors that provide next generation capabilities to support sustainable network centric operations with integrated Command and Control Intelligence, Surveillance and Reconnaissance (C2ISR) capability. MP-RTIP provides the Global Hawk Block 40 aircraft with advanced Synthetic Aperture Radar (SAR) and Moving Target Indicator (MTI) sensor capabilities.

This project includes all MP-RTIP design, development, test, and integration efforts onto the GH Block 40 platform. Integration activities include platform integration of the MP-RTIP sensor and sustainment logistics planning support. Future MP-RTIP studies and development insertion include the implementation of maritime modes, High Range Resolution (HRR) modes, electronic protection, technical refresh, product improvements and other advanced capabilities.

FY14 funding continues post MP-RTIP Initial Operational Test & Evaluation (IOT&E) software update and design/development of remaining requirements. Funding continues to provide MP-RTIP government acquisition support services, with emphasis on acquisition management, documentation delivery and remaining requirements. MP-RTIP Test & Evaluation cost includes test planning, sensor integration and post IOT&E software updates. MP-RTIP Other Government Costs also provide acquisition services for program office infrastructure, contract planning, and contract awards for remaining program requirements.

Activities also include studies and analysis supporting current and future program planning and future modes development based on user requirements.

This program is in Budget Activity 7, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 423.301 | 236.265 | 197.258 | - | 197.258 |
| Current President's Budget | 423.301 | 236.265 | 134.406 | - | 134.406 |
| Total Adjustments | 0.000 | 0.000 | -62.852 | - | -62.852 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -62.852 | - | -62.852 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305220F: *RQ-4 UAV* |

**Change Summary Explanation**

FY14 (-)$62.852 decrease: represents rephasing of funds to higher AF priorities.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675144: *Global Hawk Baseline* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675144: *Global Hawk Baseline* | 1,700.381 | 300.269 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 2,000.650 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

1. Totals include funding for PRCP Program Number (PNO) 252, Global Hawk.

2. The Global Hawk Baseline Sub-Program was directed by an ADM signed 14 Jun 11 by USD (AT&L). Since the time of the ADM signature, and subsequent designation of sub-program projects, the FY11 and FY12 budgets had already been finalized within DoD, the FY11 and FY12 budgets for all sub-programs are captured under the Global Hawk Baseline sub-program, as its related Project (675144) was the core project for the Global Hawk program prior to the directed restructure. FY13 and beyond activities are covered in restructured sub-program projects RQ-4 Block 40 subprogram, RQ-4 Ground Segment/ Communications System subprogram, and RQ-4 Airborne Sense & Avoid (ABSAA) subprogram.

**A. Mission Description and Budget Item Justification**

The Global Hawk Unmanned Aircraft System (UAS) provides high altitude, deep look, long endurance intelligence, surveillance, and reconnaissance (ISR) capability that compliments space and other airborne collectors during peacetime, crisis, and war-fighting scenarios.

RDT&E funding in this project (and PEC 0305205F, project 674799 in FY01-04) captures design, development, integration, and testing of all prior years for all sub-programs prior to the ADM restructure into separate projects. See Budget Item Justifications in other sub-programs for descriptions of supported activities. This sub-program (and PEC 0305205F, project 674799) captures all historical costs of RQ-4A and RQ-4B baseline development, as well as development of the Integrated Sensor Suite, Enhanced Integrated Sensor Suite, and legacy ground segments.

Activities also included studies and analysis supporting current and future program planning, program protection and project execution.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Global Hawk Development and Demonstration (SDD) | 279.957 | 0.000 | 0.000 |
| ***Description:*** Global Hawk Development and Demonstration (SDD) | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305220F: *RQ-4 UAV* | **PROJECT**<br>675144: *Global Hawk Baseline* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***FY 2012 Accomplishments:***<br>Continued Aircraft/Comm system modernization, and BAMS Synergies. Continued testing of software blocks 3.1/4.0. This effort also includes Block 30, 40, and Ground Segment/Communications System upgrades. Continued to develop a scalable autonomous, Airborne Sense and Avoid (ABSAA) system to provide a capability to meet DoD training and operational objectives at locations where airspace restrictions currently limit routine and flexible flying operations.<br><br>FY13 and beyond activities are covered in restructured sub-program projects RQ-4 Block 40 subprogram, RQ-4 Ground Segment/ Communications System subprogram, and RQ-4 Airborne Sense & Avoid (ABSAA) subprogram. | | | |
| ***Title:*** Support Segment<br>***Description:*** Support Segment<br><br>***FY 2012 Accomplishments:***<br>Continued development and integration logistics support. | 12.722 | 0.000 | 0.000 |
| ***Title:*** Other Government Costs<br>***Description:*** Program Management Administration (PMA) - includes Advisory & Assistance Services, Travel, Training, Supplies, etc.<br><br>***FY 2012 Accomplishments:***<br>Mission Support: PMA | 7.590 | 0.000 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 300.269 | 0.000 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA04: Line Item # HAEUAV: *RQ-4 UAV* | 574.300 | 75.000 | 27.000 | | 27.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • APAF: BA05: Line Item # HAWK00: *RQ-4 Mods* | 89.177 | 9.257 | 9.313 | | 9.313 | 8.847 | 9.446 | 6.444 | 6.560 | Continuing | Continuing |
| • APAF: BA07: Line Item # HAWK07: *Other Production Charges RQ-4* | 26.466 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675144: *Global Hawk Baseline* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA04: Line Item # RQ440P: *RQ-4 Block 40 Proc* | 0.000 | 11.654 | 1.747 | | 1.747 | 1.801 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • APAF: BA05: Line Item # RQ4GCM: *RQ-4 Grnd/Comm Mods* | 0.000 | 0.000 | 30.000 | | 30.000 | 32.700 | 21.801 | 10.000 | 10.180 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

The Global Hawk program uses an evolutionary acquisition strategy to provide the warfighter with a near-term, combat capability with increased, time-phased capability improvements as technology and risk achieve satisfactory levels. Northrop Grumman Corporation is the prime contractor.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675144: *Global Hawk Baseline* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering Manufacturing & Development | SS/CPAF | Northrop Grumman Integrated Systems:San Diego, CA | 1,479.007 | 252.707 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 1,731.714 | TBD |
| | | **Subtotal** | 1,479.007 | 252.707 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 1,731.714 | |

**Remarks**

Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Contractor Program Support | SS/CPFF | Northrop Grumman Integrated Systems:San Diego, CA | 27.719 | 4.800 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 32.519 | TBD |
| Contractor Depot Support | C/TBD | TBD:TBD, NA | 0.000 | 11.477 | Apr 2013 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 11.477 | TBD |
| Government Program Support | Various | Various:Various, | 5.706 | 0.895 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 6.601 | TBD |
| | | **Subtotal** | 33.425 | 17.172 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 50.597 | |

**Remarks**

Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flight Test & Evaluation | PO | 412 TW:Edwards, AFB, CA | 98.458 | 22.800 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 121.258 | TBD |
| | | **Subtotal** | 98.458 | 22.800 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 121.258 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675144: *Global Hawk Baseline* |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA: A&AS | C/Various | Various:Dayton, OH | 55.820 | 4.705 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 60.525 | TBD |
| PMA: Other Gov't Cost | Various | Various:Dayton, OH | 33.671 | 2.885 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 36.556 | TBD |
| | | **Subtotal** | 89.491 | 7.590 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 97.081 | |

**Remarks**

Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 1,700.381 | 300.269 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 2,000.650 | |

**Remarks**

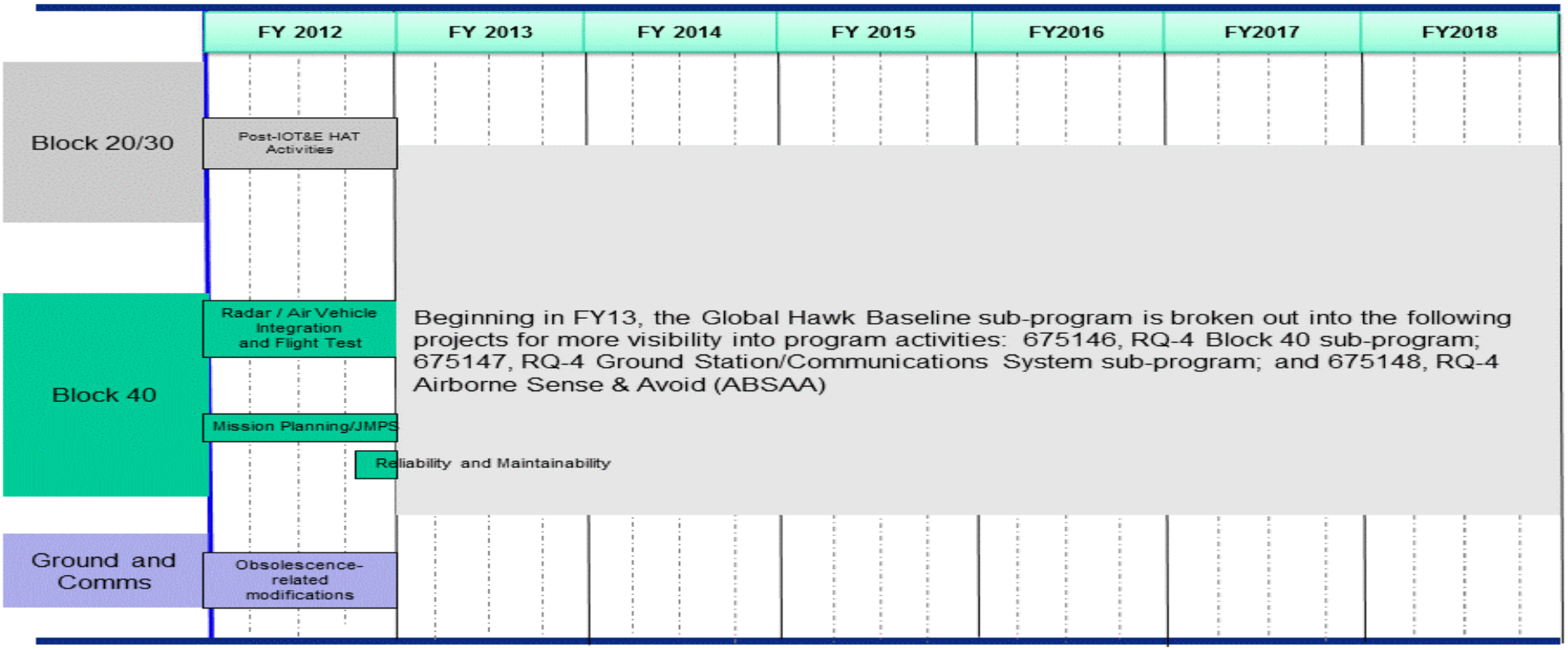
Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675144: *Global Hawk Baseline* |

U.S. AIR FORCE

*This schedule is based on elimination of Block 30 development and production from the Global Hawk baseline. Block 40 aircraft and associated modifications remain. Ground and Communications obsolescence-related modifications remain.*

# RQ-4 Global Hawk Baseline Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675144: *Global Hawk Baseline* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| Block 20/30 Post-IOT&E HAT Activities | 1 | 2012 | 4 | 2012 |
| Block 40 Radar/Air Vehicle Integration and Flight Test | 1 | 2012 | 4 | 2012 |
| Mission Planning / JMPS | 1 | 2012 | 4 | 2012 |
| Reliability and Maintainability | 4 | 2012 | 4 | 2012 |
| Ground and Comms Obsolescence-related modifications | 1 | 2012 | 4 | 2012 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675146: *RQ-4 Block 40* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675146: *RQ-4 Block 40* | 0.000 | 0.000 | 144.179 | 67.980 | - | 67.980 | 39.842 | 7.456 | 0.000 | 0.000 | 0.000 | 259.457 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

1. Totals include funding for PRCP Program Number (PNO) 252, Global Hawk.

2. The Global Hawk Block 40 Sub-Program was directed by an ADM signed 14 Jun 11 by USD (AT&L). Since the time of the ADM signature, and subsequent designation of sub-program projects, the FY11 and FY12 budgets had already been finalized within DoD. The FY11 and FY12 budgets for all sub-programs are captured under the Global Hawk Baseline sub-program, as its related Project (675144) was the core project for the Global Hawk program prior to the directed restructure.

**A. Mission Description and Budget Item Justification**

The Global Hawk Unmanned Aircraft System (UAS) provides a high altitude, deep look, long-endurance intelligence, surveillance, and reconnaissance (ISR) capability that compliments space and other airborne collectors during peacetime, crisis, and war-fighting scenarios.

RDT&E funding in this project supports design, development, integration, and testing of items needed to meet Key Performance Parameters (KPPs) for Block 40 aircraft, including integration and test of the Multi-Platform Radar Technology Insertion Program (MP-RTIP) sensor. Associated Block 40 airworthiness certifications are included in this effort. The Block 40 program provides critical ISR and Battle Management Command and Control (BMC2) data to the warfighter.

This funding also supports continued aircraft/communications systems modernization to include Identification Friend or Foe (IFF) Mode 5, Automatic Dependent Surveillance Broadcast (ADSB), mission planning upgrade and reliability and maintainability improvements.

When judged feasible and affordable, this program will participate in the development, testing, and implementation of international standards to enhance joint, allied, and coalition interoperability. Likewise, studies and activities may be initiated to explore the utility of incorporating the emerging architectural standards such as the USAF UAV Command and Control Initiative (UCI) or the DoD's UAV Control Segment standards.

The Global Hawk program will maintain capability and interoperability for Blocks 40 including efforts with system of system's partners and continue to incorporate applicable synergies with other platforms, such as the U.S. Navy's Triton, USAF Predator/Reaper, other RPA weapon systems, and Processing, Exploitation & Dissemination (PED) elements.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675146: *RQ-4 Block 40* |

Activities also include studies and analysis supporting current and future program planning, mission planning upgrade development and testing, program protection and project execution. FY14 funding continues MP-RTIP sensor integration and funds Block 40 IOT&E.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Global Hawk Block 40 System Development and Demonstration (SDD)<br>***Description:*** Global Hawk Block 40 Payload and Aircraft/Communications Development and Demonstration<br>***FY 2013 Plans:***<br>Development and integration of MP-RTIP sensor integration, test and sustainment capability for Early Operational Capability for Block 40. Ramp up Aircraft/Communication systems modernization to include IFF Mode 5/ADSB pre-contract activities, and mission planning upgrade. Continue aircraft operations surety for Information Assurance and Reliability and Maintainability initiatives.<br>***FY 2014 Plans:***<br>Will continue development and integration of MP-RTIP sensor integration, IOT&E and sustainment capability for Block 40. Will continue Aircraft/Communication systems modernization to include IFF Mode 5, ADSB, and mission planning upgrade and program protection. Continue aircraft operations surety for Information Assurance and Reliability and Maintainability. | 0.000 | 123.006 | 52.634 |
| ***Title:*** Global Hawk Block 40 Government Test and Non Prime Support<br>***Description:*** Government test and non-prime technical support -- The majority of this funding supports Global Hawk development testing at the 412 Test Wing at Edwards AFB, CA and also includes funding for incidental support from AFOTEC, JITC and DCGS.<br>***FY 2013 Plans:***<br>Continuing government test and non-prime engineering and technical support for Block 40 aircraft<br>***FY 2014 Plans:***<br>Continuing government test and non-prime engineering and technical support for Block 40 IOT&E | 0.000 | 14.034 | 10.946 |
| ***Title:*** Other Government Costs<br>***Description:*** Program Management Administration (PMA) - includes Advisory & Assistance Services, Travel, Training, Supplies, etc.<br>***FY 2013 Plans:*** | 0.000 | 7.139 | 4.400 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675146: *RQ-4 Block 40* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Mission Support: PMA | | | |
| ***FY 2014 Plans:***<br>Mission Support: PMA | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 144.179 | 67.980 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA04: Line Item # RQ440P: *RQ-4 Blk 40 Proc* | 0.000 | 11.654 | 1.747 | | 1.747 | 1.801 | 0.000 | 0.000 | 0.000 | 0.000 | 15.225 |

**Remarks**

**D. Acquisition Strategy**

The Global Hawk program uses an evolutionary acquisition strategy to provide the warfighter with a near-term, combat capability with increased, time-phased capability improvements as technology and risk achieve satisfactory levels. Northrop Grumman Corporation is the prime contractor.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675146: *RQ-4 Block 40* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering Manufacturing & Development Block 40 | SS/CPIF | Northrop Grumman Integrated Systems:San Diego, CA | 0.000 | 0.000 | | 123.396 | Oct 2012 | 52.634 | Oct 2013 | - | | 52.634 | 39.622 | 215.652 | 246.903 |
| | | **Subtotal** | 0.000 | 0.000 | | 123.396 | | 52.634 | | 0.000 | | 52.634 | 39.622 | 215.652 | 246.903 |

**Remarks**

Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Government Program Support | Various | Various:Dayton, OH | 0.000 | 0.000 | | 0.844 | Oct 2012 | 0.594 | Oct 2013 | - | | 0.594 | 0.250 | 1.688 | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.844 | | 0.594 | | 0.000 | | 0.594 | 0.250 | 1.688 | |

**Remarks**

Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flight Test & Evaluation | PO | 412 TW:Edwards AFB, CA | 0.000 | 0.000 | | 12.800 | Oct 2012 | 10.352 | Oct 2013 | - | | 10.352 | 0.000 | 23.152 | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 12.800 | | 10.352 | | 0.000 | | 10.352 | 0.000 | 23.152 | |

**Remarks**

Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675146: *RQ-4 Block 40* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA: A&AS | Various | Various:Dayton, OH | 0.000 | 0.000 | | 3.226 | Oct 2012 | 2.000 | Oct 2013 | - | | 2.000 | 3.640 | 8.866 | TBD |
| PMA: Other Gov't Cost | Various | Various:Dayton, OH | 0.000 | 0.000 | | 3.913 | Oct 2012 | 2.400 | Oct 2013 | - | | 2.400 | 3.786 | 10.099 | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 7.139 | | 4.400 | | 0.000 | | 4.400 | 7.426 | 18.965 | |

**Remarks**

Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 144.179 | | 67.980 | | 0.000 | | 67.980 | 47.298 | 259.457 | |

**Remarks**

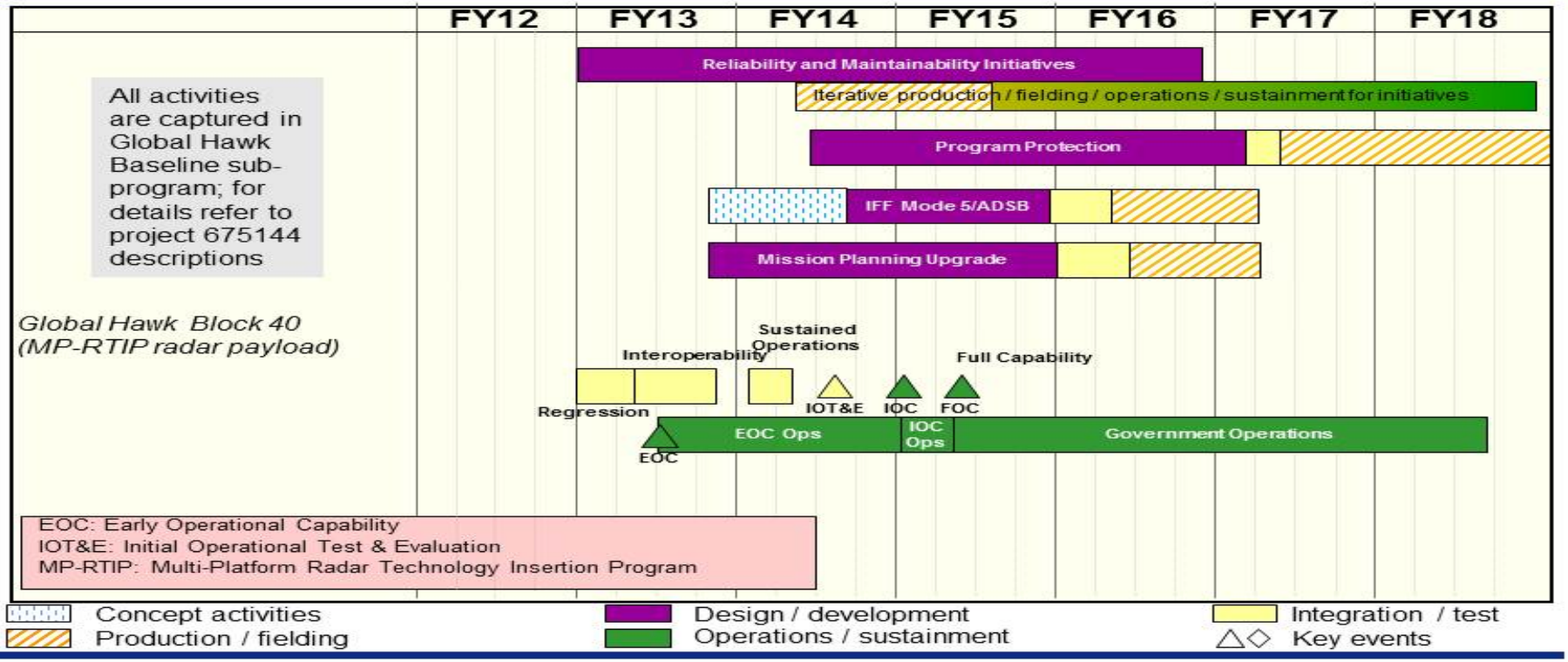
Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675146: *RQ-4 Block 40* |

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*This schedule is based on elimination of Block 30 development and production from the Global Hawk baseline. Block 40 aircraft and associated modifications remain. Ground and Communications obsolescence-related modifications remain.*

# RQ-4 Global Hawk Block 40 Schedule




1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675146: *RQ-4 Block 40* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| Reliability and Maintainability Initiatives | 1 | 2013 | 4 | 2018 |
| Program Protection | 2 | 2014 | 4 | 2018 |
| IFF Mode 5/ADSB | 4 | 2013 | 2 | 2017 |
| Mission Planning Upgrade | 4 | 2013 | 2 | 2017 |
| Block 40 MP-RTIP Radar Air Vehicle Integration and Flight Test (Regression, Interoperability and Sustained Operations Testing) | 1 | 2013 | 2 | 2014 |
| Block 40 IOT&E | 3 | 2014 | 3 | 2014 |
| Block 40 IOC | 1 | 2015 | 1 | 2015 |
| Block 40 FOC | 2 | 2015 | 2 | 2015 |
| Block 40 EOC | 3 | 2013 | 3 | 2013 |
| Early Operational Capability Ops | 3 | 2013 | 1 | 2015 |
| Initial Operational Capability Ops | 1 | 2015 | 2 | 2015 |
| Block 40 Government Ops | 2 | 2015 | 3 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675147: *RQ-4 Grnd Segment/Comm System* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675147: *RQ-4 Grnd Segment/ Comm System* | 0.000 | 0.000 | 55.343 | 34.448 | - | 34.448 | 83.131 | 42.421 | 27.557 | 28.053 | 0.000 | 270.953 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

1. Totals include funding for PRCP Program Number (PNO) 252, Global Hawk.

2. The Global Hawk Ground Segment/Communications System Sub-Program was directed by an ADM signed 14 Jun 11 by USD (AT&L). Since the time of the ADM signature, and subsequent designation of sub-program projects, the FY11 and FY12 budgets had already been finalized within DoD. The FY11 and FY12 budgets for all sub-programs are captured under the Global Hawk Baseline sub-program, as its related Project (675144) was the core project for the Global Hawk program prior to the directed restructure.

**A. Mission Description and Budget Item Justification**

The Global Hawk Unmanned Aircraft System (UAS) provides a high altitude, deep look, long-endurance intelligence, surveillance, and reconnaissance (ISR) capability that compliments space and other airborne collectors during peacetime, crisis, and war-fighting scenarios.

RDT&E funding in this project supports limited design, development, integration, and testing of the Ground Segment and Communication Systems required to resolve obsolescence issues. The Ground Segment effort solves fleet-grounding obsolescence issues associated with upgrading legacy ground segment equipment. Communication Systems updates also resolves critical obsolescence issues in the Global Hawk communications infrastructure.

When judged feasible and affordable, this program will participate in the development, testing, and implementation of international standards to enhance joint, allied, and coalition interoperability. Likewise, studies and activities may be initiated to explore the utility of incorporating the emerging architectural standards such as the USAF UAV Command and Control Initiative (UCI) or the DoD's UAV Control Segment standards.

Activities also include studies and analysis supporting current and future program planning, mission planning upgrade development and testing, program protection and project execution.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675147: *RQ-4 Grnd Segment/Comm System* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Global Hawk Communications System- Critical Obsolescence Issues<br>***Description:*** Global Hawk Communications System Development<br>***FY 2013 Plans:***<br>Ramp up communication systems updates to resolve critical obsolescence issues in the Global Hawk communications infrastructure.<br>***FY 2014 Plans:***<br>Continue communication systems updates to resolve critical obsolescence issues in the Global Hawk communications infrastructure | 0.000 | 6.672 | 11.644 |
| ***Title:*** Global Hawk Ground Segment- Critical Obsolescence Issues<br>***Description:*** Global Hawk Ground Segment Development<br>***FY 2013 Plans:***<br>Continuing ground segment updates to resolve critical obsolescence issues in the Global Hawk legacy ground segment equipment.<br>***FY 2014 Plans:***<br>Ground Station Phase 1A ramps down; continuing ground segment updates to resolve critical obsolescence issues in the Global Hawk legacy ground segment equipment. | 0.000 | 40.203 | 12.850 |
| ***Title:*** Government Test and non prime support<br>***Description:*** Government test and non-prime technical support -- The majority of this funding supports Global Hawk development testing at the 412 Test Wing at Edwards AFB, CA and also includes funding for incidental support from AFOTEC, JITC and DCGS.<br>***FY 2013 Plans:***<br>Continuing government test and non-prime engineering and technical support<br>***FY 2014 Plans:***<br>Continuing government test and non-prime engineering and technical support | 0.000 | 6.810 | 8.004 |
| ***Title:*** Other Government Costs<br>***Description:*** Program Management Administration (PMA) - includes Advisory & Assistance Services, Travel, Training, Supplies, etc. | 0.000 | 1.658 | 1.950 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675147: *RQ-4 Grnd Segment/Comm System* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***FY 2013 Plans:***<br>Mission Support: PMA<br>***FY 2014 Plans:***<br>Mission Support: PMA | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 55.343 | 34.448 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # RQ4GCM: *RQ-4 GS/CS Mods* | 0.000 | 0.000 | 30.000 | | 30.000 | 32.700 | 21.801 | 10.000 | 10.180 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

The Global Hawk program uses an evolutionary acquisition strategy to provide the warfighter with a near-term, combat capability with increased, time-phased capability improvements as technology and risk achieve satisfactory levels. Northrop Grumman Corporation is the prime contractor.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675147: *RQ-4 Grnd Segment/Comm System* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering, Manufacturing & Development Ground Segment and Communication Systems | SS/CPIF | Northrop Grumman Integrated Systems:San Diego, CA | 0.000 | 0.000 | | 46.875 | Oct 2012 | 24.494 | Oct 2013 | - | | 24.494 | 157.534 | 228.903 | 230.070 |
| | | **Subtotal** | 0.000 | 0.000 | | 46.875 | | 24.494 | | 0.000 | | 24.494 | 157.534 | 228.903 | 230.070 |

**Remarks**

Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Government Program Support | Various | Various:Dayton, OH | 0.000 | 0.000 | | 1.610 | Oct 2012 | 0.125 | Oct 2013 | - | | 0.125 | 0.184 | 1.919 | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 1.610 | | 0.125 | | 0.000 | | 0.125 | 0.184 | 1.919 | |

**Remarks**

Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flight Test & Evaluation | PO | 412 TW:Edwards AFB, CA | 0.000 | 0.000 | | 5.200 | Oct 2012 | 7.879 | Oct 2013 | - | | 7.879 | 11.000 | 24.079 | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 5.200 | | 7.879 | | 0.000 | | 7.879 | 11.000 | 24.079 | |

**Remarks**

Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675147: *RQ-4 Grnd Segment/Comm System* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA: A&AS | Various | Various:Dayton, OH | 0.000 | 0.000 | | 0.750 | Oct 2012 | 1.000 | Oct 2013 | - | | 1.000 | 6.330 | 8.080 | TBD |
| PMA: Other Gov't Cost | Various | Various:Dayton, OH | 0.000 | 0.000 | | 0.908 | Oct 2012 | 0.950 | Oct 2013 | - | | 0.950 | 6.114 | 7.972 | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 1.658 | | 1.950 | | 0.000 | | 1.950 | 12.444 | 16.052 | |

**Remarks**

Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 55.343 | | 34.448 | | 0.000 | | 34.448 | 181.162 | 270.953 | |

**Remarks**

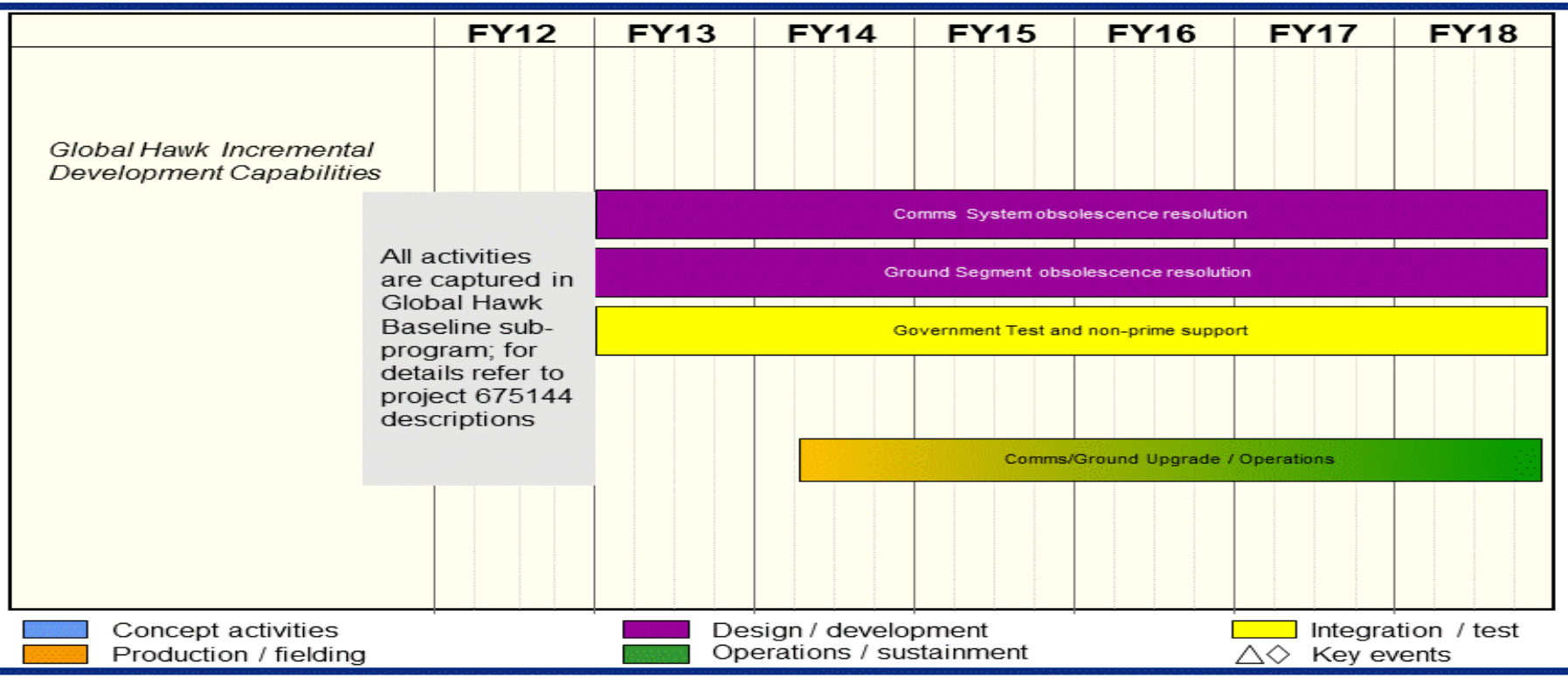
Target Value of the Global Hawk EMD Contract is not segregated by Budget Project Number.

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675147: *RQ-4 Grnd Segment/Comm System* |

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*This schedule is based on elimination of Block 30 development and production from the Global Hawk baseline. Block 40 aircraft and associated modifications remain. Ground and Communications obsolescence-related modifications remain.*

## RQ-4 Global Hawk Ground Segment/ Communications System Schedule




1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675147: *RQ-4 Grnd Segment/Comm System* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| Comms System obsolescence resolution | 1 | 2013 | 4 | 2018 |
| Ground Segment obsolescence resolution | 1 | 2013 | 4 | 2018 |
| Government test and non-prime technical support | 1 | 2013 | 4 | 2018 |
| Ground and Comms Upgrade / Operations | 2 | 2014 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675148: *RQ-4 Airborne Sense & Avoid (ABSAA)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675148: *RQ-4 Airborne Sense & Avoid (ABSAA)* | 0.000 | 0.000 | 19.036 | 20.815 | - | 20.815 | 66.477 | 53.477 | 37.477 | 38.053 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

1. Totals include funding for PRCP Program Number (PNO) 252, Global Hawk.

2. In two related Acquisition Decision Memoranda signed by USD (AT&L) in January and June 2011, the Global Hawk program was directed to restructure into four major sub-programs: (1) Global Hawk baseline, (2) Block 30, (3) Block 40, and (4) Ground Station Re-Architecture(GSRA)/ Communications System Re-Architecture(CSRA). Additionally, the Air Force created this Pre-Planned Product Improvement (P3I) line item to accommodate inclusion of required capability to meet warfighter needs beyond those requirements satisfied in the directed sub-programs.

**A. Mission Description and Budget Item Justification**

RDT&E funding in this project supports design, development, integration, and testing of RQ-4 Airborne Sense and Avoid (ABSAA). Global Hawk is the Pathfinder for ABSAA. SAA development planning is concurrent with Global Hawk ABSAA. Ongoing activities include technology maturation, sub system integration and risk reductions activities. ABSAA is a separate ACAT II program in the Technological Development phase of the acquisition lifecycle, supports the "Worldwide Operations" Key Performance Parameter (KPP), and provides the ability for UAS integration into the National Airspace System (NAS) and full UAS operations across all mission environments. Funding covers the Sense and Avoid development activities as well as program infrastructure and other government costs. This is a continuation of efforts which began in FY10 under OSD PEC, 64400D.

Activities also include ABSAA related studies and analysis supporting current and future ABSAA program planning and project execution.

This program is in Budget Activity 7, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Global Hawk System Development and Demonstration (SDD) ABSAA | 0.000 | 17.732 | 19.615 |
| ***Description:*** Continue to develop a scalable, autonomous ABSAA system providing the capability to integration UAS operations in to non-segregated airspace, both within the National Airspace and Globally. Fielding of this capability is dependent upon DoD | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675148: *RQ-4 Airborne Sense & Avoid (ABSAA)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| self-certification of the ABSAA capability to meet the Standards for Operation and Certification the FAA is required to deliver not later than December 31, 2015 in accordance with the FAA Modernization and Reform Act of 2012.<br><br>***FY 2013 Plans:***<br>Briefed and obtained approval to initiate the program at MDD. Completed science and technology ABSAA flight demonstrations with AFRL and FAA on a surrogate UAS, against multiple intruder aircraft, demonstrating autonomous collision avoidance against both cooperative and non-cooperative threats. Continuing to mature and tune the Unmanned Sense, Track, and Avoid Radar and development of the next generation electro-optical sensor system.<br><br>***FY 2014 Plans:***<br>Build a Common ABSAA CDD with ACC. Define and build sub-system M&S models to a sufficient level of fidelity to support airworthiness under MIL-HDBK-516. Conduct preliminary design reviews for all major ABSAA subsystems (C-ABSAA, EO and Radar), negotiate and award Global Hawk platform integration contract for PRD design. Prepare all plans and documentation in support of MSB. Perform EMD acquisition planning and all pre-EMD contract activities (RFPs, proposal evals, etc). Perform early logistics support planning. | | | |
| ***Title:*** Other Government Costs<br><br>***Description:*** Program Management Administration (PMA) - includes Advisory & Assistance Services, Travel, Training, Supplies, etc.<br><br>***FY 2013 Plans:***<br>Mission Support: PMA<br><br>***FY 2014 Plans:***<br>Mission Support: PMA | 0.000 | 1.304 | 1.200 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 19.036 | 20.815 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The Global Hawk program uses an evolutionary acquisition strategy to provide the warfighter with a near-term, combat capability with increased, time-phased capability improvements as technology and risk achieve satisfactory levels.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675148: *RQ-4 Airborne Sense & Avoid (ABSAA)* |

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675148: *RQ-4 Airborne Sense & Avoid (ABSAA)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering Manufacturing and Development ABSAA | C/Various | various:various, | 0.000 | 0.000 | | 17.732 | Dec 2012 | 19.615 | Dec 2013 | - | | 19.615 | 168.004 | 205.351 | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 17.732 | | 19.615 | | 0.000 | | 19.615 | 168.004 | 205.351 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Flight Test & Evaluation | PO | 412 TW:Edwards AFB, CA | 0.000 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 15.000 | 15.000 | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 15.000 | 15.000 | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA: A&AS | Various | Various:Dayton, OH | 0.000 | 0.000 | | 0.850 | Oct 2012 | 0.650 | Oct 2013 | - | | 0.650 | 6.250 | 7.750 | TBD |
| PMA:Other Gov't Cost | Various | Various:Dayton, OH | 0.000 | 0.000 | | 0.454 | Oct 2012 | 0.550 | Oct 2013 | - | | 0.550 | 6.230 | 7.234 | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 1.304 | | 1.200 | | 0.000 | | 1.200 | 12.480 | 14.984 | |

| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 19.036 | | 20.815 | | 0.000 | | 20.815 | 195.484 | 235.335 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675148: *RQ-4 Airborne Sense & Avoid (ABSAA)* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|

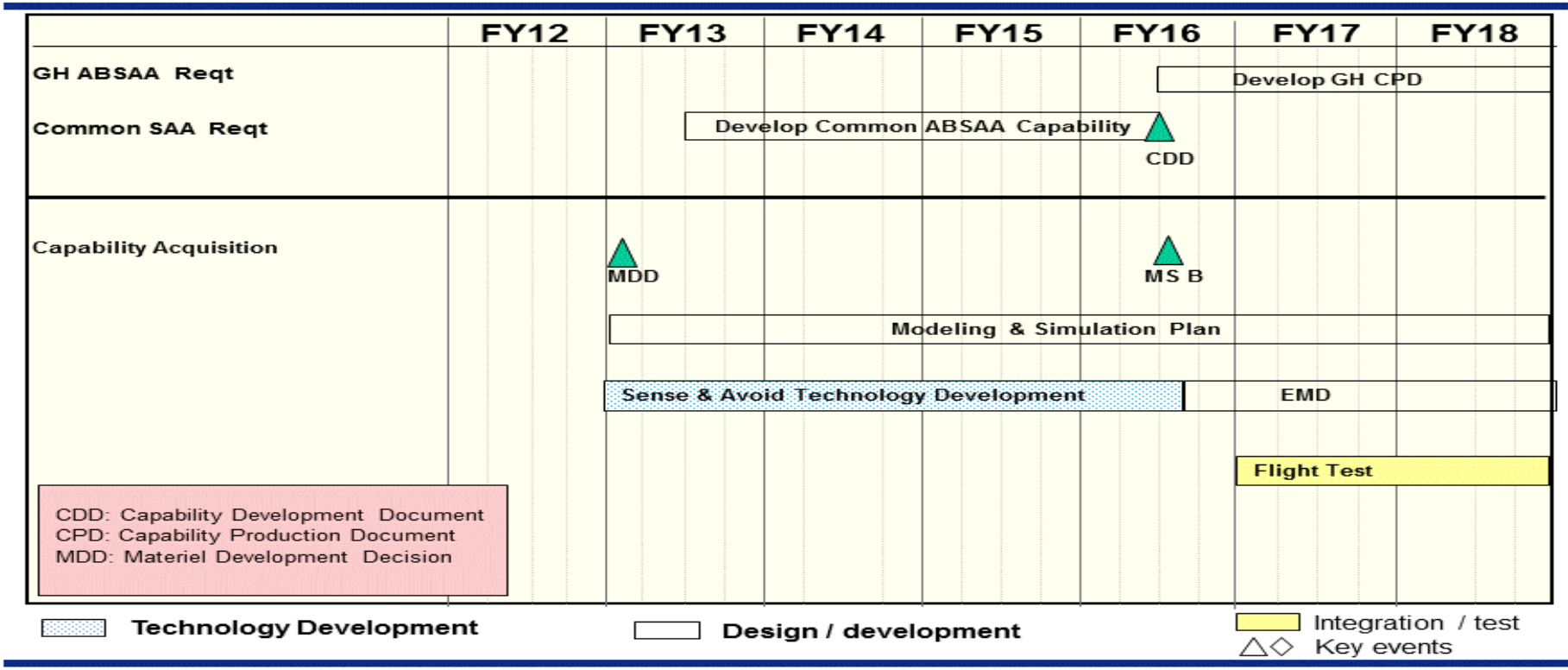
**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>675148: *RQ-4 Airborne Sense & Avoid (ABSAA)* |

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*This schedule is based on elimination of Block 30 development and production from the Global Hawk baseline. Block 40 aircraft and associated modifications remain. Ground and Communications obsolescence modifications remain.*

# RQ-4 Global Hawk ABSAA Schedule




1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305220F: *RQ-4 UAV* | **PROJECT**<br>675148: *RQ-4 Airborne Sense & Avoid (ABSAA)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Develop Global Hawk Capability Production Document (CPD) | 2 | 2016 | 4 | 2018 |
| Develop Common ABSAA capability | 2 | 2013 | 3 | 2016 |
| Capability Development Document (CDD) | 1 | 2016 | 1 | 2016 |
| Material Development Decision (MDD) | 1 | 2013 | 1 | 2013 |
| ABSAA MS B | 3 | 2016 | 3 | 2016 |
| Modeling & Simulation Plan | 1 | 2013 | 4 | 2018 |
| ABSAA Tech Dev | 1 | 2013 | 3 | 2016 |
| EMD | 3 | 2016 | 4 | 2018 |
| Flight Test | 1 | 2017 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>676001: *NATO AGS* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 676001: *NATO AGS* | 0.000 | 82.745 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 82.745 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2012, Project 676001, NATO Alliance Ground Surveillance (AGS) efforts were transferred from OSD PE 1001018D8Z, NATO AGS, Project P018, NATO AGS, to PE 0305220F, RQ-4 Global Hawk (GH), Project 676001, NATO AGS in order to transfer control of this effort from OSD to the USAF.

In FY 2013, Project 676001, NATO AGS, efforts transferred from PE 0305220F, RQ-4 GH, Project 676001, NATO AGS to PE 0305238F, NATO AGS, Project 676001, NATO AGS in order to manage NATO AGS as a separate OSD special interest program.

**A. Mission Description and Budget Item Justification**

U.S. participation in NATO AGS was ratified by SECDEF signature of the NATO AGS Program Memorandum of Understanding (PMOU) in June 2009. The PMOU went into effect in Sept 2009 when fifteen nations, including the United States, financially committed for procurement and delivery of the NATO Commander's number one priority to the war fighter. Canada withdrew in August 2011, leaving 14 participating nations.

In FY2012, OSD transferred the NATO AGS project to the USAF for management and execution. The NATO AGS project funds the U.S. share of the cost for NATO to acquire an air-to-ground ground surveillance capability, improvements to the radar, and the U.S. support of NATO AGS-related activities. Operations and continuing support will be funded through a future NATO Military Commanders' Capability Package funded within the NATO Security Investment Program (NSIP).

The AGS system will be a NATO-owned and operated airborne ground surveillance capability that provides continuous, wide area surveillance information in all weather conditions for use at the strategic, operational and tactical levels of command. Interoperable with other national assets, AGS will provide NATO decision makers with near real time, continuous information and situational awareness concerning friendly, neutral, and opposing ground forces to support mission planning and execution, including force protection and targeting.

The NATO AGS Program includes an air segment consisting of a five (5) NATO-developed air vehicles, using elements of the USN Triton (previously Broad Area Maritime Surveillance (BAMS)) command and control architecture and the U.S. Radar Technology Insertion Program (RTIP) radar; a unique configuration to allow export of system; a ground segment for data exploitation and distribution that consists of fixed-based site and transportable/mobile ground stations; establishment and operation of a management organization; development of operations and support concepts; and definition and establishment of an initial support capability. As part of the U.S. government agreement with NATO AGS Management Agency (NAGSMA), the U.S. will integrate Maritime Moving Target and Inverse Synthetic Aperture

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>676001: *NATO AGS* |

Radar capability into the RTIP radar for NATO AGS. This design and development includes correcting deficiencies, flight testing on the modes and system level performance validation.

The system level configuration changes include a unique configuration to allow for export of the system. (Additional details are classified and available on a need-to know basis.)

Deliveries are planned for 2016-2017. The follow-on sustainment and operations will be supported by all 28 NATO nations through their contributions of funding to the program. Mission elements will support 2 orbits. The main operating base (MOB) air vehicles and mission C2 will be in Naval Air Station Sigonella, Italy. Exploitation at MOB will be developed by Selex. EADS and Selex will develop the transportable and mobile general ground stations.

The program, managed by the NAGSMA, is composed of design, development and demonstration, as well as initial in-service support (IISS). While the current program includes IISS, the current Direct Commercial Sale (DCS) contract with Northrop Grumman does not include these tasks.

The DCS contract between Northrop Grumman and NAGSMA was signed on 20 May 2012. This funding is the U.S. cost share for the acquisition of the NATO airborne ground surveillance capability as well as the cost share associated with the IISS. IISS and In-Service Support (ISS) will be contracted under separate action. It is anticipated that ISS costs will be commonly funded through a future NATO Military Commanders' Capability Package, using the NATO Security Investment Program (NSIP). This funding also includes developmental activity for RTIP to include additional functionality and configuration requirements, studies and analysis related to mission security and exportability, and current and future program planning, project execution, engineering, and program management support to NATO.

This program is in Budget Activity 7, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Design/Develop NATO AGS | 74.985 | 0.000 | 0.000 |
| ***Description:*** To provide US Government NATO AGS development funding<br><br>***FY 2012 Accomplishments:***<br>To provide US Government NATO AGS development funding | | | |
| ***Title:*** Support the NATO AGS Management Agency (NAGSMA) | 7.760 | 0.000 | 0.000 |
| ***Description:*** Establish and support a program office within NATO for AGS development and initial fielding. Serve as interface and US program office to the prime contractor for NATO AGS capability<br><br>***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>676001: *NATO AGS* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| US contribution to NATO for AGS development acquisition and initial fielding | | | |
| **Accomplishments/Planned Programs Subtotals** | 82.745 | 0.000 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDTE: BA07: PE 0305238F: *NATO AGS* | 0.000 | 210.109 | 264.134 | | 264.134 | 235.757 | 140.000 | 40.000 | 40.720 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

The U.S. signed the PMOU committing the U.S. Government to NATO-derived cost shares of the AGS prime contract for design, development, demonstration, and initial production of the NATO AGS system. The system will be delivered via a fixed price Direct Commercial Sale contract between Northrop Grumman Integrated Sensor Systems International, Incorporated (NGISSI) & NATO, which was signed on 20 May 2012.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>676001: *NATO AGS* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NATO AGS PMOU/Prime Contract | SS/FFP | NATO AGS Managment Agency:Brussels, Belgium, | 0.000 | 77.587 | Feb 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 77.587 | |
| | | **Subtotal** | 0.000 | 77.587 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 77.587 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AFFTC Support | SS/T&M | US Air Force:Edwards AFB, CA | 0.000 | 0.778 | Feb 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.778 | |
| | | **Subtotal** | 0.000 | 0.778 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.778 | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA: A&AS | C/CPFF | Multiple:Hanscom, WPAFB, Pax River, | 0.000 | 3.958 | Feb 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 3.958 | |
| PMA: Other Gov't Cost | Various | Multiple:Hanscom, WPAFB, Pax River, | 0.000 | 0.422 | Feb 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.422 | |
| | | **Subtotal** | 0.000 | 4.380 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 4.380 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>676001: *NATO AGS* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Remarks** | | | | | | | | | | | | | | | |
| All data prior to FY12 is reported under PE 1001018D8Z, NATO AGS | | | | | | | | | | | | | | | |

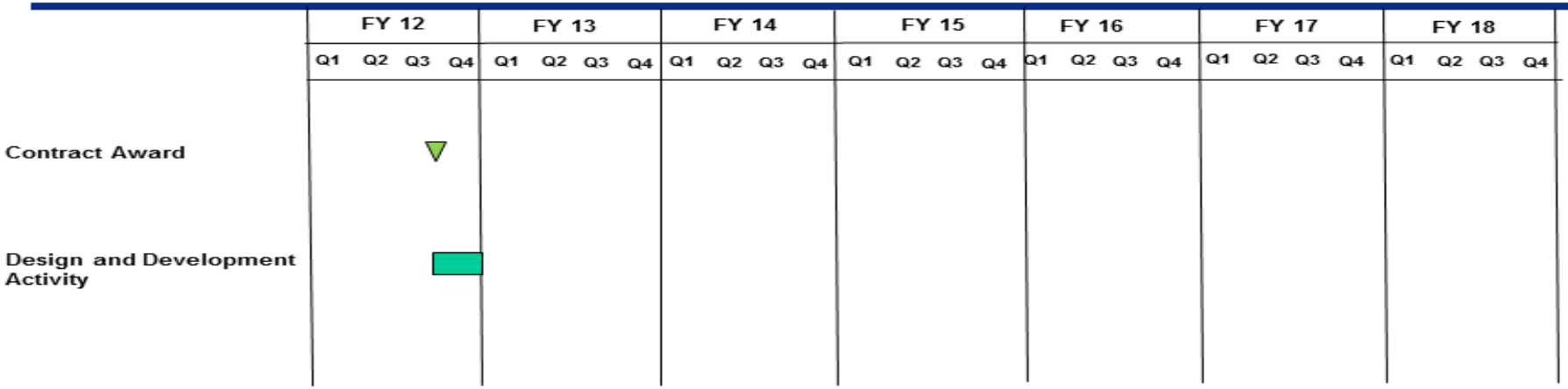
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 82.745 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 82.745 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>676001: *NATO AGS* |

U.S. AIR FORCE

# NATO AGS Program Schedule




In FY 2012, P018, NATO AGS efforts were transferred from PE 1001018D8Z, NATO AGS, P018, NATO AGS, to PE 0305220F, NATO AGS, Project 676001, NATO AGS in order to transfer control of this effort from OSD to the USAF.

In FY 2013, Project 676001, NATO AGS efforts transferred from PE 0305220F, NATO AGS, Project 676001, NATO AGS to PE 0305238F, NATO AGS, Project 676001, NATO AGS in order to manage this effort as a separate OSD special interest program.

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>676001: *NATO AGS* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| Contract Award | 3 | 2012 | 3 | 2012 |
| Design/Development | 3 | 2012 | 4 | 2012 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>67RTIP: *MP-RTIP* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 67RTIP: *MP-RTIP* | 140.312 | 40.287 | 17.707 | 11.163 | - | 11.163 | 11.446 | 11.573 | 12.212 | 12.432 | 0.000 | 257.132 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

The MP-RTIP program was previously funded by PE 0207450F (MP-RTIP) from FY05 through FY08. Beginning in FY09 funding was transferred to PE 0305220F (RQ-4) Global Hawk. Therefore, the data in this package includes only FY09 and subsequent funding related to PE 0305220F.

**A. Mission Description and Budget Item Justification**

The Multi Platform-Radar Technology Insertion Program (MP-RTIP) sensor was designed as a family of modular, scalable sensors that provide next generation capabilities to support sustainable network centric operations with integrated Command and Control Intelligence, Surveillance and Reconnaissance (C2ISR) capability. MP-RTIP provides the Global Hawk (GH) Block 40 aircraft advanced Synthetic Aperture Radar (SAR) and Moving Target Indicator (MTI) sensor capabilities.

This project includes all MP-RTIP design, development, test, and integration efforts onto the GH Block 40 Platform. Integration activities include platform integration of the MP-RTIP sensor and sustainment support including logistics planning support. Future MP-RTIP studies and development insertion include the implementation of maritime modes, High Range Resolution modes, electronic protection, technical refresh, product improvements and other advanced capabilities.

FY14 funding initiates Block 40 post Initial Operational Test & Evaluation (IOT&E) software updates and design/development of remaining requirements. Funding continues to provide MP-RTIP government acquisition support services, with emphasis on acquisition management, documentation delivery, IOT&E software updates and remaining requirements. MP-RTIP Test & Evaluation cost includes test planning, sensor integration and post IOT&E software updates. MP-RTIP Other Government Costs also provide acquisition services for program office infrastructure, contract planning, and contract awards for remaining program requirements.

Activities also include studies and analysis supporting current and future program planning and future modes development based on user requirements.

This program is in Budget Activity 7, Operation System Development. It supports integration and testing of a developed sensor onto an operational platform.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Development and integration | 31.966 | 13.323 | 8.073 |
| ***Description:*** MP-RTIP development and integration | | | |
| ***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>67RTIP: *MP-RTIP* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continued Sensor platform integration of MP-RTIP on GH platform for Ground Moving Target Indicator(GMTI)/Synthetic Aperture Radar (SAR)/ Concurrent modes, completed MP-RTIP Sensor Performance Verification, planned software releases to GH, incremental FCA/PCA.<br>***FY 2013 Plans:***<br>Complete Sensor integration of MP-RTIP on GH platform for GMTI/SAR/Concurrent modes, including software release to GH, and FCA/PCA. Initiates planning for additional modes for MP-RTIP based on user requirements.<br>***FY 2014 Plans:***<br>Will initiate MP-RTIP post Initial Operational Test & Evaluation (IOT&E) radar software updates and design/development of remaining requirements. | | | |
| ***Title:*** Test & Evaluation<br>***Description:*** MP-RTIP Test & Evaluation<br>***FY 2012 Accomplishments:***<br>Continued MP-RTIP sensor Test and Evaluation effort on GH including ground and flight integration of sensor and air vehicle, Radar System Level Performance Verification (RSLPV), test force support, range support, interoperability compliance, and third party reviews.<br>***FY 2013 Plans:***<br>Complete MP-RTIP sensor Test and Evaluation on GH including but not limited to ground and flight integration of sensor and air vehicle, System Level Performance Verification (SLPV), test force and range support, interoperability compliance and third party performance reviews.<br>***FY 2014 Plans:***<br>Will initiate Test & Evaluation support for MP-RTIP post-IOT&E radar software updates and remaining requirements including but not limited to test planning, test force and range support, interoperability compliance and third party performance reviews. | 1.229 | 0.974 | 0.991 |
| ***Title:*** Logistics Planning<br>***Description:*** MP-RTIP Depot Logistics Planning<br>***FY 2012 Accomplishments:***<br>Completed Support to GH Depot Planning by providing detailed Maintenance Planning. Initiated Depot Gap Analysis.<br>***FY 2013 Plans:*** | 1.867 | 0.000 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>67RTIP: *MP-RTIP* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Complete Depot Gap Analysis. | | | |
| ***Title:*** MP-RTIP Other Government Costs | 5.225 | 3.410 | 2.099 |
| ***Description:*** Program Management Administration (PMA) - includes Advisory & Assistance Services, Travel, Training, Supplies, etc.<br><br>***FY 2012 Accomplishments:***<br>Continued to provide MP-RTIP Government acquisition support services including, but not limited to, Acquisition Management, Engineering oversight, and other Program Office Infrastructure.<br>***FY 2013 Plans:***<br>Continue to provide MP-RTIP government acquisition support services necessary to complete MP-RTIP SDD, with emphasis on acquisition management, documentation delivery, Engineering oversight of System-Level Performance Verification (SLPV). Also provides acquisition services for program office infrastructure, contract planning, and contract awards for remaining program requirements.<br>***FY 2014 Plans:***<br>Will continue to provide MP-RTIP government acquisition support services necessary to complete MP-RTIP SDD, with emphasis on acquisition management, documentation delivery, Engineering oversight of post-IOT&E radar software update and design/ development for remaining requirements. Also provides acquisition services for program office infrastructure, contract planning, and contract awards for remaining program requirements. | | | |
| **Accomplishments/Planned Programs Subtotals** | 40.287 | 17.707 | 11.163 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDT&E: BA07: PE 0305220F: *NATO AGS* | 82.745 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • RDT&E: BA07: PE 0305238F: *NATO AGS* | 0.000 | 210.109 | 264.134 | | 264.134 | 235.757 | 140.000 | 40.000 | 40.720 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

Continue to fund a sole source CPFF multi-year development contract to continue software development, integration, and testing on Global Hawk Block 40 platform. Post Initial Operational Test & Evaluation (IOT&E)software update is currently planned as CPIF.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>67RTIP: *MP-RTIP* |

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>67RTIP: *MP-RTIP* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MP-RTIP | SS/CPFF | Northrop Grumman Integrated Systems:El Segundo, CA | 111.638 | 31.966 | Nov 2011 | 13.323 | Nov 2012 | 8.073 | Nov 2013 | - | | 8.073 | 33.565 | 198.565 | TBD |
| | | **Subtotal** | 111.638 | 31.966 | | 13.323 | | 8.073 | | 0.000 | | 8.073 | 33.565 | 198.565 | |

**Remarks**

FY11 Prime contract: Negotiating contract extension, CPFF.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IRT Study | Various | Various:Various, | 0.105 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.105 | |
| Logistics Planning | SS/CPFF | Northrop Grumman Integrated Systems:El Segundo, CA | 1.800 | 1.867 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 3.667 | |
| | | **Subtotal** | 1.905 | 1.867 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 3.772 | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Joint Test Force, Edward AFB, Joint Interoperability Test Center, Navy, & IV&V | MIPR | Various:Various, | 6.945 | 1.229 | Jan 2012 | 0.974 | Jan 2013 | 0.991 | Dec 2013 | - | | 0.991 | 4.140 | 14.279 | TBD |
| | | **Subtotal** | 6.945 | 1.229 | | 0.974 | | 0.991 | | 0.000 | | 0.991 | 4.140 | 14.279 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>67RTIP: *MP-RTIP* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA: A&AS | C/Various | Various:Various, | 18.278 | 3.785 | Oct 2011 | 2.752 | Oct 2012 | 1.513 | Oct 2013 | - | | 1.513 | 7.469 | 33.797 | TBD |
| PMA: Other Gov't Cost | Various | Various:Boston, MA | 1.546 | 1.440 | Oct 2011 | 0.658 | Oct 2012 | 0.586 | Oct 2013 | - | | 0.586 | 2.489 | 6.719 | |
| | | **Subtotal** | 19.824 | 5.225 | | 3.410 | | 2.099 | | 0.000 | | 2.099 | 9.958 | 40.516 | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 140.312 | 40.287 | | 17.707 | | 11.163 | | 0.000 | | 11.163 | 47.663 | 257.132 | |

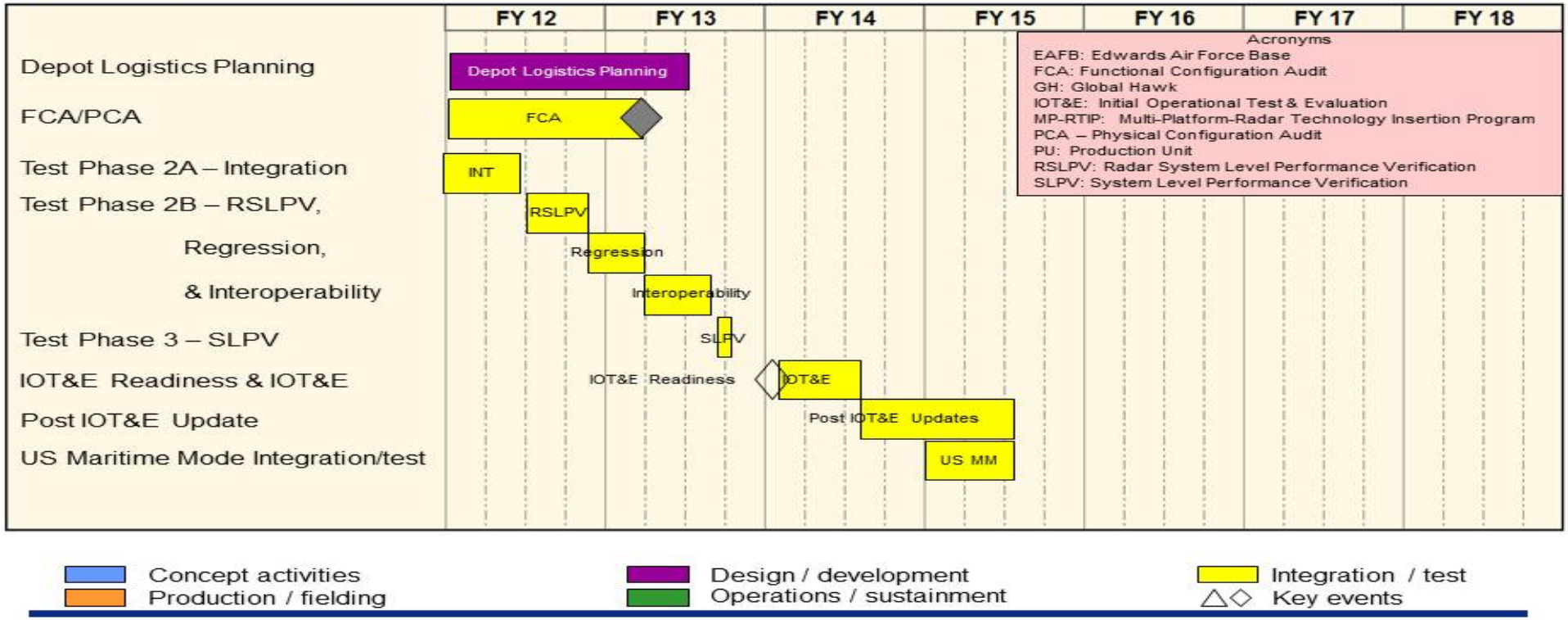
**Remarks**

FY11 Prime contract: Negotiating contract extension, CPFF.

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>67RTIP: *MP-RTIP* |

U.S. AIR FORCE

# RQ-4 Global Hawk MP-RTIP Schedule




1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305220F: *RQ-4 UAV* | PROJECT<br>67RTIP: *MP-RTIP* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| Depot Logistics Planning | 1 | 2012 | 2 | 2013 |
| Functional Configuration Audit (LAB/Qual/Flight) | 1 | 2012 | 1 | 2013 |
| Phase 2A - Integration | 1 | 2012 | 2 | 2012 |
| Phase 2B - RSLPV | 3 | 2012 | 4 | 2012 |
| Phase 2B - Regression | 4 | 2012 | 1 | 2013 |
| Phase 2B - Interoperability | 2 | 2013 | 3 | 2013 |
| Phase 3 - SLPV | 3 | 2013 | 4 | 2013 |
| Operations/IOT&E Readiness | 1 | 2014 | 3 | 2014 |
| Post IOT&E Update | 3 | 2014 | 3 | 2015 |
| US MM Integration/test | 1 | 2015 | 3 | 2015 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305221F: *Network-Centric Collaborative Targeting* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 7.192 | 7.367 | 7.413 | - | 7.413 | 11.235 | 11.057 | 10.652 | 10.844 | Continuing | Continuing |
| 675197: *NCCT Core Technology* | - | 7.192 | 7.367 | 7.413 | - | 7.413 | 11.235 | 11.057 | 10.652 | 10.844 | Continuing | Continuing |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

Starting with FY 2014 and through the FYDP, RDT&E funding for Information Operations Battle Management/SUTER Program System software (IOBM/SPS) is embedded in the Network Centric Collaborative Targeting (NCCT) Core Technology project.

**A. Mission Description and Budget Item Justification**

Network Centric Collaborative Targeting (NCCT) is the Air Force program of record responsible for developing core technologies and sub-nodal analysis tools to horizonally and/or vertically integrate network collaborative intelligence, surveillance and reconnaissance (ISR) sensor systems within and across intelligence disciplines. Operational uses of core technologies would include, but are not be limited to, signals intelligence to signals intelligence (SIGINT-SIGINT) correllation, and ground moving target indicator to signals intelligence (GMTI-SIGINT) correllation. Operational uses of sub-nodal analysis tools would include, but are not be limited to, determining which nodes of the adversary's Command, Control, Communications, Computers, Intelligence (C4I) network to engage or protect to achieve desired effects, and modeling execution plans to determine the need to disrupt or monitor the required network aimpoints in order to redirect activities based on changing battlefield conditions. NCCT software applications employ machine-to-machine (M2M) interfaces and Internet Protocol (IP) connectivity to coordinate sensor cross-cues and collection activities. NCCT correlation and fusion services ingest collection data to produce a single, composite track (geo-location and identification) for high-value targets. NCCT research and development funding supports evolutionary development of the NCCT message set and network management systems (Operations Interfaces, Network Controller, Fusion Engines, Data Guard, Interface to Command & Control, and Interface to Overhead Intelligence Operations), the migration of the NCCT technologies to emerging network centric technologies (Service Oriented Architectures (SOA) and web services), and satisfying DoD standards and Information Assurance requirements.

Core Technology develops the hardware and software to horizontally integrate Joint and Coalition dissimilar Battle Management, Command & Control (BMC2), and ISR assets and systems into integrated target tracks shared across networked platforms. Core Technology includes, but is not limited to, network management software, operator interfaces, standard network messages and formats, correlation software and data rules of interaction, NCCT multi-level security hardware and software items, and platform specific Platform Interface Modules (PIMs). Current NCCT-enabled systems include, but are not limited to, the RC-135V/W RIVET JOINT, EC-130H COMPASS CALL, Distributive Common Ground System (DCGS) SIGINT components, Falconer Aerospace Operations Centers (AOC), MC-12W Liberty Project Aircraft (LPA), Forward Processing/Exploitation/Dissemination (FPED), Gorgon Stare, Vehicle and Dismount Exploitation Radar (VADER), and Overhead Intelligence Operations (OIO). Prospective Coalition, Joint or Service systems are required to fund their respective integration, unique core technology improvements/upgrades to support system integration.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305221F: *Network-Centric Collaborative Targeting* |

Information Operations Battle Management (IOBM) and the SUTER Program System (SPS) develop concepts, Tactics/Techniques/Procedures (TTPs) and technologies for synchronizing the capabilities of ISR and non-kinetic capabilities in a coordinated fashion with traditional kinetic weapons to prosecute targets connected together or dependent upon some form of communications network. SPS's planning, execution and assessment capability is implemented in a distributed operations architecture taking advantage of the military value added from the synergies of Joint composite ISR, non-kinetic, and/or kinetic strike packages operating against networked target sets. Impacting these target sets can be achieved by "attacking" or influencing/shaping links, nodes or end points in the network to include: RF and terrestrial links, switches, routers, hubs, servers, IP addresses, cell phones, antennas, radars, microwave relays, SATCOM receivers, transceivers, etc. The three main pieces of the SPS CONOPS include: first, the use of SPS's sub-nodal analysis software to determine which nodes of the adversary's C4I network to engage or protect to achieve desired effects; second, the SPS's distributed operations architecture to tie together relevant planning cells (e.g. AOCs, JIOWC, etc.) so they can collaborate in developing and modeling the execution plan(s) needed to disrupt or monitor the required network aimpoints; and third, via SPS's combined network Common Operating Picture (COP), all involved "players" monitor the plan's execution, provide near-real time (NRT) updates to the status of on-going activities, provide continuous assessment/updates of the execution of the plan, and, within authorities (Rules of Engagement/ROEs), re-direct activities based on changing battlefield conditions. SPS is the technology that assists COCOMs and Components to exercise synchronized dynamic Command and Control (C2) of ISR, kinetic and non-kinetic Joint operations against conventional and terrorist threat networks. SPS provides decision makers and operators supporting airborne, shipborne, cyber and landbased C2ISR platforms and at supporting locations continuous Predictive Battlespace Awareness (PBA) of the information superiority fight. It also incorporates the machine-to-machine capabilities that rapidly synchronize the employment of kinetic weapons, non-kinetic weapons and ISR assets to target challenging threat systems responsively. SPS depicts a dynamic, multi-security-level picture of current and predicted threat network status, capitalizing on data inputs from sources such as NCCT and Integrated Broadcast Service (IBS). SPS provides a COP that can be tailored to support the integration of ISR, kinetic, and non-kinetic composite target packages supporting COCOM and Component specified information superiority effects and objectives.

The NCCT program is categorized as Budget Activity 7, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 7.348 | 7.367 | 7.458 | - | 7.458 |
| Current President's Budget | 7.192 | 7.367 | 7.413 | - | 7.413 |
| Total Adjustments | -0.156 | 0.000 | -0.045 | - | -0.045 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | -0.156 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -0.045 | - | -0.045 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305221F: *Network-Centric Collaborative Targeting* | PROJECT<br>675197: *NCCT Core Technology* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675197: *NCCT Core Technology* | - | 7.192 | 7.367 | 7.413 | - | 7.413 | 11.235 | 11.057 | 10.652 | 10.844 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

The FY 2014 NCCT President's Budget Request includes funding intended for the SUTER Program System (SPS) development and program management efforts.

**A. Mission Description and Budget Item Justification**

Network Centric Collaborative Targeting (NCCT) is the Air Force program of record responsible for developing core technologies to horizonally and vertically integrate ISR sensor systems within and across intelligence disciplines, for example signals intelligence to signals intelligence (SIGINT-SIGINT) or ground moving target indicator to signals intelligence (GMTI-SIGINT). NCCT software applications employ machine-to-machine (M2M) interfaces and Internet Protocol (IP) communications to coordinate sensor cross-cues and collection activities. NCCT correlation and fusion services ingest collection data to produce a single, composite track (geo-location and identification) for high-value targets. NCCT research and development funding supports evolutionary development of the NCCT message set and network management systems (Operations Interfaces, Network Controller, Fusion Engines, Data Guard, Interface to Command and Control, and the Interface to Overhead Intelligence Operations), the migration of the NCCT technolgies to emerging network centric technologies (e.g. Service Oriented Architectures (SOA) and web services), and satisfying DoD standards and Information Assurance requirements. Current NCCT-enabled systems include RC-135V/W RIVET JOINT, C-130H SENIOR SCOUT, EC-130H COMPASS CALL, DCGS SIGINT components, Falconer AOCs, FPED, VADER, Gorgon Stare, MC-12W LPA, and OIO. Any prospective NCCT-enabled Coalition, Joint, or Service system is required to fund its respective integration, unique core technology improvements/upgrades to support system integration, and the infrastructure to support the system's NCCT operational employment.

NCCT Program Manager will promote and facilitate the planning, demonstration and prototyping of capabilities, systems, and platforms in the approved Capabilities Production Document (CPD) or designated by the Requirments Review Board (RB) toward the objective of inclusion and full participation in NCCT. On-going support to U.S. Navy funded demonstrations to evalute the utility of NCCT to their maritime mission, potential Air-Sea Battle applications, and NATO Cooperative Electronic Support Measures Operations (CESMO) Gateway demonstrations are also focus efforts for the NCCT Program.

FY 2014 baseline funding is dedicated to initial integration of GMTI-SIGINT correlation capability being demonstrated in FY 2013 with operational systems, completion and initial fielding of the NCCT global services architecture, improvements in core technology security and Information Assurance, development of an NCCT network simulation capability targeted to support operator training/Distributed Mission Training/Distributed Mission Operations, and preliminary evaluation of additional systems and data types.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305221F: *Network-Centric Collaborative Targeting* | PROJECT<br>675197: *NCCT Core Technology* |

NCCT's Core Technology program is categorized as Budget Activity 7, Operational System Development, because this budget activity includes development efforts to integrate systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Core Technology | 6.000 | 6.326 | 4.078 |
| ***Description:*** Accomplishments and planned efforts include development and update of NCCT Core Technology; technical support to users, and management activities<br><br>***FY 2012 Accomplishments:***<br>Completed development of NCCT Core Tech Version 4.3 with initial SOA implementation, successful demonstration of NCCT-CESMO Gateway in Unified Vision 12, and completed initial development of GMTI-SIGINT correlator<br><br>***FY 2013 Plans:***<br>Continuing development efforts of NCCT Core Tech Version 5.0 increments, live-fly demonstration of GMTI-SIGINT correlator and application of NCCT Core Tech in Air-Sea Battle scenarios in the Trident Warrior 13 venue<br><br>***FY 2014 Plans:***<br>Will begin initial integration of GMTI-SIGINT correlation capability with operational systems, completion and intial fielding of the NCCT global services architecture, improvements in core technology security/Information Assurance, development of an NCCT network simulation capability targeted to support operator training/Distributed Mission Training/Distributed Mission Operations, and preliminary evaluation of additional systems and data types. Support NATO's Unified Vision 14 demonstration if funded | | | |
| ***Title:*** PMA | 1.192 | 1.041 | 1.100 |
| ***Description:*** Accomplishes the System Program Office (SPO) management services and related activities associated with the development and enhancement/upgrading of NCCT Core Tech and technical support to users<br><br>***FY 2012 Accomplishments:***<br>Continued SPO management services and activities associated with the develoment of NCCT Core Tech Version 4.3<br><br>***FY 2013 Plans:***<br>Continues SPO management services and activities in the development of NCCT Core Tech Version 5.0<br><br>***FY 2014 Plans:***<br>Will continue SPO efforts in management services and activities in the development of NCCT Core Tech Version 5.1 | | | |
| ***Title:*** SPS Software Development | 0.000 | 0.000 | 2.235 |
| ***Description:*** Planned efforts include development and fielding of of Suter Program software development | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305221F: *Network-Centric Collaborative Targeting* | PROJECT<br>675197: *NCCT Core Technology* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***FY 2014 Plans:***<br>Will develop latest Suter software versions with machine to machine interface capability, reducing time to pull information from other database sources, along with improved security management. | | | |
| **Accomplishments/Planned Programs Subtotals** | 7.192 | 7.367 | 7.413 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: 832070: *Intelligence Comm Equipment* | 0.000 | 0.000 | 2.900 | | 2.900 | 3.000 | 3.000 | 3.100 | 3.100 | Continuing | Continuing |

**Remarks**

FY 2014 reflects the increase in funding provided for operational support of Suter Program System (SPS) software, a cross-domain planning and execution capability providing a dynamic Near Real Time capability for planning, execution and assessment of networked targets within the Information Operations Battle Management (IOBM) realm.

**D. Acquisition Strategy**

The NCCT Core Technology capability is developed, maintained and sustained with baseline/incremental upgrades plus any quick reaction capabilities (QRC) developments acquired through the 645th Aeronautical System Group (BIG SAFARI System Program Office/SPO) in accordance with the BIG SAFARI Program Management Directive (PMD) and the BIG SAFARI Class Justification and Authorization (J&A) documents for acquisition of supplies and services. The procured supplies and services are supported by the BIG SAFARI Life Cycle Management Plan (LCMP) across the full spectrum of system life cycle management -- developmental engineering to system retirement ("cradle to grave" support concept). Due to the rapidly changing threat environment encountered during our prolonged commitment to Overseas Contingency Operations (OCO), the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging/evolving Combatant Commander requirements.

645th AESG, Wright Patterson AFB OH, manages the Cost Plus Fixed Fee (CPFF) contracts used to develop the NCCT Core Technology. 645 AESG will develop NCCT Core Tech software and common hardware for systems and platforms designated to field this ISR capability. Individual program management offices may contract directly with their prime contractors or through the 645 AESG for integration of this ISR capability on their respective systems and platforms. Current NCCT-enabled and programmed development systems include, but are not limited to, RC-135V/W RIVET JOINT, C-130H SENIOR SCOUT, EC-130H COMPASS CALL, MC-12W Liberty Project Aircraft, DCGS SIGINT components, FPED, AOCs, Gorgon Stare, VADER, P-3C, and OIO.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305221F: *Network-Centric Collaborative Targeting* | PROJECT<br>675197: *NCCT Core Technology* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Core Technology | SS/CPFF | L-3ComCept:Rockwall, TX | - | 5.567 | Dec 2011 | 5.847 | Dec 2012 | 3.788 | Dec 2013 | - | | 3.788 | Continuing | Continuing | TBD |
| Suter Software Development | SS/CPFF | L-3ComCept:Rockwall, TX | - | 0.000 | | 0.000 | | 2.235 | Dec 2013 | - | | 2.235 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 5.567 | | 5.847 | | 6.023 | | 0.000 | | 6.023 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Security Certification/ Technical Engineering | SS/CPFF | Riverside Research Institute:Dayton, OH | - | 0.433 | Dec 2011 | 0.200 | Dec 2012 | 0.290 | Dec 2013 | - | | 0.290 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.433 | | 0.200 | | 0.290 | | 0.000 | | 0.290 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | C/FFP | Riverside Research Institute:Dayton, OH | - | 1.192 | Dec 2011 | 1.320 | Dec 2012 | 1.100 | Dec 2013 | - | | 1.100 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.192 | | 1.320 | | 1.100 | | 0.000 | | 1.100 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305221F: *Network-Centric Collaborative Targeting* | PROJECT<br>675197: *NCCT Core Technology* | |

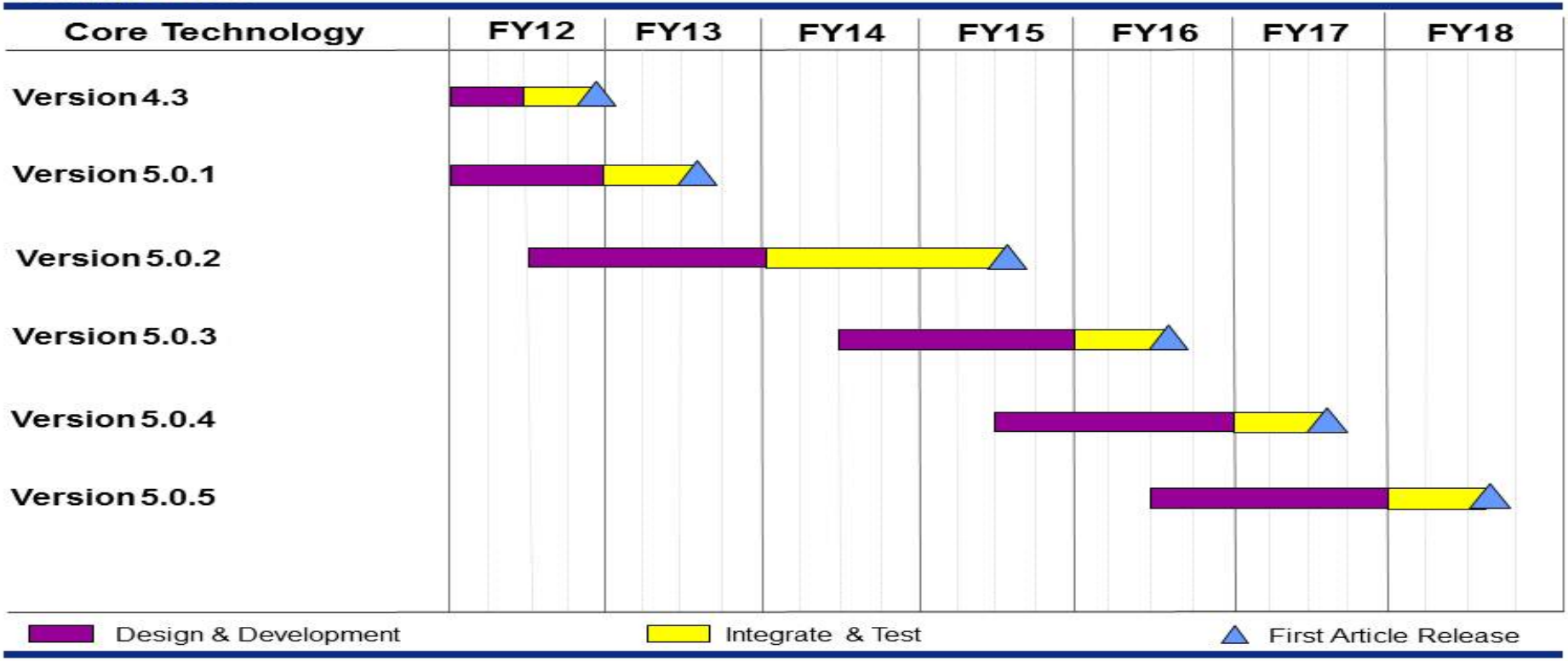
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 7.192 | | 7.367 | | 7.413 | | 0.000 | | 7.413 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305221F: *Network-Centric Collaborative Targeting* | PROJECT<br>675197: *NCCT Core Technology* |

U.S. AIR FORCE

# NCCT Schedule




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| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305221F: *Network-Centric Collaborative Targeting* | **PROJECT**<br>675197: *NCCT Core Technology* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Core Tech Version 4.3 Development, Integration & Test | 1 | 2012 | 4 | 2012 |
| Core Tech Version 5.0.1 Development, Integration & Test | 1 | 2012 | 3 | 2013 |
| Core Tech Version 5.0.2 Development, Integration & Test | 3 | 2012 | 3 | 2015 |
| Core Tech Version 5.0.3 Development, Integration & Test | 3 | 2014 | 3 | 2016 |
| Core Tech Version 5.0.4 Development, Integration & Test | 3 | 2015 | 3 | 2017 |
| Core Tech Version 5.0.5 Development, Integration & Test | 3 | 2016 | 3 | 2018 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305236F: *Common Data Link (CDL)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.000 | 38.094 | 40.503 | - | 40.503 | 41.087 | 41.254 | 41.792 | 42.536 | Continuing | Continuing |
| 674819: *Common Data Link (CDL)* | - | 0.000 | 38.094 | 40.503 | - | 40.503 | 41.087 | 41.254 | 41.792 | 42.536 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2013, Project 674819, Common Data Link (CDL), efforts transferred from Program Element 0305206F, Airborne Reconnaissance, Project 674819, Common Data Link (CDL).

**A. Mission Description and Budget Item Justification**

Common Data Link (CDL) provides the DoD standard for interoperable, multi-service, multi-agency, wideband datalinks for manned/unmanned platforms performing Intelligence, Surveillance, and Reconnaissance (ISR) missions. As the CDL Executive Agent (EA), the Air Force is responsible for cross-service application of CDL RDT&E funds facilitating compliance to Congressional and DoD mandates. Military Intelligence Program (MIP) funds are used to maintain, distribute, and upgrade the CDL specifications while ensuring design configuration, commonality, and interoperability among ISR platforms. Additionally, funds are used for the management of resources allocated for development and migration of CDL technologies. Updates to the CDL specification and developmental systems impact 10,000+ DoD airborne and ground ISR systems.

The CDL program enables compliance with OSD and Congressional mandates to minimize spectrum usage, use of cryptographic equipment, and direct support to current operations. The CDL specifications permit current and future ISR assets to operate worldwide by providing sensor data directly via point-to-point broadcast to ground sites, airborne platforms and dismounted users. CDL is a vital link in DoD's emerging communication architectures. CDL provides the capability to relay data via air-to-air or compatible satellite links when the asset and ground site are not in line-of-sight. CDL provides the largest bandwidth datalink in DoD, accommodating numerous sensors collecting Signals Intelligence (SIGINT), Imagery Intelligence (IMINT), and video data.

Research and development activities include achieving higher data rates for CDL, operations in other spectral bands, and support of large area surveillance missions, while supporting continuous improvements and implementation of line-of-sight platform and CDL terminal Command and Control, plus increased Intelligence, Surveillance, and Reconnaissance (C2ISR) capabilities. Activities also include studies and analysis to support current and future program planning and execution. CDL terminal designs provide for future technology insertion and reduce non-recurring engineering and life-cycle costs to the user.

The addition of Gigabit Encryption thrust enables CDL to develop a miniaturized gigabit rate Communication Security (COMSEC) device that will be capable of managing CDL data. The miniaturized COMSEC device will allow faster throughput while reducing Size, Weight, and Power (SWaP) requirements.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305236F: *Common Data Link (CDL)* |

This program is in Budget Activity 7, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.000 | 38.094 | 38.503 | - | 38.503 |
| Current President's Budget | 0.000 | 38.094 | 40.503 | - | 40.503 |
| Total Adjustments | 0.000 | 0.000 | 2.000 | - | 2.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 2.000 | - | 2.000 |

**Change Summary Explanation**

In FY 2014, the $2M increase supports Gigabit Encryption development efforts.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** CDL Technology Advancement | 0.000 | 26.370 | 26.361 |
| ***Description:*** CDL evolutionary terminal development, advanced technology insertion, demonstrations, and studies per CDL IPT direction to the CDL Executive Agent(CDL EA).<br><br>***FY 2013 Plans:***<br>Continues the development and testing of Higher Data Rates to existing and emerging terminals, plus additional Size, Weight and Power (SWaP) improvements. Continues the technology developments for adapting/testing networking and more effective portable ground and lightweight airborne terminal components, continuation of multispectral operations flexibility, increased spectrum efficiency, and integration of improved transmission components. Continues development of enhanced, CDL-based ISR communications capabilities across multiple platforms and rapid prototyping efforts. Continues support of emerging communication backbone architecture development across space, air, and terrestrial layers including agile high capacity data transport and creating mobile network hubs.<br><br>***FY 2014 Plans:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305236F: *Common Data Link (CDL)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Will continue development and testing of Higher Data Rates to existing and emerging terminals, plus additional Size, Weight and Power (SWaP) improvements. Will continue technology developments for adapting/testing networking and more effective portable ground and lightweight airborne terminal components, continuation of multispectral operations flexibility, increased spectrum efficiency, and integration of improved transmission components. Will continue development of enhanced, CDL-based ISR communications capabilities across multiple platforms and rapid prototyping efforts. Will continue support of emerging communication backbone architecture development across space, air, and terrestrial layers including agile high capacity data transport and creating mobile network hubs. | | | |
| ***Title:*** CDL specification maintenance and development<br><br>***Description:*** CDL specification testing, maintenance, development, validation, configuration control, and distribution per CDL IPT direction to CDL EA.<br><br>***FY 2013 Plans:***<br>Continues research and development upgrades of current and future specification employment profiles to include the adding of capabilities required to support Joint Aerial Layer Network and other emerging operational capabilities. Enhances spectrally efficient CDL waveform specification. Continues to work with CDL industry and Services to document, validate, and implement common terminal control interfaces through the use of commercially recognized standards. Continues to maintain configuration control of the CDL architecture, standards, specifications, and modules.<br><br>***FY 2014 Plans:***<br>Will continue researching and/or developing upgrades to support current and future specification employment profiles and include adding capabilities required to support Joint Aerial Layer Network and other emerging operational capabilities. Will enhance spectrally efficient CDL waveform specification. Will continue to work with CDL industry and Services to document, validate, and implement common terminal control interfaces through the use of commercially recognized standards. Will continue to maintain configuration control of the CDL architecture, standards, specifications, and modules. | 0.000 | 6.573 | 6.770 |
| ***Title:*** Gigabit Encryption<br><br>***Description:*** Develop a miniaturized gigabit rate COMSEC device capable of handling CDL data rates. Miniaturizing COMSEC components will enable faster data throughput (greater than12 GBPS) and reduce size, weight, and power. Once developed, CDL users will have to procure COMSEC components and fund installation/integration.<br><br>***FY 2014 Plans:***<br>Will initiate the development effort to build the gigabit encryption device which will be eventually fielded on numerous platforms. This device will allow faster data throughput and reduce the size, weight and power. | 0.000 | 0.000 | 2.000 |
| ***Title:*** Program Management Administration (PMA) | 0.000 | 5.151 | 5.372 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305236F: *Common Data Link (CDL)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Program Support Administration costs support management with engineering and technical support for development and implementation.<br><br>***FY 2013 Plans:***<br>Supports program activities required for device production. Permits the System Program Office (SPO) to discharge responsibilities to support the fielding and installation of new and developing capabilities.<br><br>***FY 2014 Plans:***<br>Will continue to support program activities required for device production. Permits the System Program Office (SPO) to discharge responsibilities to support the fielding and installation of new and developing capabilities. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 38.094 | 40.503 |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

The CDL Executive Agent, supported by each of the Services' CDL program's Service laboratories, the Airborne Network Division (AFLCMC/HNA), and the Defense Information Systems Agency (DISA), provide for development of interoperable wideband ISR data links as mandated by the Assistant Secretary of Defense (Networks and Information Integration) (ASD(NII)) policy. Once CDL technology development matures, platforms are responsible for program CDL procurement, National Security Agency (NSA) and DISA certifications, integration, and installation. Acquisition strategy varies by contract. When possible, contracts are awarded under full and open competition.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305236F: *Common Data Link (CDL)* | PROJECT<br>674819: *Common Data Link (CDL)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AF Gigabit Plus, AF IA Modernization, Army Spec Verification | C/CPFF | L-3 Communications:Salt Lake City, UT | - | 0.000 | | 8.820 | Jan 2013 | 11.500 | Feb 2014 | - | | 11.500 | Continuing | Continuing | TBD |
| Advanced Waveform Validation, Marine ISR Comm, Joint Spec Support | C/CPFF | Cubic:San Diego, CA | - | 0.000 | | 4.000 | Jan 2013 | 4.500 | Jan 2014 | - | | 4.500 | Continuing | Continuing | TBD |
| Marine AH-1 - FMV | C/CPFF | Bell Helicopter:Hurst, TX | - | 0.000 | | 3.400 | Jan 2013 | 3.500 | Jan 2014 | - | | 3.500 | Continuing | Continuing | TBD |
| Under Threshold Combined | Various | Various:Various, | - | 0.000 | | 9.289 | Dec 2012 | 8.016 | Dec 2013 | - | | 8.016 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 25.509 | | 27.516 | | 0.000 | | 27.516 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Service Tech Support & Spec Development | MIPR | Various:Various, | - | 0.000 | | 5.597 | Oct 2012 | 5.765 | Oct 2013 | - | | 5.765 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 5.597 | | 5.765 | | 0.000 | | 5.765 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Joint Interoperability Test Center (JITC) | MIPR | JITC:Fort Huachuca, AZ | - | 0.000 | | 1.500 | Nov 2012 | 1.500 | Nov 2013 | - | | 1.500 | Continuing | Continuing | TBD |
| 46 Test Squadron | PO | 46 TS/OGEX:Eglin AFB, FL | - | 0.000 | | 0.337 | Dec 2012 | 0.350 | Dec 2012 | - | | 0.350 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 1.837 | | 1.850 | | 0.000 | | 1.850 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305236F: *Common Data Link (CDL)* | PROJECT<br>674819: *Common Data Link (CDL)* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA - MITRE Engineering Support | SS/T&M | MITRE Corp.:Bedford, MA | - | 0.000 | | 0.768 | Oct 2012 | 0.791 | Oct 2013 | - | | 0.791 | Continuing | Continuing | TBD |
| PMA - PASS Financial and PM Support | C/T&M | PE Systems:Littleton, MA | - | 0.000 | | 1.100 | Feb 2013 | 1.200 | Feb 2014 | - | | 1.200 | Continuing | Continuing | TBD |
| PMA - Under Threshold Program Mgmt/Tech Support | Various | Various:Various, | - | 0.000 | | 3.283 | Dec 2012 | 3.381 | Oct 2013 | - | | 3.381 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 5.151 | | 5.372 | | 0.000 | | 5.372 | | | |

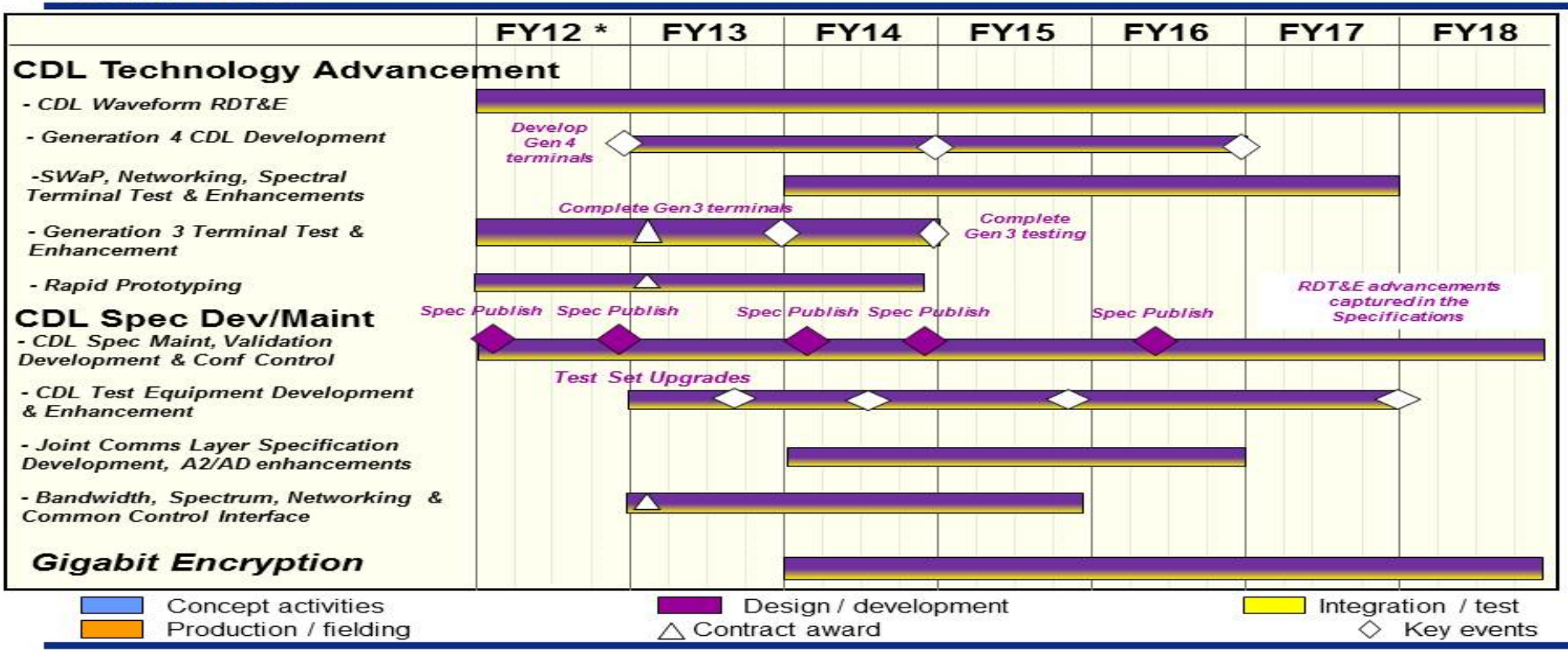
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 38.094 | | 40.503 | | 0.000 | | 40.503 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305236F: *Common Data Link (CDL)* | PROJECT<br>674819: *Common Data Link (CDL)* |

# CDL Schedule

U.S. AIR FORCE




* - FY 2012 efforts accomplished under Program Element 0305206F, Airborne Reconnaissance, Project 674819, CDL

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305236F: *Common Data Link (CDL)* | **PROJECT**<br>674819: *Common Data Link (CDL)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| CDL Waveform RDT&E | 1 | 2012 | 4 | 2018 |
| Gen 4 CDL Dev | 1 | 2013 | 4 | 2016 |
| SWaP, Networking, Spectral Terminal Test & Enhancement | 1 | 2014 | 4 | 2017 |
| Gen 3 Terminal Test & Enhancement | 1 | 2012 | 4 | 2014 |
| Rapid Prototyping | 1 | 2012 | 4 | 2014 |
| CDL Spec Maint, Validation, Dev & Config Control | 1 | 2012 | 4 | 2018 |
| CDL Test Equipment Dev & Enhancement | 1 | 2013 | 4 | 2017 |
| Joint Communication Layer Specification Development, A2/AD Enhancements | 1 | 2014 | 4 | 2016 |
| Bandwidth, Spectrum, Networking & Common Control Interface | 1 | 2013 | 4 | 2015 |
| Gigabit Encryption | 1 | 2014 | 4 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | | DATE: April 2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305238F: *NATO AGS* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | 0.000 | 0.000 | 210.109 | 264.134 | - | 264.134 | 235.757 | 140.000 | 40.000 | 40.720 | 0.000 | 930.720 |
| 676001: *NATO AGS* | 0.000 | 0.000 | 210.109 | 264.134 | - | 264.134 | 235.757 | 140.000 | 40.000 | 40.720 | 0.000 | 930.720 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |
| **MDAP/MAIS Code(s):** 252 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2012, Project 676001, NATO Alliance Ground Surveillance (AGS) efforts were transferred from OSD PE 1001018D8Z, NATO AGS, Project P018, NATO AGS, to PE 0305220F, RQ-4 Global Hawk (GH), Project 676001, NATO AGS in order to transfer control of this effort from OSD to the USAF.

In FY 2013, Project 676001, NATO AGS, efforts transferred from PE 0305220F, RQ-4 GH, Project 676001, NATO AGS to PE 0305238F, NATO AGS, Project 676001, NATO AGS, in order to manage NATO AGS as a separate OSD special interest program.

**A. Mission Description and Budget Item Justification**

U.S. participation in NATO AGS was ratified by SECDEF signature of the NATO AGS Program Memorandum of Understanding (PMOU) in June 2009. The PMOU went into effect in Sept 2009 when fifteen nations, including the United States, financially committed for procurement and delivery of the NATO Commander's number one priority to the war fighter. Canada withdrew in August 2011, leaving 14 participating nations.

In FY2012, OSD transferred the NATO AGS project to the USAF for management and execution. The NATO AGS project funds the U.S. share of the cost for NATO to acquire an air-to-ground ground surveillance capability, improvements to the radar, and the U.S. support of NATO AGS-related activities. Operations and continuing support will be funded through a future NATO Military Commanders' Capability Package funded within the NATO Security Investment Program (NSIP).

The AGS system will be a NATO-owned and operated airborne ground surveillance capability that provides continuous, wide area surveillance information in all weather conditions for use at the strategic, operational and tactical levels of command. Interoperable with other national assets, AGS will provide NATO decision makers with near real time, continuous information and situational awareness concerning friendly, neutral, and opposing ground forces to support mission planning and execution, including force protection and targeting.

The NATO AGS Program includes an air segment consisting of a five (5) NATO-developed air vehicles, using elements of the USN Triton (previously Broad Area Maritime Surveillance (BAMS)) command and control architecture and the U.S. Radar Technology Insertion Program (RTIP) radar; a unique configuration to allow export of system; a ground segment for data exploitation and distribution that consists of fixed-based site and transportable/mobile ground stations; establishment and operation of a management organization; development of operations and support concepts; and definition and establishment of an initial support capability. As part

of the U.S. government agreement with NATO AGS Management Agency (NAGSMA), the U.S. will integrate Maritime Moving Target and Inverse Synthetic Aperture Radar capability into the RTIP radar for NATO AGS. This design and development includes correcting deficiencies, flight testing on the modes and system level performance validation.

The system level configuration changes include a unique configuration to allow for export of the system. (Additional details are classified and available on a need-to-know basis.)

Deliveries are planned for 2016-2017. The follow-on sustainment and operations will be supported by all 28 NATO nations through their contributions of funding to the program. Mission elements will support 2 orbits. The main operating base (MOB) air vehicles and mission C2 will be in Naval Air Station Sigonella, Italy. Exploitation at MOB will be developed by Selex. EADS and Selex will develop the transportable and mobile general ground stations.

The program, managed by the NAGSMA, is composed of design, development and demonstration, as well as initial in-service support (IISS). While the current program includes IISS, the current Direct Commercial Sale (DCS) contract with Northrop Grumman does not include these tasks.

The DCS contract between Northrop Grumman and NAGSMA was signed on 20 May 2012. This funding is the U.S. cost share for the acquisition of the NATO airborne ground surveillance capability as well as the cost share associated with the IISS. IISS and In-Service Support (ISS) will be contracted under separate action. It is anticipated that ISS costs will be commonly funded through a future NATO Military Commanders' Capability Package, using the NATO Security Investment Program (NSIP). This funding also includes developmental activity for RTIP to include additional functionality and configuration requirements, studies and analysis related to mission security and exportability, and current and future program planning, project execution, engineering, and program management support to NATO.

This program is in Budget Activity 7, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.000 | 210.109 | 264.134 | - | 264.134 |
| Current President's Budget | 0.000 | 210.109 | 264.134 | - | 264.134 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305238F: *NATO AGS* |

**Change Summary Explanation**

In FY 2013, Project 676001, NATO AGS, efforts were transfered from RQ-4 Global Hawk (GH) PE 0305220F, NATO AGS, Project 676001, NATO AGS to PE 0305238F, NATO AGS, Project 676001, NATO AGS, in order to manage NATO AGS as a separate OSD special interest program.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Design / Development of NATO AGS<br>***Description:*** United States contribution to NATO for AGS development acquisition and initial fielding.<br><br>Supports configuration changes at a system level. (Additional details are classified and available on a need-to-know basis.)<br>***FY 2013 Plans:***<br>Continuing United States contribution to NATO for AGS development acquisition and initial fielding.<br><br>Supports configuration changes at a system level. (Additional details are classified and available on a need-to-know basis.)<br>***FY 2014 Plans:***<br>Will continue United States contribution to NATO for AGS development acquisition and initial fielding.<br><br>Supports configuration changes at a system level. (Additional details are classified and available on a need-to-know basis.) | 0.000 | 180.280 | 222.954 |
| ***Title:*** Design/Development of Maritime Modes<br>***Description:*** Supports development of maritime modes capability for RTIP and additional configuration changes that cannot be performed under the direct commercial sale contract between Northrop Grumman and NAGSMA.<br>***FY 2013 Plans:***<br>Supporting development of maritime modes capability and additional configuration changes that cannot be performed under the direct commercial sale contract between Northrop Grumman and NAGSMA.<br>***FY 2014 Plans:***<br>Will continue to support development of maritime modes capability and additional configuration changes that cannot be performed under the direct commercial sale contract between Northrop Grumman and NAGSMA. | 0.000 | 28.506 | 39.009 |
| ***Title:*** Technical Support for NATO AGS<br>***Description:*** Provide engineering and logistics support for NATO AGS development and initial fielding.<br>***FY 2013 Plans:*** | 0.000 | 0.535 | 0.392 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305238F: *NATO AGS* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Providing engineering and logistics support for NATO AGS development and initial fielding.<br>***FY 2014 Plans:***<br>Will continue engineering and logistics support for NATO AGS development and initial fielding. | | | |
| ***Title:*** Test and Evaluation Support for NATO AGS<br>***Description:*** Provide testing and evaluation via the Air Force Flight Test Center.<br>***FY 2013 Plans:***<br>Conducting preliminary test and evaluation planning with the Air Force Flight Test Center.<br>***FY 2014 Plans:***<br>Will complete detailed test and evaluation planning with the Air Force Flight Test Center. | 0.000 | 0.384 | 1.368 |
| ***Title:*** Management Services for NATO AGS<br>***Description:*** Establish and support a program office for US Government support to NATO for AGS development and initial fielding. Serve as interface to the US program offices and the prime contractor for NATO AGS capability.<br>***FY 2013 Plans:***<br>Supporting a program office for US Government support to NATO for AGS development and initial fielding. Serve as interface to the US program offices and the prime contractor for NATO AGS capability.<br>***FY 2014 Plans:***<br>Will continue support of a program office for US Government support to NATO for AGS development and initial fielding. Serve as interface to the US program offices and the prime contractor for NATO AGS capability. | 0.000 | 0.404 | 0.411 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 210.109 | 264.134 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDTE: BA07: PE 0305220F: *RQ-4 UAV* | 82.745 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

**Remarks**

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305238F: *NATO AGS* |

**E. Acquisition Strategy**

The U.S. signed the PMOU committing the U.S. Government to NATO-derived cost shares of the AGS prime contract for design, development, demonstration, and initial production of the NATO AGS system. The system will be delivered via a fixed price direct commercial sale contract between Northrop Grumman Integrated Sensor Systems International, Incorporated (NGISSI) & NATO, which was signed on 20 May 2012. The program is managed by NAGSMA.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305238F: *NATO AGS* | PROJECT<br>676001: *NATO AGS* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Design / Development of NATO AGS | SS/FFP | NATO AGS Management Agency:Brussels, Belgium, | 0.000 | 0.000 | | 146.247 | Dec 2012 | 203.581 | Oct 2013 | - | | 203.581 | 385.620 | 735.448 | |
| System Level Configuration Changes | SS/FFP | AFLCMC/WI:Wright Patterson, AFB, OH | 0.000 | 0.000 | | 34.033 | Apr 2013 | 19.373 | Oct 2013 | - | | 19.373 | 19.747 | 73.153 | |
| Design / Development of RTIP | SS/FFP | AFLCMC/ HB:Hanscom AFB, MA | 0.000 | 0.000 | | 28.506 | Jan 2013 | 39.009 | Oct 2013 | - | | 39.009 | 3.590 | 71.105 | |
| | | **Subtotal** | 0.000 | 0.000 | | 208.786 | | 261.963 | | 0.000 | | 261.963 | 408.957 | 879.706 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Technical Support for NATO AGS | SS/FFP | Multiple:Hanscom, WPAFB, | 0.000 | 0.000 | | 0.535 | Apr 2013 | 0.392 | Apr 2014 | - | | 0.392 | 1.169 | 2.096 | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.535 | | 0.392 | | 0.000 | | 0.392 | 1.169 | 2.096 | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Test and Evaluation Support for NATO AGS | SS/FFP | Multiple:Hanscom, WPAFB, Edwards, | 0.000 | 0.000 | | 0.384 | Apr 2013 | 1.368 | Apr 2014 | - | | 1.368 | 4.497 | 6.249 | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.384 | | 1.368 | | 0.000 | | 1.368 | 4.497 | 6.249 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305238F: *NATO AGS* | PROJECT<br>676001: *NATO AGS* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Management Services for NATO AGS | SS/FFP | Multiple:Hanscom, WPAFB, Pax River, | 0.000 | 0.000 | | 0.404 | Dec 2012 | 0.411 | Dec 2013 | - | | 0.411 | 1.134 | 1.949 | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.404 | | 0.411 | | 0.000 | | 0.411 | 1.134 | 1.949 | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 210.109 | | 264.134 | | 0.000 | | 264.134 | 415.757 | 890.000 | |

**Remarks**

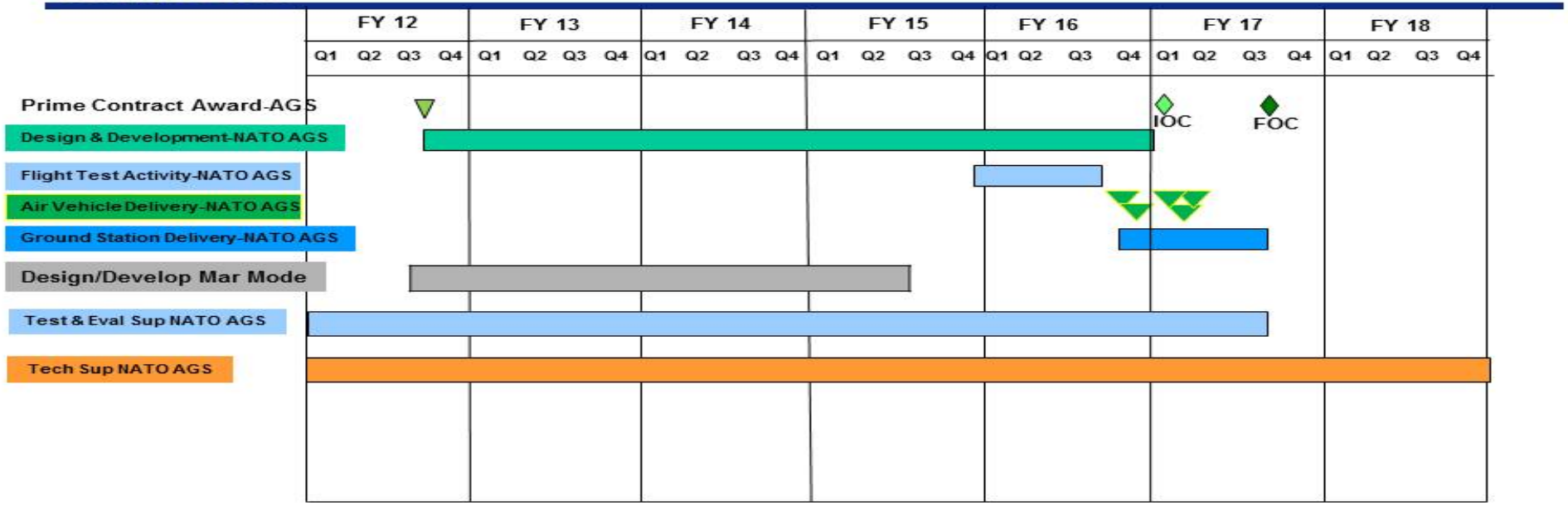
Per Memo from SAF/AQX & SAF/FMB on "Reporting of PMA FY12 Efficiencies" dated 9 Jan 2012, NATO AGS is excluded from PMA tracking.

The Industrial Structure consists of Northrop Grumman (NGISSII) prime contractor, three European-subcontractors, and 14 participating nation industries that will receive direct work; no indirect offsets. The technical support of the NATO AGS program includes MITRE Engineering, U.S. Navy's Triton program office support, U.S. government travel, and supplies. The test and evaluation support of the NATO AGS program includes the AFMC 412 TW support of Flight Testing and Frequency Management by the AFMC 88 CG. The management services support of the NATO AGS program includes Advisory & Assistance Services.

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305238F: *NATO AGS* | PROJECT<br>676001: *NATO AGS* |

# NATO AGS Program Schedule

U.S. AIR FORCE



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305238F: *NATO AGS* | **PROJECT**<br>676001: *NATO AGS* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Contract Award | 3 | 2012 | 3 | 2012 |
| IOC | 1 | 2017 | 1 | 2017 |
| FOC | 3 | 2017 | 3 | 2017 |
| Flight Test | 4 | 2015 | 3 | 2016 |
| Aircraft Delivery | 4 | 2016 | 2 | 2017 |
| Ground Station Delivery | 4 | 2016 | 3 | 2017 |
| Design and Development Maritime Mode | 3 | 2012 | 3 | 2015 |
| Test and Evaluation Support | 1 | 2012 | 3 | 2017 |
| Tech Support | 1 | 2012 | 4 | 2018 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.000 | 24.500 | 23.016 | - | 23.016 | 25.350 | 26.026 | 26.497 | 26.974 | Continuing | Continuing |
| 674826: *Common Imagery Ground / Surface Systems* | - | 0.000 | 14.073 | 14.352 | - | 14.352 | 14.499 | 14.774 | 15.054 | 15.325 | Continuing | Continuing |
| 675265: *Common Imagery Processor (CIP)* | - | 0.000 | 10.427 | 8.664 | - | 8.664 | 10.851 | 11.252 | 11.443 | 11.649 | Continuing | Continuing |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

This Program Element contains efforts the AF is lead service for under the auspices of USD(I). Prior to FY13, these efforts were executed within PE0305208F, Distributed Common Ground System. Beginning in FY13, the AF DCGS programs and Support to DCGS Enterprise programs are reported separately for improved visibility.

The DCGS Family of Systems, including AF DCGS, was directed to migrate to a net-centric DoD ISR enterprise enabling the Services to operate and share intelligence products more effectively in a Joint environment. All Services must pursue a common path based on a set of common enterprise services consistent with the Department's net-centric vision while maintaining flexibility to support the full range of the warfighter missions. Specifically, the DoD charged the Air Force to lead the development, upgrade, integration, and test of common DCGS Integration Backbone (DIB) enterprise services. The DIB is a set of enterprise standards and services that enable interoperability and component reuse. All the Military Services are mandated to incorporate the DIB interoperability standards and commit to the DIB architecture as the migration path to common DCGS enterprise services.

The Distributed Common Ground Systems-Imagery (DCGS-I) Testbed is an integration and test environment, used by the Services and Agency program offices to conduct integration of DCGS components and test interoperability interfaces with new sensors, applications, and net- centric operations. This testbed also supports the integration and testing of DoD DCGS components prior to introduction into the operational environment. Upgrades to the DCGS-I Testbed will ensure it stays current with DCGS standards and architecture.

The AF-sponsored DIB System Program Office also participates in the development, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability.

The Common Imagery Processor (CIP) project develops a common imagery sensor processing capability within the DCGS-I architecture. The imagery processor accepts airborne imagery data, processes it into an exploitable format, and provides it to other elements within the weapon system and/or the DCGS Enterprise. Current efforts are transitioning the legacy imagery processor from a hardware/software capability to a virtual software capability improving enterprise processing

capabilities. Efforts continue to keep the capability on track to handle the current sensors. Activities also include testing, development, and demonstrations integrating updated and new/emerging sensors into the DCGS.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.000 | 24.500 | 25.016 | - | 25.016 |
| Current President's Budget | 0.000 | 24.500 | 23.016 | - | 23.016 |
| Total Adjustments | 0.000 | 0.000 | -2.000 | - | -2.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -2.000 | - | -2.000 |

**Change Summary Explanation**

FY14 total decrease of $2.0M for higher Department of Defense priorities.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 674826: *Common Imagery Ground / Surface Systems* | - | 0.000 | 14.073 | 14.352 | - | 14.352 | 14.499 | 14.774 | 15.054 | 15.325 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The DoD charged the AF with developing, upgrading and managing the DCGS Integration Backbone (DIB) for all the Services to provide common DCGS enterprise services and interoperability at the data level. The DIB is a set of enterprise standards and services that enable interoperability and component reuse. Using the DIB, AF DCGS modernization will transform AF DCGS from its existing proprietary system to a net-centric service oriented architecture.

The DCGS Family of Systems, including AF DCGS, was directed to migrate to a net-centric DoD ISR enterprise enabling the Services to operate and share intelligence products more effectively in a Joint environment. All Services must pursue a common path based on common enterprise services consistent with the Department's net-centric vision, while maintaining flexibility to support the full range of the warfighter missions. Also, all Services are mandated to incorporate the DIB interoperability standards and commit to the DIB architecture as the migration path to common DCGS enterprise services.

The Distributed Common Ground Systems-Imagery (DCGS-I) Testbed is an integration and test environment, used by the Services and Agency program offices to conduct integration of DCGS components and test interoperability interfaces with new sensors, applications, and net centric operations. This testbed also supports the integration and testing of DoD DCGS components prior to introduction into the operational environment. Upgrades to the DCGS-I Testbed will ensure it stays current with DCGS standards and architecture.

The AF-sponsored DIB System Program Office also participates in the development, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** DCGS Integration Backbone | 0.000 | 5.251 | 5.422 |
| ***Description:*** Upgrade, improve and manage the DCGS Integration Backbone (DIB). | | | |
| ***FY 2013 Plans:***<br>Continuing to upgrade, improve and manage the DIB. | | | |
| ***FY 2014 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305240F: *Support to DCGS Enterprise* | **PROJECT**<br>674826: *Common Imagery Ground / Surface Systems* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Will continue to upgrade, improve and manage the DIB. | | | |
| ***Title:*** DCGS-I Testbed<br>***Description:*** Continue DCGS-I Testbed development and upgrades and conduct DIB and DCGS enterprise tests.<br>***FY 2013 Plans:***<br>Continuing DCGS-I Testbed developments and upgrades and conducting DIB and DCGS enterprise tests.<br>***FY 2014 Plans:***<br>Will continue DCGS-I Testbed developments and upgrades and conduct DIB and DCGS enterprise tests. | 0.000 | 4.211 | 4.300 |
| ***Title:*** DIB System Program Office<br>***Description:*** Maintain a program management office to include A&AS, MITRE, travel, and supplies.<br>***FY 2013 Plans:***<br>Maintaining a program management office to include A&AS, MITRE, travel, and supplies.<br>***FY 2014 Plans:***<br>Will maintain a program management office to include A&AS, MITRE, travel, and supplies. | 0.000 | 1.992 | 1.932 |
| ***Title:*** Support to DCGS Enterprise<br>***Description:*** Provide support to OUSD(I), AF DCGS and NATO Interoperability Enterprise efforts.<br>***FY 2013 Plans:***<br>Providing support to OUSD(I), AF DCGS and NATO Interoperability Enterprise efforts.<br>***FY 2014 Plans:***<br>Will continue to provide support to OUSD(I), AF DCGS and NATO Interoperability Enterprise efforts. | 0.000 | 2.619 | 2.698 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 14.073 | 14.352 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDTE: BA07: 0305208F: *Distributed Common Ground System* | 85.724 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

**D. Acquisition Strategy**

The Air Force uses an evolutionary acquisition approach with version releases and periodic upgrades to develop, field, and upgrade the system and structure contracts for the improved capabilities through full and open competition to the maximum extent possible.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIB Management, Migration & Interoperability | C/Various | Various:Various, | - | 0.000 | | 5.371 | Apr 2013 | 5.422 | Apr 2014 | - | | 5.422 | Continuing | Continuing | TBD |
| Testbed Modernization and Licenses | C/Various | Various:Various, | - | 0.000 | | 4.091 | Mar 2013 | 4.300 | Mar 2014 | - | | 4.300 | Continuing | Continuing | TBD |
| Systems Engineering | C/CPFF | MITRE:Bedford, MA | - | 0.000 | | 1.229 | Oct 2012 | 1.260 | Oct 2013 | - | | 1.260 | Continuing | Continuing | |
| Management Services | C/CPFF | Various:Bedford, MA | - | 0.000 | | 0.763 | Apr 2013 | 0.672 | Apr 2014 | - | | 0.672 | Continuing | Continuing | |
| DCGS Team Support for OUSD(I) | C/Various | Science Applications Int'l:Mclean, VA | - | 0.000 | | 2.619 | Mar 2013 | 2.698 | Mar 2014 | - | | 2.698 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 14.073 | | 14.352 | | 0.000 | | 14.352 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

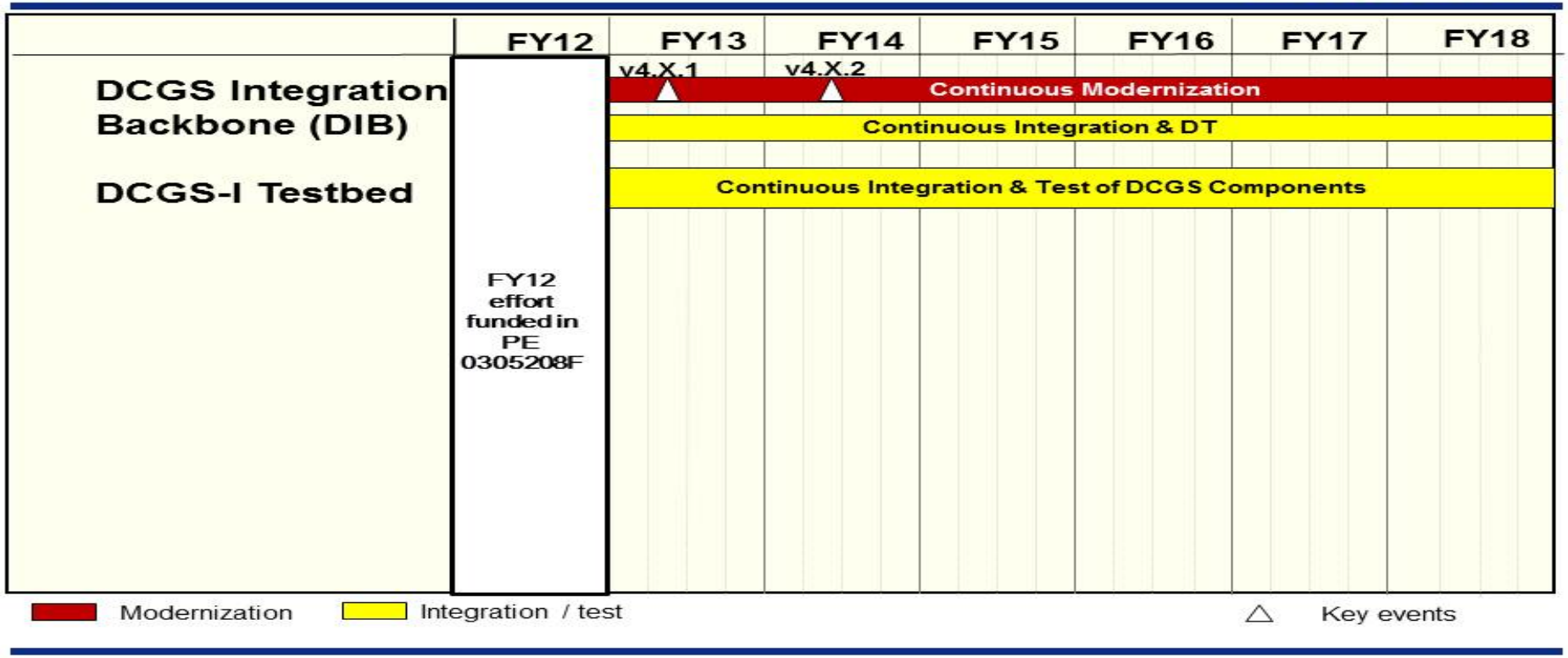
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 14.073 | | 14.352 | | 0.000 | | 14.352 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* |

# Common Imagery Ground/Surface System: Support to DCGS Enterprise Schedule




1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | PROJECT<br>674826: *Common Imagery Ground / Surface Systems* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| DIB Continuous Modernization | 1 | 2013 | 4 | 2018 |
| Field DIB v4.X.1 | 2 | 2013 | 2 | 2013 |
| Field DIB v4.X.2 | 2 | 2014 | 2 | 2014 |
| DIB Continuous Integration & DT | 1 | 2013 | 4 | 2018 |
| DCGS-I Testbed Continuous Integration and Test | 1 | 2013 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | PROJECT<br>675265: *Common Imagery Processor (CIP)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675265: *Common Imagery Processor (CIP)* | - | 0.000 | 10.427 | 8.664 | - | 8.664 | 10.851 | 11.252 | 11.443 | 11.649 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Common Imagery Processor (CIP) project develops a common imagery sensor processing capability within the DCGS-I architecture. The imagery processor accepts airborne imagery data, processes it into an exploitable format, and provides it to other elements within the weapon system and/or the DCGS Enterprise. Current efforts are transitioning the legacy imagery processor from a hardware/software capability to a virtual software capability improving enterprise processing capabilities. Efforts continue to keep the capability on track to handle the current sensors. Activities also include testing, development, and demonstrations integrating updated and new/emerging sensors into the DCGS.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Imagery Processor | 0.000 | 10.031 | 8.466 |
| ***Description:*** Continue to develop the imagery processor to keep pace with growing sensor baseline.<br><br>***FY 2012 Accomplishments:***<br>FY12 effort was funded in PE 030208F; effort transferred to this PE in FY13.<br><br>***FY 2013 Plans:***<br>Continuing development of the imagery processor to keep pace with growing sensor baseline.<br><br>***FY 2014 Plans:***<br>Will continue to develop imagery processing to keep pace with DCGS and sensor baseline modernization. | | | |
| ***Title:*** PMA | 0.000 | 0.396 | 0.198 |
| ***Description:*** Maintain a program managment office, including engineering, finance, and acquisition strategy execution.<br><br>***FY 2012 Accomplishments:***<br>FY12 effort was funded in PE 030208F; effort transferred to this PE in FY13.<br><br>***FY 2013 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | PROJECT<br>675265: *Common Imagery Processor (CIP)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Maintaining a program managment office, including engineering, finance, and acquisition strategy execution.<br>***FY 2014 Plans:***<br>Will continue to maintain a program managment office, including engineering, finance, and acquisition strategy execution. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 10.427 | 8.664 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDTE: BA07: 0305208F: *Distributed Common Ground System* | 10.709 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

For imagery processing the Air Force uses an evolutionary acquisition approach with blocks (increments) and spirals to develop, field, and upgrade the system and structure contracts for the improved capabilities through full and open competition to the maximum extent possible.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | PROJECT<br>675265: *Common Imagery Processor (CIP)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CIP Software Development | C/CPFF | Northrop Grumman:Baltimore, MD | - | 0.000 | | 9.881 | Apr 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Imagery Processing Software Development | C/CPAF | Various; Various:, | - | 0.000 | | 0.000 | | 8.466 | Jan 2014 | - | | 8.466 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 9.881 | | 8.466 | | 0.000 | | 8.466 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ISR&SOF Directorate | C/Various | ASC/WI:Wright-Patterson AFB, OH | - | 0.000 | | 0.150 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| PMA | Various | Various:Various, | - | 0.000 | | 0.396 | Nov 2012 | 0.198 | Nov 2013 | - | | 0.198 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.546 | | 0.198 | | 0.000 | | 0.198 | | | |

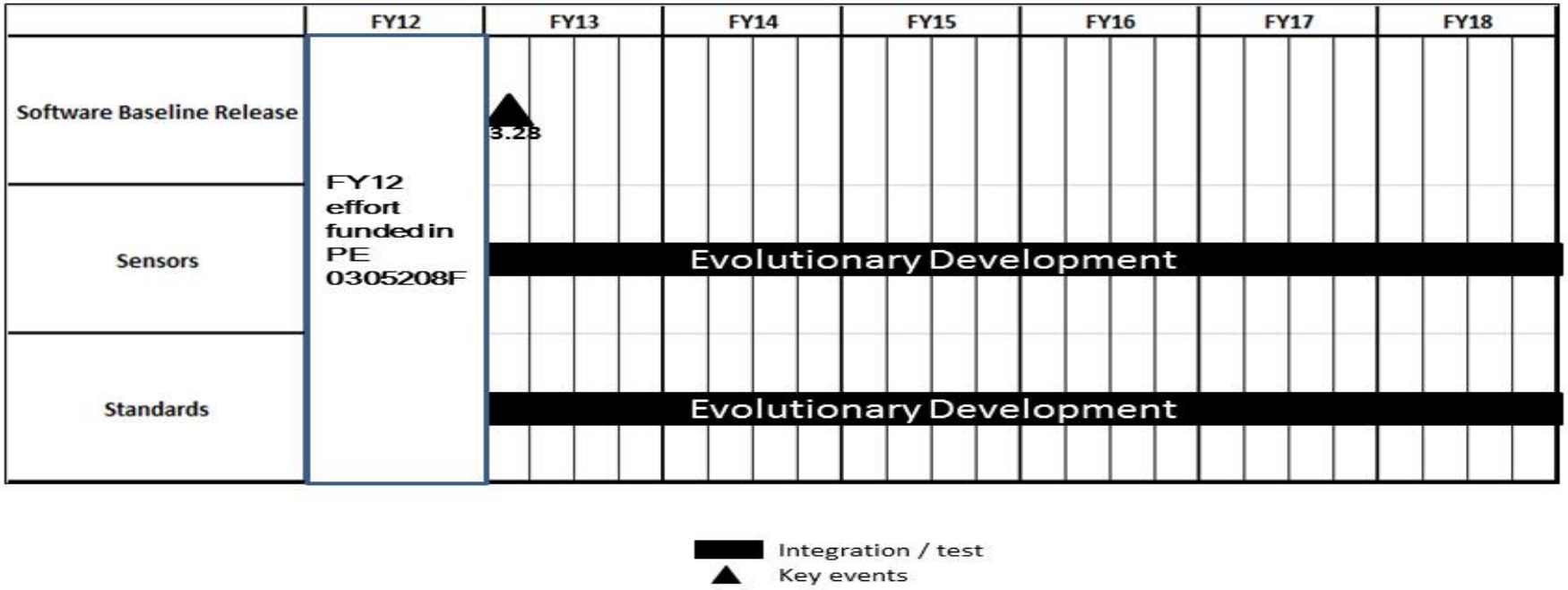
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | PROJECT<br>675265: *Common Imagery Processor (CIP)* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 10.427 | | 8.664 | | 0.000 | | 8.664 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | PROJECT<br>675265: *Common Imagery Processor (CIP)* |

# Imagery Processing Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305240F: *Support to DCGS Enterprise* | PROJECT<br>675265: *Common Imagery Processor (CIP)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Software Baseline Release (3.28) | 1 | 2013 | 1 | 2013 |
| Sensors - Evolutionary Development | 1 | 2013 | 4 | 2018 |
| Standards - Evolutionary Development | 1 | 2013 | 4 | 2018 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | | DATE: April 2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | 1,264.070 | 444.840 | 318.992 | 221.276 | - | 221.276 | 215.224 | 161.621 | 76.642 | 78.021 | 307.210 | 3,087.896 |
| 676007: *DASS Integration, GPS* | 0.000 | 2.143 | 1.795 | 2.688 | - | 2.688 | 1.452 | 1.314 | 1.331 | 1.355 | 0.000 | 12.078 |
| 67A019: *GPS III* | 1,264.070 | 442.697 | 317.197 | 218.588 | - | 218.588 | 213.772 | 160.307 | 75.311 | 76.666 | 307.210 | 3,075.818 |
| **MDAP/MAIS Code(s):** 292,456 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Global Positioning System (GPS) is a space based navigation system that fills validated Joint Service requirements for worldwide, accurate, common grid three dimensional positioning/navigation for military aircraft, ships, and ground personnel. The consistent accuracy, unaffected by location or weather and available in real time, significantly improves effectiveness of reconnaissance, weapons delivery, mine countermeasures and rapid deployment for all services. GPS must comply with Title 10 United States Code (USC) 2281 which requires that the Secretary of Defense ensures that continued sustainment and operations of GPS for military and civilian purposes and 51 USC sec 50112 which requires that GPS complies with certain standards and facilitates international cooperation.

The system is composed of three segments: user equipment (funded under PE 0305164F), space (funded under this PE and PE 0305165F) and a control network (funded under PE 0305165F and PE 0603423F). The satellites broadcast high accuracy data using precisely synchronized signals which are received and processed by user equipment installed in military platforms. This equipment computes the platform position and velocity and provides steering vectors to target locations or navigation waypoints. The control segment provides daily updates to the navigation messages broadcast from the satellites to maintain system precision in three dimensions to 16 meters spherical error probable worldwide. Additionally, GPS supports the Unites States Nuclear Detonation (NUDET) Detection System (NDS) mission and provides strategic and tactical support to the following Department of Defense (DoD) missions: Joint Operations by providing capabilities for Positioning, Navigation, and Timing (PNT); Command, Control, Communications, and Intelligence; Special Operations; Military Operations in Urban Terrain; Defense-Wide Mission Support; Air Mobility; and Space Launch Orbital Support.

GPS III is the next generation Space Vehicle (SV) to join the GPS constellation. GPS III SVs will deliver significant enhancements, including a new civil (L1C) Galileo-compatible signal, enhanced anti-jam power, and affordable on-ramps to provide full warfighter capabilities (e.g., better signal maintainability (Digital Waveform Generator (DWG), Unified S-Band (USB), near-real time Command and Control) and the civil search and rescue payload (SAR/GPS).

RDT&E, AF PE 0305265F funds GPS III and will support research, development, test and evaluation of GPS III SVs 01-02, and risk-reducing simulators through a structured systems engineering approach that matures and delivers space vehicles for launch. Space Modernization Initiatives (SMI), formerly known as Capability Insertion Program (CIP), includes capability maturation and risk reduction efforts to affordably develop follow-on performance parameters including the engineering and development for full GPS III warfighter capabilities. For example, as a part of reducing the cost to orbit, SMI includes dual launch initiatives to support 2 (two) SVs launching on 1 (one) launch vehicle. These initiatives develop and refine satellite integration/launch/on-orbit operations concepts, requirements, interfaces, integrated

schedule, and design trades. A GPS III SV-09+ delta Preliminary Design Review (dPDR) will produce radiation hardness assessments, a preliminary dual launch annex to the GPS III - Atlas V Interface Control Document (ICD), a dual-band, dual-launch Telemetry Tracking and Control (TT&C) design, and preliminary updates to the ground segment ICDs.

Additionally the program includes engineering studies and analyses, trade studies, system development, test and evaluation efforts, integrated logistics support products, on-orbit support, and mission operations supporting civil applications that protect U.S. military and allies' use of GPS. SAR/GPS is an approved secondary payload on GPS III beginning with SV 09. SAR/GPS will fill a validated National Search and Rescue Committee requirement to provide enduring, space-based distress alerting capability to detect, locate, and relay distress alerts to fulfill its responsibilities under international agreements for Search and Rescue. GPS III SVs 03-08 are in the Production and Deployment Phase. GPS III SVs 09+ are utilizing RDT&E funds for risk reduction towards an approved delta Critical Design Review (dCDR) in FY14.

This program is a Budget Activity 7 - Operational System Development because it supports operational systems (GPS).

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 455.095 | 318.992 | 221.276 | - | 221.276 |
| Current President's Budget | 444.840 | 318.992 | 221.276 | - | 221.276 |
| Total Adjustments | -10.255 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -6.057 | 0.000 | | | |
| • Other Adjustments | -4.198 | 0.000 | 0.000 | - | 0.000 |

**Change Summary Explanation**

FY12: -$6.057M for SBIR; -$4.198M decrease due to higher Air Force priorities.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | PROJECT<br>676007: *DASS Integration, GPS* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 676007: *DASS Integration, GPS* | 0.000 | 2.143 | 1.795 | 2.688 | - | 2.688 | 1.452 | 1.314 | 1.331 | 1.355 | 0.000 | 12.078 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Search and Rescue GPS (SAR/GPS), previously known as Distress Alerting Satellite System (DASS), is an approved secondary payload on GPS III beginning with Satellite Vehicle (SV) 09. SAR/GPS fills validated National Search and Rescue Committee requirements to provide enduring, space-based distress alerting capability to detect, locate, and relay distress alerts to fulfill its responsibilities under international agreements for Search and Rescue.

In addition, the USAF has on-going requirements to rescue US Military personnel in harm's way per Air Force Doctrine Document 2-1.6. The implementation of a US Mid Earth Orbiting Search and Rescue Space Segment is via a Canadian-Provided 406 MHz SAR repeater on GPS III satellites. This system presents a cost effective, low-risk opportunity that accommodates existing and planned 406 MHz beacons across the globe. Per NSPD-39, USAF and USCG, the US operators of the civil COSPAS/SARSAT system and the international search and rescue system, share costs (50/50) associated with integrating the Canadian provided SAR repeater to GPS III beginning with SV09. Costs presented in this document represent the USAF 50% Share.

This program is in Budget Activity 7 - Operational Systems Development because it supports operational systems.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** SAR GPS | 2.143 | 1.795 | 2.688 |
| ***Description:*** GPS III space segment nonrecurring costs to add one SAR/GPS unit to each SV beginning with SV09. | | | |
| ***FY 2012 Accomplishments:***<br>Designed and developed SAR/GPS antennas, associated hardware and cabling, and space vehicle software; system engineering associated with integrating SAR payload onto the GPS III SVs; system engineering and program management (SE/PM), Enterprise-level contractor System Engineering, Integration, Test, and Program Management (SEIT/PM). Costs do not include development and production of Canadian payload unit. | | | |
| ***FY 2013 Plans:***<br>Design and develop SAR/GPS antennas, associated hardware and cabling, and space vehicle software; system engineering associated with integrating SAR payload onto the GPS III SVs; system engineering and program management (SE/PM), | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | PROJECT<br>676007: *DASS Integration, GPS* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Enterprise-level contractor SEIT/PM; risk reduction effort toward an approved delta Preliminary Design Review (dPDR). Costs do not include development and production of Canadian payload unit.<br>***FY 2014 Plans:***<br>Continue to design and develop SAR/GPS antennas, associated hardware and cabling, and space vehicle software; system engineering associated with integrating SAR payload onto the GPS III SVs; system engineering and program management (SE/PM), Enterprise-level contractor SEIT/PM; risk reduction efforts toward an approved delta Critical Design Review (dCDR). Costs do not include development and production of Canadian payload unit. | | | |
| **Accomplishments/Planned Programs Subtotals** | 2.143 | 1.795 | 2.688 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • MPAF: BA05: Line Item # GPSIII: *GPS III TOA* | 494.055 | 492.910 | 477.598 | | 477.598 | 530.949 | 644.921 | 889.509 | 905.639 | 4,737.885 | 9,173.466 |
| • USCG: *U.S. Coast Guard* | 2.915 | 2.915 | 2.915 | | 2.915 | 2.915 | 2.915 | 2.915 | 2.915 | 5.830 | 26.235 |

**Remarks**

**D. Acquisition Strategy**

SAR/GPS will be integrated as part of the GPS III program and follows the GPS III acquisition strategy with funding provided by USCG and USAF.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | PROJECT<br>676007: *DASS Integration, GPS* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Search and Rescue SAR/ GPS | C/CPIF | Lockheed Martin:Newtown, PA | 0.000 | 2.143 | Nov 2011 | 1.795 | Dec 2012 | 2.688 | Dec 2013 | - | | 2.688 | 5.452 | 12.078 | |
| | | **Subtotal** | 0.000 | 2.143 | | 1.795 | | 2.688 | | 0.000 | | 2.688 | 5.452 | 12.078 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

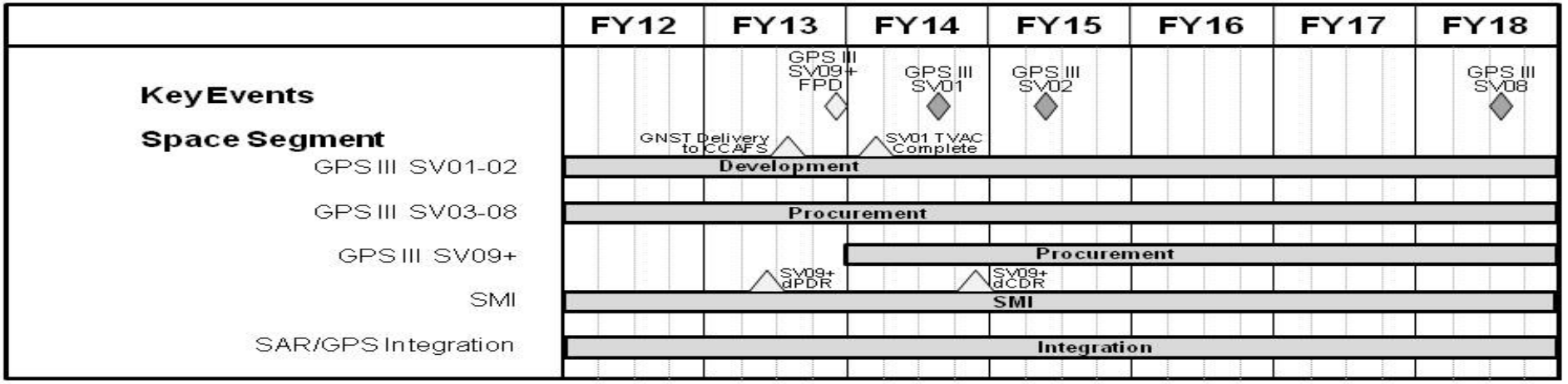
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 2.143 | | 1.795 | | 2.688 | | 0.000 | | 2.688 | 5.452 | 12.078 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | PROJECT<br>676007: *DASS Integration, GPS* |




CDR – Critical Design Review
CCAFS – Cape Canaveral Air Force Station
d – Delta
FPD – Follow-on Production Decision
GNST – GPS Non-flight Satellite Test Bed
PDR – Preliminary Design Review
SMI – Space Modernization Initiative
SAR – Search and Rescue
SV – Space Vehicle
TVAC – Thermal Vacuum

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | PROJECT<br>676007: *DASS Integration, GPS* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| GPS III SV 09+ delta Preliminary Design Review (dPDR) | 2 | 2013 | 2 | 2013 |
| GPS III SV 09+ Follow-on Production Decision | 4 | 2013 | 4 | 2013 |
| GPS III SV 09+ delta Critical Design Review (CDR) | 4 | 2014 | 4 | 2014 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | PROJECT<br>67A019: *GPS III* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 67A019: *GPS III* | 1,264.070 | 442.697 | 317.197 | 218.588 | - | 218.588 | 213.772 | 160.307 | 75.311 | 76.666 | 307.210 | 3,075.818 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

GPS III is the next generation Space Vehicle (SV) supporting the GPS constellation. GPS III SVs will deliver significant enhancements, including a new civil (L1C) Galileo-compatible signal, enhanced anti-jam power, and a growth path to full warfighter capabilities. GPS III Satellite Vehicles (SVs) 03 - 08 are in the Production & Deployment Phase.

Funds in this project are for GPS III SVs 01 - 08 design and development and will support research, development, test and evaluation of GPS III SVs 01-02 and risk reducing simulators through a structured systems engineering approach that matures and delivers two SVs for launch. The program includes capability maturation and risk reduction efforts (Space Modernization Initiatives (SMI)) to affordably develop follow-on performance parameters. For example, as part of reducing the cost to orbit, SMI includes dual launch initiatives to support 2 (two) SVs launching on 1 (one) launch vehicle. These initiatives develop and refine satellite integration/ launch/on-orbit operations concepts, requirements, interfaces, integrated schedule, and design trades. A GPS III SV-09+ delta Preliminary Design Review (dPDR) will produce radiation hardness assessments, a preliminary dual launch annex to the GPS III - Atlas V ICD, a dual-band, dual-launch TT&C design, and preliminary updates to the ground segment ICDs.

Additionally, the program includes engineering studies and analyses, trade studies, system development, test and evaluation efforts, integrated logistics support products, on-orbit support, and mission operations supporting civil applications that protect U.S. military and allies' use of GPS.

Funds in this Project for GPS III SVs 09 and beyond include engineering and development, affordable on-ramps for full GPS III warfighter capabilities (e.g., better signal maintainability, digital waveform generator (DWG), increased regional power, Unified S-Band (USB), near real-time command and control, and the civil search and rescue payload (SAR/GPS)).

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** GPS III SV01-08 | 406.397 | 276.943 | 163.557 |
| ***Description:*** Development, test and evaluation of two GPS III space vehicles and associated simulators, engineering studies and analyses, trade studies, system development, test and evaluation efforts, and integrated logistics support products. | | | |
| ***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | PROJECT<br>67A019: *GPS III* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continued GPS III space vehicle development, SE&I, technical and program support. Completed flight software (FSW) version 1.0, Navigation Payload ELement (NPE)-lite testing, and the GPS Non-Satellite Testbed (GNST) mate of system and core modules. Delivered GNST Earth Deck Antenna (EDA) to the GPS Processing Facility (GPF).<br>***FY 2013 Plans:***<br>Continue GPS III space vehicle development, SE&I, technical and program support. Complete FSW version 2.0. Ship GNST to Cape Canaveral Air Force Station (CCAFS). Complete thermal vacuum testing of SV01.<br>***FY 2014 Plans:***<br>Continue GPS III space vehicle development, SE&I, technical and program support. Provide SV-01 for launch availability. | | | |
| ***Title:*** GPS III SV09+<br>***Description:*** Development activities to support the integration of NDS, SAR/GPS, DWG and Dual Launch on GPS III SV09+. GPS III SMI, formerly known as Capability Insertion Program (CIP), addresses issues related to design, systems engineering, program management, obsolescence, and efficiencies for GPS SVs 09 and beyond. Focus is on capability maturation and risk reduction.<br>***FY 2012 Accomplishments:***<br>Addressed affordability/obsolescence issues and initial system designs of future capabilities, capability maturation and risk reduction efforts. Completed an initial dual launch capability study. Additional activities include large solar cell and dual band capability work.<br>***FY 2013 Plans:***<br>Perform integration activities to support NDS, SAR/GPS, and DWG. Address affordability/obsolescence issues and initial system designs of future capabilities, capability maturation and risk reduction efforts. Begin delta Preliminary Design Review (dPDR) activities which would incorporate on-ramp technology improvements for items such as clocks, Lithium ion battery, Full Communication Unit, and dual launch.<br>***FY 2014 Plans:***<br>Continue integration activities to support NDS, SAR/GPS, and DWG. Address affordability/obsolescence issues and initial system designs of future capabilities, capability maturation and risk reduction efforts. Begin delta Critical Design Review (dCDR) activities to assess design maturity for the implementation of technology improvements for items such as clocks, Lithium ion battery, Full Communication Unit, and dual launch. | 36.300 | 40.254 | 55.031 |
| **Accomplishments/Planned Programs Subtotals** | 442.697 | 317.197 | 218.588 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | PROJECT<br>67A019: *GPS III* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • MPAF: BA05: Line Item # GPSIII: *GPS III TOA* | 494.055 | 492.910 | 477.598 | | 477.598 | 530.949 | 644.921 | 889.509 | 905.639 | 4,737.885 | 9,173.466 |
| • DOT: *DOT (FAA) Civil Funding* | 12.000 | 27.500 | 17.000 | | 17.000 | 8.100 | 0.000 | 0.000 | 0.000 | 0.000 | 64.600 |

**Remarks**

**D. Acquisition Strategy**

The GPS III next generation space segment rapidly and affordably responds to warfighter capability requirements. The acquisition approach utilizes a disciplined systems engineering approach which focuses on mitigating cost and schedule risk through a lower risk incremental delivery of mature technologies. This approach focuses on mission success and on time delivery. The GPS III satellites will have GPS IIF capabilities plus up to a 3x - 8x increase in anti-jam signal power, 3x improved accuracy, 3+ year increased design life, a new civil (L1C) signal compatible with the European Galileo system and a satellite bus capable of supporting future SV's capability additions.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | PROJECT<br>67A019: *GPS III* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Block III Development | C/CPIF | Lockheed Martin:Newtown, PA | 1,098.050 | 314.549 | Nov 2011 | 243.177 | Feb 2013 | 137.801 | Dec 2013 | - | | 137.801 | 91.528 | 1,885.105 | 1,902.000 |
| SE&I | C/CPAF | SAIC:Huntington Beach, CA | 17.107 | 9.337 | Nov 2011 | 1.320 | Mar 2013 | 0.854 | Dec 2013 | - | | 0.854 | 1.268 | 29.886 | |
| Modernization/SE & Technical Support | Various | Various:Various, | 64.722 | 27.765 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 92.487 | |
| Launch & Checkout System (LCS) | C/CPIF | Raytheon:Aurora, CO | 0.000 | 19.000 | Nov 2011 | 5.000 | Apr 2013 | 3.000 | Nov 2013 | - | | 3.000 | 3.000 | 30.000 | |
| Launch Services | C/CPFF | ULA:, | 0.000 | 1.250 | Nov 2011 | 0.991 | Apr 2013 | 1.737 | Mar 2014 | - | | 1.737 | 2.369 | 6.347 | |
| Launch Support | RO | 45th:Cape Canaveral, FL | 0.000 | 0.150 | Nov 2011 | 1.300 | Apr 2013 | 1.300 | Mar 2014 | - | | 1.300 | 4.975 | 7.725 | |
| SMI | C/CPIF | Lockheed:Newtown, PA | 0.000 | 36.300 | Nov 2011 | 40.254 | Mar 2013 | 55.031 | Dec 2013 | - | | 55.031 | 725.443 | 857.028 | |
| | | **Subtotal** | 1,179.879 | 408.351 | | 292.042 | | 199.723 | | 0.000 | | 199.723 | 828.583 | 2,908.578 | |

**Remarks**

SMI funding in FY12 is captured in the prime contractor line. Starting in FY13, SMI is broken out separately.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Integrated Systems Test | Various | Various:, | 0.000 | 0.871 | Nov 2011 | 0.325 | May 2013 | 0.000 | | - | | 0.000 | 0.000 | 1.196 | |
| | | **Subtotal** | 0.000 | 0.871 | | 0.325 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 1.196 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | PROJECT<br>67A019: *GPS III* |

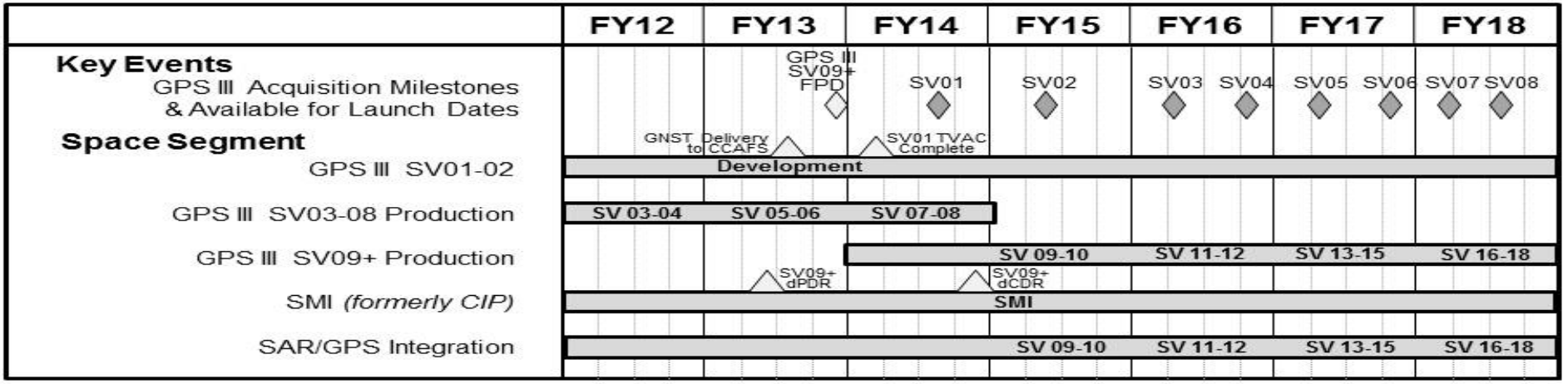
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Office Engineering Support (FFRDC) | RO | Aerospace:El Segundo, CA | 34.218 | 12.966 | Nov 2011 | 4.056 | Jan 2013 | 8.461 | Dec 2013 | - | | 8.461 | 4.683 | 64.384 | |
| Program Management Adminstration (PMA) | Various | Quantech:Lexington, MA | 0.000 | 0.000 | | 0.000 | | 10.404 | Dec 2013 | - | | 10.404 | 0.000 | 10.404 | |
| PMA | Various | Various:Various, | 49.973 | 20.509 | Jan 2012 | 20.774 | Apr 2013 | 0.000 | | - | | 0.000 | 0.000 | 91.256 | |
| | | **Subtotal** | 84.191 | 33.475 | | 24.830 | | 18.865 | | 0.000 | | 18.865 | 4.683 | 166.044 | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 1,264.070 | 442.697 | | 317.197 | | 218.588 | | 0.000 | | 218.588 | 833.266 | 3,075.818 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | PROJECT<br>67A019: *GPS III* |




| | | |
|---|---|---|
| CDR – Critical Design Review | GNST – GPS Non-flight Satellite Test Bed | SAR – Search and Rescue |
| CCAFS – Cape Canaveral Air Force Station | PDR – Preliminary Design Review | SV – Space Vehicle |
| d – Delta | SMI – Space Modernization Initiative | TVAC – Thermal Vacuum |
| FPD – Follow-on Production Decision | CIP – Capability Insertion Program | |

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305265F: *GPS III Space Segment* | PROJECT<br>67A019: *GPS III* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| GPS III SV 09+ delta Preliminary Design Review (dPDR) | 2 | 2013 | 2 | 2013 |
| GPS III SV 09+ Follow-on Production Decision | 4 | 2013 | 4 | 2013 |
| GPS Non-Flight satellite test-bed (GNST) delivery to CCAFS | 3 | 2013 | 3 | 2013 |
| GPS III Satellite Vehicle (SV) 01 Complete Thermal Vacuum Testing | 1 | 2014 | 1 | 2014 |
| GPS III Satellite Vehicle (SV) 01 available for launch | 3 | 2014 | 3 | 2014 |
| GPS III SV 09+ delta Critical Design Review (dCDR) | 4 | 2014 | 4 | 2014 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | 156.628 | 75.749 | 54.645 | 58.523 | - | 58.523 | 64.557 | 65.045 | 51.108 | 52.028 | Continuing | Continuing |
| 67A030: *Infrastructure* | 61.022 | 31.379 | 19.288 | 22.281 | - | 22.281 | 25.072 | 25.964 | 20.456 | 20.824 | Continuing | Continuing |
| 67A031: *Mission Applications* | 87.014 | 44.370 | 25.175 | 36.242 | - | 36.242 | 39.485 | 39.081 | 30.652 | 31.204 | Continuing | Continuing |
| 67A032: *Command and Control* | 8.592 | 0.000 | 10.182 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| **MDAP/MAIS Code(s):** N82 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The JMS Program is a Space Command and Control (C2) capability for the Commander, Joint Functional Component Command for Space (CDR JFCC SPACE). The JMS program is predominately a software effort that will produce an integrated, net-centric Service Oriented Architecture (SOA) and the necessary software applications to accomplish required missions. The program will provide a collaborative environment that will enhance and modernize space situational awareness (SSA) capabilities; create decision-relevant views of the space environment; rapidly detect, track and characterize objects of interest; identify / exploit traditional and non-traditional sources; perform space threat analysis; and enable efficient distribution of data across the space surveillance network (SSN). Furthermore, it provides a viable migration path from the legacy Space Defense Operations Center (SPADOC) system, which has 75% of its components beyond end of life or end of service, and the majority of its software no longer vendor-supported. JMS will also integrate data from SSA sensors which is exposed via the Net-Centric Sensors and Data Sources effort (project 65A012) in the SSA Systems PE (0604425F).

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 80.409 | 54.645 | 59.249 | - | 59.249 |
| Current President's Budget | 75.749 | 54.645 | 58.523 | - | 58.523 |
| Total Adjustments | -4.660 | 0.000 | -0.726 | - | -0.726 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -4.660 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -0.726 | - | -0.726 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305614F: *JSPOC Mission System* |

**Change Summary Explanation**

FY12: -$4.660M SBIR Reduction

FY14: -$0.726M Reallocation of funding to higher Department priorities

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A030: *Infrastructure* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 67A030: *Infrastructure* | 61.022 | 31.379 | 19.288 | 22.281 | - | 22.281 | 25.072 | 25.964 | 20.456 | 20.824 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Infrastructure will provide a Service Oriented Architecture (SOA), net-centric collaborative information environment at the Unclassified, Secret, TS/SCI, and SAP levels. Efforts incorporate net-centric enterprise services and integrating incremental space mission applications services. Priority is migration off the legacy SPADOC hardware and services into a sustainable infrastructure. Effort integrates components of SSA mission applications and C2 capabilities into the JSpOC to create timely, actionable knowledge necessary for maintaining space superiority and exercising command and control of space forces.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Increment 1<br>***Description:*** Pursue and integrate a collaborative net-centric, SOA information environment<br>***FY 2012 Accomplishments:***<br>Continued to field and accredit SOA infrastructure to include net-ready, security, and reliability core services; messaging and a User Defined Operational Picture (UDOP); provided systems engineering integration, support, and testing of infrastructure components.<br>***FY 2013 Plans:***<br>Complete Operational Utility Evaluation, user acceptance and deployment of SOA infrastructure, UDOP and other infrastructure services. Begin Interim Contractor Support (ICS).<br>***FY 2014 Plans:***<br>Continue ICS. | 12.771 | 4.800 | 4.100 |
| ***Title:*** Increment 2<br>***Description:*** Pursue and integrate a collaborative net-centric, SOA information environment<br>***FY 2012 Accomplishments:*** | 18.608 | 14.488 | 18.181 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A030: *Infrastructure* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Purchased the initial strings of hardware for the development, integration, test and operation sites. Continued risk reduction activities for the JMS security architecture and advanced algorithms.<br>***FY 2013 Plans:***<br>Continue fielding, maturing and accreditation of SOA infrastructure; provide incremental upgrades to infrastructure (including net-ready, security, reliability core services, messaging, and UDOP) as new applications/capabilities are delivered with each service pack. Provide systems engineering, integration, support, and testing of enhanced infrastructure due to installation of subsequent capabilities.<br>***FY 2014 Plans:***<br>Continue fielding, maturing and accreditation of SOA infrastructure; provide incremental upgrades to infrastructure (including net-ready, security, reliability core services, messaging, and UDOP) as new applications/capabilities are delivered with each service pack. Provide systems engineering, integration, support, and testing of enhanced infrastructure due to installation of subsequent capabilities. | | | |
| **Accomplishments/Planned Programs Subtotals** | 31.379 | 19.288 | 22.281 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: 836790: *Space Mods Space* | 0.929 | 1.066 | 1.013 | | 1.013 | 3.803 | 1.144 | 0.783 | 0.797 | Continuing | Continuing |

**Remarks**

Replaces JMS components and provides an operational, sustainable environment to maintain capabilities that fuse data from space intelligence, surveillance, reconnaissance, and environmental sources. This modification will procure Commercial-Off-The-Shelf (COTS) hardware, software licenses, and warranties to tech refresh the operational environment enclaves (2 Secret / 2 SCI) as well as keep up to date development/operational testing locations.

**D. Acquisition Strategy**

The Air Force transferred program management responsibility in May 2011 from PEO Command and Control and Combat Support, Electronic Systems Center (ESC) to PEO Space, Space and Missile Systems Center (SMC) under the rationale that PEO Space has the requisite domain and acquisition expertise that will improve the opportunity for the Air Force to deliver this critical capability in a timely manner to the warfighter.

The JMS overarching Acquisition Strategy, approved by the Milestone Decision Authority on 15 Apr 2012, provides for a multi-increment program to develop, integrate, test, and deliver JMS capability. The acquisition strategy reflects new principles that address the speed, agility, and adaptability required for successful IT

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A030: *Infrastructure* |

acquisition resulting in a tailored incremental acquisition approach to deliver early and often by leveraging mature industry capabilities and taking advantage of previous Government investments in Federally Funded Research and Development Center (FFRDC) and Government lab prototyping efforts.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A030: *Infrastructure* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SOA, Infrastructure and core service development | MIPR | ISS, TDKN:Albuquerque, NM | 16.622 | 6.899 | Dec 2011 | 8.325 | Dec 2012 | 7.211 | Dec 2013 | - | | 7.211 | 56.908 | 95.965 | TBD |
| Interim Contractor Support | MIPR | ISS:Albuquerque, NM | 0.000 | 0.000 | | 4.800 | Dec 2012 | 4.100 | Dec 2013 | - | | 4.100 | 0.000 | 8.900 | 8.900 |
| High-performance computing and security infrastructure development | MIPR | MIT/LL:Lexington, MA | 10.776 | 9.100 | Dec 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 19.876 | 14.000 |
| Mission Infrastructure | MIPR | AFRL:Albuquerque, NM | 2.728 | 8.302 | Dec 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 11.030 | 11.000 |
| Integration & Acq Logistics | MIPR | SPAWAR:San Diego, CA | 6.800 | 2.663 | Dec 2011 | 6.163 | Dec 2012 | 10.970 | Dec 2013 | - | | 10.970 | 35.408 | 62.004 | TBD |
| | | **Subtotal** | 36.926 | 26.964 | | 19.288 | | 22.281 | | 0.000 | | 22.281 | 92.316 | 197.775 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Support Costs | Various | Various:Various, | 0.514 | 0.207 | Dec 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.721 | 0.721 |
| | | **Subtotal** | 0.514 | 0.207 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.721 | 0.721 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Combined Developmental Test / Operational Test | Various | Various:Various, | 3.444 | 1.103 | Dec 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 4.547 | 4.600 |
| Combined Test Facility | Various | Various:Various, | 0.150 | 0.040 | May 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.190 | 0.200 |
| | | **Subtotal** | 3.594 | 1.143 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 4.737 | 4.800 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A030: *Infrastructure* |

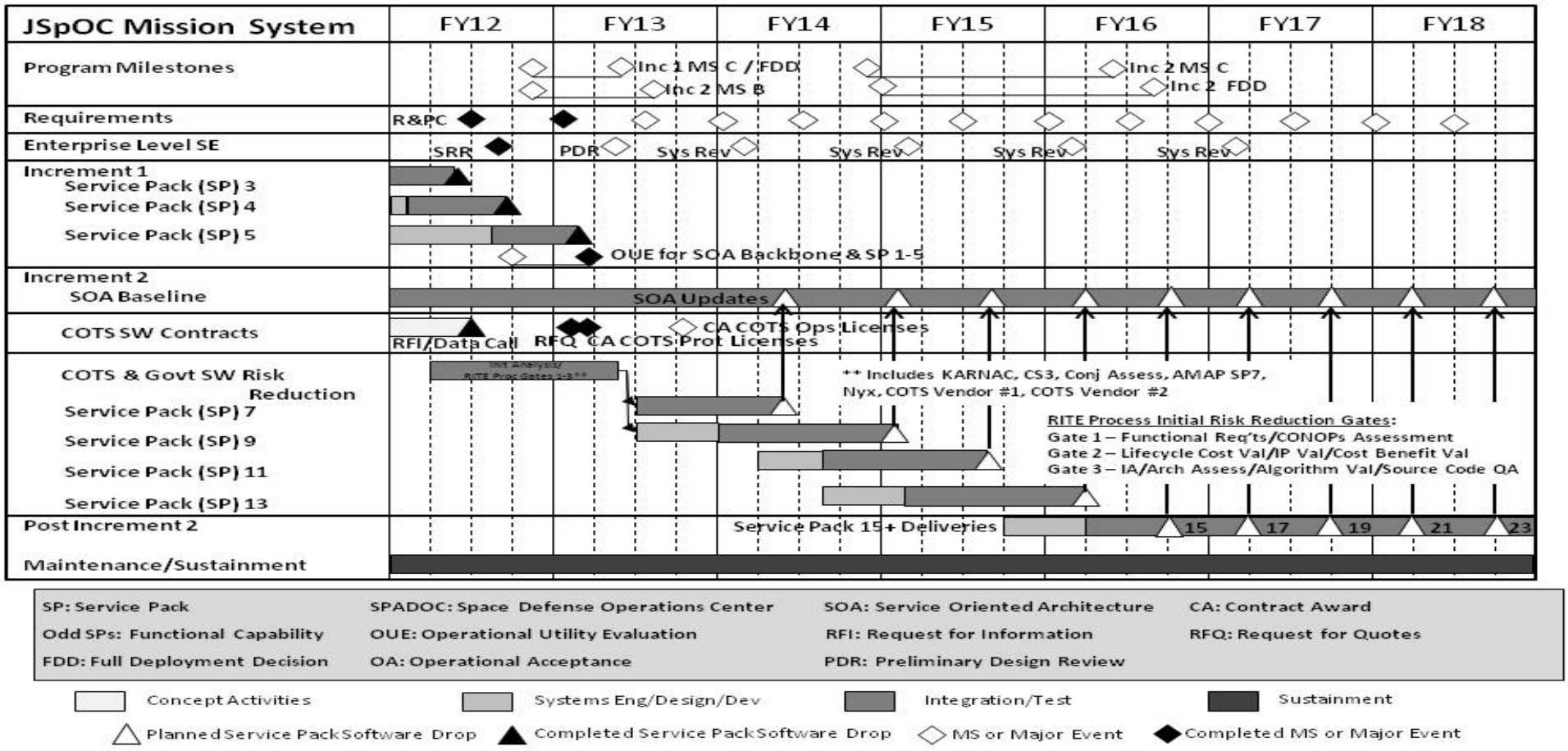
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) | Various | Various:Various, | 13.725 | 2.556 | Dec 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 16.281 | |
| Program Office Engineering (FFRDC) | C/CPAF | Aerospace, Mitre:Los Angeles, CA | 6.263 | 0.509 | Dec 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 6.772 | |
| | | **Subtotal** | 19.988 | 3.065 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 23.053 | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 61.022 | 31.379 | | 19.288 | | 22.281 | | 0.000 | | 22.281 | 92.316 | 226.286 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A030: *Infrastructure* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305614F: *JSPOC Mission System* | **PROJECT**<br>67A030: *Infrastructure* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Operational Utility Evaluation for Service Packs 1-5 | 1 | 2013 | 1 | 2013 |
| RFQ Release for Industry Applications | 1 | 2013 | 1 | 2013 |
| Inc 1 MS C / Full Deployment Decision | 2 | 2013 | 2 | 2013 |
| Inc 2 MS B | 3 | 2013 | 3 | 2013 |
| Service Pack 7-13 Delivery | 3 | 2013 | 1 | 2016 |
| Inc 2 MS C | 2 | 2016 | 2 | 2016 |
| Inc 2 FDD | 3 | 2016 | 3 | 2016 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A031: *Mission Applications* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 67A031: *Mission Applications* | 87.014 | 44.370 | 25.175 | 36.242 | - | 36.242 | 39.485 | 39.081 | 30.652 | 31.204 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Mission applications will provide space services to enhance the accuracy, sustainability, and responsiveness of space surveillance capabilities by providing the knowledge environment necessary to enable the Commander JFCC Space to make rapid, responsive decisions for the protection of space assets from proliferating threats (adversary as well as orbiting debris). The system will provide a high accuracy space catalog (knowledge of space objects), increased observation verification and capabilities, and improved event processing. Research, design, and development will provide SSA space catalog applications, services, space surveillance observation processing, and sensor tasking. Funding includes technical studies, development, and integration. These efforts are in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Increment 1<br>***Description:*** Services/mission applications to conduct space control/situational awareness<br>***FY 2012 Accomplishments:***<br>Developed, tested and delivered mission services associated with the exposure of data/services (connection to SPADOC and Command, Analysis and Verification of Ephemeris Network (CAVENet)) and access to Web Integrated Space Situational Awareness (ISSA) analytical functions; provided a net-centric connection to SIPR and JWICS. | 7.914 | 0.000 | 0.000 |
| ***Title:*** Increment 2<br>***Description:*** Services/mission applications to conduct space control/situational awareness<br>***FY 2012 Accomplishments:***<br>Continued development of risk reduction efforts through the utilization of COTS and GOTS with near-term focus of retirement of legacy functionality.<br>***FY 2013 Plans:*** | 36.456 | 25.175 | 36.242 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A031: *Mission Applications* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continue development, testing and fielding of GOTS and COTS-provided mission services such as the initial elements of the space catalog, conjunction assessment, maneuver, message processing, space order of battle and NUDET; risk reduction efforts associated with the focus of retirement of legacy functionality<br>***FY 2014 Plans:***<br>Continue development, testing and fielding of GOTS and COTS provided mission services such as the critical elements of the space catalog, sensor calibration, routine metric tasking, conjunction assessment, elements of maneuver and message processing, and reentry, space order of battle and NUDET; efforts associated with the focus on retirement of legacy functionality. | | | |
| **Accomplishments/Planned Programs Subtotals** | 44.370 | 25.175 | 36.242 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

The Air Force transferred program management responsibility in May 2011 from PEO Command and Control and Combat Support, Electronic Systems Center (ESC) to PEO Space, Space and Missile Systems Center (SMC) under the rationale that PEO Space has the requisite domain and acquisition expertise that will improve the opportunity for the Air Force to deliver this critical capability in a timely manner to the warfighter.

The JMS overarching Acquisition Strategy, approved by the Milestone Decision Authority on 15 Apr 2012, provides for a multi-increment program to develop, integrate, test, and deliver JMS capability. The acquisition strategy reflects new principles that address the speed, agility, and adaptability required for successful IT acquisition resulting in a tailored incremental acquisition approach to deliver early and often by leveraging mature industry capabilities and taking advantage of previous Government investments in Federally Funded Research and Development Center (FFRDC) and Government lab prototyping efforts.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A031: *Mission Applications* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Breakup, debris modeling, and NUDET applications | MIPR | National Labs:Various, | 5.353 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 5.353 | |
| Continuity of operations pathfinder | C/CPFF | Lockheed Martin:Chantilly, VA | 8.000 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 8.000 | |
| Mission applications and service pack content development | Various | Various:Various, | 10.040 | 0.587 | Dec 2011 | 6.326 | Dec 2012 | 16.229 | Dec 2013 | - | | 16.229 | 67.302 | 100.484 | |
| Service pack deployment and evaluation | RO | SPAWAR and MITRE:Los Angeles and San Diego, CA | 0.846 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.846 | |
| Positive object ID, rapid object characterization, and dynamic sensor tasking risk reduction | MIPR | MIT/LL, AFRL:Various, | 11.252 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 11.252 | |
| High performance computing and security infrastructure development | MIPR | MIT/LL:Lexington, MA | 21.525 | 0.000 | | 6.815 | Jan 2013 | 2.000 | Jan 2014 | - | | 2.000 | 0.000 | 30.340 | |
| COTS hardware, software purchase and engineering support | C/CPFF | Various:Various, | 0.000 | 41.083 | Dec 2012 | 3.700 | Dec 2012 | 6.000 | Dec 2013 | - | | 6.000 | 42.098 | 92.881 | |
| | | **Subtotal** | 57.016 | 41.670 | | 16.841 | | 24.229 | | 0.000 | | 24.229 | 109.400 | 249.156 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Support Costs | Various | Various:Various, | 0.000 | 0.000 | | 0.000 | | 0.500 | Feb 2014 | - | | 0.500 | 0.000 | 0.500 | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.500 | | 0.000 | | 0.500 | 0.000 | 0.500 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A031: *Mission Applications* |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Combined Developmental Test / Operational Test | Various | Various:Various, | 2.584 | 0.000 | | 5.103 | Dec 2012 | 2.000 | Dec 2013 | - | | 2.000 | 0.000 | 9.687 | |
| JMS Enterprise for Development and Integration (JEDI) Support | MIPR | SPAWAR:San Diego, CA | 0.000 | 1.300 | Oct 2012 | 0.000 | | 2.000 | Oct 2013 | - | | 2.000 | 0.000 | 3.300 | |
| Combined Test Facility | Various | Various:Various, | 0.150 | 0.040 | May 2012 | 1.639 | May 2013 | 1.653 | May 2014 | - | | 1.653 | 0.000 | 3.482 | |
| | | **Subtotal** | 2.734 | 1.340 | | 6.742 | | 5.653 | | 0.000 | | 5.653 | 0.000 | 16.469 | |

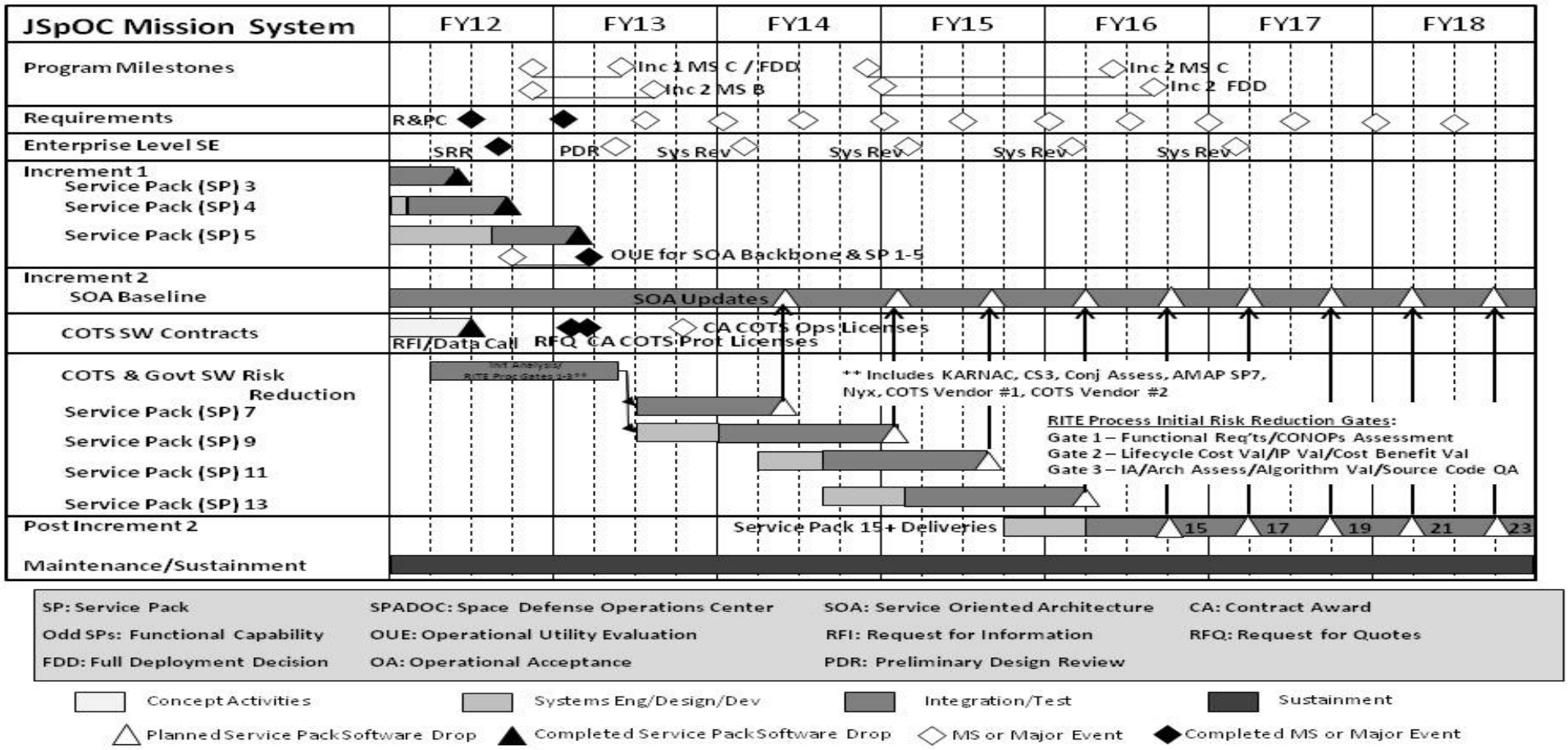
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Admin (PMA) | Various | Various:Various, | 6.345 | 1.360 | Dec 2011 | 0.954 | Dec 2012 | 5.223 | Dec 2013 | - | | 5.223 | 22.949 | 36.831 | |
| Program Office Engineering (FFRDC) | RO | Mitre, Aerospace:Various, | 14.639 | 0.000 | | 0.638 | Dec 2012 | 0.637 | Dec 2013 | - | | 0.637 | 8.073 | 23.987 | |
| Systems Engineering and Integration | C/CPFF | Various:Various, | 6.280 | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 6.280 | |
| | | **Subtotal** | 27.264 | 1.360 | | 1.592 | | 5.860 | | 0.000 | | 5.860 | 31.022 | 67.098 | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 87.014 | 44.370 | | 25.175 | | 36.242 | | 0.000 | | 36.242 | 140.422 | 333.223 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A031: *Mission Applications* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A031: *Mission Applications* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| OUE for SP 1-5 | 1 | 2013 | 1 | 2013 |
| RFQ Release for Industry Applications | 1 | 2013 | 1 | 2013 |
| Inc 1 MS C / FDD | 2 | 2013 | 2 | 2013 |
| Inc 2 MS B | 3 | 2013 | 3 | 2013 |
| Service pack 7-13 delivery | 3 | 2013 | 1 | 2016 |
| Inc 2 MS C | 2 | 2016 | 2 | 2016 |
| Inc 2 FDD | 3 | 2016 | 3 | 2016 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A032: *Command and Control* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 67A032: *Command and Control* | 8.592 | 0.000 | 10.182 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Command & Control (C2) effort will design, develop and integrate functions to create, visualize, and share decision-relevant views of space operational environment at all echelons. Functions include Space Situational Awareness and attack assessment data to provide an integrated space information environment for the JSpOC C2 node and improve deliberate attack warning/reporting, planning, tasking, course of action (COA) development capability, and situation assessment.

Due to JMS restructure, funding was reallocated in FY12 and FY14-FY18 to Mission Apps (Project 67A031) and Infrastructure (Project 67A030) to focus on priority of developing capabilities needed to migrate off of the aging and increasingly unsupportable legacy SPADOC system.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** C2 | 0.000 | 10.182 | 0.000 |
| ***Description:*** Prototype development of space C2 services<br><br>Due to JMS restructure, funding was reallocated in FY12 and FY14-18 to Infrastructure (Project 67A030) and Mission Apps (67A031) to focus on priority of developing capabilities needed to migrate off of the aging and increasingly unsupportable legacy SPADOC system<br><br>***FY 2013 Plans:***<br>Due to JMS restructure, funds will be realigned to projects 67A030 and 67A031 in execution. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 10.182 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A032: *Command and Control* |

**D. Acquisition Strategy**

The Air Force transferred program management responsibility in May 2011 from PEO Command and Control and Combat Support, Electronic Systems Center (ESC) to PEO Space, Space and Missile Systems Center (SMC) under the rationale that PEO Space has the requisite domain and acquisition expertise that will improve the opportunity for the Air Force to deliver this critical capability in a timely manner to the warfighter.

The JMS overarching Acquisition Strategy, approved by the Milestone Decision Authority on 15 Apr 2012, provides for a multi-increment program to develop, integrate, test, and deliver JMS capability. The acquisition strategy reflects new principles that address the speed, agility, and adaptability required for successful IT acquisition resulting in a tailored incremental acquisition approach to deliver early and often by leveraging mature industry capabilities and taking advantage of previous Government investments in Federally Funded Research and Development Center (FFRDC) and Government lab prototyping efforts.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A032: *Command and Control* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Due to JMS restructure, funds will be realigned to projects 67A030 and 67A031 in execution | Various | various:Various, | 8.592 | 0.000 | | 10.182 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 18.774 | 1.832 |
| | | Subtotal | 8.592 | 0.000 | | 10.182 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 18.774 | 1.832 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

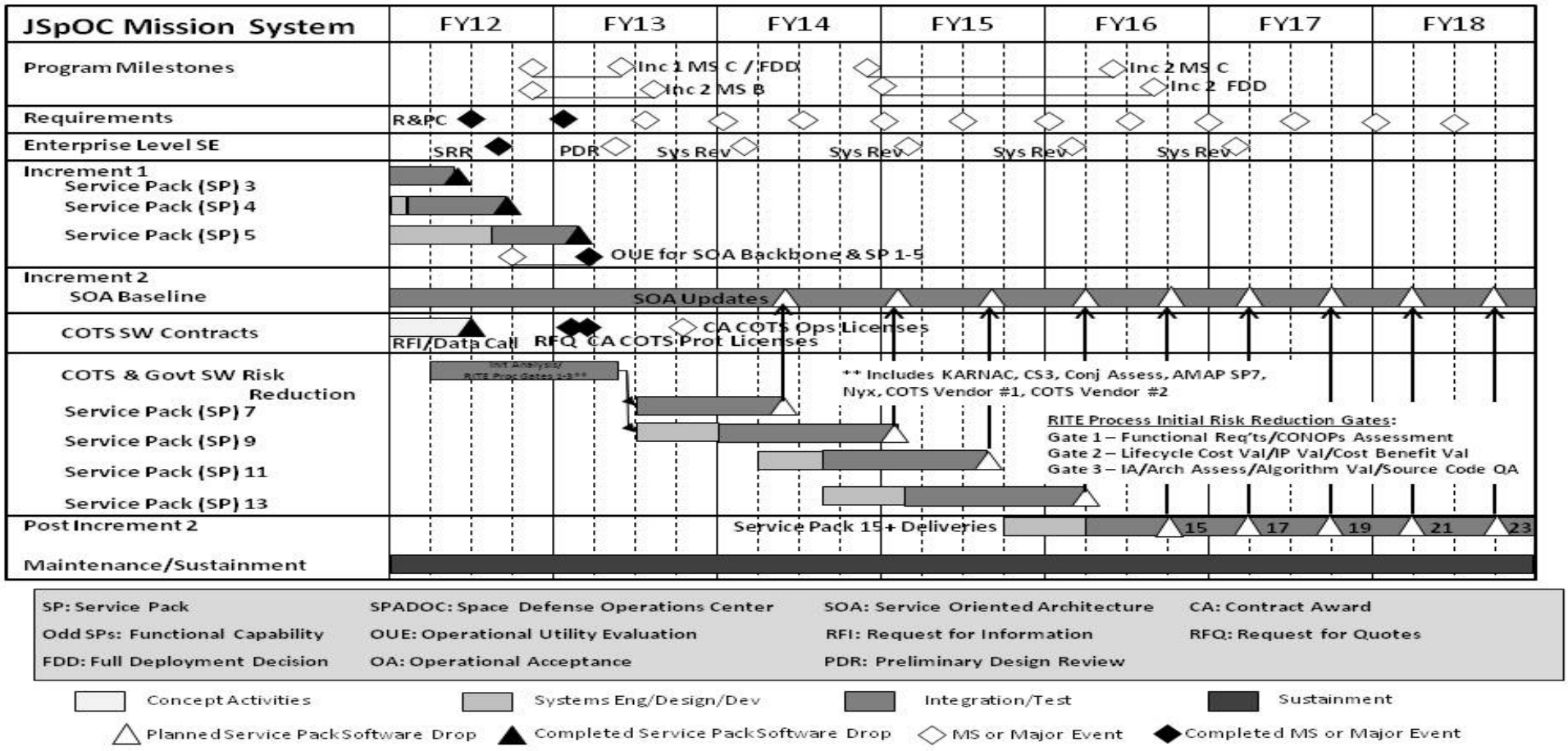
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 8.592 | 0.000 | | 10.182 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 18.774 | 1.832 |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A032: *Command and Control* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305614F: *JSPOC Mission System* | PROJECT<br>67A032: *Command and Control* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| RFQ Release for Industry Applications | 1 | 2013 | 1 | 2013 |
| Inc 1 MS C/FDD | 2 | 2013 | 2 | 2013 |
| Inc 2 MS B | 3 | 2013 | 3 | 2013 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305881F: *Rapid Cyber Acquisition* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.000 | 4.007 | 2.218 | - | 2.218 | 2.256 | 2.294 | 2.333 | 2.375 | Continuing | Continuing |
| 670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* | - | 0.000 | 4.007 | 2.218 | - | 2.218 | 2.256 | 2.294 | 2.333 | 2.375 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

**A. Mission Description and Budget Item Justification**

Rapid Cyber Acquisition (RCA) provides combatant commanders (CCDRs) with the ability to rapidly respond to emerging cyber needs that cannot be serviced via the JUON/UON process and are not best served by the normal DoD acquisition process. RCA provides rapid fielding of capabilities in three areas: defense of the United States Air Force (USAF) portion of the DoD Global Information Grid (GIG) in response to new and emerging threats; network attack and cyber exploit capabilities in response to time-critical CCDR needs through all phases of warfare; and new cyber operations capabilities that address gaps to support CCDR evolving missions. RCA fields operational cyber capabilities in mission-relevant timeframes.

Rapid Cyber Acquisition delivers cyber capabilities to AF Space Command and 24th Air Force (24 AF) warfighter in mission-relevant timeframes. RCA provides capabilities in support of US national security interests, to counter future cyber threats, and to enhance the nation's ability to operate in cyberspace. It expedites cyber development, sustainment, and modifications of USAF and DoD cyber capabilities. RCA provides solution sets for cyberspace operations: attack, defense, exploitation, critical infrastructure support, combat support, command and control, information, and weapon systems. RCA provides course of actions (COA), integration, and technical support to other service and government agency activities to leverage select Air Force developed technologies and/or operational capabilities. RCA will develop materiel or non-materiel cyber solutions, conduct rapid prototyping, integration, transition, and sustainment support activities for cyber systems. Primary activities include, but are not limited to: development of software/hardware cyber systems; integration and transition of cyber capabilities to the warfighter; testing and evaluation; program management administration; and maintaining and sustaining cyber capabilities. Secondary activities include, but are not limited to: studies, analysis, pilots, demonstrations, and risk reduction to emerging technologies for USAF cyber systems.

This program is in Budget Activity 7, Operational System Development. These budget activities include development efforts to upgrade currently-fielded systems or full rate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305881F: *Rapid Cyber Acquisition* | |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.000 | 4.007 | 2.218 | - | 2.218 |
| Current President's Budget | 0.000 | 4.007 | 2.218 | - | 2.218 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Hardware/Software Development | 0.000 | 2.040 | 1.000 |
| ***Description:*** Hardware and software developmental activities in support of urgent cyber defensive, offensive, and Command and Control/Situational Awareness requirements.<br><br>***FY 2013 Plans:***<br>This funding will expedite development of Air Force and DoD cyber capabilities to provide solution sets for cyberspace operations: attack, defense, exploitation, critical infrastructure support, combat support, command and control, information, and weapon systems. Funding will also prototype new capabilities by transitioning a Technology Readiness Level (TRL) 6 or higher capability into a usable product or solution.<br><br>***FY 2014 Plans:***<br>Effort continues to expedite development of Air Force and DoD cyber capabilities to provide solution sets for cyberspace operations: attack, defense, exploitation, critical infrastructure support, combat support, command and control, information, and weapon systems. Funding will also prototype new capabilities by transitioning a Technology Readiness Level (TRL) 6 or higher capability into a usable product or solution. | | | |
| ***Title:*** Integration/Test | 0.000 | 0.240 | 0.100 |
| ***Description:*** Integration and testing of developed and acquired capabilities.<br><br>***FY 2013 Plans:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305881F: *Rapid Cyber Acquisition* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Funding will provide integration and technical support to other Service and other Government Agency activities that leverage select Air Force developed technologies and/or operational capabilities. Funding will also provide independent operational and technical assessments of cyber capabilities and vulnerabilities. Includes Certification and Accreditation.<br>***FY 2014 Plans:***<br>Continues integration and technical support to other Service and other Government Agency activities that leverage select Air Force developed technologies and/or operational capabilities. Funding will also provide independent operational and technical assessments of cyber capabilities and vulnerabilities. Includes Certification and Accreditation. | | | |
| ***Title:*** Maintenance and mods<br>***Description:*** Provides maintenance and modifications to existing AF cyber programs of record.<br>***FY 2013 Plans:***<br>Funding will provide sustainment modifications to existing systems or quick fielding of operational capability; will provide acquisition/modification of COTS or non-developmental products and/or services.<br>***FY 2014 Plans:***<br>Effort continues sustainment modifications to existing systems or quick fielding of operational capability; will provide acquisition/ modification of COTS or non-developmental products and/or services. | 0.000 | 1.127 | 0.518 |
| ***Title:*** Program Management Administration (PMA)<br>***Description:*** This includes, but is not limited to, Advisory and Assistance Support (A&AS) for technical and managerial support, travel, and miscellaneous supplies and equipment.<br>***FY 2013 Plans:***<br>Funds Advisory and Assistance Support (A&AS) for technical, acquisition and managerial support, travel and miscellaneous supplies and equipment.<br>***FY 2014 Plans:***<br>Continues Advisory and Assistance Support (A&AS) for technical, acquisition and managerial support, travel and miscellaneous supplies and equipment. | 0.000 | 0.600 | 0.600 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 4.007 | 2.218 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305881F: *Rapid Cyber Acquisition* |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: 834320: *Rapid Cyber Acquisition* | 0.000 | 0.000 | 1.850 | | 1.850 | 1.883 | 1.917 | 1.952 | 1.987 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

Rapid Cyber Acquisition will utilize Concept, Development, Risk Management, or Production and Deployment Plans as a phased approach to acquisition planning. These plans are intended to meet the written acquisition planning requirements and guidance. All plans will contain sufficient information for the Milestone Decision Authority (MDA) to determine readiness to enter into the applicable phase of the acquisition process. Rapid Cyber Acquisition will consider existing vehicles such as Network Centric Solutions (NETCENTS), NETCENTS 2, Information Technology Enterprise Solutions-2 (ITES-2), Government-Wide Acquisition Contract (GWAC) vehicles (Alliant, Encore II, Solutions for Enterprise-Wide Procurement IV (SEWP IV), etc), General Services Administration (GSA) Federal Supply Schedules, and National Security Agency vehicles. Multiple award vehicles, such as National Aeronautics and Space Administration's SEWP IV, provide a wide range of commercially-available products and services that should be able to meet many IT requirements related to Rapid Cyber Acquisition. These multiple-award vehicles have already met the statutory requirements of the Competition in Contracting Act (CICA) and only require that Rapid Cyber Acquisition provide a fair opportunity to all contract holders, in accordance with Federal Acquisition Regulation (FAR) 16.505, unless an exception to fair opportunity applies.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305881F: *Rapid Cyber Acquisition* | PROJECT<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HW/SW Development | Various | Various:, | - | 0.000 | | 2.040 | Apr 2013 | 1.000 | Nov 2013 | - | | 1.000 | Continuing | Continuing | |
| Integration & Test | Various | Not specified.:, | - | 0.000 | | 0.240 | Apr 2013 | 0.100 | Nov 2013 | - | | 0.100 | Continuing | Continuing | |
| Maintenance & Modifications | Various | Various:, | - | 0.000 | | 1.127 | | 0.518 | Nov 2013 | - | | 0.518 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 3.407 | | 1.618 | | 0.000 | | 1.618 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

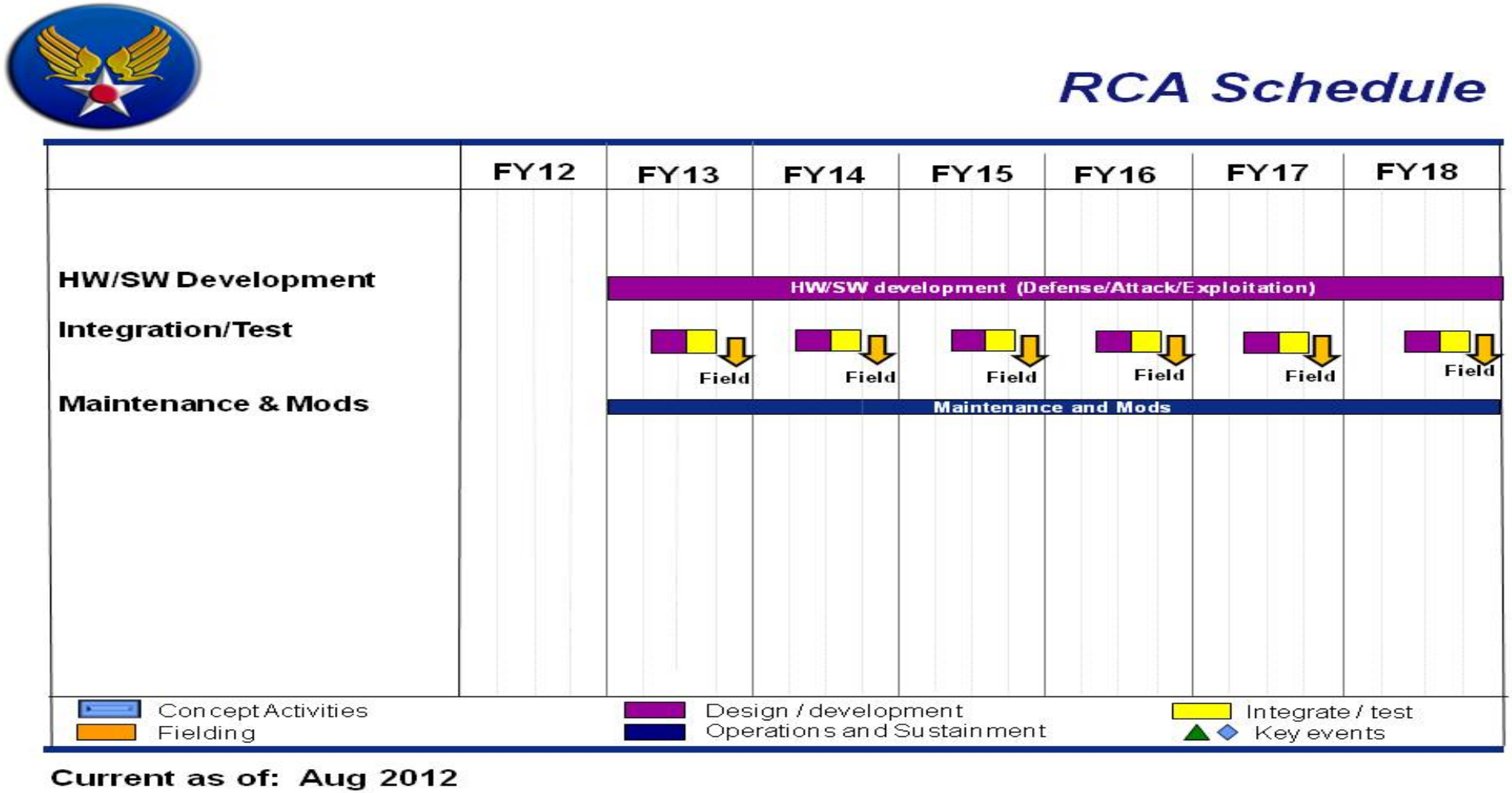
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA - Engineering & Technical Support (FFRDC | C/CPFF | MITRE:San Antonio, TX | - | 0.000 | | 0.440 | Apr 2013 | 0.440 | Oct 2013 | - | | 0.440 | Continuing | Continuing | |
| Other PMA | Various | Various:Various, | - | 0.000 | | 0.160 | Apr 2013 | 0.160 | Nov 2013 | - | | 0.160 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.600 | | 0.600 | | 0.000 | | 0.600 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305881F: *Rapid Cyber Acquisition* | PROJECT<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 0.000 | | 4.007 | | 2.218 | | 0.000 | | 2.218 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305881F: *Rapid Cyber Acquisition* | PROJECT<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305881F: *Rapid Cyber Acquisition* | **PROJECT**<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| HW/SW Development | 1 | 2013 | 4 | 2018 |
| Integration/Test | 1 | 2013 | 4 | 2018 |
| Maintenance and Mods | 1 | 2013 | 4 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305887F: *Intelligence Support to Information Warfare* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 13.507 | 13.357 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* | - | 13.507 | 13.357 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY2014, 670374, Tech & Spt, efforts will transfer from PE 0305887F, Electronic Combat Intel Support, to PE 0208087F, Offensive Cyber Operations, 670375, Network Warfare Systems and Support, in order to align offensive cyber programs and projects under one program element.

**A. Mission Description and Budget Item Justification**

This program expedites information and cyberspace superiority capabilities from laboratory, industry, and academia to operational platforms including the Network Attack System (NAS) via the Offensive Cyber Product Line (OCPL). The OCPL is a portfolio of small programs and projects which establish a level of effort to support a balanced and rapid acquisition of cyber operational capabilities. OCPL effectiveness comes from consciously balancing funding into four capability areas required for effective operations: Common Mission Framework (CMF), platforms, access, capabilities. The program office investigates and selects the highest potential cyber and Information Operations (IO) technologies to meet specific shortfalls, deficiencies, and requirements documented by major commands (MAJCOMs), unified commands, and IO agencies in Mission Area Plans (MAPs) and capabilities documents. In accordance with AF Policy, the information and cyberspace superiority core capability areas to be considered are influence operations, electronic warfare operations and network warfare operations. OCPL efforts provide advanced cyber warfare capabilities to the 24th Air Force in direct support of USCYBERCOM and other combatant commanders. OCPL efforts also directly support the AF Information Operations Capability Plan (IOCP) and the National Military Strategy for Cyberspace Operations (NMS-CO). OCPL efforts will be prioritized and guided by the Air Force Space Command Command in support of the Joint Net Attack ICD and other applicable requirements documents. Planned areas of study, prototyping, and technology demonstration will be used to provide warfighters access, platforms, Offensive Cyber Operations (OCO) production (e.g. test and budgets), infrastructure (e.g. mission planning, intelligence, command and control), and tools needed to exploit enemy networks, telephony, Integrated Air Defense Systems (IADS), electronic warfare operations and Command and Control (C2) systems. These advancements will be used to develop and deliver cutting edge technologies to the warfighter. This capability area utilizes cyber technology investments by the Defense Advanced Research Projects Agency (DARPA), the National Security Agency (NSA), and DoD national laboratories. Activities performed include those designed to identify, analyze, test, rapidly acquire, and integrate emerging cyber technologies into all regions of the Global Information Grid. Activities also include studies and analysis to support both current program planning and execution and future program planning. Program activities are protected under AF Network Warfare Special Access Program(s).

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305887F: *Intelligence Support to Information Warfare* |

This program is in Budget Activity 7, Operational System Development, these budget activities include development efforts to upgrade systems currently fielded or has approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 14.547 | 13.357 | 0.000 | - | 0.000 |
| Current President's Budget | 13.507 | 13.357 | 0.000 | - | 0.000 |
| Total Adjustments | -1.040 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | -0.601 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.439 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Common Mission Framework (CMF) | 0.000 | 2.501 | 0.000 |
| ***Description:*** The Common Mission Framework (CMF) is an offensive cyber operations architecture that enables mission planning, generation, synchronization, de-confliction, execution, and assessment by integrating OCPL-developed capabilities into a common framework.<br><br>***FY 2013 Plans:***<br>In FY13, the program office will continue to develop the CMF via necessary upgrades, modifications, equipment modernization, market research, integration, and follow-on OCO platform(s). The effort will standardize current and future cyberspace operations capabilities and begin to design and deliver a common user interface and reusable, modular components. This funding will also continue to provide the program office manpower required for oversight required to integrate numerous acquisition programs into the CMF architecture. These activities are protected under AF Network Warfare Special Access Programs. | | | |
| ***Title:*** Platforms | 4.757 | 2.081 | 0.000 |
| ***Description:*** The platforms capability area provides the hardware/software host for offensive cyber operations capabilities. This capability area facilitates key upgrades and modifications to the Network Attack System (NAS), the AF program of record for network attack. Additional programs under development include Enabling Common Cyberspace Operations (ECCO) and Black Cat (BC).<br><br>***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305887F: *Intelligence Support to Information Warfare* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| FY12 efforts continue support to United States (U.S.) Central Command (CENTCOM) JUON, Weapons System(s) modernization and AFSPC UON and continues transition of IO technologies to meet current capability gaps required by major commands, unified commands, and capabilities documents. Increase in funding is due to current operational requirements. These activities are protected under AF Network Warfare Special Access Program(s).<br>***FY 2013 Plans:***<br>The program office will continue to maintain the current platforms via necessary upgrades, modifications, equipment modernization, market research, integration, and follow-on OCO platform(s). This funding will also continue to provide the program office manpower required to develop or maintain offensive cyber platforms. These activities are protected under AF Network Warfare Special Access Programs. | | | |
| ***Title:*** Access<br>***Description:*** Access capabilities provide operators with the means to enable offensive cyber operations. Specific details are classified and available upon request.<br>***FY 2012 Accomplishments:***<br>FY12 effort continued support to United States (U.S.) Central Command (CENTCOM) JUON, Weapons System(s) modernization and AFSPC UON and continues transition of IO technologies to meet current capability gaps required by major commands, unified commands, and capabilities documents. Increase in funding is due to current operational requirements. These activities are protected under AF Network Warfare Special Access Program(s).<br>***FY 2013 Plans:***<br>FY13 will continue support of anticipated CENTCOM JUON(s), CYBERCOM JUON(s), Weapons System(s) modernization and AFSPC UON(s) and Cyber Need Forms and will continue transition of IO technologies to meet capability gaps required by major commands, unified commands, and capabilities documents. These activities are protected under AF Network Warfare Special Access Program(s). | 0.559 | 0.669 | 0.000 |
| ***Title:*** Cyber Capabilities<br>***Description:*** The cyber capabilities area enables the cyber warfighter a set of tools to deliver desired effects to the target. Specific details are classified and available upon request.<br>***FY 2012 Accomplishments:***<br>FY12 effort continued support to United States (U.S.) Central Command (CENTCOM) JUON, Weapons System(s) modernization and AFSPC UON and continues transition of IO technologies to meet current capability gaps required by major commands, unified | 2.692 | 2.993 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305887F: *Intelligence Support to Information Warfare* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| commands, and capabilities documents. Increase in funding is due to current operational requirements. These activities are protected under AF Network Warfare Special Access Program(s).<br>***FY 2013 Plans:***<br>FY13 will continue support of anticipated CENTCOM JUON(s), CYBERCOM JUON(s), Weapons System(s) modernization and AFSPC UON(s) and Cyber Need Forms and will continue transition of IO technologies to meet capability gaps required by major commands, unified commands, and capabilities documents. These activities are protected under AF Network Warfare Special Access Program(s). | | | |
| ***Title:*** Program Management Administration (PMA) - FFRDC<br>***Description:*** PMA support by MITRE Corporation (Federally Funded Research and Development Center (FFRDC)) provides unique engineering and in-depth technical expertise to assist in resolving near-term and far-term cyber challenges.<br>***FY 2012 Accomplishments:***<br>This funding continued to provide program office advisory engineering, technical, logistical and scheduling support required for oversight of OCPL acquisition programs/projects. These activities are protected under AF Network Warfare Special Access Program(s).<br>***FY 2013 Plans:***<br>FY13 funding will continue to provide program office specialized engineering/technical manpower support required for oversight of OCPL acquisition programs/projects. These activities are protected under AF Network Warfare Special Access Program(s). | 1.233 | 1.049 | 0.000 |
| ***Title:*** Program Management Administration (PMA) - Engineering & Technical Support<br>***Description:*** PMA support for Engineering and Technical acquisition related support to Program Office (includes Systems Engineers, Logisticians, Configuration Management and Scheduler.<br>***FY 2012 Accomplishments:***<br>In FY12, Other support cost included Specialized Security and IT Support, Cost Estimating Support, Security Protection, and other miscellaneous costs (i.e., travel, supplies, facility lease, communication lines, and acquisition support specialist). These activities are protected under AF Network Warfare Special Access Program(s).<br>***FY 2013 Plans:***<br>In FY13, funding will continue to provide program office engineering, technical, logitical, configuration management and scheduling manpower support required for oversight of OCPL acquisition programs/projects. These activities are protected under AF Network Warfare Special Access Program(s). | 1.175 | 1.210 | 0.000 |
| ***Title:*** Program Management Administration (PMA) - Other | 1.316 | 1.217 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305887F: *Intelligence Support to Information Warfare* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Other support costs include Specialized Security and IT Support, Cost Estimating Support, Security Protection, and other miscellaneous costs (i.e., travel, supplies, facility lease, communication lines, and acquisition support specialist).<br><br>***FY 2012 Accomplishments:***<br>Funding continued to provide the required developmental testing and operational testing for new tool development prior for future fielding to the operational platform. This funding provides the secure environment for such testing.<br><br>***FY 2013 Plans:***<br>In FY13, will continue other support cost which include Specialized Security and IT Support, Cost Estimating Support, Security Protection, and other miscellaneous costs (i.e., travel, supplies, facility lease, communication lines, and acquisition support specialist). These activities are protected under AF Network Warfare Special Access Program(s). | | | |
| ***Title:*** Test and Evaluation<br><br>***Description:*** Test & Evaluation (46 Det 2) and 346 TS development testing.<br><br>***FY 2012 Accomplishments:***<br>Funding continued to provide the required development testing and operational testing for new tool development prior for future fielding to the operational platform. This funding provided the secure environment for such testing.<br><br>***FY 2013 Plans:***<br>Funding will continue to provide the required developmental and operational testing for new tool development prior for future fielding to the operational platform. This funding will provide the secure environment for such testing. | 1.775 | 1.637 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 13.507 | 13.357 | 0.000 |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

The acquisition strategy will utilize Concept, Development, Risk Management or Production and Deployment Plans as a phased approach to acquisition planning. These plans are intended to meet the written acquisition planning requirements and guidance. All plans will contain sufficient information for the Milestone Decision Authority (MDA) to determine readiness to enter into the applicable phase of the acquisition process. The Network Warfare Systems Program Office will look at existing vehicles such as Government-Wide Acquisition Contract (GWAC) vehicles (Alliant, Encore II, Solutions for Enterprise-Wide Procurement IV (SEWP IV), etc), and General Services Administration (GSA) Federal Supply Schedules. Multiple award vehicles provide a wide range of commercially available products and services that should be able to meet many requirements related to offensive cyber operations. These multiple award vehicles have already met the statutory requirements of the

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305887F: *Intelligence Support to Information Warfare* |

Competition in Contracting Act (CICA) and only require that we provide a fair opportunity to all contract holders, in accordance with Federal Acquisition Regulation (FAR) 16.505, unless an exception to fair opportunity applies.

Also, the of Broad Agency Announcements (BAAs)for OCPL (NWOC) tools will allow us to constantly accept, analyze, and acquire promising new commercial capabilities to enhance our arsenal of network warfare tools.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305887F: *Intelligence Support to Information Warfare* | PROJECT<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Common Mission Framework (CMF) | C/CPAF | Various:Various, | - | 0.000 | | 2.501 | Feb 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Platforms | C/CPFF | General Dynamics:San Antonio, TX | - | 4.757 | Feb 2012 | 2.081 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Access | C/CPFF | Various:Various, | - | 0.559 | Feb 2012 | 0.160 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Cyber Capabilities | C/CPAF | Various:Various, | - | 2.692 | Feb 2012 | 2.193 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 8.008 | | 6.935 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 46 Det 2 Test Squadron & 346 Test Squaddron | C/T&M | Multiple:San Antonio, TX | - | 1.775 | Jan 2012 | 1.568 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.775 | | 1.568 | | 0.000 | | 0.000 | | 0.000 | | | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Other PMA | C/CPAF | Various:Various, | - | 1.316 | Feb 2012 | 2.090 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305887F: *Intelligence Support to Information Warfare* | PROJECT<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA - FFRDC | C/CPAF | MITRE:San Antonio, TX | - | 1.232 | Feb 2012 | 1.446 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| PMA - Engineering & Technical Support | C/CPAF | Various:San Antonio, TX | - | 1.176 | Jan 2012 | 1.318 | Nov 2012 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 3.724 | | 4.854 | | 0.000 | | 0.000 | | 0.000 | | | |

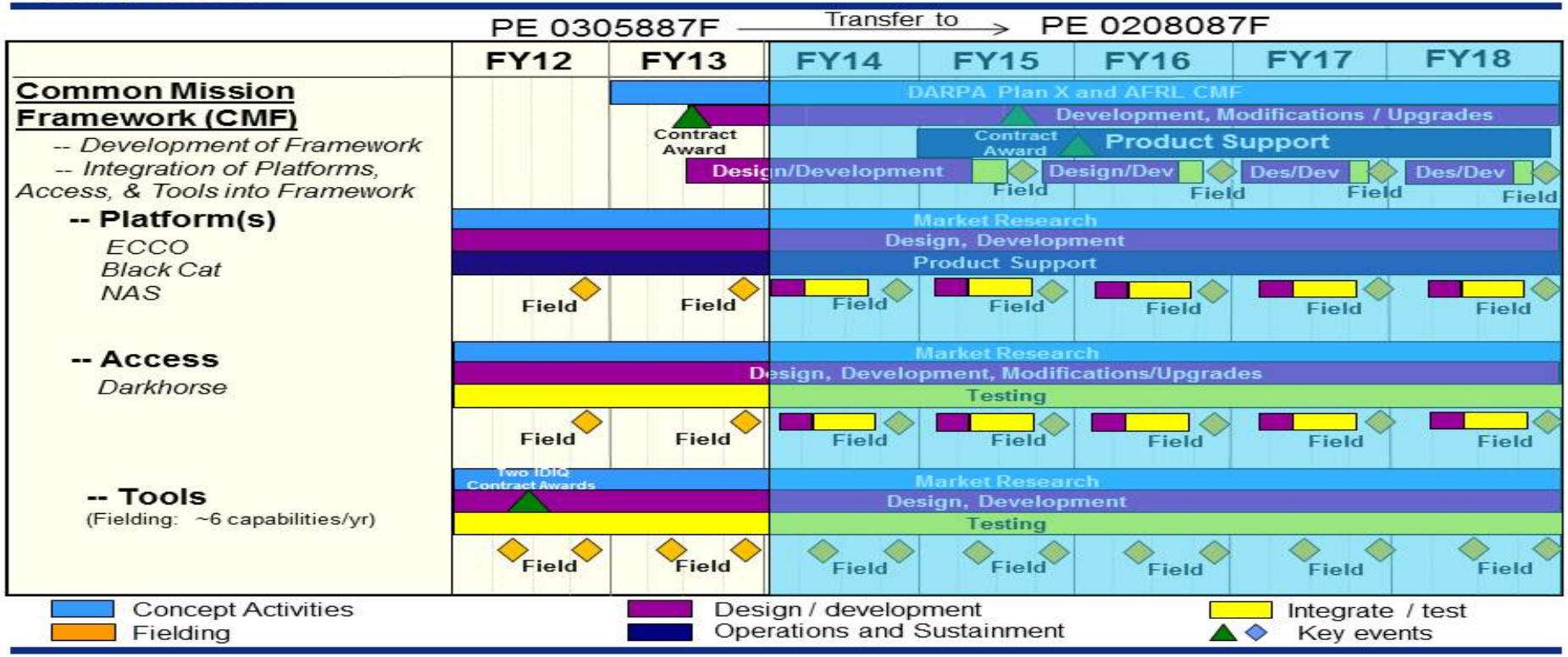
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 13.507 | | 13.357 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305887F: *Intelligence Support to Information Warfare* | PROJECT<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* |

# Electronic Combat Intel Support Schedule

U.S. AIR FORCE




20 Feb 2013

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305887F: *Intelligence Support to Information Warfare* | **PROJECT**<br>670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Common Mission Framework (CMF) | 1 | 2012 | 4 | 2013 |
| Platforms | 1 | 2012 | 4 | 2013 |
| Access | 1 | 2012 | 4 | 2013 |
| OCPL - Tools | 1 | 2012 | 4 | 2013 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305913F: *NUDET Detection System (SPACE)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 81.989 | 64.965 | 50.547 | - | 50.547 | 20.724 | 6.519 | 4.272 | 13.872 | Continuing | Continuing |
| 672808: *Nuc Detonation Det Sys (sensors)* | - | 81.989 | 64.965 | 50.547 | - | 50.547 | 20.724 | 6.519 | 4.272 | 13.872 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The United States Nuclear Detonation (NUDET) Detection System (USNDS) provides a near real-time worldwide, highly survivable capability to detect, locate, and report any nuclear detonations in the earth's atmosphere or in near space. USNDS supports NUDET detection requirements across five mission areas: Integrated Tactical Warning and Attack Assessment (ITW/AA), Nuclear Force Management (NFM), Space Control (SC), Treaty Monitoring (TM) and a classified mission.

The USNDS program is jointly sponsored and funded by the Department of Defense (DoD), through the US Air Force, and the Department of Energy (DOE), through the National Nuclear Security Administration (NNSA) and its Nuclear Detonation Detection (NA-22) office, respectively. NNSA/NA-22 supplies, at no cost to DoD, USNDS NUDET space sensors as Government Furnished Equipment (GFE) to the Air Force's USNDS Program Office, which is responsible for all acquisition and systems engineering, integration and test (SEIT) activities on space vehicles (SVs), to include Global Positioning System (GPS) and additional hosts, and their supporting ground control segments.

DoD funds their contribution to the NDS program in Program Element (PE) 0305913F with RDT&E,AF, OPAF and Operation & Maintenance (O&M) dollars. NDS payload integration onto GPS satellites is funded in the GPS Space & Control PE 0305165F for GPS IIF and in the GPS III Space Segment PE 0305265F for GPS III.

USNDS consists of both space and ground segments. The space segment sensors, funded by DOE, consists of three nuclear detection sensor payloads: the Radiation Detection Capability (RADEC) payload for Defense Support Program (DSP) satellites, the Global Burst Detection (GBD) payload for Medium Earth Orbit (MEO) platforms (GPS satellites), and the Space Atmospheric Burst Reporting System (SABRS) payload for Geosynchronous Earth Orbit (GEO) platforms (classified GEO hosts). The RADEC sensor includes neutron gamma, optical and X-ray sensors. The GBD payload consists of optical, x-ray, and Electromagnetic Pulse (EMP) sensors. The SABRS payload consists of neutron, gamma ray and space environmental sensors. Together, these sensors comprise the global NUDET detection capability for USNDS. Space sensors communicate NUDET indications to the ground control segment which includes the Integrated Correlation and Display System (ICADS), Ground NDS Terminals (GNTs), and Universal Ground NDS Terminals (UGNTs), when fielded. These ground systems, funded by the Air Force, perform data analysis and provide a decision support tool to the Air Force controllers concerning probability of NUDET occurrence. ICADS resides on two fixed ground terminals as well as GNT, which provides ground receiving analysis and reporting capabilities to national authorities, commands, and forward users. The ground control segment is being modernized and continuously improved through an incremental evolution acquisition approach.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305913F: *NUDET Detection System (SPACE)* |

The upgrade to the GNT is the Universal Ground Nuclear Detonation (NUDET) Detection System (NDS) Terminal (UGNT) which is funded with RDT&E, AF in this PE. The UGNT provides NUDET Detection Reports to end users, supports Integrated Tactical Warning and Attack Assessment (ITW/AA) missions, and provides survivable and endurable USNDS communications via Milstar/Advanced Extremely High Frequency (AEHF) circuits. The UGNT program modifies the baseline of the GNT program and deploys as an integral part of the Space Based Infrared System (SBIRS) Survivable / Endurable Evolution (S2E2) Mobile Ground System (SMGS) units. The UGNT, when integrated with the SMGS, will perform NUDET event processing with fused NDS data from GPS and DSP. SMGS capability refers to the result of the S2E2 upgrade program for the MGS mission processing capability, including the integration of UGNT. The intended end state of UGNT integration is delivery of enhanced missile warning and NUDET detection capabilities that meet survivable/endurable ITW/AA requirements directed by the President, SECDEF, Joint Staff, and USSTRATCOM delivering long-term, cost effective, multi-role, multi-mission space effects to the war fighter across the range of military operations.

This NDS PE 0305913F includes systems engineering, research, development, manufacture, integration, on-orbit and field testing and end-to-end verification of USNDS space sensors, ground analysis and reporting systems in support of the 5 (five) USNDS mission areas.

This program is in Budget Activity 7 - Operational System Development because it supports operational systems.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 81.989 | 64.965 | 50.852 | - | 50.852 |
| Current President's Budget | 81.989 | 64.965 | 50.547 | - | 50.547 |
| Total Adjustments | 0.000 | 0.000 | -0.305 | - | -0.305 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -0.305 | - | -0.305 |

**Change Summary Explanation**

FY14: -$0.305M due to higher Air Force priorities

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** ICADS | 28.862 | 26.779 | 17.995 |
| ***Description:*** Satellite ground data processing system that reports endo-atmospheric, transition and near-space nuclear detonations (NUDETs) as detected by the NDS sensors aboard the GPS and DSP satellites and SABRS equipped satellites. | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305913F: *NUDET Detection System (SPACE)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***FY 2012 Accomplishments:***<br>Received NDS Operational Acceptance on GPS IIF SV01 and GPS IIF SV02, received ICADS Build 6 Authority to Operate (ATO).<br>***FY 2013 Plans:***<br>Operational delivery of ICADS Build 6, continue ICADS hardware and software development.<br>***FY 2014 Plans:***<br>Complete ICADS hardware and software development (GPS III SVs 01-08 build and UGNT Build), deliver additional GBD for GPS III SVs, support GPS IIF checkout of NDS sensors during launch and on-orbit activities. Begin software development for changes to GBD sensors and SVs beginning with SV09. | | | |
| ***Title:*** UGNT<br>***Description:*** Delivers enhanced missile warning and NUDET detection capabilities that meet survivable/endurable tactical warning and attack assessment requirements directed by the President, SECDEF, Joint Staff and USSTRATCOM delivering long-term, cost effective, multi-role, multi-mission space effects to the war fighter across the range of military operations.<br>***FY 2012 Accomplishments:***<br>Completed UGNT Preliminary Design Review (PDR).<br>***FY 2013 Plans:***<br>Continue UGNT hardware and software development, deliver Testbed, complete Critical Design Review (CDR).<br>***FY 2014 Plans:***<br>Continue UGNT hardware and software development, conduct Test Readiness Review, deliver Maintenance/Training system. | 26.384 | 25.365 | 19.797 |
| ***Title:*** SABRS Integration on Alt Host II<br>***Description:*** Integrated NUDET detection sensors providing a capability to replace aging DSP NDS capability. NDS RDT&E funding integrates the NDS sensors onto the host satellite. Second SABRS sensor package integration onto Alternate Host II was terminated in the FY13 PB.<br>***FY 2012 Accomplishments:***<br>Supported SABRS on GEO platform launch activiites. Identified costs and required actions for termination of SABRS on Alt Host II. | 12.800 | 0.000 | 0.000 |
| ***Title:*** Systems Engineering/On-Orbit Support & Testing<br>***Description:*** Support costs including funding for DOE sensor support, testing and system engineering. | 13.943 | 12.821 | 12.755 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305913F: *NUDET Detection System (SPACE)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***FY 2012 Accomplishments:***<br>Provided SE&I, technical support and program technical support for the five NDS mission areas, completed checkout of NDS sensors on GPS IIF SV02 during launch and on-orbit activities. Delivered GBD to GPS III SV01.<br>***FY 2013 Plans:***<br>Provide SE&I, technical support and program technical support for the five NDS mission areas, support GPS IIF SV03 and GPS IIF SV04 checkout of NDS sensors during launch and on-orbit activities, deliver remaining Global Burst Detectors (GBD) for GPS IIF, deliver GBD for GPS III SV02.<br>***FY 2014 Plans:***<br>Provide SE&I, technical support and program technical support for the five NDS mission areas. Deliver GBDs for GPS III SV03. Support GPS IIF checkout of NDS sensors during launch and on-orbit activities. | | | |
| **Accomplishments/Planned Programs Subtotals** | 81.989 | 64.965 | 50.547 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: Line Item # 836750: *Nudet Detection Sys Space* | 4.863 | 5.564 | 4.415 | | 4.415 | 4.697 | 5.157 | 4.490 | 6.495 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

The USNDS Acquisition Strategy is to develop, integrate, field and sustain USNDS satellite sensors and USNDS ground data processing and distribution hardware and software as well as mission operational and technical program support to sustain the USNDS capability on GPS and DSP; funding is sent by Military Interdepartmental Purchase Request (MIPR) from DoD and Department of Energy (DOE) to Sandia, Lawrence Livermore, and Los Alamos National Laboratories and other agencies on existing DOE contracts.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305913F: *NUDET Detection System (SPACE)* | PROJECT<br>672808: *Nuc Detonation Det Sys (sensors)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ICADS and GNT/UGNT | MIPR | Sandia National Laboratory:Albuquerque, NM | - | 55.246 | Nov 2011 | 52.144 | Jan 2013 | 37.792 | Jan 2014 | - | | 37.792 | Continuing | Continuing | |
| SABRS | MIPR | Various:Classified, | - | 12.800 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 12.800 | |
| Completed NDS Development Efforts | Various | Various:Various | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| SE&I | C/CPAF | SAIC:San Diego, CA | - | 2.699 | Nov 2011 | 2.640 | Dec 2012 | 2.731 | Dec 2013 | - | | 2.731 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 70.745 | | 54.784 | | 40.523 | | 0.000 | | 40.523 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Testing | PO | 17th Test Squadron:Schriever AFB, CO | - | 0.259 | Nov 2011 | 0.261 | Feb 2013 | 0.265 | Dec 2013 | - | | 0.265 | Continuing | Continuing | |
| On-orbit Sensor Testing | MIPR | Various:Albuquerque, NM | - | 2.589 | Nov 2011 | 2.177 | Mar 2013 | 2.264 | Mar 2014 | - | | 2.264 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 2.848 | | 2.438 | | 2.529 | | 0.000 | | 2.529 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305913F: *NUDET Detection System (SPACE)* | PROJECT<br>672808: *Nuc Detonation Det Sys (sensors)* |

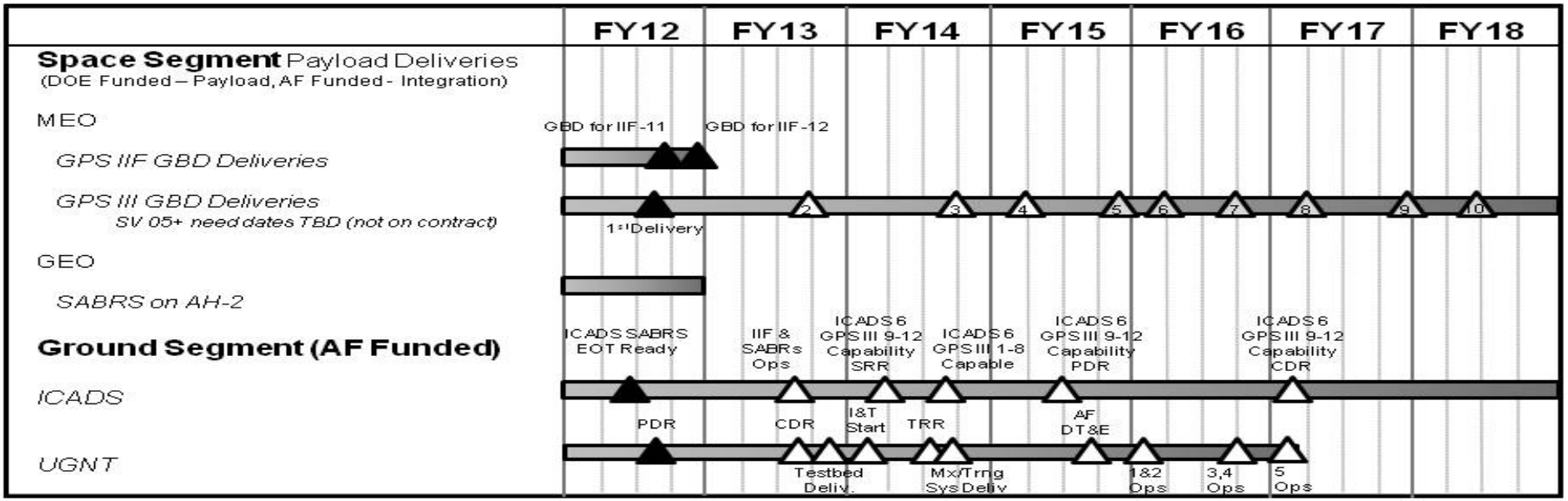
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Technical Support (FFRDC) | Various | Aerospace:El Segundo, CA | - | 2.565 | Nov 2011 | 2.987 | Nov 2012 | 3.107 | Nov 2013 | - | | 3.107 | Continuing | Continuing | |
| Program Management Administration (PMA) | Various | Various:Various, | - | 5.831 | Nov 2011 | 4.756 | Nov 2012 | 4.388 | Nov 2013 | - | | 4.388 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 8.396 | | 7.743 | | 7.495 | | 0.000 | | 7.495 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 81.989 | | 64.965 | | 50.547 | | 0.000 | | 50.547 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305913F: *NUDET Detection System (SPACE)* | PROJECT<br>672808: *Nuc Detonation Det Sys (sensors)* |




AF – Air Force
AH-2 – Alternate Host 2
CDR – Critical Design Review
DOE – Department of Energy
EOT – Early On-Orbit Test
GBD – Global Burst Detector
GEO – Geosynchronous Earth Orbit
I&T – Integration and Test
DT&E – Developmental Test & Evaluation
ICADS – Integrated Correlation and Display System
MEO – Medium Earth Orbit
PDR – Preliminary Design Review
SABRS – Space Atmospheric Burst Reporting System
SRR – System Readiness Review
TRR – Test Readiness Review
UGNT – Universal Ground NDS Terminal

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305913F: *NUDET Detection System (SPACE)* | **PROJECT**<br>672808: *Nuc Detonation Det Sys (sensors)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Deliver final Global Burst Detectors (GBD) for GPS IIF | 4 | 2012 | 1 | 2013 |
| ICADS Build 6 Operational | 3 | 2013 | 3 | 2013 |
| UGNT Critical Design Review (CDR) | 3 | 2013 | 3 | 2013 |
| Deliver GBD for GPS III SV02 | 3 | 2013 | 3 | 2013 |
| UGNT Testbed Delivery | 4 | 2013 | 4 | 2013 |
| ICADS Build 6 GPS III SV01-08 capable | 3 | 2014 | 3 | 2014 |
| UGNT Maintenance/Training System Delivery | 3 | 2014 | 3 | 2014 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0305940F: *Space Situation Awareness Operations* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 29.720 | 19.586 | 18.807 | - | 18.807 | 11.740 | 10.988 | 0.000 | 0.000 | Continuing | Continuing |
| 67A017: *Sensor Service Life Extension Program* | - | 29.720 | 19.586 | 18.807 | - | 18.807 | 11.740 | 10.988 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Space Situational Awareness (SSA) is knowledge of all aspects of space related to operations. As the foundation for space control, SSA encompasses surveillance of all space objects and activities; detailed reconnaissance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; intelligence on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. Program Element 0305940F, Space Situational Awareness Operations, fields, upgrades, operates and maintains Air Force sensors and information integration capabilities within the SSA network while companion program element 0604425F, Space Situational Awareness Systems, develops new network sensors and improved information integration capabilities across the network. Activities funded in the SSA Operations program element focus on surveillance of objects in earth orbit to aid tasks including satellite tracking; space object identification; tracking and cataloging; satellite attack warning; notification of satellite flyovers to U.S. forces; space treaty monitoring; and technical intelligence gathering.

The Sensor Service Life Extension Programs (SLEP) in this program element fund efforts to upgrade and extend the life of operational SSA sensors, as needed. These SLEPs include, but are not limited to, programs that extend the serviceable life of assets and maintain critical capability by replacing aging and increasingly unsustainable components with modern equipment. SLEPs may incorporate equipment which inherently includes technological advances resulting in enhanced or increased capabilities. In addition, the SLEP itself may be designed to increase certain capabilities. The current efforts of Eglin, Haystack Ultra-wideband Satellite Imaging Radar (HUSIR), Ground-based Electro Optical Deep Space Surveillance (GEODSS), and Globus II are representative of sensor systems upgraded in the SLEP project. As the need arises in the execution year, funds in this project may be used to begin sensor life extension programs on additional efforts. These efforts are in Budget Activity 7, Operational System Development, because they develop modifications for operational SSA sensors.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305940F: *Space Situation Awareness Operations* | |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 31.956 | 19.586 | 37.811 | - | 37.811 |
| Current President's Budget | 29.720 | 19.586 | 18.807 | - | 18.807 |
| Total Adjustments | -2.236 | 0.000 | -19.004 | - | -19.004 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -2.236 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -19.004 | - | -19.004 |

**Change Summary Explanation**

FY12: -$2.236M for SBIR

FY14: -$19.004M Globus II SLEP Program Element transfer to a different program element. Further detail is classified and may be provided upon request.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Eglin SLEP | 5.200 | 4.063 | 8.621 |
| ***Description:*** Extends the operational life of the AN/FPS-85 Radar, located at Eglin AFB, through 2018. Upgrades the hardware and software of the radar system to maintain system performance, operability and sustainment to support USSTRATCOM's Space Surveillance Network (SSN) near earth and deep space metric tracking and space object identification (SOI) missions.<br><br>***FY 2012 Accomplishments:***<br>Completed Phase 1 of the SLEP-Control and System Processor Upgrade (CSPU) integration, test, for planned operational acceptance. Continued Beam Steering Control Unit (BSCU) design and development, and began Phase 2-BSCU production and fielding.<br><br>***FY 2013 Plans:***<br>Will continue BSCU production and fielding and begin BSCU integration and testing.<br><br>***FY 2014 Plans:***<br>Will complete Phase 1 of the SLEP-CSPU integration, test, and operational acceptance. The plan and schedule for the second phase of the SLEP (BSCU) will be updated to reflect the completion of the CSPU which had previously been delayed. | | | |
| ***Title:*** HUSIR | 5.497 | 4.269 | 0.050 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305940F: *Space Situation Awareness Operations* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Upgrades the Haystack radar's X-band 1 MHz bandwidth system by adding a W-band 8GHz capability and enhancing imaging resolution to support SSN object characterization and tracking.<br><br>***FY 2012 Accomplishments:***<br>Performed analysis and assessment of repair alternatives for the antenna structure that mechanically seized during initial testing. Conducted in-situ repair including updated hydraulics, ride height instrumentation with fail safe interlocks, antenna surface stiffeners, antenna anti-deformation struts, and thermal sensors.<br><br>***FY 2013 Plans:***<br>Complete refurbished bearing characterization, commence control system tuning/testing, begin radar integration and test with X-band initially, verify antenna surface alignment with holography/laser radar measurements, begin W-band testing.<br><br>***FY 2014 Plans:***<br>Will verify surface alignment through surface panel holography, will complete W-Band testing and perform W-Band Military Utility Assessment (MUA) which will complete the project. | | | |
| ***Title:*** GEODSS SLEP<br><br>***Description:*** Extends the operational life of the Ground Based Electro-Optical Deep Space Surveillance System (GEODSS). Replaces the aging Sensor Controller Group (SCG), Data Processing Group (DPG), Data Communications Group (DCG), and other unsupportable subsystems as required to maintain SSN tracking capabilities for objects in deep space and geosyncronous orbits.<br><br>***FY 2012 Accomplishments:***<br>Conducted Phase I CDR and purchase of developmental hardware for SCG effort. Completed software code and unit testing.<br><br>***FY 2013 Plans:***<br>Will integrate, assemble, test, and install SCG equipment for Site 1.<br><br>***FY 2014 Plans:***<br>Will award contract for Phase II of SLEP to upgrade subsystems with sustainability issues, such as the DPG and DCG. | 8.676 | 1.549 | 10.136 |
| ***Title:*** GLOBUS II SLEP<br><br>***Description:*** Extends the operational life of the GLOBUS II Radar, located in Vardo, Norway. Replaces aging and unsustainable hardware groups including the transmitter, mission critical computing resources (MCCR), receiver-exciter (REX) subsystems, and other unsupportable subsystems as required.<br><br>***FY 2012 Accomplishments:*** | 10.347 | 9.705 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305940F: *Space Situation Awareness Operations* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Conducted Phase I System Requirements Review and Preliminary Design Review, and purchased long lead items.<br>***FY 2013 Plans:***<br>Will conduct Critical Design Review. Will purchase hardware and complete in-plant testing, integration, and system assessments.<br>***FY 2014 Plans:***<br>Project funding is transferred to a new Program Element. | | | |
| **Accomplishments/Planned Programs Subtotals** | 29.720 | 19.586 | 18.807 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: 836790: *Space Mods Space* | 0.000 | 3.391 | 0.000 | | 0.000 | 3.152 | 4.003 | 2.200 | 0.000 | 0.000 | 7.050 |

**Remarks**

**E. Acquisition Strategy**

The Eglin SLEP effort is replacing key radar items via an option on the Systems Engineering and Sustainment Integrator (SENSOR) contract, competitively awarded to ITT Corporation (now Exelis) in 2002. The Air Force uses the SENSOR contract for sustaining and upgrading various Air Force systems, including the Eglin radar.

The Massachusetts Institute of Technology's Lincoln Laboratory (MIT/LL), a non-profit Federally-Funded Research & Development Center, performs the HUSIR effort under a master contract with the Electronic Systems Center, in conjunction with support from other agencies as required. This effort is classified as applied research under that contract. MIT/LL transferred ownership of the radar to the Air Force but continues to operate it as part of its Lincoln Space Surveillance Complex as per contract with the Air Force. MIT/LL will be responsible for operations and sustainment of the upgraded Haystack radar. The upgrade effort is scheduled to complete in FY14.

The GEODSS SLEP was awarded as an option on the SENSOR contract. The GEODSS SLEP uses a phased development and deployment strategy to reduce risk.

The Globus II SLEP was also awarded as an option on the SENSOR contract. The Globus II SLEP uses a phased development and deployment strategy to reduce risk. Phase I is under contract (transmitter replacement). Phase II will replace the MCCR and REX subsystems. An assessment was completed on the MCCR and REX subsystems and additional requirements are being refined to be potentially incroporated into the second phase. In FY14, this project is being transferred to a new Program Element.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305940F: *Space Situation Awareness Operations* |

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305940F: *Space Situation Awareness Operations* | PROJECT<br>67A017: *Sensor Service Life Extension Program* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eglin architecture development and life extension | C/Various | Exelis/TBD:Colorado Springs, CO | - | 3.097 | Jan 2012 | 1.742 | Jan 2013 | 7.393 | Jan 2014 | - | | 7.393 | Continuing | Continuing | |
| HUSIR design and build | SS/FP | MIT Lincoln Lab:Lexington, MA | - | 4.325 | Oct 2011 | 3.459 | Oct 2012 | 0.000 | | - | | 0.000 | 0.000 | 7.784 | |
| GEODSS design, development and life extension | C/CPIF | Exelis/TBD:Colorado Springs, CO | - | 7.472 | Feb 2012 | 0.635 | May 2013 | 8.998 | Jun 2014 | - | | 8.998 | Continuing | Continuing | |
| Globus II development and life extension | C/CPIF | Exelis/TBD:Colorado Springs, CO | - | 9.585 | Feb 2012 | 8.758 | Apr 2013 | 0.000 | | - | | 0.000 | 0.000 | 18.343 | |
| | | **Subtotal** | 0.000 | 24.479 | | 14.594 | | 16.391 | | 0.000 | | 16.391 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Development review and management/L3 | C/FP | L3:Billerica, MA | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Technical Support/LL | SS/FP | MIT Lincoln Laboratory:Lexington, MA | - | 0.000 | | 0.125 | Oct 2012 | 0.079 | Oct 2013 | - | | 0.079 | Continuing | Continuing | |
| Technical review and management/ETASS | C/CPAF | Jacobs Technology:Tullehoma, TN | - | 1.621 | Jan 2012 | 1.402 | Jan 2013 | 0.714 | Jan 2014 | - | | 0.714 | Continuing | Continuing | |
| MITRE(technical egineering)/MISC/JPL/ travel | Various | Various:Various, | - | 0.715 | Oct 2011 | 1.025 | Oct 2012 | 0.320 | Oct 2013 | - | | 0.320 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 2.336 | | 2.552 | | 1.113 | | 0.000 | | 1.113 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305940F: *Space Situation Awareness Operations* | PROJECT<br>67A017: *Sensor Service Life Extension Program* |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Test Support | Various | 17th Test Squadron:SAFB, CO | - | 0.069 | Jan 2013 | 0.181 | Jan 2014 | 0.052 | Jan 2015 | - | | 0.052 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.069 | | 0.181 | | 0.052 | | 0.000 | | 0.052 | | | |

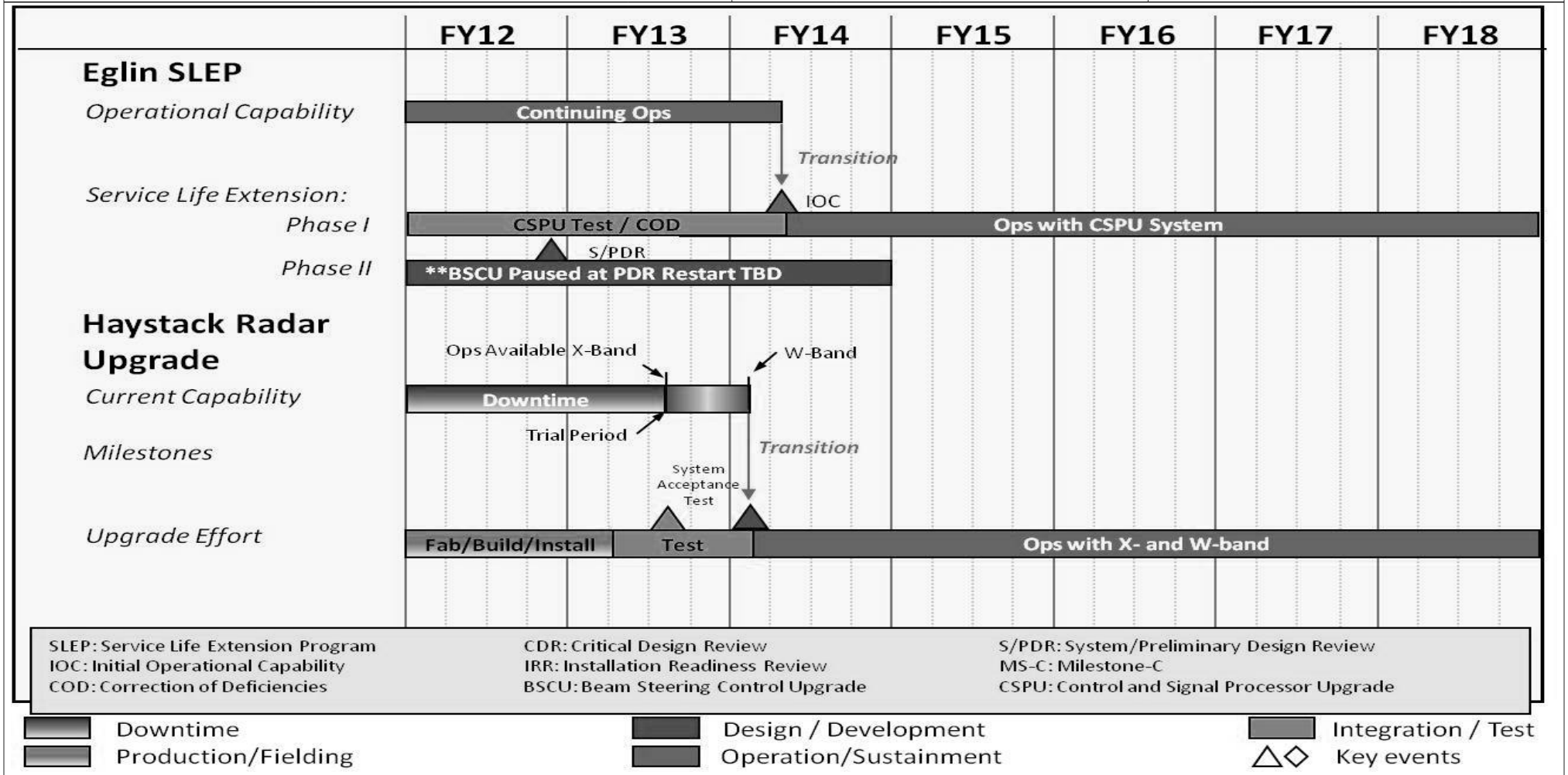
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Development review and managemnet/PASS | C/FP | Odyssey Systems:Wakefield, MA | - | 1.374 | Apr 2012 | 0.981 | Apr 2013 | 0.621 | Apr 2014 | - | | 0.621 | Continuing | Continuing | 7.788 |
| Specialized Cost Services (SCS) | C/FP | Tecolote:Lexington,MA ColSpgs,CO, | - | 0.551 | Oct 2011 | 0.472 | Oct 2012 | 0.352 | Oct 2013 | - | | 0.352 | Continuing | Continuing | 3.561 |
| Program Office Mgmnt/ Infrastructure (PMA) | Various | AFLCMC:Lexington,MA ColSpgs,CO, | - | 0.911 | Jul 2012 | 0.806 | Jul 2013 | 0.278 | Jul 2014 | - | | 0.278 | Continuing | Continuing | 16.626 |
| | | **Subtotal** | 0.000 | 2.836 | | 2.259 | | 1.251 | | 0.000 | | 1.251 | | | 27.975 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 29.720 | | 19.586 | | 18.807 | | 0.000 | | 18.807 | | | |

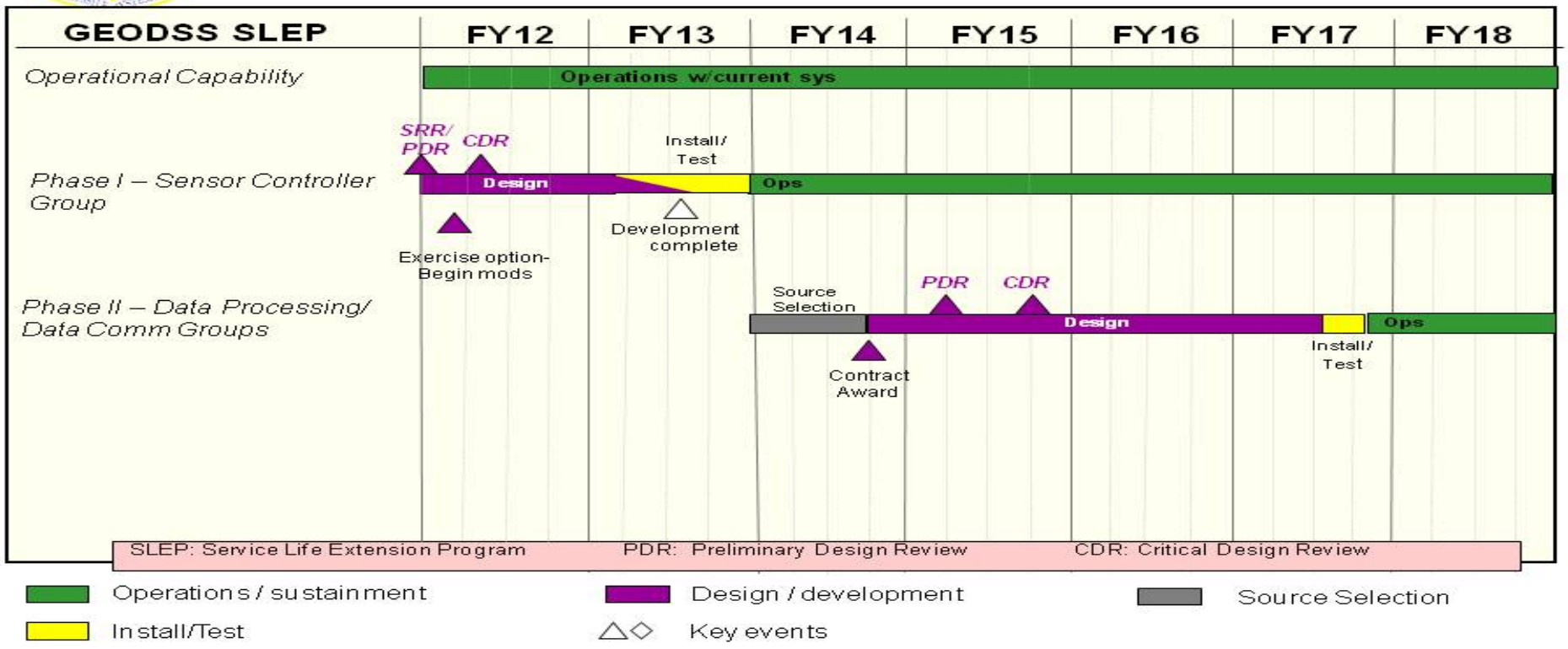
**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305940F: *Space Situation Awareness Operations* | PROJECT<br>67A017: *Sensor Service Life Extension Program* |



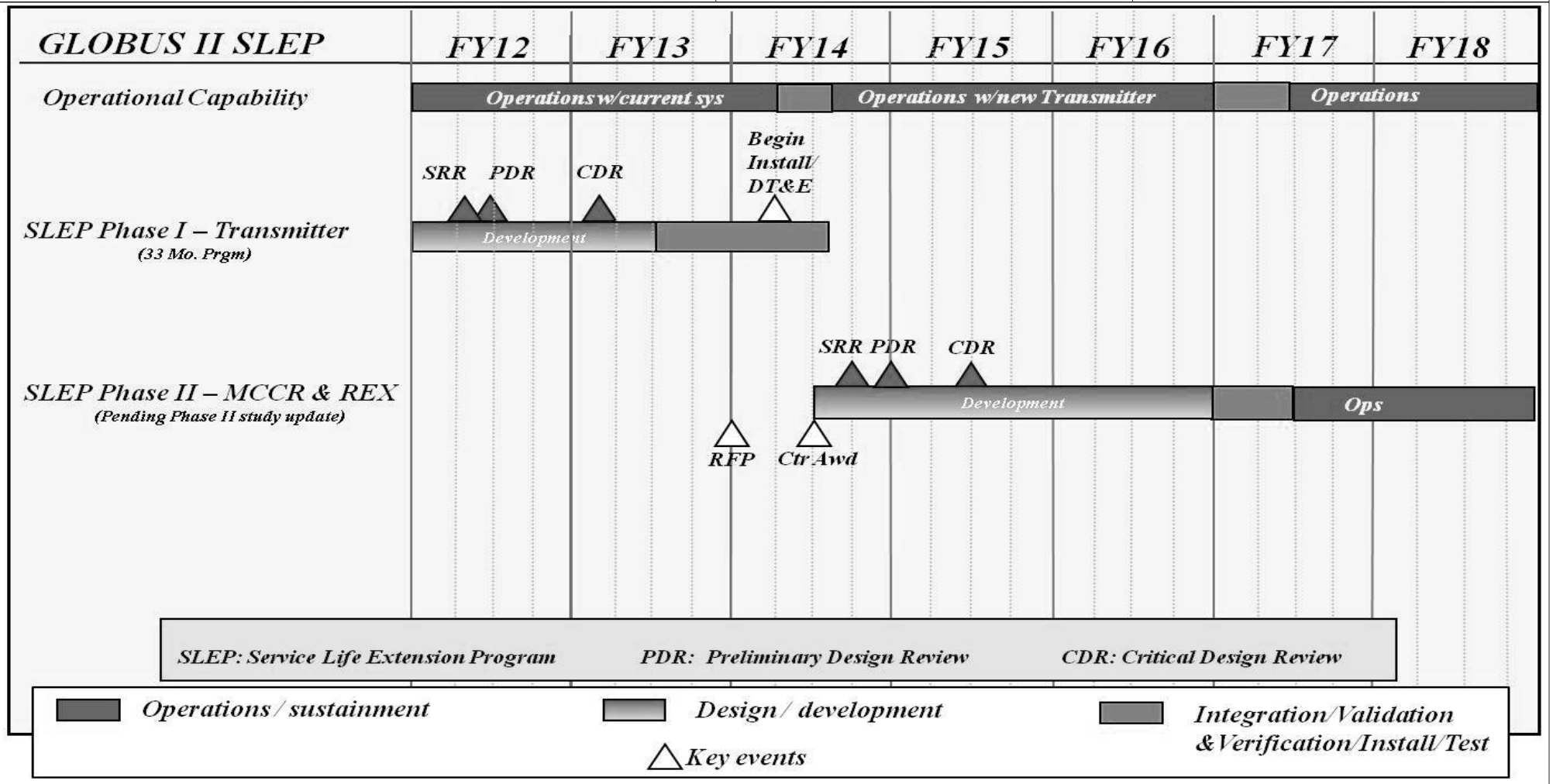
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305940F: *Space Situation Awareness Operations* | PROJECT<br>67A017: *Sensor Service Life Extension Program* |

# GEODSS SLEP Schedule




1

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0305940F: *Space Situation Awareness Operations* | PROJECT<br>67A017: *Sensor Service Life Extension Program* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0305940F: *Space Situation Awareness Operations* | **PROJECT**<br>67A017: *Sensor Service Life Extension Program* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Eglin Phase I CSPU IOC | 2 | 2014 | 2 | 2014 |
| Eglin Phase II PDR | 4 | 2012 | 4 | 2012 |
| HUSIR Antenna Complete/X-Band Ops Available | 2 | 2013 | 3 | 2013 |
| HUSIR System Acceptance Test | 3 | 2013 | 1 | 2014 |
| HUSIR X and W Band Ops | 1 | 2014 | 1 | 2014 |
| GEODSS Phase I PDR | 1 | 2012 | 1 | 2012 |
| GEODSS Phase I CDR | 2 | 2012 | 2 | 2012 |
| GEODSS Phase II Development Contract Award | 3 | 2014 | 3 | 2014 |
| Globus II Phase I PDR | 2 | 2012 | 2 | 2012 |
| Globus II Phase I CDR | 1 | 2013 | 1 | 2013 |
| Globus II Phase II Development Contract Award | 3 | 2014 | 3 | 2014 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | | DATE: April 2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0307141F: *Information Operations Technology Integration & Tool Development* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 23.184 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 23.184 |
| 674871: *Information Operations Technology* | - | 23.184 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 23.184 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2013, 674871, Information Operations Technology, efforts were transferred to PE 0208059F, CYBERCOM Activities, 676002, Cyber Systems Modernization, in order to align all CYBERCOM funding into one PE.

**A. Mission Description and Budget Item Justification**

The US Cyber Command (USCYBERCOM) responsibilities include planning, integrating, and coordinating Computer Network Operations (CNO) capabilities; operational and tactical level planning and day-to-day employment of assigned and attached Offensive Cyber Operations (OCO) forces; integration of OCO forces with Defensive Cyber Operations (DCO) forces and planning and coordination of cyber capabilities that have trans-regional effects or that directly support national objectives; providing OCO/DCO support for assigned missions and OCO/DCO planning and integration in support of other Combatant Commanders (COCOMs) as directed.

This project funds research, development, testing, and systems modifications of the technologies and capabilities that allow USCYBERCOM to plan, facilitate coordination and integration, deconflict, and synchronize Department of Defense (DoD) CNO. Activities also include studies and analysis to support both current program planning and execution and future program planning. This program also provides the ability for other COCOMs to conduct CNO planning. The USCYBERCOM accomplishes part of its mission via systems engineering, testing and development across the primary functions of technical assurance, risk assessments, requirements management, capability development, and gap analysis. The technical assurance function provides world-class "assurance-in-depth" products and services enabling COCOMs to confidently, legally, safely, and securely apply CNO capabilities as one of the elements of national power. Further detail is classified and can be provided upon request.

USCYBERCOM provides support for US Strategic Command (USSTRATCOM) and other geographic and functional COCOM exercises, war games, and experimentation requirements. USCYBERCOM integrates and synchronizes its effort with the USSTRATCOM development of CNO military utility assessments, research, and development efforts, and advocacy of capability needs for the Joint Capabilities Integration Development System (JCIDS) process.

USCYBERCOM supports the Information Operations (IO) community by providing a cadre of experts on CNO technology use, and renders technical assistance in the development, review and coordination of CNO plans and operations. USCYBERCOM coordinates CNO capability research and development in order to achieve

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0307141F: *Information Operations Technology Integration & Tool Development* |

global military objectives. USCYBERCOM specifically is responsible for advocating on behalf of the COCOMs for CNO capability development. It is also responsible for partnering with the CNO development community to seek resource advocacy from USSTRATCOM, and fund CNO capability development with service sponsorship and coordination. Additionally, USCYBERCOM focuses capability developer's efforts on addressing COCOM requirements, fosters collaboration between OCO/DCO developers, intelligence providers, and operational planners to shorten the development cycle, transfers end-result capabilities to service components, and supports research and development of OCO/DCO capabilities to conduct operational planning activities.

USCYBERCOM supports research and development of OCO/DCO capabilities based upon COCOM and USCYBERCOM operational requirements to include supporting and conducting quick reaction development of OCO/DCO capabilities in support of OCO/DCO operations as required. A small in-house development team will perform research as required to support this mission. The Special Projects, Vulnerability Assessment Team provides analytical support to exploitable vulnerabilities. Additionally, this team will "re-tool" existing OCO/DCO capabilities to satisfy immediate USCYBERCOM operational needs.

This program is in Budget Activity 7, Operational System Development, these budget activities include development efforts to upgrade systems currently fielded or has approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 23.920 | 0.000 | 0.000 | - | 0.000 |
| Current President's Budget | 23.184 | 0.000 | 0.000 | - | 0.000 |
| Total Adjustments | -0.736 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.736 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

**Change Summary Explanation**

In FY 2013, 674871, Information Operations Technology, efforts transferred to PE 0208059F, CYBERCOM Activities, 676002, Cyber Systems Modernization, in order to align all CYBERCOM funding into one PE.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Tool Development Partnership | 8.123 | 0.000 | 0.000 |
| ***Description:*** Provides for tool development through technology partnership with Service Cyber Commands enabling COCOMs to confidently, legally, safely, and securely apply Offensive Cyber Operations (OCO) capabilities. | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0307141F: *Information Operations Technology Integration & Tool Development* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| **This is also referred to as Call For Proposals (CFP) an evolving partnership tool development activity<br><br>***FY 2012 Accomplishments:***<br>Funding provides tool development through technology partnership with Service Cyber Commands enabling COCOMs to confidently, legally, safely, and securely apply Offensive Cyber Operations (OCO) capabilities. | | | |
| ***Title:*** Requirements, Capabilities & Gap Analysis<br><br>***Description:*** Requirements, Capabilities and Gap Analysis<br><br>***FY 2012 Accomplishments:***<br>Funding develops Requirements, Capabilities and Gap Analysis. Provides focused capabilities for geographic and functional COCOMs' exercise, war games, and experimentation requirements. Integrates and synchronizes the development of CNO military utility assessments, research, and development efforts across COCOMs for both OCO and DCO. | 5.884 | 0.000 | 0.000 |
| ***Title:*** Technical Assurance testing and training and policy development<br><br>***Description:*** Technical Assurance: Provides "assurance-in-depth" products enabling COCOMs to confidently, legally, safely, and securely apply OCO/DCO capabilities and applications. Upgrade testing laboratory equipment for testing and COCOM training.<br><br>***FY 2012 Accomplishments:***<br>Funding provides Technical Assurance: Provides "assurance-in-depth" products enabling COCOMs to confidently, legally, safely, and securely apply OCO/DCO capabilities and applications. Upgrades testing laboratory equipment for testing and COCOM training. | 4.397 | 0.000 | 0.000 |
| ***Title:*** Cyber Operations Lab and Prototyping and testing range activities<br><br>***Description:*** Cyber Operations Lab continued development/prototyping of tools based on submissions within CNO community. This include Special Projects Vulnerability Assessment Team and laboratory.<br><br>***FY 2012 Accomplishments:***<br>Funding provides Cyber Operations Lab continued development/prototyping of tools based on submissions within CNO community. This includes Special Projects Vulnerability Assessment Team and laboratory. | 3.584 | 0.000 | 0.000 |
| ***Title:*** Program Management Administration<br><br>***Description:*** Program Management Admnistration (PMA) funding supports engineering and technical development, and implementation activities, along with acquisition support efforts.<br><br>***FY 2012 Accomplishments:*** | 1.196 | 0.000 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0307141F: *Information Operations Technology Integration & Tool Development* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Funding supports engineering and acquisition support activities. | | | |
| **Accomplishments/Planned Programs Subtotals** | 23.184 | 0.000 | 0.000 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDTE: BA07: PE 0208059F: *Cyber Command Activities* | 0.702 | 68.888 | 68.400 | | 68.400 | 67.712 | 74.523 | 72.420 | 0.000 | Continuing | Continuing |

**Remarks**

Note: USCYBERCOM associated RDT&E funding in PE 0307141F has been realigned into PE 0208059F in FY 2013.

**E. Acquisition Strategy**

Contracts will be awarded under full and open competition whenever possible. Variations of both Fixed Price (FP) and Cost Plus (CP) contracting vehicles will be used managed by various Service Component contracting offices, COCOM contracting offices and NSA.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0307141F: *Information Operations Technology Integration & Tool Development* | PROJECT<br>674871: *Information Operations Technology* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Tool Development Partneship | Various | Other Partners:Ft Meade, MD | - | 8.123 | Oct 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 8.123 | |
| Requirments, Capabilities and Gap Analysis | Various | Various:Ft Meade, MD | - | 5.884 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 5.884 | |
| Technical Assurance testing and training and policy development | Various | Various:Ft Meade, MD | - | 4.397 | Dec 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 4.397 | |
| | | **Subtotal** | 0.000 | 18.404 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 18.404 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cyber Operations Lab and Prototyping and testing range activities | Various | USCC:Ft Meade, MD | - | 3.584 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 3.584 | |
| | | **Subtotal** | 0.000 | 3.584 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 3.584 | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA | C/CPAF | Various:Various, | - | 1.196 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 1.196 | |
| | | **Subtotal** | 0.000 | 1.196 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 1.196 | |

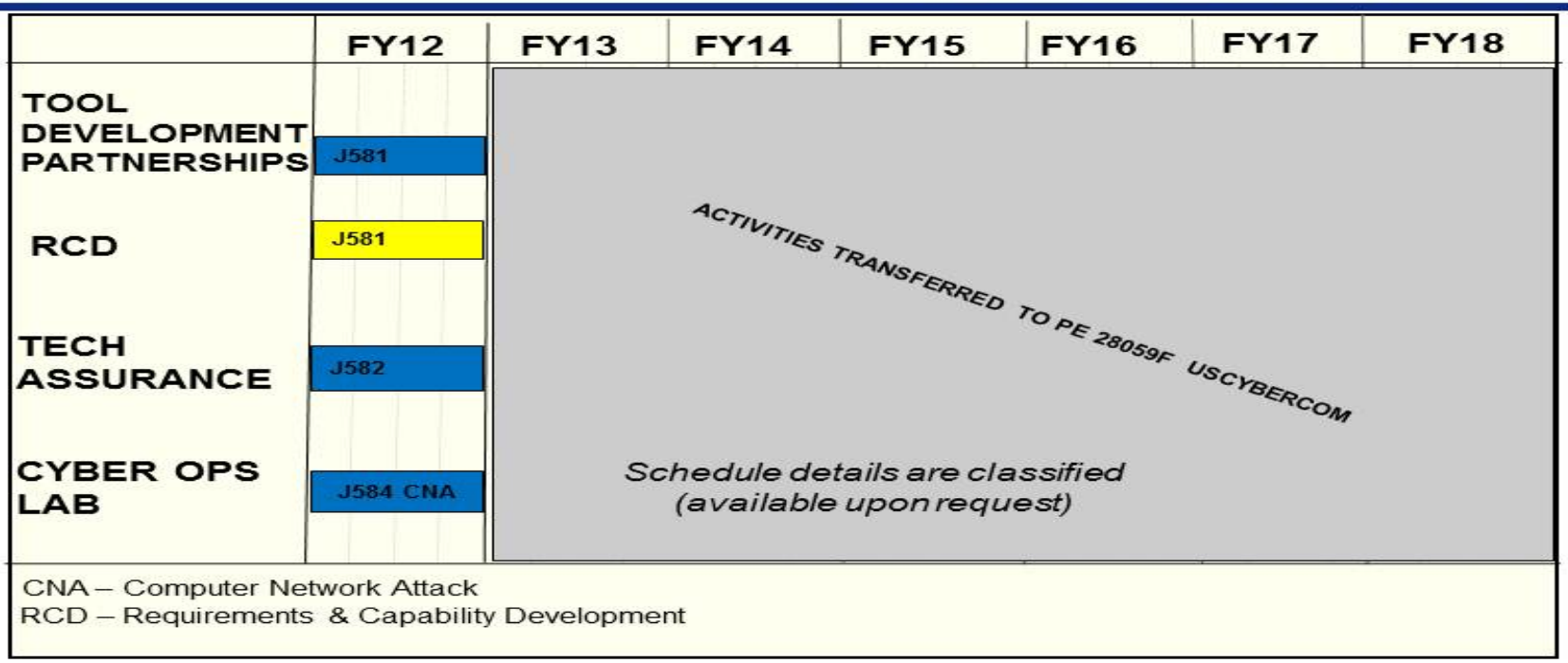
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0307141F: *Information Operations Technology Integration & Tool Development* | PROJECT<br>674871: *Information Operations Technology* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 23.184 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 23.184 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0307141F: *Information Operations Technology Integration & Tool Development* | PROJECT<br>674871: *Information Operations Technology* |

# USCYBERCOM IO TECH INTEGRATION & TOOL DEVELOPMENT




**Current as of: Mar 2013**

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0307141F: *Information Operations Technology Integration & Tool Development* | **PROJECT**<br>674871: *Information Operations Technology* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| J581 -Tool Development Partnerships | 1 | 2012 | 4 | 2012 |
| J582 -Requirements and Capability Development | 1 | 2012 | 4 | 2012 |
| Technical Assurance | 1 | 2012 | 4 | 2012 |
| J584 - Cyber Operations Lab | 1 | 2012 | 4 | 2012 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0308699F: *Shared Early Warning (SEW)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 1.663 | 1.175 | 1.079 | - | 1.079 | 1.228 | 1.235 | 1.237 | 1.259 | Continuing | Continuing |
| 674838: *Shared Early Warning System* | - | 1.663 | 1.175 | 1.079 | - | 1.079 | 1.228 | 1.235 | 1.237 | 1.259 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Shared Early Warning System (SEWS) is the result of Presidential foreign policy initiatives beginning in 1996. The SEWS continues to provide Theater Combatant Commanders and foreign nation customers direct operational benefit by improving the architectural design and equipment thereby providing enhanced mission capabilities (i.e., expanding coverage, integration with active defense systems, and radar integration). Foreign customer arrangements are negotiated with individual countries on a bilateral basis to provide selected region-specific missile warning information. To enhance mission capability the SEWS program tests: the Integrated Broadcast Service (IBS) migration to Common Interactive Broadcast (CIB), mandatory crypto upgrades, SEWS integration with various radar systems, and the transition to "coalition-based" warning. SEWS uses Federally Funded Research and Development Centers (FFRDC), Engineering and Technology Acquisition Support Services (ETASS), and Advisory and Assistance Services (A&AS) contractors to support design, development, and acquisition of a common SEWS architecture to enhance mission capability of existing and future partners.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0308699F: *Shared Early Warning (SEW)* | |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 1.663 | 1.175 | 1.167 | - | 1.167 |
| Current President's Budget | 1.663 | 1.175 | 1.079 | - | 1.079 |
| Total Adjustments | 0.000 | 0.000 | -0.088 | - | -0.088 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -0.088 | - | -0.088 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Shared Early Warning System (SEWS) | 1.423 | 0.947 | 0.845 |

***Description:*** Development of SEWS common architecture and SEWS initiatives as identified by theater commanders.

***FY 2012 Accomplishments:***
Continued to investigate and integrate combatant command (COCOM) validated requirements and external system enhancements; evaluated alternative solutions and approaches for integrated infrared/radar architectures. Tasks included continued development of SEW-Radar (SEW-R) Integration, began development and testing of the Air Defense System Integrator (ADSI) data Global Command and Control System-Joint (GCCS-J) Integration, and updated the rule set in the Cross Domain Solution (CDS) to comply with data disclosure.

Continued SEW-R development work, including bringing tactical data link channel into GCCS-J.

Deployed radios designed to handle CIB and have accommodations to handle Common Message Format (CMF) in the future. Began development of design to accommodate generic CMF across the SEWS architecture.

Continued ongoing efforts to improve the accuracy of the SEWS system. To include development and testing of improved capabilities.

Continued effort to design an architecture to accommodate the Central Command (CENTCOM) Partner Network (CPN).

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0308699F: *Shared Early Warning (SEW)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continued development of Force Protection Tiered Notification System (FPTNS), formerly known as WebWarn Secondary Notification Capability and began to test the solution.<br>***FY 2013 Plans:***<br>Continuing to investigate and integrate COCOM validated requirements and system enhancements (e.g., Radiant Mercury), evaluating alternative solutions and approaches for integrated infrared/radar architectures. Tasks include but not be limited to: SEW-R test and fielding; integration and test of redesign to improve and increase performance capabilities; and updating the rule set in the CDS to comply with data disclosure.<br><br>Continuing SEW-R development work.<br><br>Finishing development, then testing and begining to field design to accommodate generic CMF across the SEWS architecture.<br><br>Continuing to improve accuracy of the SEWS system with development, testing and fielding efforts.<br><br>Finishing test and beginning to field updated communication links. Additionally, starting development work to design and prepare requirements for changes as CPN is deployed by CENTCOM.<br><br>Continuing to test and then field the one-to-one FPTNS solution. Additionally, designing the next phase of FPTNS with one-to-many capability to the CENTCOM requirements. This will involve the development of a CDS with the Radiant Mercury (RDM) developer.<br><br>Beginning to design and develop capabilities specific to SEWS from the generic Defense Information Systems Agency (DISA) GCCS-J Agile Client capability.<br>***FY 2014 Plans:***<br>Will continue to investigate and integrate COCOM validated requirements and system enhancements (e.g., Radiant Mercury), will continue to evaluate alternative solutions and approaches for integrated infrared/radar architectures. Tasks will include but not be limited to: SEW-R test and fielding; integration and test of redesign to improve and increase performance capabilities; and updating the rule set in the CDS to comply with data disclosure.<br><br>Will continue SEW-R development work, including conducting studies to evaluate upgrades to the SEW-R including the capability to send data from/to the Air Defense System Integrator (ADSI).<br><br>Will begin next phase of development efforts to use Radiant Mercury (RDM) to monitor overseas systems for support purposes. | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0308699F: *Shared Early Warning (SEW)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Will begin to design the next phase of the CMF specification.<br><br>Will continue development of new methods to increase system accuracy.<br><br>Will continue to test and integrate new CPN, including Broadband Global Area Network (BGAN) router replacement.<br><br>Will finalize fielding of FPTNS one-to-one. And continue one-to-many CDS design and being field testing of the complete capability in the CENTCOM architecture.<br><br>Will continue development and design work on the new GCCS-J Agile Client capability.<br><br>Will begin to incorporate new Information Assurance (IA) design, checks and validation requirements as directed by the Designated Approval Authority (DAA). | | | |
| ***Title:*** Systems Engineering<br>***Description:*** Systems Engineering<br><br>***FY 2012 Accomplishments:***<br>Provided systems engineering and technical support, including requirements analysis, for SEWS.<br>***FY 2013 Plans:***<br>Performing systems engineering and technical support, including requirements analysis, for SEWS.<br>***FY 2014 Plans:***<br>Will continue to perform systems engineering and technical support, including requirements analysis, for SEWS. | 0.160 | 0.160 | 0.160 |
| ***Title:*** Program Management Administration<br>***Description:*** Program Support Administration costs support management with engineering and technical support for development and implementation.<br><br>***FY 2012 Accomplishments:***<br>Program Support efforts included: Government contract oversight, technical expertise and program management office support associated with the SEWS activities.<br>***FY 2013 Plans:*** | 0.080 | 0.068 | 0.074 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0308699F: *Shared Early Warning (SEW)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Program Support efforts include: Government contract oversight, technical expertise and program management office support associated with the SEWS activities.<br>***FY 2014 Plans:***<br>Program Support efforts will include: Government contract oversight, technical expertise and program management office support associated with the SEWS activities. | | | |
| **Accomplishments/Planned Programs Subtotals** | 1.663 | 1.175 | 1.079 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA07: Line Item # 838010: *Shared Early Warning Acquisition* | 0.313 | 0.322 | 0.328 | | 0.328 | 0.332 | 0.338 | 0.344 | 0.350 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

The acquisition strategy builds on existing capabilities using evolutionary acquisition to modernize and sustain SEWS.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0308699F: *Shared Early Warning (SEW)* | PROJECT<br>674838: *Shared Early Warning System* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System Development | C/CPIF | Lockheed Martin:Colorado Springs, CO | - | 0.823 | Oct 2011 | 0.545 | Oct 2012 | 0.556 | Oct 2013 | - | | 0.556 | Continuing | Continuing | TBD |
| Integration & Modernization | MIPR | US Navy:San Diego, CA | - | 0.373 | Mar 2012 | 0.326 | Mar 2013 | 0.211 | Mar 2014 | - | | 0.211 | Continuing | Continuing | TBD |
| Additional Product Development | MIPR | Various:Colorado Springs, CO | - | 0.227 | Sep 2012 | 0.076 | Sep 2013 | 0.078 | Sep 2014 | - | | 0.078 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.423 | | 0.947 | | 0.845 | | 0.000 | | 0.845 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Systems Engineering | SS/CPFF | MITRE:Colorado Springs, CO | - | 0.160 | Nov 2011 | 0.160 | Nov 2012 | 0.160 | Nov 2013 | - | | 0.160 | Continuing | Continuing | TBD |
| Program Management Administration | C/Various | Various:Colorado Springs, CO | - | 0.080 | May 2012 | 0.068 | May 2013 | 0.074 | May 2014 | - | | 0.074 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.240 | | 0.228 | | 0.234 | | 0.000 | | 0.234 | | | |

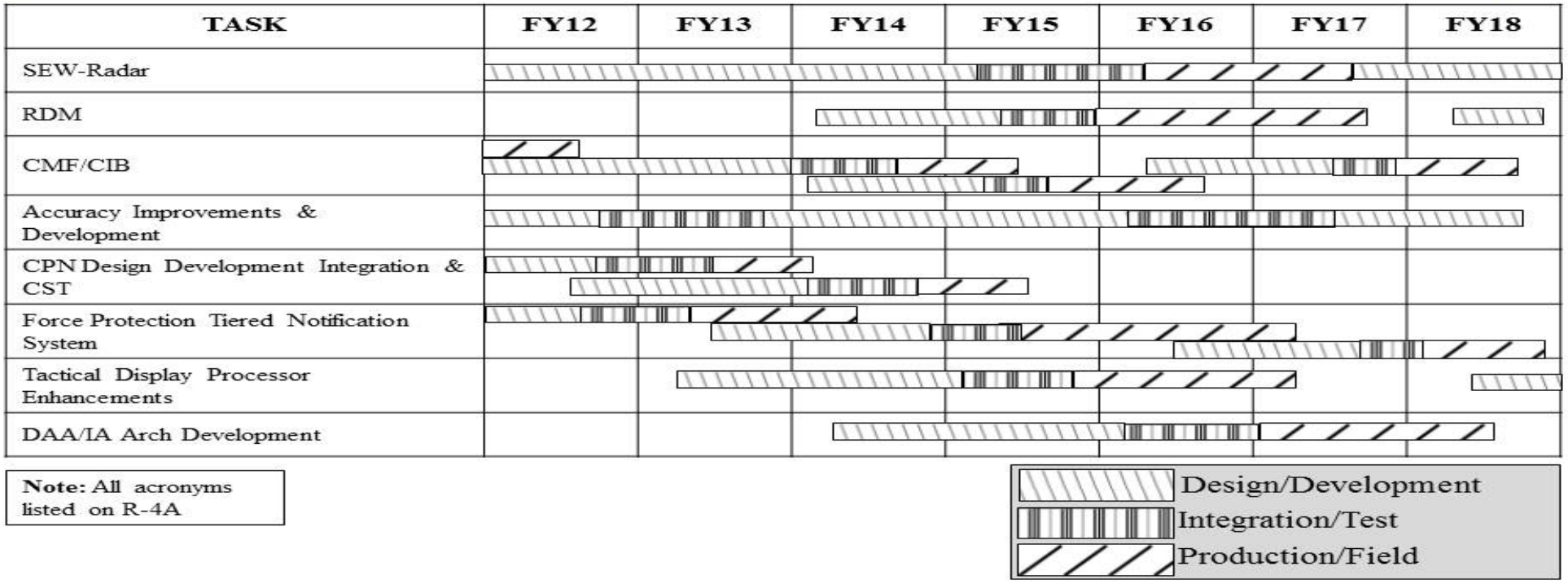
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0308699F: *Shared Early Warning (SEW)* | PROJECT<br>674838: *Shared Early Warning System* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 1.663 | 1.175 | 1.079 | 0.000 | 1.079 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0308699F: *Shared Early Warning (SEW)* | PROJECT<br>674838: *Shared Early Warning System* |

# SEWS Program Schedule




*Integrity - Service - Excellence*

1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0308699F: *Shared Early Warning (SEW)* | **PROJECT**<br>674838: *Shared Early Warning System* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| SEW-Radar Design/Development | 1 | 2012 | 1 | 2015 |
| SEW-Radar Integration/Test | 2 | 2015 | 1 | 2016 |
| SEW-Radar Follow On Design/Development | 3 | 2017 | 4 | 2018 |
| Radiant Mercury (RDM) Design/Development | 1 | 2014 | 2 | 2015 |
| RDM Testing | 2 | 2015 | 4 | 2015 |
| RDM Follow On Design/Development | 2 | 2018 | 4 | 2018 |
| Common Interactive Broadcast (CIB)/Common Message Format (CMF) Design/ Development | 1 | 2012 | 1 | 2014 |
| CMF/CIB Intergation/Test | 1 | 2014 | 3 | 2014 |
| CMF/CIB Follow On Design/Development | 2 | 2016 | 2 | 2017 |
| CMF/CIB Follow On Integration/Test | 3 | 2017 | 4 | 2017 |
| Accuracy Improvements & Development | 4 | 2013 | 1 | 2016 |
| Accuracy Improvements & Development Testing | 4 | 2012 | 3 | 2013 |
| Accuracy Improvements & Development Testing (1) | 2 | 2016 | 3 | 2017 |
| CENTCOM Partner Network (CPN) Design/Development | 1 | 2012 | 1 | 2014 |
| CENTCOM Partner Network (CPN) Intergration/Test | 1 | 2014 | 4 | 2014 |
| Force Protection Tiered Notification System (FPTNS) Design/Development | 2 | 2013 | 4 | 2014 |
| FPTNS Intergration/Test | 4 | 2014 | 2 | 2015 |
| FPTNS Follow On Design/Development | 2 | 2016 | 3 | 2017 |
| FPTNS Follow on Intergration/Test | 4 | 2017 | 1 | 2018 |
| Tactical Display Processor Design/Development | 2 | 2013 | 1 | 2015 |
| Tactical Display Processor Intergration/Testing | 1 | 2015 | 4 | 2015 |

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0308699F: *Shared Early Warning (SEW)* | PROJECT<br>674838: *Shared Early Warning System* |

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Tactical Display Processor Follow On Design/Development | 2 | 2018 | 4 | 2018 |
| Designated Approval Authority (DAA)/Information Assurance (IA) Arch Design/ Development | 2 | 2014 | 1 | 2016 |
| DAA/IA Integration/Testing | 1 | 2016 | 4 | 2016 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 6.321 | 5.000 | 0.400 | - | 0.400 | 66.100 | 69.800 | 11.800 | 3.500 | Continuing | Continuing |
| 674885: *Avionics Modernization Program (AMP)* | - | 6.321 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 675244: *C-130 CNS/ATM* | - | 0.000 | 5.000 | 0.400 | - | 0.400 | 66.100 | 69.800 | 11.800 | 3.500 | Continuing | Continuing |
| **MDAP/MAIS Code(s):** 298 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

C-130 Avionics Modernization Program (AMP) FY13 RDT&E funding has been deleted as a result of program cancellation by the Department of Defense.

The "Optimize" Legacy C-130 Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) program was a new start in FY13 in-lieu-of C-130 AMP, and provided CNS/ATM solution for 176 C-130H aircraft, addressed select obsolescence issues, and retined the navigator position.

The "Minimize" C-130 CNS/ATM program replaced the "Optimize" program in FY 14, and is an airspace compliance focused program to modify 184 C-130H aircraft with 8.33 kHz radios, cockpit voice and digital flight data recorders, Enhanced Mode S, and Automatic Dependent Surveillance-Broadcast (ADS-B) Out equipment.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full-rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | DATE: April 2013 |
|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | | |
| **B. Program Change Summary ($ in Millions)** | **FY 2012** | **FY 2013** | **FY 2014 Base** | **FY 2014 OCO** | **FY 2014 Total** |
| Previous President's Budget | 6.321 | 5.000 | 41.500 | - | 41.500 |
| Current President's Budget | 6.321 | 5.000 | 0.400 | - | 0.400 |
| Total Adjustments | 0.000 | 0.000 | -41.100 | - | -41.100 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -41.100 | - | -41.100 |

**Change Summary Explanation**

FY14 adjustment of -$41.1M is because the FY14 "Minimize C-130 CNS/ATM" program is an update/change to FY13's "Optimize Legacy C-130 CNS/ATM" program. The FY14 funds for the updated program procure 8.33 kHz radios and only requires 0.4M of FY14 RDT&E funds.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | PROJECT<br>674885: *Avionics Modernization Program (AMP)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 674885: *Avionics Modernization Program (AMP)* | - | 6.321 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2013, project 674885, C-130 Avionics Modernization Program was terminated.

**A. Mission Description and Budget Item Justification**

C-130 Avionics Modernization Program (AMP) was cancelled in FY 2013 by the Department of Defense. Therefore all FY13 RD&TE funding has been deleted.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** SDD | 6.321 | 0.000 | 0.000 |
| ***Description:*** Accomplished design activities for software spirals and remaining engineering data release for the H2, H2.5 and H3 configurations. Contractor also provided flight test support. To achieve the overall C-130 AMP development efforts, the following RDT&E tasks were also required: Training Systems Development (aircrew and maintenance systems), Engineering Change Orders (ECO), Development of new hardware and software resulting from Diminishing Manufacturing Sources (DMS) issues, Government furnished Equipment (GFE), the contractor Award Fee and program support and planning efforts.<br><br>***FY 2012 Accomplishments:***<br>Began C-130 AMP termination and planning activities including the development and implementation of a termination plan in order to close out the RDT&E contract as efficiently and effectively as possible.<br><br>***FY 2013 Plans:***<br>N/A<br><br>***FY 2014 Plans:***<br>N/A | | | |
| **Accomplishments/Planned Programs Subtotals** | 6.321 | 0.000 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | PROJECT<br>674885: *Avionics Modernization Program (AMP)* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # C13000: *C-130* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 212.509 |
| • APAF: BA05: Line Item # C1300A: *C-130 AMP* | 208.135 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 208.135 |

**Remarks**

**D. Acquisition Strategy**

N/A

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | PROJECT<br>674885: *Avionics Modernization Program (AMP)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-130 AMP System Design & Development | SS/CPAF | Boeing:Oklahoma City, OK | - | 0.000 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| Termination and Planning Activities | TBD | TBD:, | - | 6.321 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 6.321 | |
| | | **Subtotal** | 0.000 | 6.321 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 6.321 | |

**Remarks**

Note: FY12 funds are used for termination activities including the development and implementation of a termination plan in order to close out the RDT&E contract as efficiently and effectively as possible.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Various | Various | Various:Rosamond, CA | - | 0.000 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | |

**Remarks**

DT&E flight test program is primarily done out of Edwards AFB.

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA - Contractor Services | Various | Various:Dayton, OH | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | PROJECT<br>674885: *Avionics Modernization Program (AMP)* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA - Gov't Cost | Various | Various:Dayton, OH | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| Protest Settlement | SS/FFP | Lockheed Martin:Marietta, GA | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | |

**Remarks**

Protest Settlement cost category is FY11 funding reimbursement to Lockheed Martin for proposal preparation and submission materials for disputed C-130 AMP source selection.

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 6.321 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 6.321 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | PROJECT<br>674885: *Avionics Modernization Program (AMP)* |

Program to terminate in FY13, therefore no schedule is attached. Remaining FY12 funding to be used in contract termination and planning activities.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | PROJECT<br>675244: *C-130 CNS/ATM* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675244: *C-130 CNS/ATM* | - | 0.000 | 5.000 | 0.400 | - | 0.400 | 66.100 | 69.800 | 11.800 | 3.500 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

With the FY13 PB's cancellation of the C-130 Avionics Modernization Program (AMP), the Minimize C-130 Communication, Navigation, Surveillance/Air Traffic Management (CNS/ATM) option provides minimal airspace compliance focused program to modify 184 C-130H aircraft with Automatic Dependent Surveillance-Broadcast (ADS-B) Out equipment, 8.33 kHz radios, updated cockpit voice and digital flight data recorders, and Enhanced Mode S.

The 184 aircraft Minimize C-130 CNS/ATM program is comprised of H3s, H2.5s, H2s and H1s; and includes 28 Active Duty, 108 Guard, and 48 Reserve aircraft. The modification effort will be completed in three phases: Phase A updates to 8.33 kHz radios on 156 aircraft (28 modifications previously accomplished); Phase B modifies cockpit voice and digital data recorders (CVR/DVR) for 184 aircraft; Phase C relates to ADS-B Out and Enhanced Mode S modifications. Phase C will have 4 prototype aircraft required for accomplishment of the ADS-B Out Engineering and Manufacturing Development (EMD) phase, with the remaining 180 being production aircraft. The prototype aircraft represent each type of C-130H configuration listed above.

Based on the direction in the 2013 National Defense Authorization Act, quantities will increase from 184 to 224.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Minimize C-130 CNS/ATM Program | 0.000 | 5.000 | 0.400 |
| ***Description:*** Refine and complete the requirements definition phase of program in fiscal year 2013, followed by pre-EMD activities.<br><br>***FY 2013 Plans:***<br>Accomplish requirements definition and pre-EMD planning.<br><br>***FY 2014 Plans:***<br>Accomplish requirements definition and pre-EMD planning. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 5.000 | 0.400 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | PROJECT<br>675244: *C-130 CNS/ATM* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # C13000: *C-130* | 0.000 | 0.000 | 14.200 | | 14.200 | 14.598 | 14.654 | 40.942 | 74.781 | 165.725 | 324.900 |

**Remarks**

**D. Acquisition Strategy**

Current schedule is for the EMD contract to be awarded, following a competitive source selection, in the 3rd quarter of fiscal year 2014. Fiscal year 2013 primarily involved initiating the program requirements and pre-contract efforts in preparation for the EMD source selection phase of the program.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | PROJECT<br>675244: *C-130 CNS/ATM* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EMD Contract | C/TBD | TBD:, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 121.009 |
| Trainers/Training | TBD | TBD:, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 8.014 |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 129.023 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Developmental Flight Test | TBD | Not specified.:, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 12.404 |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 12.404 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA - Contractor Services | Various | Not specified.:, | - | 0.000 | | 4.400 | Jan 2013 | 0.339 | | - | | 0.339 | Continuing | Continuing | 5.182 |
| PMA - Gov't Cost | Various | Not specified.:, | - | 0.000 | | 0.600 | | 0.061 | | - | | 0.061 | Continuing | Continuing | 9.991 |
| | | **Subtotal** | 0.000 | 0.000 | | 5.000 | | 0.400 | | 0.000 | | 0.400 | | | 15.173 |

| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 5.000 | | 0.400 | | 0.000 | | 0.400 | | | 156.600 |

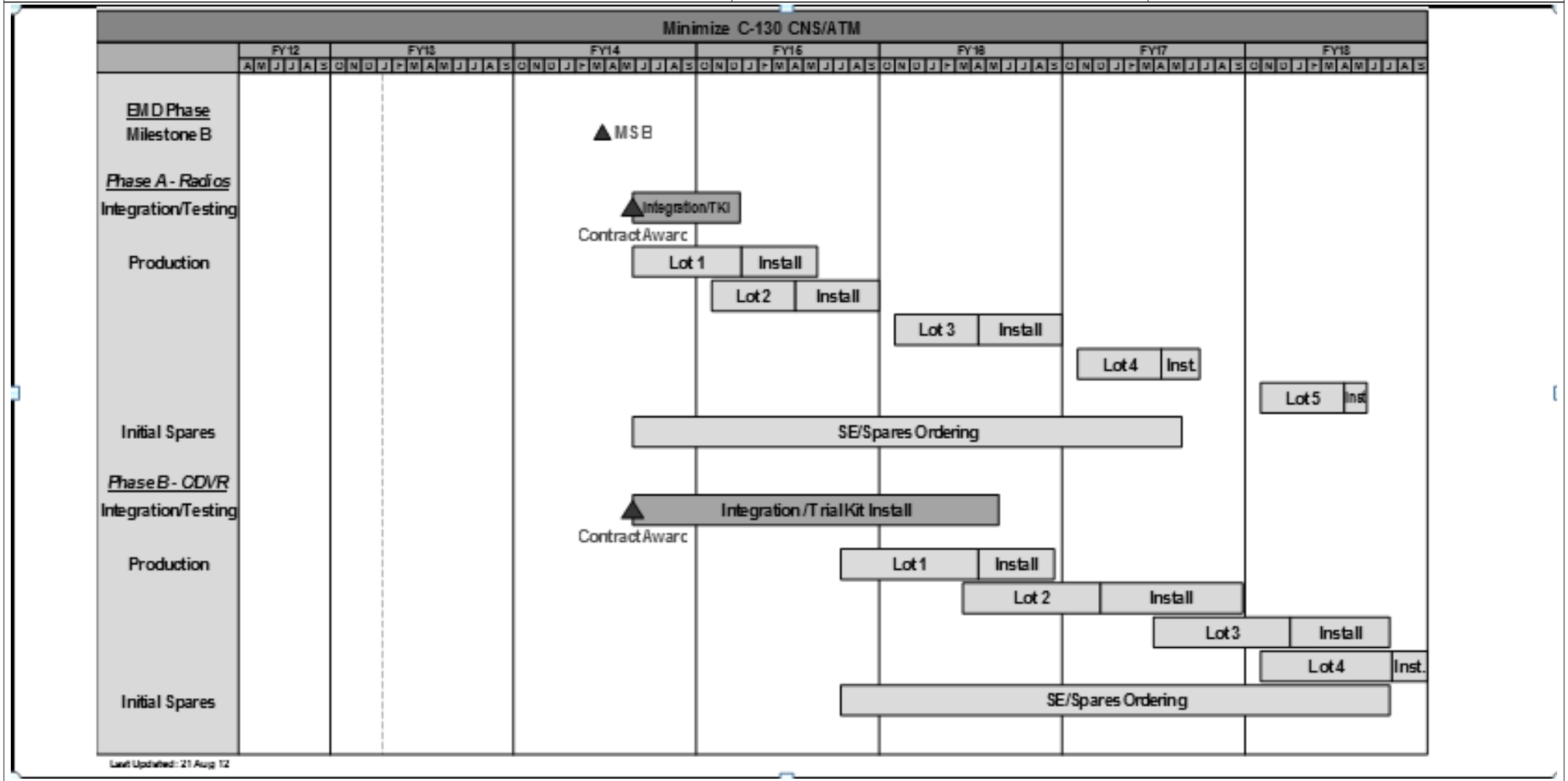
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | PROJECT<br>675244: *C-130 CNS/ATM* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|

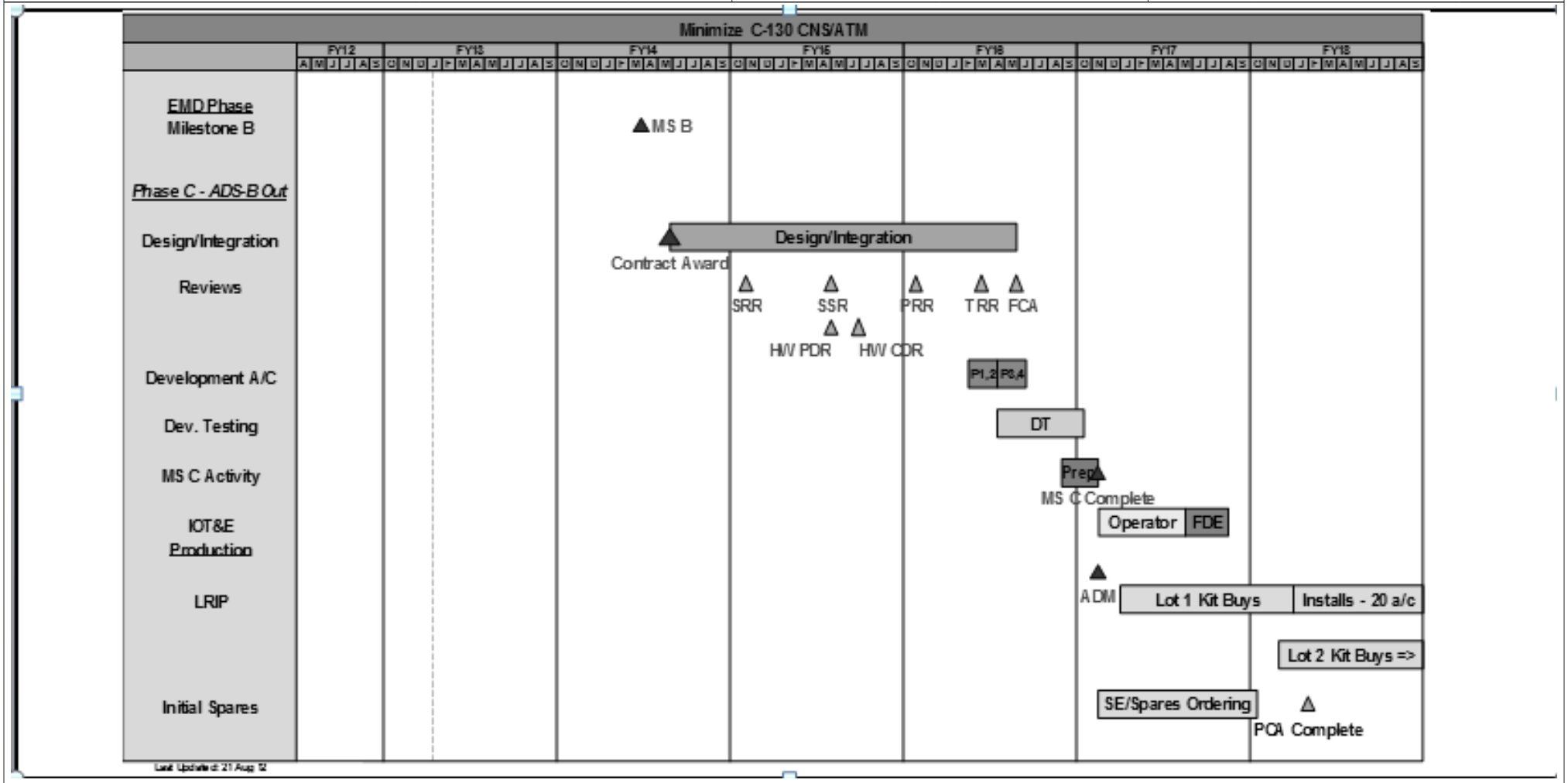
**Remarks**

The acquisition and installation schedule and budget estimate displayed in this exhibit is subject to change as the program requirements continue to be refined by the Air Force over the next fiscal year.

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | PROJECT<br>675244: *C-130 CNS/ATM* |



| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | PROJECT<br>675244: *C-130 CNS/ATM* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401115F: *C-130 Airlift Squadron* | PROJECT<br>675244: *C-130 CNS/ATM* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Milestone B | 2 | 2014 | 2 | 2014 |
| EMD Contract Awards | 3 | 2014 | 3 | 2014 |
| Design/Integration | 3 | 2015 | 3 | 2016 |
| Preliminary Design Review | 3 | 2015 | 3 | 2015 |
| Critical Design Review | 4 | 2015 | 4 | 2015 |
| Developmental Testing | 3 | 2016 | 1 | 2017 |
| Functional Configuration Audit | 3 | 2016 | 3 | 2016 |
| Milestone C | 1 | 2017 | 1 | 2017 |
| Force Development Evaluation (FDE) | 3 | 2017 | 4 | 2017 |
| Physical Configuration Audit (PCA) | 2 | 2018 | 2 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 12.941 | 35.115 | 61.492 | - | 61.492 | 24.227 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 674835: *Reliability Enhancement & Reengining Program* | - | 12.941 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 12.941 |
| 675358: *C-5 Mission Computer-Mission Sys Equip-Weather Radar* | - | 0.000 | 35.115 | 61.492 | - | 61.492 | 24.227 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| **MDAP/MAIS Code(s):** 327 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

In FY12, Project Number 674835, C-5 Reliability Enhancement and Re-engining Program (RERP) was completed.

675358: C-5 Core Mission Computer (CMC) and Weather Radar Programs: Mission computer and weather radar replacement is a comprehensive effort to mitigate the obsolescence of the current CMC and weather radar. This effort centers around replacing the current mission computer to obtain sufficient capability to support integration of new system capabilities with margin for growth. Also, the effort includes replacement of the weather radar with a commercial off-the-shelf color weather radar. The new mission computer will allow for current and future throughput growth of additional processing requirements to meet CY 2020 communication, navigation, surveillance / air traffic management mandates.

This program is in Budget Activity 7, Operational Systems Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | DATE: April 2013 |
|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | | |
| **B. Program Change Summary ($ in Millions)** | **FY 2012** | **FY 2013** | **FY 2014 Base** | **FY 2014 OCO** | **FY 2014 Total** |
| Previous President's Budget | 12.941 | 35.115 | 82.892 | - | 82.892 |
| Current President's Budget | 12.941 | 35.115 | 61.492 | - | 61.492 |
| Total Adjustments | 0.000 | 0.000 | -21.400 | - | -21.400 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -21.400 | - | -21.400 |

**Change Summary Explanation**

FY14: $21.4M of C-5 Mission Computer/Mission Sys Equip/Weather Radar funds were reduced by the Air Force due to a rephase of the program.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | PROJECT<br>674835: *Reliability Enhancement & Reengining Program* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 674835: *Reliability Enhancement & Reengining Program* | - | 12.941 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 12.941 |
| Quantity of RDT&E Articles | 3 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

C-5 Reliability Enhancement and Re-engining Program (RERP) is a comprehensive modernization effort to improve aircraft reliability, maintainability, and availability. This effort centers around replacing the current TF39 engines with more reliable, commercial off-the-shelf CF6 turbofan engines. The RERP modification increases payload capability and access to communications, navigation, surveillance/air traffic management (CNS/ATM) airspace through core mission computer (CMC), radar, and other Air Force (AF) bolt-ons like mode 5 identification, friend or foe (IFF), aircraft communication addressing and reporting system (ACARS), and replaces malfunction analysis detection and recording system (MADARS) with embedded diagnostic system (EDS), etc. The modification also decreases aircraft time to climb, increases engine-out climb gradient for takeoff, improves transportation system throughput, and decreases engine removals. On 7 Oct 10, the USD(AT&L) Defense Acquisition Board directed the Air Force to fully fund RERP to the OSD cost assessment and program evaluation and independent cost estimate for RDT&E; and re-designated C-5 RERP as an acquisition category IC program.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Reliability Enhancement & Re-engining Program | 12.941 | 0.000 | 0.000 |
| ***Description:*** Reliability Enhancement and Re-engining Program (RERP) will enable the C-5 to achieve wartime mission requirements by increasing fleet availability (mission capable rate, departure reliability).<br><br>***FY 2012 Accomplishments:***<br>Program funding supports final RERP design, development, engineering change orders, contractor/government test, technical order publications, resulting from Qualification Operational Testing & Evaluation deficiency report corrections and to finalize the development/delivery of aircrew and maintenance training devices and efforts to minimize divergence between AMP and RERP baselines. Mission support funding is also required for program office operations. | | | |
| **Accomplishments/Planned Programs Subtotals** | 12.941 | 0.000 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | PROJECT<br>674835: *Reliability Enhancement & Reengining Program* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # C00500: *C-5* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1,338.100 |
| • APAF: BA05: Line Item # C005M0: *C-5M* | 963.670 | 1,120.619 | 1,021.967 | | 1,021.967 | 334.749 | 0.000 | 0.000 | 0.000 | 0.000 | 4,114.111 |
| • APAF: BA06: Line Item # 000999: *Initial Spares/Repair Parts* | 116.175 | 117.186 | 131.933 | | 131.933 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 365.294 |
| • APAF: BA07: Line Item # 000075: *Other Production Charges* | 9.389 | 1.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 29.689 |

**Remarks**

Advance procurement (AP) requirements are included in the APAF totals for C-5 and C-5M.

**D. Acquisition Strategy**

Reliability Enhancement and Re-engining Program (RERP): System development & demonstration (SDD) included 1 C-5A and 2 C-5Bs. The acquisition strategy considered every opportunity to use commercial components to modernize the C-5 to meet or exceed required system performance and support, so as to renew the weapon system until 2040. Lockheed Martin was selected as the prime contractor through a sole source arrangement. Lockheed selected General Electric (Powerplant), Goodrich (Pylon), and Honeywell (Avionics) as the major subcontractors.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | PROJECT<br>674835: *Reliability Enhancement & Reengining Program* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Not specified | SS/FFP | Lockheed Martin:Marietta, GA | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 47.685 |
| Not specified (1) | SS/CPAF | Lockheed Martin:Marietta, GA | - | 11.591 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 1,319.710 |
| Interim Contract Support (ICS) | SS/ Various | Lockheed Martin:Marietta, GA | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.834 |
| | | **Subtotal** | 0.000 | 11.591 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 1,368.229 |

**Remarks**

Costs shown on interim contract support (ICS) line were previously included in the system development demonstration (SDD) line. Due to a change in contracting strategy post-FY09 PB submission, these costs were moved from the SDD line to the ICS line. These costs represent the costs associated with post-SDD DMS resolution and resolution of deficiency reports discovered during qualification operational test & evaluation to be executed using the ICS contract vehicle.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Various | TBD | AFLCMC:Warner Robins, GA | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 31.953 |
| Not specified | TBD | AFLCMC:Dayton, OH | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 47.249 |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 79.202 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OT&E and QOT&E | TBD | 418 Test Squadron:Edwards, CA | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 68.250 |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 68.250 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | PROJECT<br>674835: *Reliability Enhancement & Reengining Program* |

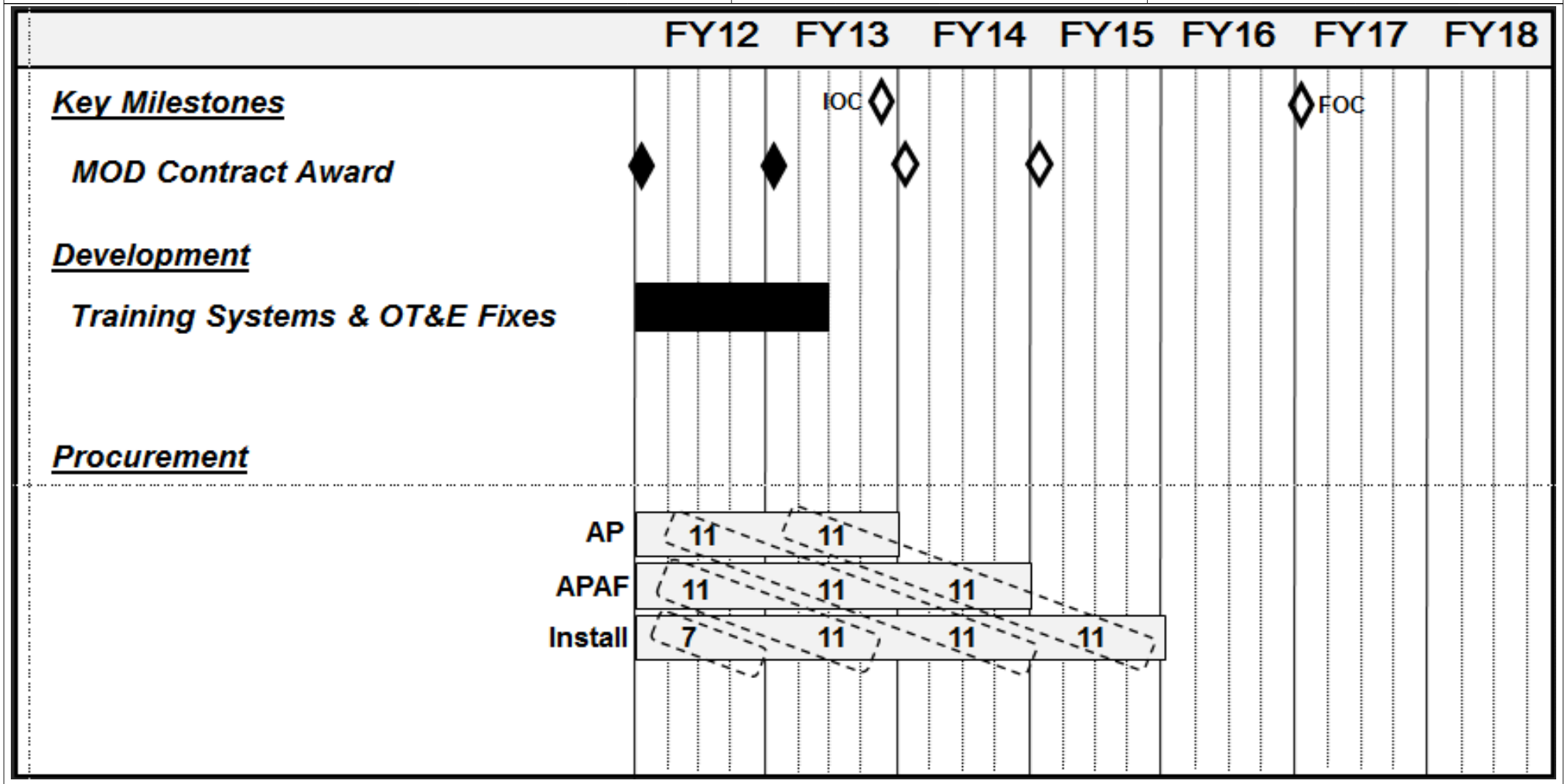
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA - Contractor Services | TBD | AFLCMC:Dayton, OH | - | 1.054 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 1.054 |
| PMA - Gov't Costs | TBD | AFLCMC:Dayton, OH | - | 0.296 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.296 |
| Aircrew & Maintenance Trainer | TBD | OO-ALC:Ogden, UT | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 77.206 |
| | | **Subtotal** | 0.000 | 1.350 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 78.556 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 12.941 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 1,594.237 |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | PROJECT<br>674835: *Reliability Enhancement & Reengining Program* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | **PROJECT**<br>674835: *Reliability Enhancement & Reengining Program* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Annual Production Contract Awards | 1 | 2012 | 1 | 2015 |
| Training and OT&E Fixes | 1 | 2012 | 4 | 2012 |
| Initial Operational Capability | 4 | 2013 | 4 | 2013 |
| Full Operational Capability | 1 | 2017 | 1 | 2017 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | PROJECT<br>675358: *C-5 Mission Computer-Mission Sys Equip-Weather Radar* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675358: *C-5 Mission Computer-Mission Sys Equip-Weather Radar* | - | 0.000 | 35.115 | 61.492 | - | 61.492 | 24.227 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 2 | | 2 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

C-5 Core Mission Computer (CMC), Weather Radar, and Mission Systems Equipment Program: Program is a comprehensive effort to mitigate the obsolescence of the current CMC and weather radar. This effort centers around replacing the current mission computer to obtain sufficient capacity/capability to support integration of new system capabilities with margin for growth. Also, the effort includes replacement of the weather radar with a commercial off-the-shelf color weather radar. Mission systems equipment includes, but is not limited to, a redesign of the C-5 galley system. Examples of other mission systems equipment include troop seats, crew entry door and ladder, and interior trim.

The current C-5 CMC has reached maximum capacity and cannot integrate required aircraft systems and capabilities to include the weather radar; flight management system (FMS); and communication, navigation, surveillance (CNS)/air traffic management (ATM) requirements. These requirements include capabilities such as the automatic dependent surveillance-broadcast out (ADS-B Out), and identification, friend or foe (IFF) mode 5. The new CMC will allow for current and future throughput growth of additional processing requirements to meet CY 2020 CNS/ATM mandates.

The modification increases aircraft availability as the new color weather radar replaces the current APS-133 weather radar system, which becomes unsupportable in FY 2014. Failure to replace the CMC to support a new weather radar will create a significant operational impact due to parts obsolescence of the current weather radar. Equipment diminishing manufacturing source (DMS) issues will be resolved to support continued production and installation of requirements for the C-5 fleet. Further, DMS issues will be resolved to support continued operations through studies, bridge buys, life-of-type buys, development, and redesign efforts.

The current C-5 galley system suffers inoperability and leakage of liquid sodium hypochlorite causing severe corrosion and burnt wires in the landing gear control panels. A redesign will increase safety, mitigate risk, and reduce man-hours required to repair extensive damage.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Mission Computer, Mission Systems Equipment, and Weather Radar Program | 0.000 | 34.817 | 61.043 |
| ***Description:*** Core Mission Computer, Weather Radar, and Mission Systems Equipment, replacement will enable the C-5 to achieve wartime mission requirements by increasing fleet availability and capability (mission capable rate). | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | PROJECT<br>675358: *C-5 Mission Computer-Mission Sys Equip-Weather Radar* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***FY 2013 Plans:***<br>The planned program funding in FY13 is to support core mission computer design, formal qualification testing (FQT), weather radar integration, development, engineering change orders, contractor test, and redesign of mission systems equipment. Mission support funding is required for program office operations.<br>***FY 2014 Plans:***<br>The planned program funding in FY14 is to support completion of formal qualification testing, software integration, installation and functional check of hardware, and design and development of aircrew and maintenance training system modifications. | | | |
| ***Title:*** Program Management Administration (PMA)<br>***Description:*** PMA costs necessary for activities executed within the program office for enabling the operation of the office in its management and oversight role for the Core Mission Computer/Weather Radar, and Mission Systems Equipment program.<br>***FY 2012 Accomplishments:***<br>N/A<br>***FY 2013 Plans:***<br>Funding is budgeted for PMA costs in FY13 to include program office travel, administrative costs, and contract services for supporting implementation of required management support activities to support EMD efforts of the Core Mission Computer/ Weather Radar, and Mission Systems Equipment program.<br>***FY 2014 Plans:***<br>Funding is budgeted for PMA costs in FY14 to include program office travel, administrative costs, and contract services for supporting implementation of required management support activities to support EMD efforts of the Core Mission Computer and Weather Radar program. | 0.000 | 0.298 | 0.449 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 35.115 | 61.492 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # C00500: *C-5* | 0.000 | 0.000 | 0.000 | | 0.000 | 15.043 | 42.251 | 42.806 | 44.749 | Continuing | Continuing |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | PROJECT<br>675358: *C-5 Mission Computer-Mission Sys Equip-Weather Radar* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

Funding identified for other program requirements is to support APAF needs. A decision has not yet been reached on initial spares and depot funding requirements. When established, funding will be realigned accordingly.

**D. Acquisition Strategy**

Core Mission Computer, Weather Radar, and Mission Systems Equipment programs: Engineering, manufacturing, and development (EMD) for the core mission computer and weather radar begins in FY13. The acquisition strategy for this project will consider every opportunity to use commercial components to modernize the C-5 core mission computer and weather radar and maintain aircraft availability in support of mobility missions worldwide. The strategy is for the prime contractor, Lockheed Martin Aero (LMA), to procure the core mission computer and weather radar, integrate and test those components, and install kits on two (2) EMD aircraft. The LMA proposal was received 30 Nov 2012 and is currently under program office technical evaluation in preparation for contract negotiations in February 2013. The contract method is sole source. The contract type and fee will be a combination of CPIF (Cost Plus Incentive Fee) and FFP (Firm Fixed Price). The mission systems equipment redesign will require RDT&E funding for commercial off-the-shelf (COTS) proofing. Funds are required for validation and verification of the lavatory design and installation. The Mission Systems Equipment contract method was competitive through the Defense Technical Information Center (DTIC). Wyle Science, Technical, and Engineering Group is the selected source, and the contract type is Cost Plus Fixed Fee (CPFF).

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | PROJECT<br>675358: *C-5 Mission Computer-Mission Sys Equip-Weather Radar* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Core Mission Computer and Weather Radar Hardware/Software Design, Development, and Integration | SS/ Various | Lockheed Martin Aero:Marietta, GA | - | 0.000 | | 31.415 | Mar 2013 | 46.410 | Mar 2014 | - | | 46.410 | Continuing | Continuing | 82.236 |
| Data Management and Technical Data Rights | SS/CPIF | Lockheed Martin Aero:Marietta, GA | - | 0.000 | | 0.900 | Mar 2013 | 7.900 | Mar 2014 | - | | 7.900 | Continuing | Continuing | 11.601 |
| Mission Systems Equipment Redesign and COTS Proofing | C/CPFF | Wyle Group:Warner Robins, GA | - | 0.000 | | 0.950 | Mar 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.950 |
| | | **Subtotal** | 0.000 | 0.000 | | 33.265 | | 54.310 | | 0.000 | | 54.310 | | | 94.787 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Technical Publications | SS/ Various | Lockheed Martin Aero:Marietta, GA | - | 0.000 | | 0.000 | | 0.300 | Mar 2014 | - | | 0.300 | Continuing | Continuing | 2.419 |
| Aircrew and Maintenance Trainers | SS/CPIF | Lockheed Martin Aero:Marietta, GA | - | 0.000 | | 0.000 | | 2.500 | Mar 2014 | - | | 2.500 | Continuing | Continuing | 5.847 |
| Interim Contract Support (ICS) | SS/CPIF | Lockheed Martin Aero:Various, | - | 0.000 | | 0.000 | | 0.900 | Mar 2014 | - | | 0.900 | Continuing | Continuing | 4.506 |
| Other Govt Costs (OGC) | Various | Various:TBD, | - | 0.000 | | 1.038 | Mar 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | 1.038 |
| | | **Subtotal** | 0.000 | 0.000 | | 1.038 | | 3.700 | | 0.000 | | 3.700 | | | 13.810 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Developmental and Operational Test and Evaluation | Various | Various:, | - | 0.000 | | 0.050 | Mar 2013 | 2.100 | Mar 2014 | - | | 2.100 | Continuing | Continuing | 9.642 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | PROJECT<br>675358: *C-5 Mission Computer-Mission Sys Equip-Weather Radar* |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.050 | | 2.100 | | 0.000 | | 2.100 | | | 9.642 |

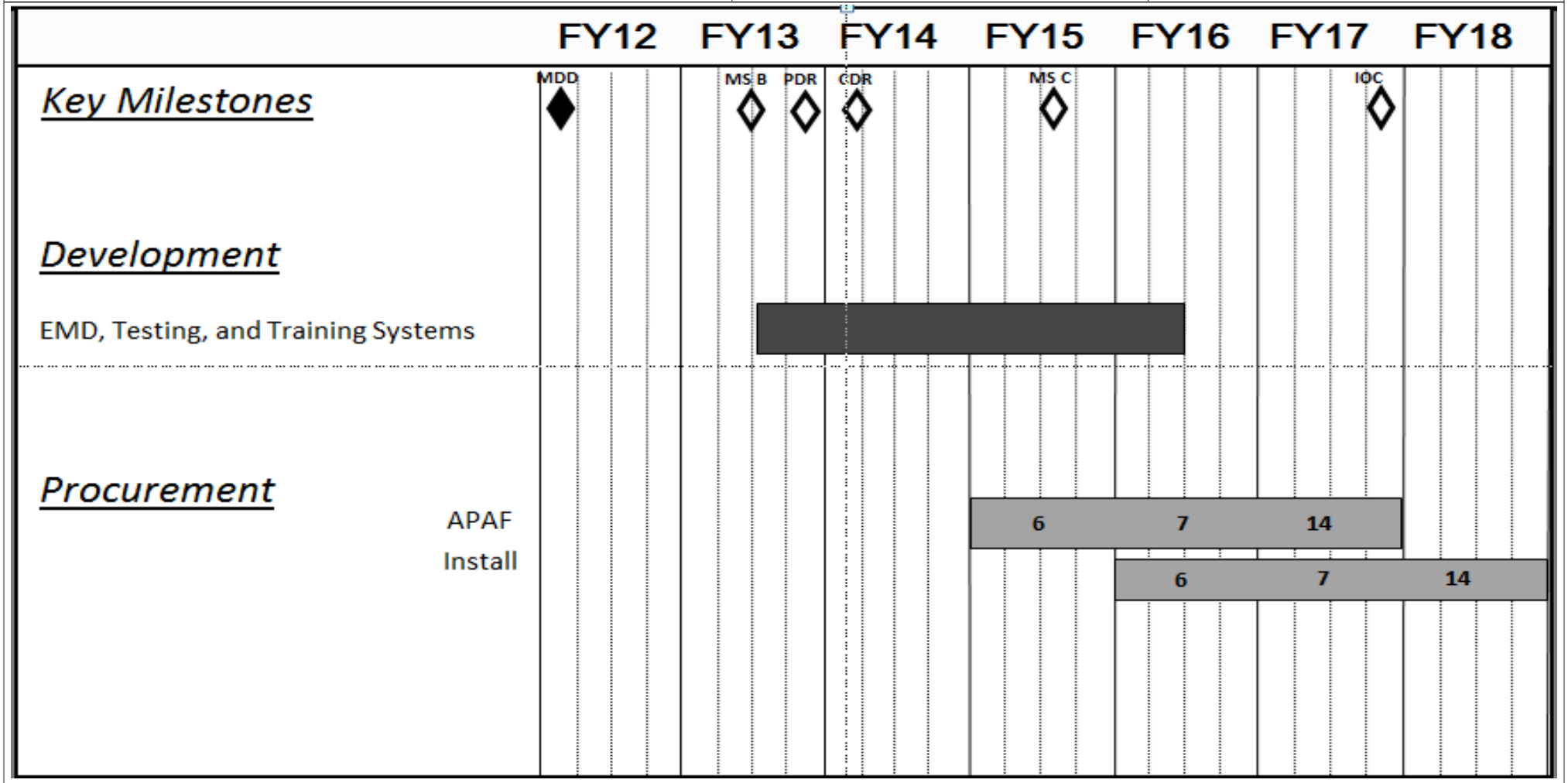
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA Government Costs - CMC/WR | Various | AFLCMC/ WLS:Dayton, OH | - | 0.000 | | 0.343 | | 0.697 | | - | | 0.697 | Continuing | Continuing | 1.330 |
| PMA Contractor-CMC/WR | Various | AFLCMC/ WLS:Dayton, OH | - | 0.000 | | 0.369 | Mar 2013 | 0.685 | Mar 2014 | - | | 0.685 | Continuing | Continuing | 1.215 |
| PMA Government Costs - MSE | Various | AFLCMC/ WLS:Warner Robins, GA | - | 0.000 | | 0.050 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.050 |
| | | **Subtotal** | 0.000 | 0.000 | | 0.762 | | 1.382 | | 0.000 | | 1.382 | | | 2.595 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 35.115 | | 61.492 | | 0.000 | | 61.492 | | | 120.834 |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | PROJECT<br>675358: *C-5 Mission Computer-Mission Sys Equip-Weather Radar* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0401119F: *C-5 Airlift Squadrons (IF)* | **PROJECT**<br>675358: *C-5 Mission Computer-Mission Sys Equip-Weather Radar* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Materiel Development Decision | 1 | 2012 | 1 | 2012 |
| Milestone B | 2 | 2013 | 2 | 2013 |
| Engineering, Manufacturing, and Development (EMD) | 2 | 2013 | 1 | 2016 |
| Annual Contract Awards | 3 | 2013 | 3 | 2016 |
| Preliminary Design Review | 4 | 2013 | 4 | 2013 |
| Critical Design Review | 1 | 2014 | 1 | 2014 |
| Training Development | 4 | 2014 | 4 | 2015 |
| Integrated Developmental/Operational Test and Evaluation | 1 | 2015 | 2 | 2016 |
| Milestone C | 3 | 2015 | 3 | 2015 |
| Initial Operational Capability | 4 | 2017 | 4 | 2017 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0401130F: *C-17 Aircraft (IF)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 81.938 | 99.225 | 109.134 | - | 109.134 | 93.818 | 65.822 | 66.720 | 77.592 | Continuing | Continuing |
| 672569: *C-17 Aircraft* | - | 81.938 | 99.225 | 109.134 | - | 109.134 | 93.818 | 65.822 | 66.720 | 77.592 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |
| **MDAP/MAIS Code(s):** 200 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The C-17 can perform the entire spectrum of airlift missions and is specifically designed to operate effectively and efficiently in both strategic and theater environments. Airlift provides essential flexibility when responding to contingencies on short notice anywhere in the world. It is a major element of America's national security strategy and constitutes the most responsive means of meeting mobility requirements. Specific tasks associated with the airlift mission include deployment, employment (airland and airdrop), sustaining support, retrograde, and combat redeployment. Not only can the C-17 deliver outsize cargo to austere tactical environments, but it also reduces ground time during airland operations. The C-17 will perform its airlift mission well into this century.

C-17 RDT&E funding efforts support, but are not limited to: Operational Flight Program (OFP); flight test activities and facilities; aircraft performance improvements and airspace access mandates (i.e. Communications/Navigation Improvements); development of solutions for obsolescence and safety of flight issues; systems engineering/program management administration support; block development/change management; proposal preparation for new projects; cost estimating; technical studies (as directed) and Technology Integrated Change Roadmap (TICR) efforts.

The C-17 Operational Flight Program (OFP) cycle is designed to implement a consistent and regular schedule for software/hardware development and sustainment with a bi-yearly software release. Costs include design, development, flight testing, and implementation of scheduled updates for software/hardware. OFP line includes software candidates such as, but not limited to Air Improvement Program (AIP), Fire Filter Fix/Fuel Economy Improvement program, and Communication Navigation Surveillance / Air Traffic Management (CNS/ATM) mandates and improvements.

This program is in Budget Activity 7, Operational System Development because requirements include development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401130F: *C-17 Aircraft (IF)* |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 93.777 | 99.225 | 126.834 | - | 126.834 |
| Current President's Budget | 81.938 | 99.225 | 109.134 | - | 109.134 |
| Total Adjustments | -11.839 | 0.000 | -17.700 | - | -17.700 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | -9.300 | 0.000 | | | |
| • SBIR/STTR Transfer | -2.539 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -17.700 | - | -17.700 |

**Change Summary Explanation**

FY12 - Funds reprogrammed for higher Air Force priorities

FY14 - Cost savings resulting from implementation of the Operational Flight Program and restructuring of the flight test program into Edwards AFB and Boeing flight test lines.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Operational Flight Program | 0.000 | 0.000 | 3.000 |
| ***Description:*** Develop and implement a consistent and regular schedule for software/hardware development and sustainment with a bi-yearly OFP release. Costs include design, development, flight testing, test facilities and implementation of scheduled updates.<br><br>***FY 2012 Accomplishments:***<br>N/A<br><br>***FY 2013 Plans:***<br>N/A<br><br>***FY 2014 Plans:***<br>Implements a consistent and regular schedule for software/hardware development and sustainment with a bi-yearly OFP release. Initiates Vittles 16 OFP development. | | | |
| ***Title:*** Performance Improvement and Obsolescence | 45.599 | 67.624 | 74.396 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401130F: *C-17 Aircraft (IF)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Continued development of C-17 aircraft performance improvements for its avionics, aircraft and mission systems and the development of solutions to emergent obsolescence and safety of flight issues and airspace access mandates.<br><br>***FY 2012 Accomplishments:***<br>Continued development of C-17 aircraft performance improvements/mandates to include projects such as, but not limited to, development efforts in support of C-17 operational efficiencies, RCIP Obsolescence, IFF Mode 5, ILS & FCC updates, Communication and Navigation Capability, Airdrop improvements and CNS/ATM System - Phase 1 Surveillance. Completes Radio Frequency Countermeasures.<br><br>***FY 2013 Plans:***<br>Continued development of C-17 aircraft performance improvements/mandates to include projects such as, but not limited to, development efforts in support of C-17 operational efficiencies, RHUD, RCIP Obsolescence, Communication and Navigation Capability, and CNS/ATM System - Phase 1 Surveillance. Completes efforts on ILS ID & FCC updates, IFF Mode 5, and Airdrop improvements.<br><br>***FY 2014 Plans:***<br>Continued development of C-17 aircraft performance improvements/mandates to include projects such as, but not limited to, development efforts in support of C-17 operational efficiencies, RHUD, RCIP Obsolescence, Pad Bundle Tracking and CNS/ ATM System - Phase 1 Surveillance. Completes Communication and Navigation Capability. Initiates CNS/ATM Phase 2 Communication. | | | |
| ***Title:*** Systems Engineering/ Program Managment<br><br>***Description:*** Continuation of Systems Engineering/prime contractor Program Management (SE/PM). Costs include operation and maintenance of the system integration and software development laboratories and test facilities, maintenance of the Software Development Plan (SDP), and program management.<br><br>***FY 2012 Accomplishments:***<br>Continuation of Systems Engineering/prime contractor Program Management. Costs include operation and maintenance of the system integration and software development laboratories and test facilities, maintenance of the Software Development Plan (SDP), and program management.<br><br>***FY 2013 Plans:*** | 9.234 | 7.059 | 5.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401130F: *C-17 Aircraft (IF)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continuation of Systems Engineering/prime contractor Program Management. Costs include operation and maintenance of the system integration and software development laboratories and test facilities, maintenance of the Software Development Plan (SDP), and program management.<br>***FY 2014 Plans:***<br>Continuation of Systems Engineering/prime contractor Program Management. Costs include operation and maintenance of the system integration and software development laboratories and test facilities, maintenance of the Software Development Plan (SDP), and program management. | | | |
| ***Title:*** Boeing Flight Test<br>***Description:*** Continuation of contractor testing of new capabilities as required. Costs include maintenance on test aircraft, contractor engineering support for test related technical and safety of flight issues, test planning, test analysis and test execution.<br>***FY 2012 Accomplishments:***<br>Continuation of contractor testing of new capabilities as required. Costs include maintenance on test aircraft, engine overhaul of the flight test aircraft unique engines, contractor engineering support for test related technical and safety of flight issues, test planning, test analysis and test execution.<br>***FY 2013 Plans:***<br>Continuation of contractor testing of new capabilities as required. Costs include maintenance on test aircraft, contractor engineering support for test related technical and safety of flight issues, test planning, test analysis and test execution.<br>***FY 2014 Plans:***<br>Continuation of contractor testing of new capabilities as required. Costs include maintenance on test aircraft, contractor engineering support for test related technical and safety of flight issues, test planning, test analysis and test execution. | 18.500 | 17.042 | 13.000 |
| ***Title:*** Edwards Flight Test<br>***Description:*** Continuation of the direct costs of flight testing. The costs include ramp space, fuel, air traffic control, range costs, etc., which are items each weapon system must pay for when using Air Force flight test locations.<br>***FY 2012 Accomplishments:***<br>Continuation of the direct costs of flight testing. The costs include ramp space, fuel, air traffic control, range costs, etc., which are items each weapon system must pay for when using Air Force flight test locations.<br>***FY 2013 Plans:*** | 8.605 | 7.500 | 7.500 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0401130F: *C-17 Aircraft (IF)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continuation of the direct costs of flight testing. The costs include ramp space, fuel, air traffic control, range costs, etc., which are items each weapon system must pay for when using Air Force flight test locations.<br>***FY 2014 Plans:***<br>Continuation of the direct costs of flight testing. The costs include ramp space, fuel, air traffic control, range costs, etc., which are items each weapon system must pay for when using Air Force flight test locations. | | | |
| ***Title:*** PMA (Program Management Administration)<br>***Description:*** Includes contract services and government costs.<br>***FY 2012 Accomplishments:***<br>PMA<br>***FY 2013 Plans:***<br>PMA<br>***FY 2014 Plans:***<br>PMA | 0.000 | 0.000 | 6.238 |
| **Accomplishments/Planned Programs Subtotals** | 81.938 | 99.225 | 109.134 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA02: Line Item # C017A0: *Airlift Aircraft* | 225.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| • APAF: BA05: Line Item # C01700: *Aircraft Modifications* | 174.742 | 205.079 | 143.197 | | 143.197 | 143.197 | 141.193 | 176.220 | 182.142 | 1,083.253 | 0.000 |
| • APAF: BA07: Line Item # C01700: *Aircraft Support Equipment & Facilities* | 85.941 | 181.703 | 81.952 | | 81.952 | 74.563 | 70.484 | 73.782 | 86.105 | Continuing | Continuing |
| • APAF: BA06: Line Item # 000999: *Initial Spares and Repair Parts* | 12.691 | 13.476 | 13.429 | | 13.429 | 28.295 | 12.584 | 12.810 | 13.041 | Continuing | Continuing |
| • APAF: BA07: Line Item # 000075: *Other Production Charges* | 9.958 | 0.793 | 1.077 | | 1.077 | 0.718 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401130F: *C-17 Aircraft (IF)* |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

Aircraft modification funding (BA05) includes C-17 LAIRCM funds in PE 0401134F in FY2012.

**E. Acquisition Strategy**

The C-17 Acquisition Strategy is based on several separate contracts to support the entire scope of the C-17 weapon system. Producibility Enhancement & Performance Improvement (PE/PI) and Globemaster Operational Enhancement (GLOBE) are indefinite delivery indefinite quantity (IDIQ) contracts used to purchase services and research articles (through delivery orders) to support all RDT&E with our prime contractor. In addtion, purchase orders are used to support flight test activities at Edwards AFB. Addtional contract vehicles could be utilized as required.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401130F: *C-17 Aircraft (IF)* | PROJECT<br>672569: *C-17 Aircraft* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Operational Flight Program | Various | Boeing:Long Beach, CA | - | 0.000 | | 0.000 | | 3.000 | Jan 2013 | - | | 3.000 | Continuing | Continuing | |
| Performance Improvement and Obsolescence | Various | Boeing:Long Beach, CA | - | 45.599 | Oct 2011 | 67.624 | Oct 2012 | 74.396 | Dec 2013 | - | | 74.396 | Continuing | Continuing | |
| Systems Engineering/ Program Management | Various | Boeing:Long Beach, CA | - | 9.234 | Nov 2011 | 7.059 | Nov 2012 | 5.000 | Nov 2013 | - | | 5.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 54.833 | | 74.683 | | 82.396 | | 0.000 | | 82.396 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Edwards Flight Test | PO | AFTC:Edwards, CA | - | 8.605 | Oct 2011 | 7.500 | Oct 2012 | 7.500 | Oct 2013 | - | | 7.500 | Continuing | Continuing | |
| Boeing Flight Test | SS/CPIF | Boeing:Long Beach, CA | - | 18.500 | Dec 2011 | 17.042 | Dec 2012 | 13.000 | Dec 2013 | - | | 13.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 27.105 | | 24.542 | | 20.500 | | 0.000 | | 20.500 | | | |

**Management Services ($ in Millions)**

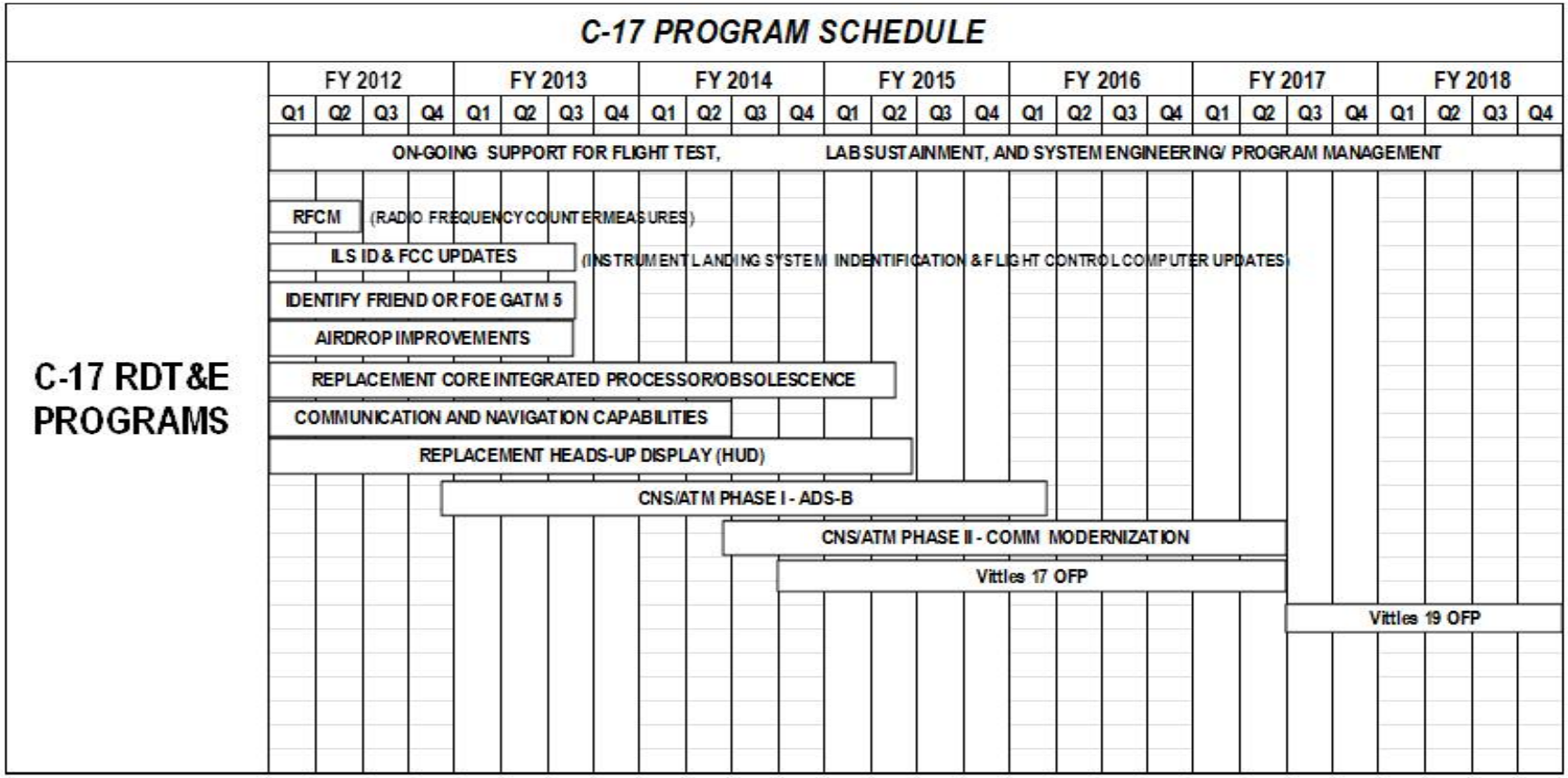
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PMA - Government Costs | Various | Wright-Patterson AFB:Dayton, OH | - | 0.000 | | 0.000 | | 6.238 | Oct 2013 | - | | 6.238 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 6.238 | | 0.000 | | 6.238 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401130F: *C-17 Aircraft (IF)* | PROJECT<br>672569: *C-17 Aircraft* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 81.938 | | 99.225 | | 109.134 | | 0.000 | | 109.134 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401130F: *C-17 Aircraft (IF)* | PROJECT<br>672569: *C-17 Aircraft* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401130F: *C-17 Aircraft (IF)* | PROJECT<br>672569: *C-17 Aircraft* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| Radio Frequency Countermeasures* | 1 | 2012 | 2 | 2012 |
| ILS ID & FCC Updates* | 1 | 2012 | 3 | 2013 |
| IFF GATM mode 5* | 1 | 2012 | 3 | 2013 |
| Airdrop improvements* | 1 | 2012 | 3 | 2013 |
| Replacement Core Integrated Processor* | 1 | 2012 | 2 | 2015 |
| Replacement HUD (RHUD)* | 1 | 2012 | 2 | 2015 |
| Comm/Nav* | 1 | 2012 | 2 | 2014 |
| CNS/ATM phase I--surveillance | 4 | 2012 | 1 | 2016 |
| CNS/ATM phase II--communications | 2 | 2014 | 2 | 2017 |
| Vittles 17 OFP | 3 | 2014 | 2 | 2017 |
| Vittles 19 OFP | 3 | 2017 | 4 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 38.345 | 30.652 | 22.443 | - | 22.443 | 31.778 | 28.739 | 24.973 | 25.422 | Continuing | Continuing |
| 675061: *C-130J* | - | 38.345 | 28.248 | 20.343 | - | 20.343 | 30.068 | 28.739 | 24.973 | 25.422 | Continuing | Continuing |
| 675062: *C-130J TRAINERS* | - | 0.000 | 2.404 | 2.100 | - | 2.100 | 1.710 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| **MDAP/MAIS Code(s):** 220 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The C-130J is a medium-sized transport aircraft capable of performing a variety of combat delivery (tactical airlift) operations across a broad range of mission environments. The C-130J aircraft, with its extended (by 15 feet) fuselage, provides additional cargo carrying capacity for the USAF combat delivery mission compared with legacy C-130E/H and the C-130J (short). Special mission variants of the C-130J conduct airborne psychological operations (EC-130J), weather reconnaissance (WC-130J), search and rescue (HC-130J), and special operations (MC-130J and AC-130J). All aircraft variants must be capable of worldwide operations.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 39.537 | 30.652 | 40.320 | - | 40.320 |
| Current President's Budget | 38.345 | 30.652 | 22.443 | - | 22.443 |
| Total Adjustments | -1.192 | 0.000 | -17.877 | - | -17.877 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -1.192 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -17.877 | - | -17.877 |

**Change Summary Explanation**

Due to combining Block 7.0 and 8.1, $17.9M was identified as early to need in FY14.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675061: *C-130J* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675061: *C-130J* | - | 38.345 | 28.248 | 20.343 | - | 20.343 | 30.068 | 28.739 | 24.973 | 25.422 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The C-130J is a medium-sized transport aircraft capable of performing a variety of combat delivery (tactical airlift) operations across a broad range of mission environments. The C-130J aircraft, with its extended (by 15 feet) fuselage, provides additional cargo carrying capacity for the USAF combat delivery mission compared with legacy C-130E/H and the C-130J (short). Special mission variants of the C-130J conduct airborne psychological operations (EC-130J), weather reconnaissance (WC-130J), search and rescue (HC-130J), and special operations (MC-130J and AC-130J). All aircraft variants must be capable of worldwide operations.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Cooperative Systems and Software Upgrade Requirements Management (COSSURM) | 0.903 | 0.500 | 0.000 |
| ***Description:*** COSSURM - Collects all potential requirements for inclusion into a Block Upgrade.<br><br>***FY 2012 Accomplishments:***<br>Block 9.0 COSSURM efforts continued. The Block Requirements Approval Meeting (BRAM) #1 was conducted, which concluded the Block 9.0 COSSURM efforts. Capability Management Update (CMU) COSSURM efforts subsequently commenced. Major milestones completed include the Initial Kick-off Meeting and the Improvements Evaluation and Prioritization (IE&P) meeting.<br><br>***FY 2013 Plans:***<br>CMU COSSURM efforts will continue. Major milestones expected to be completed include the Design Approach and Approval Meeting (DAAM), Requirements Approval Meeting (RAM), Systems Requirements Review (SRR), System Design Review (SDR), Certification Working Group (CertWG) and approval to proceed to Request for Proposal (RFP). The CMU COSSURM efforts will be completed after the RFP is released. | | | |
| ***Title:*** Block 7.0 | 5.149 | 2.620 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675061: *C-130J* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** BLOCK 7.0: Adds Link 16, a new Flight Management System (FMS), Civil Global Positioning System (GPS) Navigation, and a Special Mission Processor-Interface (SMP-I). DCMA Support is included here.<br><br>***FY 2012 Accomplishments:***<br>Continuation of the test and Common Core phase.<br><br>***FY 2013 Plans:***<br>Conclude Test and Common Core phase, effectively closing the Common Core effort. | | | |
| ***Title:*** Block 8.1<br><br>***Description:*** BLOCK 8.1. Adds Identification Friend or Foe (IFF) Mode 5, Civil Data Link, and Automatic Dependent Surveillance - Broadcast (ADS-B)<br><br>***FY 2012 Accomplishments:***<br>The Block 8.1 continues the Common Core hardware and software development. Major Milestones of Systems Requirements Review (SRR) and Preliminary Design Review (PDR) were completed.<br><br>***FY 2013 Plans:***<br>The Block 8.1 effort will continue with the Common Core hardware and software development. Major milestones expected to be completed include Critical Design Review (CDR) and receipt of the Trial Kit Installation (TKI) aircraft.<br><br>***FY 2014 Plans:***<br>The Block 8.1 effort will continue with the Common Core hardware and software development. Milestones expected to be completed include Test Readiness Review (TRR) and receipt of Trial Kit Installation (TKI) aircraft. | 30.693 | 23.528 | 15.397 |
| ***Title:*** Capability Management Upgrade (CMU)<br><br>***Description:*** Refinement of Block upgrade modifications to improve operational effectiveness, satisfy emerging operational needs, and enhance human machine interface (HMI) to allow a workload that meets human factors standards and maintains the present crew complement<br><br>***FY 2014 Plans:***<br>Award contract and Common Core software development will begin | 0.000 | 0.000 | 3.346 |
| ***Title:*** Other AMC Inititatives<br><br>***Description:*** C-130J initiatives/studies | 1.500 | 1.500 | 1.500 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675061: *C-130J* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***FY 2012 Accomplishments:***<br>Improved Propeller Dolly to reduce maintainability costs<br>***FY 2013 Plans:***<br>Mission Planning software studies and updates<br>***FY 2014 Plans:***<br>Mission Planning software studies and updates | | | |
| ***Title:*** IPO Program Management<br>***Description:*** International Program Office (IPO) Support. Funds for contract services, travel, supplies and DFAS Support.<br>***FY 2012 Accomplishments:***<br>Travel, Supplies, and DFAS Support<br>***FY 2013 Plans:***<br>Travel, Supplies, and DFAS Support<br>***FY 2014 Plans:***<br>Travel, Supplies, and DFAS Support | 0.100 | 0.100 | 0.100 |
| **Accomplishments/Planned Programs Subtotals** | 38.345 | 28.248 | 20.343 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # C1300J: *C-130J Mods* | 13.576 | 35.261 | 0.000 | | 0.000 | 0.000 | 28.723 | 64.505 | 65.675 | 835.250 | 1,042.990 |

**Remarks**

The Mods above are linked to C-130J R&D. There are other C-130J modification projects without associated R&D.

**D. Acquisition Strategy**

The C-130J aircraft will be modified using a "block upgrade" strategy. The full CNS/ATM, navigation safety requirement will be met in three block upgrades. Block 6.0 development was funded from FY03-07. Block 7.0 started in FY07 and Block 8.1 which began in FY12, should complete the known CNS/ATM and navigation safety requirements.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675061: *C-130J* |

In order to better manage the fleet and to avoid having to simultaneously support three separate aircraft configurations (Block 6, Block 7 and Block 8.1) the USAF has decided to combine the Block 7 and Block 8.1 mods. This will allow the aircraft and trainers to only have to be modified one time.

The proportion of CNS/ATM and navigation safety requirements allocated to Blocks 6.0 through 8.1 was determined via a design trade study conducted by Lockheed Martin (the C-130J prime contractor) and verified by the C-130J system program office and AMC. The development costs are being shared via a global Project Arrangement (PA) by the United States (USAF, USMC, USCG), the United Kingdom, Italy, Australia, Denmark, Canada, and Norway. An international program office (IPO), with USAF lead (Wright Patterson AFB, OH), manages the block upgrades development effort. Retrofit of a Block on the aircraft is the responsibility of each nation.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675061: *C-130J* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Block 7.0, Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH | SS/CPAF | Lockheed Martin Aeronautics:Marietta, GA | - | 5.149 | Dec 2011 | 2.620 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Block 8.1, Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH | SS/CPAF | Lockheed Martin Information Sytems:Marietta, GA | - | 30.693 | Feb 2012 | 23.658 | Jan 2013 | 15.397 | | - | | 15.397 | Continuing | Continuing | |
| Capability Management Upgrades (CMU) 1 & 2, Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH | SS/CPAF | Lockheed Martin Aero:Marietta, GA | - | 0.000 | | 0.000 | | 3.346 | Jun 2014 | - | | 3.346 | Continuing | Continuing | |
| AMC-Initiatives, Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH | SS/CPAF | TBD:, | - | 1.500 | Feb 2012 | 1.500 | Feb 2013 | 1.500 | Feb 2014 | - | | 1.500 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 37.342 | | 27.778 | | 20.243 | | 0.000 | | 20.243 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPO Support | TBD | TBD:, | - | 0.100 | Nov 2011 | 0.100 | Nov 2012 | 0.100 | | - | | 0.100 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.100 | | 0.100 | | 0.100 | | 0.000 | | 0.100 | | | |

**Remarks**

Travel, Supplies - all vary on support needed

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675061: *C-130J* |

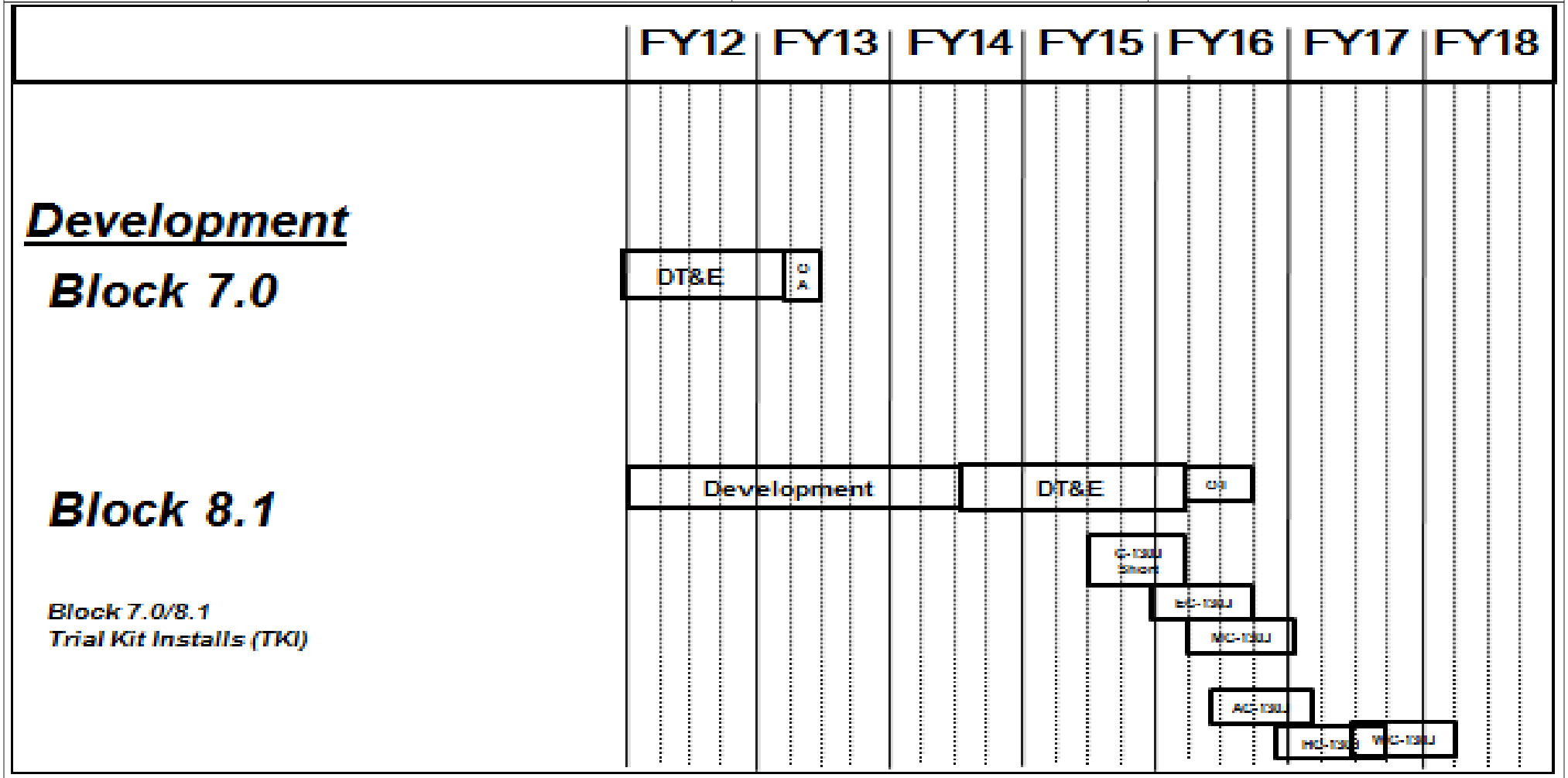
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| COSSURM | TBD | TBD:TBD, | - | 0.903 | | 0.370 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.903 | | 0.370 | | 0.000 | | 0.000 | | 0.000 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 38.345 | | 28.248 | | 20.343 | | 0.000 | | 20.343 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675061: *C-130J* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675061: *C-130J* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| Block 7.0 Test | 1 | 2012 | 2 | 2013 |
| Block 7.0 Force Development Evaluation (FDE) | 4 | 2013 | 1 | 2014 |
| Block 8.1 Common Core Development | 1 | 2012 | 2 | 2014 |
| Block 8.1 Test | 3 | 2014 | 1 | 2016 |
| Block 7.0/8.1 Trial Kit Installs | 3 | 2015 | 1 | 2018 |
| Block 8.1 FDE | 3 | 2016 | 4 | 2016 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675062: *C-130J TRAINERS* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675062: *C-130J TRAINERS* | - | 0.000 | 2.404 | 2.100 | - | 2.100 | 1.710 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Project Number 675062, C-130J Trainers was a new start in 2013. Utilizing aircraft flight tests, gather data for simulator to accurately emulate ground effect, nose wheel and engine-out data points to give the simulator more fidelity. Currently simulator is approved to accomplish only 50% of annual assault landings. This added capability will allow more training to be accomplished in the simulator so the aircraft will be available for more real world missions. The ability to accomplish more training in the simulator also reduces the annual aircraft O&M requirement.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Aero Data Collection | 0.000 | 2.404 | 2.100 |
| ***Description:*** Utilizing aircraft flight tests, gather data for simulator to accurately emulate ground effect, nose wheel and single engine data points to make simulator land like the aircraft. Currently simulator is approved to accomplish only 50% of assault landings.<br><br>***FY 2013 Plans:***<br>Continue collection and analysis of Aero Data<br><br>***FY 2014 Plans:***<br>Integration of the aero data collected in 2013 into the Weapon System trainer software | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 2.404 | 2.100 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA 05: Line Item # C1300J: *C-130J Mods* | 0.000 | 8.145 | 7.545 | | 7.545 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675062: *C-130J TRAINERS* |

**D. Acquisition Strategy**

One C-130J will be instrumented to collect data during takeoff, approach and landing phases of flight. This data will be used to enable the C-130J Weapon System Trainers to more accurately emulate ground effect, nose wheel, and engine out data points so the simulator will land more like the aircraft. The ability to accomplish more training in the simulator also reduces the annual aircraft O&M requirement.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675062: *C-130J TRAINERS* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Subtotal** | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Subtotal** | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Simulator Aero Data | SS/FFP | Lockheed Martin GTL:Orlando, FL | - | 0.000 | | 2.404 | Jun 2013 | 2.100 | | - | | 2.100 | Continuing | Continuing | |
| **Subtotal** | | | 0.000 | 0.000 | | 2.404 | | 2.100 | | 0.000 | | 2.100 | | | |

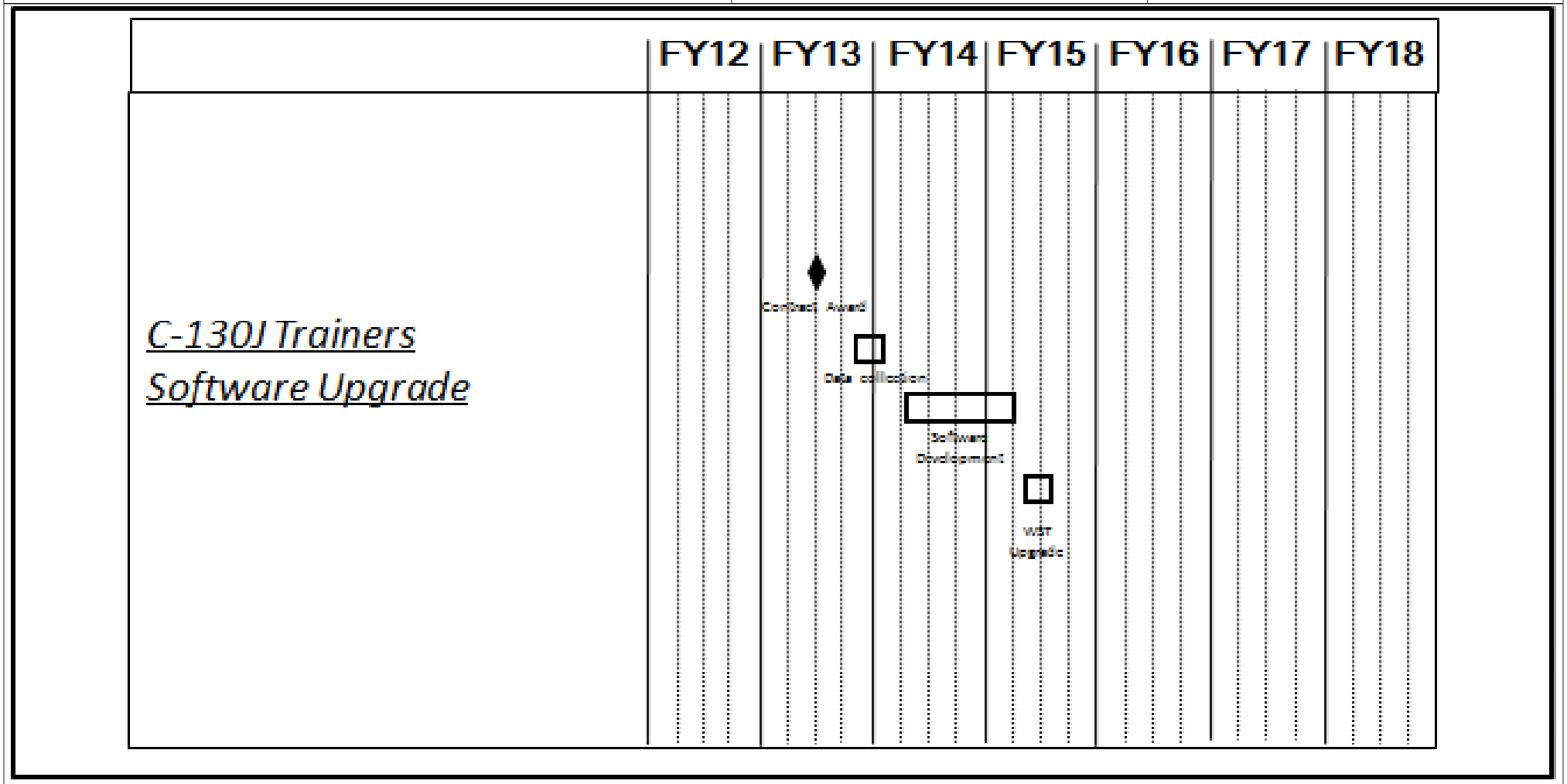
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Subtotal** | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 2.404 | | 2.100 | | 0.000 | | 2.100 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675062: *C-130J TRAINERS* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401132F: *C-130J Program* | PROJECT<br>675062: *C-130J TRAINERS* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Contract award | 3 | 2013 | 3 | 2013 |
| Aircraft Instrumentation/ Data Collection | 4 | 2013 | 1 | 2014 |
| Aero Data Model Simulator Software Development | 2 | 2014 | 1 | 2015 |
| Simulator Upgrades | 2 | 2015 | 3 | 2015 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0401134F: *Large Aircraft IR Countermeasures (LAIRCM)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 8.838 | 7.758 | 4.116 | - | 4.116 | 6.850 | 6.621 | 6.112 | 6.222 | Continuing | Continuing |
| 674942: *Large Aircraft Infrared Counter Measures (LAIRCM)* | - | 8.838 | 7.758 | 4.116 | - | 4.116 | 6.850 | 6.621 | 6.112 | 6.222 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Large Aircraft Infrared Countermeasures (LAIRCM) system is an evolutionary acquisition program that provides significantly improved defensive systems capability for DoD aircraft to counter the infrared (IR) man-portable air-defense systems (MANPADS) missile threat. The current LAIRCM system configuration [AN/AAQ-24V] consists of an ultra-violet missile warning sensor (MWS), a laser transmitter assembly, control interface unit (CIU) and processors to detect, track, jam and counter incoming IR missiles. The number of sensors and turrets per aircraft is determined by the size and signature of the aircraft. The system is fully automatic following system power-up. LAIRCM requirements are documented in the multi-command Operational Requirements Document (ORD) LAIRCM ORD 314-92, validated on 03 Aug 98. The system was first fielded on the C-17 aircraft.

The baseline program development is complete and consists of the small laser transmitter assembly (SLTA), ultra-violet MWS, processor, control interface unit (CIU) and a repeater (on some aircraft) to meet the need for advanced IR countermeasures. The Guardian Laser Transmitter Assembly (GLTA) is an upgrade to the baseline transmitter equipment to improve reliability, enhance performance, address obsolescence issues, reduce mass and improve overall functionality. First production GLTA delivery occurred in June 08.

Development of the Next Generation Missile Warning System (NexGen MWS) is complete and includes new hardware that improves capability. Baseline equipment (ultra-violet MWS) will be retrofitted with the NexGen MWS as it becomes available. Developmental test/operational test (DT/OT) was conducted in FY10 with initial operational test and evaluation (IOT&E) in FY11.

Per DoD direction LAIRCM program will accomplish group A integration and testing and provide integration support to incorporate LAIRCM on new platforms, upon request of AMC, AFSOC, multiple potential tanker aircraft variants, and other federal agencies. The last Integragtion effort will be completed in FY14.

LAIRCM upgrades include, but are not limited to hardware and software upgrades and testing of the LAIRCM system to maintain defensive capability against new and emerging threats. Capabilities include engagement reporting (ER), Closed Loop Infrared Countermeasures (CLIRCM) and other emerging capabilities to upgrade/ update system threat defeating ability.

Current and future efforts include Threat Analysis; Modeling, Simulation and Emulation Test; Jam Code Development; and Studies and Analysis.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401134F: *Large Aircraft IR Countermeasures (LAIRCM)* |

Threat Analysis encompasses the activities to support threat exploitation analysis of a variety of threats (both known and emerging) against the current LAIRCM jam code with the intent of determining if jam code updates are required. Typical threat analysis activities include: threat seeker characterization; model development for advanced threat IR seekers; development and testing of new infrared countermeasures concepts, techniques, and hardware; new technology assessment for potential incorporation into the LAIRCM system, and the evaluation/exploitation of new threats and threat characteristics relative to IRCM.

Modeling, Simulation, and Emulation Test activities verify and validate the information obtained from threat analysis activities. These activities include: evaluation of IRCM techniques used in defeating real threat hardware; developing and evaluating jam code, validating and verifying integration of LAIRCM system components to newly developed jam codes, software or hardware, evaluating system effectiveness, performing platform integration support tests, and conducting predictive risk reduction tests prior to Live Missile Fire Test (LMFT) or on aircraft flight testing.

Jam code development would be initiated when the threat analysis activities identify and the modeling, simulation, and emulation test activities validate and verify jam code vulnerabilities that make the system less effective. Activities include all work efforts necessary to develop an efficient and effective jam code.

Studies and Analysis include logistics, programmatic, and engineering efforts to ensure continued systems viability and sustainability.

Program management and administration efforts consist of, but are not limited to contract services and Government costs.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 7.438 | 7.758 | 5.775 | - | 5.775 |
| Current President's Budget | 8.838 | 7.758 | 4.116 | - | 4.116 |
| Total Adjustments | 1.400 | 0.000 | -1.659 | - | -1.659 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 1.400 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -1.659 | - | -1.659 |

**Change Summary Explanation**

FY12 $1.4M BTR to fund AC-130U and MC-130 development efforts

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0401134F: *Large Aircraft IR Countermeasures (LAIRCM)* |

FY14 $1.659 Reduction in funding due to program rephasing.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** LAIRCM Development<br>***Description:*** Complete AFSOC EC-130J and continue AC-130U and MC-130H integration efforts.<br><br>***FY 2012 Accomplishments:***<br>Complete AFSOC EC-130J and continue AC-130U and MC-130U integration efforts. Continue development/integration of potential new technologies for new/future LRU/SRUs to be added to the system. Continue development of future infrared countermeasures (FIRCM) capabilities. Continue H/W and S/W upgrade program for current LAIRCM system equipment to new S/W architecture, including additional engagement reporting capability. Continue recurring jam code development and testing program.<br>***FY 2013 Plans:***<br>Complete AC-130U and MC-130H integration efforts. Continue development/integration of potential new technologies for new/future LRU/SRUs to be added to the system. Continue development of Future Infrared Countermeasures (FIRCM) capabilities. Continue H/W and S/W upgrade program for current LAIRCM system equipment to new S/W architecture, including additional engagement reporting capability. Continue recurring jam code development and testing program. | 8.838 | 7.758 | 0.000 |
| ***Title:*** Threat Analysis<br>***Description:*** Encompasses the activities to support threat exploitation analysis of a variety of threats against the current LAIRCM jam code with the intent of determining if jam code updates are required.<br><br>***FY 2014 Plans:***<br>Continue work on Threat analysis in the Guided Weapon Evaluation Facility (GWEF). This is a continued effort from LAIRCM Development in previous years. | 0.000 | 0.000 | 1.845 |
| ***Title:*** Modeling, Simulation and Emulation Test<br>***Description:*** Activities that verify and validate the information obtained from threat analysis activities.<br><br>***FY 2014 Plans:***<br>Continue work in Modeling, Simulation and Emulation Tests in the Dynamic Infrared Missile Evaluation Facility (DIME LAB). This is a continued effort from LAIRCM Development in previous years. | 0.000 | 0.000 | 1.770 |
| ***Title:*** Jam Code Development<br>***Description:*** All work efforts necessary to develop an efficient and effective jam code | 0.000 | 0.000 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0401134F: *Large Aircraft IR Countermeasures (LAIRCM)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***FY 2014 Plans:***<br>Develop Jam Code as necessary. This is a continued effort from LAIRCM Development in previous years. | | | |
| ***Title:*** Studies and Analysis<br>***Description:*** Efforts include logistics, programmatics, and engineering tasks to ensure continued systems viability and sustainability.<br>***FY 2014 Plans:***<br>Efforts include logistics, programmatics, and engineering tasks to ensure continued systems viability and sustainability. This is a continued effort from LAIRCM Development in previous years. | 0.000 | 0.000 | 0.200 |
| ***Title:*** Program Management and Administration<br>***Description:*** All program management support to include, but not limited to, government costs and contract services.<br>***FY 2014 Plans:***<br>PMA support to include travel, A&AS and other program management cost. Continued effort from LAIRCM Development in previous years. | 0.000 | 0.000 | 0.301 |
| **Accomplishments/Planned Programs Subtotals** | 8.838 | 7.758 | 4.116 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # LAIRCM: *Large Aircraft Infrared Countermeasures Mods* | 0.000 | 168.600 | 27.197 | | 27.197 | 25.791 | 25.688 | 26.115 | 26.588 | Continuing | Continuing |
| • APAF: BA05: Line Item # C00500: *C-5 LAIRCM* | 62.489 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • APAF: BA05: Line Item # C01700: *C-17 LAIRCM* | 32.672 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • APAF: BA05: Line Item # C13000: *C-130 LAIRCM* | 154.841 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • APAF: BA05: Line Item # C1300J: *C-130J LAIRCM* | 45.411 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401134F: *Large Aircraft IR Countermeasures (LAIRCM)* |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # HCMC00: *HC/MC-130 LAIRCM* | 34.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

FY12 funding allocated to individual platforms. Funding from FY13 and forward falls under BPAC 674942 so FY12 column zeroed out.

The FY13 APAF OCO request for LAIRCM production is made up of the following:
C-130 - $28.3M
C-5 - $27.3M
C-130J - $38.1M
HC/MC-130J - $46.1M

**E. Acquisition Strategy**

Aircraft integration contracts award to aircraft prime contractor with separate integration support contract awarded to Northrop Grumman Corporation (Rolling Meadows). IR countermeasure upgrades awarded as modifications under the LAIRCM production contract.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401134F: *Large Aircraft IR Countermeasures (LAIRCM)* | PROJECT<br>674942: *Large Aircraft Infrared Counter Measures (LAIRCM)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EC-130J Integration | SS/CPFF | DMEA - Lockheed Martin:Owego, NY | - | 0.284 | | 0.503 | | 0.000 | | - | | 0.000 | 0.000 | 0.787 | |
| AC-130U/MC-130H Integration | SS/CPFF | DMEA - Lockheed Martin:Owego, NY | - | 3.018 | May 2012 | 0.800 | Sep 2012 | 0.000 | | - | | 0.000 | 0.000 | 3.818 | |
| LAIRCM H/W | Various | Various:, | - | 0.000 | | 0.932 | | 0.000 | | - | | 0.000 | 0.000 | 0.932 | |
| Engagement Reporting | SS/CPFF | DMEA - NGC:Rolling Meadows, IL | - | 1.422 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Threat Analysis | SS/CPAF | DIME LAB:WPAFB, OH | - | 1.917 | | 1.966 | | 1.845 | | - | | 1.845 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 6.641 | | 4.201 | | 1.845 | | 0.000 | | 1.845 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Logistics Efforts | Various | Various:Various, | - | 0.000 | | 0.678 | | 0.200 | | - | | 0.200 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.678 | | 0.200 | | 0.000 | | 0.200 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Various Gov't Test Organizations | Various | Various:Various, | - | 1.842 | | 2.508 | | 1.770 | | - | | 1.770 | 0.000 | 6.120 | |
| | | **Subtotal** | 0.000 | 1.842 | | 2.508 | | 1.770 | | 0.000 | | 1.770 | 0.000 | 6.120 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401134F: *Large Aircraft IR Countermeasures (LAIRCM)* | PROJECT<br>674942: *Large Aircraft Infrared Counter Measures (LAIRCM)* | |

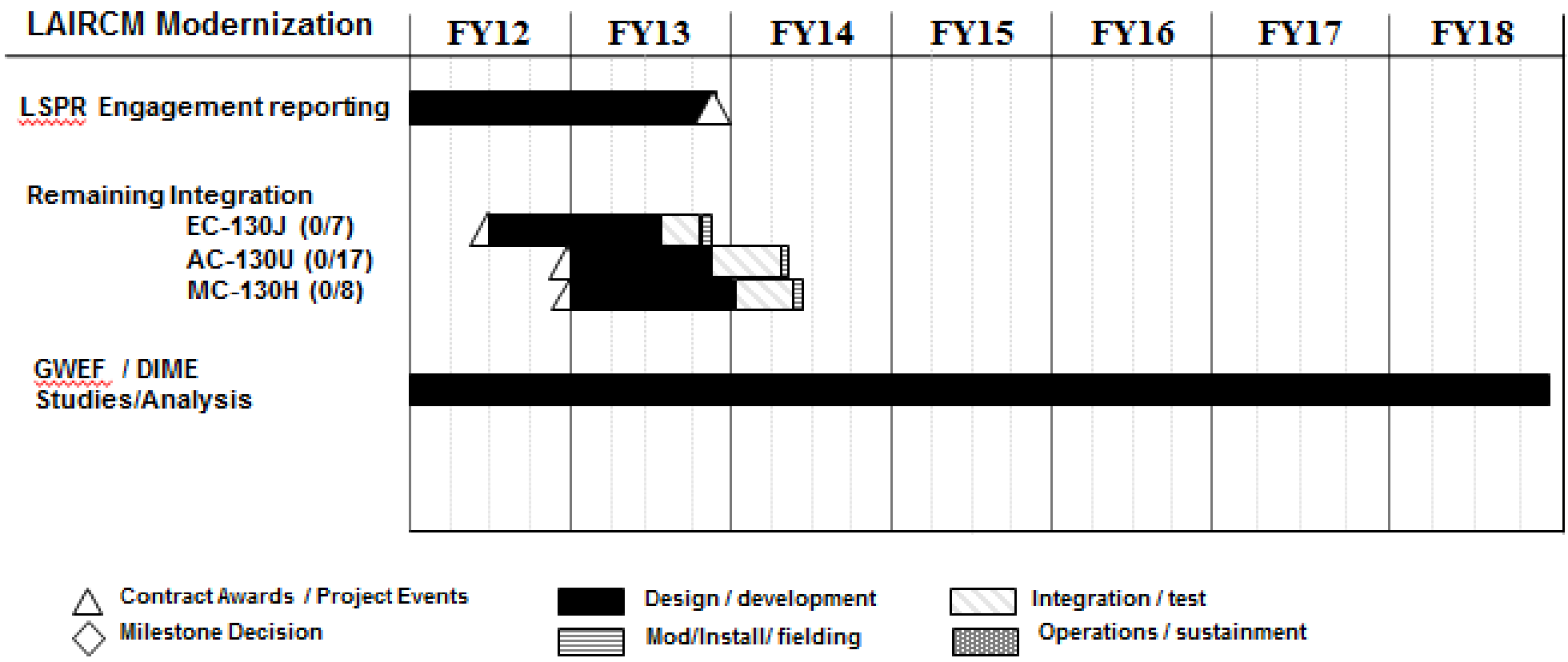
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A/C Survivability Division (Program Office) | Various | Various:Various,:, | - | 0.355 | | 0.371 | | 0.301 | | - | | 0.301 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.355 | | 0.371 | | 0.301 | | 0.000 | | 0.301 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 8.838 | | 7.758 | | 4.116 | | 0.000 | | 4.116 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401134F: *Large Aircraft IR Countermeasures (LAIRCM)* | PROJECT<br>674942: *Large Aircraft Infrared Counter Measures (LAIRCM)* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0401134F: *Large Aircraft IR Countermeasures (LAIRCM)* | **PROJECT**<br>674942: *Large Aircraft Infrared Counter Measures (LAIRCM)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| EC-130J Integration | 2 | 2012 | 4 | 2013 |
| AC-130U Integration | 4 | 2012 | 1 | 2014 |
| MC-130H Integration | 4 | 2012 | 2 | 2014 |
| DIME/GWEF Studies/Analysis | 1 | 2012 | 4 | 2018 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | | DATE: April 2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0401139F: *Light Mobility Aircraft (LiMA)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.000 | 0.100 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 675379: *Light Mobility Aircraft* | - | 0.000 | 0.100 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

**A. Mission Description and Budget Item Justification**

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.000 | 0.100 | 0.000 | - | 0.000 |
| Current President's Budget | 0.000 | 0.100 | 0.000 | - | 0.000 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Mission Area Analysis | 0.000 | 0.100 | 0.000 |
| ***Description:*** Conduct studies and analysis related to Building Partnership Capability mission and technical requirements. | | | |
| ***FY 2012 Accomplishments:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0401139F: *Light Mobility Aircraft (LiMA)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| N/A<br>***FY 2013 Plans:***<br>Conduct studies and analysis related to Building Partnership Capability mission and technical requirements. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 0.100 | 0.000 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA 03: LMA000: *Light Mobility Aircraft* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 65.336 |
| • RDT&E: BA 07: PE 0401315F: *Light Mobility Aircraft* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.239 |

**Remarks**

**E. Acquisition Strategy**

The Department does not intend to further develop LiMA aircraft.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401139F: *Light Mobility Aircraft (LiMA)* | PROJECT<br>675379: *Light Mobility Aircraft* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering Services & Data | TBD | TBD:, | - | 0.000 | | 0.100 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.100 | | 0.000 | | 0.000 | | 0.000 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 0.100 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401218F: *KC-135s* |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Program Element | - | 6.161 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 675261: *KC-135 Upgrades* | - | 6.161 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

FY 2012 was last year of KC-135 RDT&E program funding.

**A. Mission Description and Budget Item Justification**

KC-135 CNS/ATM (Block 45) program - Block 45 addresses obsolescence and reliability and maintainability issues currently experienced by the KC-135 fleet. Funding supports a modification program performing analysis, testing, software development, prototyping, documenting source-data, and integration of a new Digital Flight Director (DFD), Radar Altimeter (RA), Autopilot (AP) and Electronic Engine Instrument Displays (EEID).

BA7- This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 6.161 | 0.000 | 0.000 | - | 0.000 |
| Current President's Budget | 6.161 | 0.000 | 0.000 | - | 0.000 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Block 45 Engineering Manufacturing Development (EMD) | 6.161 | 0.000 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0401218F: *KC-135s* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Non-Recurring Engineering and test efforts/tasks for all Block 45 sub programs<br><br>***FY 2012 Accomplishments:***<br>Completing flight testing at Edwards AFB. Finalizing Technical Orders (TOs), engineering technical data, and training development. Conducted aircrew and maintenance training for both developmental and operational test crews. Completed CNS/ATM compliance report and all reports and data required to support operational and airworthiness certification. | | | |
| **Accomplishments/Planned Programs Subtotals** | 6.161 | 0.000 | 0.000 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF:BA05:Line Item #C13500: *KC-135: Block 45* | 31.454 | 38.672 | 42.030 | | 42.030 | 64.377 | 58.029 | 52.143 | 55.880 | 239.800 | 582.423 |

**Remarks**

**E. Acquisition Strategy**

Block 45 - The strategy is a sole-source contract with Rockwell Collins to accomplish the task of performing analysis, testing, software development, prototypes, documentation of source data, and integrating a new Digital Flight Director (DFD), digital Autopilot (AP), digital Radar Altimeter (RA), and Electronic Engine Instrument Display (EEID). Rockwell Collins will be responsible for acquiring the necessary information and personnel to integrate each item stated above into the KC-135 legacy systems and for developing and subcontracting the components.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401218F: *KC-135s* | PROJECT<br>675261: *KC-135 Upgrades* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Block 45 - NRE, engineering, development, and prototype | SS/FP | Rockwell Collins:Cedar Rapids, IA | - | 1.670 | Aug 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 3.424 |
| | | **Subtotal** | 0.000 | 1.670 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 3.424 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Block 45 developmental ground and flight test | PO | 418 FTS:Edwards AFB, CA | - | 4.124 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 2.437 |
| | | **Subtotal** | 0.000 | 4.124 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 2.437 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Block 45 TDY (PMA) | Various | Various:Various, | - | 0.367 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.300 |
| | | **Subtotal** | 0.000 | 0.367 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 0.300 |

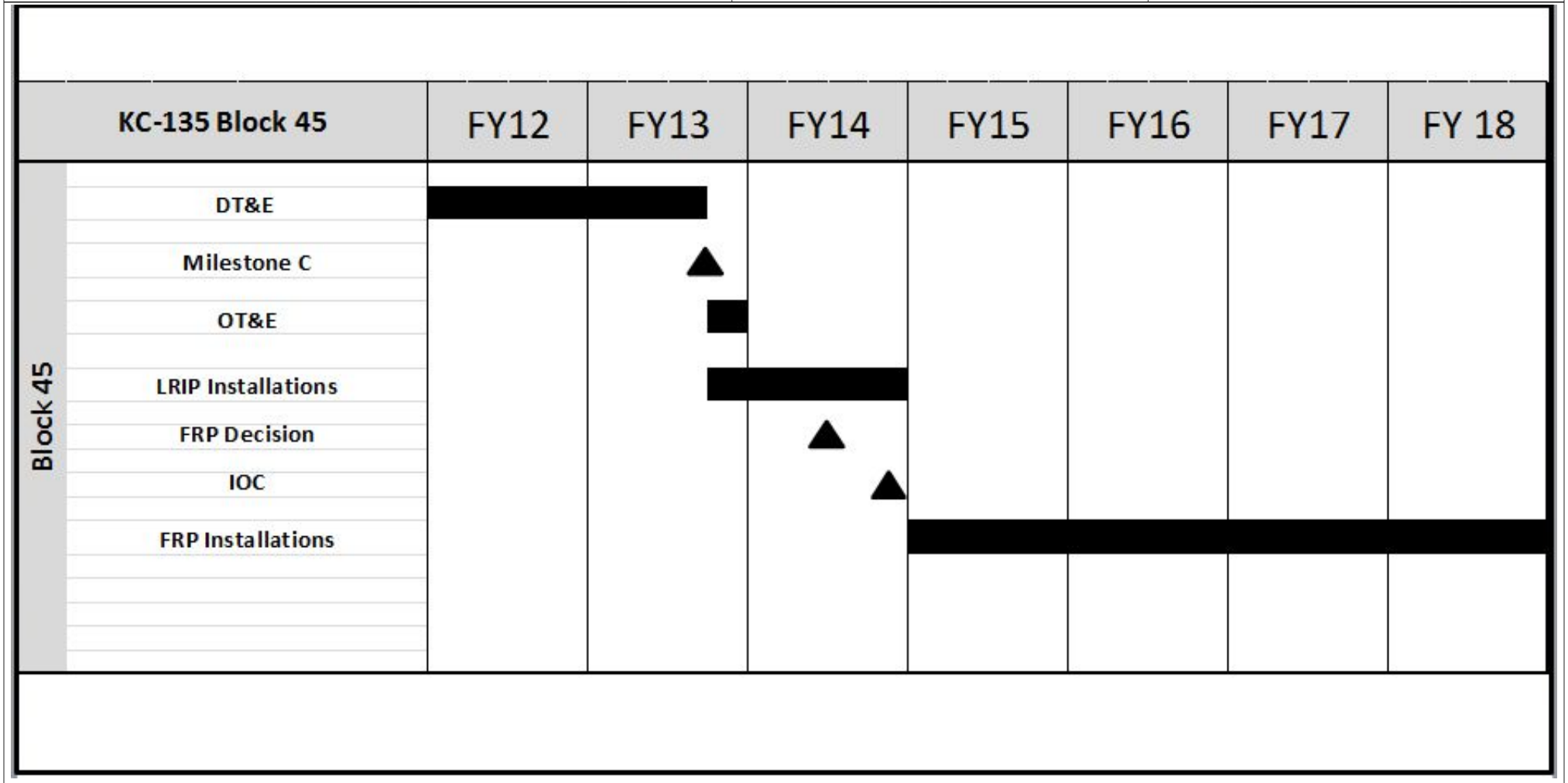
| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 6.161 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | 6.161 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401218F: *KC-135s* | PROJECT<br>675261: *KC-135 Upgrades* | |

| | All Prior Years | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401218F: *KC-135s* | PROJECT<br>675261: *KC-135 Upgrades* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0401218F: *KC-135s* | **PROJECT**<br>675261: *KC-135 Upgrades* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Blk 45 Developmental Test and Evaluation | 1 | 2012 | 3 | 2013 |
| Blk 45 Milestone C | 4 | 2013 | 4 | 2013 |
| Blk 45 Operational Test and Evaluation | 4 | 2013 | 1 | 2014 |
| Blk 45 Low Rate Initial Production | 4 | 2013 | 4 | 2014 |
| Blk 45 Full Rate Production Decision | 2 | 2014 | 2 | 2014 |
| Blk 45 Full Rate Production Installs | 1 | 2015 | 4 | 2018 |
| Blk 45 Initial Operational Capability | 4 | 2014 | 4 | 2014 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0401219F: *KC-10s* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 30.868 | 24.022 | 0.000 | - | 0.000 | 2.748 | 1.832 | 0.000 | 0.000 | Continuing | Continuing |
| 674498: *KC-10 Drag* | - | 0.000 | 1.900 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 675195: *Aircraft Modernization Program (AMP)* | - | 30.868 | 22.122 | 0.000 | - | 0.000 | 2.748 | 1.832 | 0.000 | 0.000 | 0.000 | 57.570 |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The KC-10A Extender is an aerial refueling asset built on the commercial DC-10 airframe. The aircraft creates an air bridge to enable rapid global mobility and global strike missions. There are 59 KC-10 aircraft in the USAF tanker fleet. Funds will be used to support the Communications, Navigation and Surveillance/Air Traffic Management (CNS/ATM)program.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 30.868 | 24.022 | 4.580 | - | 4.580 |
| Current President's Budget | 30.868 | 24.022 | 0.000 | - | 0.000 |
| Total Adjustments | 0.000 | 0.000 | -4.580 | - | -4.580 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -4.580 | - | -4.580 |

**Change Summary Explanation**

FY14 RDT&E funds reduced ($4.580M)because of program rephasing.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401219F: *KC-10s* | PROJECT<br>674498: *KC-10 Drag* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 674498: *KC-10 Drag* | - | 0.000 | 1.900 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The KC-10A Extender is an aerial refueling asset built on the commercial DC-10 airframe. The aircraft creates an air bridge enabling rapid global mobility and global strike missions. There are 59 KC-10A aircraft in the USAF tanker fleet.

The KC-10 Drag Reduction program will improve fuel efficiency by adapting aerodynamic improvements to three areas of separated airflow identified on the airframe that produce turbulence. The three areas are the Pylon Fillet, Windshield Fairings, and Outboard Slat Seals. The total improvement in fuel burn is 1.4% fuel savings. This drag improvement results in reduced fuel consumption of 1,710,000 gallons per year after the modification is completed.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** KC-10 Drag Reduction program | 0.000 | 1.900 | 0.000 |
| ***Description:*** KC-10 Drag Reduction engineering design and analyis.<br><br>***FY 2013 Plans:***<br>Engineering design and analysis effort to modify the three areas of separated airflow identified on the airframe which produce turbulence. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 1.900 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF::BA05:Line Item # C01000: *KC-10: Drag Reduction* | 0.000 | 0.175 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

KC-10 Drag program cancelled due to Air Force higher priority programs.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401219F: *KC-10s* | PROJECT<br>674498: *KC-10 Drag* |

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401219F: *KC-10s* | PROJECT<br>674498: *KC-10 Drag* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Drag Reduction engineering design and analysis | SS/T&M | Boeing Corporation:Oklahoma City, OK | - | 0.000 | | 1.900 | Jul 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 1.900 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 1.900 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401219F: *KC-10s* | PROJECT<br>675195: *Aircraft Modernization Program (AMP)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675195: *Aircraft Modernization Program (AMP)* | - | 30.868 | 22.122 | 0.000 | - | 0.000 | 2.748 | 1.832 | 0.000 | 0.000 | 0.000 | 57.570 |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The KC-10A Extender is an aerial refueling asset built on the commercial DC-10 airframe. The aircraft creates an air bridge enabling rapid global mobility and global strike missions. There are 59 KC-10A aircraft in the USAF tanker fleet. RDT&E funds throughout the FYDP will be used to support the Communications, Navigation and Surveillance/Air Traffic Management (CNS/ATM) modification efforts.

The KC-10 Communications, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) program provides worldwide airspace accessibility by FY2015 for the fleet of 59 KC-10 aircraft. FAA airworthiness certification following the modification is required. An upgrade of the current Flight Management System (FMS) and Inertial Navigation System (INS) is required to meet the 2015 CNS/ATM requirements and address associated INS and FMS obsolescence issues. This capability gap is well documented in both RAND KC-10 Analysis of Alternatives (AoA) and Service Life Extension Program (SLEP) studies. Avionics components shall use either Commercial Off-The-Shelf (COTS) or Military Off-The-Shelf (MOTS) software and hardware. CNS/ATM requirements include: Required Navigation Performance (RNP-4) Oceanic/Remote for enroute Oceanic Airspace with either 50/50 Nautical Miles (NM) or 30/30 NM separations; Basic Area Navigation (BRNAV) for enroute European Airspace (9,500ft & up); RNP 2 & 1 for enroute & terminal airspace operations; Precision-RNAV (P-RNAV) for Preferred terminal area routes in Europe (1 NM Accuracy); RNP-4 & RNP-1 for reduced separations enroute, and terminal airspace; Time of Arrival Control for Refuel rendezvous (within 30 sec); Automatic Dependent Surveillance - Broadcast (ADS-B) Out for enhanced air and ground surveillance; Global Positioning System (GPS) for enhanced navigation capability; Selective Availability Anti-Spoofing Module (SAASM) for Global Positioning System (GPS) Security; Satellite Data Link for Air Traffic Systems (ATS) and Command and Control (C2) Communications for flight in Oceanic Airspace (FL310-410); Satellite Voice for Beyond Line of Sight (BLOS) Pilot - Controller Communications C2 Operations; and Very-High Frequency Data Link (VDL) Mode-2 for Line of Sight (LOS) Pilot - Controller Communications and C2 Operations. The CNS/ATM development effort will end in FY13.

The Mode 5 modification is a DoD-mandated upgrade to the KC-10's Identify Friend or Foe (IFF) system (the primary means of aircraft identfication during Air Defense operations). The Mode 5 upgrade increases anti-spoofing and exploitation capabilities and lowers the possibility of aircraft/aircrew loss due to misidentification of friendly aircraft. The modification includes a new Mode 5 crypto applique, a circuit card upgrade to the APX-119 transponder, support equipment upgrades and replacement/relocation of the data loader from the avionics bay to the flight deck. Mode 5 integration funding will begin in FY15 and continue through FY16.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** CNS-ATM Avionics Upgrade | 30.868 | 22.122 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401219F: *KC-10s* | PROJECT<br>675195: *Aircraft Modernization Program (AMP)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** CNS-ATM Avionics Upgrade to fleet of 59 KC-10 aircraft<br><br>***FY 2012 Accomplishments:***<br>CNS/ATM: Begin software and hardware development activities of aircraft and Aircrew Training Device (ATD) designs and prepare for aircraft production startup in FY 14. The development activities include Systems Integration Laboratory (SIL) testing, installation of CNS/ATM kits in the EMD aircraft, installation of CNS/ATM kits in an ATD, accomplishment of ATD testing and certification, and accomplishing aircraft ground and flight test leading to a Federal Aviation Administration (FAA) Supplemental Type Certificate (STC).<br><br>***FY 2013 Plans:***<br>CNS/ATM: Finish software and hardware development activities of aircraft and ATD designs and prepare for aircraft production startup in FY 14. The development activities include Systems Integration Laboratory (SIL) testing, accomplishment of ATD testing and certification, and accomplishing aircraft ground and flight test leading to a Federal Aviation Administration (FAA) Supplemental Type Certificate (STC). | | | |
| **Accomplishments/Planned Programs Subtotals** | 30.868 | 22.122 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF:BA05:Line Item #C01000: *KC-10:* | 0.000 | 38.900 | 64.600 | | 64.600 | 28.700 | 0.000 | 0.000 | 0.000 | 0.000 | 132.200 |

**Remarks**

**D. Acquisition Strategy**

Acquisition Approach Summary:
CNS/ATM: The acquisition is in accordance with Federal Acquisition Regulation (FAR) Part 15, Contracting by Negotiation. Further, this acquisition was awarded to a single integrator to accomplish all activities and utilizes a firm fixed price (FFP) contract with performance based payments. Payments (expenditures) on this contract are intentionally deferred, to the advantage of the government, to incentivize the contractor to successfully complete program milestones. These deferred payments cannot be paid until these milestones have been successfully completed; thus, delaying complete expenditure of those funds. Therefore, expenditures for this effort will lag behind OSD goals.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401219F: *KC-10s* | PROJECT<br>675195: *Aircraft Modernization Program (AMP)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Development Engineering, Design, and Integration (Communications, Navigation, and Surveillance/Air Traffic Management (CNS/ATM)) | C/FFP | Rockwell Collins:Cedar Rapids, IA | - | 14.337 | Jan 2012 | 6.122 | Mar 2013 | 0.000 | | - | | 0.000 | 0.000 | 20.459 | |
| | | **Subtotal** | 0.000 | 14.337 | | 6.122 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 20.459 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gov Test and Evaluation (CNS/ATM) | Various | Contract Crew, AMC/TE, FAA:Oklahoma City, OK | - | 14.531 | Jan 2012 | 15.000 | Mar 2013 | 0.000 | | - | | 0.000 | 0.000 | 29.531 | |
| | | **Subtotal** | 0.000 | 14.531 | | 15.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 29.531 | |

**Management Services ($ in Millions)**

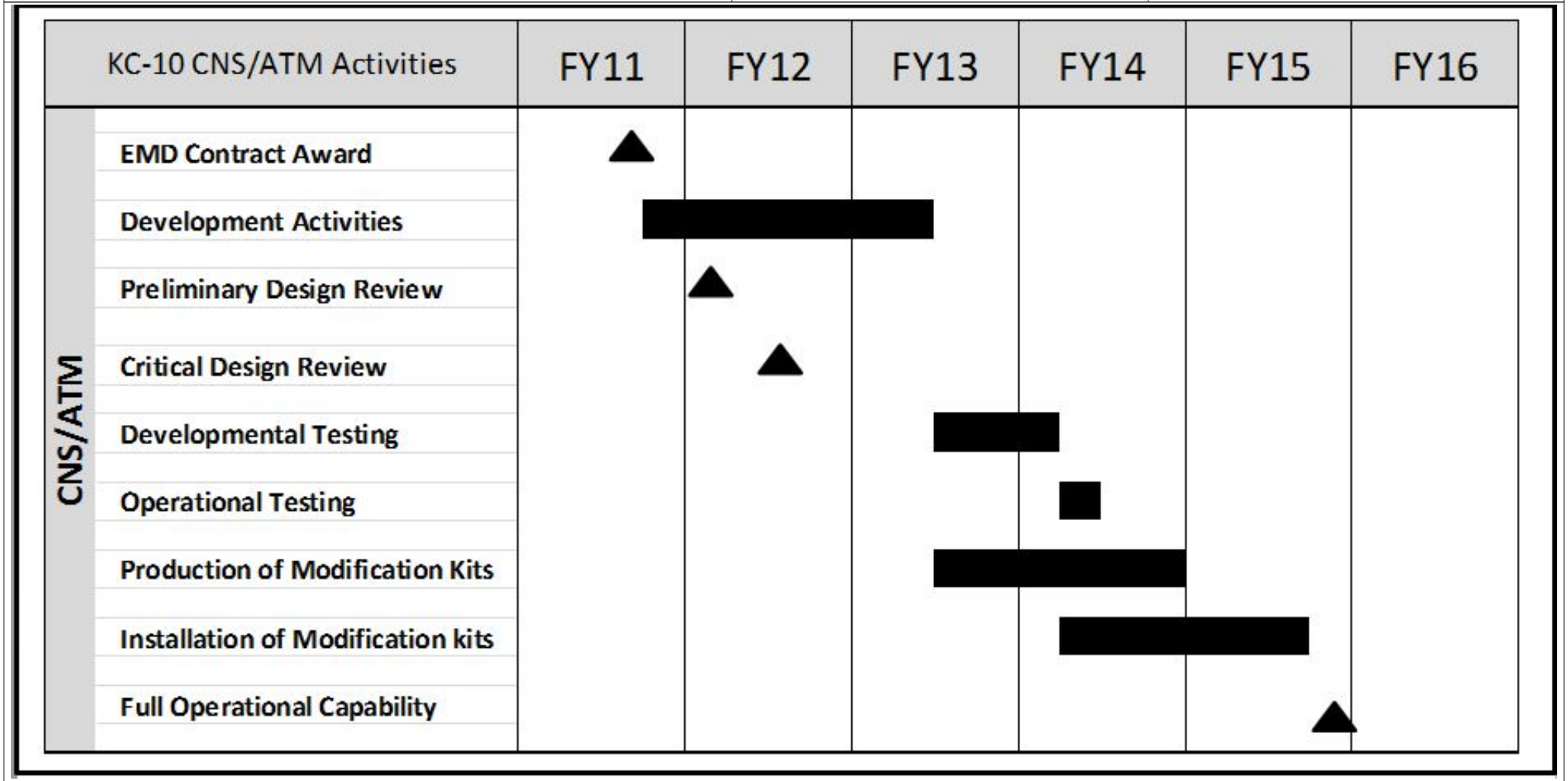
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mission Support | Various | Various:Tinker AFB, OK | - | 2.000 | Jan 2012 | 1.000 | Mar 2013 | 0.000 | | - | | 0.000 | 0.000 | 3.000 | |
| | | **Subtotal** | 0.000 | 2.000 | | 1.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 3.000 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401219F: *KC-10s* | PROJECT<br>675195: *Aircraft Modernization Program (AMP)* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 30.868 | | 22.122 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 52.990 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401219F: *KC-10s* | PROJECT<br>675195: *Aircraft Modernization Program (AMP)* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0401219F: *KC-10s* | **PROJECT**<br>675195: *Aircraft Modernization Program (AMP)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| CNS/ATM Development | 1 | 2012 | 2 | 2013 |
| CNS/ATM Preliminary Design Review | 1 | 2012 | 1 | 2012 |
| CNS/ATM Critical Design Review | 3 | 2012 | 3 | 2012 |
| CNS/ATM Developmental Testing | 2 | 2013 | 2 | 2014 |
| CNS/ATM Operational Testing | 1 | 2014 | 2 | 2014 |
| CNS/ATM FY14 Initial Production Long Lead Items | 1 | 2013 | 1 | 2014 |
| CNS/ATM FY13 Initial Spares Long Lead Items | 1 | 2013 | 1 | 2014 |
| CNS/ATM FY15 Production Long Lead Items | 1 | 2014 | 1 | 2015 |
| CNS/ATM Mod Kit Production | 1 | 2013 | 1 | 2015 |
| CNS/ATM Mod Kit Installation | 2 | 2014 | 4 | 2015 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 41.346 | 7.471 | 44.553 | - | 44.553 | 21.144 | 105.396 | 495.707 | 522.478 | Continuing | Continuing |
| 675355: *Presidential Aircraft Recapitalization* | - | 3.201 | 7.471 | 6.153 | - | 6.153 | 11.144 | 104.496 | 495.707 | 522.478 | Continuing | Continuing |
| 676024: *VC-25 Avionics Modernization Program* | - | 38.145 | 0.000 | 38.400 | - | 38.400 | 10.000 | 0.900 | 0.000 | 0.000 | Continuing | Continuing |
| **MDAP/MAIS Code(s):** 425 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

This line item supports development planning for two Presidential support airlift efforts: Presidential Aircraft Recapitalization (PAR) and VC-25A Avionics Modernization Program (AMP).

PAR will recapitalize the VC-25A system and support the Office of the President in executing Constitutional roles of Head of State, Chief Executive, and Commander in Chief. The principal mission of PAR is to provide the President of the United States and the President's staff and guests with safe, comfortable, and reliable air transportation with the same level of security and communications capability as is available at the White House. As a "national level" airborne communications node providing voice, data, video, processed imagery, and network services, PAR enables the President and traveling staff to address the full range of political and military operations globally.

VC-25A AMP assures unrestricted global access to civilian and military airspace to support the President of the United States as Head of State, Chief Executive, and Commander in Chief. AMP upgrades use a systems approach to aid pilot awareness and alleviate task saturation enhancing safety in a high technology concentrated airspace environment. VC-25A AMP is a required modification to ensure the viability of the Presidential support airlift fleet until PAR is fielded.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | DATE: April 2013 |
|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | | |
| **B. Program Change Summary ($ in Millions)** | **FY 2012** | **FY 2013** | **FY 2014 Base** | **FY 2014 OCO** | **FY 2014 Total** |
| Previous President's Budget | 41.346 | 7.471 | 7.353 | - | 7.353 |
| Current President's Budget | 41.346 | 7.471 | 44.553 | - | 44.553 |
| Total Adjustments | 0.000 | 0.000 | 37.200 | - | 37.200 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 37.200 | - | 37.200 |

**Change Summary Explanation**

FY14 funding increase is due to VC-25A Avionics Modernization Program (AMP) restructure to accurately align funding in appropriate year of effort.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | PROJECT<br>675355: *Presidential Aircraft Recapitalization* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675355: *Presidential Aircraft Recapitalization* | - | 3.201 | 7.471 | 6.153 | - | 6.153 | 11.144 | 104.496 | 495.707 | 522.478 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 1 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

This funding supports development planning for the Presidential Aircraft Recapitalization (PAR) effort. PAR will recapitalize the VC-25A system and support the Office of the President in executing Constitutional roles of Head of State, Chief Executive, and Commander in Chief. The principal mission of PAR is to provide the President of the United States and the President's staff and guests with safe, comfortable, and reliable air transportation with the same level of security and communications capability as is available at the White House. As a "national level" airborne communications node providing voice, data, video, processed imagery, and network services, PAR enables the President and traveling staff to address the full range of political and military operations globally. Funding supports key development planning efforts and products including: systems engineering strategy and analysis; risk analysis and management; concept definition and trade studies; test and evaluation strategy; life cycle cost estimates; sustainment and logistics analysis; information support and network analysis; technology and manufacturing maturity analysis and acquisition planning and analysis.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Development Planning | 3.109 | 7.331 | 5.863 |
| ***Description:*** Developmental Planning | | | |
| ***FY 2012 Accomplishments:***<br>Continued risk reduction preliminary planning activities:<br><br>Systems engineering strategy and analysis; risk reduction analysis and management; concept definition, requirements analysis and trade studies; test and evaluation strategy; life cycle cost estimates; sustainment and logistics analysis; information support and network analysis; technology and manufacturing maturity analysis; and acquisition planning were accomplished. These activities supported a Materiel Development Decision (MDD) Defense Acquisition Board (DAB), which occurred in FY 2012. | | | |
| ***FY 2013 Plans:***<br>Continued risk reduction preliminary planning activities: | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | PROJECT<br>675355: *Presidential Aircraft Recapitalization* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Systems engineering strategy and analysis; risk reduction analysis and management; concept definition, requirements analysis and trade studies; test and evaluation strategy; life cycle cost estimates; sustainment and logistics analysis; information support and network analysis; technology and manufacturing maturity analysis; and acquisition planning.<br>***FY 2014 Plans:***<br>Continued risk reduction preliminary planning activities: Systems engineering strategy and analysis; risk reduction analysis and management; concept definition, requirements analysis and trade studies; test and evaluation strategy; life cycle cost estimates; sustainment and logistics analysis; information support and network analysis; technology and manufacturing maturity analysis; and acquisition planning. | | | |
| ***Title:*** Program Management Administration (PMA)<br>***Description:*** Enables operation of Program Office management and oversight to support PAR. Program Office travel/admin, and staff support as well as contract services and government costs.<br>***FY 2012 Accomplishments:***<br>PMA<br>***FY 2013 Plans:***<br>PMA<br>***FY 2014 Plans:***<br>PMA | 0.092 | 0.140 | 0.290 |
| **Accomplishments/Planned Programs Subtotals** | 3.201 | 7.471 | 6.153 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**D. Acquisition Strategy**

Acquisition strategy dependent on Milestone Decision Authority approval.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | PROJECT<br>675355: *Presidential Aircraft Recapitalization* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Government Studies | Various | AFLCMC/ WLVA:Dayton, OH | - | 3.109 | Mar 2012 | 7.331 | Feb 2013 | 5.863 | Feb 2014 | - | | 5.863 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 3.109 | | 7.331 | | 5.863 | | 0.000 | | 5.863 | | | |

**Remarks**

Costs associated with development planning, risk reduction and preliminary planning activities including systems engineering strategy and analysis; risk reduction analysis and management; concept definition, requirements analysis and trade studies; test and evaluation strategy; life cycle cost estimates; sustainment and logistics analysis; information support and network analysis; technology and manufacturing maturity analysis; and acquisition planning.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Activities | Various | AFLCMC/ WLVA:Dayton, OH | - | 0.092 | | 0.140 | | 0.290 | | - | | 0.290 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.092 | | 0.140 | | 0.290 | | 0.000 | | 0.290 | | | |

**Remarks**

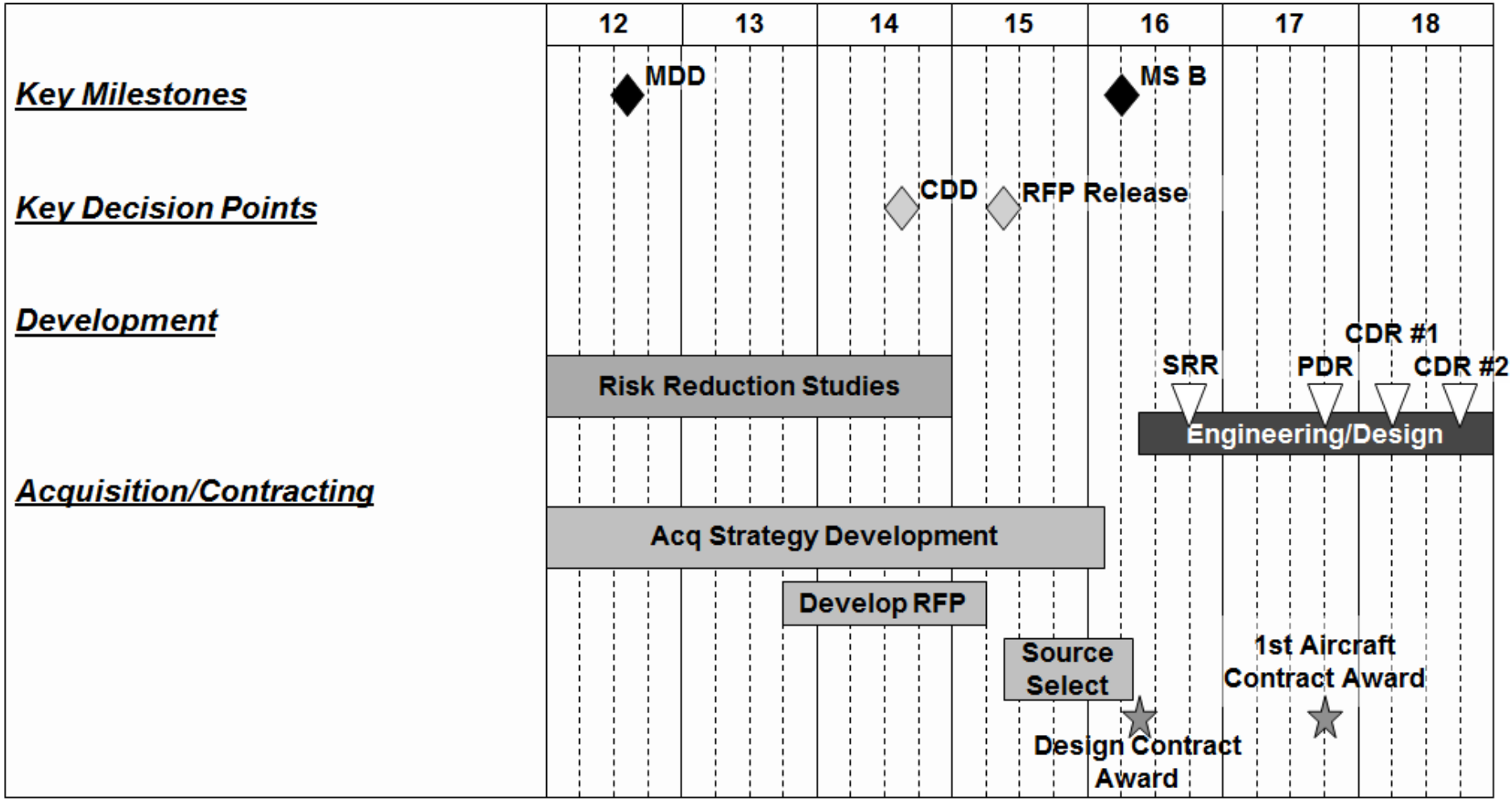
Management activities include travel to support developmental planning efforts

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | PROJECT<br>675355: *Presidential Aircraft Recapitalization* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 3.201 | | 7.471 | | 6.153 | | 0.000 | | 6.153 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | PROJECT<br>675355: *Presidential Aircraft Recapitalization* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0401314F: *Operational Support Airlift* | **PROJECT**<br>675355: *Presidential Aircraft Recapitalization* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Acquisition Strategy Development | 1 | 2012 | 1 | 2016 |
| MDD | 3 | 2012 | 3 | 2012 |
| Develop RFP | 4 | 2013 | 2 | 2015 |
| CDD | 3 | 2014 | 3 | 2014 |
| Release RFP | 2 | 2015 | 2 | 2015 |
| Source Selection | 2 | 2015 | 2 | 2016 |
| MS B | 1 | 2016 | 1 | 2016 |
| Design Contract Award | 2 | 2016 | 2 | 2016 |
| Engineering/Design | 2 | 2016 | 4 | 2018 |
| SRR | 4 | 2016 | 4 | 2016 |
| PDR | 3 | 2017 | 3 | 2017 |
| 1st Aircraft Contract Award | 4 | 2017 | 4 | 2017 |
| CDR #1 | 2 | 2018 | 2 | 2018 |
| CDR #2 | 4 | 2018 | 4 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | PROJECT<br>676024: *VC-25 Avionics Modernization Program* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 676024: *VC-25 Avionics Modernization Program* | - | 38.145 | 0.000 | 38.400 | - | 38.400 | 10.000 | 0.900 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 1 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

VC-25A Avionics Modernization Program (AMP) assures unrestricted global access to civilian and military airspace to support the President of the United States as Head of State, Chief Executive, and Commander in Chief. AMP upgrades use a systems approach to aid pilot awareness and alleviate task saturation enhancing safety in a high technology concentrated airspace environment. VC-25A AMP is a required modification to ensure the viability of the Presidential support airlift fleet until the Presidential Aircraft Recapitalization (PAR) program is fielded.

If not installed, the VC-25A will not be upgraded with enhanced flight deck avionics and safety of flight equipment and the President of the United States, while aboard the VC-25A, may encounter routing, timing, or other airspace restrictions, impeding the safe and effective transport of the Head of State.

AMP complies with mandates for Automatic Dependent Surveillance-Broadcast (ADS-B) Out and Identification Friend or Foe (IFF) Mode 5 as well as a Coupled Vertical Navigation (VNAV) capability. It will incorporate multiple subsystems to increase the utility and safety of the VC-25A. Installations are aligned with the aircraft heavy maintenance schedule.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Design and Test | 38.128 | 0.000 | 38.370 |
| ***Description:*** Design and Test efforts include stand-up of a Systems Integration Laboratory (SIL), engineering, vendor engineering, material buys for the SIL, as well as design and operational test and evaluation of the avionics systems. All modifications to be performed on the aircraft must be proven on the ground prior to installation. | | | |
| ***FY 2012 Accomplishments:***<br>FY2012 funding supports System Integration Laboratory (SIL) engineering, vendor engineering, and material buys for the SIL and developmental kit procurement. The SIL is used as a test bed for VC-25, to ensure that all modifications to be performed on the aircraft have been proven prior to installation. This funding was also used for Preliminary Design Review (PDR) completion and initial start of Developmental Test and Evaluation. | | | |
| ***FY 2014 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | PROJECT<br>676024: *VC-25 Avionics Modernization Program* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| FY2014 funding continues System Integration Laboratory (SIL) testing. Funding will also be used for Critical Design Review (CDR), developmental kit installation and complete Developmental Test and Evaluation. | | | |
| ***Title:*** Program Management Administration (PMA)<br>***Description:*** Enables operation of program office management and oversight to support the VC-25A AMP efforts. Program Office travel/admin, and staff support as well as contract services and government costs.<br>***FY 2012 Accomplishments:***<br>PMA<br>***FY 2014 Plans:***<br>PMA | 0.017 | 0.000 | 0.030 |
| **Accomplishments/Planned Programs Subtotals** | 38.145 | 0.000 | 38.400 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • APAF: BA05: Line Item # C02500: *VC-25A Mod* | 0.000 | 10.500 | 0.000 | | 0.000 | 0.000 | 6.400 | 10.200 | 0.000 | 0.000 | 38.300 |

**Remarks**

**D. Acquisition Strategy**

VC-25A AMP is accomplished by developmental integration of commercial off-the-shelf systems, hardware procurement and installation is accomplished to align with heavy maintenance depot schedules. An Undefinitized Contract Action (UCA) was issued in Jun 12. The UCA will be definitized with a Cost Plus Incentive Fee (CPIF) type contract. The CPIF contract covers the remaining RDT&E effort through completion in FY16.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | PROJECT<br>676024: *VC-25 Avionics Modernization Program* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering | SS/CPIF | Oklahoma City:Tinker, AFB, OK | - | 38.128 | Dec 2012 | 0.000 | | 38.370 | Dec 2012 | - | | 38.370 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 38.128 | | 0.000 | | 38.370 | | 0.000 | | 38.370 | | | |

**Remarks**

Product Development costs include modification engineering design, first modification kit, Systems Integration Laboratory design and development, ground and flight testing and certification.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Activities | SS/CPIF | OC-ALC:Oklahoma City, OK | - | 0.017 | Dec 2012 | 0.000 | | 0.030 | Dec 2012 | - | | 0.030 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.017 | | 0.000 | | 0.030 | | 0.000 | | 0.030 | | | |

**Remarks**

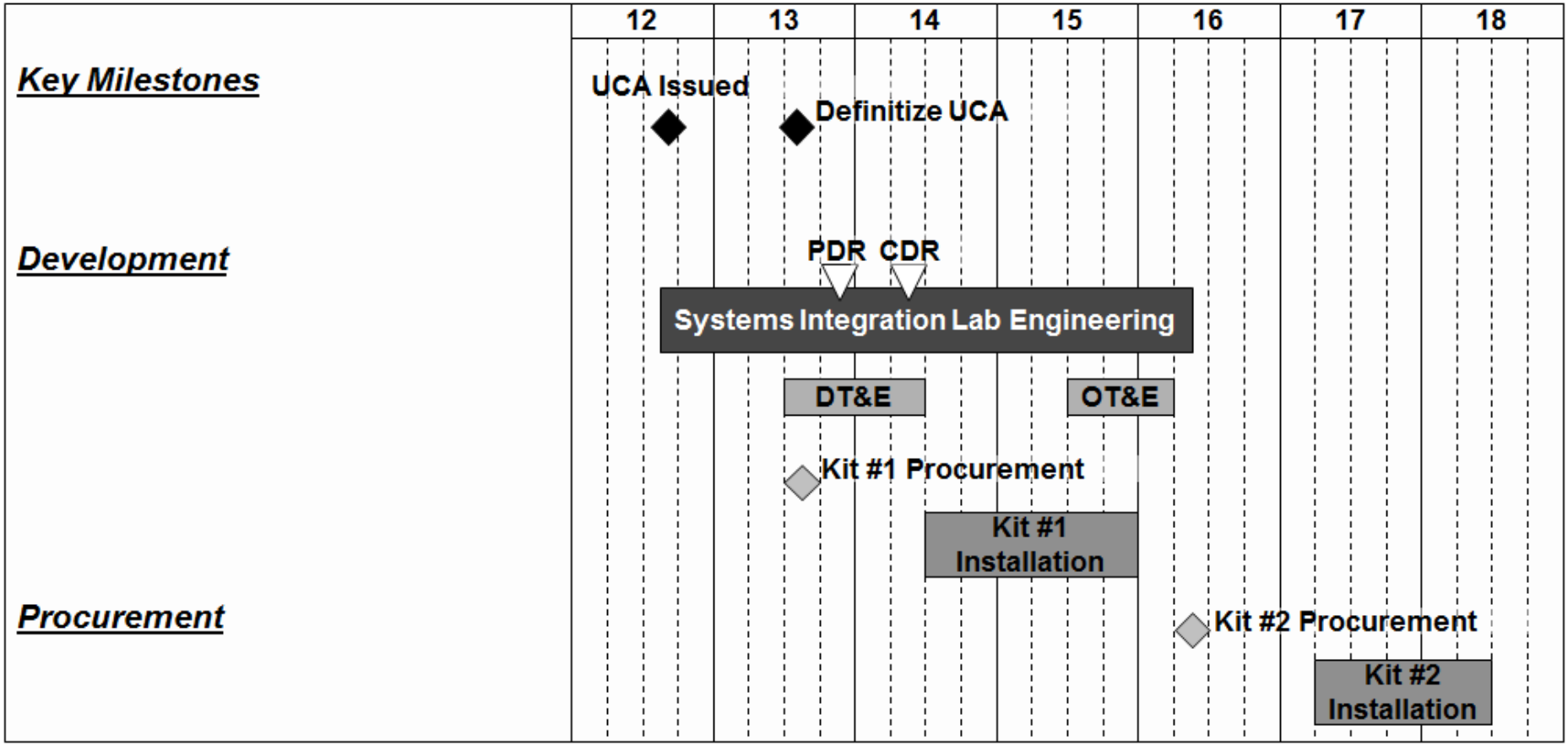
Management Services include travel to support Critical Design Review, engineering oversight, and depot visit support.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | PROJECT<br>676024: *VC-25 Avionics Modernization Program* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 38.145 | | 0.000 | | 38.400 | | 0.000 | | 38.400 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | PROJECT<br>676024: *VC-25 Avionics Modernization Program* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0401314F: *Operational Support Airlift* | PROJECT<br>676024: *VC-25 Avionics Modernization Program* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| UCA Issued | 3 | 2012 | 3 | 2012 |
| Systems Integration Labratory engineering | 3 | 2012 | 2 | 2016 |
| Definitize UCA | 1 | 2013 | 3 | 2013 |
| Kit #1 Procurement | 3 | 2013 | 3 | 2013 |
| Kit #1 Procurement (1) | 3 | 2013 | 3 | 2013 |
| Critical Design Review | 2 | 2014 | 2 | 2014 |
| Kit #1 Installation | 3 | 2014 | 4 | 2015 |
| Operational Test and Evaluation (OT&E) | 3 | 2015 | 1 | 2016 |
| Kit #2 Procurement | 1 | 2016 | 1 | 2017 |
| Kit #2 Installation | 2 | 2017 | 2 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0408011F: *Special Tactics / Combat Control* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 5.040 | 4.984 | 6.213 | - | 6.213 | 8.509 | 8.371 | 8.032 | 8.177 | Continuing | Continuing |
| 675138: *ST System Development* | - | 5.040 | 4.984 | 6.213 | - | 6.213 | 8.509 | 8.371 | 8.032 | 8.177 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Special Tactics/Combat Control, Special Tactics (ST) System Development project focuses on modernization developments for the Battlefield Airmen Operations (BAO) Kit. The project is a program within the overarching Battlefield Airmen Modernization (BA-Mod) Program. BAO Kit will develop, test, train and modernize the existing Family of Systems (FoS) that provides a state-of-the-art Command, Control, Communications, Computer, Intelligence, Surveillance and Reconnaissance (C4ISR) suite for Air Force Special Operations Command's (AFSOC's) Battlefield Airmen. Efforts in the Special Tactics System Development project focus on reducing the risk of fratricide and substantially reducing the weight and bulk of the equipment carried through three core capabilities: Human Machine Interface (HMI), Line of Sight (LOS) targeting, and Machine to Machine C4ISR System.

This program will develop and enhance technologies for Battlefield Airmen Special Tactics Operators (STO)/Combat Controllers (CCT) to recognize, identify, range, nominate and designate targets during both day and night. BAO Kit will also significantly reduce the time required to find, fix, track, target and engage the enemy by providing highly accurate target grid coordinates in three dimensions, generating target imagery both pre and post-strike, and transmitting target data to Command and Control centers. All BAO Kit systems are light, compact and portable for use by dismounted Battlefield Airmen. FY14 BAO Kit funding will provide significant improvements in operational capability, situational awareness and precision lethality in the battle space and continue to build and enhance the BAO Kit family of systems. These efforts will deliver enhanced capability for the dismounted soldier in terms of dramatic weight reduction and increased mission effectiveness across the conflict spectrum.

The Special Tactics (ST) System Development activities also include studies and analysis to support both current and future program planning and execution.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0408011F: *Special Tactics / Combat Control* | |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 5.040 | 4.984 | 6.213 | - | 6.213 |
| Current President's Budget | 5.040 | 4.984 | 6.213 | - | 6.213 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Human Machine Interface | 1.316 | 1.316 | 4.713 |

***Description:*** BAO Kit is a family of systems that provides integrated operator interface between all the machine components by using unified visual and auditory displays and controls, such as head-mounted displays, tactical earplug connectivity with communications, integrated tactical computing solution and power generation and management systems.

***FY 2012 Accomplishments:***
Continued exploration of fuel cell prototypes for power generation of HMI systems through development and testing of universal batteries to drastically reduce weight and increase longevity and effectiveness for the entire suite of electronics within the BAO kit versus legacy batteries and charging systems through incorporating test feedback into subsequent iterations of the universal battery.

***FY 2013 Plans:***
Continuing exploration of fuel cell prototypes for power generation of HMI systems through development and testing of universal batteries to drastically reduce weight and increase longevity and effectiveness for the entire suite of electronics within the BAO kit versus legacy batteries and charging systems through incorporating test feedback into subsequent iterations of the universal battery to further decrease system complexity, and simplify use by incorporating intelligent power regulation and integrating low profile cabling.

***FY 2014 Plans:***
Will continue develop/test special tactics integrated combat system. System development will enhance combat situational awareness and precision lethality in the battle space. Combines heads up display, increased audio capabilities and integrated

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0408011F: *Special Tactics / Combat Control* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| tactical system for combat effects. Development of alternative energy and power capabilities to support special tactics mission sets and mission durations. | | | |
| ***Title:*** Line of Sight<br><br>***Description:*** Line of Sight-Short targeting enables the ST Battlefield Airmen to find, fix, track, target and engage the enemy at close range during day or night operations by providing highly accurate target coordinates in three dimensions and generates vital imagery both pre and post-strike at a fraction of the weight and more efficiently than legacy equipment carried by the operator.<br><br>***FY 2012 Accomplishments:***<br>Continued development/testing of Machine to Machine technology and interfaces for C4ISR; enabling reduced kill chains and will provide greater battlefield situational awareness while engaged with the enemy, reducing the possibility of fratricide.<br><br>***FY 2013 Plans:***<br>Continuing testing Line of Sight material solution for detection of enemy forces. Will incorporate testing feedback into system refinements.<br><br>***FY 2014 Plans:***<br>Will continue development and enhancement of a three in one target/geo-locate/designate capability for dismounted operations. Enhanced capability will increase capability in the battle space while decreasing 27+ lbs to ground forces. | 0.530 | 2.168 | 1.250 |
| ***Title:*** PMA Contract Services<br><br>***Description:*** Developmental engineering responsible for integration, interoperability, and testing for BAO Kit family of systems. Effort is critical to combining independent material solutions into one unique system allowing for situational awaresess, precision effects, battle space cordination in a combat air support enviroment.<br><br>***FY 2012 Accomplishments:***<br>Continued developmental engineering responsible for integration, interoperability, and testing for BAO Kit family of systems. Effort is critical to combining independent material solutions into one unique system allowing for situational awaresess, precision effects, battle space cordination in a combat air support enviroment.<br><br>***FY 2013 Plans:***<br>Continuing developmental engineering responsible for integration, interoperability, and testing for BAO Kit family of systems. Effort is critical to combining independent material solutions into one unique system allowing for situational awaresess, precision effects, battle space cordination in a combat air support enviroment.<br><br>***FY 2014 Plans:*** | 0.685 | 0.550 | 0.250 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0408011F: *Special Tactics / Combat Control* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Execute developmental engineering responsible for integration, interoperability, and testing for BAO Kit family of systems. Effort is critical to combining independent material solutions into one unique system allowing for situational awaresess, precision effects, battle space cordination in a combat air support enviroment. | | | |
| ***Title:*** Machine to Machine C4ISR System<br><br>***Description:*** Machine to Machine Command, Control, Communications and Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) provides the ST Battlefield Airmen the ability to find, fix, track, target and engage the enemy which greatly reduces the kill chain and drastically decreases the possibility of fratricide by enhancing the operators situational awareness on the battlefield.<br><br>***FY 2012 Accomplishments:***<br>Continued development and testing of Machine to Machine technology and interface for C4ISR; enabling reduced kill chains and will provide greater battlefield situational awareness and reducing the possibility of fratricide<br><br>***FY 2013 Plans:***<br>Continuing to develop and test material prototypes of machine to machine interface for C4ISR; enabling a reduced kill chain and will provide greater battlefield situational awareness while engaged with the enemy, reducing the possibility of fratricide. | 2.509 | 0.950 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 5.040 | 4.984 | 6.213 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: Line Item # 837100: *Tactical C-E Equipment* | 24.133 | 18.469 | 17.242 | | 17.242 | 16.796 | 15.730 | 16.254 | 16.547 | Continuing | Continuing |
| • APAF: BA04: Line Item # WASP00: *STUASLO* | 2.472 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

The evolutionary acquisition strategy will focus on meeting immediate requirements with current technology while pursuing future increments for improved accuracy, increased vertical and horizontal integration, and reduced weight. Future increments will be incorporated as funding and technology allow.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0408011F: *Special Tactics / Combat Control* |

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0408011F: *Special Tactics / Combat Control* | PROJECT<br>675138: *ST System Development* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Human Machine Interface (HMI) | C/Various | Various:Various, NA | - | 1.316 | Jun 2012 | 0.334 | Jun 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Line of Sight | C/FPIF | Argon ST, Inc:Orlando, FL | - | 0.740 | Dec 2011 | 2.300 | Jan 2013 | 1.500 | May 2013 | - | | 1.500 | Continuing | Continuing | TBD |
| Machine-To-Machine Software Development | C/CPFF | Systems Research & Applications Corp:Dayton, OH | - | 1.149 | Feb 2012 | 1.300 | Feb 2013 | 4.463 | May 2014 | - | | 4.463 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 3.205 | | 3.934 | | 5.963 | | 0.000 | | 5.963 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Test Agency Support | RO | 46 TS:Eglin AFB, FL | - | 1.100 | Feb 2012 | 0.500 | Apr 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| Integration and Certification | WR | AFRL RYT:WPAFB, OH | - | 0.050 | Feb 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.150 | | 0.500 | | 0.000 | | 0.000 | | 0.000 | | | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration | Various | Various:Various, NA | - | 0.685 | Mar 2012 | 0.550 | Mar 2013 | 0.250 | | - | | 0.250 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.685 | | 0.550 | | 0.250 | | 0.000 | | 0.250 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0408011F: *Special Tactics / Combat Control* | PROJECT<br>675138: *ST System Development* | |

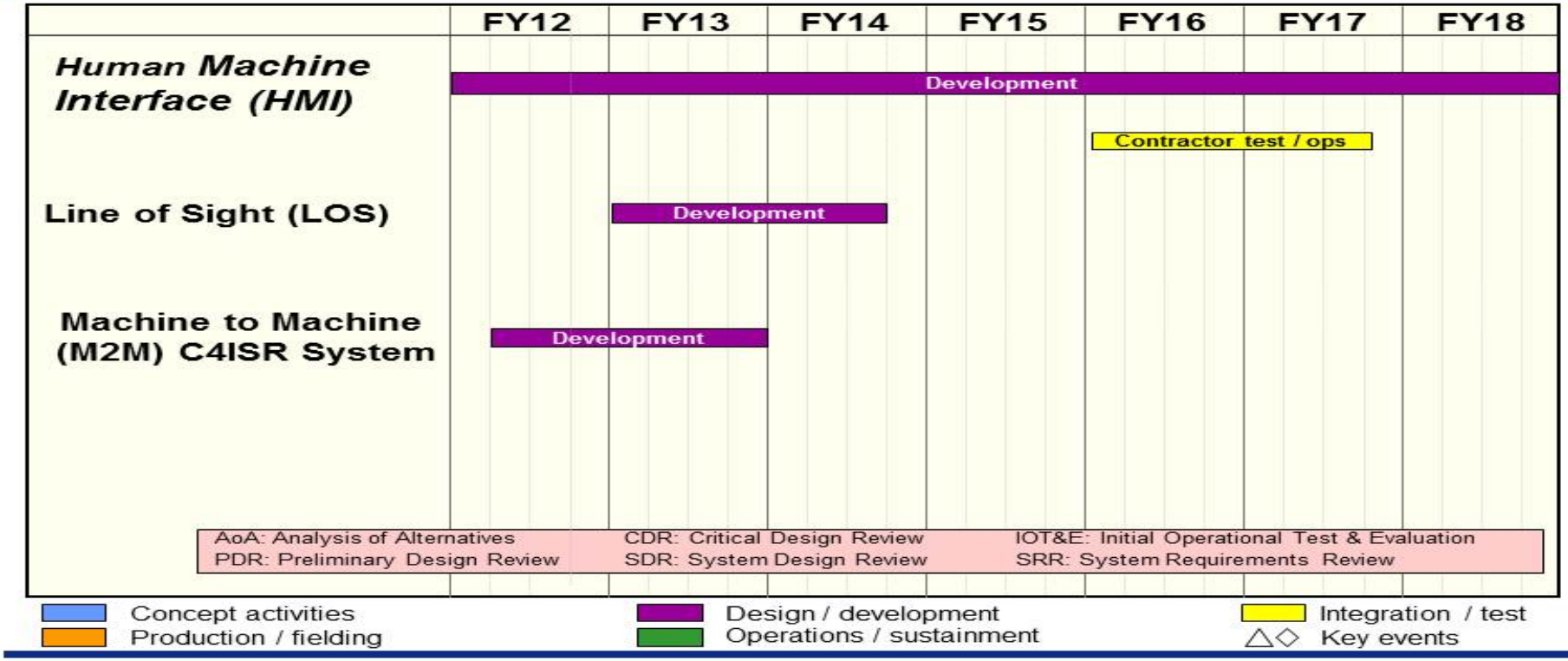
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 5.040 | | 4.984 | | 6.213 | | 0.000 | | 6.213 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0408011F: *Special Tactics / Combat Control* | PROJECT<br>675138: *ST System Development* |

U.S. AIR FORCE

# BAO Kit Schedule




1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0408011F: *Special Tactics / Combat Control* | PROJECT<br>675138: *ST System Development* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Human Machine Interface (HMI) | 1 | 2012 | 4 | 2018 |
| Line of Sight (LOS) | 1 | 2013 | 3 | 2014 |
| Machine to Machine C4ISR System | 2 | 2012 | 4 | 2013 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0702207F: *Depot Maintenance (Non-IF)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 1.531 | 1.588 | 1.605 | - | 1.605 | 1.425 | 1.683 | 1.483 | 1.510 | Continuing | Continuing |
| 673326: *Precision Measurement & Calibration* | - | 1.531 | 1.588 | 1.605 | - | 1.605 | 1.425 | 1.683 | 1.483 | 1.510 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

This program develops, tests, and evaluates national and Air Force measurement standards (hardware) and calibration equipment in support of all Air Force programs and activities, including Precision Measurement Equipment Laboratories (PMELs) worldwide. Metrology research and development provides technology to support systems in all phases of development and acquisition, as well as Air Force R&D laboratories, test ranges, ground test facilities, and operational weapons systems support. Rapidly changing technology requires continuing research and development of measurement standards and calibration equipment to ensure modern weapon systems meet Air Force readiness objectives. This program addresses all metrology disciplines and includes the technology areas of laser, infrared, microwave, millimeter wave, optical, physical, mechanical, electrical, electronic, and ionizing radiation measurements. Metrology is a technical discipline devoted to the science of measurements and to the study and improvement of measurement technology. Measurements are the foundation of military system development, quality assurance, hardware conformance testing and system readiness tests. The integrity of these tests is assured through calibration and traceability assurance schemes. The capability to measure and calibrate must parallel the emergence of new technology, new ranges, and new capabilities of military systems. Lack of new measurement capability impedes or blocks the successful exploitation of new technologies, especially in the movement from development laboratory to production to deployment. R&D efforts are essential within the DoD to pace these requirements, otherwise, these same new systems will suffer time delays, excessive cost, and increased risk due to unreliable test results in all phases of development, production, deployment and operation.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0702207F: *Depot Maintenance (Non-IF)* | |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 1.531 | 1.588 | 1.605 | - | 1.605 |
| Current President's Budget | 1.531 | 1.588 | 1.605 | - | 1.605 |
| Total Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Weapons Systems Measurement Standards | 0.544 | 0.623 | 0.640 |
| ***Description:*** Continue development of national measurement standards to support Air Force infrared / laser / electro-optical weapon systems and support equipment.<br><br>***FY 2012 Accomplishments:***<br>Continued development<br><br>***FY 2013 Plans:***<br>Continue development<br><br>***FY 2014 Plans:***<br>Continue development | | | |
| ***Title:*** Electrical Measurements | 0.185 | 0.185 | 0.185 |
| ***Description:*** Continue development of standards for electrical measurements to support high accuracy electronic test equipment.<br><br>***FY 2012 Accomplishments:***<br>Continued development<br><br>***FY 2013 Plans:***<br>Continue development<br><br>***FY 2014 Plans:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0702207F: *Depot Maintenance (Non-IF)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continue development | | | |
| ***Title:*** Radar Support/Communications<br>***Description:*** Continue development of standards for radar support, RF communication systems, and radar cross section range measurements.<br>***FY 2012 Accomplishments:***<br>Continued development<br>***FY 2013 Plans:***<br>Continue development<br>***FY 2014 Plans:***<br>Continue development | 0.155 | 0.155 | 0.155 |
| ***Title:*** Calibration<br>***Description:*** Continue the development of improved calibration standards to support physical, mechanical and electro-mechanical support equipment.<br>***FY 2012 Accomplishments:***<br>Continued development<br>***FY 2013 Plans:***<br>Continue development<br>***FY 2014 Plans:***<br>Continue development | 0.320 | 0.320 | 0.320 |
| ***Title:*** Radiation Hazard<br>***Description:*** Continue the development of national standards for calibration of ionizing radiation hazard instrumenation.<br>***FY 2012 Accomplishments:***<br>Continued development<br>***FY 2013 Plans:***<br>Continue development<br>***FY 2014 Plans:*** | 0.045 | 0.045 | 0.045 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0702207F: *Depot Maintenance (Non-IF)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continue development | | | |
| ***Title:*** Chemical/Biological Measurements<br>***Description:*** Continue development of improved standards and procedures to support chemical/biological measurements<br>***FY 2012 Accomplishments:***<br>Continue development<br>***FY 2013 Plans:***<br>Continue development<br>***FY 2014 Plans:***<br>Continue development | 0.160 | 0.160 | 0.160 |
| ***Title:*** Analytical Metrology<br>***Description:*** Continue development of standards, models and procedures to support analytical metrology applications<br>***FY 2012 Accomplishments:***<br>Continue development<br>***FY 2013 Plans:***<br>Continue development<br>***FY 2014 Plans:***<br>Continue development | 0.122 | 0.100 | 0.100 |
| **Accomplishments/Planned Programs Subtotals** | 1.531 | 1.588 | 1.605 |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

Primarily accomplish through intergovernmental transfer between the Department of Defense and other Federal Departments.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0702207F: *Depot Maintenance (Non-IF)* | PROJECT<br>673326: *Precision Measurement & Calibration* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| National Institute of Standards & Technology | MIPR | TBD:TBD, | - | 1.430 | | 1.483 | | 1.485 | | - | | 1.485 | Continuing | Continuing | TBD |
| Department of Energy | MIPR | TBD:TBD, | - | 0.022 | | 0.023 | | 0.030 | | - | | 0.030 | Continuing | Continuing | TBD |
| DoD Army | MIPR | TBD:TBD, | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| AFMC | TBD | TBD:TBD, | - | 0.079 | | 0.082 | | 0.090 | | - | | 0.090 | Continuing | Continuing | TBD |
| | | Subtotal | 0.000 | 1.531 | | 1.588 | | 1.605 | | 0.000 | | 1.605 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

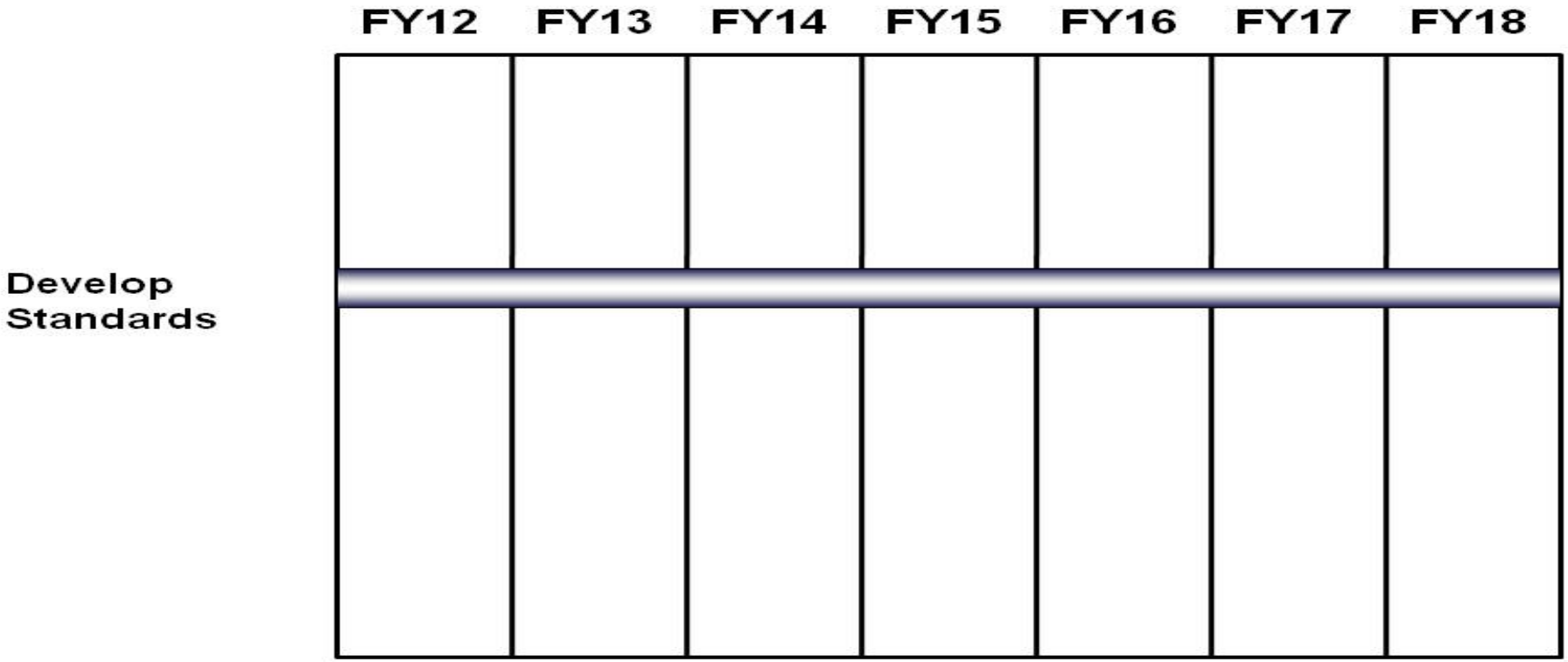
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 1.531 | | 1.588 | | 1.605 | | 0.000 | | 1.605 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0702207F: *Depot Maintenance (Non-IF)* | PROJECT<br>673326: *Precision Measurement & Calibration* |

# Precision Measurement & Calibration



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0702207F: *Depot Maintenance (Non-IF)* | PROJECT<br>673326: *Precision Measurement & Calibration* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| Standards Development | 1 | 2012 | 4 | 2018 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0708012F: *Logistics Support Activities* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.944 | 0.577 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 673318: *Product Data Systems Modernization (PDSM)* | - | 0.944 | 0.577 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Aircraft Structural Integrity Management Information System (ASIMIS) and ASIP operate as directed by AFPD 63-10 and MIL-STD-1530C. ASIMIS responsibilities include: Receiving, storing and reporting recorder downloads from all aircraft. Track and report quality control data for flight data recorders (Structural Data Recorder, Crash Survivable Flight Data Recorder, etc…), monitor usage, severity and any accumulated damage by plane and base, analyze the data, calculate crack growth in key locations in the airframe structure, project crack growth in order to provide a basis for maintenance scheduling, maintain a complete flight hour and calendar date history of each aircraft.

This project supports the implementation of the software package Air Force Grow (AFGROW) in the ASIMIS suite of tools to support the Aircraft Structural Integrity Program (ASIP) community. AFGROW is a crack prediction software package owned and operated by LexTech Inc. Originally developed under the name ASDGRO in 1985, AFGROW was owned and operated by the United States Air Force through version 4.0012.15. AFGROW will be used by Air Force structural engineers to predict the life expectancy of a/c components for a variety of weapon systems under cyclic loading under the assumption that defects exist. AFGROW is also used to address maintenance requirements if/when damage is identified within a component. Funding will be used to provide software licenses and training ASIP managers and weapon system engineers. Funding will also be used to provide for the research and development of software upgrades to suit ASIP manager needs.

This project supports the implementation of the software package Probability of Failure (PROF) in the ASIMIS suite of tools to support the Aircraft Structural Integrity Program (ASIP) community. PROF is a risk analysis software package owned and distributed by the United States Air Force. PROF is used by Air Force structural engineers to predict the probability of failure of a weapon system under specified usages. PROF provides for the ability to set inspection/maintenance schedules before failure occurs, without creating excess/unnecessary inspections that would impair mission readiness.

ETIMS Program baseline transferred from PE 78611F BPAC 673318 to PE 78012F BPAC 673318 beginning in FY13 -- Air Force Technical Order functionality implementation of the Enhanced Technical Information System (ETIMS) Enterprise. Provides for modify the ETIMS system to support Nuclear Weapons Related Material (NWRM) technical data requirements.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708012F: *Logistics Support Activities* |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.944 | 0.577 | 0.581 | - | 0.581 |
| Current President's Budget | 0.944 | 0.577 | 0.000 | - | 0.000 |
| Total Adjustments | 0.000 | 0.000 | -0.581 | - | -0.581 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -0.581 | - | -0.581 |

**Change Summary Explanation**

BPAC 673318 funding for FY14 and out was moved to PE 0708611F.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** ASIMIS Modernization | 0.544 | 0.100 | 0.000 |
| ***Description:*** Mainframe Modernization<br><br>***FY 2012 Accomplishments:***<br>- Mainframe to Server Migration<br>- Web Modernization<br>- Miscellaneous Enhancements<br><br>***FY 2013 Plans:***<br>- Web Modernization<br>- Miscellaneous Enhancements | | | |
| ***Title:*** AFGROW | 0.200 | 0.100 | 0.000 |
| ***Description:*** AFGROW<br><br>***FY 2012 Accomplishments:***<br>- Purchase Software Licensing for 4 Sites<br>- Provide Funding for Training for 4 Sites | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0708012F: *Logistics Support Activities* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| - Continue Software Updating<br>***FY 2013 Plans:***<br>- Purchase Software Licensing for 4 Sites<br>- Provide Funding for Training for 4 Sites<br>- Continue Software Updating | | | |
| ***Title:*** PROF<br>***Description:*** PROF<br>***FY 2012 Accomplishments:***<br>- Continue Software Updating<br>***FY 2013 Plans:***<br>- Continue Software Updating | 0.200 | 0.100 | 0.000 |
| ***Title:*** ETIMS Enhancements<br>***Description:*** ETIMS Modernization<br>***FY 2012 Accomplishments:***<br>.<br>***FY 2013 Plans:***<br>Continue ETIMS enhancements and incorporate technical Data activities and technical integration. Incorporate management and support of AF technical data activities.<br><br>N/A | 0.000 | 0.277 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 0.944 | 0.577 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0708012F: *Logistics Support Activities* |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • ASIMIS , Operations and Maintenance: *N/A* | 0.265 | 0.117 | 0.123 | | 0.123 | 0.260 | 0.152 | 0.000 | 0.000 | Continuing | Continuing |
| • ETIMS Sustainment: *ETIMS, 3400, 78012F* | 5.507 | 5.206 | 4.647 | | 4.647 | 4.477 | 4.234 | 4.315 | 0.000 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

ASIMIS will migrate the mainframe code to a new, modern, more manageable, and maintainable language. The acquisition will be a Cost Plus-Fixed Fee (CPFF) contract line item on a competitively awarded contract utilizing Full and Open Competition.

ETIMS will incrementally develop enhancements to the existing project to ensure a user friendly, technically accurate, and current digital TO management solution at the point of use. The acquisition will be a Cost Plus Fixed Fee (CPFF) contract line item on a competitively awarded contract utililzing Full and Open Competition (FAR part 15).

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708012F: *Logistics Support Activities* | PROJECT<br>673318: *Product Data Systems Modernization (PDSM)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PDSM | SS/FFP | TBD:Tinker AFB, OK | - | 0.944 | Dec 2012 | 0.577 | Dec 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.944 | | 0.577 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

ASIMIS - Re-Host Analysis Effort - Re-host analysis of output data in new database environment
ASIMIS - Mainframe Migration - Replicate mainframe functionality in mnew environment (PC) and language
ASIMIS - Web Accessibility - web-accessible data mining and viewing

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

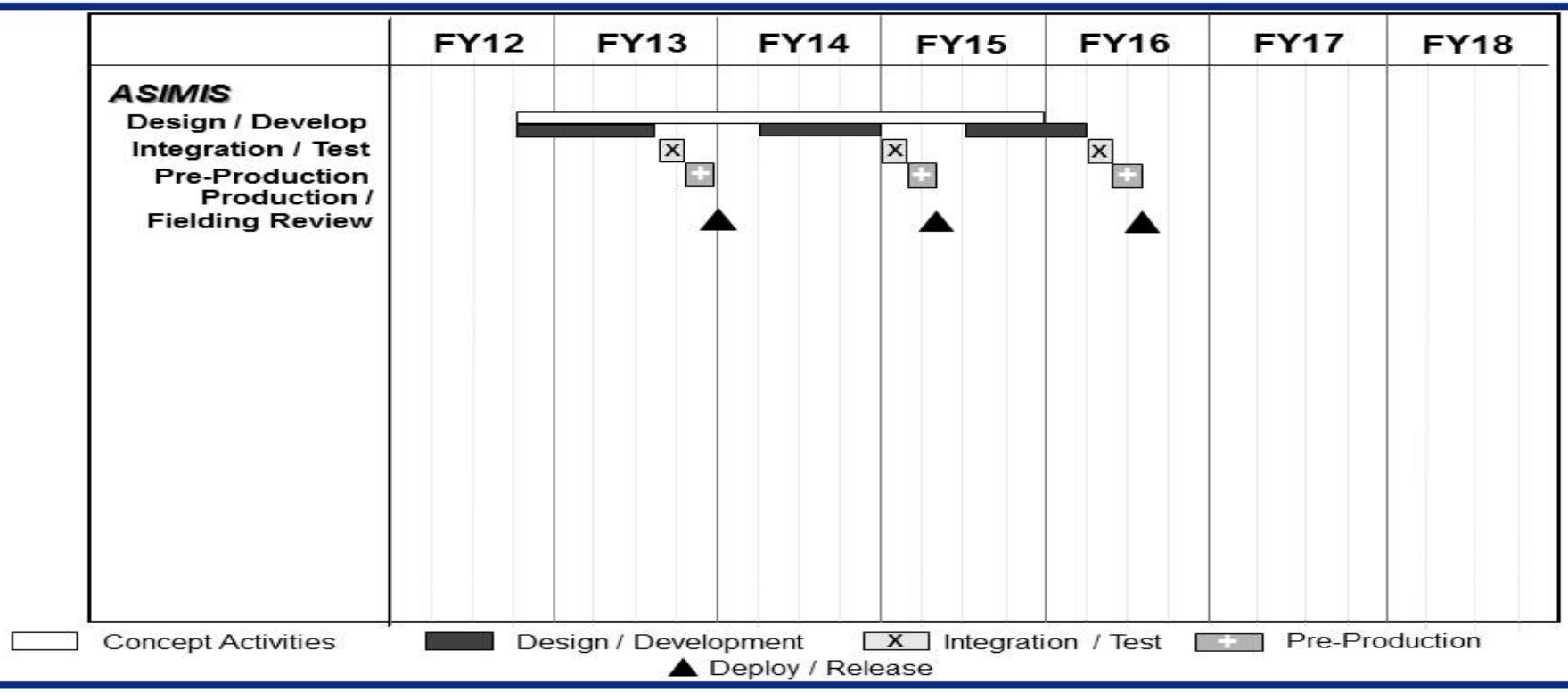
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | | | |
| **Project Cost Totals** | 0.000 | 0.944 | | 0.577 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708012F: *Logistics Support Activities* | PROJECT<br>673318: *Product Data Systems Modernization (PDSM)* |

# Product Data Systems Modernization (PDSM) Schedule –ASIMIS PE 78012F



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0708012F: *Logistics Support Activities* | **PROJECT**<br>673318: *Product Data Systems Modernization (PDSM)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| ASIMIS Design and Development | 4 | 2012 | 1 | 2016 |
| ASIMIS Integration and Test | 3 | 2013 | 2 | 2016 |
| ASIMIS Pre-Production | 4 | 2013 | 3 | 2016 |
| ASIMIS Production and Fielding | 4 | 2013 | 3 | 2016 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 47.141 | 119.327 | 95.238 | - | 95.238 | 115.300 | 87.279 | 3.598 | 3.662 | Continuing | Continuing |
| 675207: *Logistics IT System Modernization* | - | 0.000 | 0.000 | 95.238 | - | 95.238 | 115.300 | 87.279 | 3.598 | 3.662 | Continuing | Continuing |
| 675208: *Expeditionary Combat Support System (ECSS)* | - | 47.141 | 119.327 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| **MDAP/MAIS Code(s):** 221 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2014, Project 675207, Logistics IT System Modernization includes New Start efforts.

In FY 2013, Project 675208, ECSS was terminated. Based on information that was ascertained during the Critical Change process, ECSS was terminated 11 December 2012.

**A. Mission Description and Budget Item Justification**

Cancellation of the Expeditionary Combat Support System (ECSS) program has driven the Air Force to re-evaluate the approach for enabling logistic Information Technology (IT) capabilities. The Air Force still requires an integrated logistics capability that provides timely, accurate and reliable information to decision makers at all levels of command and across the full range of military operations. In the absence of ECSS, the Air Force is transitioning to a hybrid approach of core logistics system remediation, modernization and transformation. Through these efforts, the Air Force will meet its FY17 statutory Financial Improvement and Audit Readiness (FIAR) requirement.

In order to conserve limited resources and meet FY17 FIAR requirements, the Air Force is transitioning from a large scale Enterprise Resource Planning program to an approach of legacy system remediation and modernization using firm requirements, smaller scale development efforts and shorter delivery schedules. The remediation and modernization of core logistics systems will be accomplished in 12 Logistics Business Areas (LBA). The 12 LBAs are General Equipment/Asset Management, Decision Support/Enterprise Reporting, Field Maintenance, Munitions, Product Support Management, Tech Data, Retail Supply, Vehicle Management, Distribution Management, Wholesale Supply, Supply Sales/Operations Planning, and Depot Maintenance. LBAs enable rapid delivery by reducing the logistics IT footprint to resource critical needs, and reduce system sustainment costs.

The 12 LBAs contain the following, but not limited to, core logistics systems: Air Force Equipment Management System (AFEMS), Integrated Maintenance Data System (IMDS), Reliability, Availability, Maintainability for Pods (RAMPOD), Reliability and Maintainability Information System (REMIS), Combat Ammunitions System (CAS), Integrated Logistics System-Supply (ILS-S), Cargo Movement Operations System (CMOS), Automated Logistics Management Support System (ALMSS), Item Management Control System (IMCS), Purchase Request Process System (PRPS), Stock Control System (SCS), Requirements Management System (RMS), Depot Maintenance Systems Integration (DMSI), Depot Maintenance Accounting and Production System (DMAPS), Comprehensive Engine Management System (CEMS),

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* |

Integrated Missile Data Base (IMDB), Air Force Distribution Standard System (AFDSS), Cryptologic Depot Accountability System (CDAS), Commercial Asset Visibility-Air Force (CAV-AF) and On-Line Vehicle Interactive Management System (OLVIMS).
Logistics transformation will be accomplished by developing enterprise reengineering programs like, but not limited to, Maintenance Repair Overhaul (MRO), Product Lifecycle Management (PLM), Advance Planning and Scheduling (APS), and Supply Chain.

The legacy remediation, modernization and transformation efforts that were being accomplished under project 675208, ECSS, are now contained within project 675207, Logistics Information Technology System Modernization.

This program was in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 139.885 | 119.327 | 171.058 | - | 171.058 |
| Current President's Budget | 47.141 | 119.327 | 95.238 | - | 95.238 |
| Total Adjustments | -92.744 | 0.000 | -75.820 | - | -75.820 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | -86.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -6.744 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -75.820 | - | -75.820 |

**Change Summary Explanation**

FY12: Program is reduced by $86.0M due to reprogramming for higher Air Force priorities.

FY14: Program is reduced by $75.820M due to cancellation of ECSS (Project 675208). Remaining funds will be utilized for Logistics IT System Modernizaton (Project 675207) requirements.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675207: *Logistics IT System Modernization* | - | 0.000 | 0.000 | 95.238 | - | 95.238 | 115.300 | 87.279 | 3.598 | 3.662 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY2014, Project 675207, Logistics IT System Modernization includes New Start efforts.

**A. Mission Description and Budget Item Justification**

Cancellation of the Expeditionary Combat Support System (ECSS) program has driven the Air Force to re-evaluate the approach for enabling logistic Information Technology (IT) capabilities. The Air Force still requires an integrated logistics capability that provides timely, accurate and reliable information to decision makers at all levels of command and across the full range of military operations. In the absence of ECSS, the Air Force is transitioning to a hybrid approach of core logistics system remediation, modernization and transformation. Through these efforts, the Air Force will meet its FY17 statutory Financial Improvement and Audit Readiness (FIAR) requirement.

In order to conserve limited resources and meet FY17 FIAR requirements, the Air Force is transitioning from a large scale Enterprise Resource Planning program to an approach of legacy system remediation and modernization using firm requirements, smaller scale development efforts and shorter delivery schedules. The remediation and modernization of core logistics systems will be accomplished in 12 Logistics Business Areas (LBA). The 12 LBAs are General Equipment/Asset Management, Decision Support/Enterprise Reporting, Field Maintenance, Munitions, Product Support Management, Tech Data, Retail Supply, Vehicle Management, Distribution Management, Wholesale Supply, Supply Sales/Operations Planning, and Depot Maintenance. LBAs enable rapid delivery by reducing the logistics IT footprint to resource critical needs, and reduce system sustainment costs.

The 12 LBAs contain the following, but not limited to, core logistics systems: Air Force Equipment Management System (AFEMS), Integrated Maintenance Data System (IMDS), Reliability, Availability, Maintainability for Pods (RAMPOD), Reliability and Maintainability Information System (REMIS), Combat Ammunitions System (CAS), Integrated Logistics System-Supply (ILS-S), Cargo Movement Operations System (CMOS), Automated Logistics Management Support System (ALMSS), Item Management Control System (IMCS), Purchase Request Process System (PRPS), Stock Control System (SCS), Requirements Management System (RMS), Depot Maintenance Systems Integration (DMSI), Depot Maintenance Accounting and Production System (DMAPS), Comprehensive Engine Management System (CEMS), Integrated Missile Data Base (IMDB), Air Force Distribution Standard System (AFDSS), Cryptologic Depot Accountability System (CDAS), Commercial Asset Visibility-Air Force (CAV-AF) and On-Line Vehicle Interactive Management System (OLVIMS).

Logistics transformation will be accomplished by developing enterprise reengineering programs like, but not limited to, Maintenance Repair Overhaul (MRO), Product Lifecycle Management (PLM), Advance Planning and Scheduling (APS), and Supply Chain.

The legacy remediation, modernization and transformation efforts that were being accomplished under project 675208, ECSS, are now contained within project 675207, Logistics Information Technology System Modernization.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** ALMSS FIAR Compliance<br>***Description:*** ALMSS modification effort for Financial Improvement and Audit Readiness (FIAR).<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>ALMSS FIAR Compliance: ALMSS to modify software code to support Financial Improvement and Audit Readiness (FIAR). | 0.000 | 0.000 | 0.350 |
| ***Title:*** CAS FIAR Compliance<br>***Description:*** CAS FIAR Compliance: Modify CAS software to support Financial Improvement and Audit Readiness (FIAR).<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>CAS FIAR Compliance: Modify CAS software to support Financial Improvement and Audit Readiness (FIAR). | 0.000 | 0.000 | 0.960 |
| ***Title:*** CAS Software Upgrade<br>***Description:*** Modify CAS legacy software to an object oriented/modular design, provide a more sustainable and scalable baseline, and improve operational performance.<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:*** | 0.000 | 0.000 | 5.540 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Modify CAS legacy software to an object oriented/modular design, provide a more sustainable and scalable baseline, and improve operational performance. | | | |
| ***Title:*** CMOS FIAR Compliance<br>***Description:*** CMOS FIAR Compliance: Modify CMOS legacy software code to support Financial Improvement and Audit Readiness (FIAR).<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>CMOS to support FIAR requirements. Award development task order and execute. | 0.000 | 0.000 | 0.460 |
| ***Title:*** DMSI FIAR Compliance<br>***Description:*** DMSI FIAR Compliance: Modify software code to support Financial Improvement and Audit Readiness (FIAR).<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>DMSI FIAR Compliance: Modify software code to support Financial Improvement and Audit Readiness (FIAR). | 0.000 | 0.000 | 1.050 |
| ***Title:*** DMAPS FIAR Compliance<br>***Description:*** DMAPS modification effort for Financial Improvement and Audit Readiness (FIAR).<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:*** | 0.000 | 0.000 | 1.410 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| DMAPS FIAR/FISCAM requirements,design/Develop/Test/Field. | | | |
| ***Title:*** ILS-S FIAR Compliance<br>***Description:*** ILS-S FIAR Compliance: Modify software code to support Financial Improvement and Audit Readiness (FIAR).<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>ILS-S FIAR Compliance: Modify software code to support Financial Improvement and Audit Readiness (FIAR). | 0.000 | 0.000 | 3.659 |
| ***Title:*** ILS-S Software Upgrade<br>***Description:*** Phase 1 of the ILS-S's Software upgrade that will transition system into a single open architecture baseline and supports results of an AoA and 1067 modification proposal document.<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>ILS-S Software Upgrade: wrapper and Code Roll. Previous requirements executed from PE 78611F, Project 675042. | 0.000 | 0.000 | 8.081 |
| ***Title:*** IMCS FIAR Compliance<br>***Description:*** IMCS FIAR Compliance: Modify software code to support Financial Improvement and Audit Readiness (FIAR).<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:*** | 0.000 | 0.000 | 1.400 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
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| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| IMCS FIAR Compliance: Modify software code to support Financial Improvement and Audit Readiness (FIAR). | | | |
| ***Title:*** PRPS FIAR Compliance<br>***Description:*** PRPS FIAR Compliance: Modify software code to support Financial Improvement and Audit Readiness (FIAR).<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>PRPS FIAR Compliance: Modify software code to support Financial Improvement and Audit Readiness (FIAR). | 0.000 | 0.000 | 1.500 |
| ***Title:*** RAMPOD FIAR Compliance<br>***Description:*** RAMPOD FIAR Compliance: Modify software code to support Financial Improvement and Audit Readiness (FIAR).<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>RAMPOD FIAR Compliance: Modify software code to support Financial Improvement and Audit Readiness (FIAR). | 0.000 | 0.000 | 2.950 |
| ***Title:*** RMS FIAR Compliance<br>***Description:*** RMS FIAR Compliance: Modify software code to support Financial Improvement and Audit Readiness (FIAR).<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>RMS FIAR Compliance: Modify software code to support Financial Improvement and Audit Readiness (FIAR). | 0.000 | 0.000 | 1.410 |
| ***Title:*** AFEMS FIAR Compliance | 0.000 | 0.000 | 0.455 |

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| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** AFEMS FIAR Compliance: Modify AFEMS legacy software code to support Financial Improvement and Audit Readiness (FIAR).<br><br>***FY 2012 Accomplishments:***<br>NA<br><br>***FY 2013 Plans:***<br>NA<br><br>***FY 2014 Plans:***<br>AFEMS FIAR Compliance: Modify AFEMS legacy software code to support Financial Improvement and Audit Readiness (FIAR). Previous requirements executed from PE 78611F, Project 675042. | | | |
| ***Title:*** AFEMS Software Upgrade<br><br>***Description:*** AFEMS Software Upgrade: Modify AFEMS legacy software code to support results of Enterprise Asset Management General Equipment/ Asset Management Services Development and Delivery Process (SDDP).<br><br>***FY 2012 Accomplishments:***<br>NA<br><br>***FY 2013 Plans:***<br>NA<br><br>***FY 2014 Plans:***<br>AFEMS Software Upgrade: Modify AFEMS legacy software code to support results of Enterprise Asset Management General Equipment/ Asset Management Services Development and Delivery Process (SDDP). | 0.000 | 0.000 | 9.285 |
| ***Title:*** ETIMS Software Upgrade<br><br>***Description:*** ETIMS Software Upgrade: Modify ETIMS software code to incorporate Joint Computer-Aided Acquisition and Logistics Support (JCALS) functionality and other approved requirements to achieve full operational capability.<br><br>***FY 2012 Accomplishments:***<br>NA<br><br>***FY 2013 Plans:***<br>NA<br><br>***FY 2014 Plans:*** | 0.000 | 0.000 | 1.550 |

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| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ETIMS Software Upgrade: Modify ETIMS software code to incorporate Joint Computer-Aided Acquisition and Logistics Support (JCALS) functionality and other approved requirements to achieve full operational capability. | | | |
| ***Title:*** IMDS EMOC Software Upgrade<br>***Description:*** Modify EMOC software to support one-way interface from G081 that provides ability to view Expeditionary base's aircraft in a display comprised of selected aircraft from multiple IMDS Enterprise Location Codes (ELC).<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>Complete EMOC software to support one-way interface from G081 that provides ability to view Expeditionary base's aircraft in a display comprised of selected aircraft from multiple IMDS Enterprise Location Codes (ELC). | 0.000 | 0.000 | 0.280 |
| ***Title:*** IMDS MSAT Software Upgrade<br>***Description:*** Modify IMDS MSAT software code to support results of Field Maintenance Services Development and Delivery Process (SDDP) phase 1 and 2.<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>IMDS MSAT Software Upgrade: Modify IMDS MSAT software code to support results of Field Maintenance Services Development and Delivery Process (SDDP) phase 1 and 2. | 0.000 | 0.000 | 0.500 |
| ***Title:*** IMDS TBA Software Upgrade<br>***Description:*** Modify IMDS TBA software code to support results of Field Maintenance Services Development and Delivery Process (SDDP) phase 1 and 2, as well as other minor operational enhancements approved by AF/A4.<br>***FY 2012 Accomplishments:*** | 0.000 | 0.000 | 2.470 |

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| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>Modify IMDS TBA software code to support results of Field Maintenance Services Development and Delivery Process (SDDP) phase 1 and 2, as well as other minor operational enhancements approved by AF/A4. | | | |
| ***Title:*** REMIS Software Upgrade<br>***Description:*** Modify REMIS software code to transition system into a single open architecture baseline and support results of the Field Maintenance Services Development and Delivery Process (SDDP) Phases 1 and 2.<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>REMIS Software Upgrade: Modify REMIS software code to transition system into a single open architecture baseline and support results of the Field Maintenance Services Development and Delivery Process (SDDP) Phases 1 and 2. Previous requirements executed from PE 78611F, Project 675042. | 0.000 | 0.000 | 6.330 |
| ***Title:*** SCS FIAR Compliance<br>***Description:*** SCS FIAR Requirements.<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>SCS FIAR Requirements. | 0.000 | 0.000 | 3.000 |
| ***Title:*** SCS Software Upgrade | 0.000 | 0.000 | 0.860 |

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| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Modify SCS legacy software code to support results of the Field Maintenance Services Development and Delivery Process (SDDP) Phases 1 and 2.<br><br>***FY 2012 Accomplishments:***<br>NA<br><br>***FY 2013 Plans:***<br>NA<br><br>***FY 2014 Plans:***<br>Modify SCS software for phase 1 requirements resulting from the Field Mainatenance Services Development and Delivery Process (SDDP). | | | |
| ***Title:*** ESCAPE Capability Initiative<br><br>***Description:*** Delivery of standardized and integrated supply chain planning solution.<br><br>***FY 2012 Accomplishments:***<br>NA<br><br>***FY 2013 Plans:***<br>NA<br><br>***FY 2014 Plans:***<br>ESCAPE Capability Initiative: Implement technology refresh of supply chain planning suite of systems. Evaluate hosting platforms to reduce cost of sustainment of legacy systems. Award follow-on development contract and execute. Configure and implement Commercial Off the Shelf supply chain planning solution. | 0.000 | 0.000 | 20.810 |
| ***Title:*** MRO Capability Initiative<br><br>***Description:*** Delivery of standardized MRO solution to organic depot maintenance enterprise.<br><br>***FY 2012 Accomplishments:***<br>NA<br><br>***FY 2013 Plans:***<br>NA<br><br>***FY 2014 Plans:*** | 0.000 | 0.000 | 3.758 |

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| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| MRO Capability Initiative: Configure and implement Commercial off the shelf MRO solution. Improve how the AF plans, schedules, and executes organic depot maintenance, repair, and overhaul by standardizing processes and information across complexes and repair lines. | | | |
| ***Title:*** LIMS-EV Modernization<br>***Description:*** Expand LIMS-EV SIPR capabilities development effort.<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>Spiral development of LIMS-EV to support SIPR requirements. Award development task order. | 0.000 | 0.000 | 5.640 |
| ***Title:*** PLM Capability Initiative<br>***Description:*** Initiative to define PLM user needs and define PLM capabilities as part of the logistics IT strategy.<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>Design and development for increment 1 capabilities and requirements refinement, acquisition, and begin design and development for increment 2 capabilities. | 0.000 | 0.000 | 10.190 |
| ***Title:*** ASIMIS Modernization<br>***Description:*** ASIMS Modernization: ASIMS modification to rehost and modernize the system in a web-based format.<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:*** | 0.000 | 0.000 | 0.840 |

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| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| NA<br>***FY 2014 Plans:***<br>ASIMS Modernization: ASIMS has the requirement to migrate to PC Web Standard Reporting Capabilities and streamline flight log analysis tool. | | | |
| ***Title:*** WSMIS Software Upgrade<br>***Description:*** WSMIS Software Upgrade: Upgrade REALM to incorporate functional requirements previously on hold. Activity is covered under the approved FY13 OEP.<br>***FY 2012 Accomplishments:***<br>NA<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>Upgrade the WSMIS software with requirements produced from the Service Delivery and Development Process (SDDP) models. | 0.000 | 0.000 | 0.500 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 0.000 | 95.238 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF:BA03:Line Item # 834430: *GCSS-AF FOS* | 0.000 | 0.000 | 3.000 | | 3.000 | 3.000 | 67.834 | 7.302 | 7.434 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

PEO for Business Enterprise Systems is evaluating systems under the business capability lifecycle management process to approve milestone decisions for each legacy system development.

The programs will use Firm Fixed Price contracts to the maximum extent possible as the programs establish new contracts or task orders. To improve the efficiency of the contracting process and reduce contract cycle time the program offices plan to use the existing NETCENTS contract vehicle utilizing the Best Value acquisition/ source selection approach when possible.

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|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AFEMS FIAR-related CSRDs 1 | C/FFP | Mac-B:WPAFB, OH | - | 0.000 | | 0.000 | | 0.455 | Jan 2014 | - | | 0.455 | Continuing | Continuing | |
| AFEMS Modification | C/FFP | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 6.850 | May 2014 | - | | 6.850 | Continuing | Continuing | |
| AFEMS Subject Matter Expert (SME) Support FY14 | C/FFP | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 2.171 | May 2014 | - | | 2.171 | Continuing | Continuing | |
| AFEMS Engineering and Technology Acquisition Support Services (ETASS) | C/CPFF | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 0.107 | May 2014 | - | | 0.107 | Continuing | Continuing | |
| Logistics Installations and Mission Support-Enterprise View (LIMS_EV) Expand LIMS-EV SIPR capabilities development effort. | C/FFP | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 5.640 | Dec 2013 | - | | 5.640 | Continuing | Continuing | |
| IMDS/EMOC Modification | C/CPFF | TBD:Montgomery, AL | - | 0.000 | | 0.000 | | 0.280 | Nov 2013 | - | | 0.280 | Continuing | Continuing | |
| Weapon System Management Information System (WSMIS) Software Upgrade - Development | C/FFP | CSC:WPAFB, OH | - | 0.000 | | 0.000 | | 0.500 | Aug 2014 | - | | 0.500 | Continuing | Continuing | |
| IMDS/Maintenance Scheduling Application Tool (MSAT) Product Design and Development | C/CPFF | TBD:Montgomery, AL | - | 0.000 | | 0.000 | | 0.330 | Nov 2013 | - | | 0.330 | Continuing | Continuing | |
| IMDS/Training Business Area (TBA) | C/FP | Small Business:Gunter AFB, AL | - | 0.000 | | 0.000 | | 2.024 | Dec 2013 | - | | 2.024 | Continuing | Continuing | |
| Reliability & Maintainability of PODS (RAMPOD) | C/FFP | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 2.950 | Nov 2013 | - | | 2.950 | Continuing | Continuing | |
| Reliability & Maintainability Information Systems (REMIS) Prime Developer | SS/FFP | NGIS:WPAFB, OH | - | 0.000 | | 0.000 | | 6.330 | Sep 2013 | - | | 6.330 | Continuing | Continuing | |
| Combat Ammunitions System (CAS) FIAR | C/TBD | TBD:Montgomery, AL | - | 0.000 | | 0.000 | | 0.960 | Oct 2013 | - | | 0.960 | Continuing | Continuing | |

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**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Comp / Software Developer | | | | | | | | | | | | | | | |
| Combat Ammunitions System (CAS) Software Development | C/TBD | TBD:Montgomery, AL | - | 0.000 | | 0.000 | | 5.540 | Oct 2013 | - | | 5.540 | Continuing | Continuing | |
| Product Lifecycle Management (PLM) System Development | TBD | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 10.190 | Apr 2014 | - | | 10.190 | Continuing | Continuing | |
| Aircraft Structural Integrity Management Information System (ASIMIS) Modernization/mainframe to PC | MIPR | TBD:Tinker AFB, OK | - | 0.000 | | 0.000 | | 0.840 | Sep 2013 | - | | 0.840 | Continuing | Continuing | |
| Enhanced Technical Information Management System (ETIMS) Product Development | C/FFP | SAIC:Dayton, OH | - | 0.000 | | 0.000 | | 1.395 | Nov 2013 | - | | 1.395 | Continuing | Continuing | |
| Integrated Logistics Systems-Supplty (ILS-S) Software Upgrade | C/CPFF | NETCENTS-2:Gunter AFB, AL | - | 0.000 | | 0.000 | | 8.081 | Apr 2014 | - | | 8.081 | Continuing | Continuing | |
| ILS-S FIAR Development | C/CPFF | NETCENTS-2:Gunter AFB, AL | - | 0.000 | | 0.000 | | 3.659 | Apr 2014 | - | | 3.659 | Continuing | Continuing | |
| Cargo Movement Operations System (CMOS) FIAR Remediation | C/TBD | TBD:Gunter AFB, AL | - | 0.000 | | 0.000 | | 0.460 | Apr 2014 | - | | 0.460 | Continuing | Continuing | |
| Automated Logistics Management Support System(ALMSS) FIAR Remediation | TBD | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 0.350 | Nov 2013 | - | | 0.350 | Continuing | Continuing | |
| Item Management Control System (IMCS) FIAR Remediation | C/CPAF | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 1.400 | Jul 2014 | - | | 1.400 | Continuing | Continuing | |

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**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Purchase Request Process System (PRPS) Developing Contractor, Subject Matter Experts, Engineering and Tec Support | SS/FFP | CACI, NGIT, Jacobs Tec:Dayton, OH | - | 0.000 | | 0.000 | | 1.450 | Oct 2013 | - | | 1.450 | Continuing | Continuing | |
| Stock Control System (SCS) Software Upgrade - Developer | C/Various | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 0.860 | Aug 2014 | - | | 0.860 | Continuing | Continuing | |
| Stock Control System (SCS) FIAR-related CSRDs | C/Various | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 2.035 | May 2014 | - | | 2.035 | Continuing | Continuing | |
| Stock Control System (SCS) Subject Matter Expert (SME) Support | C/FFP | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 0.808 | May 2014 | - | | 0.808 | Continuing | Continuing | |
| Stock Control System (SCS) Engineering and Technology Acquisition Support Services (ETASS) Support | C/CPFF | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 0.125 | May 2014 | - | | 0.125 | Continuing | Continuing | |
| Requirements Managements System (RMS D-200) FIAR Remediation | TBD | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 1.043 | Apr 2014 | - | | 1.043 | Continuing | Continuing | |
| Enterprise Supply Chain Analsis Planning and Execution (ESCAPE) Product Development for Modernization | C/FFP | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 20.810 | Aug 2013 | - | | 20.810 | Continuing | Continuing | |
| Maintenance Repair and Overhead (MRO) Service Development & Delivery Process (SDDP) | C/FFP | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 3.758 | Nov 2013 | - | | 3.758 | Continuing | Continuing | |
| Depot Maintenance Accounting Production | C/FFP | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 1.410 | Feb 2014 | - | | 1.410 | Continuing | Continuing | |

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**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| System (DMAPS) FIAR Remediation | | | | | | | | | | | | | | | |
| Depot Maintenance System Integration (DMSI) FIAR Remediation | C/TBD | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 1.050 | Feb 2014 | - | | 1.050 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 93.861 | | 0.000 | | 93.861 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AFEMS ISP Updates | C/FFP | Cooper River:WPAFB, OH | - | 0.000 | | 0.000 | | 0.125 | May 2014 | - | | 0.125 | Continuing | Continuing | |
| IMDS/TBA Functional Area Service | C/FP | TBD:Gunter AFB, AL | - | 0.000 | | 0.000 | | 0.252 | Apr 2014 | - | | 0.252 | Continuing | Continuing | |
| ETIMS Manage and Support Technical Data Services | C/FP | Peerless:WPAFB, OH | - | 0.000 | | 0.000 | | 0.155 | Nov 2013 | - | | 0.155 | Continuing | Continuing | |
| RMS D200 Functional and Technical Support | SS/TBD | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 0.366 | Apr 2014 | - | | 0.366 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.898 | | 0.000 | | 0.898 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AFEMS Responsible Test Orgainization (RTO) | MIPR | TBA:WPAFB, OH | - | 0.000 | | 0.000 | | 0.032 | May 2014 | - | | 0.032 | Continuing | Continuing | |
| IMDS/MSAT Independent Test & Evaluation | MIPR | AFLCMC/HI/ Test:GunterAFB, AL | - | 0.000 | | 0.000 | | 0.050 | Nov 2013 | - | | 0.050 | Continuing | Continuing | |
| IMDS/TBA Capabilities Integration | C/FP | TBD:Gunter AFB, AL | - | 0.000 | | 0.000 | | 0.194 | May 2014 | - | | 0.194 | Continuing | Continuing | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Environment(CIE) and RTO | | | | | | | | | | | | | | | |
| SCS RTO Support | MIPR | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 0.032 | May 2014 | - | | 0.032 | Continuing | Continuing | |
| RMS D200 RTO Support | SS/TBD | TBD:WPAFB, OH | - | 0.000 | | 0.000 | | 0.001 | Apr 2014 | - | | 0.001 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.309 | | 0.000 | | 0.309 | | | |

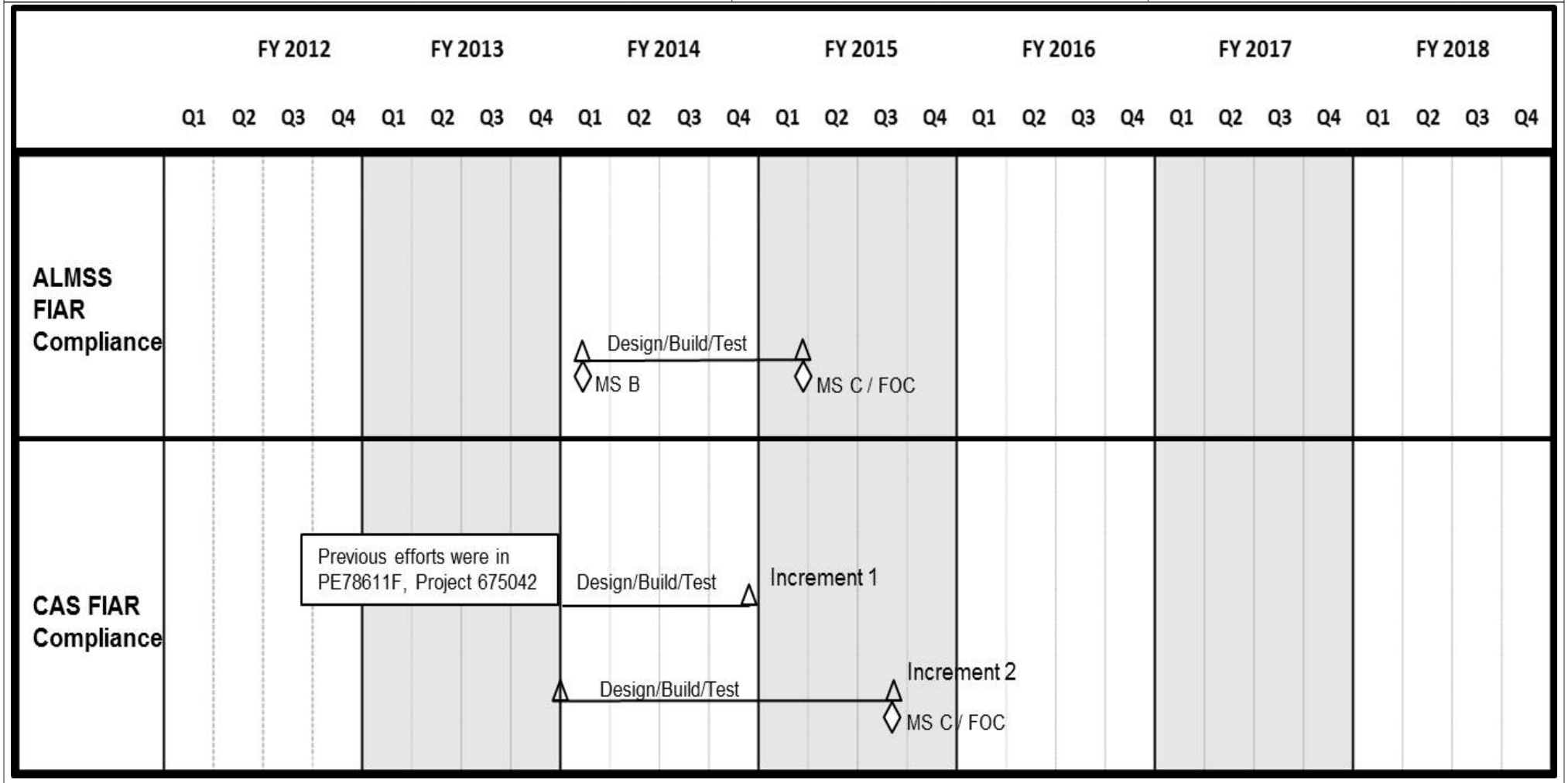
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IMDS/MSAT System Program Office Operations | C/CPFF | HIAM:Montgomery, AL | - | 0.000 | | 0.000 | | 0.120 | Oct 2013 | - | | 0.120 | Continuing | Continuing | |
| PRPS Program Management Administration | SS/TBD | Oasis Systems:Dayton, OH | - | 0.000 | | 0.000 | | 0.050 | Oct 2013 | - | | 0.050 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.170 | | 0.000 | | 0.170 | | | |

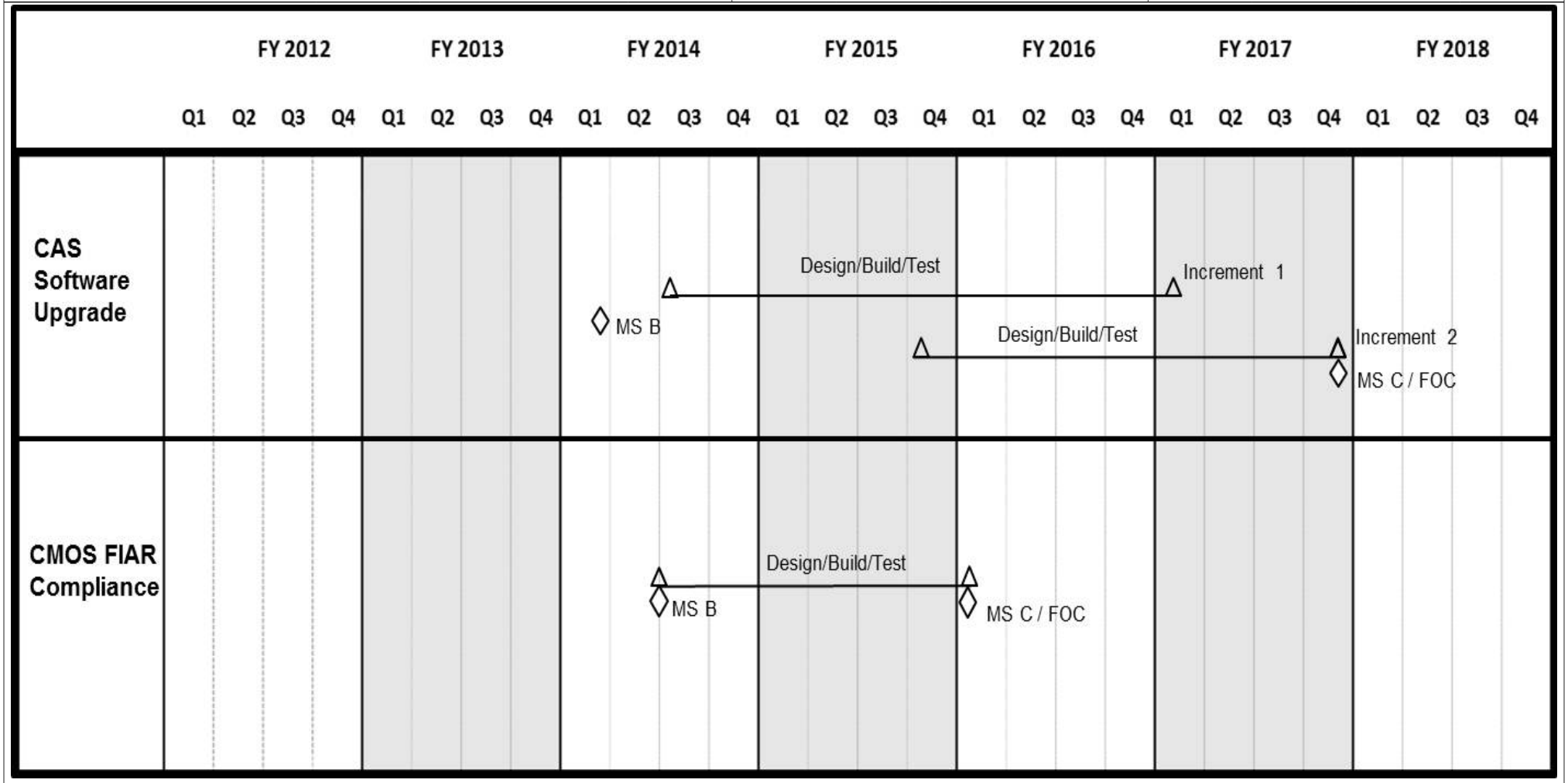
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 0.000 | | 95.238 | | 0.000 | | 95.238 | | | |

**Remarks**

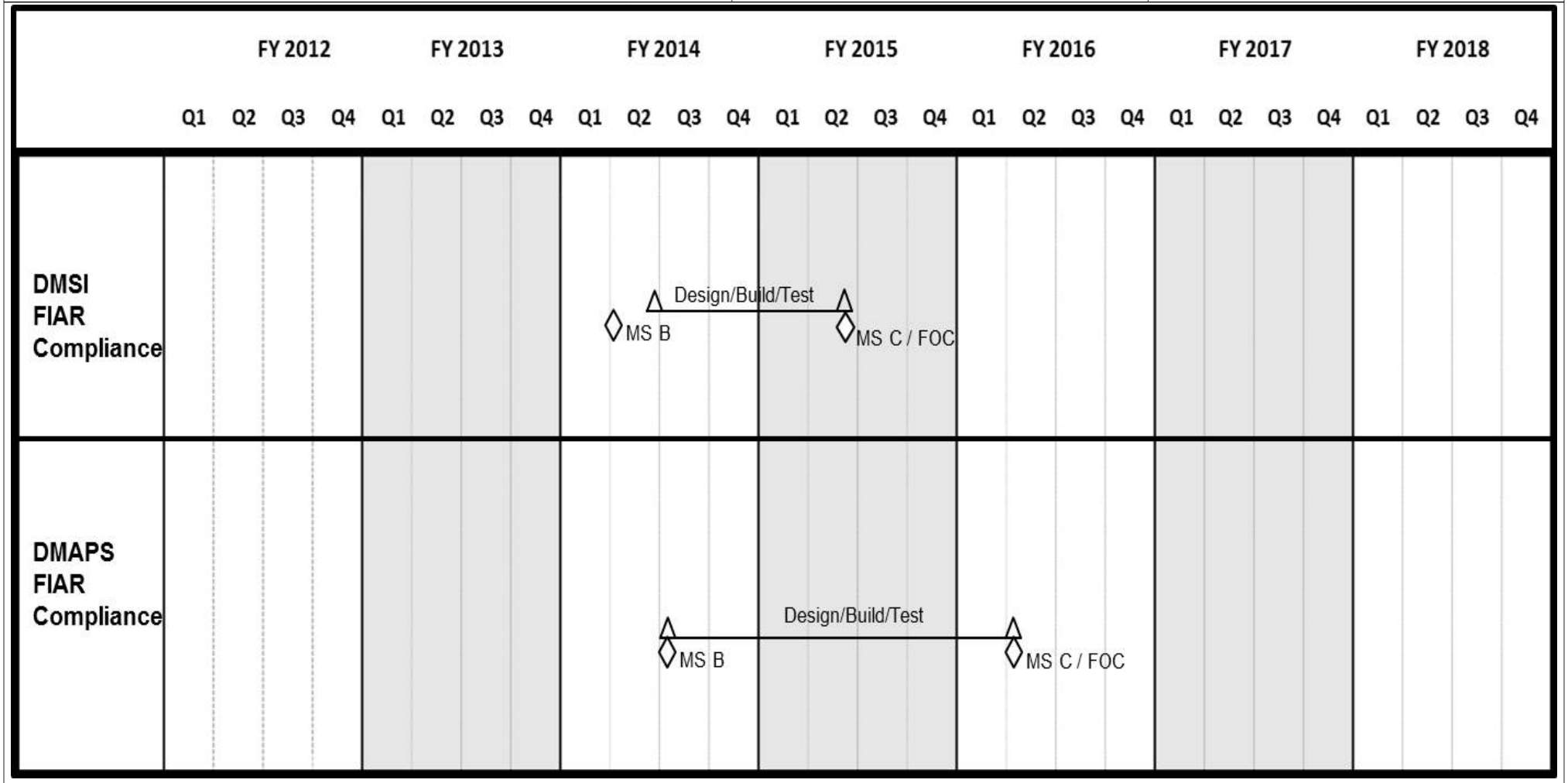
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



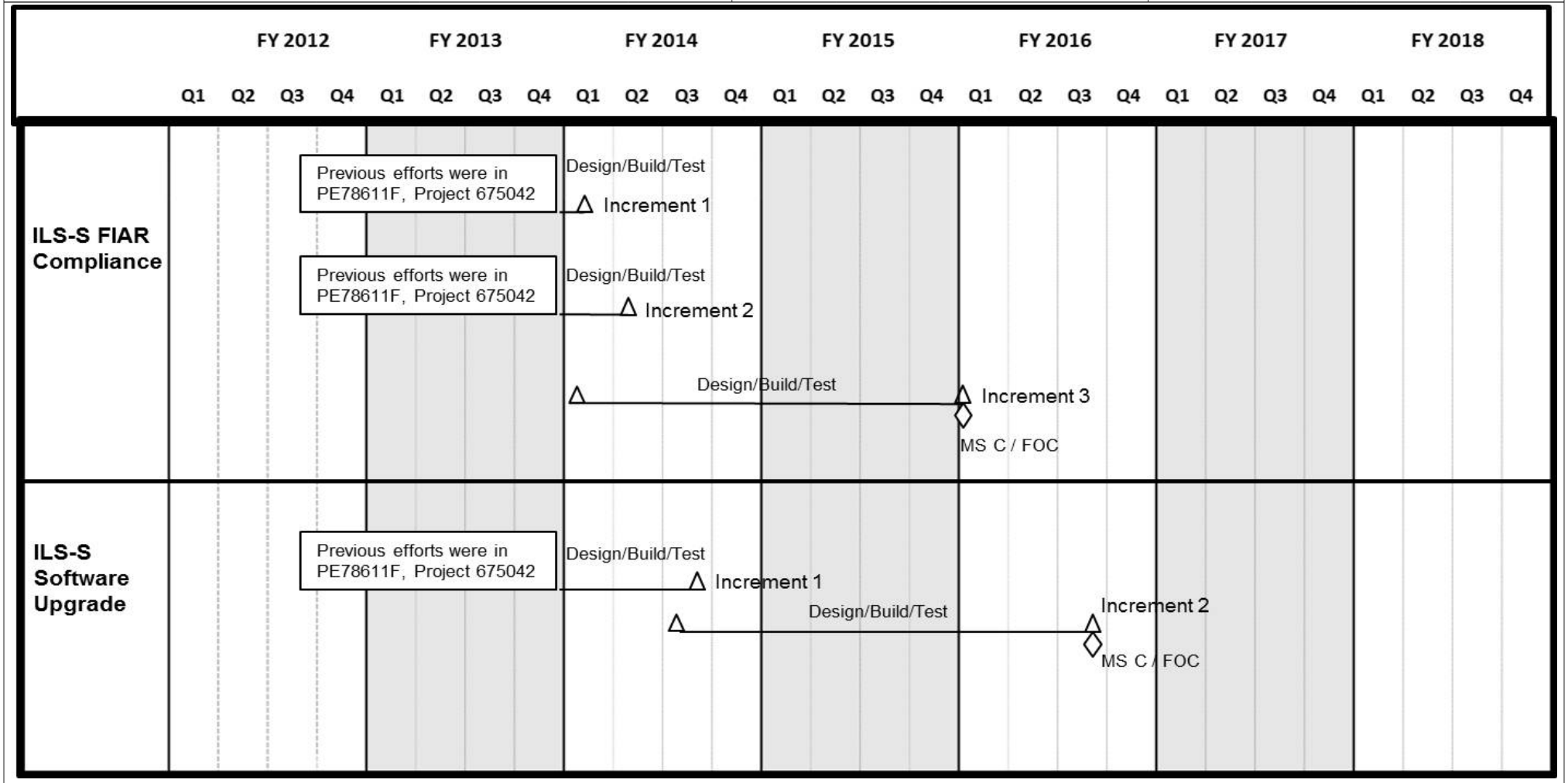
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



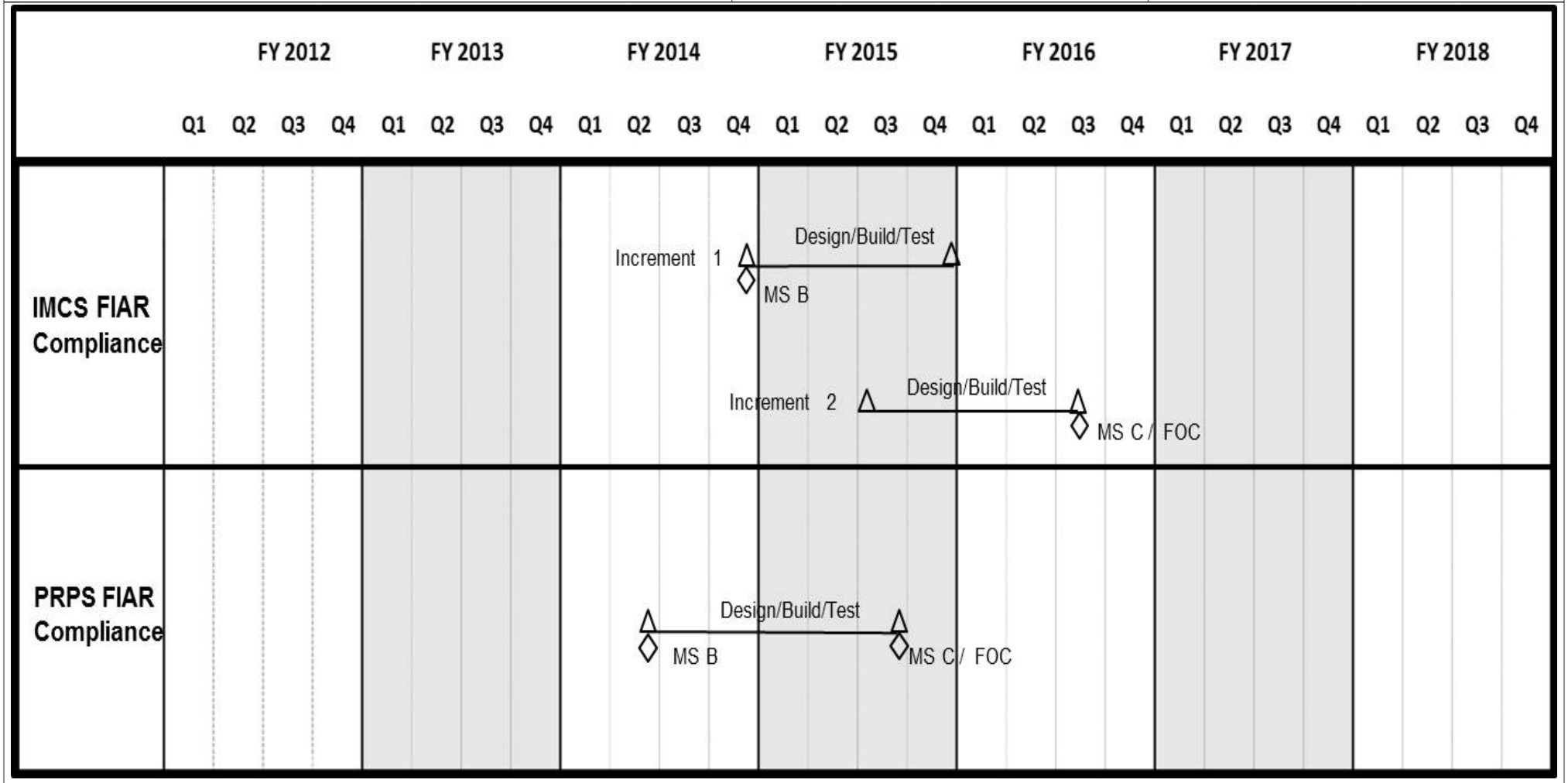
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



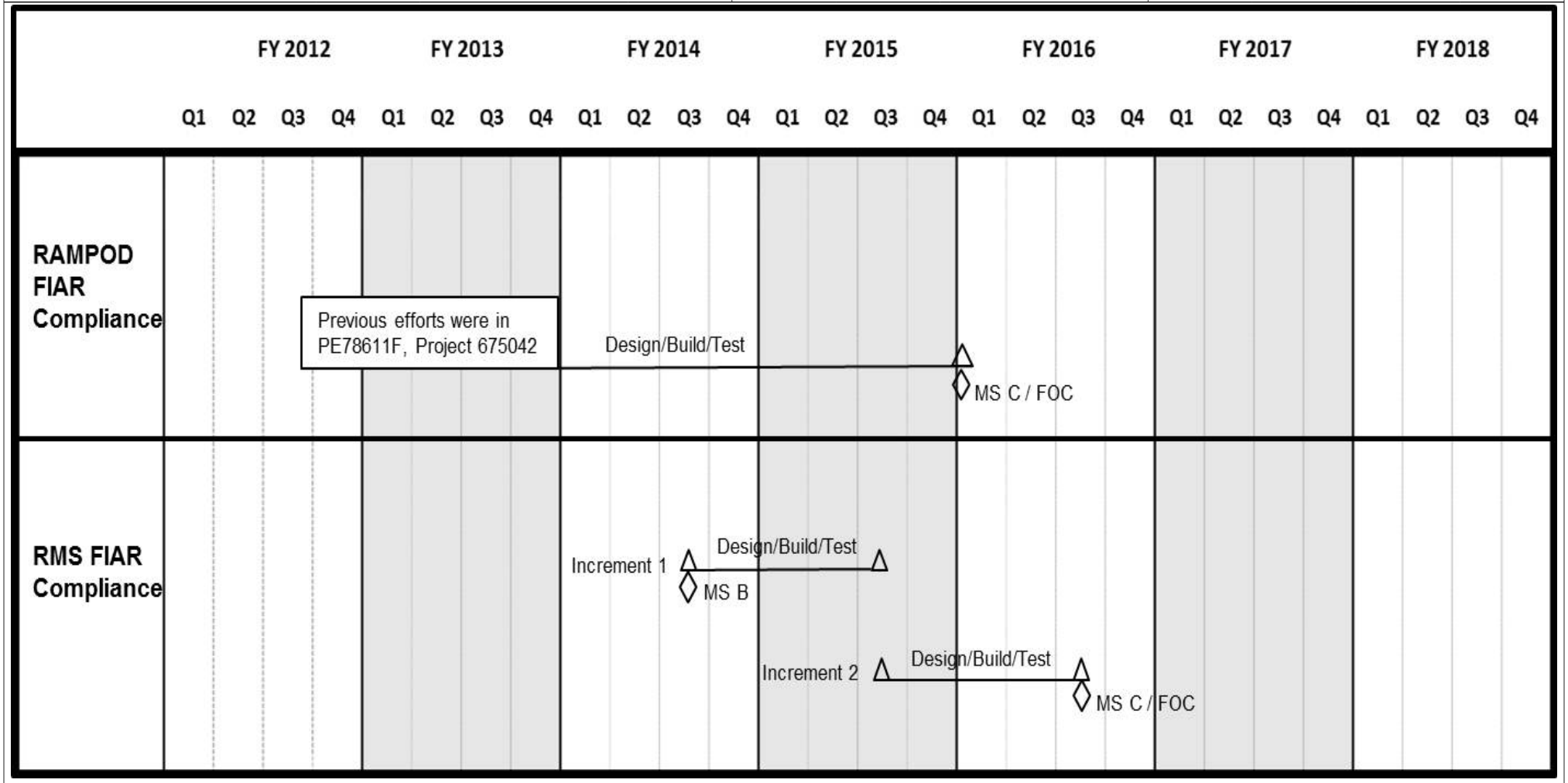
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



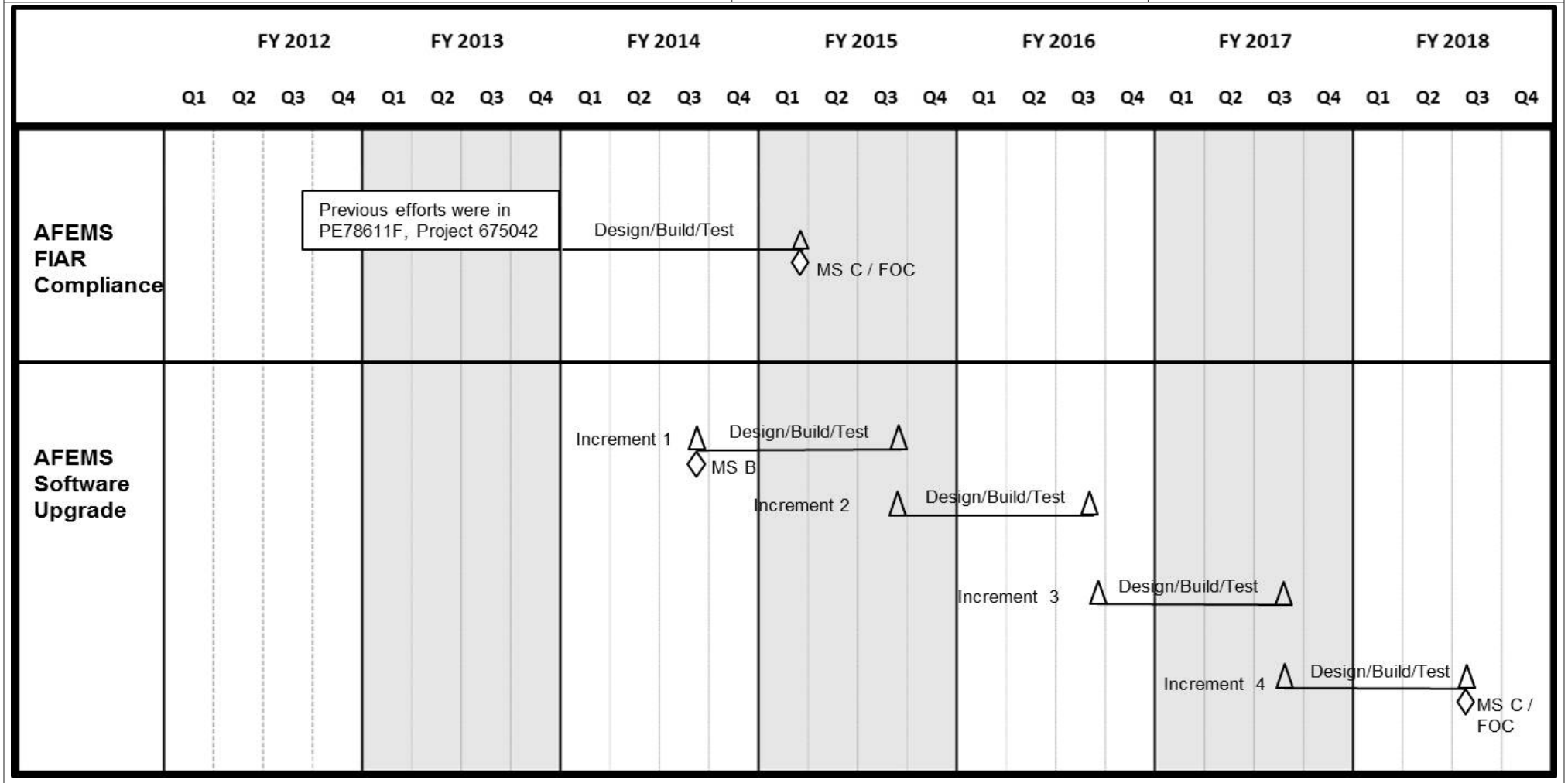
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



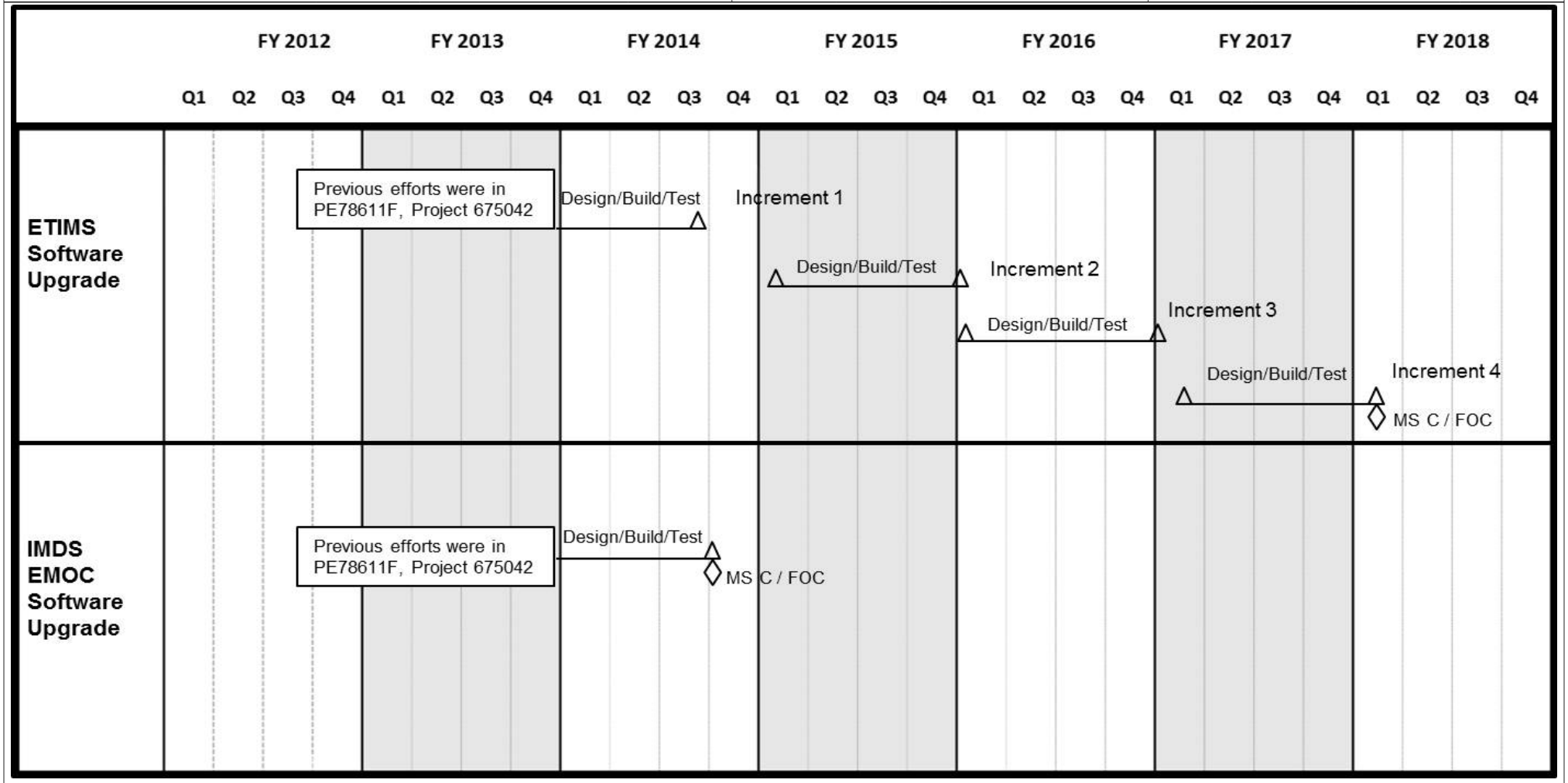
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



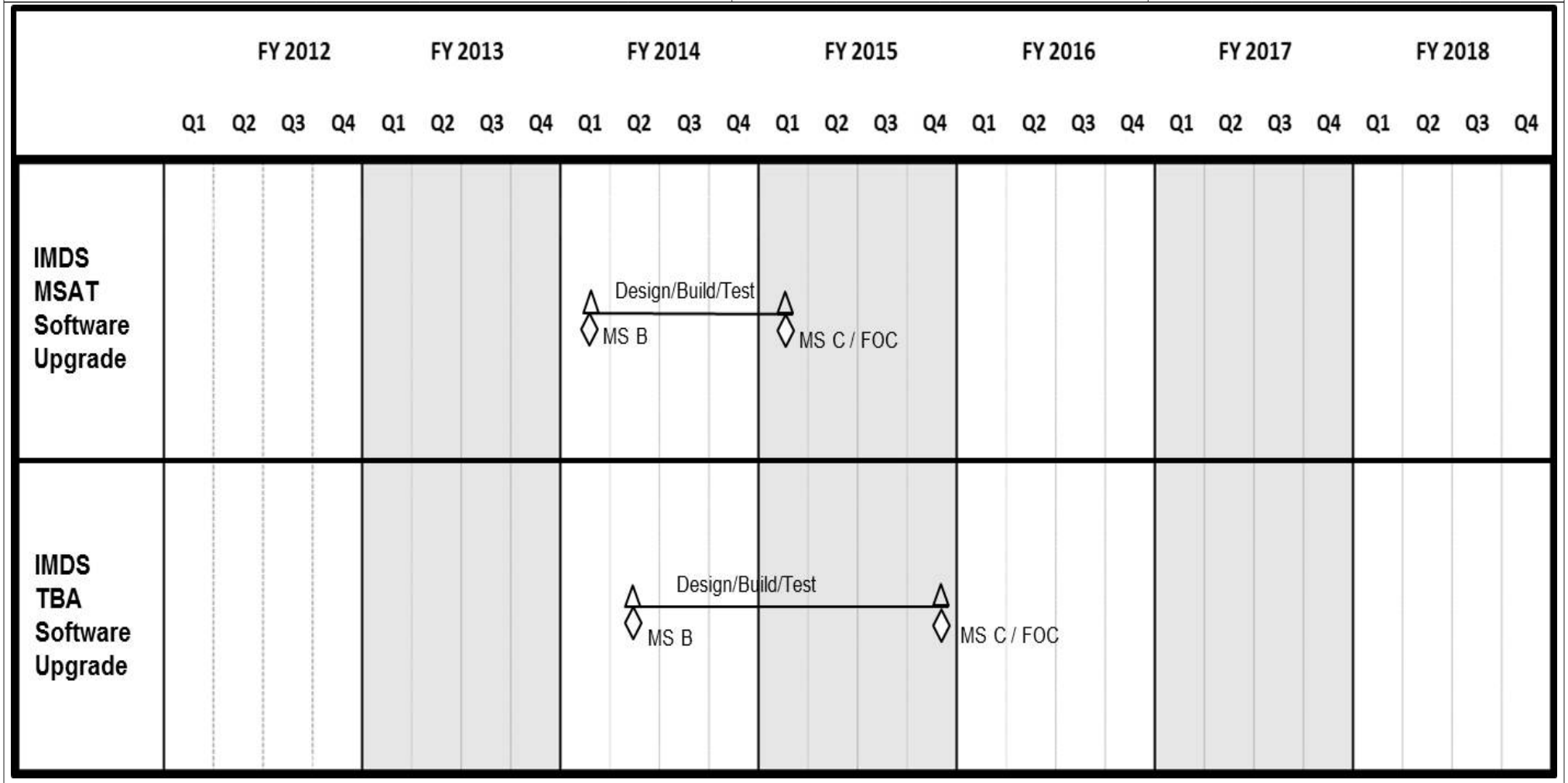
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



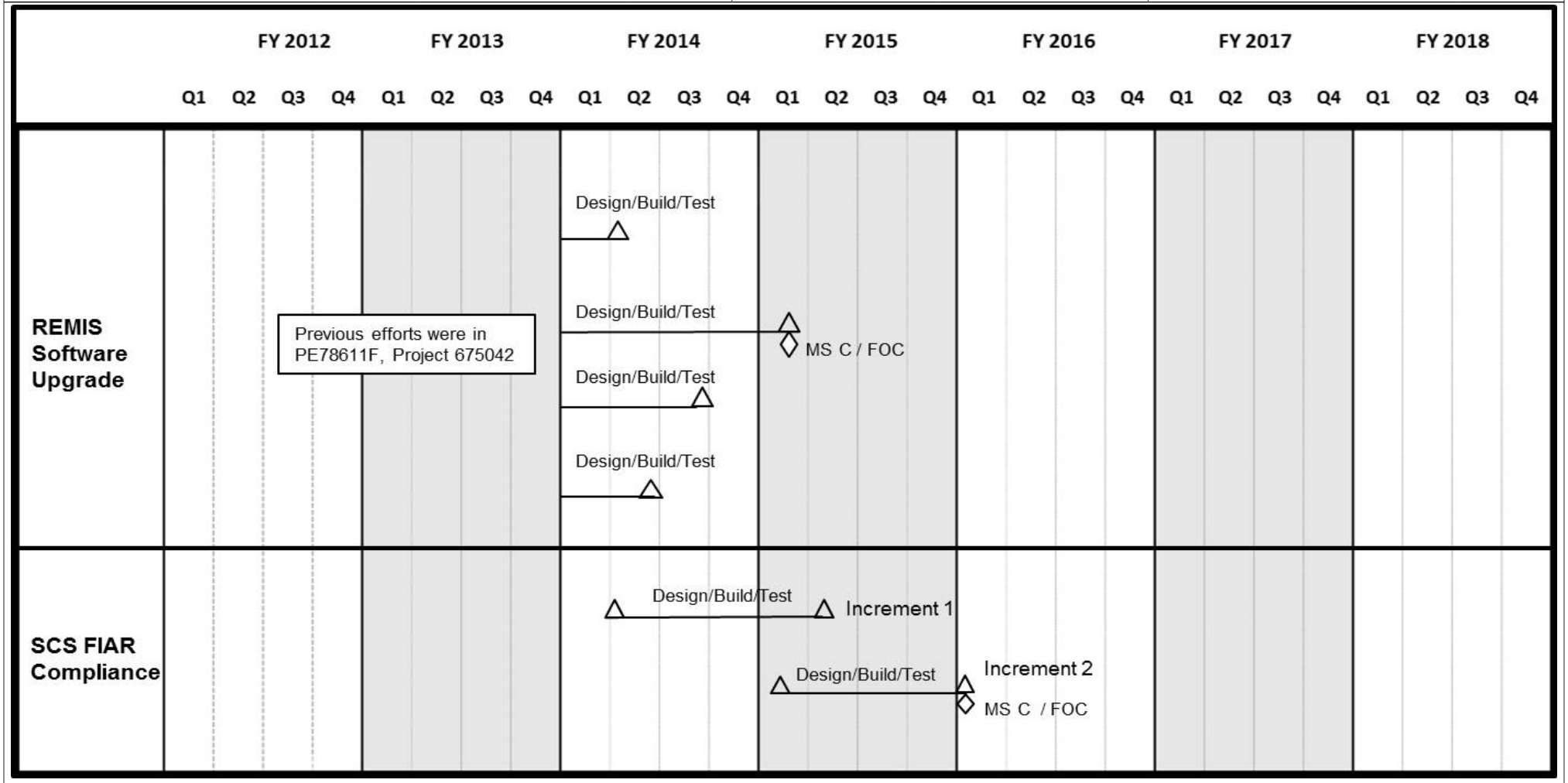
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



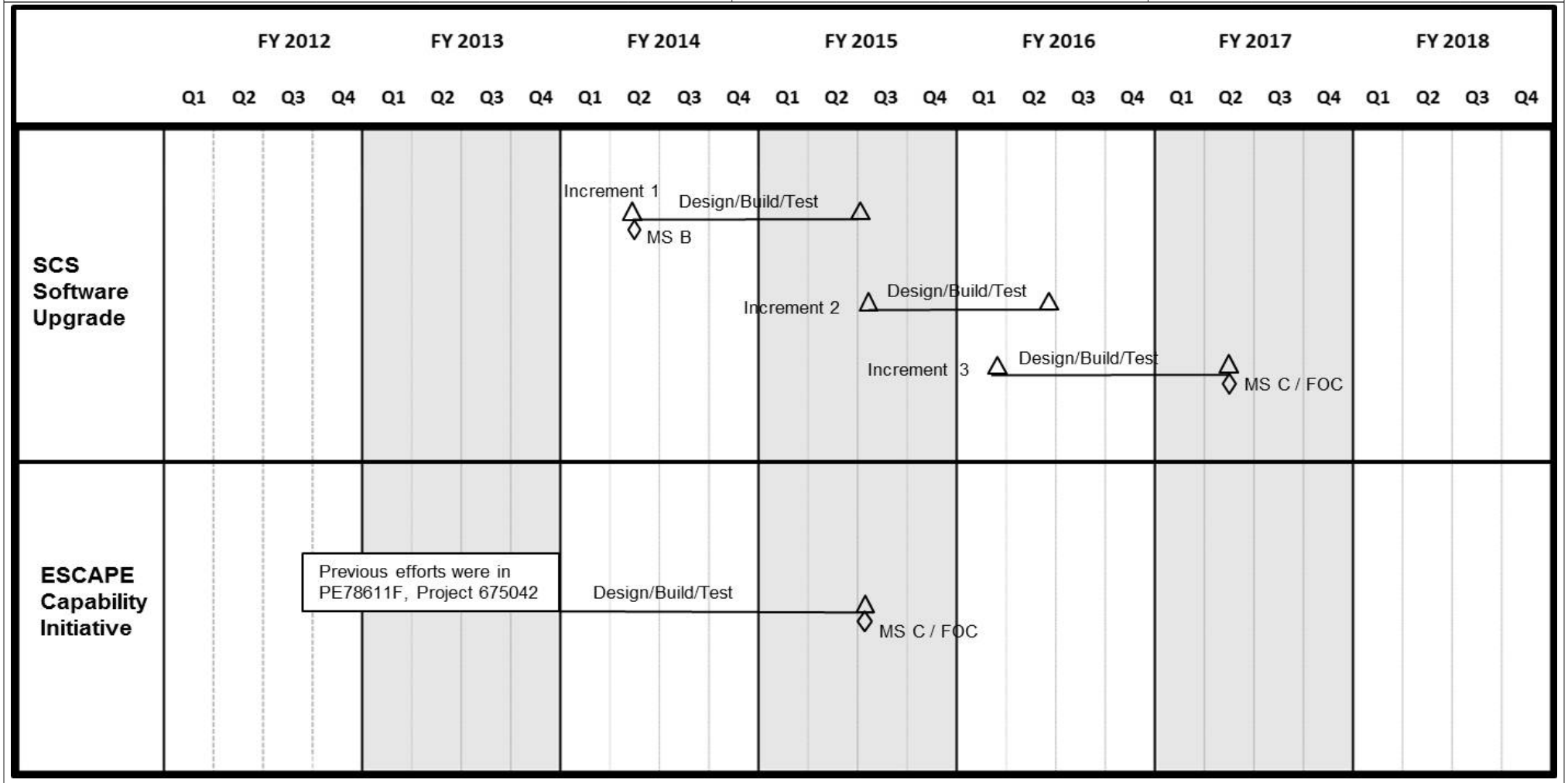
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



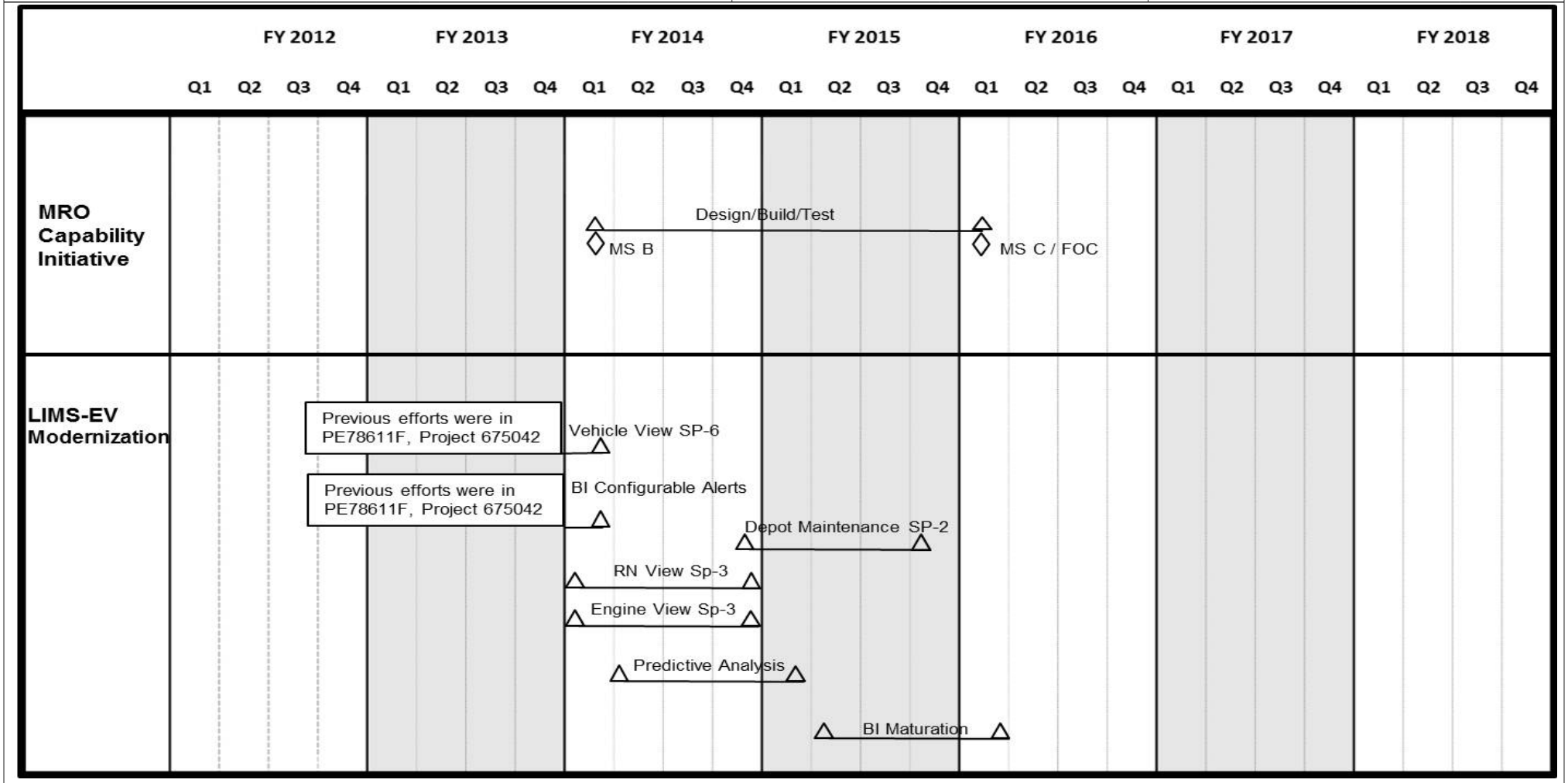
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



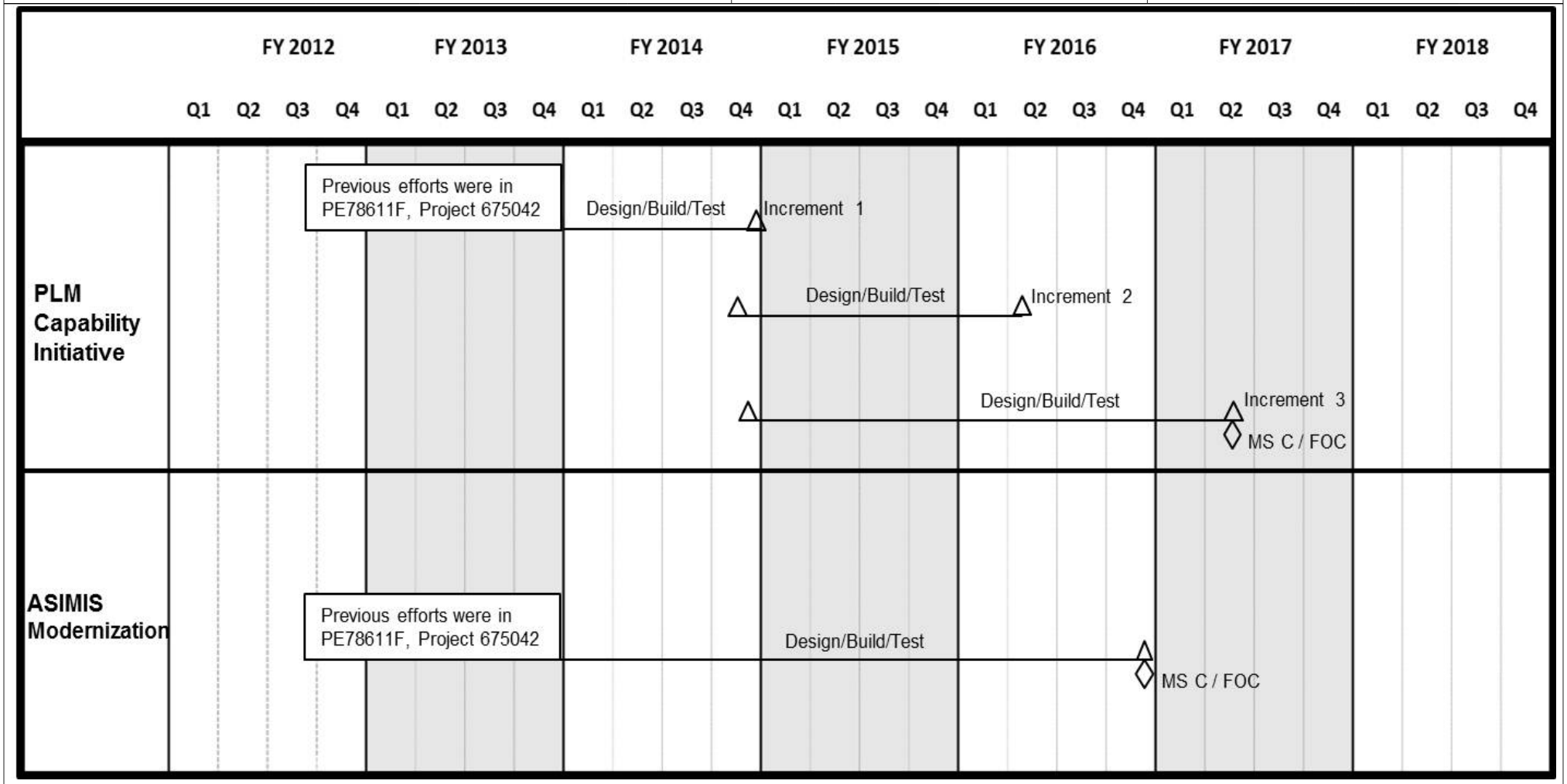
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



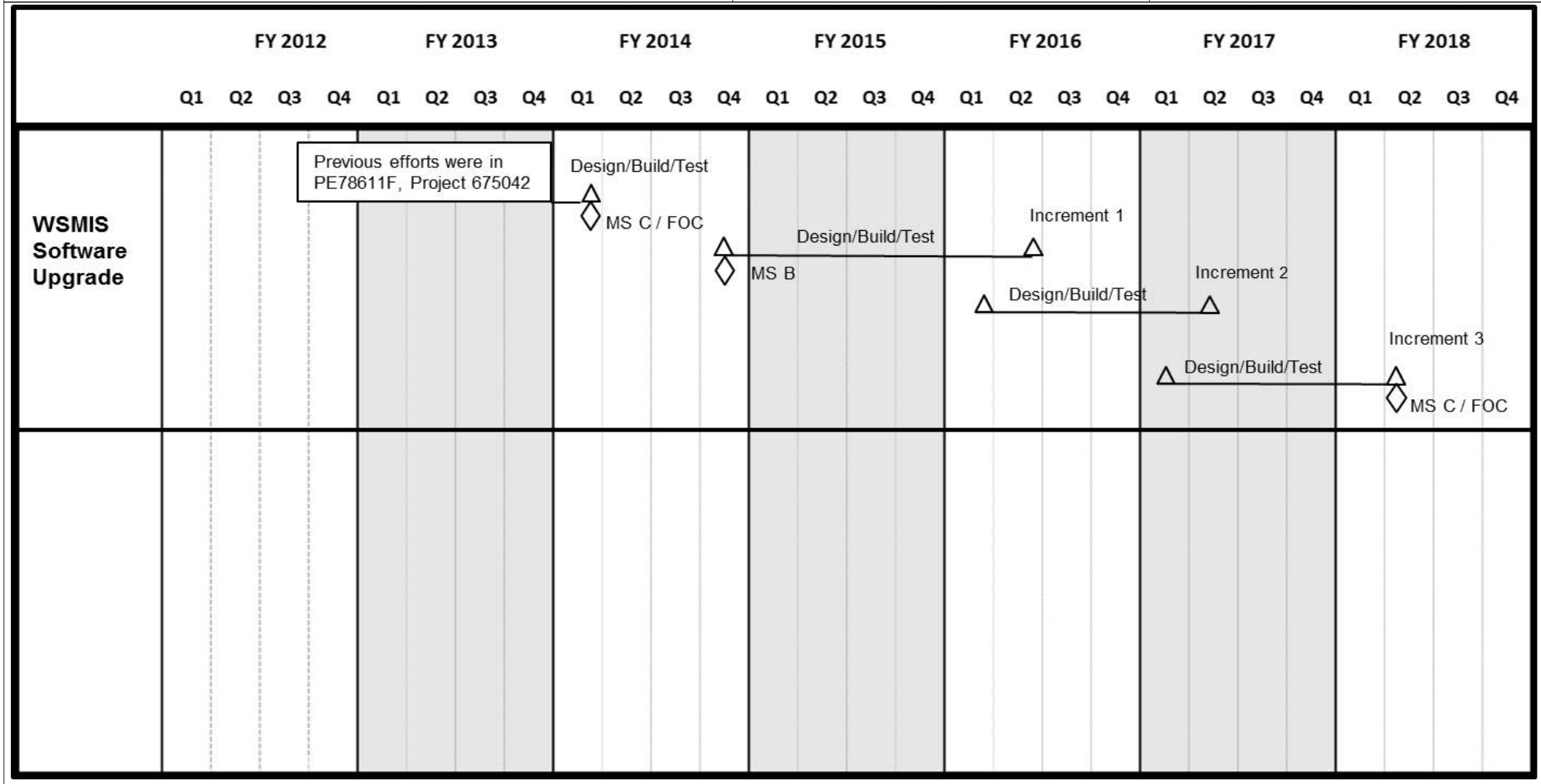
| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | **PROJECT**<br>675207: *Logistics IT System Modernization* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| ALMSS FIAR Compliance MS B | 1 | 2014 | 1 | 2014 |
| ALMSS FIAR Compliance Design/Build/Test | 1 | 2014 | 1 | 2015 |
| ALMSS FIAR Compliance MS C/FOC | 1 | 2015 | 1 | 2015 |
| CAS FIAR Increment 1 Design/Build/Test | 1 | 2014 | 4 | 2014 |
| CAS FIAR Increment 2 Design/Build/Test | 1 | 2014 | 3 | 2015 |
| CAS FIAR Increment 2 MS C/FOC | 3 | 2015 | 3 | 2015 |
| CAS Software Upgrade MS B | 1 | 2014 | 1 | 2014 |
| CAS Software Upgrade Increment 1 Design/Build/Test | 3 | 2014 | 1 | 2017 |
| CAS Software Upgrade Increment 2 Design/Build/Test | 4 | 2015 | 4 | 2017 |
| CAS Software Upgrade MS C/FOC | 4 | 2017 | 4 | 2017 |
| CMOS FIAR Compliance MS B | 3 | 2014 | 3 | 2014 |
| CMOS FIAR Compliance Design/Build/Test | 3 | 2014 | 1 | 2016 |
| CMOS FIAR Compliance MS C/FOC | 1 | 2016 | 1 | 2016 |
| DMSI FIAR MS B | 2 | 2014 | 2 | 2014 |
| DMSI FIAR Design/Build/Test | 2 | 2014 | 2 | 2015 |
| DMSI FIAR MS C/FOC | 2 | 2015 | 2 | 2015 |
| DMAPS FIAR Compliance MS B | 3 | 2014 | 3 | 2014 |
| DMAPS FIAR Compliance Design/Build/Test | 3 | 2014 | 2 | 2016 |
| DMAPS FIAR Compliance MS C/FOC | 2 | 2016 | 2 | 2016 |
| ILS-S FIAR Compliance Design/Build/Test Inc 1 | 1 | 2014 | 1 | 2014 |
| ILS-S FIAR Compliance Design/Build/Test Inc 2 | 1 | 2014 | 2 | 2014 |
| ILS-S FIAR Compliance Design/Build/Test Inc 3 | 1 | 2014 | 1 | 2016 |

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| ILS-S FIAR Compliance MS C/FOC | 1 | 2016 | 1 | 2016 |
| ILS-S Software Upgrade Design/Build/Test Inc 1 | 1 | 2014 | 3 | 2014 |
| ILS-S Software Upgrade Design/Build/Test Inc 2 | 3 | 2014 | 3 | 2016 |
| ILS-S Software Upgrade MS C/FOC | 3 | 2016 | 3 | 2016 |
| IMCS FIAR Compliance MS B | 4 | 2014 | 4 | 2014 |
| IMCS FIAR Compliance Increment 1 Design/Build/Test | 4 | 2014 | 4 | 2015 |
| IMCS FIAR Compliance Increment 2 Design/Build/Test | 3 | 2015 | 3 | 2016 |
| IMCS FIAR Compliance MS C/FOC | 3 | 2016 | 3 | 2016 |
| PRPS FIAR Compliance MS B | 2 | 2014 | 2 | 2014 |
| PRPS FIAR Compliance Design/Build/Test | 2 | 2014 | 3 | 2015 |
| PRPS FIAR Compliance MS C/FOC | 3 | 2015 | 3 | 2015 |
| RAMPOD FIAR Compliance Design/Build/Test | 1 | 2014 | 1 | 2016 |
| RAMPOD FIAR Compliance MS C/FOC | 1 | 2016 | 1 | 2016 |
| RMS FIAR Compliance MS B | 3 | 2014 | 3 | 2014 |
| RMS FIAR Compliance Increment 1 Design/Build/Test | 3 | 2014 | 3 | 2015 |
| RMS FIAR Compliance Increment 2 Design/Build/Test | 3 | 2015 | 3 | 2016 |
| RMS FIAR Compliance MS C/FOC | 3 | 2016 | 3 | 2016 |
| AFEMS FIAR Compliance Design/Build/Test | 1 | 2014 | 1 | 2015 |
| AFEMS FIAR Compliance MS C/FOC | 1 | 2015 | 1 | 2015 |
| AFEMS Software Upgrade MS B | 3 | 2014 | 3 | 2014 |
| AFEMS Software Upgrade Increment 1 Design/Build/Test | 3 | 2014 | 3 | 2015 |
| AFEMS Software Upgrade Increment 2 Design/Build/Test | 3 | 2015 | 3 | 2016 |
| AFEMS Software Upgrade Increment 3 Design/Build/Test | 3 | 2016 | 3 | 2017 |
| AFEMS Software Upgrade Increment 4 Design/Build/Test | 3 | 2017 | 3 | 2018 |
| AFEMS Software Upgrade MS C/FOC | 3 | 2018 | 3 | 2018 |

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| ETIMS Software Upgrade Increment 1 Design/Build/Test | 1 | 2014 | 3 | 2014 |
| ETIMS Software Upgrade Increment 2 Design/Build/Test | 1 | 2015 | 1 | 2016 |
| ETIMS Software Upgrade Increment 3 Design/Build/Test | 1 | 2016 | 1 | 2017 |
| ETIMS Software Upgrade Increment 4 Design/Build/Test | 1 | 2017 | 1 | 2018 |
| ETIMS Software Upgrade MS C/FOC | 1 | 2018 | 1 | 2018 |
| IMDS EMOC Design/Build/Test | 1 | 2014 | 4 | 2014 |
| IMDS EMOC MS C/FOC | 4 | 2014 | 4 | 2014 |
| IMDS MSAT MS B | 1 | 2014 | 1 | 2014 |
| IMDS MSAT Design/Build/Test | 1 | 2014 | 1 | 2015 |
| IMDS MSAT MS C/FOC | 1 | 2015 | 1 | 2015 |
| IMDS TBA MS B | 2 | 2014 | 2 | 2014 |
| IMDS TBA Design/Build/Test | 2 | 2014 | 4 | 2015 |
| IMDS TBA MS C/FOC | 4 | 2015 | 4 | 2015 |
| REMIS Software Upgrade Design/Build/Test Re-host | 1 | 2014 | 2 | 2014 |
| REMIS Software Upgrade Design/Build/Test Mod | 1 | 2014 | 1 | 2015 |
| REMIS Software Upgrade MS C/FOC | 1 | 2015 | 1 | 2015 |
| REMIS Software Upgrade Design/Build/Test C++ | 1 | 2014 | 3 | 2014 |
| REMIS Software Upgrade Design/Build/Test Ad Hoc | 1 | 2014 | 2 | 2014 |
| SCS FIAR Compliance Design/Build/Test Inc 1 | 2 | 2014 | 2 | 2015 |
| SCS FIAR Compliance Design/Build/Test Inc 2 | 1 | 2015 | 1 | 2016 |
| SCS FIAR Compliance MS C/FOC | 1 | 2016 | 1 | 2016 |
| SCS Software Upgrade MS-B | 2 | 2014 | 2 | 2014 |
| SCS Software Upgrade Increment 1 Design/Build/Test | 2 | 2014 | 3 | 2015 |
| SCS Software Upgrade Increment 2 Design/Build/Test | 3 | 2015 | 2 | 2016 |
| SCS Software Upgrade Increment 3 Design/Build/Test | 1 | 2016 | 2 | 2017 |

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| SCS Software Upgrade Increment 3 MS C / FOC | 2 | 2017 | 2 | 2017 |
| ESCAPE Capability Initiative Design/Build/Test | 1 | 2014 | 3 | 2015 |
| ESCAPE Capability Initiative MS C/FOC | 3 | 2015 | 3 | 2015 |
| MRO Capability Initiative MS B | 1 | 2014 | 1 | 2014 |
| MRO Capability Initiative Design/Build/Test | 1 | 2014 | 1 | 2016 |
| MRO Capability Initiative MS C/FOC | 1 | 2016 | 1 | 2016 |
| LIMS-EV Modernization Vehicle View SP-6 | 1 | 2014 | 1 | 2014 |
| LIMS-EV Modernization BI Configurable Alerts | 1 | 2014 | 1 | 2014 |
| LIMS-EV Modernization Depot Maintenance SP-2 | 4 | 2014 | 4 | 2015 |
| LIMS-EV Modernization RN View Sp-3 | 1 | 2014 | 4 | 2014 |
| LIMS-EV Modernization Engine View Sp-3 | 1 | 2014 | 4 | 2014 |
| LIMS-EV Modernization Predictive Analysis | 2 | 2014 | 1 | 2015 |
| LIMS-EV Modernization BI Maturation | 2 | 2015 | 1 | 2016 |
| PLM Capability Initiative Design/Build/Test Increment 1 | 1 | 2014 | 4 | 2014 |
| PLM Capability Initiative Design/Build/Test Increment 2 | 4 | 2014 | 2 | 2016 |
| PLM Capablility Initiative Design/Build/Test Increment 3 | 4 | 2014 | 2 | 2017 |
| PLM Capability Initiative MS C/FOC | 2 | 2017 | 2 | 2017 |
| ASIMIS Modernization Design/Build/Test | 1 | 2014 | 4 | 2016 |
| ASIMIS Modernization MS C/FOC | 4 | 2016 | 4 | 2016 |
| WSMIS Software Upgrade Design/Build/Test | 1 | 2014 | 1 | 2014 |
| WSMIS Software Upgrade MS-C / FOC | 1 | 2014 | 1 | 2014 |
| WSMIS Software Upgrade Increment 1 MS B | 4 | 2014 | 4 | 2014 |
| WSMIS Software Upgrade Design/Build/Test Increment 1 | 4 | 2014 | 2 | 2016 |
| WSMIS Software Upgrade Design/Build/Test Increment 2 | 1 | 2016 | 2 | 2017 |
| WSMIS Software Upgrade Design/Build/Test Increment 3 | 1 | 2017 | 2 | 2018 |

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675207: *Logistics IT System Modernization* |

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| WSMIS Software Upgrade Increment 3 MS-C / FOC | 2 | 2018 | 2 | 2018 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675208: *Expeditionary Combat Support System (ECSS)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675208: *Expeditionary Combat Support System (ECSS)* | - | 47.141 | 119.327 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY2013, Project 675208, ECSS was terminated. Based on information that was ascertained during the Critical Change process, ECSS was terminated 11 December 2012.

**A. Mission Description and Budget Item Justification**

The ECSS program was cancelled 11 December 2012. The Air Force still requires an integrated logistics capability that provides timely, accurate and reliable information to decision makers at all levels of command and across the full range of military operations. In the absence of ECSS, the Air Force is transitioning to a hybrid approach of core logistics system remediation, modernization and transformation.

The ECSS Program planned to complete its Milestone B in April 2011, as reported in the February 2011 Critical Change Report (CCR). However, the program schedule deteriorated throughout 2011 which resulted in the ECSS Milestone B decision being delayed past April 2012 exceeding the one-year schedule threshold for program milestones. Based on the programmatic challenges detailed in the January 2012 ECSS Major Acquisition Information System Quarterly Report, the Senior Official determined that a Critical Change occurred. Based on information that was ascertained during the Critical Change process, the Air Force lost confidence in the program's ability to deliver any logistics capability to the warfighter. As a result of the Air Force's recommendation, the Under Secretary of Defense (Acquisition, Technology & Logistics) cancelled the ECSS program.

The legacy remediation, modernization and transformation efforts that were being accomplished under project 675208, ECSS, are now contained within project 675207, Logistics Information Technology System Modernization.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Product Development | 27.735 | 95.134 | 0.000 |
| ***Description:*** Continue ERP/COTS design and development efforts, and remediation of legacy systems to support Financial Improvement and Audit Readiness (FIAR). | | | |
| ***FY 2012 Accomplishments:***<br>Continued ERP/COTS design and development efforts, and remediation of legacy systems to support Financial Improvement and Audit Readiness (FIAR). | | | |
| ***FY 2013 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675208: *Expeditionary Combat Support System (ECSS)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Program terminated as of 11 December 2012. | | | |
| ***Title:*** Support<br>***Description:*** Activities supporting ERP/COTS product design and development. Support for gap analysis, data cleansing, and risk reduction efforts toward Financial Improvement and Audit Readiness (FIAR).<br>***FY 2012 Accomplishments:***<br>Continued support of ERP solution design and development efforts supporting logistics modernization. Continued identification and prioritization of business threads and development of end-to-end business processes. Continued design activities including business process re-engineering, blueprinting, test planning, and functional/technical design specifications.<br>***FY 2013 Plans:***<br>Program terminated as of 11 December 2012. | 11.599 | 10.842 | 0.000 |
| ***Title:*** Test and Evaluation<br>***Description:*** Test and Evaluation efforts for ERP/COTS product development.<br>***FY 2012 Accomplishments:***<br>Provided Test and Evaluation for ERP solution development efforts supporting logistics modernization.<br>***FY 2013 Plans:***<br>Program terminated as of 11 December 2012. | 2.990 | 7.626 | 0.000 |
| ***Title:*** Management Services (PMA)<br>***Description:*** Management Services for ERP/COTS product design and development. Activities supporting gap analysis, data cleansing, and risk reduction efforts toward Financial Improvement and Audit Readiness (FIAR).<br>***FY 2012 Accomplishments:***<br>Provided Management Services for ERP solution design and development efforts supporting logistics modernization. Continued management of requirements analysis, business process reengineering, gap analysis, data cleansing, and risk reduction efforts.<br>***FY 2013 Plans:***<br>Program terminated as of 11 December 2012. | 4.817 | 5.725 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 47.141 | 119.327 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675208: *Expeditionary Combat Support System (ECSS)* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF:BA03:Line Item # 834430: *GCSS-AF FOS* | 55.793 | 0.771 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

The ECSS Program planned to complete its Milestone B in April 2011, as reported in the February 2011 Critical Change Report (CCR). However, the program schedule deteriorated throughout 2011 which resulted in the ECSS Milestone B decision being delayed past April 2012 exceeding the one-year schedule threshold for program milestones. Based on the programmatic challenges detailed in the January 2012 ECSS Major Acquisition Information System Quarterly Report, the Senior Official determined that a Critical Change occurred. Based on information that was ascertained during the Critical Change process, the Air Force lost confidence in the program's ability to deliver any logistics capability to the warfighter. As a result of the Air Force's recommendation, the Under Secretary of Defense (Acquisition, Technology & Logistics) cancelled the ECSS program 11 Dec 12.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675208: *Expeditionary Combat Support System (ECSS)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ERP/COTS System Integration | C/FFP | Computer Science Corp.:Lanham Seabrook, MD | - | 26.993 | Nov 2011 | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 26.993 | TBD |
| System Integration and Legacy Remediation | Various | Various:WPAFB, OH | - | 0.000 | | 79.663 | Oct 2012 | 0.000 | | - | | 0.000 | 0.000 | 79.663 | TBD |
| OEM Technical Support (COTS Product) | C/T&M | Oracle:Redwood City, CA | - | 0.742 | May 2012 | 0.742 | May 2013 | 0.000 | | - | | 0.000 | 0.000 | 1.484 | TBD |
| | | **Subtotal** | 0.000 | 27.735 | | 80.405 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 108.140 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Engineering Support | Various | Jacobs:Lincoln, MA | - | 5.819 | Dec 2011 | 4.940 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 10.759 | TBD |
| ERP Expertise | C/FFP | Credence:Washington, DC | - | 0.738 | Nov 2011 | 0.626 | Nov 2012 | 0.000 | | - | | 0.000 | 0.000 | 1.364 | TBD |
| Independent Verification & Validation (IV&V)---IV&V Support | C/FFP | Ryan Consulting Group:Indianapolis, IN | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | TBD |
| Data Cleansing, Preparation and Readiness | C/Various | Various:Various, | - | 4.908 | Feb 2012 | 13.761 | Feb 2013 | 0.000 | | - | | 0.000 | 0.000 | 18.669 | TBD |
| Data Interfaces | Various | Various:Various, | - | 0.134 | Oct 2011 | 0.114 | Oct 2012 | 0.000 | | - | | 0.000 | 0.000 | 0.248 | TBD |
| Studies | Various | Various:Various, | - | 0.000 | | 0.000 | Oct 2012 | 0.000 | | - | | 0.000 | 0.000 | 0.000 | TBD |
| | | **Subtotal** | 0.000 | 11.599 | | 19.441 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 31.040 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675208: *Expeditionary Combat Support System (ECSS)* | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Capabilities Integration Environment (Development & Test)--Hardware/Software/ Contractor Support | Various | ESC/EN:Gunter Annex, AL | - | 1.247 | Jan 2012 | 1.556 | Jan 2013 | 0.000 | | - | | 0.000 | 0.000 | 2.803 | TBD |
| DT&E RTO | PO | 46 TS:Eglin AFB, FL | - | 1.477 | Jan 2012 | 2.029 | Jan 2013 | 0.000 | | - | | 0.000 | 0.000 | 3.506 | TBD |
| Other Test | MIPR | Various:Various, | - | 0.266 | Dec 2011 | 0.225 | Dec 2012 | 0.000 | | - | | 0.000 | 0.000 | 0.491 | TBD |
| | | **Subtotal** | 0.000 | 2.990 | | 3.810 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 6.800 | |

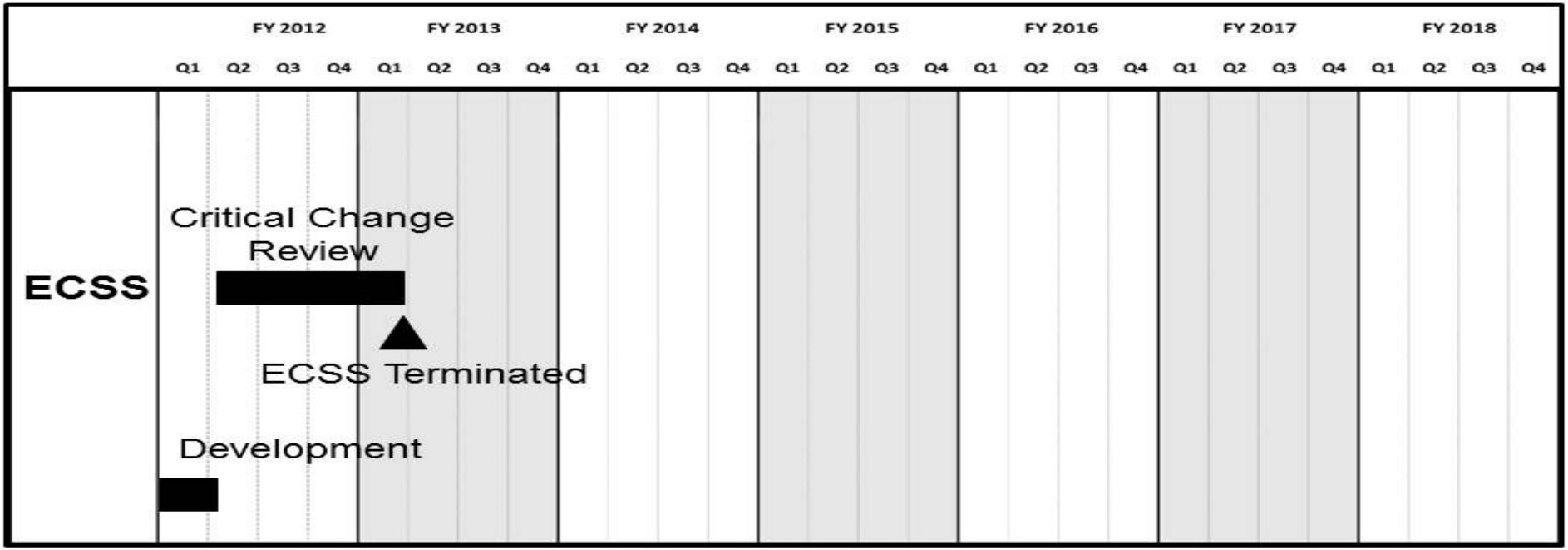
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) Operations | Various | ESC/HGB:Wright-Patterson AFB, OH | - | 1.058 | Oct 2011 | 4.368 | Oct 2012 | 0.000 | | - | | 0.000 | 0.000 | 5.426 | TBD |
| FFRDC - MITRE Engineering Support | C/FFP | MITRE:Bedford, MA | - | 1.153 | Oct 2011 | 4.375 | Oct 2012 | 0.000 | | - | | 0.000 | 0.000 | 5.528 | TBD |
| PMA Contractor Support | C/T&M | BTAS:Beavercreek, OH | - | 1.790 | Feb 2012 | 6.235 | Feb 2013 | 0.000 | | - | | 0.000 | 0.000 | 8.025 | TBD |
| Cost Estimating Support | C/T&M | Tecolote:Goleta, CA | - | 0.816 | Oct 2011 | 0.693 | Oct 2012 | 0.000 | | - | | 0.000 | 0.000 | 1.509 | TBD |
| | | **Subtotal** | 0.000 | 4.817 | | 15.671 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 20.488 | |

| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 47.141 | | 119.327 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 166.468 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | PROJECT<br>675208: *Expeditionary Combat Support System (ECSS)* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0708610F: *Logistics Information Technology (LOGIT)* | **PROJECT**<br>675208: *Expeditionary Combat Support System (ECSS)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Critical Change Review | 2 | 2012 | 1 | 2013 |
| ECSS Terminated | 1 | 2013 | 1 | 2013 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 50.990 | 15.873 | 10.925 | - | 10.925 | 15.341 | 13.704 | 11.778 | 11.991 | Continuing | Continuing |
| 673318: *Product Data Systems Modernization (PDSM)* | - | 0.307 | 0.000 | 0.505 | - | 0.505 | 0.519 | 0.539 | 0.556 | 0.567 | Continuing | Continuing |
| 675042: *Log Application Logisitics Integration (LALI)* | - | 10.683 | 15.873 | 10.420 | - | 10.420 | 14.822 | 13.165 | 11.222 | 11.424 | Continuing | Continuing |
| 675044: *Logistics Systems Development (LSD)* | - | 40.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2013, project 673318, Product Data Systems Modernization (PDSM), efforts transferred from PE 0708611F, Support Systems Development (SSD), to PE 0708012F, Logistics Support Activities, to better align with fielded and operational activities supported by PE 0708012F.

In FY 2014, project 673318, Product Data Systems Modernization (PDSM), efforts were transferred from PE 0708012F, Logistics Support Activities, to PE 0708611F, Support Systems Development (SSD), to better align with required RDT&E activities.

**A. Mission Description and Budget Item Justification**

This program element supports two active projects [project 673318, Product Data System Modernization (PDSM), and project 675042, Logistics Application Logistics Integration (LALI)] and a third project, Logistics Systems Development (LSD), that provides a budgetary accounting location for projects funded through Congressional interest.

Product Data System Modernization (PDSM), project 673318, is an effort to perform enhancements to the following AF Logistics legacy systems: 1) the Air Force Technical Order functionality through the continued enhancement of the Enhanced Technical Information System (ETIMS) Enterprise, 2) implement the Aircraft Structural Integrity Management Information System (ASIMIS) Modernization, and 3) conduct the Product Lifecycle Management (PLM) Conference Room Pilot (CRP) that will document interface requirements with the Maintenance, Repair, and Overhaul (MRO) and Enterprise Supply Chain Analysis, Planning and Execution (ESCAPE) efforts, 4) use the ESCAPE program to develop a COTS-based Advanced Planning and Scheduling (APS) solution. PDSM activities also include studies and analysis to support both current and future program planning and program execution to include Nuclear Weapons Related Material (NWRM) technical data requirements.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0708611F: *Support Systems Development* |

Project Logisitics Application Logistics Integration (LALI), project 675042, includes Logistics, Installations and Mission Support - Enterprise View (LIMS-EV), an effort to provide integrated, singular information from multiple source systems through the Global Combat Support System - Air Force (GCSS-AF) Integration Framework (IF) to Air Force strategic to tactical level decision makers.

Logistics Systems Development (LSD), project 675044, provides a budgetary accounting location for projects having Congressional interest.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 50.990 | 15.873 | 15.420 | - | 15.420 |
| Current President's Budget | 50.990 | 15.873 | 10.925 | - | 10.925 |
| Total Adjustments | 0.000 | 0.000 | -4.495 | - | -4.495 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -4.495 | - | -4.495 |

| Congressional Add Details ($ in Millions, and Includes General Reductions) | FY 2012 | FY 2013 |
|---|---|---|
| **Project:** 675044: *Logistics Systems Development (LSD)* | | |
| Congressional Add: *Alternative Energy Research, 2012* | 40.000 | 0.000 |
| Congressional Add Subtotals for Project: 675044 | 40.000 | 0.000 |
| Congressional Add Totals for all Projects | 40.000 | 0.000 |

**Change Summary Explanation**

FY14: Program is reduced by $4.495M due to reprogramming for higher Air Force priorities.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>673318: *Product Data Systems Modernization (PDSM)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 673318: *Product Data Systems Modernization (PDSM)* | - | 0.307 | 0.000 | 0.505 | - | 0.505 | 0.519 | 0.539 | 0.556 | 0.567 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2013, project 673318, Product Data Systems Modernization (PDSM), efforts transferred from PE 0708611F, Support Systems Development (SSD), to PE 0708012F, Logistics Support Activities, project 673318, Product Data Systems Modernization (PDSM), to better align with fielded and operational activities supported by PE 0708012F, Logistics Support Activities.

In FY 2014, project 673318, Product Data Systems Modernization (PDSM), efforts were transferred from PE 0708012F, Logistics Support Activities, project 673318, Product Data Systems Modernization (PDSM), to PE 0708611F, Support Systems Development (SSD), to better align with RDT&E activities suppported by PE 0708611F, Support Systems Development (SSD).

**A. Mission Description and Budget Item Justification**

Product Data System Modernization (PDSM), project 673318, is an effort to perform enhancements to the following Air Force Logistics legacy systems:

1) The Air Force Technical Order functionality through the continued enhancement of the Enhanced Technical Information System (ETIMS) Enterprise.

2) Implement the Aircraft Structural Integrity Management Information System (ASIMIS) Modernization that will include the Rehost of analysis output data in new database, replicate mainframe functionality in new environment (PC) and language, provide web-accessible data mining/viewing, and expand CAC enabled access control & Helpdesk support.

3) Conduct the Product Lifecycle Management (PLM) Conference Room Pilot (CRP) that will document interface requirements with the Maintenance, Repair, and Overhaul (MRO) and Enterprise Supply Chain Analysis, Planning and Execution (ESCAPE) efforts. It will facilitate an integrated approach with the ESCAPE and MRO CRPs by utilizing the Service Development and Delivery Process (SDDP). This effort is planned in two increments of 12 months each. Each increment of PLM CRP will test and validate integrated PLM, supply chain, and MRO data management requirements along with feedback loops required to maintain data currency and accuracy within PLM.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>673318: *Product Data Systems Modernization (PDSM)* |

4) Conduct the Enterprise Supply Chain Analysis, Planning and Execution (ESCAPE) program to further develop a commercial-off-the-shelf (COTS)-based Advanced Planning and Scheduling (APS) solution to modernize via technical refresh and integrate legacy planning capability within the United States Air Force. This will be accomplished by modernizing and subsuming, where possible, existing supply chain planning information systems.

Activities also include studies and analysis to support both current and future program planning and program execution to include Nuclear Weapons Related Material (NWRM) technical data requirements.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** ETIMS | 0.057 | 0.000 | 0.160 |
| ***Description:*** The Air Force Technical Order functionality implementation of Enhanced Technical Information System (ETIMS) Enterprise. Activities also include studies and analysis to support both current and future program planning and program execution to include Nuclear Weapons Related Material (NWRM) technical data requirements.<br><br>***FY 2012 Accomplishments:***<br>Continued ETIMS enhancements and incorporated technical data activities and technical integration. Incorporated management and support of AF technical data activities.<br><br>***FY 2013 Plans:***<br>NA<br><br>***FY 2014 Plans:***<br>Continue development effort to integrate the Joint Computer-Aided Acquisition Logistics System (JCALS) functionality into ETIMS. The AF will make further progress toward the complete Technical Order Management capability by satisfying, in one system, the six requirements met by JCALS. | | | |
| ***Title:*** ASIMIS | 0.060 | 0.000 | 0.120 |
| ***Description:*** Aircraft Structural Integrity Management Information System (ASIMIS) modernization that will include the re-host of analysis output data in new database, replicate mainframe functionality in new environment (PC) and language, provide web-accessible data mining/viewing, and expand Common Access Card (CAC) enabled access control & Helpdesk support.<br><br>***FY 2012 Accomplishments:***<br>Initiated WEB Reports Database Development to provide a single entry point for all Individual Aircraft Tracking (IAT) and Loads/ Environment Spectrum Survey (L/ESS) reports as well as data mining tools to query specific aircraft in the fleet and forecast | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>673318: *Product Data Systems Modernization (PDSM)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| "what-if" scenarios. Also initiated Mainframe Data Dump. Move archived data from a Defense Information Systems Agency (DISA) supported IBM mainframe to local PC Storage.<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>Complete WEB Reports and the Mainframe Database. Initiate the second increment of ASIMIS modernization acquisition focusing on moving five weapon systems off of the mainframe to stand-alone PCs. | | | |
| ***Title:*** PLM CRP<br>***Description:*** Product Lifecycle Management Conference Room Pilot (PLM CRP) is a multiple-increment effort to document interface requirements for the Maintenance, Repair, and Overhaul (MRO) and Enterprise Supply Chain Analysis, Planning, and Execution (ESCAPE) efforts. PLM CRP facilitates an integrated approach with the ESCAPE and MRO CRPs by utilizing the Service Development and Delivery Process (SDDP).<br>***FY 2012 Accomplishments:***<br>Initiated increment 1 of the PLM CRP to test and validate integrated PLM, supply chain, and MRO data management requirements along with feedback loops required to maintain data currency and accuracy within PLM. PLM CRP results were developed and deployed into Product Lifecycle Management System (PLMS) maintenance releases.<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>Complete increment 2 of the PLM CRP. Initiate increment 3 to support ESCAPE, MRO and DCC. The PLM Pilot will test and evaluate requirements identified by the Engine and ICBM communities, and selected Master Data Management (MDM) workflows. PLM CRP results will be developed and deployed into Product Lifecycle Management System (PLMS) maintenance releases. | 0.060 | 0.000 | 0.120 |
| ***Title:*** ESCAPE<br>***Description:*** The Enterprise Supply Chain Analysis, Planning and Execution (ESCAPE) program will further develop a commercial-off-the-shelf (COTS)-based Advanced Planning and Scheduling (APS) solution to modernize via technical refresh and integrate legacy planning capability within the United States Air Force. This will be accomplished by modernizing and subsuming, where possible, existing supply chain planning information systems.<br>***FY 2012 Accomplishments:*** | 0.030 | 0.000 | 0.105 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>673318: *Product Data Systems Modernization (PDSM)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Initiated ESCAPE planning and development.<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>Continue ESCAPE planning and development. | | | |
| ***Title:*** Program Management Administration (PMA)<br>***Description:*** Program Management Administration (PMA) funding supports engineering and technical development and implementation activities, along with acquisition support efforts.<br>***FY 2012 Accomplishments:***<br>Continued PMA.<br>***FY 2013 Plans:***<br>NA<br>***FY 2014 Plans:***<br>NA | 0.100 | 0.000 | 0.000 |
| **Accomplishments/Planned Programs Subtotals** | 0.307 | 0.000 | 0.505 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • RDTE: BA07: 0708012F: *Logistics Support Activities* | 0.944 | 0.577 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

The acquisition strategy for the various PDSM efforts (ETIMS, ASIMIS, PLM CRP, ESCAPE) is to award on a firm-fixed price basis utilizing a competitive, best-value criteria as appropriate.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>673318: *Product Data Systems Modernization (PDSM)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Manage and Support Technical Data Services | C/FP | NGIT:Wright-Patterson AFB, OH | - | 0.100 | Apr 2012 | 0.000 | | 0.258 | Nov 2013 | - | | 0.258 | Continuing | Continuing | |
| Technical Data Integrator/ Developer Support | C/CPFF | SAIC:Wright-Patterson AFB, OH | - | 0.107 | Apr 2012 | 0.000 | | 0.247 | Nov 2013 | - | | 0.247 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.207 | | 0.000 | | 0.505 | | 0.000 | | 0.505 | | | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) System Program Office (SPO) Operations | C/FP | OASIS:Wright-Patterson AFB, OH | - | 0.100 | Apr 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.100 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

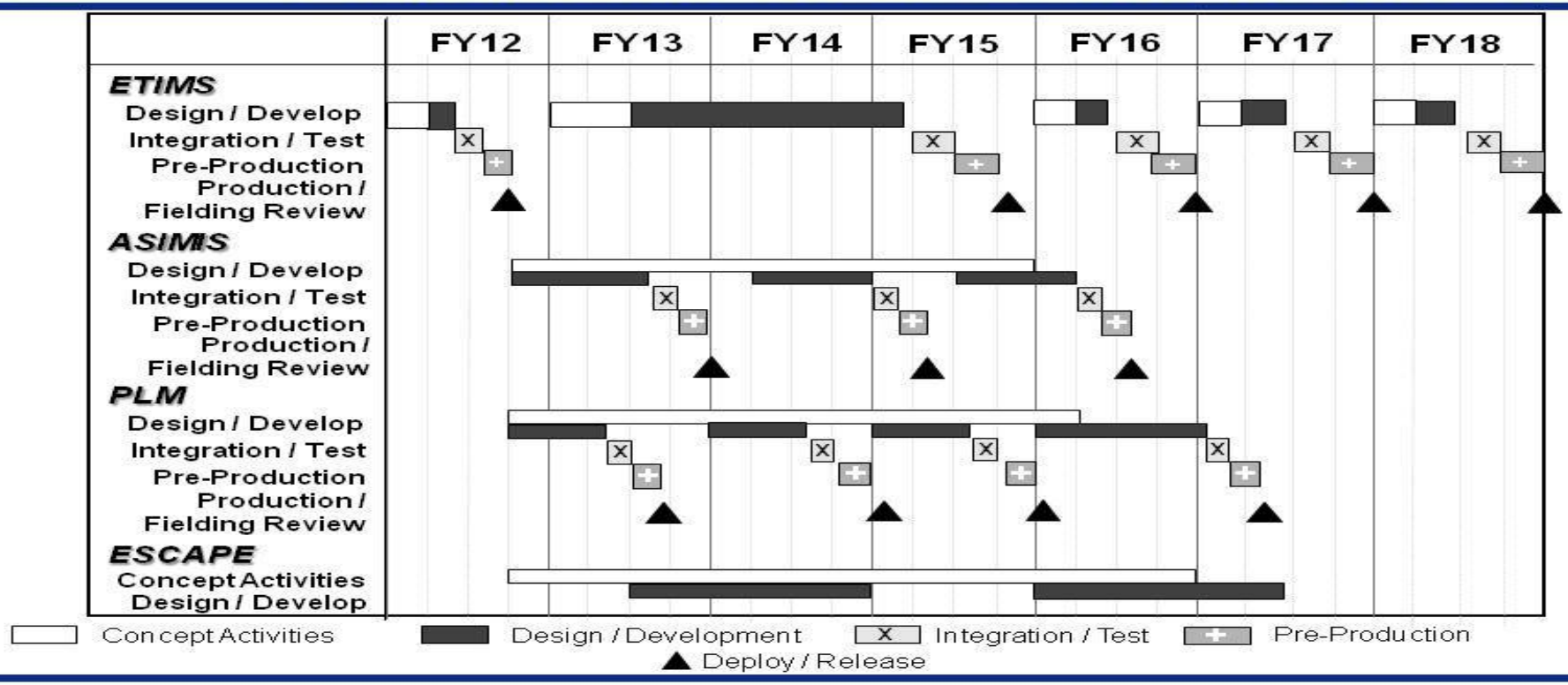
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>673318: *Product Data Systems Modernization (PDSM)* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.307 | | 0.000 | | 0.505 | | 0.000 | | 0.505 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>673318: *Product Data Systems Modernization (PDSM)* |

# Product Data Systems Modernization (PDSM) Schedule – ETIMS/ASIMIS/PLM/ESCAPE PE 78611F



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0708611F: *Support Systems Development* | **PROJECT**<br>673318: *Product Data Systems Modernization (PDSM)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| ETIMS Concept Activities1 | 1 | 2012 | 1 | 2012 |
| ETIMS Design/Develop1 | 2 | 2012 | 2 | 2012 |
| ETIMS Integration/Test1 | 2 | 2012 | 3 | 2012 |
| ETIMS Pre-Production1 | 3 | 2012 | 3 | 2012 |
| ETIMS Production/Fielding Review1 | 3 | 2012 | 4 | 2012 |
| ETIMS Concept Activities2 | 1 | 2013 | 2 | 2013 |
| ETIMS Design/Develop2 | 3 | 2013 | 4 | 2015 |
| ETIMS Integration/Test2 | 2 | 2015 | 3 | 2015 |
| ETIMS Pre-Production2 | 3 | 2015 | 4 | 2015 |
| ETIMS Production/Fielding Review2 | 4 | 2015 | 4 | 2015 |
| ASIMIS Concept Activities | 4 | 2012 | 4 | 2015 |
| ASIMIS Design/Develop1 | 4 | 2012 | 3 | 2013 |
| ASIMIS Design/Develop2 | 2 | 2014 | 4 | 2014 |
| ASIMIS Integration/Test1 | 3 | 2013 | 4 | 2013 |
| ASIMIS Integration/Test2 | 1 | 2015 | 2 | 2015 |
| ASIMIS Production/Fielding Review | 1 | 2014 | 1 | 2014 |
| PLM CRP Concept Activities | 4 | 2012 | 4 | 2015 |
| PLM CRP Design/Develop1 | 4 | 2012 | 2 | 2013 |
| PLM CRP Design/Develop2 | 1 | 2014 | 3 | 2014 |
| PLM CRP Design/Develop3 | 1 | 2015 | 3 | 2015 |
| PLM CRP Integration/Test1 | 3 | 2013 | 4 | 2013 |
| PLM CRP Integration/Test2 | 3 | 2014 | 4 | 2014 |

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>673318: *Product Data Systems Modernization (PDSM)* |

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| PLM CRP Integration/Test3 | 3 | 2015 | 4 | 2015 |
| PLM CRP Pre-Production1 | 3 | 2013 | 4 | 2013 |
| PLM CRP Pre-Production2 | 4 | 2014 | 1 | 2015 |
| PLM CRP Pre-Production3 | 4 | 2015 | 1 | 2016 |
| PLM CRP Production/Fielding Review1 | 3 | 2013 | 3 | 2013 |
| PLM CRP Production/Fielding Review2 | 1 | 2015 | 1 | 2015 |
| PLM CRP Production/Fielding Review3 | 1 | 2016 | 1 | 2016 |
| ESCAPE Concept Activities | 4 | 2012 | 4 | 2016 |
| ESCAPE Design/Develop1 | 3 | 2013 | 4 | 2014 |
| ESCAPE Design/Develop2 | 1 | 2016 | 2 | 2017 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675042: *Log Application Logisitics Integration (LALI)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675042: *Log Application Logisitics Integration (LALI)* | - | 10.683 | 15.873 | 10.420 | - | 10.420 | 14.822 | 13.165 | 11.222 | 11.424 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Project 675042, Logistics Installation Logistics Integration (LALI) supports a number of efforts. Logistics, Installations and Mission Support - Enterprise View (LIMS-EV) funding provides Business Intelligence (BI) development efforts in support of the Air Force logistics transformation initiative. As Air Force logistics transforms and streamlines its processes, new enterprise focused enablement is required. LIMS-EV develops and supports BI capabilities for transformation initiatives like Air Force Global Logistics Support Center, Aircraft Availability Program, Equipment and Vehicle Transformation Initiative, Global Ammunition Control Point and Repair Network Integration. LIMS-EV capabilities provide integrated, one-version-of-truth information from multiple source systems to decision makers from strategic to tactical level. LIMS-EV funding will allow development efforts to enable other transformation initiatives, extend current BI capabilities to provide configurable alerting, predictive analysis, what-if analysis and further integration of support equipment, vehicle, munitions, supply, commodities and components (engines, landing gears, etc) to increase weapons systems availability.

Maintains the flexibility to conduct Business Process Re-Engineering (BPRE) by use of the Service Development and Delivery Plan (SDDP). BPRE and SDDP activties, along with data discovery and migration support of legacy logistics systems, have been limited due to ongoing reevaluation and cancellation of ECSS.

As a result of the delay in migrating a number of legacy logistics systems to ECSS, the current state of Air Force Legacy Information Technology logistics systems is under evaluation. Legacy Modernization and Legacy Remediation activities include efforts to bring systems originally planned to be subsummed by ECSS up to Financial Improvement and Audit Readiness (FIAR) compliance.

Will continue Air Force development of a F-35 Autonomic Logistics Information System (ALIS) - User IT Data Exchange Service (UIDES) that will facilitate Information Exchange Requirement (IER) data transfer capability from the F-35 ALIS into data reports and configurable tables in order to receive, store and integrate F-35 operations, maintenance, training and financial data within existing Air Force enterprise views and capabilities to support the growing fleet of AF F-35 Air Vehicles. Further, this funding will facilitate depot configuration and integration efforts along with data exchange configuration changes in order to facilitate receiving and consuming additional amounts as well as increasing types of ALIS IER data.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675042: *Log Application Logisitics Integration (LALI)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** LIMS-EV | 4.683 | 7.373 | 4.670 |

***Description:*** Logistics, Installations and Mission Support - Enterprise View (LIMS-EV) funding provides business intelligence (BI) development efforts in support of the Air Force logistics transformation initiative for the 21st century, eLog21. As Air Force logistics transforms and streamlines its processes, new enterprise focused enablement is required. LIMS-EV develops and supports business intelligence capabilities for transformation initiatives like Air Force Global Logistics Support Center, Aircraft Availability Program, Equipment and Vehicle Transformation Initiative, Global Ammunition Control Point and Repair Network Integration (RNI). LIMS-EV capabilities provide integrated one-version-of-truth information from multiple source systems to decision makers from strategic to tactical level. LIMS-EV funding will allow development efforts to enable other eLog21 initiatives, extend current BI capabilities to provide configurable alerting, predictive analysis, what-if analysis and further integration of support equipment, vehicle, munitions, supply, commodities and components (engines, landing gears, etc) to increase weapons systems availability.

***FY 2012 Accomplishments:***
LIMS-EV developed/deployed enterprise Business Intelligence (BI) capabilities for the following: Repair Network View (spiral 1) provides an enterprise capability and capacity (CAP2) reporting and analysis tool and the ability to manage the standardized capability and capacity information provided by the propulsion repair nodes to determine the network(s) and node(s) ability to fulfill anticipated funded requirements with existing infrastructure and manpower; Engine View (spiral 1) provides analysis tool for senior leaders down to unit level users by delivering near real time and historical War Reserve Engine, Base Stock Level and other critical metrics.

***FY 2013 Plans:***
Continued LIMS-EV planning, design, and development activities to develop additional Business Intelligence (BI) capabilities such as: Repair Network View (spiral 2) to include Precision Measurement Equipment Laboratory and additional repair networks on landing gear, avionics and others; Engine View (spiral 2) to provide additional metrics and analysis in areas such as: maintainability, removal rates, production, and Time Compliance Technical Order (TCTO). Optimize Weapon System View and include Remote Piloted Aircraft control systems to Weapons System View; Provide Logistics Readiness Squadron Dashboard to enable squadron commanders' enterprise view of approved metrics; Perform Metadata Repository Automate (MRA) updates as appropriate. Plan to achieve BI capability IOC for Configuration Alerts fourth quarter (4 Qtr) 2013.

***FY 2014 Plans:***
Continue LIMS-EV activities to develop BI capabilities such as: Repair Network View (spiral 3) to include additional repair networks on landing gear, avionics and others; enhance Equipment View to provide additional metrics and analysis in areas such

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675042: *Log Application Logisitics Integration (LALI)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| as: support equipment availability, maintainability, retention, and mal-positioned assets; Provide Depot Maintenance View to improve overall depot maintenance enterprise; Perform Metadata Repository Automate (MRA) updates as appropriate. | | | |
| ***Title:*** Legacy Modernization | 1.391 | 1.000 | 1.000 |
| ***Description:*** Continue Legacy Modernization design and development activities. Enhanced Integrated Maintenance Data System (IMDS) for Combat Ammunition System (CAS) to modify the inventory program, Deployment Readiness Service (DRS) spiral developments, IMDS-Training Business Area (TBA) upgrade to training modules, IMDS-Electronic Maintenance Operations Center (EMOC) munitions, Integration interfaces, Integrated Logistics Systems-Supply (ILS-S) Phase I software upgrade, Weapons System Management Information System (WSMIS), Enhanced Technical Information Management System (ETIMS), and Reliability and Maintainability Information System (REMIS) modernization efforts. Associated Logistics Data Interface Transition (LDIT) planning activities and Portfolio Management Process (PMP) and Logistics Information Requirements (LIR) updates.<br><br>***FY 2012 Accomplishments:***<br>Continued Legacy Modernization design and development efforts to modernize Integrated Maintenance Data System (IMDS)-Combat Ammunition System (CAS), IMDS-Training Business Area (TBA), IMDS-Electronic Maintenance Operations Center (EMOC), Deployment Readiness Service (DRS). Continued Logistics Data Interface Transition (LDIT) planning activities and Portfolio Management Process (PMP) and Logistics Information Requirements (LIR) updates.<br>***FY 2013 Plans:***<br>Continued Legacy Modernization design and development activities. Enhanced Integrated Maintenance Data System (IMDS) for Combat Ammunition System (CAS) to modify the inventory program, Deployment Readiness Service (DRS) spiral developments, IMDS-Training Business Area (TBA) upgrade to training modules, IMDS-Electronic Maintenance Operations Center (EMOC) munitions, Integration interfaces, Integrated Logistics Systems-Supply (ILS-S) Phase I software upgrade, Weapons System Management Information System (WSMIS), Enhanced Technical Information Management System (ETIMS), and Reliability and Maintainability Information System (REMIS) modernization efforts. Associated Logistics Data Interface Transition (LDIT) planning activities and Portfolio Management Process (PMP) and Logistics Information Requirements (LIR) updates.<br>***FY 2014 Plans:***<br>Continue Legacy Modernization design and development efforts to modernize Integrated Maintenance Data System (IMDS)-Combat Ammunition System (CAS), IMDS-Training Business Area (TBA), IMDS-Electronic Maintenance Operations Center (EMOC), Deployment Readiness Service (DRS). Continued Logistics Data Interface Transition (LDIT) planning activities and Portfolio Management Process (PMP) and Logistics Information Requirements (LIR) updates. | | | |
| ***Title:*** Legacy Remediation/FIAR | 1.109 | 2.250 | 2.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675042: *Log Application Logisitics Integration (LALI)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** The Legacy Remediation/FIAR (Financial Improvement Audit Readiness) effort seeks to design and develop solutions to remediate legacy processes, data, and systems to insure funds reported in the financial statements are accurate and complete and that IT controls are in place that follow accounting, security, and other Financial Improvement and Audit Readiness (FIAR) compliance mandates.<br><br>***FY 2012 Accomplishments:***<br>Continued Legacy Remediation/FIAR design and development efforts.<br><br>***FY 2013 Plans:***<br>Continued Legacy Remediation/FIAR design and development remediation activities for legacy processes, data, and systems to insure funds reported in the financial statements are accurate and complete and that IT controls are in place that follow accounting, security, and other Financial Improvement and Audit Readiness (FIAR) compliance mandates.<br><br>***FY 2014 Plans:***<br>Continue Legacy Remediation/FIAR design and development efforts. | | | |
| ***Title:*** F-35 ALIS-UIDES Integration | 2.000 | 3.750 | 1.250 |
| ***Description:*** The F-35 Autonomic Logistics Information System (ALIS) - User IT Data Exchange Service (UIDES) Data integration design and development effort will develop a UIDES that will facilitate Information Exchange Requirement (IER) data transfer capability from the F-35 ALIS into data reports and configurable tables in order to receive, store and integrate F-35 operations, maintenance, training and financial data within existing Air Force enterprise views and capabilities to support the growing fleet of AF F-35 Air Vehicles. Further, this funding will facilitate depot configuration and integration efforts along with data exchange configuration changes in order to facilitate receiving and consuming of additional amounts of ALIS IER data as well as increasing types<br><br>***FY 2012 Accomplishments:***<br>Initiated F-35 ALIS design and development efforts. Completed configuration testing.<br><br>***FY 2013 Plans:***<br>Continued Air Force development of a User IT Data Exchange Service (UIDES) that will facilitate Information Exchange Requirement (IER) data transfer capability from the F-35 Autonomic Logistics Information System (ALIS) into data reports and configurable tables in order to receive, store and integrate F-35 operations, maintenance, training and financial data within existing Air Force capabilities to support the growing fleet of AF F-35 Air Vehicles.<br><br>***FY 2014 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675042: *Log Application Logisitics Integration (LALI)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continue Air Force development of a User IT Data Exchange Service (UIDES) that will facilitate Information Exchange Requirement (IER) data transfer capability from the F-35 Autonomic Logistics Information System (ALIS) into data reports and configurable tables in order to receive, store and integrate F-35 operations, maintenance, training and financial data within existing Air Force capabilities to support the growing fleet of AF F-35 Air Vehicles. | | | |
| ***Title:*** CE IT Transformation<br>***Description:*** The Civil Engineer's (CE) Information Technology (IT) Transformation effort will<br>***FY 2012 Accomplishments:***<br>Completed CE IT Transformation effort. Achieved Initial Operational Capability (IOC) 4Q FY 2012. | 0.500 | 0.000 | 0.000 |
| ***Title:*** Program Management Administration (PMA)<br>***Description:*** Program Management Administration (PMA) funding supports engineering and technical development and implementation activities, along with acquisition support efforts.<br>***FY 2012 Accomplishments:***<br>Continued PMA.<br>***FY 2013 Plans:***<br>Continued PMA.<br>***FY 2014 Plans:***<br>Continue PMA. | 1.000 | 1.500 | 1.500 |
| **Accomplishments/Planned Programs Subtotals** | 10.683 | 15.873 | 10.420 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • Not Applicable: *N/A* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

LALI projects will be competively acquired using a variety of fixed price, labor hour, time and material, and cost plus contracts.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675042: *Log Application Logisitics Integration (LALI)* |

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675042: *Log Application Logisitics Integration (LALI)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LALI LIMS-EV Systems Engineering Contractor Support (Product Development) | C/CPFF | Lockheed Martin:WPAFB, OH | - | 4.806 | Mar 2012 | 5.269 | Mar 2013 | 4.395 | Jan 2014 | - | | 4.395 | Continuing | Continuing | |
| LALI LIMS-EV Project Development Support | C/CPFF | DSD/ Deloitte:Arlington, VA | - | 0.735 | Apr 2012 | 1.824 | Apr 2013 | 1.925 | Apr 2014 | - | | 1.925 | Continuing | Continuing | |
| Legacy Modernization | C/Various | Various:Montgomery, AL | - | 1.391 | Apr 2012 | 1.500 | Apr 2013 | 2.600 | Apr 2014 | - | | 2.600 | Continuing | Continuing | |
| Legacy Remediation/FIAR | C/Various | TBD:Montgomery, AL | - | 1.109 | Jan 2012 | 2.000 | Jan 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| ALIS | C/FFP | Lockheed Martin:WPAFB, OH | - | 1.400 | Feb 2012 | 3.780 | Jan 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 9.441 | | 14.373 | | 8.920 | | 0.000 | | 8.920 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LALI Systems Ingineering Base Support & Test Development Range | C/CPFF | DSD/ Deloitte:Arlington, VA | - | 0.242 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.242 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675042: *Log Application Logisitics Integration (LALI)* | |

**Management Services ($ in Millions)**

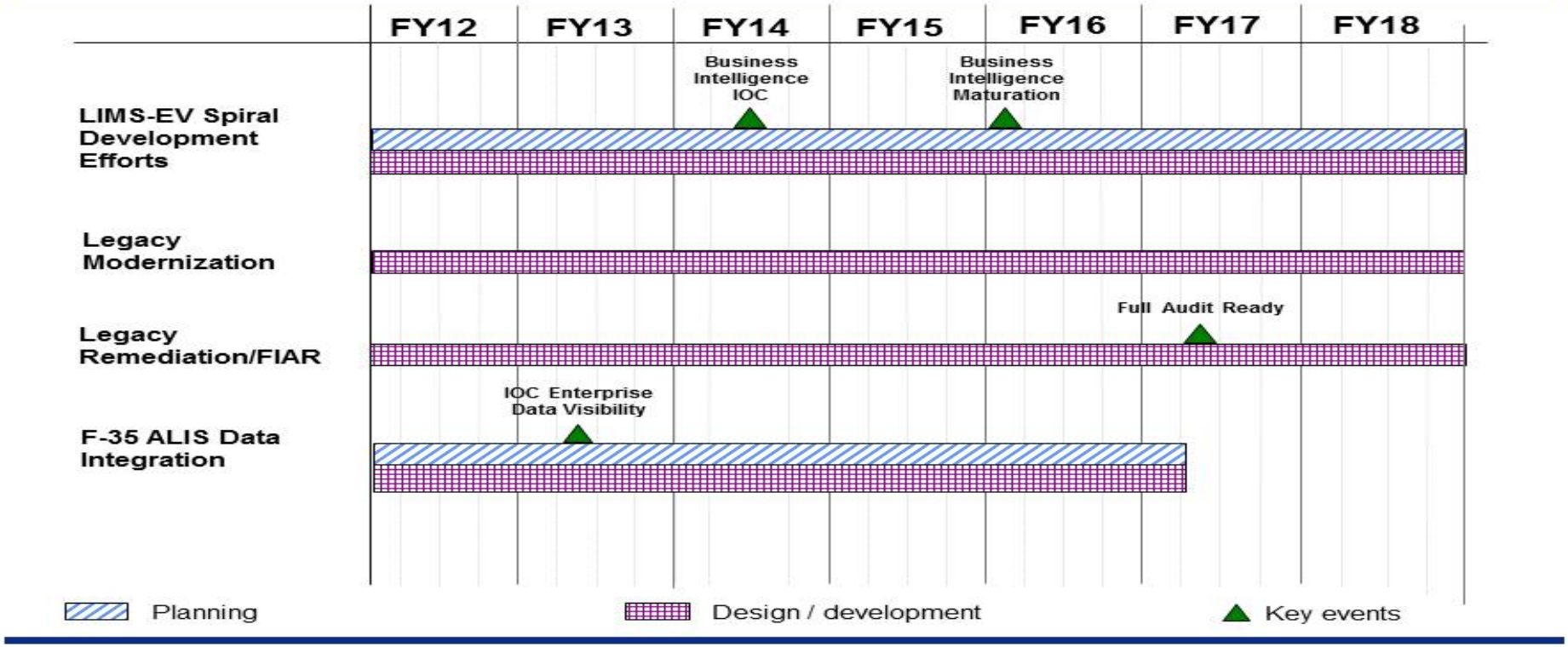
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) LALI Program Management Office (PMO) Support | C/CPFF | DSD/ Deloitte:Arlington, VA | - | 1.000 | Feb 2012 | 1.500 | Jan 2013 | 1.500 | Jan 2014 | - | | 1.500 | Continuing | Continuing | |
| Program Management Administration (PMA) LALI PMO Tasks (Support Integration and Development) | C/CPFF | DSD Deloitte:Arlington, VA | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 1.000 | | 1.500 | | 1.500 | | 0.000 | | 1.500 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 10.683 | | 15.873 | | 10.420 | | 0.000 | | 10.420 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675042: *Log Application Logisitics Integration (LALI)* |

## Logistics Application Logistics Integration (LALI) Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0708611F: *Support Systems Development* | **PROJECT**<br>675042: *Log Application Logisitics Integration (LALI)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Logistics Installations and Mission Support Enterprise View (LIMS-EV) Planning | 1 | 2012 | 4 | 2018 |
| LIMS-EV Design/Development | 1 | 2012 | 4 | 2018 |
| LIMS-EV BI Capabilities (Depot Maintenance) IOC | 2 | 2014 | 2 | 2014 |
| LIMS-EV Business Intelligence (BI) Maturation | 1 | 2016 | 1 | 2016 |
| Legacy Modernization Design/Development | 1 | 2012 | 4 | 2018 |
| Legacy Remediation/FIAR Design/Development | 1 | 2012 | 4 | 2018 |
| Legacy Remediation/FIAR - Full Audit Ready | 2 | 2017 | 2 | 2017 |
| F-35 ALIS Planning | 1 | 2012 | 2 | 2017 |
| F-35 ALIS Design/Development | 1 | 2012 | 2 | 2017 |
| F-35 ALIS IOC Enterprise Data Visibility | 2 | 2013 | 2 | 2013 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675044: *Logistics Systems Development (LSD)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675044: *Logistics Systems Development (LSD)* | - | 40.000 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Project 675044, Logistics Systems Development (LSD), is a budgetary accounting location for LSD projects having Congressional interest.

In FY 2012, completed Engine Health Management Plus Data Repository Center (EHMPDRC). Congress continued to have interest in Alternative Energy Research (AER) and provided $40.000M for AER in 2012.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 |
|---|---|---|
| ***Congressional Add:*** Alternative Energy Research, 2012 | 40.000 | 0.000 |
| ***FY 2012 Accomplishments:*** Continued Alternative Energy Research project. | | |
| ***FY 2013 Plans:*** Continued Alternative Energy Research project. | | |
| **Congressional Adds Subtotals** | 40.000 | 0.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • Not Applicable: *N/A* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

Project 675044, Logistics Systems Development (LSD), is a budgetary accounting location for LSD projects having Congressional interest.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675044: *Logistics Systems Development (LSD)* |

The preferred acquisition strategy is to use a competitive, best value contracting strategy.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675044: *Logistics Systems Development (LSD)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Alternative Energy Research, 2012 | TBD | TBD:TBD, | - | 40.000 | | 0.000 | Apr 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| | | Subtotal | 0.000 | 40.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

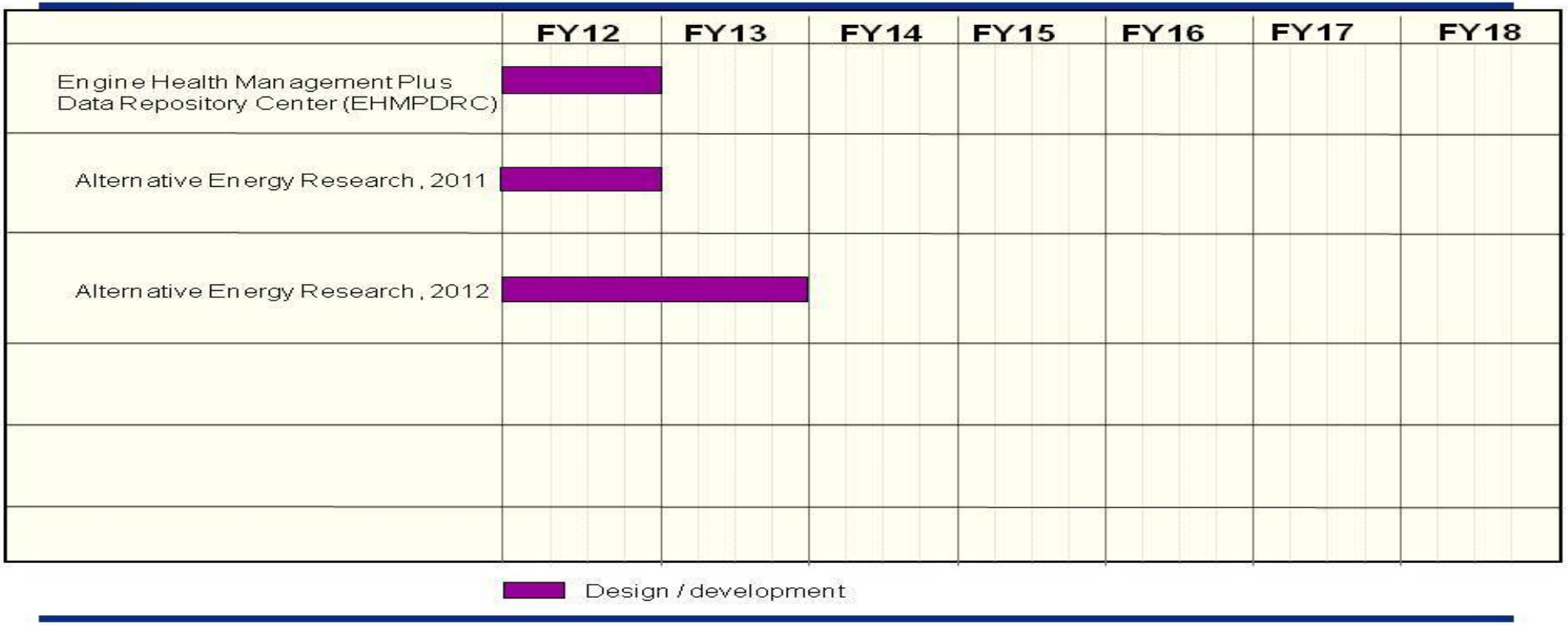
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 40.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0708611F: *Support Systems Development* | PROJECT<br>675044: *Logistics Systems Development (LSD)* |

# Logistics Systems Development (LSD) Schedule



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0708611F: *Support Systems Development* | **PROJECT**<br>675044: *Logistics Systems Development (LSD)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Engine Health Management Plus Data Repository Center (EHMPDRC) | 1 | 2012 | 4 | 2012 |
| LSD Congressional Add - Alternative Energy Research (AER), 2011 | 1 | 2012 | 4 | 2012 |
| LSD Congressional Add - Alternative Energy Research (AER), 2012 | 1 | 2012 | 4 | 2013 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0804743F: *Other Flight Training* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.322 | 0.349 | 1.347 | - | 1.347 | 1.346 | 1.000 | 1.000 | 1.060 | Continuing | Continuing |
| 675303: *ADSS Development* | - | 0.322 | 0.349 | 0.347 | - | 0.347 | 0.346 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 675304: *Aviation Resource Management System (ARMS)* | - | 0.000 | 0.000 | 1.000 | - | 1.000 | 1.000 | 1.000 | 1.000 | 1.060 | Continuing | Continuing |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY2014, Project 5304, Aviation Resource Management System (ARMS), is a new start effort.

**A. Mission Description and Budget Item Justification**

Program supports the Air Education and Training command (AETC) Decision Support System (ADSS) which is an automated information system that provides AETC leadership and staff with key management information about training production status, including monitoring and assessment of training. The data and reports from ADSS provide the vital feedback mechanism essential to an effective programming and management process. The hardware and software components of ADSS interact and communicate via the DOD standard communications infrastructure. The system uses DOD information transfer assets that provide seamless communications within and across systems and media. Recent changes in funding use laws require compliance with the National Defense Authorization Act (NDAA) and resulting AFI 65-601 allocation/use of development funds. ADSS development funds must now use RDT&E funds vice previously used O&M funds. New law does not allow use of O&M funds for RDT&E actions. Per direction in the memorandum from SAF/FMBM dated 15 Aug 07, and IAW DoD FRM Vol 2A, 010212 B1, all developmental activities involved in bringing a program to its system objective are to be funded in RDT&E.

The Aviation Resource Management System (ARMS) is the authoritative data source for recording and managing aircrew training information, aircrew/parachutist management, flying hour tracking, flight pay management, and flying gate tracking for 70,000 Air Force members. The Air Force uses this information to enhance safety-of-flight operations and to determine eligibility to perform aviation related events. New development work is required to provide additional flying operations information, which will aid in better portraying Air Force readiness, and to feed this data into Defense Readiness Reporting System Strategic (DRRS-S). These enhanced capabilities, to be developed incrementally, include the following: electronic flight record, support enhanced flying hour management/execution, simulator and RPA management/utilization, full career logbook, training look-back, aircrew member man-month allocation, enhanced resource and jump module management, and interface with DRRS-S. ARMS data will also be used to support Headquarters Air Force/Major Command (HAF/MAJCOM) level readiness decision reports/ analytics. Recent changes in funding use laws require compliance with the NDAA and resulting AFI 65-601 allocation/use of development funds. New development work in support of ARMS needs to be accomplished with RDT&E versus O&M funds.

This program is Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0804743F: *Other Flight Training* |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.322 | 0.349 | 0.347 | - | 0.347 |
| Current President's Budget | 0.322 | 0.349 | 1.347 | - | 1.347 |
| Total Adjustments | 0.000 | 0.000 | 1.000 | - | 1.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 1.000 | - | 1.000 |

**Change Summary Explanation**

FY2014 includes a new start effort, Aviation Resource Management System (ARMS).

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0804743F: *Other Flight Training* | PROJECT<br>675303: *ADSS Development* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675303: *ADSS Development* | - | 0.322 | 0.349 | 0.347 | - | 0.347 | 0.346 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Program supports the Air Education and Training Command (AETC) Decision Support System (ADSS) which is an automated information system that provides AETC leadership and staff with key management information about training production status, including monitoring and assessment of training. The data and reports from ADSS provide the vital feedback mechanism essential to an effective programming and management process. The hardware and software components of ADSS interact and communicate via the DOD standard communications infrastructure. The system uses DOD information transfer assets that provide seamless communications within and across systems and media. Tasks to be performed are the continuing development of the ADSS Enterprise Information Integration (ADSS-EII) and Training Pipeline Continuum (TPC) modernization modules.

This program is in Budget Activity 7, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** ADSS | 0.322 | 0.349 | 0.347 |
| ***Description:*** Development of AETC Decision Support System (ADSS) | | | |
| ***FY 2012 Accomplishments:***<br>Continued development of AETC Decision Support System (ADSS) | | | |
| ***FY 2013 Plans:***<br>Continue development of AETC Decision Support System (ADSS) | | | |
| ***FY 2014 Plans:***<br>Continue development of AETC Decision Support System (ADSS) | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.322 | 0.349 | 0.347 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0804743F: *Other Flight Training* | PROJECT<br>675303: *ADSS Development* |

**C. Other Program Funding Summary ($ in Millions)**

**Remarks**

**D. Acquisition Strategy**

Contract was recompeted and awarded in the first quarter of FY2012 as a Section 8(a) small business set aside.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0804743F: *Other Flight Training* | PROJECT<br>675303: *ADSS Development* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Developmental Efforts for AETC ADSS | C/FFP | TKC Global Solutions LLC:Anchorage, AK | - | 0.000 | | 0.000 | | 0.000 | | - | | 0.000 | 0.000 | 0.000 | 1.421 |
| Development Efforts for AETC ADSS | C/FFP | Decypher Technologies:San Antonio, TX | - | 0.322 | Oct 2011 | 0.349 | Dec 2012 | 0.347 | Dec 2013 | - | | 0.347 | Continuing | Continuing | 1.042 |
| | | **Subtotal** | 0.000 | 0.322 | | 0.349 | | 0.347 | | 0.000 | | 0.347 | | | 2.463 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

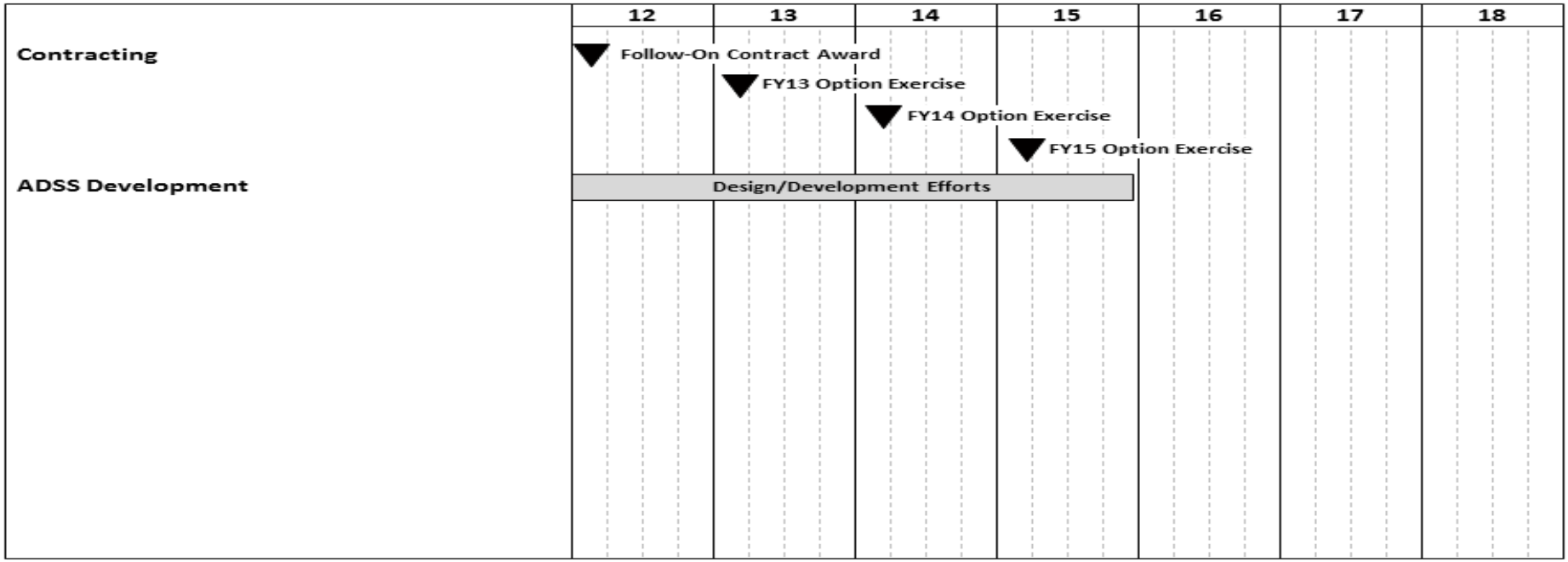
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.322 | | 0.349 | | 0.347 | | 0.000 | | 0.347 | | | 2.463 |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0804743F: *Other Flight Training* | PROJECT<br>675303: *ADSS Development* |

# AETC Decision Support System (ADSS)



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0804743F: *Other Flight Training* | **PROJECT**<br>675303: *ADSS Development* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Development of AETC Decision Support System | 1 | 2012 | 4 | 2015 |
| Follow-On Contract Award | 1 | 2012 | 1 | 2012 |
| FY13 Option Exercise | 1 | 2013 | 1 | 2013 |
| FY14 Option Exercise | 1 | 2014 | 1 | 2014 |
| FY15 Option Exercise | 1 | 2015 | 1 | 2015 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0804743F: *Other Flight Training* | PROJECT<br>675304: *Aviation Resource Management System (ARMS)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675304: *Aviation Resource Management System (ARMS)* | - | 0.000 | 0.000 | 1.000 | - | 1.000 | 1.000 | 1.000 | 1.000 | 1.060 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY2014, Project 675304, Aviation Resource Management System (ARMS) is a new start effort.

**A. Mission Description and Budget Item Justification**

The Aviation Resource Management System (ARMS) is the authoritative data source for recording and managing aircrew training information, aircrew/parachutist management, flying hour tracking, flight pay management, and flying gate tracking for 70,000 Air Force members. The Air Force uses this information to enhance safety-of-flight operations and to determine eligibility to perform aviation related events. ARMS interfaces with the Military Personnel Data System (MilPDS) and multiple operations and flight scheduling systems such as Patriot Excalibur (PEX), Graduate Training Integration Management System (GTIMS), Center Operations On-Line (COOL), Global Decision Support System (GDSS), and Automated Aircrew Management System (AAMS) and is used to determine whom to select for flying operations, assignment actions, and promotion of aircrew members.

New development work is required to provide additional flying operations information, which will aid in better portraying Air Force readiness, and to feed this data into Defense Readiness Reporting System Strategic (DRRS-S). These enhanced capabilities, to be developed incrementally, include the following: electronic flight record, support enhanced flying hour management/execution, simulator and RPA management/utilization, full career logbook, training look-back, aircrew member man-month allocation, enhanced resource and jump module management, and interface with DRRS-S. Additional development work on the existing ARMS, such as database flattening and Business Process Reengineering (BPR) actions, is required prior to incorporating these enhanced capabilities.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** ARMS | 0.000 | 0.000 | 1.000 |
| ***Description:*** Hardware/Software development efforts in support of Aviation Resource Management System (ARMS). | | | |
| ***FY 2012 Accomplishments:***<br>N/A | | | |
| ***FY 2013 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0804743F: *Other Flight Training* | PROJECT<br>675304: *Aviation Resource Management System (ARMS)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| N/A<br>***FY 2014 Plans:***<br>Hardware/Software development efforts in support of Aviation Resource Management System (ARMS). | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 0.000 | 1.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • O&M: BA03: PE 0804743F: *Other Flight Training* | 1.185 | 0.685 | 1.281 | | 1.281 | 1.195 | 1.195 | 1.260 | 1.376 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

ARMS will incrementally develop enhancements to the existing system. The acquisition will be a Firm Fixed Price (FFP) contract line item on a competitively awarded contract utilizing Full and Open Competition (FAR Part 15).

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0804743F: *Other Flight Training* | PROJECT<br>675304: *Aviation Resource Management System (ARMS)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Development Efforts for ARMS | C/FFP | AFLCMC/ HIB:Maxwell AFB-Gunter Annex, AL | - | 0.000 | | 0.000 | | 1.000 | Jan 2014 | - | | 1.000 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 1.000 | | 0.000 | | 1.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

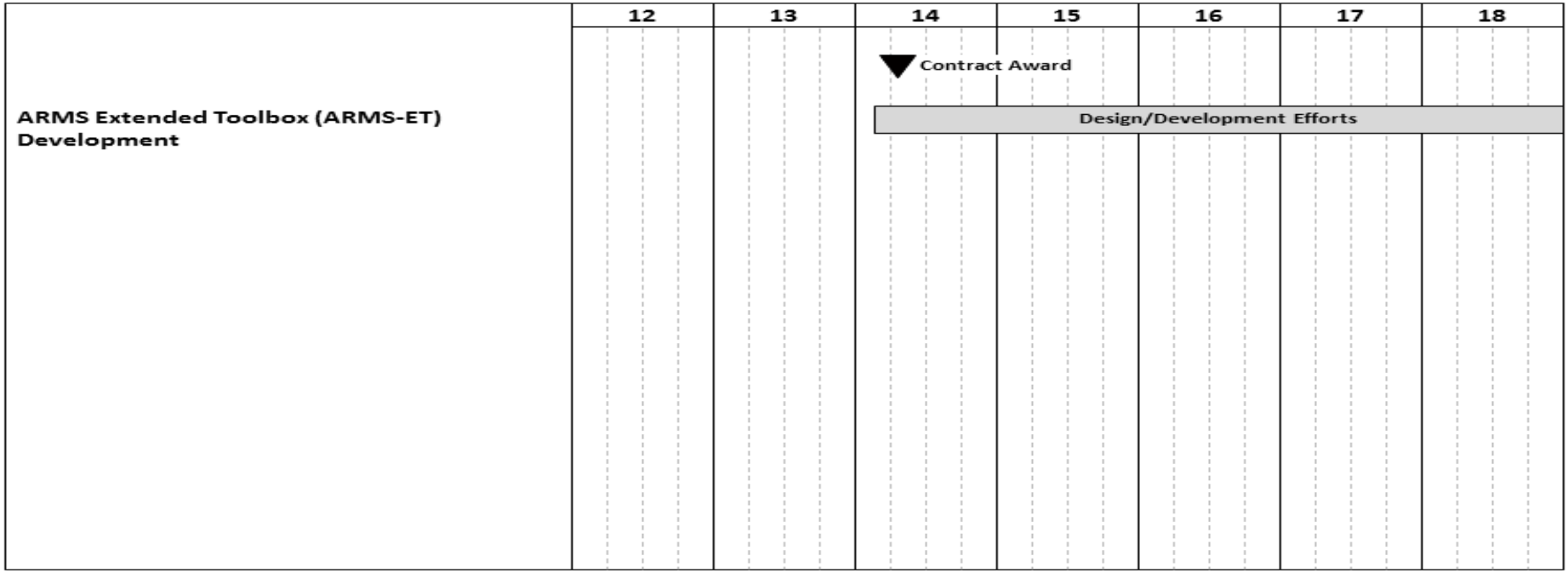
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 0.000 | | 1.000 | | 0.000 | | 1.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0804743F: *Other Flight Training* | PROJECT<br>675304: *Aviation Resource Management System (ARMS)* |

# Aviation Resource Management System (ARMS)



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0804743F: *Other Flight Training* | PROJECT<br>675304: *Aviation Resource Management System (ARMS)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| Develop/Test/Integrate Aviation Resource Management System (ARMS) Upgrades | 1 | 2014 | 4 | 2018 |
| Contract Award | 2 | 2014 | 2 | 2014 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0808716F: *Other Personnel Activities* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.110 | 0.117 | 0.065 | - | 0.065 | 0.128 | 0.124 | 0.108 | 0.110 | Continuing | Continuing |
| 675141: *DEOMI Faculty Research* | - | 0.110 | 0.117 | 0.065 | - | 0.065 | 0.128 | 0.124 | 0.108 | 0.110 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Defense Equal Opportunity Management Institute (DEOMI) provides grants to the civilian academic community to conduct research on military and civilian equal opportunity issues using standard social science methodology and engineering analysis. The research methodology and analysis includes developing a literature review proposing hypotheses and methods of research. The grantee will then gather appropriate data, draw conclusions and present discussions, recommendations and reports based on their funding.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.113 | 0.117 | 0.119 | - | 0.119 |
| Current President's Budget | 0.110 | 0.117 | 0.065 | - | 0.065 |
| Total Adjustments | -0.003 | 0.000 | -0.054 | - | -0.054 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.003 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -0.054 | - | -0.054 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Equal Opportunity Issues | 0.110 | 0.117 | 0.065 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0808716F: *Other Personnel Activities* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Conduct research on military and civilian equal opportunity issues.<br><br>***FY 2012 Accomplishments:***<br>Conducted research on military and civilian equal opportunity issues.<br>***FY 2013 Plans:***<br>Continue conducting research on military and civilian equal opportunity issues.<br>***FY 2014 Plans:***<br>Continue conducting research on military and civilian equal opportunity issues. | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.110 | 0.117 | 0.065 |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

Grants will be awarded competitively.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0808716F: *Other Personnel Activities* | PROJECT<br>675141: *DEOMI Faculty Research* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEOMI | TBD | Various:Various, | - | 0.110 | Mar 2012 | 0.117 | Mar 2013 | 0.065 | Mar 2014 | - | | 0.065 | Continuing | Continuing | TBD |
| | | Subtotal | 0.000 | 0.110 | | 0.117 | | 0.065 | | 0.000 | | 0.065 | | | |

**Remarks**

Contract method will be a grant

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

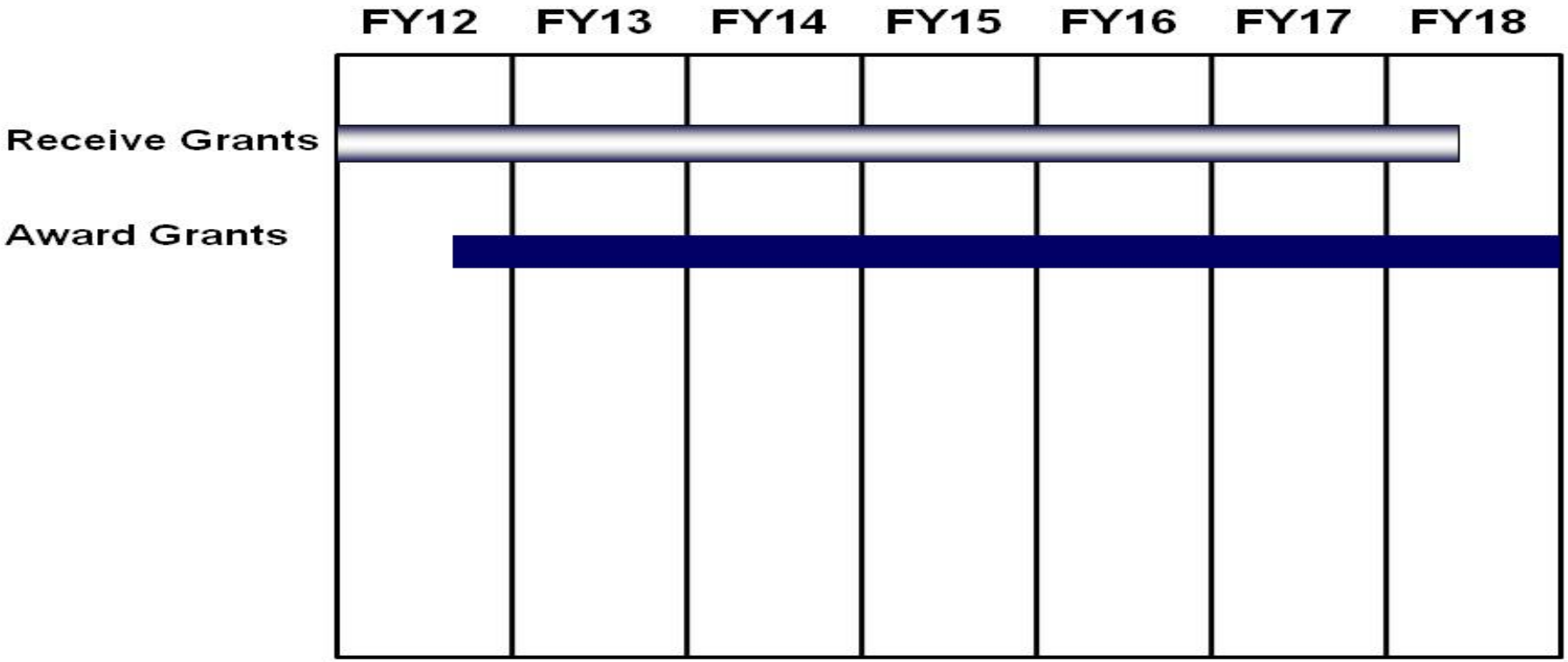
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 0.110 | | 0.117 | | 0.065 | | 0.000 | | 0.065 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0808716F: *Other Personnel Activities* | PROJECT<br>675141: *DEOMI Faculty Research* |

# DEOMI Faculty Research



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0808716F: *Other Personnel Activities* | PROJECT<br>675141: *DEOMI Faculty Research* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Receive Grants | 1 | 2012 | 2 | 2018 |
| Award Grants | 3 | 2012 | 4 | 2018 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0901202F: *Joint Personnel Recovery Agency* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 2.407 | 2.018 | 1.083 | - | 1.083 | 2.636 | 0.381 | 0.000 | 0.000 | Continuing | Continuing |
| 675196: *Joint Technology Exploitation* | - | 2.407 | 2.018 | 1.083 | - | 1.083 | 2.636 | 0.381 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

**A. Mission Description and Budget Item Justification**

Funding provides capability to conduct Personnel Recovery development efforts to upgrade systems to provide COCOM and Service Personnel Recovery capabilities identified in the Personnel Recovery Initial Capabilities Document approved by JROCM 120-12 on 8 Aug 2012. Includes funding for research and development, support equipment, contract services and all associated costs specifically identified to support the Joint Personnel Recovery Agency (JPRA) headquarters at Ft. Belvoir, VA and other JPRA operating locations.

This program is in Budget Activity 7, Operational System Development because this budget activity includes efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 2.483 | 2.018 | 2.035 | - | 2.035 |
| Current President's Budget | 2.407 | 2.018 | 1.083 | - | 1.083 |
| Total Adjustments | -0.076 | 0.000 | -0.952 | - | -0.952 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | -0.076 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -0.952 | - | -0.952 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Data Management Initiatives | 0.000 | 0.237 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901202F: *Joint Personnel Recovery Agency* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Improves globally accessible collaborative personnel recovery data management<br><br>***FY 2012 Accomplishments:***<br>N/A<br><br>***FY 2013 Plans:***<br>Continue effort started in FY11 for refinement of data standards into a DoD-approved data standard for personnel recovery data exchange.<br><br>***FY 2014 Plans:***<br>N/A | | | |
| ***Title:*** Communications<br><br>***Description:*** Upgrades Inter-operable multi-functional communication equipment and data links<br><br>***FY 2012 Accomplishments:***<br>Developed software specifications for upgrades to the Combat Survivor Evader/Locator data architecture allowing the system to operate with other COTS and GOTS reporting devices and interface with the Personnel Recovery Management Software. Demonstrated an over-the-horizon, small-form-factor survival/locator communications device.<br><br>***FY 2013 Plans:***<br>Continue the CSEL architecture upgrade effort and produce critical design review package for the upgrade.<br><br>***FY 2014 Plans:***<br>N/A | 1.296 | 1.000 | 0.000 |
| ***Title:*** Planning Systems<br><br>***Description:*** Upgrade Collaborative Personnel Recovery planning systems<br><br>***FY 2012 Accomplishments:***<br>Developed predictive and real-time planning capabilities and techniques to aid military and interagency planners in resolving the location of isolated personnel with or without reporting devices.<br><br>***FY 2013 Plans:***<br>Continue development of predictive and real-time planning capabilities and techniques to aid military and interagency planners in resolving the location of isolated personnel with or without reporting devices.<br><br>***FY 2014 Plans:*** | 1.111 | 0.781 | 1.083 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901202F: *Joint Personnel Recovery Agency* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Continue development of predictive and real-time planning capabilities and techniques to aid military and interagency planners in resolving the location of isolated personnel with or without reporting devices. | | | |
| **Accomplishments/Planned Programs Subtotals** | 2.407 | 2.018 | 1.083 |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

Projects will leverage existing program contracts. In the rare instance where a contract does not already exist, contracts will be awarded through full and open competition.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901202F: *Joint Personnel Recovery Agency* | PROJECT<br>675196: *Joint Technology Exploitation* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Isolated Personnel Location, Survivability & Evasion Aid Development | TBD | TBD:TBD, | - | 0.500 | Apr 2012 | 0.500 | Apr 2013 | 0.183 | Dec 2013 | - | | 0.183 | Continuing | Continuing | 0.600 |
| Personnel Recovery Mission Software Improvement | TBD | TBD:TBD, | - | 0.500 | Mar 2012 | 0.500 | Mar 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.440 |
| Survival Radio Command & Control Tech Integration Study | TBD | TBD:TBD, | - | 0.224 | Apr 2012 | 0.304 | Apr 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.040 |
| Interagency/Coalition Command & Ctrl Interoperability Tech Study | TBD | TBD:TBD, | - | 0.200 | Apr 2012 | 0.200 | Apr 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.100 |
| Recovery Force Survivability Study | TBD | TBD:TBD, | - | 0.100 | Jun 2012 | 0.100 | Jun 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.100 |
| Optimal Search Study | TBD | Not specified.:, | - | 0.000 | | 0.000 | | 0.300 | Dec 2013 | - | | 0.300 | Continuing | Continuing | 0.300 |
| Personnel Recovery Modeling and simulation development | TBD | Not specified.:, | - | 0.000 | | 0.000 | | 0.600 | Dec 2013 | - | | 0.600 | Continuing | Continuing | 0.950 |
| | | **Subtotal** | 0.000 | 1.524 | | 1.604 | | 1.083 | | 0.000 | | 1.083 | | | 2.530 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901202F: *Joint Personnel Recovery Agency* | PROJECT<br>675196: *Joint Technology Exploitation* | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Personnel & Recovery Tactics, Techniques & Procedures | TBD | TBD:TBD, | - | 0.883 | Jun 2012 | 0.414 | Jun 2013 | 0.000 | | - | | 0.000 | Continuing | Continuing | 0.100 |
| | | **Subtotal** | 0.000 | 0.883 | | 0.414 | | 0.000 | | 0.000 | | 0.000 | | | 0.100 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 2.407 | | 2.018 | | 1.083 | | 0.000 | | 1.083 | | | 2.630 |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901202F: *Joint Personnel Recovery Agency* | PROJECT<br>675196: *Joint Technology Exploitation* |

# Joint Technology Exploitation



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901202F: *Joint Personnel Recovery Agency* | PROJECT<br>675196: *Joint Technology Exploitation* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Globally accessible collaborative personnel recovery data management | 1 | 2012 | 4 | 2015 |
| Inter-operable multi-functional communication equipment and data links | 1 | 2012 | 4 | 2015 |
| Collaborative Personnel Recovery planning systems | 1 | 2012 | 4 | 2015 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0901218F: *Civilian Compensation Program* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 1.581 | 1.561 | 1.577 | - | 1.577 | 1.609 | 1.647 | 1.670 | 1.700 | Continuing | Continuing |
| 674139: *Civilian Compensation Program* | - | 1.581 | 1.561 | 1.577 | - | 1.577 | 1.609 | 1.647 | 1.670 | 1.700 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

This program element provides for payment of civilian compensation benefits for disability due to personal injury sustained while in the performance of duty or due to employment-related disease according to the Federal Employees Compensation Act (FECA) under Title 5 U.S.C., Chapter 81. The Department of Labor (DOL) administers this program and charges the Department of the Air Force for its employee costs; therefore, this is a MUST PAY bill for Air Force. The PE excludes manpower authorizations and costs. This Program Element (PE) is in Budget Activity 7 in support of payment of civilian compensation benefits for disability due to personal injury sustained while in the performance of duty or due to employment-related disease according to the Federal Employees Compensation Act (FECA) under Title 5 U.S.C., Chapter 81.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901218F: *Civilian Compensation Program* | |

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 1.508 | 1.561 | 1.577 | - | 1.577 |
| Current President's Budget | 1.581 | 1.561 | 1.577 | - | 1.577 |
| Total Adjustments | 0.073 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.073 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Civilian Compensation | 1.581 | 1.561 | 1.577 |
| ***Description:*** Continue a program to compensate employees assigned to RDT&E facilities for worked-related injury or disease.<br><br>***FY 2012 Accomplishments:***<br>Compensated employees assigned to RDT&E facilities for worked-related injury or disease.<br><br>***FY 2013 Plans:***<br>Continue a program to compensate employees assigned to RDT&E facilities for worked-related injury or disease.<br><br>***FY 2014 Plans:***<br>Continue a program to compensate employees assigned to RDT&E facilities for worked-related injury or disease. | | | |
| **Accomplishments/Planned Programs Subtotals** | 1.581 | 1.561 | 1.577 |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

Not Applicable.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901218F: *Civilian Compensation Program* |

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901218F: *Civilian Compensation Program* | PROJECT<br>674139: *Civilian Compensation Program* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Continue development of compensation plan | RO | AF/A1:Pentagon, DC | - | 1.581 | Apr 2012 | 1.561 | Apr 2013 | 1.577 | Apr 2014 | - | | 1.577 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.581 | | 1.561 | | 1.577 | | 0.000 | | 1.577 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

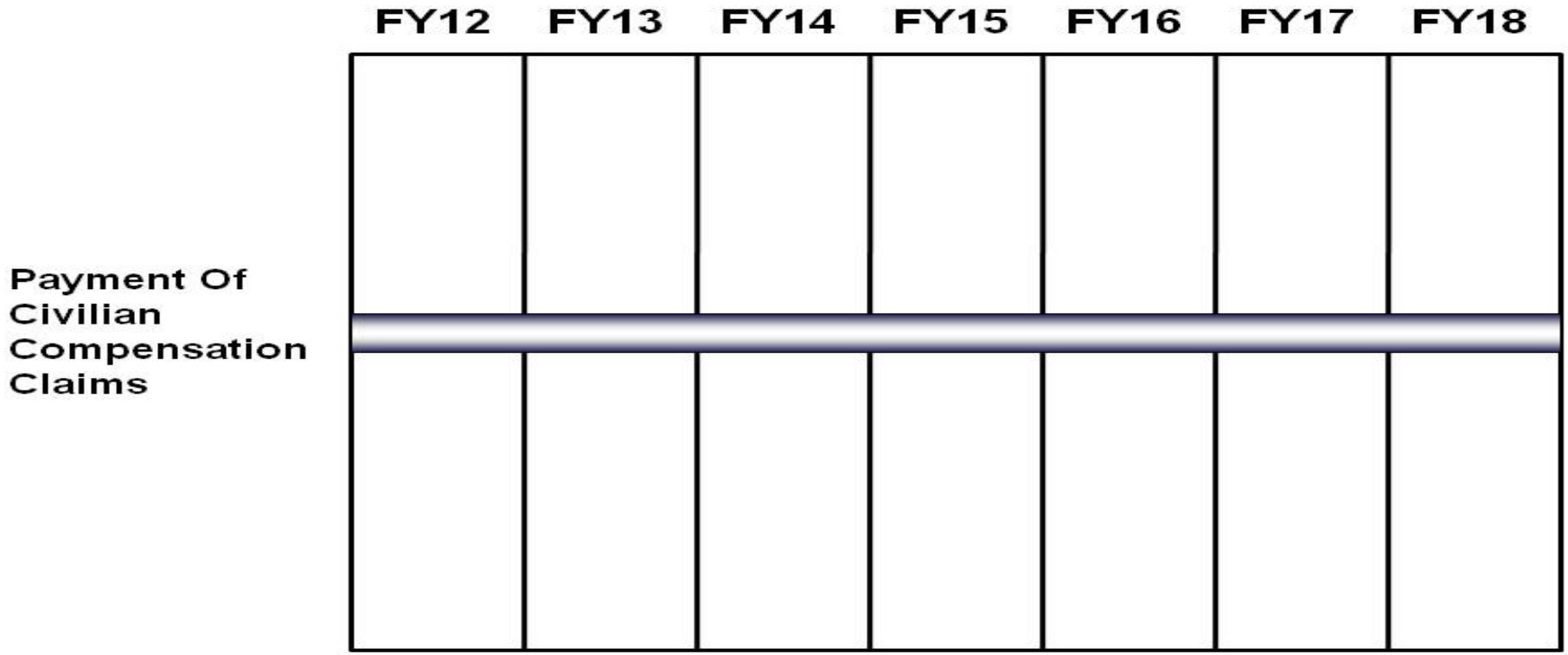
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 1.581 | | 1.561 | | 1.577 | | 0.000 | | 1.577 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901218F: *Civilian Compensation Program* | PROJECT<br>674139: *Civilian Compensation Program* |

# CIVILIAN COMPENSATION BENEFITS



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901218F: *Civilian Compensation Program* | **PROJECT**<br>674139: *Civilian Compensation Program* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Compensation program | 1 | 2012 | 4 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0901220F: *Personnel Administration* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 1.010 | 7.634 | 5.990 | - | 5.990 | 5.089 | 5.107 | 6.400 | 6.453 | Continuing | Continuing |
| 675194: *Force Development Transformation* | - | 1.010 | 7.634 | 5.990 | - | 5.990 | 5.089 | 5.107 | 6.400 | 6.453 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Personnel Services Delivery (PSD), under the Personnel Administration program, funds operational developments necessary to acquire, field, and modify business processes to transform the delivery of HR capabilities through the structured redesign of the Total Force Personnel Community's people (Active Duty, Reserve, Guard, and Civilians), processes, and technologies. PSD Transformation fundamentally shifts the way personnel services are provided, transitioning from primarily face-to-face interactions with a personnelist to a tiered model with services delivered through online self-service, contact centers, and fewer in-person interactions. PSD supports the migration of legacy applications and other information technology to a more sustainable and flexible, services-based architecture. Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 1.041 | 7.634 | 7.238 | - | 7.238 |
| Current President's Budget | 1.010 | 7.634 | 5.990 | - | 5.990 |
| Total Adjustments | -0.031 | 0.000 | -1.248 | - | -1.248 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.031 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | -1.248 | - | -1.248 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901220F: *Personnel Administration* |

**Change Summary Explanation**

FY12 Funding experienced a $-7.0M HAC mark due to contract delays. FY13 PB amount was $8.041M.
FY14 funding decrease is due to higher Department of Defense priorities.

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Human Resource Applications | 0.000 | 4.629 | 1.535 |
| ***Description:*** Develop AF Human Resource Applications to automate and create self-service capabilities to the war fighter. These capabilities include Enterprise Personnel Electronic Forms (eForms) and the Air Force Equal Opportunity Network (AFEON). These efforts will integrate web-enabled, self service capabilities that compliment AF-IPPS functionality.<br><br>***FY 2012 Accomplishments:***<br>N/A<br><br>***FY 2013 Plans:***<br>Develop AF Human Resource Applications to automate and create self-service capabilities to the war fighter. These capabilities include Enterprise Personnel Electronic Forms (eForms) and the Air Force Equal Opportunity Network (AFEON) and follow-on eBOSS increments. These efforts will integrate web-enabled, self service capabilities that compliment AF-IPPS functionality.<br><br>***FY 2014 Plans:***<br>Develop AF Human Resource Applications to automate and create self-service capabilities to the war fighter. These capabilities include Enterprise Personnel Electronic Forms (eForms) and the Air Force Equal Opportunity Network (AFEON) and follow-on eBOSS increments. These efforts will integrate web-enabled, self service capabilities that compliment AF-IPPS functionality. | | | |
| ***Title:*** Data Sharing Services | 0.000 | 0.988 | 1.898 |
| ***Description:*** Develop reusable business and data sharing Service Oriented Architecture (SOA) services on established architecture and deliver infrastructure. These services provide authoritative personnel data and business logic to myriad of enterprise processes and systems.<br><br>***FY 2012 Accomplishments:***<br>N/A<br><br>***FY 2013 Plans:***<br>Develop data, aggregation, and business reusable SOA services on established architecture and deliver infrastructure services that provide functionality that is part of the base SOA infrastructure and is unrelated to any application-specific process.<br><br>***FY 2014 Plans:*** | | | |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901220F: *Personnel Administration* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| Develop data, aggregation, and business reusable SOA services on established architecture and deliver infrastructure services that provide functionality that is part of the base SOA infrastructure and is unrelated to any application-specific process. | | | |
| ***Title:*** Test & Evaluation/Systems Engineering<br><br>***Description:*** Continued support for all aspects of engineering including software and systems engineering, requirements analysis, configuration management, database administration, and test and evaluation throughout the lifecycle of all HR Application and continued Infrastructure development.<br><br>***FY 2012 Accomplishments:***<br>Provided support for all aspects of engineering including software and systems engineering, requirements analysis, configuration management, database administration, and test and evaluation throughout the lifecycle of eBOSS program and current development activities including: eForms, the Air Force Fitness Management System II (AFFMSII), and planning of SOA project<br><br>***FY 2013 Plans:***<br>Continued support for all aspects of engineering including software and systems engineering, requirements analysis, configuration management, database administration, and test and evaluation throughout the lifecycle of all HR Application and continued Infrastructure development.<br><br>***FY 2014 Plans:***<br>Continued support for all aspects of engineering including software and systems engineering, requirements analysis, configuration management, database administration, and test and evaluation throughout the lifecycle of all HR Application and continued Infrastructure development. | 0.816 | 1.018 | 1.539 |
| ***Title:*** Program Management Administration<br><br>***Description:*** Direct, unique program costs (excluding payroll of govt personnel, of program office in its management & oversight role<br><br>***FY 2012 Accomplishments:***<br>Direct, unique program costs (excluding payroll of govt personnel, of program office in its management & oversight role<br><br>***FY 2013 Plans:***<br>Direct, unique program costs (excluding payroll of govt personnel, of program office in its management & oversight role<br><br>***FY 2014 Plans:***<br>Direct, unique program costs (excluding payroll of govt personnel, of program office in its management & oversight role | 0.194 | 0.999 | 1.018 |
| **Accomplishments/Planned Programs Subtotals** | 1.010 | 7.634 | 5.990 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901220F: *Personnel Administration* |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA 03: Line Item # 835070: *Base Info Infrastructure* | 0.544 | 0.493 | 0.572 | | 0.572 | 0.439 | 0.445 | 0.466 | 0.474 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

Acquisition Strategy: Personnel Services Delivery employs an evolutionary acquisition strategy to deliver incremental Information Technology, Human Resources capabilities with development contracts that are awarded in a competitive environment.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901220F: *Personnel Administration* | PROJECT<br>675194: *Force Development Transformation* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Human Resources Applications and Data Services | Various | Various:Various, | - | 0.000 | | 4.629 | Jul 2013 | 1.728 | Dec 2013 | - | | 1.728 | Continuing | Continuing | TBD |
| SOA | C/FFP | TBD:TBD, | - | 0.000 | | 0.988 | Jul 2013 | 1.898 | Nov 2013 | - | | 1.898 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 5.617 | | 3.626 | | 0.000 | | 3.626 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Technical Support | C/CPFF | Jacobs Technology:Lincoln, MA | - | 0.665 | May 2012 | 0.511 | May 2013 | 0.828 | Oct 2013 | - | | 0.828 | Continuing | Continuing | TBD |
| Hardware/Software Licensing Dev Support | Various | Various:, | - | 0.010 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Hardware/Software Test & Evaluation | C/T&M | Lockheed Martin:Gaithersburg, MD | - | 0.141 | Sep 2012 | 0.507 | Nov 2012 | 0.518 | Nov 2013 | - | | 0.518 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.816 | | 1.018 | | 1.346 | | 0.000 | | 1.346 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901220F: *Personnel Administration* | PROJECT<br>675194: *Force Development Transformation* | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Office Support | Various | Various:Various, | - | 0.194 | Mar 2012 | 0.999 | Dec 2013 | 1.018 | Oct 2013 | - | | 1.018 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.194 | | 0.999 | | 1.018 | | 0.000 | | 1.018 | | | |

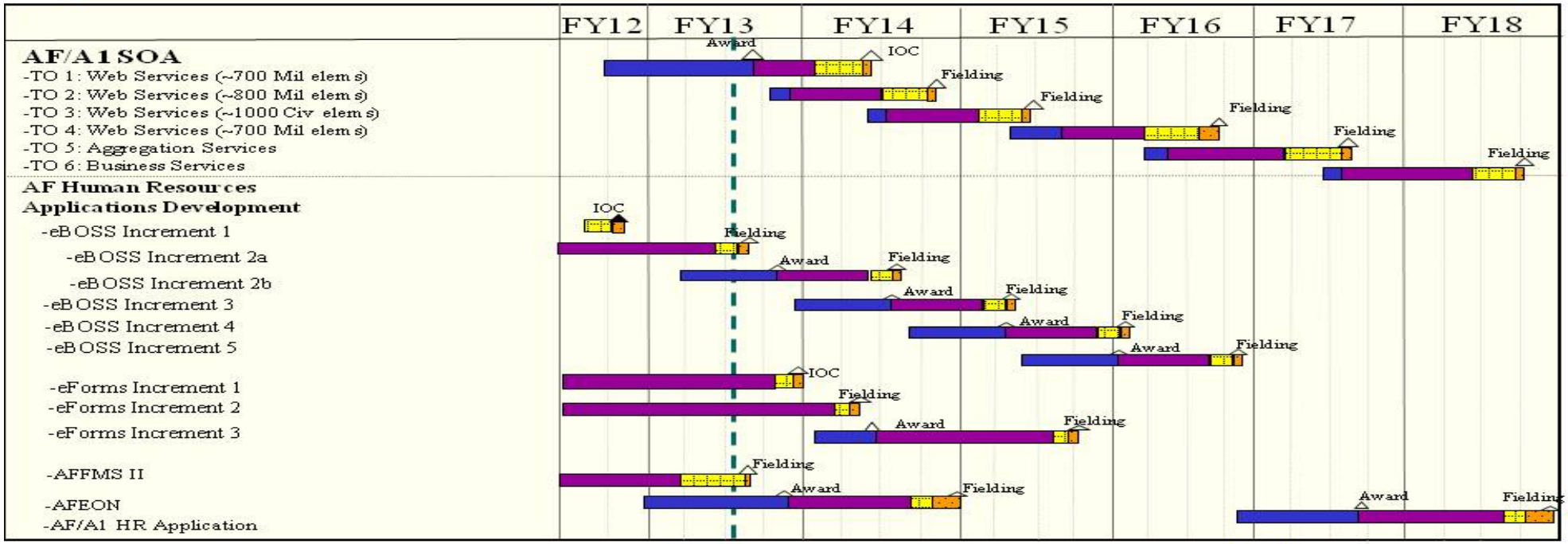
| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 1.010 | | 7.634 | | 5.990 | | 0.000 | | 5.990 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901220F: *Personnel Administration* | PROJECT<br>675194: *Force Development Transformation* |

U.S. AIR FORCE

# Schedule




*Integrity - Service - Excellence*

As of 09 Aug 12

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901220F: *Personnel Administration* | **PROJECT**<br>675194: *Force Development Transformation* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| eBOSS Increment 1 Production Fielding | 3 | 2012 | 3 | 2012 |
| AFFMS II Production Fielding | 3 | 2013 | 4 | 2013 |
| Air Force Equal Opportunity Network (AFEON) Dev Contract Award | 4 | 2013 | 4 | 2014 |
| SOA Task Order (TO) 2 Contract Award | 4 | 2013 | 4 | 2014 |
| eBOSS Inc 2b Contract Award | 4 | 2013 | 3 | 2014 |
| eForms Increment 3 Contract Award | 2 | 2014 | 4 | 2015 |
| SOA TO 3 Contract Award | 3 | 2014 | 2 | 2015 |
| eBOSS Increment 3 Contract Award | 3 | 2014 | 2 | 2015 |
| eBOSS Increment 4 Contract Award | 2 | 2015 | 1 | 2016 |
| SOA TO 4 Contract Award | 3 | 2015 | 3 | 2016 |
| eBOSS Increment 5 Contract Award | 1 | 2016 | 4 | 2016 |
| SOA TO 5 Contract Award | 2 | 2016 | 3 | 2017 |
| SOA TO 6 Contract Award | 3 | 2017 | 4 | 2018 |
| AF/A1 HR Application | 3 | 2017 | 4 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0901226F: *Air Force Studies and Analysis Agency* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.900 | 1.175 | 0.786 | - | 0.786 | 1.596 | 1.726 | 1.596 | 1.624 | Continuing | Continuing |
| 676009: *M & S DEVELOPMENT* | - | 0.900 | 1.175 | 0.786 | - | 0.786 | 1.596 | 1.726 | 1.596 | 1.624 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Provides for development and enhancement of modeling and simulation tools for strategic planning, operational requirements, modernization and recapitalization of systems and programs, and the Planning, Programming, Budgeting and Execution (PPBE) processes for the AF Analytic Community and Secretary of the Air Force Standard Analysis Toolkit in support of AF Senior Leadership. As new technologies are introduced to the battlefield Digital Electronic Jammers, maneuvering Surface-to-Surface Missiles, Directed Energy Weapons, etc.)along with evolving warfighting techniques and support operations, the range covered by existing analytic tools needs to be expanded as well. M&S creation and enhancement can require extensive research in how to implement the emerging weapons capabilities as well as demand development of software techniques to implement the changes. Additionally, new focus areas such as Space, Irregular Warfare, Information Operations, Cyber warfare and ISR are mandating tools of their own to examine and these also require new exploration and development. These focus areas will need to be examined in isolation and cross-domain through populating data in existing models.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | DATE: April 2013 |
|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | R-1 ITEM NOMENCLATURE<br>PE 0901226F: *Air Force Studies and Analysis Agency* | | | |
| **B. Program Change Summary ($ in Millions)** | **FY 2012** | **FY 2013** | **FY 2014 Base** | **FY 2014 OCO** | **FY 2014 Total** |
| Previous President's Budget | 0.928 | 1.050 | 0.000 | - | 0.000 |
| Current President's Budget | 0.900 | 1.175 | 0.786 | - | 0.786 |
| Total Adjustments | -0.028 | 0.125 | 0.786 | - | 0.786 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.028 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.125 | 0.786 | - | 0.786 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Modeling & Simulation Development | 0.900 | 1.175 | 0.786 |
| ***Description:*** Develop and Update M&S tools<br><br>***FY 2012 Accomplishments:***<br>Developed and Updated M&S tools<br><br>***FY 2013 Plans:***<br>Develop and Update M&S tools<br><br>***FY 2014 Plans:***<br>Develop and Update M&S tools | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.900 | 1.175 | 0.786 |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

N/A.

**E. Acquisition Strategy**

All efforts will be awarded under existing Task Order contracts.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901226F: *Air Force Studies and Analysis Agency* |

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901226F: *Air Force Studies and Analysis Agency* | PROJECT<br>676009: *M & S DEVELOPMENT* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Software Development | TBD | Not specified.:, | - | 0.900 | Jan 2012 | 1.175 | Jan 2013 | 0.786 | Jan 2014 | - | | 0.786 | Continuing | Continuing | |
| | | Subtotal | 0.000 | 0.900 | | 1.175 | | 0.786 | | 0.000 | | 0.786 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 0.900 | | 1.175 | | 0.786 | | 0.000 | | 0.786 | | | |

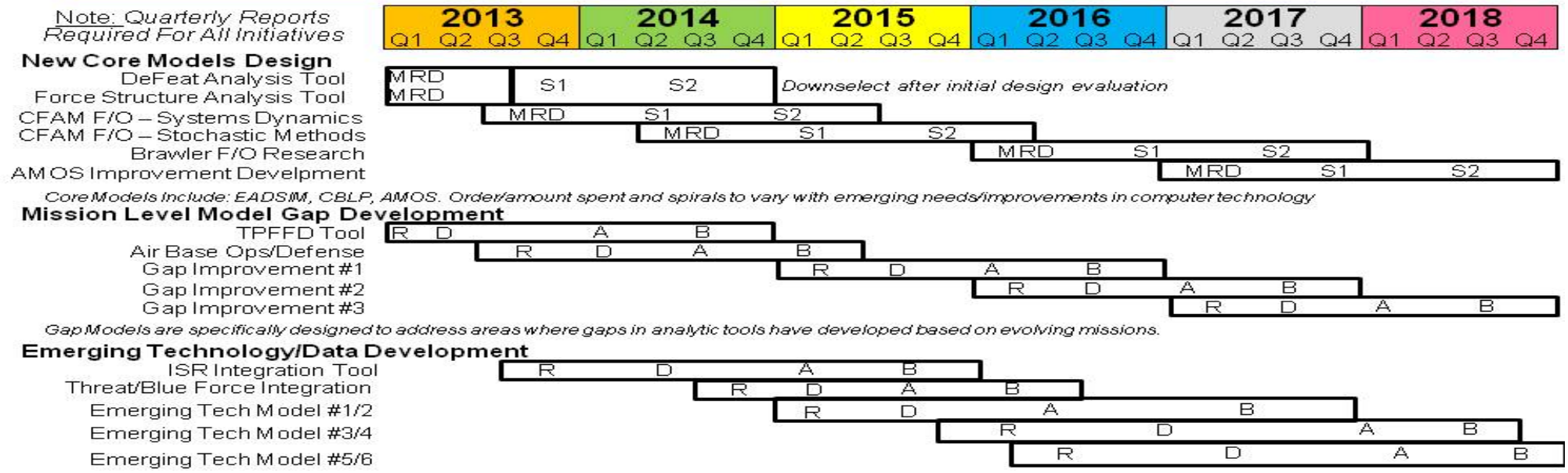
**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901226F: *Air Force Studies and Analysis Agency* | PROJECT<br>676009: *M & S DEVELOPMENT* |

UNCLASSIFIED

U.S. AIR FORCE

# AF/A9 M&S Development Investment Plan (Aug 12)




UNCLASSIFIED

*Integrity - Service - Excellence*

1

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901226F: *Air Force Studies and Analysis Agency* | PROJECT<br>676009: *M & S DEVELOPMENT* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| Events | Quarter | Year | Quarter | Year |
| Modeling & Simulation Development | 1 | 2013 | 4 | 2018 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0901279F: *Facilities Operation - Administrative* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 11.745 | 3.491 | 0.654 | - | 0.654 | 1.717 | 1.611 | 0.000 | 0.000 | Continuing | Continuing |
| 671017: *CE IT Transformation* | - | 11.745 | 3.491 | 0.654 | - | 0.654 | 1.717 | 1.611 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Civil Engineer's (CE) IT Transformation program's mission is to transform CE's business processes to improve operations and support AF priorities. The plan is to leverage industry best practices, optimize core business processes, and replace existing outdated IT capabilities with a set of commercial off-the-shelf (COTS) software solutions and a service provider to deploy and maintain the system. This COTS solution will provide a robust, enterprise-wide CE capability and will consist of an integrated set of embedded / configurable best business practices and capabilities to support the following CE missions: Real Property Management; Work & Supply Management, Project Management, Energy Management, Housing Management, Financial Management, Environmental Management, Planning, Emergency Services, Fire Operations and Explosive Ordnance Disposal (EOD).

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 12.118 | 3.491 | 1.304 | - | 1.304 |
| Current President's Budget | 11.745 | 3.491 | 0.654 | - | 0.654 |
| Total Adjustments | -0.373 | 0.000 | -0.650 | - | -0.650 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | -0.373 | 0.000 | -0.650 | - | -0.650 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Configuration and Test | 11.745 | 3.491 | 0.654 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901279F: *Facilities Operation - Administrative* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** Configure and test COTS software for multiple capability groups.<br><br>***FY 2012 Accomplishments:***<br>Completed the selection of the Service Provider for the multiple capability<br><br>***FY 2013 Plans:***<br>Continue configuration and testing COTS software for Capability Groups 1&2. Continue requirements analysis, selection, and procurement of COTS software for Capability Group 3.<br><br>***FY 2014 Plans:***<br>Continue configuration and testing COTS software for Capability Group 3. Continue requirements analysis, selection, and procurement of COTS software for Capability Groups 4-6. | | | |
| **Accomplishments/Planned Programs Subtotals** | 11.745 | 3.491 | 0.654 |

**D. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: Line Item # 834010: *General Infromation Technology* | 0.000 | 5.000 | 4.200 | | 4.200 | 0.504 | 0.506 | 0.504 | 0.513 | Continuing | Continuing |

**Remarks**

**E. Acquisition Strategy**

For each new capability, a two step acquisition will be applied as required. Phase I of the acquisition will consist of selecting a software product and conducting software configuration. Phase II is to utilize the selected service provider to test, integrate, deploy and maintain the solution, thereby eliminating CE legacy systems.

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901279F: *Facilities Operation - Administrative* | PROJECT<br>671017: *CE IT Transformation* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Configuration and Testing | C/Various | TBD:TBD, | - | 11.745 | Jan 2012 | 3.491 | | 0.654 | Apr 2013 | - | | 0.654 | Continuing | Continuing | |
| | | Subtotal | 0.000 | 11.745 | | 3.491 | | 0.654 | | 0.000 | | 0.654 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

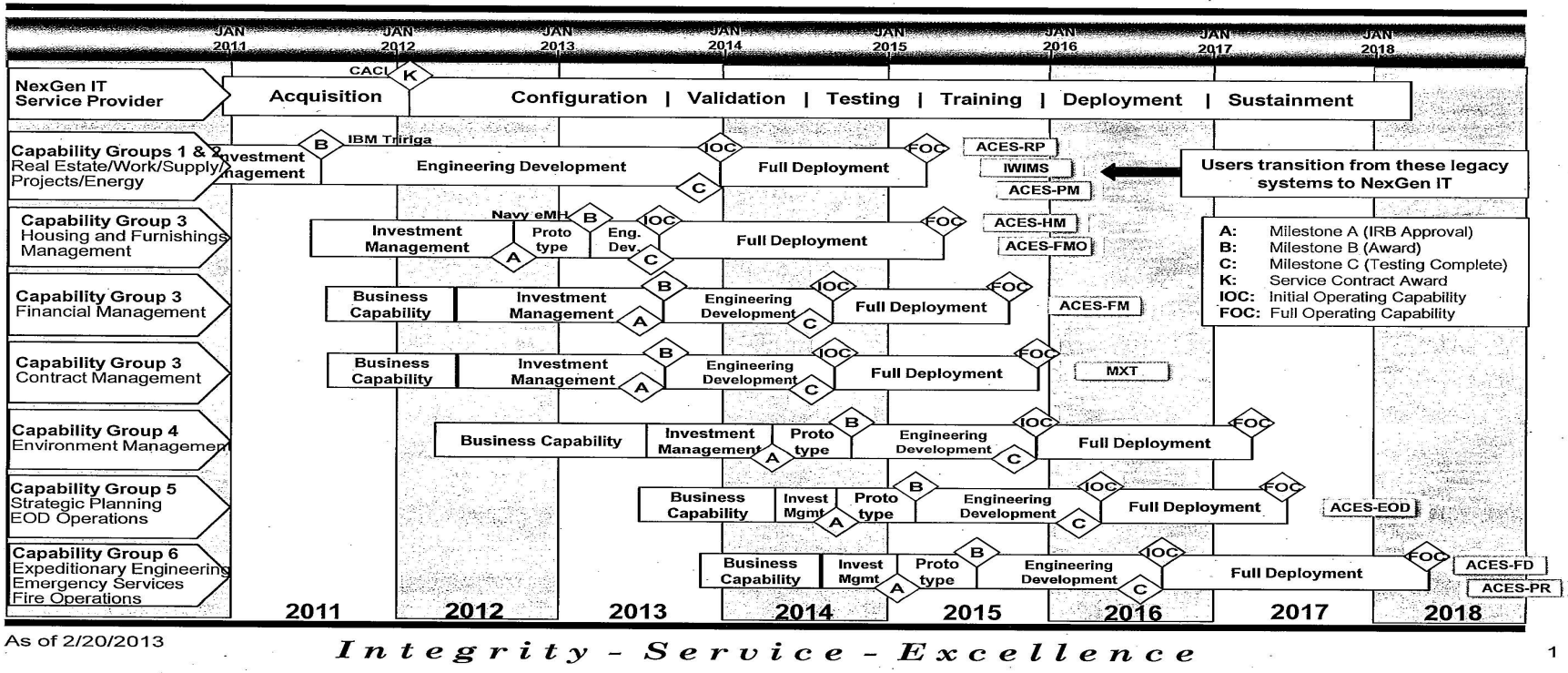
**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Subtotal | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 11.745 | | 3.491 | | 0.654 | | 0.000 | | 0.654 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901279F: *Facilities Operation - Administrative* | PROJECT<br>671017: *CE IT Transformation* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901279F: *Facilities Operation - Administrative* | **PROJECT**<br>671017: *CE IT Transformation* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Software Configuration and Testing | 1 | 2012 | 1 | 2016 |
| Capability Group 1&2 Transition Completed | 2 | 2015 | 2 | 2015 |
| Capability Group 3 Transition Completed | 1 | 2016 | 1 | 2016 |
| Capability Group 4 Transition Completed | 3 | 2017 | 3 | 2017 |
| Capability Group 5 Transition Completed | 4 | 2017 | 4 | 2017 |
| Capability Group 6 Transition Completed | 3 | 2018 | 3 | 2018 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 76.207 | 100.160 | 135.735 | - | 135.735 | 119.970 | 60.989 | 18.588 | 0.327 | Continuing | Continuing |
| 672222: *Program Budget Enterprise Service (PBES)* | - | 1.495 | 1.000 | 1.000 | - | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 675177: *Cost Estimating Modeling (CEM)* | - | 0.000 | 0.000 | 2.700 | - | 2.700 | 5.082 | 5.081 | 0.327 | 0.327 | Continuing | Continuing |
| 675178: *Defense Enterprise Accounting Management System Increment 2 (DEAMS Inc 2)* | - | 0.000 | 0.000 | 20.300 | - | 20.300 | 6.500 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 675179: *Defense Enterprise Accounting Management System Increment 1 (DEAMS Inc 1)* | - | 74.712 | 99.160 | 111.735 | - | 111.735 | 108.388 | 55.908 | 18.261 | 0.000 | Continuing | Continuing |
| **MDAP/MAIS Code(s):** N87 | | | | | | | | | | | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**Note**

In FY 2014, project 675177, Cost Estimating Modeling (CEM) includes new start efforts.

**A. Mission Description and Budget Item Justification**

This program element supports three primary efforts: the Program and Budget Enterprise Service (PBES), project 672222; the Cost Estimating Modeling (CEM), project 675177; and the Defense Enterprise Accounting and Management System (DEAMS), project 675179 (DEAMS Inc 1) and project 675178 (DEAMS Inc 2).

The Program and Budget Enterprise Service (PBES), project 672222, is a software development effort to deliver enhanced and modernized budgeting and programming capability.

The Cost Estimating Modeling (CEM), project 675177 is a knowledge based study effort to provide and enhance Air Force-wide cost estimating capabilities by developing and modernizing current cost data and estimating models, methods, and tools.

The Defense Enterprise Accounting and Management System (DEAMS), project 675179 (DEAMS Inc 1) and project 675178 (DEAMS Inc 2), is a software implementation effort to provide an auditable modern accounting and finance system. DEAMS will also allow the Air Force to comply with and fulfill statutory

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* |

requirements for auditability by 2017 (i.e., Chief Financial Officer Act of 1990, FY10 NDAA, etc.) and will be Standard Financial Information Structure (SFIS) and Generally Accepted Accounting Principles (GAAP) compliant.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

These programs are in Budget Activity 7, Operational System Development, these budget activities include development efforts to upgrade systems currently fielded or has received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 76.207 | 100.160 | 114.367 | - | 114.367 |
| Current President's Budget | 76.207 | 100.160 | 135.735 | - | 135.735 |
| Total Adjustments | 0.000 | 0.000 | 21.368 | - | 21.368 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | 0.000 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 21.368 | - | 21.368 |

**Change Summary Explanation**

Starting in FY 2014, the DEAMS Inc 2 effort has been separated out into its own project, 675178. These funds are a result of internal program element realignment among RDT&E, OPAF, and O&M funds from DEAMS Inc 1 to DEAMS Inc 2. This provides more transparancy and better accountability on where funds are being used.

In addition, in FY 2014 $2.7M of RDT&E funds are requested for a new project, Cost Estimating Modeling, project 675177.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>672222: *Program Budget Enterprise Service (PBES)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 672222: *Program Budget Enterprise Service (PBES)* | - | 1.495 | 1.000 | 1.000 | - | 1.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

The Program and Budget Enterprise Service (PBES) is a software development effort that will utilize a service orientated architecture (SOA) to deliver budgeting and programming capability for the United States Air Force. PBES will replace legacy systems such as the Automated Budget Interactive Data Environment System (ABIDES) and the Resource Allocation Programming Information Decision System (RAPIDS) and will support the budget formulation and force programming process. In keeping with the FY10 NDAA Section 804 and recent Office of the Secretary of Defense (OSD) guidance regarding the acquisition of information technology (IT) systems, PBES will leverage existing data sources to provide needed capability in small incremental steps rather than a single system delivery. PBES will give the Air Force a flexible system to keep up with constantly changing budget requirements.

PBES capabilities development will occur in four initial phases based on the services development and delivery process (SDDP) which will provide incremental capability, based on business process re-engineering (BPR) and utilization of authoritative data sources (ADS).

Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program is in Budget Activity 7, Operational System Development, these budget activities include development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Product Development | 1.445 | 0.950 | 0.950 |
| ***Description:*** Requirements definition, validation, and development of the materiel solution necessary to allow the AF to sunset outdated budgeting and programming systems in two rounds.<br><br>Round 1A consists of exposing authoritative data sources to support AF budget submission activities, including but not limited to data element validation, program guidance development and balancing OSD systems. Round 1B consists of exposing authoritative data sources to support AF programming/POM development activities, including but not limited to options development, get to the bottom line and balance MILCON. Round 1C capabilities consist of exposing authoritative data sources to support budget development activities, including but not limited to reporting on force structure and flying hours. Round 1D | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>672222: *Program Budget Enterprise Service (PBES)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| capabilities consist of exposing authoritative data sources to support appropriation specific budget development activities, including but not limited to MILPERS re-price.<br><br>Round 2 capabilities consist of exposing authoritative data sources to support appropriation specific budget development activities, including but not limited to justification book production.<br><br>***FY 2012 Accomplishments:***<br>Completed Round 1A requirements definition to support data element validation, program guidance development, and balancing Office of the Secretary of Defense (OSD) systems.<br><br>Defined Round 1B requirements to support options development, get to the bottom line, and balance Military Construction (MILCON).<br><br>Initiated efforts to define Round 1D requirements to support Military Personnel (MILPERS) re-price.<br>***FY 2013 Plans:***<br>Will complete Round 1A activities to include development, testing and fielding of the materiel solution to support data element validation, program guidance development and balancing OSD systems.<br><br>Will complete Round 1B requirements definition, develop and test the materiel solution and begin fielding in support of options development, get to the bottom line and balance MILCON.<br><br>Will complete Round 1D requirements definition; begin and complete development and testing of the materiel solution to support MILPERS re-price.<br>***FY 2014 Plans:***<br>Will complete Round 1B deployment in support of options development, get to the bottom line, and balance MILCON.<br><br>Complete Round 1D deployment in support of MILPERS re-price.<br><br>Define Round 2 requirements; develop and test the materiel solution in support of, but not limited to, justification book production. | | | |
| ***Title:*** Program Management Administration (PMA)<br>***Description:*** Program Management Administration (PMA) funding supports engineering and technical development and implementation activities, along with acquisition support efforts. | 0.050 | 0.050 | 0.050 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>672222: *Program Budget Enterprise Service (PBES)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***FY 2012 Accomplishments:***<br>Initiated PMA.<br>***FY 2013 Plans:***<br>Continue PMA.<br>***FY 2014 Plans:***<br>Continue PMA. | | | |
| **Accomplishments/Planned Programs Subtotals** | 1.495 | 1.000 | 1.000 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • Not Applicable: *N/A* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

**Remarks**

**D. Acquisition Strategy**

PBES will be developed using an incremental approach following the six (6) phases of the services development and delivery process (SDDP). A competitive, best-value contracting strategy is the preferred approach.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>672222: *Program Budget Enterprise Service (PBES)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PBES Round 1A Development | PO | Treasury Department:Washington, DC | - | 0.900 | Aug 2012 | 0.400 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| PBES Round 1B Development | TBD | TBD:TBD, | - | 0.395 | | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| PBES Round 1D Development | TBD | TBD:TBD, | - | 0.150 | | 0.250 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| PBES Round 2 Development | TBD | TBD:TBD, | - | 0.000 | | 0.000 | | 0.850 | | - | | 0.850 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 1.445 | | 0.650 | | 0.850 | | 0.000 | | 0.850 | | | |

**Remarks**

Develop requirements, build, test and field Round 1A capabilities including but not limited to Budget Submission activies.

Develop requirements, build, test and field Round 1B capabilities including but not limited to Options Development.

Develop requirements, build, test and field Round 1D capabilities to support MILPERS re-price

Develop requirements and begin build of Round 2 capabilities including but not limited to budget justification book development.

Contract Award Date 2013-07 for PBES Round 1A, Round 1B, and Round 1D activities.

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>672222: *Program Budget Enterprise Service (PBES)* | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PBES Round 1A Test and Evalution | TBD | TBD:TBD, | - | 0.000 | | 0.100 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| PBES Round 1B Test and Evaluation | TBD | TBD:TBD, | - | 0.000 | | 0.100 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| PBES Round 1D Test and Evaluation | TBD | TBD:TBD, | - | 0.000 | | 0.100 | | 0.000 | | - | | 0.000 | Continuing | Continuing | TBD |
| PBES Round 2 Test and Evaluation | TBD | TBD:TBD, | - | 0.000 | | 0.000 | | 0.100 | | - | | 0.100 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.300 | | 0.100 | | 0.000 | | 0.100 | | | |

**Remarks**

Development and Operational Testing of Round 1A, Round 1B and 1D capabilities. Begin development testing of Round 2 capabilities.

Contract Award Date 2013-07 for PBES Round 1A, Round 1B, and Round 1D activities.

**Management Services ($ in Millions)**

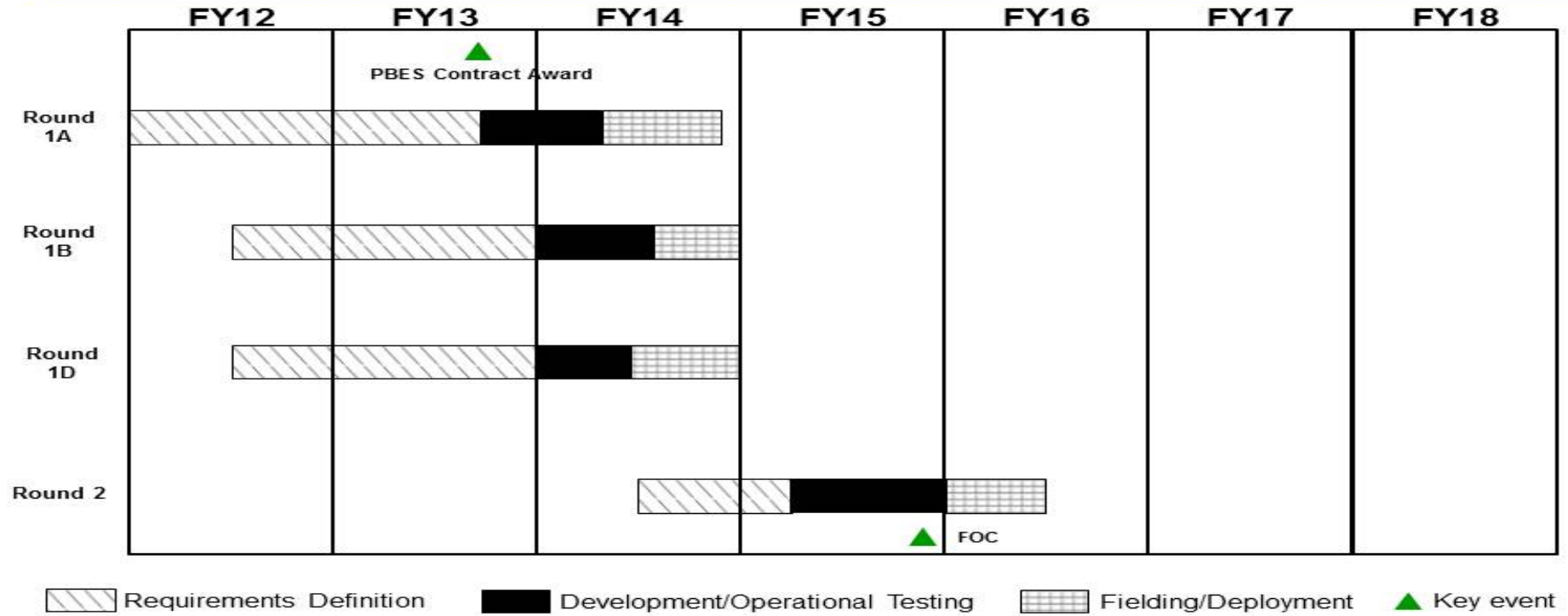
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA), PBES Round 1 | PO | Treasury Department:Washington, DC | - | 0.050 | Aug 2012 | 0.050 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| Program Management Administration (PMA), PBES Round 2 | TBD | TBD:TBD, | - | 0.000 | | 0.000 | | 0.050 | | - | | 0.050 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.050 | | 0.050 | | 0.050 | | 0.000 | | 0.050 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 1.495 | | 1.000 | | 1.000 | | 0.000 | | 1.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>672222: *Program Budget Enterprise Service (PBES)* |

# PBES Schedule




**FY14 PB R-Docs**

**As of 22 Feb 13**

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901538F: *Financial Management Information Systems Development* | **PROJECT**<br>672222: *Program Budget Enterprise Service (PBES)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| PBES Contract Award | 4 | 2013 | 4 | 2013 |
| Round (Rd) 1A Requirements Definition | 1 | 2012 | 4 | 2013 |
| Rd 1A Development/Operational Testing | 4 | 2013 | 2 | 2014 |
| Rd 1A Fielding/Deployment | 3 | 2014 | 4 | 2014 |
| Rd 1B Requirements Definition | 2 | 2012 | 4 | 2013 |
| Rd 1B Development/Operational Testing | 1 | 2014 | 3 | 2014 |
| Rd 1B Fielding/Deployment | 3 | 2014 | 4 | 2014 |
| Rd 1D Requirements Definition | 2 | 2012 | 4 | 2013 |
| Rd 1D Development/Operational Testing | 1 | 2014 | 2 | 2014 |
| Rd 1D Fielding/Deployment | 3 | 2014 | 4 | 2014 |
| Rd 2 Requirements Definition | 3 | 2014 | 2 | 2015 |
| Rd 2 Development/Operational Testing | 2 | 2015 | 4 | 2015 |
| Rd 2 Fielding/Deployment | 1 | 2016 | 3 | 2016 |
| PBES Full Operational Capability (FOC) | 4 | 2015 | 4 | 2015 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675177: *Cost Estimating Modeling (CEM)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675177: *Cost Estimating Modeling (CEM)* | - | 0.000 | 0.000 | 2.700 | - | 2.700 | 5.082 | 5.081 | 0.327 | 0.327 | Continuing | Continuing |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Cost Estimating Modeling (CEM) provides and enhances Air Force-wide cost estimating capabilities by developing and modernizing current cost data and estimating models, methods, and tools. These products will improve the quality, timeliness, and effectiveness of the acquisition program cost estimates required by statute (e.g., 10 USC 2366, 2433, 2434) and regulation (e.g., DoDI 5000.02) in support of Air Force and Department of Defense acquisition decisions, programming and execution decisions, and Congressional mandates.

The Air Force has several requirements for research and development of new and modernized cost estimating capabilities for each weapon system type (aircraft, ballistic missiles, electronics and aircraft modifications, ground stations and automated information systems, cross cutting databases, satellites and launch vehicles, tactical missiles and munitions). In addition, unanticipated requirements often emerge due to changing acquisition laws, regulations, initiatives; changing technologies; and evolving warfighter requirements which drive the need for cost tool updates or expanded capability. For example, current shortfalls in capability reflect efforts needed to fill gaps in response to the laws and regulations such as the FY06 NDAA report {PL 109-163--Provisions relating to Major Defense Acquisition Programs (MDAPs)}, Weapon System Acquisition Reform Act (WSARA) {provisions related to improving cost estimating quality, especially earlier in the program life-cycle and affordability analysis}, Secretary of the Air Force (SECAF) Acquisition Excellence Plan {priorities to improve cost estimating capability and affordability analysis and improved cost estimating support to requirements process}, and new Office of the Secretary of Defense (OSD) policy {better buying power initiatives on enhanced trade-off analysis, affordability analysis, and will versus should cost analysis}.

This project will perform knowledge-based studies (KBS) and develop cost estimating databases, methods, models, and tools across hundreds of product work breakdown structure (WBS) elements and functional cost elements within each weapon system type. Breaking the effort down further, the activities for each WBS or cost element will include data collection, data cleansing and normalization, data archiving and database development, and data analysis to include creation of methods, cost estimating relationships, and models and tools. The different weapon system types are: Aircraft, Ballistic Missiles, Electronics and Aircraft Modifications, Ground Stations and Automated Information Systems (AIS), Cross-Cutting Databases, Satellite and Launch Vehicles (Space Systems), and Tactical Missiles and Munitions. Some areas of cost modeling efforts that are cross-cutting within all weapon system types are: cost risk metrics, methods development, tool enhancements; software cost database, metrics, tool development; contract or engineering change order analysis tools; other government cost elements (e.g., program office manning, administration, government test); and commodity area price escalation analysis and tools.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675177: *Cost Estimating Modeling (CEM)* |

The resulting cost estimating processes and centrally available standardized tool sets from this effort will enable more effective cost and risk analyses in support of program decisions. These improved cost capabilities are sorely needed to address continuing congressional concerns with Air Force acquisition and cost estimating credibility; concerns that are driven by an average of approximately 50% total program cost growth on major Air Force programs and the multitude of programs exhibiting cost growth.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** CEM<br><br>***Description:*** Perform knowledge-based studies (KBS) and develop databases, methods, tools and models, and gap improvements for the following efforts: Aircraft, Ballistic Missiles, Electronics and Aircraft Modifications, Ground Stations and Automated Information Systems (AIS), Cross-Cutting Databases, Satellite and Launch Vehicles (Space Systems), and Tactical Missiles and Munitions.<br><br>***FY 2012 Accomplishments:***<br>N/A<br><br>***FY 2013 Plans:***<br>N/A<br><br>***FY 2014 Plans:***<br>Initiate knowledge-based studies (KBS) and development of databases, methods, tools and models, and gap improvements for the following: Aircraft, Ballistic Missiles, Electronics and Aircraft Modifications, Ground Stations and Automated Information Systems (AIS), Cross-Cutting Databases, Satellite and Launch Vehicles (Space Systems), and Tactical Missiles and Munitions. | 0.000 | 0.000 | 2.650 |
| ***Title:*** Program Management Administration (PMA)<br><br>***Description:*** PMA funding supports technical development and acquisition planning and support.<br><br>***FY 2014 Plans:***<br>Initiate PMA efforts. | 0.000 | 0.000 | 0.050 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 0.000 | 2.700 |

**C. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

N/A

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675177: *Cost Estimating Modeling (CEM)* |

**D. Acquisition Strategy**

Contracts are expected to be firm, fixed price and will be awarded through full and open competition and follow Federal Acquisition Regulations (FAR) guidelines.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675177: *Cost Estimating Modeling (CEM)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Aircraft | Various | Various:Various, XX | - | 0.000 | | 0.000 | | 0.830 | | - | | 0.830 | Continuing | Continuing | TBD |
| Ballistic Missiles | Various | Various:Various, XX | - | 0.000 | | 0.000 | | 0.430 | | - | | 0.430 | Continuing | Continuing | TBD |
| Electronics, Aircraft Modifications | Various | Various:Various, XX | - | 0.000 | | 0.000 | | 0.180 | | - | | 0.180 | Continuing | Continuing | TBD |
| Ground Stations, Automated Information Systems | Various | Various:Various, XX | - | 0.000 | | 0.000 | | 0.240 | | - | | 0.240 | Continuing | Continuing | TBD |
| Cross-Cutting Databases | Various | Various:Various, XX | - | 0.000 | | 0.000 | | 0.770 | | - | | 0.770 | Continuing | Continuing | TBD |
| Satellite, Launch Vehicles | Various | Various:Various, XX | - | 0.000 | | 0.000 | | 0.100 | | - | | 0.100 | Continuing | Continuing | TBD |
| Tactical Missiles, Munitions | Various | Various:Various, XX | - | 0.000 | | 0.000 | | 0.100 | | - | | 0.100 | Continuing | Continuing | TBD |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 2.650 | | 0.000 | | 2.650 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675177: *Cost Estimating Modeling (CEM)* | |

**Management Services ($ in Millions)**

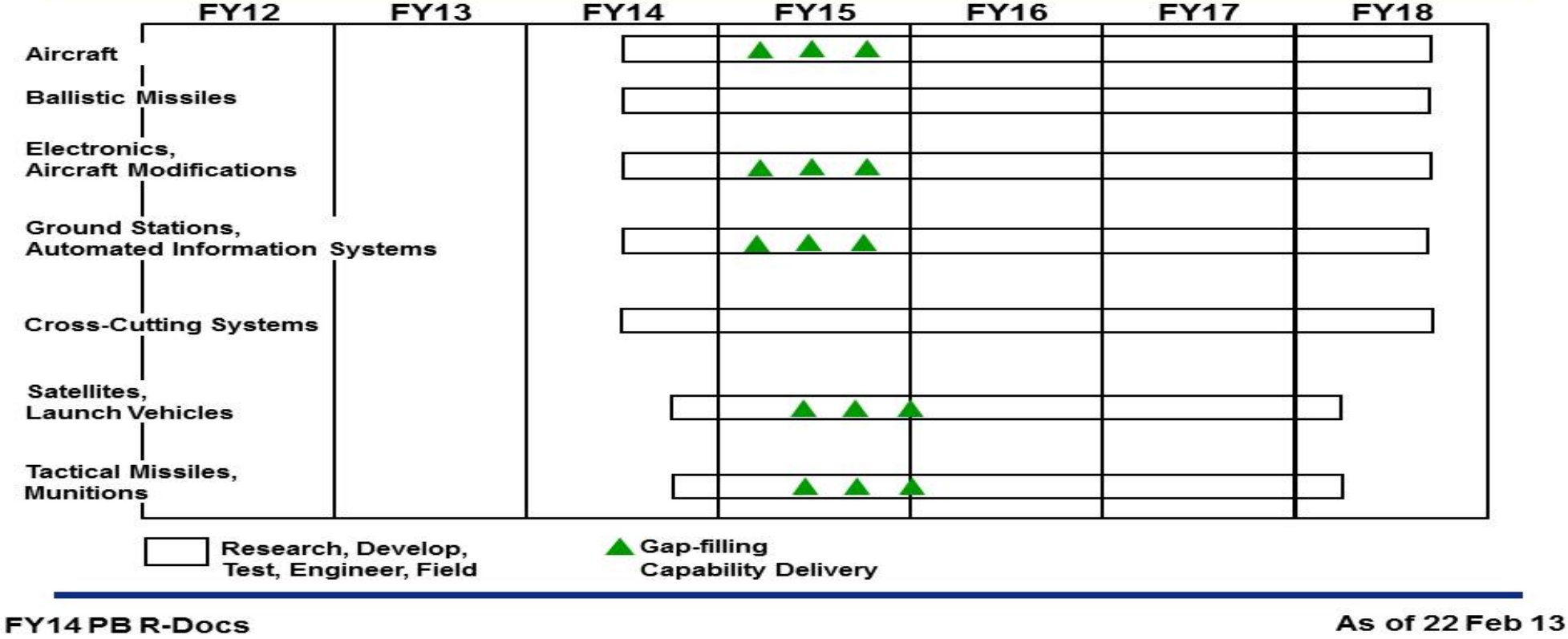
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) | Various | Various:Various, XX | - | 0.000 | | 0.000 | | 0.050 | | - | | 0.050 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.050 | | 0.000 | | 0.050 | | | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.000 | | 0.000 | | 2.700 | | 0.000 | | 2.700 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675177: *Cost Estimating Modeling (CEM)* |

# CEM Schedule




FY14 PB R-Docs

As of 22 Feb 13

| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901538F: *Financial Management Information Systems Development* | **PROJECT**<br>675177: *Cost Estimating Modeling (CEM)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Aircraft Research, Develop, Test, Engineer, Field (RDTEF) | 3 | 2014 | 4 | 2018 |
| Aircraft Gap-filling Capability Delivery 01 (GCD01) | 2 | 2015 | 2 | 2015 |
| Aircraft GCD02 | 3 | 2015 | 3 | 2015 |
| Aircraft GCD03 | 4 | 2015 | 4 | 2015 |
| Ballistic Missiles RDTEF | 3 | 2014 | 4 | 2018 |
| Electronics, Aircraft Modifications (EAM) RDTEF | 3 | 2014 | 4 | 2018 |
| EAM GCD01 | 2 | 2015 | 2 | 2015 |
| EAM GCD02 | 3 | 2015 | 3 | 2015 |
| 4EAM GCD03 | 2 | 2015 | 4 | 2015 |
| Ground Stations, Automated Information Systems (GSAIS) RDTEF | 3 | 2014 | 4 | 2018 |
| GSAIS GCD01 | 2 | 2015 | 2 | 2015 |
| GSAIS GCD02 | 3 | 2015 | 3 | 2015 |
| GSAIS GCD03 | 4 | 2015 | 4 | 2015 |
| Cross-Cutting Databases (CCD) RDTEF | 3 | 2014 | 4 | 2018 |
| Satellites, Launch Vehicles (SLV) RDTEF | 4 | 2014 | 2 | 2018 |
| SLV GCD01 | 3 | 2015 | 3 | 2015 |
| SLV GCD02 | 4 | 2015 | 4 | 2015 |
| SLV GCD03 | 4 | 2015 | 1 | 2016 |
| Tacticle Missiles, Munitions (TMM) RDTEF | 4 | 2014 | 2 | 2018 |
| TMM GCD01 | 3 | 2015 | 3 | 2015 |
| TMM GCD02 | 4 | 2015 | 4 | 2015 |
| TMM GCD03 | 4 | 2015 | 1 | 2016 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675178: *Defense Enterprise Accounting Management System Increment 2 (DEAMS Inc 2)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675178: *Defense Enterprise Accounting Management System Increment 2 (DEAMS Inc 2)* | - | 0.000 | 0.000 | 20.300 | - | 20.300 | 6.500 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Defense Enterprise Accounting and Management System (DEAMS) is a commercial-off-the-shelf (COTS) Oracle based software implementation effort that will provide an auditable modern accounting and finance system. DEAMS is a Joint AF and United States Transportation Command (USTRANSCOM) Enterprise Resource Planning (ERP) Program that will replace existing accounting and finance legacy systems and will provide core funds execution management functions consistent with financial management laws, regulations and policy, general ledger, funds management, payments, receivables, cost and revenues, and fiduciary reporting. DEAMS is compliant with the Clinger-Cohen Act, Business Enterprise Architecture (BEA), and integrates into Global Combat Support System-Air Force (GCSS-AF).

DEAMS Increment 2 (Inc 2) will further deploy the Air Force financial management solution, adding cost accounting, investment funds accounting, and time and labor accounting capabilities. Completion and deployment of Release 1 will complete the FIAR requirement. Release 2 will add Foreign Military Sales (FMS).

DEAMS Inc 2 is presently planned as two discreet releases:

Release 1 - Deploy capability to nine Air Force Materiel Command (AFMC) installations, one Defense Finance and Accounting Service (DFAS) location and to six Air Force Space Command (AFSPC) installations.

Release 2 - Deploy capability for Contingency Operations (CO) and Foreign Military Sales (FMS).

Activities also include studies and analysis to support both current program and execution and future program planning.

This program is in Budget Activity 7, Operational System Development, these budget activities includes development efforts to upgrade systems currently fielded or has received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Product Development | 0.000 | 0.000 | 20.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901538F: *Financial Management Information Systems Development* | **PROJECT**<br>675178: *Defense Enterprise Accounting Management System Increment 2 (DEAMS Inc 2)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** DEAMS Inc 2 product development activities. Complete help desk support; post production support to include process execution, data scripts, etc.; Engineering Integration Services for oversight of development tools and processes; blueprinting, design & coding of Increment 2, Releases 1 & 2(2R1 & 2R2) will occur in a government owned development environment; and rollout & change management preparation.<br><br>in FY 2013 and FY 2014, DEAMS Inc 2 PMA funds are included in DEAMS Inc 1, project 675179.<br><br>***FY 2012 Accomplishments:***<br>No FY 2012 funding.<br><br>***FY 2013 Plans:***<br>No FY 2013 Funding.<br><br>***FY 2014 Plans:***<br>DEAMS Inc 2 product development activities include requirements and design services for Release 1. | | | |
| ***Title:*** Program Management Administration (PMA)<br><br>***Description:*** PMA for contract manangement, finance and cost management, support acquisition planning and management activities.<br><br>***FY 2012 Accomplishments:***<br>No FY 2012 funding.<br><br>***FY 2013 Plans:***<br>No Fy 2013 funding.<br><br>***FY 2014 Plans:***<br>Initiate PMA activities. | 0.000 | 0.000 | 0.300 |
| **Accomplishments/Planned Programs Subtotals** | 0.000 | 0.000 | 20.300 |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • Not Applicable: *Not Applicable* | 0.000 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675178: *Defense Enterprise Accounting Management System Increment 2 (DEAMS Inc 2)* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|

**Remarks**

**D. Acquisition Strategy**

The DEAMS Increment (Inc) 2 implementation is a continuation of the Increment 1 approach and consists of two releases to meet the requirements of Office of Management and Budget (OMB) M-10-26 and the Business Capability Lifecycle (BCL) model. The DEAMS Inc 2 strategy is composed of functional capability fielded to operational AF in Inc 1 and augmented to include cost, investment funds, and time and labor accounting capabilities for an additional 11,600 users.

DEAMS Inc 2 is presently planned as two discreet releases:

Release 1 - Deploy capability to six Air Force Space Command (AFSPC) installations, nine Air Force Materiel Command (AFMC) installations and one Defense Finance and Accounting Service (DFAS) location.

Release 2 - Deploy capability for Contingency Operations (CO) and Foreign Military Sales (FMS) capabilities.

Multiple contract actions are also anticipated for the releases in DEAMS Inc 2.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675178: *Defense Enterprise Accounting Management System Increment 2 (DEAMS Inc 2)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEAMS Inc 2 efforts include requirements and design services for Releases 1&2; Start system development services for Inc 2, Release 1, provide Level 1 Help desk activities | Various | AFLCMC:Wright Patterson AFB, OH | - | 0.000 | | 0.000 | | 20.000 | Oct 2013 | - | | 20.000 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 20.000 | | 0.000 | | 20.000 | | | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

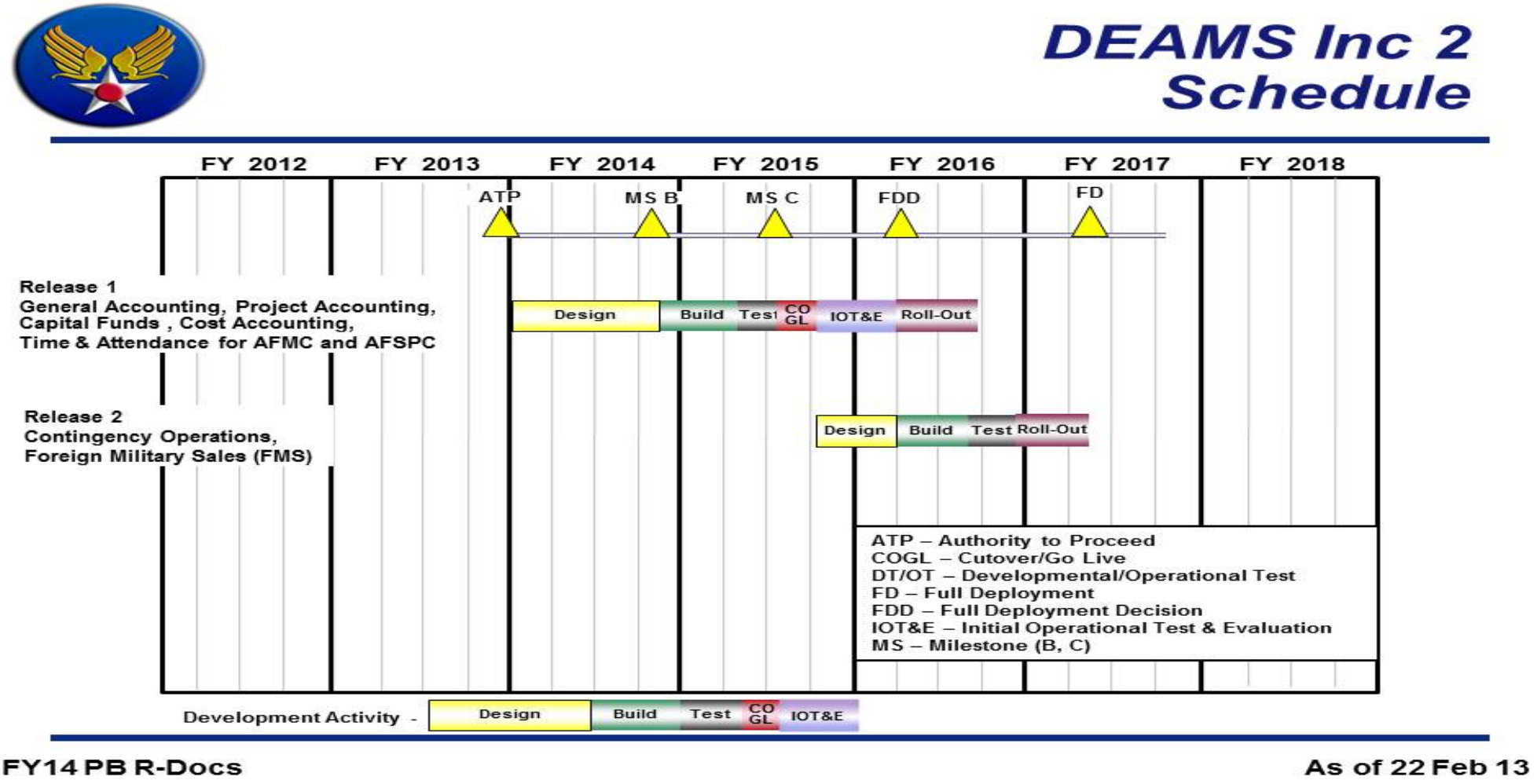
| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) | Various | AFLCMC:WPAFB, OH | - | 0.000 | | 0.000 | | 0.300 | Oct 2013 | - | | 0.300 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.300 | | 0.000 | | 0.300 | | | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675178: *Defense Enterprise Accounting Management System Increment 2 (DEAMS Inc 2)* | |

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Project Cost Totals | 0.000 | 0.000 | | 0.000 | | 20.300 | | 0.000 | | 20.300 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901538F: *Financial Management Information Systems Development* | **PROJECT**<br>675178: *Defense Enterprise Accounting Management System Increment 2 (DEAMS Inc 2)* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901538F: *Financial Management Information Systems Development* | **PROJECT**<br>675178: *Defense Enterprise Accounting Management System Increment 2 (DEAMS Inc 2)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| DEAMS Inc 2 Authority To Proceed (ATP) | 4 | 2013 | 4 | 2013 |
| DEAMS Inc 2, Milestone B | 4 | 2014 | 4 | 2014 |
| DEAMS Inc 2, Milestone C | 3 | 2015 | 3 | 2015 |
| DEAMS Inc 2, Full Deployment Decision (FDD) | 2 | 2016 | 2 | 2016 |
| DEAMS Inc 2, Full Deployment (FD) | 2 | 2017 | 2 | 2017 |
| DEAMS Inc 2, Release 1 Development Activity | 1 | 2014 | 3 | 2016 |
| DEAMS Inc 2, Release 2 Development Activity | 4 | 2015 | 2 | 2017 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675179: *Defense Enterprise Accounting Management System Increment 1 (DEAMS Inc 1)* | |

| COST ($ in Millions) | All Prior Years | FY 2012 | FY 2013# | FY 2014 Base | FY 2014 OCO ## | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 675179: *Defense Enterprise Accounting Management System Increment 1 (DEAMS Inc 1)* | - | 74.712 | 99.160 | 111.735 | - | 111.735 | 108.388 | 55.908 | 18.261 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Defense Enterprise Accounting and Management System (DEAMS) is a commercial-off-the-shelf (COTS) Oracle based software implementation effort that will provide an auditable modern accounting and finance system. DEAMS is a Joint AF and United States Transportation Command (USTRANSCOM) Enterprise Resource Planning (ERP) Program that will replace existing accounting and finance legacy systems and will provide core funds execution management functions consistent with financial management laws, regulations and policy, general ledger, funds management, payments, receivables, cost and revenues, and fiduciary reporting. DEAMS is compliant with the Clinger-Cohen Act, Business Enterprise Architecture (BEA), and integrates into Global Combat Support System-Air Force (GCSS-AF).

DEAMS Increment 1 (Inc 1) Technology Demonstration (TD) at Scott AFB, IL is complete. DEAMS Inc 1 is currently deployed and operational at Scott AFB, IL; DFAS-Limestone, ME; and McConnell AFB, KS.

DEAMS Inc 1 is to be rolled-out and deployed in six (6) releases as described below:
Release 1: Deploy capability to Air Mobility Command (AMC) bases without Transportation Working Capital Funds (TWCF) missions.
Release 2: Deploy capability to AMC bases with TWCF missions plus McDill AFB, FL.
Release 3: Leverage Commercial-Off-The-Shelf (COTS) capabilities within Oracle R12 to refine FM business processes and optimize the DEAMS solution in preparation for mass deployment and will involve a re-host to leverage the latest DoD infrastructure technologies. This release will entail a COTS software upgrade from Oracle 11i to Oracle R12, and will be released to all previously fielded locations.
Release 4: Deploy capability to all remaining USTRANSCOM locations and orgainzations, will provide operations integration with AF AMC, Army's Surface Deployment and Distribution Command (SDDC), and will provide data interface with the Navy's Military Sealift Command.
Release 5: Deploy capability to the remaining Air Force operating locations in the Continental United States (CONUS) following an Initial Operational Test and Evaluation (IOT&E) and a Full Deployment Decision (FDD) authorization.
Release 6: Deploy capability to Outside CONUS (OCONUS) Air Force operating locations in the Pacific, Pacific Air Force (PACAF) and European, United States Air Force in Europe (USAFE), theaters following the FDD.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901538F: *Financial Management Information Systems Development* | **PROJECT**<br>675179: *Defense Enterprise Accounting Management System Increment 1 (DEAMS Inc 1)* |

This program is in Budget Activity 7, Operational System Development, these budget activities includes development efforts to upgrade systems currently fielded or has received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** Product Development | 70.861 | 93.440 | 105.963 |
| ***Description:*** DEAMS Inc 1 product development activities support multiple releases as described in the mission description. Activities include design, build, data conversion and cutover from legacy systems. Identify, prioritize, and resolve software problem and deficiency reports and defects. Provide hardware support (system admininstration and database security) and storage service by Defense Information Systems Agency (DISA). Continued development of interface to Global Combat Support System (GCSS), Enterprise Resource Planning (ERP) support, engineering services, change management, training, help desk support, Independent Verification and Validation (IV&V), etc.<br><br>***FY 2012 Accomplishments:***<br>Completed DEAMS Inc 1 Technology Demonstration at Scott AFB, Illinois. DEAMS Inc 1 received an Acquisition Program Baseline (APB) on 3 Feb 13 as a result of a successful Milestone B event. Completed Build and Test activities on Increment 1, Release 1. Received Acquisition Decision Memorandum (ADM) authorizing Increment 1, Release 1 Deployment to McConnell AFB, KS in FY13. Provided help desk support; Post Production Support to include process execution, data scripts, etc.; Engineering Integration Services for oversight of development tools and processes; and rollout, training & change management activities.<br><br>***FY 2013 Plans:***<br>Deploy DEAMS Inc 1, Release 1 to McConnell AFB, KS. Continue DEAMS Inc 1 build activities for Release 2; Design and Build activities for Releases 3-6; continue Post Production Support to include process execution, data scripts, etc; help desk support; Engineering Integration Services for oversight of development tools and processes; rollout, training and change management activities; and deploy to additional Air Mobility Command (AMC) bases.<br><br>***FY 2014 Plans:***<br>Complete Design activities for Inc 1, Releases 3&4; start Build activites for Inc 1, Releases 3&4; start Design activities for Inc 1, Release 5; Continue Post Production Support to include process execution, data scripts, etc; help desk support; Engineering Integration Services (EIS) for oversight of development tools and processes; and rollout, training and change management activities. | | | |
| ***Title:*** Test and Evaluation (T&E) | 0.510 | 0.918 | 0.933 |
| ***Description:*** The T&E process will be a complete system test to validate system software requirements and to ensure compliance mandates are satisfied. The T&E efforts will be conducted at developer test site, Capabilities Integration Environment (CIE) and | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675179: *Defense Enterprise Accounting Management System Increment 1 (DEAMS Inc 1)* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| DISA production sites. The DEAMS Integrated Test Plan (ITP) and the Increment 1 System Integrator (SI) Software Test Plan (STP) cover the details of DEAMS T&E.<br><br>***FY 2012 Accomplishments:***<br>Continued DEAMS Inc 1 T&E activities. Air Force Operational Test and Evaluation Center (AFOTEC) completed Operational Assessment (OA) on DEAMS Inc 1 capability at Scott AFB, IL and DFAS-Limestone, ME.<br>***FY 2013 Plans:***<br>Continue DEAMS Inc 1 T&E activities. Support government testing for Release 2; T&E support for software problem reports and defect resolution during Developmental Test/Operational Test and Evaluation (DT/OT&E) and for post-fielding activities.<br>***FY 2014 Plans:***<br>Continue DEAMS Inc 1 T&E activities. Support system development services testing & government testing for Releases 3&4; T&E support for software problem reports and defect resolution during post-fielding activities. | | | |
| ***Title:*** Program Management Administration (PMA)<br><br>***Description:*** DEAMS Inc 1 Program Management Administration (PMA) funding supports acquisition support services, cost estimating & analysis, travel, supplies and equipment, etc. DEAMS Inc 2, project 675178, PMA costs are included in FY 2013.<br><br>***FY 2012 Accomplishments:***<br>Continued DEAMS Inc 1 PMA to include program management; contract management; finance and cost management; support of Investment Review Board (IRB), Milestone Decision Authority (MDA), and program milestone events; acquistion & planning support.<br>***FY 2013 Plans:***<br>Continue DEAMS Inc 1 PMA to include program management; contract management; finance and cost management; support of Investment Review Board (IRB), Milestone Decision Authority (MDA), and Program Milestone events; acquistion and planning support for both Inc 1 and Inc 2.<br>***FY 2014 Plans:***<br>Continue DEAMS Inc 1 PMA to include Program Management; Contract Management; Finance and Cost Management; support of Investment Review Board (IRB), Milestone Decision Authority (MDA), and program milestone events; acquistion and planning support. | 3.341 | 4.802 | 4.839 |
| **Accomplishments/Planned Programs Subtotals** | 74.712 | 99.160 | 111.735 |

| Exhibit R-2A, RDT&E Project Justification: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675179: *Defense Enterprise Accounting Management System Increment 1 (DEAMS Inc 1)* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total | FY 2015 | FY 2016 | FY 2017 | FY 2018 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPAF: BA03: Line Item # 834430: *GCSS-AF FOS* | 14.824 | 7.413 | 11.804 | | 11.804 | 17.048 | 16.267 | 0.000 | 0.000 | 0.000 | 0.000 |

**Remarks**

**D. Acquisition Strategy**

The DEAMS acquisition strategy was changed from a three increment approach to a two increment approach as a result of the 30 September 2010 Major Acquisition Information System (MAIS) critical change program restructure. Further, the implementation methodology was changed from a spiral to a multiple release concept to meet the requirements of Office of Management and Budget (OMB) M-10-26 which required programs to decompose their efforts into smaller and shorter segments.

The DEAMS Inc 1 acquisition strategy is composed of a Technology Demonstration (TD) at Scott AFB, IL and six releases. The TD effort is complete and DEAMS received a Limited Fielding Decision (LFD) to deploy Increment 1, Release 1 to McConnell AFB, KS.

DEAMS Inc 1 is currently deployed and operational at Scott AFB, IL; DFAS-Limestone, ME; and McConnell AFB, KS.

DEAMS capability is to be rolled-out and deployed to the field in six (6) releases, as described below.

Release 1: Deploys capability to all Air Mobility Command (AMC) locations that only have a non-Transportation Working Capital Fund (TWCF) mission.
Release 2: Deploys capability to all other AMC locations (those having TWCF missions) plus McDill AFB FL.
Release 3: This release will entail a COTS software upgrade from Oracle 11i to Oracle R12, and will be released to all previously fielded locations.
Release 4: Deploys capability to all remaining USTRANSCOM locations/organizations, including HQ USTC and HQ SDDC.
Release 5: Deploy capability to AF CONUS operating locations.
Release 6: Deploy capability to OCONUS operating locations at USAFE and PACAF.

Multiple contract actions are anticipated for the releases in DEAMS Increment 1.

**E. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901538F: *Financial Management Information Systems Development* | **PROJECT**<br>675179: *Defense Enterprise Accounting Management System Increment 1 (DEAMS Inc 1)* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DEAMS Inc 1 Support; DEAMS Inc 2 planning; complete stabilization; Help Desk; COTS Software License & Maintenance; Blueprint, design, code, development tools/processes; Post Production Support | Various | Various:Various, | - | 33.830 | Nov 2011 | 34.554 | Nov 2012 | 39.456 | Oct 2013 | - | | 39.456 | Continuing | Continuing | TBD |
| DISA & GCSS-AF Support | Various | DISA/EIS/HI:Gunter AFB, AL | - | 5.874 | Oct 2011 | 9.304 | Oct 2012 | 10.379 | Oct 2013 | - | | 10.379 | Continuing | Continuing | TBD |
| Direct Mission Support (ERP support, engineering svs, change mgmt, training , MITRE, Dev/ Integration Environments, Independent Verification & Validation, Capabilities Integration Environment, etc) | Various | Various:Various, | - | 31.157 | Nov 2011 | 49.582 | Oct 2012 | 56.128 | Oct 2013 | - | | 56.128 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 70.861 | | 93.440 | | 105.963 | | 0.000 | | 105.963 | | | |

**Remarks**

COTS: Commercial-Off-The-Shelf
DISA: Defense Information Systems Agency
GCSS-AF: Global Combat Support System - Air Force
ERP: Enterprise Resource Planning

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0901538F: *Financial Management Information Systems Development* | PROJECT<br>675179: *Defense Enterprise Accounting Management System Increment 1 (DEAMS Inc 1)* |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Test services from AFOTEC, JITC, & RTO | MIPR | Various:Various, | - | 0.510 | Oct 2011 | 0.918 | Oct 2012 | 0.933 | Oct 2013 | - | | 0.933 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 0.510 | | 0.918 | | 0.933 | | 0.000 | | 0.933 | | | |

**Remarks**

AFOTEC: Air Force Operational Test and Evaluation Center
JITC: Joint Interoperability Test Command
RTO: Responsible Test Organization

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Program Management Administration (PMA) (A&AS Support to include Cost Estimating Support, Travel, and Supplies) | Various | AFLCMC:Wright-Patterson AFB, OH | - | 3.341 | Oct 2011 | 4.802 | Oct 2012 | 4.839 | Oct 2013 | - | | 4.839 | Continuing | Continuing | |
| | | **Subtotal** | 0.000 | 3.341 | | 4.802 | | 4.839 | | 0.000 | | 4.839 | | | |

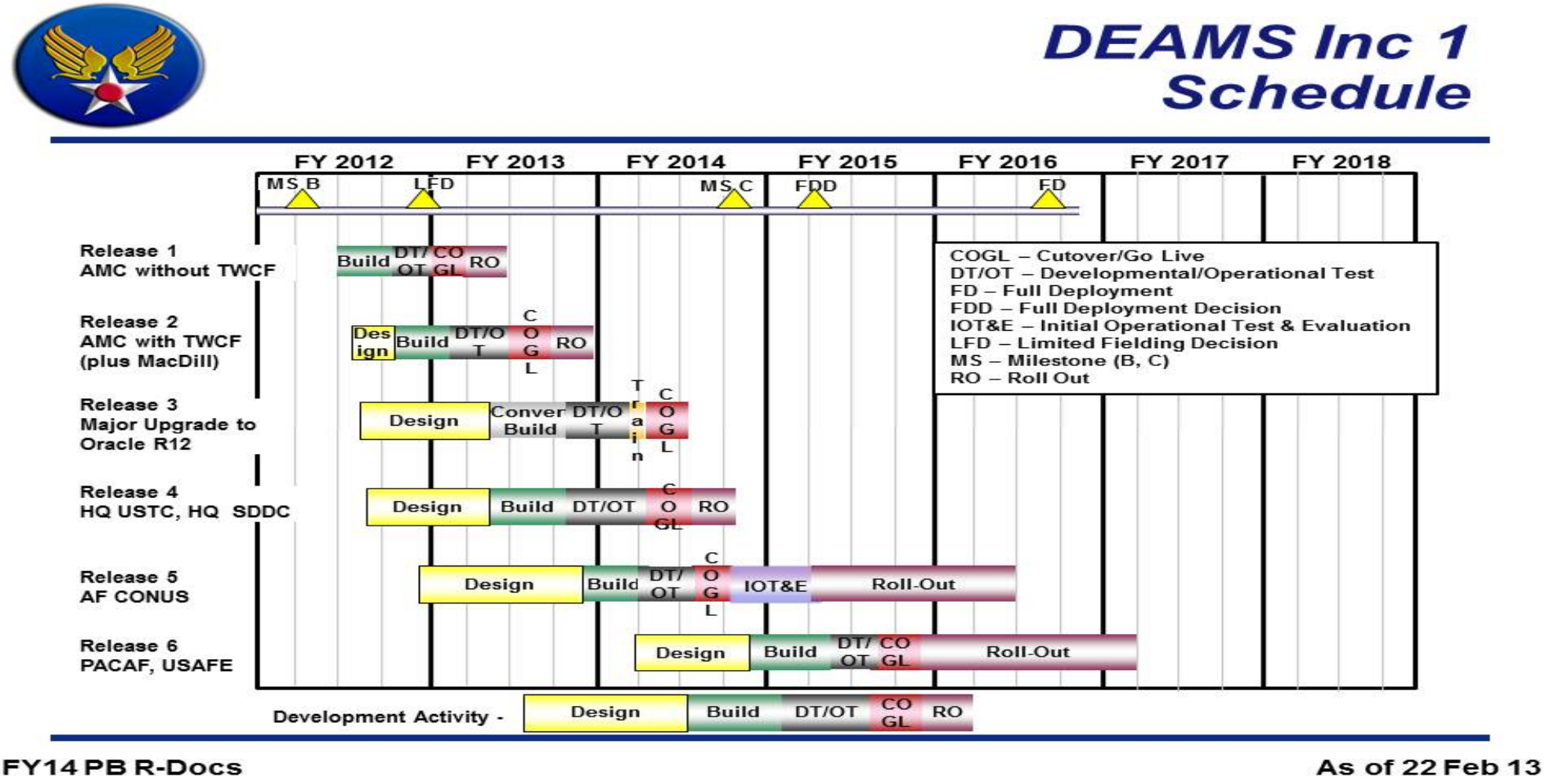
**Remarks**

A&AS: Advisory & Assistance Services

| | All Prior Years | FY 2012 | | FY 2013 | | FY 2014 Base | | FY 2014 OCO | | FY 2014 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 74.712 | | 99.160 | | 111.735 | | 0.000 | | 111.735 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901538F: *Financial Management Information Systems Development* | **PROJECT**<br>675179: *Defense Enterprise Accounting Management System Increment 1 (DEAMS Inc 1)* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0901538F: *Financial Management Information Systems Development* | **PROJECT**<br>675179: *Defense Enterprise Accounting Management System Increment 1 (DEAMS Inc 1)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| DEAMS Inc 1, Milestone B | 2 | 2012 | 2 | 2012 |
| DEAMS Inc 1, Limited Fielding Decision (LFD) | 4 | 2012 | 4 | 2012 |
| DEAMS Inc 1, Milestone C | 4 | 2014 | 4 | 2014 |
| DEAMS Inc 1, Full Deployment Decision (FDD) | 2 | 2015 | 2 | 2015 |
| DEAMS Inc 1, Full Deployment (FD) | 3 | 2016 | 3 | 2016 |
| DEAMS Inc 1 Release 1 Development Activity | 3 | 2012 | 2 | 2013 |
| DEAMS Inc 1 Release 2 Development Activity | 3 | 2012 | 4 | 2013 |
| DEAMS Inc 1 Release 3 Development Activity | 3 | 2012 | 3 | 2014 |
| DEAMS Inc 1 Release 4 Development Activity | 3 | 2012 | 4 | 2014 |
| DEAMS Inc 1 Release 5 Development Activity | 4 | 2012 | 2 | 2016 |
| DEAMS Inc 1 Release 6 Development Activity | 1 | 2014 | 1 | 2017 |

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | | | | | | | | | | | DATE: April 2013 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | | | | | R-1 ITEM NOMENCLATURE<br>PE 0902998F: *Management HQ - ADP Support (AF)* | | | | | | | |
| **COST ($ in Millions)** | **All Prior Years** | **FY 2012** | **FY 2013#** | **FY 2014 Base** | **FY 2014 OCO ##** | **FY 2014 Total** | **FY 2015** | **FY 2016** | **FY 2017** | **FY 2018** | **Cost To Complete** | **Total Cost** |
| Total Program Element | - | 0.290 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| 676027: *GLOBAL FORCE MGT DATA INITATIVE* | - | 0.290 | 0.000 | 0.000 | - | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | | |

# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

## The FY 2014 OCO Request will be submitted at a later date

**A. Mission Description and Budget Item Justification**

Provides for software development and upgrade for Secretary of the Air Force offices and Headquarters Air Force for Planning, Programming, Budgeting and Execution training and support for the Air Force Corporate Structure. This effort will implement Global Force Management Data Initiative (GFM DI) supporting the force management and adaptive planning processes. The GFM DI entails creation of authoritative data sources for all authorized Department of Defense (DoD) force structure data, facilitating the unique identification of organizations, billets, crews, and chain of command links. It provides a common reference and net-centric exchange format for authorized force structure across all DoD warfighting, information, and business systems.

This program is in Budget Activity 7, Operational System Development, this budget activity includes development efforts to upgrade fielded systems or approved for full rate production systems and anticipated production funding in the current or subsequent fiscal year.

| B. Program Change Summary ($ in Millions) | FY 2012 | FY 2013 | FY 2014 Base | FY 2014 OCO | FY 2014 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 0.299 | 0.000 | 0.000 | - | 0.000 |
| Current President's Budget | 0.290 | 0.000 | 0.000 | - | 0.000 |
| Total Adjustments | -0.009 | 0.000 | 0.000 | - | 0.000 |
| • Congressional General Reductions | - | 0.000 | | | |
| • Congressional Directed Reductions | - | 0.000 | | | |
| • Congressional Rescissions | 0.000 | 0.000 | | | |
| • Congressional Adds | - | 0.000 | | | |
| • Congressional Directed Transfers | - | 0.000 | | | |
| • Reprogrammings | 0.000 | 0.000 | | | |
| • SBIR/STTR Transfer | -0.009 | 0.000 | | | |
| • Other Adjustments | 0.000 | 0.000 | 0.000 | - | 0.000 |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Title:*** GLOBAL FORCE MGT DATA INITATIVE | 0.290 | 0.000 | 0.000 |

| Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force | DATE: April 2013 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0902998F: *Management HQ - ADP Support (AF)* |

| C. Accomplishments/Planned Programs ($ in Millions) | FY 2012 | FY 2013 | FY 2014 |
|---|---|---|---|
| ***Description:*** GLOBAL FORCE MGT DATA INITATIVE<br><br>***FY 2012 Accomplishments:***<br>Completed Global Force Management Data Initiative<br><br>***FY 2013 Plans:***<br>N/A<br><br>***FY 2014 Plans:***<br>N/A | | | |
| **Accomplishments/Planned Programs Subtotals** | 0.290 | 0.000 | 0.000 |

**D. Other Program Funding Summary ($ in Millions)**

N/A

**Remarks**

**E. Acquisition Strategy**

N/A

**F. Performance Metrics**

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Air Force | | | DATE: April 2013 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0902998F: *Management HQ - ADP Support (AF)* | PROJECT<br>676027: *GLOBAL FORCE MGT DATA INITATIVE* | |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Subtotal** | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Subtotal** | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Subtotal** | | | 0.000 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Not specified. | C/CPAF | TBD:TBD, | - | 0.290 | Jan 2012 | 0.000 | | 0.000 | | - | | 0.000 | Continuing | Continuing | |
| **Subtotal** | | | 0.000 | 0.290 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

| | All Prior Years | FY 2012 Cost | FY 2012 Award Date | FY 2013 Cost | FY 2013 Award Date | FY 2014 Base Cost | FY 2014 Base Award Date | FY 2014 OCO Cost | FY 2014 OCO Award Date | FY 2014 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 0.000 | 0.290 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | | | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0902998F: *Management HQ - ADP Support (AF)* | PROJECT<br>676027: *GLOBAL FORCE MGT DATA INITATIVE* |



| Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force | | DATE: April 2013 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>3600: *Research, Development, Test & Evaluation, Air Force*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0902998F: *Management HQ - ADP Support (AF)* | **PROJECT**<br>676027: *GLOBAL FORCE MGT DATA INITATIVE* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events** | **Quarter** | **Year** | **Quarter** | **Year** |
| Implement GFM DI | 2 | 2012 | 1 | 2013 |

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