Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

3600: Research, Development, Test & Evaluation, Air Force

PE 0604222F: Nuclear Weapons Support

BA 5: Development & Demonstration (SDD)

| - | | | | | | | | | | | |
|--|---------|---------|-----------------|----------------|------------------|---------|---------|---------|---------|---------------------|------------|
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| Total Program Element | 41.685 | 60.545 | 18.538 | - | 18.538 | 24.051 | 22.844 | 21.845 | 39.397 | Continuing | Continuing |
| 654236: Engineering Analysis | 18.743 | 14.700 | 2.891 | - | 2.891 | 3.602 | 2.196 | 0.318 | 0.498 | Continuing | Continuing |
| 654807: Nuclear Weapons & CP Technologies | 6.420 | 6.533 | 6.332 | - | 6.332 | 6.704 | 6.805 | 6.903 | 7.025 | Continuing | Continuing |
| 655708: Nuclear Weapons Support | 16.522 | 39.312 | 9.315 | - | 9.315 | 13.745 | 13.843 | 14.624 | 31.874 | Continuing | Continuing |

Note

In FY12 B61 LEP efforts were transferred from PE 0604222F, Nuclear Weapons Support, to PE 0101125F, Nuclear Weapon Modernization in order to support B61 LEP development.

In FY12 Joint Fuze efforts were transferred from PE 0604222F, Nuclear Weapons Support, to PE 0604851F, ICBM EMD in order to support Joint Fuze development.

A. Mission Description and Budget Item Justification

The Air Force Nuclear Weapons Center, Kirtland AFB, NM, is the executing agency for this program. The Air Force is tasked with maintaining and providing technical expertise on all AF nuclear weapons and weapon systems and with developing and maintaining counter-chemical, biological, radiological, and nuclear (C-CBRN) capabilities. This program provides resources for technical and programmatic activities which includes performing independent analyses on all AF nuclear weapons systems activities including weapons development and sustainment; interoperability; compatibility; safety, security, and reliability; Air Force legacy nuclear stockpile management/retirement; C-CBRN assessments; and nuclear certification and nuclear certification management.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full-rate production.

Air Force Page 1 of 29 R-1 Line Item #57

DATE: February 2011

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force

| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD) | R-1 IT PE 060 | | | | | |
|---|-------------------------|-----------------|-------------------|-------------------------|---------|---------|
| B. Program Change Summary (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 | Total |
| Previous President's Budget | 41.860 | 60.545 | 140.045 | - | 14 | 0.045 |
| Current President's Budget | 41.685 | 60.545 | 18.538 | - | 1 | 8.538 |
| Total Adjustments | -0.175 | - | -121.507 | - | -12 | 1.507 |
| Congressional General Reductions | | - | | | | |
| Congressional Directed Reductions | | - | | | | |
| Congressional Rescissions | - | - | | | | |
| Congressional Adds | | - | | | | |
| Congressional Directed Transfers | | - | | | | |
| Reprogrammings | - | - | | | | |
| SBIR/STTR Transfer | - | - | | | | |
| Other Adjustments | -0.175 | - | -121.507 | - | -12 | 21.507 |
| Congressional Add Details (\$ in Millions, and Include | s General Redu | <u>ictions)</u> | | | FY 2010 | FY 2011 |
| Project: 654236: Engineering Analysis | | | | | · | |
| Congressional Add: Nuclear Enterprise Tracking Syst | tem (formerly kn | own as NEST) | | - | 4.000 | |
| | | Cong | 4.000 | | | |
| | | | Congressional Add | Totals for all Projects | 4.000 | |

DATE: February 2011

| EXIIIDIL K-ZA, KD I &E PIOJECT JUST | illication. PE | 2012 All F | Jice | | | | | | DAIE. Febi | uary 2011 | | | |
|---|----------------|------------|-----------------|----------------|-------------------------|---------------------------|----------------------------------|---|------------|---------------------|------------|--|--|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD) | | | | | OMENCLAT 2F: Nuclear | TURE Weapons Su | PROJECT 654236: <i>En</i> | JECT 36: <i>Engineering Analysi</i> s | | | | | |
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost | | |
| 654236: Engineering Analysis | 18.743 | 14.700 | 2.891 | - | 2.891 | 3.602 | 2.196 | 0.318 | 0.498 | Continuing | Continuing | | |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |

Note

The program funding includes reductions for Overhead Reduction efficiencies that are not intended to impact program content. The efficiencies reductions total \$0.170M in FY12.

In FY12 Joint Fuze efforts were transferred from PE 0604222F, Nuclear Weapons Support, to PE 0604851F, ICBM EMD in order to support Joint Fuze development.

A. Mission Description and Budget Item Justification

Exhibit P-24 PDT&E Project Justification: DR 2012 Air Force

Provide engineering analyses for all Air Force (AF) nuclear weapons, delivery systems, and support systems to include all phases of acquisition. Provide the engineering and technical management expertise required in critical areas of nuclear weapons safety, security, and reliability; operations; modernization; testing; certification; and counterproliferation.

Analyze and document nuclear weapons issues related to risk assessment, data collection, model development, model validation, and weapon effectiveness in support of the DoD-DoE Annual Surety Report; DoE Stockpile Stewardship Plan; DoD-DoE Nuclear Weapon Annual Assessment; and DoD-DoE nuclear stockpile planning and requirements assessment.

Air Force Legacy Nuclear Stockpile: In accordance with DoDI 5030.55 and AFI 63-103, funding is used for scheduled, planned, and unplanned activities that support current active and inactive stockpile. Activities include stockpile maintenance; exploratory testing associated with significant finding investigations; DoD leadership, management, and oversight of the Air Force-led, joint DoD-DoE Nuclear Project Officer and Life Extension Groups to manage the B61, B83, W78, W87, W80 and W84 nuclear warheads and associated weapons; testing in support of DoE; and independent technical reviews of DoE National Laboratory processes.

Budget Activity Justification: These efforts are Budget Activity 5, System Development and Demonstration, because they include system specific programs to identify and develop life extension programs for, as well as, solutions to problems and/or deficiencies in AF nuclear weapons, nuclear weapon systems, and the supporting infrastructure.

| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
|--|---------|---------|-----------------|----------------|------------------|
| Title: Joint Fuze | 8.703 | 9.740 | - | - | - |
| Description: The AF portion of a joint AF-US Navy (USN)-United Kingdom (UK) Ministry of Defense (MoD) project to evaluate/develop new arming and fuzing technologies and components (to include mature modern | | | | | |

UNCLASSIFIED

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | D | ATE: Febru | ary 2011 | | |
|--|--|--------------------------------------|---------|-----------------|----------------|------------------|--|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD) | R-1 ITEM NOMENCLATURE PE 0604222F: Nuclear Weapons Suppo | PROJECT 654236: Engineering Analysis | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | |
| safety, security, and use control technologies) for use on ballistic requirements, interfaces, environmental requirements, logistics/CC capabilities relating to arming, fuzing, and firing systems (AF&F) for systems. The primary goal is the development of a joint arming, further force Mk12A, the Navy Mk5, and a UK reentry system, and a W78 and Mk5/W88. | DNOPs constraints, and technologies/ or future Air Force, Navy, and UK reentry uzing, and firing system for application to the | | | | | | |
| FY 2010 Accomplishments: Defined Arming and Fuzing Assembly baseline requirements, identical availability and logistics operation impacts. Evaluated requirements, system-level performance, reentry vehicles. | | | | | | | |
| FY 2011 Plans: Evaluate performance requirements, physical characteristics, logis environments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics, logistenvironments with the goal of developing common Military Characteristics with the goal of the goal o | teristics (MCs) and Stockpile-to-Target | | | | | | |
| FY 2012 Base Plans: Effort moved to ICBM EMD PE 0604851F | | | | | | | |
| FY 2012 OCO Plans: | | | | | | | |
| Title: W78 | | 1.109 | 1.022 | 0.373 | - | 0.373 | |
| Description: Execute W78 High Surety Life Extension Program (Lintegrating design features, to both extend W78 service life and er (MMIII) and MMIII follow-on missile systems, to include engineerin Production Unit. | hance the nuclear security of Minuteman III | | | | | | |
| | | 1 | 1 | I | I | | |

UNCLASSIFIED

Air Force Page 4 of 29 R-1 Line Item #57

| | 0.102/100/1122 | | | | | | | |
|--|--|--------------------------------------|---------|-----------------|----------------|------------------|--|--|
| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | 1 | | ATE: Febru | ary 2011 | | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD) | R-1 ITEM NOMENCLATURE PE 0604222F: Nuclear Weapons Suppo | project 654236: Engineering Analysis | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | | |
| Provided DoD leadership, management, and oversight of the Air Fo Group (POG) and W78/W87 stockpile. Prepared for the future W78 Life Extension Study (JLES) | | | | | | | | |
| FY 2011 Plans: Provide DoD leadership, management, and oversight of the Air Ford Group (POG) and W78/W87 stockpile. Prepare for the future W78 Life Extension Study (JLES) | | | | | | | | |
| FY 2012 Base Plans: Provide DoD leadership, management, and oversight of the Air Ford Group (POG) and W78/W87 stockpile. Prepare for the future W78 Life Extension Study (JLES) | | | | | | | | |
| FY 2012 OCO Plans: | | | | | | | | |
| Title: Air Force Legacy Nuclear Stockpile | | 2.000 | 2.000 | 2.000 | - | 2.000 | | |
| Description: Air Force Legacy Nuclear Stockpile: In accordance wi is used for scheduled, planned, and unplanned activities that support activities to include, but not limited to, stockpile maintenance, exploifinding investigations, DoD leadership, management, and oversight Project Officer and Life Extension Groups to manage the B61, B83, active and inactive stockpile, conduct ground and flight tests in support National Laboratory process with stakeholders, and studies and analysis. | ort current active and inactive stockpile ratory testing associated with significant of the Air Force-led, joint DoD-DOE Nuclear W78, W87, W80 and W84 nuclear weapon port of DOE, independent technical reviews of | | | | | | | |
| FY 2010 Accomplishments: Air Force Legacy Nuclear Stockpile: In accordance with DoDI 5030 scheduled, planned, and unplanned activities that support current a to include, but not limited to, stockpile maintenance, exploratory tes investigations, DoD leadership, management, and oversight of the Officer and Life Extension Groups to manage the B61, B83, W78, W and inactive stockpile, conduct ground and flight tests in support of National Laboratory process with stakeholders, and studies and and | ctive and inactive stockpile activities ting associated with significant finding Air Force-led, joint DoD-DOE Nuclear Project V87, W80 and W84 nuclear weapon active DOE, independent technical reviews of | | | | | | | |
| FY 2011 Plans: | | | | | | | | |

UNCLASSIFIED

| | 0.110 E/ 1.00 II 1 E/ | | | | | | | |
|---|--|---|---------|-----------------|----------------|------------------|--|--|
| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | D | ATE: Febru | ary 2011 | | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD) | R-1 ITEM NOMENCLATURE PE 0604222F: Nuclear Weapons Suppo | port PROJECT 654236: Engineering Analysis | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | | |
| Air Force Legacy Nuclear Stockpile: In accordance with DoDI 5030 scheduled, planned, and unplanned activities that support current at to include, but not limited to, stockpile maintenance, exploratory tes investigations, DoD leadership, management, and oversight of the Officer and Life Extension Groups to manage the B61, B83, W78, V and inactive stockpile, conduct ground and flight tests in support of National Laboratory process with stakeholders, and studies and an | active and inactive stockpile activities sting associated with significant finding Air Force-led, joint DoD-DOE Nuclear Project W87, W80 and W84 nuclear weapon active DOE, independent technical reviews of | | | | | | | |
| FY 2012 Base Plans: Air Force Legacy Nuclear Stockpile: In accordance with DoDI 5030 scheduled, planned, and unplanned activities that support current at to include, but not limited to, stockpile maintenance, exploratory tes investigations, DoD leadership, management, and oversight of the Officer and Life Extension Groups to manage the B61, B83, W78, Vand inactive stockpile, conduct ground and flight tests in support of National Laboratory process with stakeholders, and studies and an | active and inactive stockpile activities sting associated with significant finding Air Force-led, joint DoD-DOE Nuclear Project W87, W80 and W84 nuclear weapon active DOE, independent technical reviews of | | | | | | | |
| FY 2012 OCO Plans: | | | | | | | | |
| Title: Technical Analysis | | 2.335 | 1.396 | 0.518 | - | 0.518 | | |
| Description: Provide leadership to and managment of the AF-led Force legacy nuclear active and inactive stockpile. Includes techni sustainment and Life Extension Programs. | | | | | | | | |
| FY 2010 Accomplishments: Worked with national laboratories to recode legacy software so that systems. Also, refined requirements for new codes and developed requirements for new codes and updated source term information. Development of Nuclear Weapons support tools and models. | | | | | | | | |
| FY 2011 Plans: Work with national laboratories to recode legacy software so that it Develop of Nuclear Weapons support tools and models. | will operate on modern computing systems. | | | | | | | |
| FY 2012 Base Plans: | | | | | | | | |

UNCLASSIFIED

Air Force Page 6 of 29 R-1 Line Item #57

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | D | ATE: Febru | ary 2011 | | |
|---|--|--|---------|-----------------|----------------|------------------|--|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD) | R-1 ITEM NOMENCLATURE PE 0604222F: Nuclear Weapons Suppo | PROJECT ort 654236: Engineering Analysis | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | |
| Work with national laboratories to recode legacy software so that it videolop of Nuclear Weapons support tools and models. | will operate on modern computing systems. | | | | | | |
| FY 2012 OCO Plans: | | | | | | | |
| Title: SAP Security | | 0.17 | 0.042 | - | - | - | |
| Description: Provide Special Access Program and Sensitive Comp | artmented Information (SAP/SCI) security. | | | | | | |
| Created a secure environment to facilitate successful development a Coordinated security matters with all levels of the AF to include subset (MAJCOMS) and Air Staff. Provided personnel security, first tier and Access Program Central Office in personnel matters. Provided informations after a contract of the personnel matters. Provided information of security operation provided unique hardware protection method in accordance with Ex NISPOMSUP, JAFAN, and DCID requirements. | ordinate units, major commands judication and coordination with Special rmation security to include training, n procedures, test plans and inspections. | | | | | | |
| FY 2011 Plans: Continue to provide a secure environment to facilitate successful de Continue to coordinate security matters with all levels of the AF, to it Air Staff. Provide personnel security, first tier adjudication and coord Central Office in personnel matters. Provide information security to and implementation of security operation procedures, test plans and protection method in accordance with EO 12598, NISPOM, NISPOM | nclude subordinate units, MAJCOMS and dination with Special Access Program include training, safeguarding, development, I inspections. Provide unique hardware | | | | | | |
| FY 2012 Base Plans: Organic support FY12. | | | | | | | |
| FY 2012 OCO Plans: | | | | | | | |
| Title: C-CBRN | | 0.42 | 0.500 | - | - | - | |
| Description: Provide technical analysis on nuclear weapon systems | s design and C-CBRN advanced concepts. | | | | | | |
| FY 2010 Accomplishments: | | | | | | | |

UNCLASSIFIED

Air Force Page 7 of 29 R-1 Line Item #57

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | D | ATE: Febru | ary 2011 | | | |
|---|--|--|----------|-----------------|----------------|------------------|--|--|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD) | R-1 ITEM NOMENCLATURE PE 0604222F: Nuclear Weapons Suppo | ort PROJECT 654236: Engineering Analysis | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | | |
| Researched/developed unique technologies and capabilities for defeat effects and ensuring high reliablility for overall mission success. Develor and software of advanced concepts. Continued GPS-Denied navigation techniques and communications technology for GPS-Denied environments. | eloped, integrated, and tested hardware on testing of inertial measurement | | | | | | | |
| FY 2011 Plans: Research/develop unique technologies and capabilities for defeating vand ensuring high reliablility for overall mission success. Develop, into advanced concepts. Continued GPS-Denied navigation testing of i communications technology for GPS-Denied environments. | | | | | | | | |
| FY 2012 Base Plans: Effort moved to Project 654807. | | | | | | | | |
| FY 2012 OCO Plans: | | | | | | | | |
| Accom | plishments/Planned Programs Subtotals | 14.74 | 3 14.700 | 2.891 | - | 2.891 | | |
| | | FY 2010 | FY 2011 | | | | | |
| Congressional Add: Nuclear Enterprise Tracking System (formerly k | nown as NEST) | 4.00 | 0 - | | | | | |
| FY 2010 Accomplishments: Began development of a secure, electron of nuclear warheads and bombs, and critical nuclear components. In civilian employees associated with this program. | | | | | | | | |
| FY 2011 Plans: | | | | | | | | |
| | Congressional Adds Subtotals | 4.00 | 0 - | | | | | |

Air Force Page 8 of 29 R-1 Line Item #57

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0604222F: Nuclear Weapons Support 654236: Engineering Analysis

BA 5: Development & Demonstration (SDD)

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

| | | | FY 2012 | FY 2012 | FY 2012 | | | | | Cost To | |
|------------------|---------|---------|-------------|---------|--------------|---------|---------|---------|---------|------------|-------------------|
| <u>Line Item</u> | FY 2010 | FY 2011 | Base | OCO | <u>Total</u> | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Complete | Total Cost |
| N/A: None | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

D. Acquisition Strategy

Accomplish studies, analyses, and a limited evaluation of hardware development primarily under the ICBM Prime Integration Contractor (IPIC). Cost Plus Award Fee (CPAF) and Military Interdepartmental Purchase Requests (MIPRs) are/will be used to obtain technical analyses and technical support for safety, operations and counterproliferation assessments. Supporting activities are contracted separately using contract strategies deemed most appropriate to the effort. All contracts will be openly competed.

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.

Air Force Page 9 of 29 R-1 Line Item #57

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604222F: Nuclear Weapons Support

PROJECT

654236: Engineering Analysis

DATE: February 2011

| Product Development (| \$ in Millio | ns) | | FY 2011 | | | | | FY 2012 F OCO | | | | |
|---|------------------------------|-----------------------------------|------------------------------|---------|---------------|-------|---------------|------|------------------|-------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Pre-acquisition technical, engineering and management support | MIPR | SNL/DoE:Albuquerque, NM | 3.032 | 2.522 | Jan 2011 | 1.020 | Feb 2012 | - | | 1.020 | Continuing | Continuing | TBD |
| Joint Fuze | Various | * See Remarks:Various, | 8.703 | 8.349 | Jan 2011 | - | | - | | - | Continuing | Continuing | TBD |
| | , | Subtotal | 11.735 | 10.871 | | 1.020 | | - | | 1.020 | | | |

Remarks

- * Northrup Grumman IPIC (Clearfield, UT; San Bernardino, CA); Lockheed Martin (Valley Forge, PA); Boeing (Clearfield, UT); Booze-Allen Hamilton (Clearfield, UT); Contract Type: CPFF
- * Air Force Research Lab (Kirtland AFB, NM); Contract Type: AF Form 616
- * Tecolote Research Ind (Clearfield, UT); Contract Type: T and M
- * Sandia National Loboratories (Albuquerque, NM; Livermore, CA); Contract Type: MIPR
- * URS Corporation (Beavercreek, OH); Contract Type: T and M

| Support (\$ in Millions) | | | FY 2 | 2011 | | 2012 se | | 2012 CO | FY 2012 Total | | | | |
|---------------------------------------|------------------------------|-----------------------------------|------------------------------|-------|---------------|------------|---------------|------------|------------------|-------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Joint Fuze | MIPR | *See Remarks:, | - | 1.391 | Feb 2011 | - | | - | | - | Continuing | Continuing | TBD |
| Life extension/modernization programs | Various | **See Remarks:Various, | 2.412 | 1.896 | Feb 2011 | 1.871 | Feb 2012 | - | | 1.871 | Continuing | Continuing | TBD |
| | | Subtotal | 2.412 | 3.287 | | 1.871 | | - | | 1.871 | | | |

Remarks

*ICBM Systems Division (Hill AFB, UT); AFNWC (Kirtland AFB, NM); AFGSC (Barksdale, LA)

**ITT Systems, Albuquerque, NM; Los Alamos National Labs, Los Alamos, NM; SAIC, Arlington, VA; ANSER, Arlington, VA

| Test and Evaluation (\$ i | Test and Evaluation (\$ in Millions) | | | | 2011 | | 2012 ise | FY 2 | 2012 CO | FY 2012 Total | | | |
|---------------------------|--------------------------------------|-----------------------------------|------------------------------|-------|---------------|------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| SAP/SCI Security | MIPR | SNL:Albuquerque, NM | 0.175 | 0.042 | Feb 2011 | - | | - | | - | Continuing | Continuing | TBD |

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604222F: Nuclear Weapons Support

PROJECT

654236: Engineering Analysis

DATE: February 2011

| Test and Evaluation (\$ | est and Evaluation (\$ in Millions) | | | | | FY 2 Ba | | | 2012 CO | FY 2012 Total | | | |
|------------------------------------|-------------------------------------|-----------------------------------|------------------------------|-------|---------------|------------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Nuclear Enterprise Tracking System | TBD | TBD:TBD, | 4.000 | - | | - | | - | | - | Continuing | Continuing | TBD |
| GPS-Denied Technology | MIPR | SNL:Albuquerque, NM | 0.421 | 0.500 | Jan 2011 | - | | - | | - | Continuing | Continuing | TBD |
| | Subtotal 4.596 | | | | | - | | - | | - | | | |

| Management Services (\$ | Management Services (\$ in Millions) | | | FY | 2011 | FY 2 Ba | 2012 ise | | 2012 CO | FY 2012 Total | | | |
|-------------------------|--------------------------------------|--------------------------------|------------------------------|------|---------------|------------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| | | Subtotal | - | - | | - | | - | | - | 0.000 | 0.000 | 0.000 |

| | Total Prior | | | | | | | Target |
|---------------------|-------------|---------|---------|---------|---------|----------|-------------------|----------|
| | Years | | FY 2012 | FY 2012 | FY 2012 | Cost To | | Value of |
| | Cost | FY 2011 | Base | oco | Total | Complete | Total Cost | Contract |
| Project Cost Totals | 18.743 | 14.700 | 2.891 | - | 2.891 | | | |

Remarks

Air Force Page 11 of 29 R-1 Line Item #57

| Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force | | DATE: February 2011 |
|---|--------------------------------------|------------------------------|
| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE | PROJECT |
| 3600: Research, Development, Test & Evaluation, Air Force | PE 0604222F: Nuclear Weapons Support | 654236: Engineering Analysis |
| BA 5: Development & Demonstration (SDD) | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

UNCLASSIFIED

Air Force Page 12 of 29 R-1 Line Item #57

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 5: Development & Demonstration (SDD)

ARCHITEM NOMENCLATURE
PE 0604222F: Nuclear Weapons Support
654236: Engineering Analysis

Schedule Details

| | St | art | End | | |
|-------------------------------------|---------|------|---------|------|--|
| Events | Quarter | Year | Quarter | Year | |
| Joint Fuze Development | 1 | 2010 | 4 | 2016 | |
| W78 High Surety LEP | 1 | 2010 | 4 | 2016 | |
| AF Legacy Nuclear Stockpile Support | 1 | 2010 | 4 | 2016 | |

DATE: February 2011

| APPROPRIATION/BUDGET ACTIV 3600: Research, Development, Tes BA 5: Development & Demonstratio | | | I OMENCLA 1 2F: <i>Nuclear</i> 1 | | pport | PROJECT 654807: Nuclear Weapons & CP Technologies | | | | | |
|--|---------|---------|--|----------------|------------------|---|---------|---------|---------|---------------------|------------|
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| 654807: Nuclear Weapons & CP Technologies | 6.420 | 6.533 | 6.332 | - | 6.332 | 6.704 | 6.805 | 6.903 | 7.025 | Continuing | Continuing |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

A. Mission Description and Budget Item Justification

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force

Perform engineering analyses across the counter chemical, biological, radiological, and nuclear (C-CBRN) pillars for countering Weapons of Mass Destruction (WMD) with emphasis on asymmetric threats, specifically C-CBRN, and other difficult to attack targets.

Develop proposed materiel solutions. Transition selected nuclear and non-nuclear concepts into an acquisition development effort to include identifying funding, and developing technical, schedule, and programmatic content.

Prepare the necessary acquisition-related documentation to support program and/or decision reviews.

Develop, evaluate, and utilize tools required for the employment of current inventory and new concepts for combating WMD weapons to include intelligence, surveillance, and reconnaissance; battle damage assessment; and target defeat and collateral effects predictions for current and future operations.

Budget Activity Justification: These efforts are Budget Activity 5, System Development and Demonstration, because they are system specific programs that result in identifying and developing or modifying weapons to meet new and evolving elimination and offensive capabilities for combating WMD. Efforts also include developing and/or validating target planning software for existing/new concepts and weapons for combating WMD.

| B. Accomplishments/Planned Programs (\$ in Millions) | | | FY 2012 | FY 2012 | FY 2012 |
|---|---------|---------|---------|---------|---------|
| | FY 2010 | FY 2011 | Base | oco | Total |
| Title: Air Delivered Studies | 1.150 | 1.100 | 1.150 | - | 1.150 |
| Description: Analyses of warhead and associated Air Delivered system capabilities and vulnerabilities to provide recommendations for system level implementation to maintain the air delivered leg of our nuclear deterrent. | | | | | |
| FY 2010 Accomplishments: Supported current nuclear weapon system modernization and future system acquisition and an assessment | | | | | |
| of platform and warhead capabilities in an adversary's environment as requested by OSD, USSTRACOM, and HAF. Current system characterization in various, complex environments was initiated. This effort supported | | | | | |

Air Force Page 14 of 29 R-1 Line Item #57

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | D | ATE: Febru | ary 2011 | | |
|---|--|--|---------|-----------------|----------------|------------------|--|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD) | R-1 ITEM NOMENCLATURE PE 0604222F: Nuclear Weapons Suppo | pport PROJECT 654807: Nuclear Weapons & CP Technolog | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | |
| current Air Delivered platforms and warheads as well as aided in de platform acquisitions. | fining the design constraints for future | | | | | | |
| FY 2011 Plans: Baseline of foreign and domestic threats to Air Delivered (AD) syste vulnerabilities will be conducted. Additionally, an assessment of our warheads) capabilities based on current and future threat environme exist in our required capabilities, and an analysis of technologies an weapons will be evaluated and addressed to maintain current capabilitiegrate warhead efforts, platform integration, and operational suital evaluated and used to support continued system sustainment. | current AD systems (aircraft, platform, and ents, evaluation of the gaps that currently d capabilities to address these gaps. Gravity bilities. This effort will evaluate, direct, and | | | | | | |
| FY 2012 Base Plans: Continuation of efforts to address threats to AD systems, warhead, shortfalls in order to assure system viability. Continue evaluation of capabilities, and an analysis of technologies and capabilities to addrevaluated and addressed to maintain current capabilities. This efforefforts, platform integration, and operational suitability. Cruise miss support continued system sustainment. | | | | | | | |
| FY 2012 OCO Plans: Not applicable. | | | | | | | |
| Title: C-CBRN | | 5.27 | 0 5.433 | 5.182 | - | 5.182 | |
| Description: The Counter Chemical, Biological, Radiological, and Neffort will address capability gaps, and conduct concept studies and threats from state and non-state entities. | | | | | | | |
| FY 2010 Accomplishments: Developed a baseline of foreign and domestic threats to counter advanced current capabilities to counter CBRN threats based on current and fevaluation of gaps that currently exist in required capabilities, and a address these gaps. Part of the effort included developing, integration of advanced concepts. Began development and testing of tools successive. | uture threat environments, initiated an nalyzed technologies and capabilities to ng, and testing hardware and software | | | | | | |

UNCLASSIFIED

Air Force Page 15 of 29 R-1 Line Item #57

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | D | ATE: Febru | ary 2011 | |
|--|--|---------|-------------------------|-----------------|----------------|------------------|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD) | R-1 ITEM NOMENCLATURE PE 0604222F: Nuclear Weapons Suppo | I . | PROJECT 654807: Nucl | ear Weapon | s & CP Tec | chnologies |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
| to assess the complex weapon interactions necessary in evaluating te systems. This effort also enabled continued support of C-CBRN intellibattle and provide mapping and data on sites of interest. Continued to software tools. | | | | | | |
| FY 2011 Plans: Continue the baseline of foreign and domestic threats to counter adve assessment of current capabilities to counter CBRN threats based on evaluation of gaps that currently exist in our required capabilities, and capabilities to address these gaps. As part of this effort, some techno Technology Readiness Level by developing, integrating, and testing has concepts. As part of this effort, tools (such as modeling and simulation tested to assess the complex weapon interactions. These tools are no possible technological improvements in weapon systems. This effort of CBRN intelligence; specifically to identify orders of battle and provide Continue to develop and maintain mission planning software tools. | | | | | | |
| FY 2012 Base Plans: Continue to baseline AF systems against foreign and domestic threats Additionally, conduct an assessment of current capabilities to counter future threat environments, evaluation of the gaps that currently exist i of technologies and capabilities to address these gaps will continue. So be assessed and efforts to address these shortfalls initiated. Tools su will be further refined and developed based on the underlying Science will also enable continued support of C-CBRN intelligence; specifically mapping and data on sites of interest. Continue to develop and maintenance. | | | | | | |
| FY 2012 OCO Plans: Not applicable. | | | | | | |
| Accomp | 6.42 | 0 6.533 | 6.332 | - | 6.332 | |

UNCLASSIFIED

Air Force Page 16 of 29 R-1 Line Item #57

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | DATE: February 2011 |
|--|----------------------------|
|--|----------------------------|

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0604222F: Nuclear Weapons Support 654807: Nuclear Weapons

BA 5: Development & Demonstration (SDD)

654807: Nuclear Weapons & CP Technologies

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

| | | | FY 2012 | FY 2012 | FY 2012 | | | | | Cost To | |
|------------------|---------|---------|-------------|---------|--------------|---------|---------|---------|---------|-----------------|-------------------|
| <u>Line Item</u> | FY 2010 | FY 2011 | <u>Base</u> | OCO | <u>Total</u> | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Complete | Total Cost |
| • N/A: None | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

D. Acquisition Strategy

Multiple Cost Plus Award Fee (CPAF) and/or Time and Materials (T&M) contracts (the emphasis is minimal use), and Military Interdepartmental Purchase Requests (MIPRs) are/will be used to obtain technical analyses and technical support for safety, operations and counterproliferation assessments. All contracts will be openly competed.

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.

Air Force Page 17 of 29 R-1 Line Item #57

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604222F: Nuclear Weapons Support

PROJECT

654807: Nuclear Weapons & CP Technologies

DATE: February 2011

| Product Development (\$ in Millions) | | | FY 2012 FY 2011 Base | | FY 2012 OCO | | FY 2012 Total | | | | | | |
|--------------------------------------|------------------------------|-----------------------------------|------------------------------|------|----------------|------|------------------|------|---------------|------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| | | Subtotal | - | - | | - | | - | | - | 0.000 | 0.000 | 0.000 |

| Support (\$ in Millions) | | | | FY: | 2011 | | 2012 ise | | 2012 CO | FY 2012 Total | | | |
|--------------------------|------------------------------|-----------------------------------|------------------------------|------|---------------|------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| | | Subtotal | - | - | | - | | - | | - | 0.000 | 0.000 | 0.000 |

| Test and Evaluation (\$ in Millions) | | | | FY | 2011 | | 2012 se | | 2012 CO | FY 2012 Total | | | |
|--------------------------------------|------------------------------|-----------------------------------|------------------------------|-------|---------------|-------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Air Delivered Studies | MIPR | SNL:Albuquerque, NM | 1.150 | 1.100 | Dec 2010 | 1.150 | Dec 2011 | - | | 1.150 | Continuing | Continuing | 0.000 |
| Engineering Analysis | C/CPAF | *SEE REMARKS:*SEE REMARKS, | 5.270 | 5.433 | Jan 2011 | 5.182 | Dec 2011 | - | | 5.182 | Continuing | Continuing | 0.000 |
| | | Subtotal | 6.420 | 6.533 | | 6.332 | | - | | 6.332 | | | 0.000 |

Remarks

ASC, Wright-Patterson AFB, OH; AAC, Eglin AFB, FL; DTRA, Ft Belvoir VA; White Sands Missile Range, Alamagordo, NM

| Management Services (\$ in Millions) | | | FY: | 2011 | | 2012 ise | | 2012 CO | FY 2012 Total | | | | |
|--------------------------------------|------------------------------|-----------------------------------|------------------------------|-------|---------------|-------------|---------------|------------|------------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| | | Subtotal | - | - | | - | | - | | - | 0.000 | 0.000 | 0.000 |
| | | | Total Prior Years Cost | FY: | 2011 | | 2012 ise | | 2012 CO | FY 2012 Total | Cost To Complete | Total Cost | Target Value of Contract |
| | | Project Cost Totals | 6.420 | 6.533 | | 6.332 | | - | | 6.332 | | | 0.000 |

^{*} Operational Test & Evaluation: ESC/MIT Lincoln Labs, Boston, MA; AFRL, Albuquerque, NM; ITT/AES, Albuquerque, NM; ASC/END, Wright-Patterson AFB, OH *Development Test & Evaluation: ELM, SERPENT C-CBRN modeling codes;

| | | UNCLASS | SIFIED | | | | | | |
|---|------------------------------|-----------------------------------|---|----------------|-------|-----------------|---------------------|------------|--------------------------------|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 A | ir Force | | | | | DAT | E: Februar | y 2011 | |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Foliab 5: Development & Demonstration (SDD) | rce | R-1 ITEM NO PE 0604222F | PROJECT 654807: Nuclear Weapons & CP Technologies | | | | | | |
| Remarks | Total Prior Years Cost | FY 2011 | FY 2012 Base | FY 201: OCO | _ - | / 2012 Fotal | Cost To Complete | Total Cost | Target Value of Contract |

Page 19 of 29 Air Force R-1 Line Item #57

| Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force | chedule Profile: PB 2012 Air Force DATE: February 2011 | | | | | | |
|---|--|---|--|--|--|--|--|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD) | R-1 ITEM NOMENCLATURE PE 0604222F: Nuclear Weapons Support | PROJECT 654807: Nuclear Weapons & CP Technologies | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

UNCLASSIFIED

Air Force Page 20 of 29 R-1 Line Item #57

| Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force | | DATE: February 2011 | | | |
|---|--------------------------------------|---------------------|---------------------------------|--|--|
| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE | PROJECT | | | |
| 3600: Research, Development, Test & Evaluation, Air Force | PE 0604222F: Nuclear Weapons Support | 654807: Nu | clear Weapons & CP Technologies | | |
| BA 5: Development & Demonstration (SDD) | | | | | |

Schedule Details

| | St | art | Eı | nd |
|--|---------|------|---------|------|
| Events | Quarter | Year | Quarter | Year |
| Air Delivered Studies | 1 | 2010 | 4 | 2016 |
| C-CBRN Studies and Evaluation Support Activities | 1 | 2010 | 4 | 2016 |

| Exhibit R-2A, RDT&E Project Just | ification: PE | 3 2012 Air Fo | orce | | | DATE: February 2011 | | | | | |
|---|---------------|---------------|-----------------|----------------|--|---------------------|---------|--|---------|---------------------|------------|
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD) | | | | | I OMENCLA 2F: <i>Nuclear</i> | | pport | PROJECT 655708: Nuclear Weapons Support | | | |
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| 655708: Nuclear Weapons Support | 16.522 | 39.312 | 9.315 | - | 9.315 | 13.745 | 13.843 | 14.624 | 31.874 | Continuing | Continuing |

0

0

0

0

0

0

Note

Quantity of RDT&E Articles

The program funding includes reductions for Overhead Reduction efficiencies that are not intended to impact program content. The efficiencies reductions total \$0.511M in FY12.

0

In FY12 B61 LEP efforts were transferred from PE 0604222F, Nuclear Weapons Support, to PE 0101125F, Nuclear Weapon Modernization in order to support B61 LEP development.

A. Mission Description and Budget Item Justification

0

0

- (U) Provide direct technical and engineering support for all Air Force (AF) nuclear weapon systems, support systems, facilities, and special procedures. Perform studies and analyses for nuclear capable aircraft and missile systems to include ground and maintenance support equipment required to meet certification, safety, security, reliability, operational, and other requirements; oversee and manage the AF nuclear certification process; interface with the DoD and DoE to include national laboratories, the Air Staff, operational commands, and AF nuclear weapon system program offices to accomplish nuclear weapon sustainment and life extension programs.
- (U) B61 LEP: Provides DoD leadership, management, and oversight of the Air Force-led, joint DoD-DoE B61 Project Officer's Group (POG) to manage the B61 nuclear gravity weapon active and inactive stockpile. Lead the joint DoD-DoE B61 Life Extension Program (LEP) feasibility, design, cost, and downselect study to provide for the refurbishment of the B61 that allows consolidation of multiple B61 variants into one modification and provides safety, security, and use control (surety) improvements to the B61. Provide technical oversight of the DoE nuclear package LEP activities and conduct phase studies, analysis, and evaluation. Develop weapons trainers, test equipment, tech data, and training for the B61 LEP. Conduct ground and flight tests and support aircraft integration for the B61 LEP. Develop and acquire B61 tail subassemble (TSA). Provide for integration of B61 LEP with threshold aircraft.
- (U) Identify, evaluate, and assess current and projected innovative concepts for combating Weapons of Mass Destruction (WMD) capabilities. Activities include participating in evaluation of projects; supporting operations, active and passive defense, and consequence management related to C-CBRN weapons and associated manufacturing and bulk storage facilities.
- (U) Develop and validate of mission planning software tools for targeting WMD facilities per AF CBRN road map. This program is essential to maintaining current and future safety, security, and reliability of weapons in the AF nuclear stockpile as well as their delivery and support systems. This program also addresses current and future AF nuclear deterrence and combating WMD requirements.

Page 22 of 29 Air Force R-1 Line Item #57

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | DATE: February 2011 | |
|--|--------------------------------------|---------------------|------------------------|
| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE | PROJECT | |
| 3600: Research, Development, Test & Evaluation, Air Force | PE 0604222F: Nuclear Weapons Support | 655708: Nu | ıclear Weapons Support |
| BA 5: Development & Demonstration (SDD) | | | |

- (U) Provide Nuclear surety and certification support. Prepare nuclear surety design criteria, standards, specifications, and related requirements documents for all Air Force ground launched missile systems. Includes nuclear certification program management.
- (U) Budget Activity Justification: These efforts are Budget Activity 5, System Development and Demonstration, because they are system specific programs to identify and develop life extension programs as well as solutions to problems and/or deficiencies in AF nuclear weapons, weapon systems and the supporting infrastructure.

EV 2012 EV 2012 EV 2012

| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | OCO | Total |
|---|---------|---------|-----------------|-----|-------|
| Title: B61 LEP | 6.382 | 25.000 | _ | - | - |
| Description: Perform B61 Life Extension Program (LEP), Option Studies, and associated DoD acquisition. | | | | | |
| FY 2010 Accomplishments: Provided DoD leadership, management, and oversight of the Air Force-led Project Officer's Group (POG) and evaluation of B61 Life Extension Program (LEP) Options Studies. | | | | | |
| FY 2011 Plans: Continue leadership, management, and oversight of the Air Force-led POG and B61 active and inactive stockpile. Perform activities in support of associated DoD acquisition, potential competitive prototype analyses, aircraft and weapon integration efforts. | | | | | |
| FY 2012 Base Plans: Effort moved to PE 0101125F | | | | | |
| FY 2012 OCO Plans: | | | | | |
| Title: Nuclear Surety and Certification | 9.990 | 5.132 | 3.743 | - | 3.743 |
| Description: Prepare nuclear surety design criteria, standards, specifications, and related requirements documents for all Air Force ground launched missile systems. Includes nuclear certification program management. Portions of this effort in FY10 include civilian pay. All civilian payroll expenses are captured as one line item in FY11 and FY12. | | | | | |
| FY 2010 Accomplishments: | | | | | |

Air Force Page 23 of 29 R-1 Line Item #57

R Accomplishments/Planned Programs (\$ in Millions)

| | 01102/10011122 | | | | | | | | |
|--|--|---|---------|-----------------|----------------|------------------|--|--|--|
| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | D | ATE: Febru | ary 2011 | | | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD) | R-1 ITEM NOMENCLATURE PE 0604222F: Nuclear Weapons Suppo | project 655708: Nuclear Weapons Support | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | | | |
| Initiated a large number of no-fault independent studies and enginee nuclear weapons community. Actively made safety improvements to of concern. | • | | | | | | | | |
| FY 2011 Plans: Continue to perform the engineering and surety analysis role by cont study issues affecting Air Force Materiel Command (AFMC) and AF improvements as resources allow. | | | | | | | | | |
| FY 2012 Base Plans: Continue to perform the engineering and surety analysis role by cont to study issues affecting AFMC and AF nuclear weapons facilities an allow. | | | | | | | | | |
| FY 2012 OCO Plans: | | | | | | | | | |
| Title: Nuclear Surety Support | | - | 9.030 | 5.572 | _ | 5.572 | | | |
| Description: Support various efforts such as the Nuclear Surety and | Certification effort. | | | | | | | | |
| FY 2010 Accomplishments: | | | | | | | | | |
| FY 2011 Plans: Program engineers will continue to act as Nuclear Project Officer Groimplement the aircraft surveillance program, and perform independent and software upgrades to delivery systems. Continue oversight of Nucontinuously on-going as new systems and items are introduced or expensional continue to provide management and professional services in support | nt surety engineering studies on hardware uclear Certification activities, which are existing systems and items are modified. | | | | | | | | |
| FY 2012 Base Plans: Program engineers will continue to act as Nuclear Project Officer Groimplement the aircraft surveillance program, and perform independer and software upgrades to delivery systems. Continue oversight of N continuously on-going as new systems and items are introduced or expenditure to provide management and professional services in support | oup (N-POG) lead for delivery systems, nt surety engineering studies on hardware uclear Certification activities, which are existing systems and items are modified. | | | | | | | | |
| FY 2012 OCO Plans: | | | | | | | | | |

UNCLASSIFIED

Air Force Page 24 of 29 R-1 Line Item #57

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force

DATE: February 2011

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

3600: Research, Development, Test & Evaluation, Air Force PE 0604222F: Nuclear Weapons Support 655708: Nuclear Weapons Support

BA 5: Development & Demonstration (SDD)

| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
|--|---------|---------|-----------------|----------------|------------------|
| Title: C-CBRN | 0.150 | 0.150 | - | _ | - |
| Description: Identify orders of battle and provide mapping and data on sites of interest for Counter-Chemical, Biological, Radiological, and Nuclear (C-CBRN) requirements. Effort moved to Project 654807. | | | | | |
| FY 2010 Accomplishments: Initiate contractor support for C-CBRN intelligence to provide mapping and data for directed sites of interest. | | | | | |
| FY 2011 Plans: Contractor support for C-CBRN intelligence to provide mapping and data for directed sites of interest. | | | | | |
| FY 2012 Base Plans: Effort moved to Project 654807. | | | | | |
| FY 2012 OCO Plans: | | | | | |
| Accomplishments/Planned Programs Subtotals | 16.522 | 39.312 | 9.315 | _ | 9.31 |

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

| | | | <u>FY 2012</u> | FY 2012 | FY 2012 | | | | | Cost To | |
|---------------------------------|---------|---------|----------------|---------|--------------|---------|---------|---------|---------|-----------------|-------------------|
| <u>Line Item</u> | FY 2010 | FY 2011 | <u>Base</u> | OCO | <u>Total</u> | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Complete | Total Cost |
| • PE 0101125F: <i>RDT&E</i> | 0.000 | 0.000 | 83.941 | 0.000 | 83.941 | 118.823 | 116.609 | 57.038 | 41.281 | Continuing | Continuing |

D. Acquisition Strategy

Research, Development, Test, and Evaluation (RDT&E) projects performed by AF organizations are direct funded, other DoD and government agencies by Military Interdepartmental Purchase Request (MIPR) or other appropriate means. Contractor efforts are accomplished via cost plus award fee (CPAF) contacts awarded as a result of 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.

Air Force Page 25 of 29 R-1 Line Item #57

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604222F: Nuclear Weapons Support

PROJECT

655708: Nuclear Weapons Support

DATE: February 2011

| Product Development (| (\$ in Millio | ns) | FY 2011 | | | FY 2012 FY 2012 Base OCO | | | FY 2012 Total | | | | |
|----------------------------------|------------------------------|-----------------------------------|------------------------------|--------|---------------|-----------------------------|---------------|------|------------------|-------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| B61 Life Extension Program | C/CPAF | TBD:TBD, | 5.000 | 20.000 | Jun 2011 | - | | - | | - | Continuing | Continuing | TBD |
| Studies, Analyses, & Evaluations | Various | *See Remarks:*See Remarks, | 2.503 | 4.728 | Jan 2011 | 3.000 | Feb 2012 | - | | 3.000 | Continuing | Continuing | TBD |
| Engineering & Technical Services | C/CPAF | Sverdrup:Albuquerque, NM | 1.787 | 5.105 | Jan 2011 | 2.500 | Feb 2012 | - | | 2.500 | Continuing | Continuing | TBD |
| | | Subtotal | 9.290 | 29.833 | | 5.500 | | - | | 5.500 | | | |

Remarks

^{*} Defense Threat Reduction Agency (DTRA), Ft Belvoir, VA; DOE national laboratories such as Sandia National Laboratories (SNL), Kirtland AFB, NM & Livermore, CA, & Lawrence Livermore National Laboratory (LLNL), Livermore, CA; others as needed

| Support (\$ in Millions) | | | | FY 2 | 2011 | FY 2 Ba | - | | 2012 CO | FY 2012 Total | | | |
|---|------------------------------|--------------------------------------|------------------------------|-------|---------------|------------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Management & Professional Support Services | C/CPAF | MacAulay Brown:Albuquerque, NM | 0.434 | 0.474 | Jan 2011 | 0.500 | Dec 2011 | - | | 0.500 | Continuing | Continuing | TBD |
| | | Subtotal | 0.434 | 0.474 | | 0.500 | | - | | 0.500 | | | |

| Test and Evaluation (\$ in Millions) | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 Total | | | | | |
|--------------------------------------|------------------------------|-----------------------------------|------------------------------|-----------------|---------------|----------------|---------------|------------------|---------------|------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| | _ | Subtotal | - | - | | - | | - | | - | 0.000 | 0.000 | 0.000 |

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)

PE 0604222F: Nuclear Weapons Support

655708: Nuclear Weapons Support

DATE: February 2011

| Management Services | s (\$ in Millio | ons) | | FY 2 | 2011 | FY 2 Ba | - | | 2012 CO | FY 2012 Total | | | |
|--|------------------------------|-----------------------------------|------------------------------|--------|---------------|------------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| In-House Programmatic/ Financial Management (Civilian Payroll) | TBD | AFNWC:Kirtland AFB, NM | 6.798 | 9.005 | Oct 2010 | 3.315 | Oct 2011 | - | | 3.315 | Continuing | Continuing | TBD |
| | | Subtotal | 6.798 | 9.005 | | 3.315 | | - | | 3.315 | | | |
| | | | Total Prior Years Cost | FY 2 | 2011 | FY 2 Ba | - | | 2012 CO | FY 2012 Total | Cost To | Total Cost | Target Value of Contract |
| | | Project Cost Totals | 16.522 | 39.312 | | 9.315 | | - | | 9.315 | | | |

Remarks

Air Force Page 27 of 29 R-1 Line Item #57

| Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force | DATE: February 2011 | |
|---|--------------------------------------|---------------------------------|
| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE | PROJECT |
| 3600: Research, Development, Test & Evaluation, Air Force | PE 0604222F: Nuclear Weapons Support | 655708: Nuclear Weapons Support |
| BA 5: Development & Demonstration (SDD) | | |
| | | ' |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

UNCLASSIFIED

Air Force Page 28 of 29 R-1 Line Item #57

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 5: Development & Demonstration (SDD)

APROPRIATION/BUDGET ACTIVITY

PE 0604222F: Nuclear Weapons Support

655708: Nuclear Weapons Support

Schedule Details

| | Start | | End | | |
|--------------------------------------|---------|------|---------|------|--|
| Events | Quarter | Year | Quarter | Year | |
| B61 LEP | 1 | 2010 | 4 | 2016 | |
| Nuclear Surety/Certification Support | 1 | 2010 | 4 | 2016 | |
| C-CBRN Support | 1 | 2010 | 4 | 2016 | |