Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force												Date: March 2014
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0205219F / *MQ-9 UAV*							
COST ($ in Millions)	**Prior Years**	**FY 2013**	**FY 2014**	**FY 2015 Base**	**FY 2015 OCO #**	**FY 2015 Total**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**Cost To Complete**	**Total Cost**
Total Program Element	582.946	130.882	107.338	170.396	-	170.396	124.260	139.996	175.539	145.746	76.197	1,653.300
675246: *MQ-9 Development and Fielding*	582.946	130.882	107.338	170.396	-	170.396	124.260	139.996	175.539	145.746	76.197	1,653.300
Quantity of RDT&E Articles	3.000	-	-	-	-	-	-	-	-	-		

MDAP/MAIS Code: 424

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

The basic MQ-9 Reaper system consists of the aircraft, sensors, a ground control station (GCS), communications equipment, weapon kits, support equipment, simulator and training devices, Readiness Spares Packages (RSP), technical data/training, and personnel required to operate, maintain, and sustain the system. 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-9 Reaper aircraft is a single-engine, turbo-prop Remotely Piloted Aircraft (RPA) designed to operate over-the-horizon at medium-to-high altitude for long endurance sorties. The aircraft is designed primarily to prosecute critical, emerging Time-Sensitive-Targets (TSTs) as a radar, Electro-optical/Infrared (EO/IR), and laser designator-based attack asset with on-board hard-kill capability (hunter-killer). It also performs Intelligence, Surveillance, Reconnaissance and Target Acquisition (ISR TA). In the hunter-killer role, the aircraft employs fused multi-spectral sensors to find, fix, and track ground targets using Automatic Target Cueing (ATC), high definition EO/IR, metric sensor and other capabilities, and assesses post-strike results. The MQ-9 system is continuing to develop field capability through incremental upgrades. Future capabilities development activity includes airframe and airframe system improvements such as: increasing the maximum gross takeoff weight capability of the aircraft from 10,500 to 11,700lbs; increasing the operational range and endurance of the baseline MQ-9 aircraft (adding external fuel tanks and/or airframe modifications such as wing extensions); incorporating an anti-ice/de-ice capability to transit light icing conditions (will involve wing/tail modifications as well as turbine inlet heating); propulsion system improvements; enhancing MQ-9 systems to include Automatic Takeoff and Landing Capability (ATLC); integrated redundant avionics; modifying the system to include provisions for a Foreign Military Sales (FMS) exportable version of the weapon system; Predator Primary Data Link (PPDL) communication system upgrades and communications upgrades to include data link encryption, IP networking, and Beyond Line-of-Sight comm upgrades; navigation system upgrades; electrical system upgrades; incorporation of Elevated Temperature Wet (ETW) materials; secure voice and data communications, including SATCOM upgrades; sensor/stores management computer improvement; MIL-STD-1760 advanced weapons data bus; Universal Armament and Sensor Interface and Miniature Munitions/Store Interface; advanced sensor and weapon payloads; improved human-machine interface (HMI); integrating precision weapons (e.g. AGM-114 Hellfire missile, GBU-12/38/49 guided bombs, and Small Diameter Bomb (SDB) variants); hardware and software upgrades to the ground control station for MQ-9 operations; completing airworthiness certification; weapon system certification and accreditation; and producing applicable training devices that emulate weapon system functionality and capabilities. The MQ-9 program will continue to support other payload and capability development activities funded in other program elements (e.g. SIGINT, communications, Wide Area Motion Imagery (WAMI) leveraging Gorgon Stare Quick Reaction Capability, advanced Counter-Improvised Explosive Device (C-IED), Dismount Detection Radar (DDR), missile defense, hyperspectral, and other sensors and weapons) and address reliability, maintainability, sustainability, and safety

issues. Activities also include trade studies, analyses, preliminary systems engineering, system and subsystem level testing in accordance with DoD and military standards, and specification development in support of both current program planning and execution, and studies supporting analysis and investment in future MQ-9 program planning.

The GCS, common with the MQ-1 Predator, functions as the aircraft cockpit and can control the aircraft either within Line-of-Sight (LOS) or Beyond Line-of-Sight (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; provides a means for manual control; allows personnel to launch, recover, and monitor aircraft, payloads, and system communications status; incorporates secure data links to send aircraft and payload commands and receive system telemetry and payload data; monitors threats to the aircraft; displays the common operational picture; and provides support functions. Launch and Recovery GCS (LRGCS) allows for servicing, systems checks, maintenance, launch and recovery of aircraft under LOS control for hand-off to a mobile or fixed facility GCS, and conducting operations within line-of-sight range of the LRGCS. GCS upgrades will be developed and fielded in coordination with improvements to MQ-9 system capabilities and in response to evolving operational and information assurance/certification and accreditation requirements. Key efforts include GCS upgrades that add new LINUX processors, high definition monitors, ergonomic improvements, improved human-machine interfaces, open systems architecture, and improved crew habitability. In addition, the GCS upgrade effort also includes development/integration of the Unmanned Aircraft Systems (UAS) Command and Control (C2) Initiative (UCI) government-owned standard to enable improved capabilities for situational awareness and multi-mission management monitoring and oversight in the GCS. This project will also increase interoperability among developed systems by developing common standard and tools.

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 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	147.971	128.328	194.561	-	194.561
Current President's Budget	130.882	107.338	170.396	-	170.396
Total Adjustments	-17.089	-20.990	-24.165	-	-24.165
• Congressional General Reductions	-0.195	-0.320			
• Congressional Directed Reductions	-	-20.670			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-5.000	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-11.894	-	-24.165	-	-24.165

Change Summary Explanation

- Decrease in FY 2013 is due to Sequestration and reprogramming due to higher Air Force priorites.
- Decrease in FY 2014 was due to forward financing.

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- Reduction of $24.165M in FY15 due to higher AF priorities.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Title: MQ-9 System Development and Demonstration (SDD)	22.666	26.070	47.840

Description: Complete development to meet MQ-9 Capabilities Production Document (CPD) requirements.

FY 2013 Accomplishments:
Continued development of MQ-9 Block 5 unmanned aircraft system (UAS) related development and test; High Capacity Starter-Generator, Predator Primary Data Link (PPDL), Two ARC-210 Radios, Redesigned Forward Avionics Bay, Dashboard w/ Integrated Sensor Control System (ISCS), Mission Control Module/Payload Control Computer, Improved BRU-71/A Bomb Rack, Improved Stores Management System, High-Definition MTS-B, Improved Heavyweight Landing Gear, integration and productionization, integration, testing, and training documentation. All related system engineering activities to include airworthiness artifact development required to field Block 5 and 904.6.

Milestones: Critical Design Review (CDR) completed FY11. Interim software for Block 5 system activities scheduled for delivery in FY16. Developmental test begun for High Capacity Starter-Generator, Predator Primary Data Link (PPDL), Two ARC-210 Radios, Redesigned Forward Avionics Bay, Dashboard w/ Integrated Sensor Control System (ISCS), Mission Control Module/ Payload Control Computer, Improved BRU-71/A Bomb Rack, Improved Stores Management System (ISMS), High-Definition MTS-B, Improved Heavyweight Landing Gear (IHLG), Automatic Take-off and Landing (ATLC), 904.6 software development, integration and productionization.

FY 2014 Plans:
Continue MQ-9 Block 5 Unmanned Aircraft System (UAS) capability development to include: Developmental test for High Capacity Starter-Generator, Predator Primary Data Link (PPDL), Two ARC-210 Radios, Redesigned Forward Avionics Bay, Dashboard w/ Integrated Sensor Control System (ISCS), Mission Control Module/Payload Control Computer, Improved BRU-71/ A Bomb Rack, Improved Stores Management System, High-Definition Multi-sprectral Targeting System (MTS-B), Improved Heavyweight Landing Gear, integration and productionization, Automatic Take-off and Landing, and 904.6 software development.

FY 2015 Plans:
Will continue MQ-9 Block 5 Unmanned Aircraft System (UAS) capability development to include: Developmental test for High Capacity Starter-Generator, Predator Primary Data Link (PPDL), Two ARC-210 Radios, Redesigned Forward Avionics Bay, Dashboard w/ Integrated Sensor Control System (ISCS), Mission Control Module/Payload Control Computer, Improved BRU-71/ A Bomb Rack, Improved Stores Management System, High-Definition Multi-spectral Targeting System (MTS-B), Improved Heavyweight Landing Gear, integration and productionization, Automatic Take-off and Landing, and 904.6 software development.

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C. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
FY15 also includes the start of the 904.8 software development: Video Orientented Transceiver for EXchange of Information(VORTEX) Phase 2 data link, integration of Tech Insertion, integration of Electro-optical Infra-red sensor upgrades, Block 50 Ground Control Station (GCS) Phase 2 and integration and testing of other communications, sensors and weapons capabilities.			
Title: Ground Control Station (GCS) Development ***Description:*** Develop Ground Control Station (GCS) capabilities. Major capabilities include open system architecture, multi-level security, ergonomic cockpit design, and reducing or eliminating known deficiencies in legacy GCS. ***FY 2013 Accomplishments:*** Finished development of one Block 50 prototype asset. The major events included software integration to bring the prototype to an 80% design solution and to put the prototype through ground and flight testing. Started Block 50 design/development and manufacturing of two (2) System Test and Qualification (ST&Q) Software Integration Labaoratories (SILs), one (1) Technical Order development SIL, two (2) Fixed GCS, two (2) Mobile GCS, two (2) software developer kits, and the associated spares for the Block 50 configuration. Reduce or eliminate any known deficiencies in legacy GCS. ***FY 2014 Plans:*** Continue Block 50 design/development and manufacturing. Events in FY14 will include upgrading the system software. A Systems Requirements Review, Preliminary Design Review, and two Cockpit Evaluation Team events will take place as well. Reduce or eliminate any known deficiencies in legacy GCS. ***FY 2015 Plans:*** Will continue Block 50 design/development and manufacturing. Events in FY15 will include the hardware and software integration, a Critical Design Review, and the completion of the 7 GCS assets. Reduce or eliminate any known deficiencies in legacy GCS.	6.290	27.366	30.042
Title: MQ-9 Electro-Optic / Infrared (EO/IR) Sensor ***Description:*** Develop improved Multi-Spectral Targeting System (MTS-B) modes of operation and upgrade full motion video capability to include an all digital architecture employing High-Definition (HD) camera formats, imagery improvements across all multi-spectral bands (color and infrared) and Target Location Accuracy enhancements (TLA) to support future use of coordinate seeking weapons. ***FY 2013 Accomplishments:*** Continued the development of MTS-B all digital HD TLA architecture including mechanical electrical design, hardware and software fabrication, integration, and manned flight test/unmanned flight test of production representatives to achieve production	45.822	0.070	19.233

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force	Date: March 2014
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C. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
readiness. Provide preliminary design review for technology insertion architecture. Update MTS-B production representative software to facilitate integration of MTS-B HD TLA on the MQ-9 aircraft to include software integration lab testing. Begin system qualification and extended reliability testing. Produce final design and interface control documents, conduct test readiness reviews to assure system is ready for production. Formally release all MTS-B HD design and interface control documents. Prepare and delivery technical order source data and required training materials to facilitate fielding of HD TLA MTS-B. ***FY 2014 Plans:*** Continue development at reduced level of effort MTS-B all digital High Definition (HD) Target Location Accuracy (TLA) architecture including mechanical electrical design, hardware and software fabrication, integration, and manned flight test/unmanned flight test of prototypes to achieve production readiness. Update MTS-B production representative software to facilitate integration of MTS-B HD TLA on the MQ-9 aircraft to include software lab test. Continue system qualification and extended reliability testing. Produce final design and interface control documents, conduct test readiness reviews to assure system is ready for production. Formally release all MTS-B HD design and interface control documents. Prepare and deliver technical order source data and required training materials to facilitate fielding of HD TLA MTS-B. $70K added in FY14 to provide funding for safety evaluation to accomodate AF Laser System Safety Review Board approval of eye safe laser upgrade that is part to the MTS-B TLA upgrade. ***FY 2015 Plans:*** Will complete HD TLA MTS-B system qualification and extended reliability testing. Support final integration and test of completed HD TLA MTS-B system on MQ-9 platform. Support unmanned flight test.			
Title: Operator Simulator ***Description:*** Develop operator simulators for training and updates to keep Operator Simulator current with upgrades to aircraft and Ground Control Station (GCS). Note: Funding and contracting for this effort is not required every year but is required periodically as changes to aircraft and Ground Control Station hardware/software is developed and fielded. ***FY 2013 Accomplishments:*** N/A ***FY 2014 Plans:*** Continue updates to Operator Simulator with upgrades to trainers, hi-definition electro-optical/infra-red (EO/IR), Lynx Synthetic Aperture Radar (SAR) enhancements, and Ground Control Station (GCS) Block 50. ***FY 2015 Plans:*** Will continue continue to implement updates which will keep the Operator Simulator current with the aircraft and Ground Control Station. These updates will include, but are not limited to, sensor, databases and weapons upgrades.	-	5.069	11.757
Title: Synthetic Aperture Radar (SAR) Enhancements	7.063	9.250	7.330

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C. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Description: Improvements in MQ-9 capability to disseminate SAR data, improve Ground Moving Target Indicator (GMTI) tracking, automation of data exploitation via Continuous Look Attack Management for Predator (CLAMP) and improvement of GPS targeting. ***FY 2013 Accomplishments:*** Continued SAR Data Dissemination development, Dual Beam Dismount Development, GPS targeting, and Feature Aided Tracker. ***FY 2014 Plans:*** Complete Dual Beam Dismount capability development. Complete Feature Aided Tracker development. Begin development of Stationary Targeting Improvements for GPS-based weapons. Develop common architecture for Data Dissemination, and re-qualify radar software and hardware updates and sensor control interface changes. ***FY 2015 Plans:*** Will complete Data Dissemination development and continue developing Stationary Targeting Improvements for GPS-based weapons.			
Title: Test Support ***Description:*** Provides Other Government Agency support for MQ-1 and MQ-9 testing to include continued acceptance testing of weapon system hardware and software IAW with contract standards and developmental testing of new capabilities and (Reliability and Maintainability (R&M) upgrades. Air Force Test Center executes Flight Operations Authority responsibilities and provides Combined Test Force support, Edwards AFB controlled airspace range time and assets, test scheduling, frequency management and test related munitions support. Naval Air Warfare Center (NAWC) China Lake provides on-site facilities support, controlled airspace range time, assets, and ground targets for weapons testing. Joint Interoperability Test Command provides standards conformance testing and interoperability certification for new capabilities. NAWC Patuxent River provides Electromagnetic Environmental Effects testing for the MQ-9 UAS. ***FY 2013 Accomplishments:*** Continued test support. ***FY 2014 Plans:*** Continue test support. ***FY 2015 Plans:*** Will continue test support.	1.854	2.403	1.278
Title: Communications	2.070	5.041	1.920

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C. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Description: Develop MQ-9 communication capabilities including encrypted Line of Sight (LOS) data links to ROVER terminals (VORTEX) and beyond LOS military SATCOM usage. Development and integration of an IP based Remote Split Operations (RSO) network/infrastructure to include: Design, development and test of IP based network interfaces, Improved Predator Primary Data Link (PPDL) capabilities, network systems managers, drafting Technical Orders and support documentation, Training Packages, Production Drawings and Retrofit Acceptance Test Plans. ***FY 2013 Accomplishments:*** Continued the development and integration of an IP based Remote Split Operations network/infrastructure to include: Design, development and test of IP based network interfaces, network systems managers, drafting Technical Orders and support documentation, Training Packages, Production Drawings and Retrofit ATPs. ***FY 2014 Plans:*** Continue the development of communications capabilities including the Network Enterprise Management Kit, Satellite Earth Terminal Sub-System (SETSS)/Fixed Site Satellite Terminal (FSST) Tech Order Updates, RSO Tech Order Development, Training Course Development and various logistics support analysis. Integration of IP based Remote Split Operations network infrastructure, and ground data terminals (GDT). ***FY 2015 Plans:*** Will continue the development of communications capabilities including the Network Enterprise Management Kit, Satellite Earth Terminal Sub-System (SETSS)/Fixed Site Satellite Terminal (FSST) Tech Order Updates, RSO Tech Order Development, Training Course Development, logistics support analysis, and integration of Internet Protocol (IP) based Remote Split Operations network infrastructure.			
Title: Counter-IED Development and Demonstration	1.930	3.530	-
Description: Adding "Step Stare" mode capability to the MTS-B EO/IR sensor; also includes associated GCS development and testing. ***FY 2013 Accomplishments:*** Continued development/modification to sensor to add "Step Stare" mode capability to the MTS-B EO/IR sensor; also included associated GCS development and testing. ***FY 2014 Plans:*** Complete development/modification to sensor to add "Step Stare" mode capability to the MTS-B EO/IR sensor; also included associated GCS development and testing. ***FY 2015 Plans:***			

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force	Date: March 2014
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C. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
N/A			
Title: Multi-aircraft Transit Operations (MTO) ***Description:*** Multi-aircraft transit operation is to develop a core functionality to enable one pilot to safely control multiple RPA in non-segregated airspace on an instrument flight rules (IFR) flight plan between airfield and mission area(s) ***FY 2013 Accomplishments:*** Continued development of multi-aircraft transit operations functionality for RPAs. Incorporating Unmanned Aerospace System (UAS) Command and Control (C2) Iniative (UCI) software architecture and improved Human Machine Interface upgrades to better enable monitoring and oversight of multi-mission activity. ***FY 2014 Plans:*** Continue development of multi-aircraft transit operations functionality for RPAs. Incorporates UCI software architecture and improved Human Machine Interface upgrades to better enable monitoring and oversight of multi-mission activity. ***FY 2015 Plans:*** Will finish development of multi-aircraft transit operations functionality for RPAs, transition software to prime contractor, and support incorporation of the capability into the Block 50 GCS design	4.337	2.640	4.548
Title: MQ-9 Technology Insertion ***Description:*** Develop program protection Technology Insertion capabilities and functionality for the MQ-9 Weapon System. ***FY 2013 Accomplishments:*** Developed program protection Technology Insertion capabilities and functionality for the MQ-9 Weapon System. ***FY 2014 Plans:*** Continue development of program protection, Technology Insertion capabilities and functionality for the MQ-9 Weapon System including aircraft, sensors, and Ground Control Station documentation and drawings. ***FY 2015 Plans:*** Will continue and nearly finalizes development of program protection Technology Insertion capabilities and functionality for the MQ-9 Weapon System including aircraft, sensors, and Ground Control Station documentation and drawings.	14.608	11.546	16.896
Title: Reliability and Maintainability ***Description:*** Develop MQ-9 modification improvements for aircraft and ground base infrastructure. ***FY 2013 Accomplishments:***	2.591	-	5.017

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C. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Developed MQ-9 modification improvements for aircraft and ground based infrastructure systems to improve mission capable rates and reduce reliability and maintainability cost. ***FY 2014 Plans:*** N/A ***FY 2015 Plans:*** Will continue development of MQ-9 modification improvements for aircraft and ground based infrastructure to improve mission capable rates and reduce reliability and maintainability cost.			
Title: Extended Range ***Description:*** Develop Extended Range capability to increase operational range and endurance of the baseline MQ-9. ***FY 2013 Accomplishments:*** Developed Extended Range capability to increase operational range and endurance of the baseline MQ-9. ***FY 2014 Plans:*** Continue development of Extended Range capability to increase operational range and endurance of the baseline MQ-9. Technical solutions include modified wings and incorporating external fuel tanks. ***FY 2015 Plans:*** Will continue to develop Extended Range capability to increase operational range and endurance of the baseline MQ-9. Technical solutions include modified wings and incorporating external fuel tanks.	15.627	9.851	19.317
Title: Urgent Services ***Description:*** Urgent services, engineering change orders, program office support, studies and general research, and other higher level iniatives directed by the Air Force. ***FY 2013 Accomplishments:*** Continued urgent services, engineering change orders, studies and general research, and other higher level iniatives directed by the Air Force. ***FY 2014 Plans:*** Continue urgent services, engineering change orders, studies and general research, and other higher level iniatives directed by the Air Force. ***FY 2015 Plans:***	3.524	2.465	1.945

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C. Accomplishments/Planned Programs ($ in Millions)	FY 2013	FY 2014	FY 2015
Will continue urgent services, engineering change orders, studies and general research, and other higher level iniatives directed by the Air Force.			
Title: Afghan Enablers Development ***Description:*** Support Joint Urgent Operational Need (JUON)requirements to rapidly field sensor cross cue (slew-to-cue) functionality to improve track through clouds capability, advanced weapons, and high definition full motion video. ***FY 2013 Accomplishments:*** Design, develop, integrate, test, and field an initial increment of capability with the MQ-9 weapon system sensor cross cue functionality, integration of GBU-49 weapon with specialized warhead. ***FY 2014 Plans:*** Continue development, testing, and upgrades to field an initial increment of capability with MQ-9 weapon system sensor cross-cue functionality, integration of GBU-49 weapon with specialized warhead and high definition FMV capability. ***FY 2015 Plans:*** Will continue development, testing, and upgrades to field an initial increment of capability with the MQ-9 weapon system sensor cross cue functionality, integration of GBU-49 weapon with specialized warhead.	2.500	2.037	3.273
Accomplishments/Planned Programs Subtotals	130.882	107.338	170.396

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• APAF: BA04: Line Item # PRDTB1: *MQ-9*	681.530	349.217	240.218	-	240.218	437.739	296.176	551.205	542.825	242.388	3,341.298
• APAF: BA06:Line Item # PRDTB1: *MQ-9*	99.507	30.711	38.629	-	38.629	129.863	137.441	79.768	95.113	95.260	706.292
• APAF: BA05: Line Item # PRDTB2: *MQ-9 Mods*	177.471	62.970	155.445	-	155.445	115.632	210.099	164.319	144.606	1,080.558	2,111.100
• APAF: BA07: Line Item # PRDTB1: *MQ-9*	3.782	104.029	101.020	-	101.020	27.470	27.286	25.613	26.092	-	300.497
• RDTE: BA07: PE 0305206F: *Airborne Reconnaissance Systems*	14.916	10.000	-	-	-	-	-	-	-	-	-
• APAF: BA05: Line Item PRDTB3: *MQ-9 UAS Payloads*	84.470	-	-	-	-	-	-	-	-	-	-

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D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• APAF: BA06: PRDTB3: *MQ-9 UAS Payloads*	11.837	8.256	6.790	-	6.790	6.098	3.248	-	-	-	-

Remarks

E. Acquisition Strategy

The MQ-9 Reaper system will be acquired via sole-source contracts with General Atomics-ASI, L3Comm, and Raytheon as the prime contractors. GA-ASI is the prime contractor for aircraft and ground control stations. L3Comm is the prime contractor for the Predator Satellite Link. Raytheon is the prime contractor for the MTS-B EO/IR sensor system.

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 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0205219F / *MQ-9 UAV*	**Project (Number/Name)** 675246 / *MQ-9 Development and Fielding*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-9 System Development and Demonstration (SDD)	SS/CPIF	GA-ASI : Poway, CA	262.460	21.241	Jul 2013	23.550	Jan 2014	42.718	Dec 2014	-		42.718	312.615	662.584	662.584
Ground Control Station (GCS) Development	SS/CPFF	GA-ASI : Poway, CA	81.994	5.894	Jan 2013	24.721	Mar 2014	26.825	Jan 2015	-		26.825	163.926	303.360	303.360
MQ-9 Electro-Optical / Infrared (EO/IR) Sensor	SS/CPFF	Raytheon : McKinney, TX	55.284	42.941	Dec 2012	0.063	Mar 2014	17.173	Dec 2014	-		17.173	-	115.461	115.461
Operator Simulator	SS/CPIF	L3 Comm : Salt Lake City, UT	19.702	-		5.069	May 2014	11.757	Jan 2015	-		11.757	29.658	66.186	66.186
Synthetic Aperture Radar (SAR) Enhancements	SS/CPFF	GA-RSG : Poway, CA	30.211	6.619	Dec 2012	8.356	Mar 2014	6.545	Jan 2015	-		6.545	5.176	56.907	56.907
Communication	SS/CPFF	GA-ASI : Poway, CA	8.438	2.070	Jan 2013	5.041	Apr 2014	1.920	Dec 2014	-		1.920	17.716	35.185	35.185
Counter-IED Development and Demonstration	SS/CPIF	Various : Various,	25.555	1.930	Mar 2013	3.530	Dec 2013	-		-		-	-	31.015	31.015
GCS Multi Transit Ops	SS/CPFF	GA-ASI : Poway, CA	3.040	4.337	Jan 2013	2.640	Mar 2014	4.548	Dec 2014	-		4.548	8.729	23.294	23.294
MQ-9 Program Protection Technology Insertion	SS/CPFF	GA-ASI : Poway, CA	0.000	13.690	Jun 2013	10.430	Mar 2014	15.087	Jan 2015	-		15.087	13.440	52.647	52.647
Reliability and Maintainability	SS/CPFF	GA-ASI : Poway, CA	0.300	2.591	Mar 2013	-		5.017	Dec 2014	-		5.017	21.556	29.464	29.464
Extended Range	SS/CPFF	GA-ASI : Poway, CA	0.000	14.644	Mar 2013	8.899	Mar 2014	17.249	Oct 2014	-		17.249	-	40.792	40.792
Urgent Services/Misc Prior	SS/CPFF	GA-ASI : Poway, CA	62.791	3.525	Mar 2013	2.465	May 2014	1.945	May 2015	-		1.945	8.356	79.082	79.082
Afghan Enablers Development	SS/CPFF	GA-ASI : Poway, CA	0.000	2.500	Dec 2013	2.037	Jan 2014	3.273	Dec 2014	-		3.273	-	7.810	7.810
		Subtotal	549.775	121.982		96.801		154.057		-		154.057	581.172	1,503.787	1,503.787

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-		-	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Air Force			Date: March 2014
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0205219F / *MQ-9 UAV*	Project (Number/Name) 675246 / *MQ-9 Development and Fielding*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	Various	Various : ,	14.154	1.854	Oct 2012	2.403	Jan 2014	1.278	Dec 2014	-		1.278	8.440	28.129	28.129
		Subtotal	14.154	1.854		2.403		1.278		-		1.278	8.440	28.129	28.129

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2013 Cost	FY 2013 Award Date	FY 2014 Cost	FY 2014 Award Date	FY 2015 Base Cost	FY 2015 Base Award Date	FY 2015 OCO Cost	FY 2015 OCO Award Date	FY 2015 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Government Costs	Various	Various : Various, CA	19.017	7.046	Oct 2012	8.134	Oct 2013	15.061	Oct 2014	-		15.061	72.126	121.384	121.384
		Subtotal	19.017	7.046		8.134		15.061		-		15.061	72.126	121.384	121.384

	Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	582.946	130.882		107.338		170.396		-		170.396	661.738	1,653.300	1,653.300

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0205219F / *MQ-9 UAV*	**Project (Number/Name)** 675246 / *MQ-9 Development and Fielding*

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MQ-9 Reaper Program Schedule

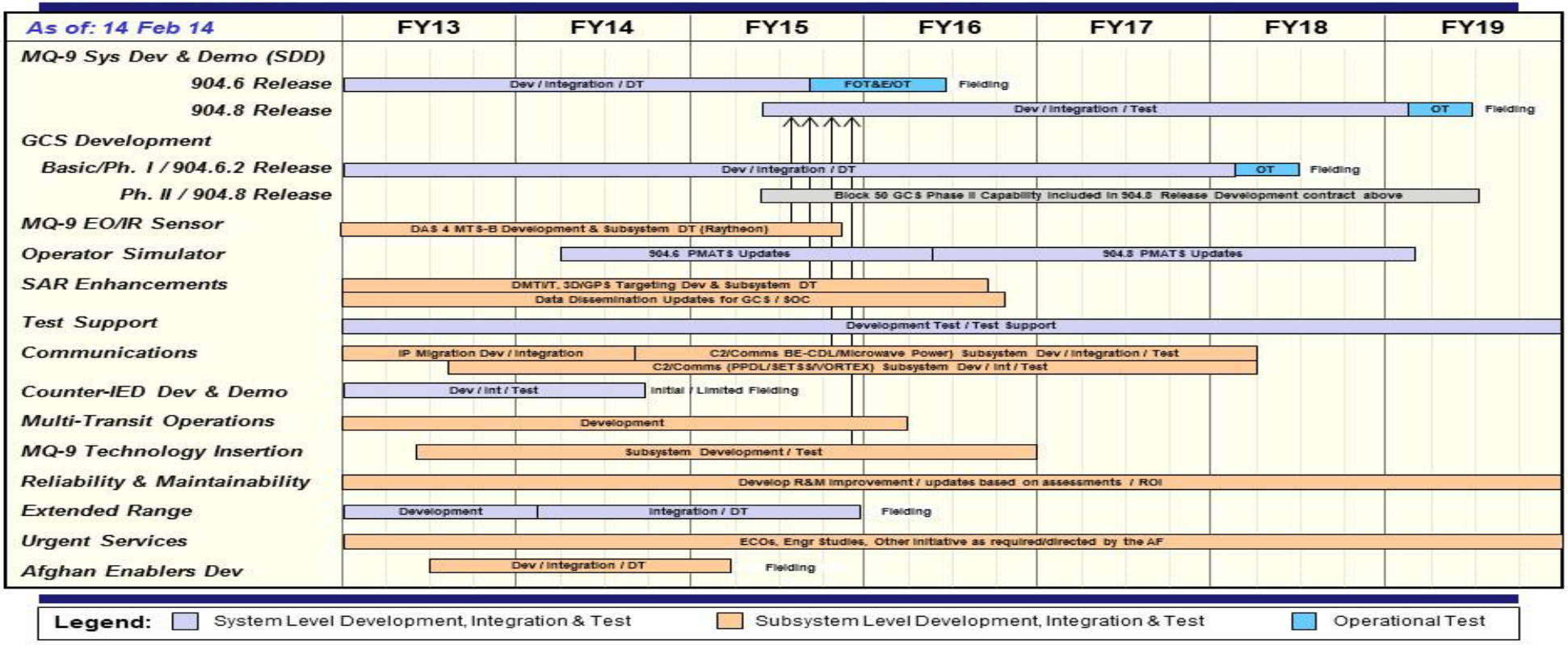

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0205219F / *MQ-9 UAV*	**Project (Number/Name)** 675246 / *MQ-9 Development and Fielding*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
MQ-9 System Development and Demonstration (SDD)	1	2013	2	2019
Ground Control Station (GCS) Development / Modernization	1	2013	2	2019
MTS-B Updates (Electro-Optic/Infrared (EO/IR) Sensor)	1	2013	4	2015
Operator Simulator	2	2014	1	2019
Synthetic Aperture Radar (SAR) enhacements	1	2013	4	2016
Test Support	1	2013	4	2019
Communications	1	2013	1	2018
Counter-IED Development and Demonstration	1	2013	3	2014
Multi- aircraft Transit Operations (MTO)	1	2013	1	2016
MQ-9 Technology Insertion	2	2013	4	2016
Reliability and Maintainability	1	2013	4	2019
Extended Range (ER)	1	2013	4	2015
Urgent Services	1	2013	4	2019
Afghan Enablers Development	3	2013	1	2015