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

R-1 ITEM NOMENCLATURE

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

PE 0205219F: MQ-9 Development and Fielding

DATE: February 2011

BA 7: Operational Systems Development

APPROPRIATION/BUDGET ACTIVITY

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	104.162	125.427	146.824	-	146.824	110.982	64.295	34.752	27.109	Continuing	Continuing
675246: MQ-9 Development and Fielding	104.162	125.427	146.824	-	146.824	110.982	64.295	34.752	27.109	Continuing	Continuing

Note

FY10 funding totals include \$11.4M appropriated for Overseas Contingency Operations.

Prior Years funding estimate is \$229.472. The "to complete" funding estimate is "Continuing".

Totals include funding for the PRCP Program Number 424, MQ-9 Reaper.

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 (Automatic Target Cueing (ATC), Target Location Accuracy (TLA), Metric Sensor and other capabilities), and assesses post-strike results. The MQ-9 system is continuing to develop and field capability through incremental upgrades. Two test aircraft were purchased in FY10 to support development and test activity. Future developmental capabilities include increasing the maximum gross takeoff weight capability of the aircraft; automatic takeoff and landing capability (ATLC); enhancing aircraft systems to include integrated redundant avionics; modifying the system to include provisions for a Foreign Military Sale exportable version of the weapon system; Predator Primary Data Link (PPDL) communication system upgrades and communications upgrades to include data link encryption and Ka frequency migration; navigation system upgrades; electrical system upgrades; airframe and airframe system improvements; propulsion system improvements; secure voice and data communications, including SATCOM, upgrades; sensor/stores management computer improvement; MIL-STD-1760 advanced weapons data bus; Universal Armament 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 variants); Mode 5 / Automatic Dependent Surveillance - Broadcast (ADS-B) integration; hardware and software upgrades to the ground control station for MQ-9 operations; completing airworthiness certification; weapons system certification and accreditation; and producing applicable training devices that emulate weapon system capabilities. The MQ-9 program will continue to support other payload and capability development activities funded in other Program Elements (e.g. SIGINT, communications, electronic attack (EA), Broad Area Surveillance leveraging Gorgon

Air Force Page 1 of 16 R-1 Line Item #123

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

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

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

PE 0205219F: MQ-9 Development and Fielding

BA 7: Operational Systems Development

Stare Quick Reaction Capability, advanced Counter-Improvised Explosive Device (C-IED), missile defense, 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 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 LOS (BLOS) via a combination of satellite relay and terrestrial communications. The GCS is either mobile to support forward operating locations or fixed at a facility to support Remote Split Operations (RSO). The GCS has the capability to perform mission planning; 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) allow 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. Beginning in FY12 there is funding to acclerate development of a Multiple Aircraft Control (MAC) GCS capability. GCS upgrades will be developed and fielded in coordination with improvements to MQ-9 aircraft capabilities and in response to evolving operational and information assurance/certification and accreditation requirements. Key future efforts will also include Block 30 GCS upgrades that add new LINUX processors, high definition monitors, ergonomic improvements and Block 50 GCS upgrades that integrate improved human-machine interfaces, open systems architecture, and improved crew habitability. This program will participate in studies, analyses, development, testing, and implementation of future Remotely Piloted Aircraft (RPA) systems and various standards to pursue joint, Allied, and coalition interoperability.

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

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	93.145	125.427	128.065	-	128.065
Current President's Budget	104.162	125.427	146.824	-	146.824
Total Adjustments	11.017	-	18.759	-	18.759
 Congressional General Reductions 		-			
 Congressional Directed Reductions 		-			
 Congressional Rescissions 	-0.383	-			
 Congressional Adds 		-			
 Congressional Directed Transfers 		-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-	-			
Other Adjustments	11.400	-	18.759	-	18.759

Air Force Page 2 of 16 R-1 Line Item #123

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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Ford	ce	DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0205219F: MQ-9 Development and Fieldin	ng
Change Summary Explanation		
The increase in funding in FY12 is primarily due to project in Exportable MQ-9 development.	initiation for: Counter IED development, Multiple Aircr	raft Control (MAC) GCS development, and

Air Force Page 3 of 16 R-1 Line Item #123

DATE: February 2011

APPROPRIATION/BUDGET ACTIV 3600: Research, Development, Test BA 7: Operational Systems Develop	t & Evaluation	n, Air Force		R-1 ITEM N PE 0205219		TURE evelopment a	and Fielding	PROJECT 675246: <i>M</i> C	Q-9 Developi	ment and Fie	elding
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
675246: MQ-9 Development and Fielding	104.162	125.427	146.824	-	146.824	110.982	64.295	34.752	27.109	Continuing	Continuing
Quantity of RDT&E Articles	2	0	0	0	0	0	0	0	0		

Note

FY10 funding totals include \$11.4M appropriated for Overseas Contingency Operations.

The "to complete" funding estimate is "Continuing".

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

Totals include funding for the PRCP Program Number 424, MQ-9 Reaper.

The program funding includes reductions for Overhead Reduction efficiencies that are not intended to impact program content. The efficiencies reductions total \$0.742M in FY12.

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 (Automatic Target Cueing (ATC), Target Location Accuracy (TLA), Metric Sensor and other capabilities), and assesses post-strike results. The MQ-9 system is continuing to develop and field capability through incremental upgrades. Two test aircraft were purchased in FY10 to support development and test activity. Future developmental capabilities include increasing the maximum gross takeoff weight capability of the aircraft; automatic takeoff and landing capability (ATLC); enhancing aircraft systems to include integrated redundant avionics; modifying the system to include provisions for a Foreign Military Sale exportable version of the weapon system; Predator Primary Data Link (PPDL) communication system upgrades and communications upgrades to include data link encryption and Ka frequency migration; navigation system upgrades; electrical system upgrades; airframe and airframe system improvements; propulsion system improvements; secure voice and data communications, including SATCOM, upgrades; sensor/stores management computer improvement; MIL-STD-1760 advanced weapons data bus; Universal Armament 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 variants); Mode 5 / Automatic Dependent Surveillance - Broadcast (ADS-

Air Force Page 4 of 16 R-1 Line Item #123

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 0205219F: MQ-9 Development and Fielding	675246: MC	Q-9 Development and Fielding
BA 7: Operational Systems Development			

integration; hardware and software upgrades to the ground control station for MQ-9 operations; completing airworthiness certification; weapons system certification and accreditation; and producing applicable training devices that emulate weapon system capabilities. The MQ-9 program will continue to support other payload and capability development activities funded in other Program Elements (e.g. SIGINT, communications, electronic attack (EA), Broad Area Surveillance leveraging Gorgon Stare Quick Reaction Capability, advanced Counter-Improvised Explosive Device (C-IED), missile defense, 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 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 LOS (BLOS) via a combination of satellite relay and terrestrial communications. The GCS is either mobile to support forward operating locations or fixed at a facility to support Remote Split Operations (RSO). The GCS has the capability to perform mission planning; 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) allow 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. Beginning in FY12 there is funding to acclerate development of a Multiple Aircraft Control (MAC) GCS capability. GCS upgrades will be developed and fielded in coordination with improvements to MQ-9 aircraft capabilities and in response to evolving operational and information assurance/certification and accreditation requirements. Key future efforts will also include Block 30 GCS upgrades that add new LINUX processors, high definition monitors, ergonomic improvements and Block 50 GCS upgrades that integrate improved human-machine interfaces, open systems architecture, and improved crew habitability. This program will participate in studies, analyses, development, testing, and implementation of future Remotely Piloted Aircraft (RPA) systems and various standards to pursue joint, Allied, and coalition interoperability.

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

B. Accomplishments/Planned Programs (\$ in Millions)			FY 2012	FY 2012	FY 2012
	FY 2010	FY 2011	Base	oco	Total
Title: MQ-9 System Development and Demonstration (SDD) - Interim Combat Capability (ICC)	1.746	-	-	-	-
Description: Initial Weaponization of MQ-9					
FY 2010 Accomplishments: Completed testing and final delivery of training data					
FY 2011 Plans:					
FY 2012 Base Plans:					
FY 2012 OCO Plans:					

Air Force Page 5 of 16 R-1 Line Item #123

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 0205219F: MQ-9 Development and Fielding	675246: M	Q-9 Development and Fielding
BA 7: Operational Systems Development			

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: MQ-9 System Development and Demonstration (SDD) - Increment 1	13.796	0.800	-	-	-
Description: Development to meet MQ-9 Capabilities Production Document (CPD) requirement					
FY 2010 Accomplishments: Continued Air Worthiness, Software Updates, Weapons Development, Productization Tasks and Functional Configuration Audits					
FY 2011 Plans: Completes Air Worthiness, Software Updates, Weapons Development efforts					
FY 2012 Base Plans:					
FY 2012 OCO Plans:					
Title: MQ-9 System Development and Demonstration (SDD) - Bridge	20.628	35.237	34.189	-	34.189
Description: Complete development to meet MQ-9 Capabilities Production Document (CPD) requirements					
FY 2010 Accomplishments: Continued High capacity starter / generator, encrypted data links, digital architecture, heavyweight landing gear, environmental testing, modular sensor integration, upgrades Stores Management System and MIL-STD to all stations. Completed development, integration, test and productization of field and depot prototypes.					
FY 2011 Plans: Continuation of FY10 efforts plus high definition sensor capability including Target Location Accuracy Integration.					
FY 2012 Base Plans: Continuation of FY10 and FY11 efforts including high definition sensor capability and Target Location Accuracy Integration.					
FY 2012 OCO Plans:					
Title: Ground Control Station (GCS) Development	24.527	33.076	14.644	-	14.644
Description: Develop Ground Control Station (GCS) capabilities. Major capabilities include open system architecture, multi-level security and ergonomic cockpit design.					
FY 2010 Accomplishments:					

Air Force Page 6 of 16 R-1 Line Item #123

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011				
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0205219F: MQ-9 Development and		ROJECT 5246: <i>M</i> Q-9) Developm	ent and Fie	lding	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	
Completed GCS Block 30 and initiated Block 50 GCS development (SIL)and preliminary testing.	including Block 50 System Integration Lab						
FY 2011 Plans: Continuation of GCS Block 50 development and System Integration	Lab (SIL)effort.						
FY 2012 Base Plans: Continuation of GCS Block 50 development							
FY 2012 OCO Plans:							
Title: MQ-9 Electro-Optic / Infrared (EO/IR) Sensor		9.593	19.557	30.806	-	30.80	
Description: Developed improved MTS-B modes and capability incomats and Target Location Accuracy (TLA) improvements to improcolor) and to support future use of coordinate seeking weapons.							
FY 2010 Accomplishments: Continued High Definition and Target Location Accuracy improvements	ents for EO/IR sensor						
FY 2011 Plans: Continuation of High Definition and Target Location Accuracy impro	vements for EO/IR sensor						
FY 2012 Base Plans: Continues High Definition and Target Location Accuracy improvements	ents for EO/IR sensor						
FY 2012 OCO Plans:							
Title: Other Government Costs (OGC)		5.404	7.355	8.130	_	8.13	
Description: Other Government Costs including urgent services, en support, studies and general research	ngineering change orders, program office						

Air Force Page 7 of 16 R-1 Line Item #123

FY 2010 Accomplishments: Continued OGC costs

FY 2011 Plans:

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 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0205219F: MQ-9 Development and	PROJECT Fielding 675246: MQ-9 Development and Fielding				elding
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continued OGC costs						
FY 2012 Base Plans: Continuation of OGC costs						
FY 2012 OCO Plans:						
Title: Operator Simulator		4.39	7.318	2.136	-	2.136
Description: Develop operator simulators for training						
FY 2010 Accomplishments: Updates to keep Operator Simulator current with upgrades to aircra	aft and Ground Control Station					
FY 2011 Plans: Develops updates to keep Operator Simulator current with upgrade	es to aircraft and Ground Control Station					
FY 2012 Base Plans: Develops updates to keep Operator Simulator current with upgrade	es to aircraft and Ground Station					
FY 2012 OCO Plans:						
Title: Synthetic Aperture Radar (SAR) Enhancements		3.99	7 12.000	4.000	-	4.000
Description: Improvements in MQ-9 capability to disseminate SAF Indicator (GMTI) tracking, automation of data exploitation via Conti (CLAMP) and classification of 3-D targeting						
FY 2010 Accomplishments: Improvements in MQ-9 capability to disseminate SAR data, improvements, automation of data exploitation via Continuous Look Attacklessification of 3-D targeting						
FY 2011 Plans: Continuation of FY10 activities and Lynx SAR Dual Beam Developed	ment.					
FY 2012 Base Plans:						

Air Force Page 8 of 16 R-1 Line Item #123

UNCLASSIFIED						
Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE : February 2011				
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development R-1 ITEM NOMENCLATURE PE 0205219F: MQ-9 Development	ent and Fielding	PROJECT Fielding 675246: MQ-9 Development and Fielding			lding	
B. Accomplishments/Planned Programs (\$ in Millions)	FY 20°	I0 FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	
Continuation of FY11 efforts						
FY 2012 OCO Plans:						
Title: Test Support	1.1	07 2.61	8 3.931	-	3.93	
Description: Various MQ-9 testing activities such as flight testing including range time, controlled airspac frequency management, project management and on-site facilities. Other testing activities include Joint Integrated Test Command (JITC) support and Edwards acceptance testing support.	ee,					
FY 2010 Accomplishments: Continuation of test support						
FY 2011 Plans: Continuation of test support						
FY 2012 Base Plans: Continuation of test support						
FY 2012 OCO Plans:						
Title: Communications	2.8	7.46	6 15.488	-	15.488	
Description: Develop MQ-9 communication capabilities including encrypted Line of Sight (LOS) data links ROVER terminals (VORTEX) and beyond LOS military SATCOM usage.	s to					
FY 2010 Accomplishments: Developed VORTEX capabilities						
FY 2011 Plans: Completed VORTEX Line-of-Sight (LOS) development, continued PPDL LOS and Beyond-Line-of-Sight communication capabilities development and started Ka capability development.						
FY 2012 Base Plans: Continued development of communication capabilities						

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16.168

Air Force Page 9 of 16 R-1 Line Item #123

FY 2012 OCO Plans:
Title: Test Aircraft

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 0205219F: MQ-9 Development and Fielding	675246: M	Q-9 Development and Fielding
BA 7: Operational Systems Development			

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Description: Procures two test aircraft					
FY 2010 Accomplishments: Deliverd two RDT&E test aircraft including full MTS-B sensor equipment and Hellfire launchers / rails					
FY 2011 Plans:					
FY 2012 Base Plans:					
FY 2012 OCO Plans:					
Title: Counter-IED Development and Demonstration	-	-	14.500	-	14.50
Description: Adding "Step Stare" mode capability to the MTS-B EO/IR sensors; also includes associated GCS development and testing.					
FY 2010 Accomplishments:					
FY 2011 Plans:					
FY 2012 Base Plans: Will develop/modify sensor to add "Step Stare" mode capability to the MTS-B EO/IR sensors; also includes associated GCS development and testing.					
FY 2012 OCO Plans:					
Title: MAC	-	-	4.000	-	4.000
Description: Develop Multi Aircraft Control capability - GCS					
FY 2010 Accomplishments:					
FY 2011 Plans:					
FY 2012 Base Plans: Will develop Multi Aircraft Control capability - GCS					
FY 2012 OCO Plans:					
Title: Export MQ-9	-	-	15.000	-	15.00

Air Force Page 10 of 16 R-1 Line Item #123

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 0205219F: MQ-9 Development and Fielding 675246: MQ-9 Development and Fielding

BA 7: Operational Systems Development

B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Description: Develop Exportable Version of MQ-9						
FY 2010 Accomplishments:						
FY 2011 Plans:						
FY 2012 Base Plans: Will develop Exportable Version of MQ-9 Weapon System.						
FY 2012 OCO Plans:						
	Accomplishments/Planned Programs Subtotals	104.162	125.427	146.824	-	146.824

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

			FY 2012	FY 2012	FY 2012					<u>Cost To</u>	
Line Item	FY 2010	FY 2011	Base	OCO	<u>Total</u>	FY 2013	FY 2014	FY 2015	FY 2016	Complete	Total Cost
• APAF: <i>PE 0205219F, MQ-9 UAV</i>	573.845	1,016.217	1,185.605	0.000	1,185.605	1,378.759	1,211.367	1,212.229	1,025.126	Continuing	Continuing
• OPAF: <i>PE 0205219F, MQ-9 UAV</i>	0.000	0.000	4.417	0.000	4.417	0.000	0.000	0.000	0.000	Continuing	Continuing
• RDT&E AF: <i>PE 0305219F</i> ,	9.877	3.500	1.977	0.000	1.977	0.000	0.000	0.000	0.000	Continuing	Continuing
Predator Development/Fielding											
• RDT&E AF (3): <i>PE 0305206F</i> ,	45.984	31.833	16.047	0.000	16.047	16.328	13.040	16.419	17.408	Continuing	Continuing
Airborne Reconnaisance Systems											
• APAF (4): <i>PE 0305206F, Airborne</i>	19.600	160.400	74.900	0.000	74.900	106.200	112.400	76.800	81.700	Continuing	Continuing
Reconnaisance Systems											
• RDT&E AF (5): <i>PE 034260F</i> ,	32.630	29.757	37.874	0.000	37.874	35.274	32.270	31.245	40.171	Continuing	Continuing
Airborne SIGINT Enterprise											
• RDT&E AF (6): <i>PE 0604429F</i> ,	0.000	0.000	0.000	0.000	0.000	7.500	0.000	0.000	0.000	Continuing	Continuing
Airborne Electronic Attack											
• APAF (7): <i>PE 0604429F, Airborne</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	13.000	8.300	Continuing	Continuing
Electronic Attack											

D. 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 Predator Satellite Link. Raytheon is the prime contractor for the MTS-B EO/IR sensor system.

Air Force Page 11 of 16 R-1 Line Item #123

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0205219F: MQ-9 Development and Fielding	PROJECT 675246: MQ-9 Development and Fielding
E. Performance Metrics Please refer to the Performance Base Budget Overview Book for inform Force performance goals and most importantly, how they contribute to		d how those resources are contributing to Air

Air Force Page 12 of 16 R-1 Line Item #123

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

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

Support Services

R-1 ITEM NOMENCLATURE

PE 0205219F: MQ-9 Development and Fielding 675246: MQ-9 Development and Fielding

DATE: February 2011

PROJECT

Product Development (\$ in Millio	ns)		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
MQ-9 System Development and Demonstration (SDD) - Interim Combat Capability (ICC)	SS/CPFF	GA-ASI:Poway, CA	85.683	-		-		-		-	0.000	85.683	85.683
MQ-9 System Development and Demonstration (SDD) - Increment 1	SS/CPIF	GA-ASI:Poway, CA	90.338	0.800	Dec 2010	-		-		-	0.000	91.138	91.138
MQ-9 System Development and Demonstration (SDD) - Bridge	SS/CPIF	GA-ASI:Poway, CA	29.821	35.237	Oct 2010	34.189	Oct 2011	-		34.189	16.200	115.447	111.076
Ground Control Station (GCS) Development	SS/Various	GA-ASI:Poway, CA	24.790	33.076	Feb 2011	14.645	Oct 2011	-		14.645	11.915	84.426	TBD
MQ-9 Electro-Optical / Infrared (EO/IR) Sensor	SS/Various	Raytheon:McKinney, TX	22.255	19.557	May 2011	30.806	Oct 2011	-		30.806	25.562	98.180	TBD
Operator Simulator	SS/CPIF	L3 Comm:Salt Lake City, UT	15.030	7.318	Feb 2011	2.136	Oct 2011	-		2.136	Continuing	Continuing	TBD
Synthetic Aperture Radar (SAR) Enhancements	SS/CPFF	GA-RSG:Poway, CA	10.861	12.000	Mar 2011	4.000	Oct 2011	-		4.000	Continuing	Continuing	TBD
Communication	SS/CPFF	GA-ASI:Poway, CA	3.800	7.466	Oct 2010	15.487	Oct 2011	-		15.487	8.300	35.053	TBD
Counter-IED Development and Demonstration	Various	TBD:TBD,	-	-		14.500	Mar 2012	-		14.500	0.000	14.500	0.000
MAC	SS/CPFF	GA-ASI:Poway, CA	-	-		4.000	Aug 2012	-		4.000	Continuing	Continuing	TBD
Exportable MQ-9	SS/CPFF	GA-ASI:Poway, CA	-	-		15.000	Dec 2012	-		15.000	Continuing	Continuing	TBD
		Subtotal	282.578	115.454		134.763		-		134.763			
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

0.923

0.923

Oct 2011

0.923

0.923 Continuing

Continuing

TBD

Oct 2010

Air Force Page 13 of 16 R-1 Line Item #123

1.301

1.301

16.320

16.320

Subtotal

Various:,

Various

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

APPROPRIATION/BUDGET ACTIVITY

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

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

PE 0205219F: MQ-9 Development and Fielding 675246: MQ-9 Development and Fielding

PROJECT

DATE: February 2011

Test and Evaluation (\$ i	n Millions	3)		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
Test Support	Various	Various:,	9.247	2.618	Oct 2010	3.931	Oct 2011	-		3.931	Continuing	Continuing	TBD
Test Aircraft	Various	Various:,	16.168	-		-		-		-	0.000	16.168	16.168
		Subtotal	25.415	2.618		3.931		-		3.931			

Management Services	(\$ in Millio	ns)		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
Program Management Services	Various	Various:,	9.321	6.054	Oct 2010	7.207	Oct 2011	-		7.207	Continuing	Continuing	TBD
		Subtotal	9.321	6.054		7.207		-		7.207			

	Total Prior										Target
	Years			FY 2	2012	FY:	2012	FY 2012	Cost To		Value of
	Cost	FY 2	2011	Ba	ise	0	CO	Total	Complete	Total Cost	Contract
Project Cost Totals	333.634	125.427		146.824		-		146.824			

Remarks

Page 14 of 16 R-1 Line Item #123 Air Force

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xhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force			DATE: February 2011				
PPROPRIATION/BUDGET ACTIVITY 600: Research, Development, Test & Evaluation, Air Force A 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0205219F: MQ-9 Development and Fielding	PROJECT 675246: <i>M</i>					

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Air Force Page 15 of 16 R-1 Line Item #123

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 0205219F: MQ-9 Development and Fielding	675246: MC	Q-9 Development and Fielding
BA 7: Operational Systems Development			

Schedule Details

	Sta	art	Er	ıd
Events	Quarter	Year	Quarter	Year
Initial Combat Capability (ICC)	1	2010	2	2011
SDD - Increment 1	1	2010	2	2011
SDD - Increment 1 Bridge	1	2010	4	2012
SDD - Increment 2	3	2013	3	2016
MTS-B Updates	1	2010	4	2013
Lynx SAR Updates	1	2010	4	2013
Ground Control Station (GCS) Modernization	1	2010	4	2012
Ka Migration	4	2011	1	2015
C-IED	1	2012	1	2013