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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force **Date:** March 2014

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0305219F I MQ-1 Predator A UAV
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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	-	9.110	0.760	1.378	-	1.378	0.919	-	-	-	-	12.167
675143: <i>Predator</i>	-	9.110	0.760	1.378	-	1.378	0.919	-	-	-	-	12.167
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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

A. Mission Description and Budget Item Justification

The basic MQ-1 system consists of the aircraft, a control station, communications equipment, support equipment, simulator and training devices, Readiness Spares Packages (RSP), technical data/training, and personnel required to operate, maintain, and sustain the system. This funding supports development and enhancements to the Predator weapon system to include: aircraft and Ground Control Stations (GCS) and associated software, sensors, communication equipment, training systems and support elements. The system is designed to be modular and open-ended. Mission-specific equipment is employed in a 'plug-and-play' mission kit concept allowing specific aircraft and control station configurations to be tailored to fit mission needs.

The MQ-1 aircraft is a single-engine, propeller-driven, remotely piloted aircraft (formerly called Unmanned Aircraft Vehicle, UAV) designed to operate over-the-horizon for long endurance sorties. The aircraft is designed to provide real-time Intelligence, Surveillance, Reconnaissance, and Target Acquisition (ISR TA), and attack capability to aggressively prosecute Time Sensitive Targets (TSTs). The aircraft is configured to carry Hellfire laser-guided missiles. The MQ-1 operates primarily at medium altitudes, integrating with joint aerospace, ground, and maritime forces as well as coalition and Allied forces, to execute combatant commander priority missions. The aircraft carries a Multi-spectral Targeting System (MTS) (a sensor turret that incorporates Electro-Optical (EO), Infra-Red (IR), laser designator, and IR illuminator) capable of transmitting real-time Full Motion Video (FMV) imagery throughout the operational theater.

This program will address interoperability among developed systems through common standards and tools. Additionally, this program will continue to address reliability and maintainability, safety of flight, and warfighter needs as they arise.

The GCS, common with the MQ-9 Reaper, functions as the aircraft cockpit and can control the aircraft either within Line-of-Sight (LOS) or Beyond LOS (BLOS) via a combination of satellite relay and terrestrial communications. The GCS is either mobile to support forward operating locations or fixed at a facility to support Remote Split Operations (RSO). The GCS has the capability to perform mission planning; provide a means for manual control; allow control of multiple aircraft and payloads; allow personnel to launch, recover, and monitor aircraft, payloads, and system communications status; secure data links to receive payload sensor data and command links; monitor threats to the aircraft; display a common operational picture; and provide support functions. Additionally, GCS allows for servicing, systems checks, maintaining, launching, and recovering aircraft under LOS control for hand-off to a mobile or fixed facility GCS. Congressional Adds in FY11 and FY12 began Predator C development, integration, and testing.

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.

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B. Program Change Summary (\$ in Millions)		FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget		9.122	3.326	1.396	-	1.396
Current President's Budget		9.110	0.760	1.378	-	1.378
Total Adjustments		-0.012	-2.566	-0.018	-	-0.018
• Congressional General Reductions		-0.012	-0.025			
• Congressional Directed Reductions		-	-2.541			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Other Adjustments		-	-	-0.018	-	-0.018
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2013	FY 2014	FY 2015
Title: OGC and Mission Readiness Capability				0.660	0.357	0.796
Description: Other Government Costs (OGC) and Mission Readiness Capability (MRC)						
FY 2013 Accomplishments: Continued OGC and Mission Readiness Capability						
FY 2014 Plans: Continue OGC and Mission Readiness Capability						
FY 2015 Plans: Will continue OGC and Mission Readiness Capability						
Title: ST&E				0.365	0.078	0.025
Description: Systems Test & Evaluation (ST&E)						
FY 2013 Accomplishments: Continued ST&E						
FY 2014 Plans: Continue ST&E						
FY 2015 Plans:						

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
Will complete ST&E				
Title: PMATS Description: Predator Mission Aircrew Training System (PMATS) FY 2013 Accomplishments: Continued PMATS development to keep the training system current with other MQ-1 CCI development activities FY 2014 Plans: Complete PMATS development to keep the training system current with other MQ-1 CCI development activities FY 2015 Plans: N/A		1.908	0.325	-
Title: CCI Description: Critical Capabilities Integration (CCI) is an overarching MQ-1 modernization activity that will integrate Hellfire R Software and Airborne Cueing and Exploitation System Hyperspectral Sensor (ACES HY). FY 2013 Accomplishments: Completed VORTEX to enable encrypted line of sight data transmission. Continued Hellfire R activities and Pred C support and development. FY 2014 Plans: Continue lower level CCI Hellfire R activities. FY 2015 Plans: Will complete CCI efforts, including integrating Hellfire R Software and Airborne Cueing and Exploitation System Hyperspectral Sensor (ACES HY).		3.085	-	0.557
Title: MTS Expanded Maintenance Capability Description: Multi-spectral Targeting System (MTS) Expanded Maintenance Capability FY 2013 Accomplishments: Completed MTS Expanded Maintenance Capability FY 2014 Plans:		2.464	-	-

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C. Accomplishments/Planned Programs (\$ in Millions)										FY 2013	FY 2014	FY 2015
N/A												
FY 2015 Plans: N/A												
Title: Other Prior Year Costs/Non-Continuing										0.628	-	-
Description: Other Prior Year Costs/Non-Continuing Projects												
FY 2013 Accomplishments: Completed other prior year costs/non-continuing projects												
FY 2014 Plans: N/A												
FY 2015 Plans: N/A												
Accomplishments/Planned Programs Subtotals										9.110	0.760	1.378
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: BA05: Line Item # PRDT01: MQ-1 MODS	27.835	7.926	4.755	-	4.755	3.173	-	-	-	-	43.689	
• APAF: BA06: Line Item # PRDT01: INITIAL SPARES	4.507	2.120	1.821	-	1.821	1.613	0.871	-	-	-	10.932	
Remarks												
E. Acquisition Strategy The MQ-1 Predator system will be acquired via sole-source acquisition strategies with General Atomics-ASI and Raytheon as the prime contractors.												
F. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.												

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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 0305219F / MQ-1 Predator A UAV

Project (Number/Name)
675143 / Predator



MQ-1 Predator Program Schedule

