Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-420

MQ-1C UAS GRAY EAGLE

As of December 31, 2010

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Designation And Nomenclature (Popular Name)

MQ-1C UAS Gray Eagle

DoD Component

Army

Responsible Office

Responsible Office

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Date Assigned March 26, 2009

References

SAR Baseline (Development Estimate)

FY 2011 President's Budget

Approved APB

DAE Approved Acquisition Program Baseline (APB) dated March 25, 2011

Mission and Description

Provides the Division Commander a dedicated, assured, multi-mission Unmanned Aircraft System (UAS) for the tactical fight assigned to the Combat Aviation Brigade (CAB) in each Division and supports the Division Fires, Battlefield Surveillance Brigades (BSB) and Brigade Combat Teams (BCTs), based upon the Division Commander's priorities. Provides Reconnaissance, Surveillance, and Target Acquisition (RSTA), command and control, communications relay, Signals Intelligence (SIGINT), Electronic Warfare (EW), attack, detection of Weapons of Mass Destruction (WMD), and battle damage assessment capability.

The unit of measure for a MQ-1C UAS Gray Eagle is balanced Platoons, each with four (4) aircraft and associated support equipment and payloads to include: Electro-Optical/Infrared/Laser Range Finder/Laser Designator (EO/IR/LRF/LD), communications relay, and up to four (4) HELLFIRE Missiles. The Common Sensor Payload (CSP) is one (1) per aircraft. Ground equipment per Platoon includes: two (2) Ground Control Stations (GCS-V3), two (2) Ground Data Terminals (GDT), one (1) Satellite Communication (SATCOM) Ground Data Terminal (SGDT), one (1) Portable Ground Control Station (PGCS), one (1) Portable Ground Data Terminal (PGDT), an Automated Take Off and Landing System (ATLS), which includes two (2) Tactical Automatic Landing Systems (TALS) and ground support equipment. Seven (7) Companies with three (3) Platoons each equipped as described above will be in a deployed status. Ten (10) other Continental United States (CONUS) based or dwell companies will have only one (1) Platoon set of equipment as described above but will still be staffed with a full complement of 128 Soldiers.

Executive Summary

The MQ-1C Unmanned Aircraft System (UAS) Gray Eagle (Gray Eagle UAS) program was initiated April 20, 2005 at Milestone (MS) B. The Gray Eagle UAS was initially established as an Acquisition Category (ACAT) II program and was intended to replace the Hunter UAS, a Corps level asset. The Milestone Decision Authority (MDA) granted approval at the MS B to conduct a full and open competitive acquisition for the Gray Eagle UAS. The initial program was approved for procurement of four systems with five aircraft each and associated equipment. In 2005, the Army directed that the Gray Eagle UAS would be fielded at the Division level and increased the procurement quantity to 11 systems with 12 aircraft each and associated equipment. The President's Budget dated February 1, 2010, increased the quantity to 13 systems.

The Secretary of Defense directed the deployment of prototype Gray Eagle UAS equipment to support the war in April 2008. In order to meet the Secretary of Defense requirement, two Quick Reaction Capability (QRC) sets were procured. Each set consists of four aircraft each and associated equipment. The first QRC deployed July 2009 in support of Operation Iraqi Freedom (OIF) and the second QRC deployed September 2010 in support of Operation Enduring Freedom (OEF). Both deployed QRC's have in excess of 10,000 flight hours with zero accidents. The QRCs are not contained within the MQ-1C UAS Gray Eagle Acquisition Program Baseline (APB).

The Gray Eagle UAS was redesignated by the Defense Acquisition Executive (DAE) as an ACAT ID on May 19, 2008. The baseline acquisition program is proceeding with Engineering and Manufacturing Development (EMD) toward a Fiscal Year (FY) 2011 First Unit Equipped (FUE) and Initial Operational Test and Evaluation (IOT&E). The Gray Eagle UAS completed a MS C review on February 2, 2010 and the MS C was approved on March 29, 2010. The Milestone C was subsequently changed from March 2010 to March 2011 based on the rescission of the original Milestone C date and the APB approved in March 2011.

In FY 2010, the Vice Chief Staff of the Army (VCSA) convened a Gray Eagle UAS Configuration Steering Board (CSB). The CSB recommended changes to the base configuration to include additional equipment that would allow three balanced Platoons in each Gray Eagle UAS Company. The CSB also approved unit quantities to increase from 13 to 17 Gray Eagle UAS Companies.

Status of major tests: A successful Limited User Test (LUT) was conducted Third Quarter FY 2010, IOT&E is planned to begin First Quarter FY 2012. Follow-on Operational Test and Evaluation (FOT&E) I is planned for Fourth Quarter FY 2012. FOT&E II is planned for Fourth Quarter FY 2013.

The Program Management Office has a Risk Management Program (RMP) in accordance with the risk management guide for Department of Defense (DoD) Acquisition. The Gray Eagle UAS Risk Review Board (RRB) meets monthly and is jointly chaired by the Government Chief Engineer and the Contractor Program Manager.

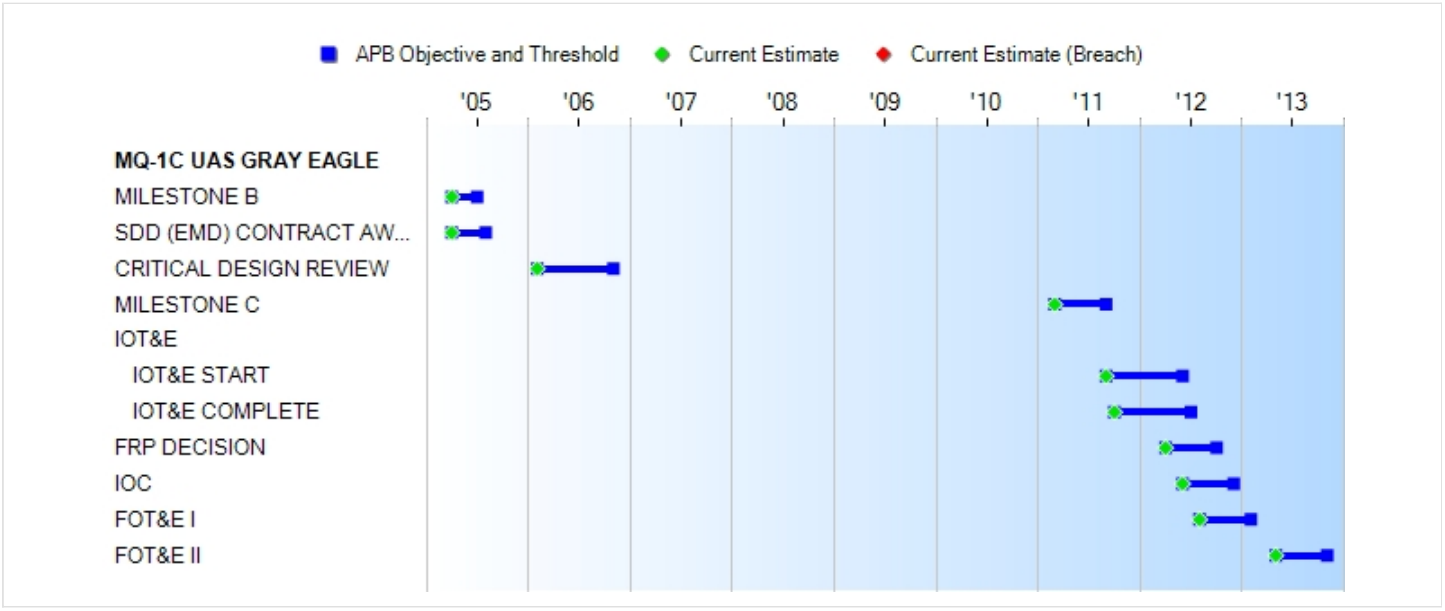
There are no significant software-related issues for this program at this time.

Threshold Breaches

APB Breaches		
Schedule		☐
Performance		☐
Cost	RDT&E	☐
	Procurement	☐
	MILCON	☐
	Acq O&M	☐
Unit Cost	PAUC	☐
	APUC	☐

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Schedule



Milestones	SAR Baseline Dev Est	Current APB Production Objective/Threshold		Current Estimate	
MILESTONE B	APR 2005	APR 2005	JUL 2005	APR 2005	
SDD (EMD) CONTRACT AWARD	APR 2005	APR 2005	AUG 2005	APR 2005	
CRITICAL DESIGN REVIEW	FEB 2006	FEB 2006	NOV 2006	FEB 2006	
MILESTONE C	MAR 2010	MAR 2011	SEP 2011	MAR 2011	(Ch-1)
IOT&E					
IOT&E START	SEP 2011	SEP 2011	JUN 2012	SEP 2011	
IOT&E COMPLETE	MAR 2012	OCT 2011	JUL 2012	OCT 2011	(Ch-2)
FRP DECISION	AUG 2012	APR 2012	OCT 2012	APR 2012	(Ch-3)
IOC	FEB 2012	JUN 2012	DEC 2012	JUN 2012	(Ch-4)
FOT&E I	AUG 2012	AUG 2012	FEB 2013	AUG 2012	(Ch-5)
FOT&E II	MAY 2013	MAY 2013	NOV 2013	MAY 2013	(Ch-6)

Acronyms And Abbreviations

EMD - Engineering and Manufacturing Development
FOT&E - Follow-On Test and Evaluation
FRP - Full Rate Production
IOC - Initial Operational Capability
IOT&E - Initial Operational Test and Evaluation
SDD - System Development and Demonstration

Change Explanations

(Ch-1) The schedule for Milestone C changed from March 2010 to March 2011 based on the rescission of the original Milestone C date and the Acquisition Program Baseline (APB) approved in March 2011.

(Ch-2) The schedule for IOT&E Complete changed from March 2012 to October 2011 based on revised accelerated Gray Eagle program schedule.

(Ch-3) The schedule for FRP Decision changed from August 2012 to April 2012 to better align with the planned IOT&E date and to ensure continuous production line flow between LRIP II and FRP.

(Ch-4) The schedule for IOC changed from February 2012 to June 2012 based on revised accelerated Gray Eagle program schedule.

(Ch-5) The schedule for FOT&E I has changed in current estimate from September 2012 to August 2012 based on current Gray Eagle schedule.

(Ch-6) FOT&E II has been added to the Gray Eagle program schedule

Performance

Characteristics	SAR Baseline Dev Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Net Ready	The system must fully support execution of all operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services 4) IA requirements including availability, integrity, authenticat-	The system must fully support execution of all operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services 4) IA requirements including availability, integrity, authenticat-	The system must fully support execution of joint critical operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for transition to Net-Centric military operations to include 1) DISR, mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration table, 3) NCOW RM Enterprise Services 4) IA requirements including availability, integrity,	TBD	Fully Support all operational activities identified in the applicable joint and system integrated architectures and satisfy the technical requirements for Net-Centric military operations to include: 1. DISR mandated GIG IT standards and profiles identified in the TV-1, 2. DISR mandated GIG KIPs identified in the KIP declaration table, 3. NCOW RM Enterprise Services, 4. Information assurance requirements including availability, integrity, authenticatio n, confidentiality , and nonrepudiati

	ion, confidential-ity, and nonrepudiat-ion, and issuance of an ATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and IA attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views. The system must be able to enter and be managed in the network, and exchange data in a secure manner.	ion, confidential-ity, and nonrepudiat-ion, and issuance of an ATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and IA attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views. The system must be able to enter and be managed in the network, and exchange data in a secure manner.	authenticat-ion, confidential-ity, and nonrepudiat-ion, and issuance of an IATO by the DAA, and 5) Operationally effective information exchanges; and mission critical performance and IA attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture views. The system must be able to enter and be managed in the network, and exchange data in a secure manner.		on, and issuance of an Interim Approval to Operate (IATO) by the Designated Approval Authority (DAA). 5. Operationally effective information exchanges and mission critical performance and information assurance attributes, data correctness, data availability, and consistent data processing specified in the applicable joint system integrated architecture views.
Multi Payload/Weight Capability	The aircraft is capable of simultaneousl y carrying two payloads with a combined minimum	The aircraft is capable of simultaneousl y carrying two payloads with a combined minimum	The aircraft is capable of simultaneousl y carrying two payloads with a combined minimum	TBD	The aircraft is capable of simultaneousl y carrying two payloads with min weight of 200 lbs

	weight of 300 lbs.	weight of 300 lbs.	weight of 200 lbs.		
Airframe Sensors Payload Capability	The aircraft will be capable of accepting payloads that are: EO/IR/LD capable of providing a 90% PD of a military target from the aircraft's operational altitude out to a minimum of 30km slant range. EO/IR/LD capable of providing a 90% PR of a military target, from the aircraft's operational altitude, out to a minimum of 10km slant range. SAR/GMTI Sensor capable of providing 85% PD of a military target, from the aircraft's operational altitude, out to a minimum 10km slant range in clear weather	The aircraft will be capable of accepting payloads that are: EO/IR/LD capable of providing a 90% PD of a military target from the aircraft's operational altitude out to a minimum of 30km slant range. EO/IR/LD capable of providing a 90% PR of a military target, from the aircraft's operational altitude, out to a minimum of 10km slant range. SAR/GMTI Sensor capable of providing 85% PD of a military target, from the aircraft's operational altitude, out to a minimum 10km slant range in clear weather	The aircraft will be capable of accepting payloads that are: EO/IR/LD capable of providing a 90% PD of a military target from the aircraft's operational altitude out to a minimum of 25km slant range. EO/IR/LD capable of providing a 90% PR of a military target, from the aircraft's operational altitude, out to a minimum of 9km slant range.	TBD	The aircraft will be capable of accepting payloads that are: EO/IR/LD capable of providing a 90% PD of a military target from the aircraft's operational altitude out to a minimum of 25km slant range. EO/IR/LD capable of providing a 90% PR of a military target, from the aircraft operational altitude, out to a minimum of 9km slant range.
Sustainment	The aircraft system must maintain a combat Ao of 90%.	The aircraft system must maintain a combat Ao of 90%.	The aircraft system must maintain a combat Ao of 80%.	TBD	The aircraft system must maintain a combat Ao of 80%.

Aircraft Propulsion	The aircraft engine will be powered by DoD/NATO standard heavy fuel (JP8 Fuel).	The aircraft engine will be powered by DoD/NATO standard heavy fuel (JP8 Fuel).	The aircraft engine will be powered by DoD/NATO standard heavy fuel (JP8 Fuel).	TBD	The aircraft engine will be powered by DoD/NATO standard heavy fuel (JP8 Fuel).
Weapons Capable	The aircraft shall be capable of engaging traditional and non-traditional ground moving, stationary, and water borne moving targets with the AGM-114P-4A and AGM-114N-4 and other AGM-114 variants or similar future AGMs and small light weight precision munitions.	The aircraft shall be capable of engaging traditional and non-traditional ground moving, stationary, and water borne moving targets with the AGM-114P-4A and AGM-114N-4 and other AGM-114 variants or similar future AGMs and small light weight precision munitions.	The aircraft shall be capable of engaging traditional and non-traditional ground moving, stationary targets with the Air to Ground Missile AGM-114P-4A and AGM-114N-4.	TBD	The aircraft shall be weapons capable of supporting 2 hard points at 200 lbs each. Capable of engaging traditional and non-traditional ground moving, stationary targets with the Air to Ground Missile AGM-114P-4A and AGM-114N-4.
Survivability and Force Protection	The GCS-V3 will be mounted onto an Army standard tactical vehicle with the ability to be up armored.	The GCS-V3 will be mounted onto an Army standard tactical vehicle with the ability to be up armored.	The GCS-V3 will be mounted onto an Army standard tactical vehicle with the ability to be up armored.	TBD	GCS-V3 will be mounted onto an Army standard tactical vehicle with the ability to be up armored.

Requirements Source:
Capability Production Document (CPD), dated March 24, 2009.

Acronyms And Abbreviations

AGM's - Air-to-Ground Missile

Ao - Operational Availability
ATO - Approval to Operate
AVGAS - Aviation Gasoline
DAA - Designated Approval Authority
DISR - Department of Defense Information Technology Standards Registry
DoD - Department of Defense
EO/IR/LD - Electro-Optical / Infrared / Laser Designator
GCS-V3 - Ground Control Station Version Three
GIG IT - Global Information Grid Information Technology
IA - Information Assurance
KIP - Key Interface Profile
km - Kilometer
lbs - Pounds
MOGAS - Motor Gasoline
NATO - North Atlantic Treaty Organization
NCOW RM - Net Centric Operations Warfare Reference Model
OSGCS-V2 - One System Ground Control Station Version Two
PD - Probability of Detection
PR - Probability of Recognition
SAR/GMTI Sensor - Synthetic Aperature Radar/Ground Moving Target Indicator
TV - Technical View

Change Explanations

None

Memo

The Gray Eagle UAS payloads are managed by other Program Management Offices (PMO) within other Program Executive Offices (PEO). The Common Sensor Payload (CSP) cost is included in the Gray Eagle UAS Acquisition Program Baseline (APB), as the CSP capability is a Key Performance Parameter (KPP). CSP is managed by Project Manager Robotics and Unmanned Sensors (PM RUS), Program Executive Office, Intelligence, Electronic Warfare and Sensors (PEO IEW&S).

The Gray Eagle UAS program is budgeted for and will contract to meet threshold level KPPs, which are reflected in the Current Estimate.

Track To Budget

RDT&E

APPN 2040	BA 07	PE 0305204A	(Army)	
	Project D09	Research, Development, Test and Evaluation, Army		(Sunk)
	FY 2005-FY 2010			
APPN 2040	BA 07	PE 0305219A	(Army)	
	Project MQ1	Research, Development, Test and Evaluation, Army		
	Beginning FY 2011			

Procurement

APPN 2031	BA 01	PE 00005000	(Army)	
	ICN 00005000	Aircraft Procurement, Army		
	Beginning FY 2010			
APPN 2031	BA 02	PE 00020000	(Army)	
	ICN A00020	MQ-1 Payload	(Shared)	
	Beginning FY 2010			
APPN 2035	BA 02	PE 00305000	(Army)	
	ICN 00305000	Other Procurement, Army		(Sunk)
	FY 2007-FY 2009			

The MQ-1 Payload funding line is shared with the Common Sensor Payload (CSP), Synthetic Aperture Radar (SAR), Ground Moving Target Indicator (GMTI) and the Tactical SIGINT Payload (TSP).

MILCON

APPN 2050	BA 02	PE 0022096A	(Army)	
	Project 069830	Military Construction, Army		

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

	BY2010 $M			BY2010 $M	TY $M		
Appropriation	SAR Baseline Dev Est	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Dev Est	Current APB Production Objective	Current Estimate
RDT&E	706.4	895.3	984.8	921.1	708.7	896.3	924.8
Procurement	3215.9	3364.7	3701.2	3310.1	3421.2	3572.0	3490.1
Flyaway	2331.9	--	--	2493.9	2483.6	--	2629.1
Recurring	2168.1	--	--	2338.3	2307.6	--	2463.7
Non Recurring	163.8	--	--	155.6	176.0	--	165.4
Support	884.0	--	--	816.2	937.6	--	861.0
Other Support	594.5	--	--	506.2	636.2	--	531.4
Initial Spares	289.5	--	--	310.0	301.4	--	329.6
MILCON	1001.3	992.0	1091.2	791.0	1090.9	1080.7	847.6
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	4923.6	5252.0	N/A	5022.2	5220.8	5549.0	5262.5

Currently, all payloads for the Gray Eagle UAS program are managed by other Program Management Offices (PMO) not within Program Executive Office Aviation (PEO Avn). The Common Sensor Payload (CSP) is a Key Performance Parameter (KPP) for the Gray Eagle UAS Program and therefore, the procurement cost for the CSP payloads required for the program are contained within the Gray Eagle UAS Acquisition Program Baseline (APB) cost. CSP is managed by Product Manager Robotics and Unmanned Sensors (PM RUS), Program Executive Office, Intelligence, Electronic Warfare and Sensors (PEO IEW&S). CSP is the only payload cost contained within the Gray Eagle UAS APB. All other future cost for development, integration and procurement of additional payloads added to the Gray Eagle Program other than CSP will be captured separately and will not be counted as a part of the Gray Eagle UAS APB.

The Average Procurement Unit Cost (APUC) will be based on 29 Platoon sets of equipment and the Program Acquisition Unit Cost (PAUC) will be based on 31 Platoon sets of equipment.

In concert with the change approved by the Army Acquisition Executive on November 5, 2010, the Army is re-evaluating Gray Eagle basing which, when approved, will result in less sites than planned in the original program. The difference between the APB and the FY 2012 President's Budget (PB12) MILCON funding reflects a cost reduction from the changed basing plan.

The Independent Cost Estimate (ICE) to support MQ-1C UAS Gray Eagle Milestone C approval, like all life-cycle cost estimates previously performed by the Cost Analysis Improvement Group (CAIG), is not consistent with the 80% confidence level specified in the Weapon System Acquisition Reform Act of 2009. The estimate is, like all previous CAIG estimates, built upon a product-oriented work breakdown structure, based on historical actual cost information to the maximum extent possible, and, most importantly, based on conservative assumptions that are consistent with actual demonstrated contractor and government performance for a series of acquisition programs in which the Department has been successful. The estimate is projected to be equally likely to prove too low or too high for execution of the program described.

Quantity	SAR Baseline Dev Est	Current APB Production	Current Estimate
RDT&E	1	2	2
Procurement	12	29	29
Total	13	31	31

New Army guidance approved on November 5, 2010 by the Army Acquisition Executive has changed the unit of measure for an MQ-1C UAS Gray Eagle from a Company sized unit equipped with 12 aircraft and associated support equipment to balanced Platoons, each capable of operating independently with four (4) aircraft with the following payloads: Electro-Optical/Infrared, Laser Range Finder/Laser Designator (EO/IR/LRF/LD), communications relay, and up to four (4) HELLFIRE Missiles. Ground equipment per Platoon includes: two (2) Ground Control Stations (GCS-V3), two (2) Ground Data Terminals (GDTs), one (1) Satellite Communication (SATCOM) Ground Data Terminal (SGDT), one (1) Portable Ground Control Station (PGCS), one (1) Portable Ground Data Terminal, an Automated Take Off and Landing System (ATLS), two (2) Tactical Automatic Landing Systems (TALS), and ground support equipment.

In total, the program will be 31 Platoon sets with four (4) aircraft each, equal to 124 aircraft, plus 21 attrition aircraft and seven (7) schoolhouse aircraft for a total of 152 aircraft. The Average Procurement Unit Cost (APUC) will be based on 29 Platoon sets of equipment and the Program Acquisition Unit Cost (PAUC) will be based on 31 Platoon sets of equipment.

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2012 President's Budget / December 2010 SAR (TY$ M)

Appropriation	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
RDT&E	568.9	123.2	137.0	66.1	9.8	0.3	19.5	0.0	924.8
Procurement	763.4	541.3	723.0	732.5	582.3	87.9	59.7	0.0	3490.1
MILCON	20.6	102.0	300.0	376.0	16.0	33.0	0.0	0.0	847.6
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2012 Total	1352.9	766.5	1160.0	1174.6	608.1	121.2	79.2	0.0	5262.5
PB 2011 Total	1231.4	688.3	856.3	678.5	693.8	661.7	235.1	175.7	5220.8
Delta	121.5	78.2	303.7	496.1	-85.7	-540.5	-155.9	-175.7	41.7

PB2012 quantity reflects parital systems (Platoons sets)
PB2011 quantity reflects full-up systems

Quantity	Undistributed	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
Development	2	0	0	0	0	0	0	0	0	2
Production	0	7	6	6	6	4	0	0	0	29
PB 2012 Total	2	7	6	6	6	4	0	0	0	31
PB 2011 Total	1	2	2	2	2	2	2	0	0	13
Delta	1	5	4	4	4	2	-2	0	0	18

Cost and Funding

Annual Funding By Appropriation

Annual Funding TY$
2040 | RDT&E | Research, Development, Test, and Evaluation, Army

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2005	--	--	--	--	--	--	54.3
2006	--	--	--	--	--	--	90.6
2007	--	--	--	--	--	--	123.7
2008	--	--	--	--	--	--	103.4
2009	--	--	--	--	--	--	61.8
2010	--	--	--	--	--	--	135.1
2011	--	--	--	--	--	--	123.2
2012	--	--	--	--	--	--	137.0
2013	--	--	--	--	--	--	66.1
2014	--	--	--	--	--	--	9.8
2015	--	--	--	--	--	--	0.3
2016	--	--	--	--	--	--	19.5
Subtotal	**2**	**--**	**--**	**--**	**--**	**--**	**924.8**

Annual Funding BY$
2040 | RDT&E | Research, Development, Test, and Evaluation, Army

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2010 $M	Non End Item Recurring Flyaway BY 2010 $M	Non Recurring Flyaway BY 2010 $M	Total Flyaway BY 2010 $M	Total Support BY 2010 $M	Total Program BY 2010 $M
2005	--	--	--	--	--	--	58.8
2006	--	--	--	--	--	--	95.5
2007	--	--	--	--	--	--	127.3
2008	--	--	--	--	--	--	104.5
2009	--	--	--	--	--	--	61.7
2010	--	--	--	--	--	--	133.4
2011	--	--	--	--	--	--	119.8
2012	--	--	--	--	--	--	131.1
2013	--	--	--	--	--	--	62.2
2014	--	--	--	--	--	--	9.1
2015	--	--	--	--	--	--	0.3
2016	--	--	--	--	--	--	17.4
Subtotal	**2**	**--**	**--**	**--**	**--**	**--**	**921.1**

Annual Funding TY$
2031 | Procurement | Aircraft Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2010	6	250.6	134.1	25.4	410.1	78.0	488.1
2011	6	275.3	105.7	27.0	408.0	133.3	541.3
2012	6	339.1	195.2	20.1	554.4	168.6	723.0
2013	6	285.1	187.4	23.8	496.3	236.2	732.5
2014	4	170.5	175.2	69.1	414.8	167.5	582.3
2015	--	--	87.9	--	87.9	--	87.9
2016	--	--	59.7	--	59.7	--	59.7
Subtotal	**28**	**1320.6**	**945.2**	**165.4**	**2431.2**	**783.6**	**3214.8**

Annual Funding BY$
2031 | Procurement | Aircraft Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2010 $M	Non End Item Recurring Flyaway BY 2010 $M	Non Recurring Flyaway BY 2010 $M	Total Flyaway BY 2010 $M	Total Support BY 2010 $M	Total Program BY 2010 $M
2010	6	245.8	131.6	24.9	402.3	76.5	478.8
2011	6	265.8	102.1	26.1	394.0	128.7	522.7
2012	6	321.4	184.9	19.1	525.4	159.8	685.2
2013	6	265.7	174.7	22.2	462.6	220.1	682.7
2014	4	156.3	160.5	63.3	380.1	153.5	533.6
2015	--	--	79.2	--	79.2	--	79.2
2016	--	--	52.9	--	52.9	--	52.9
Subtotal	**28**	**1255.0**	**885.9**	**155.6**	**2296.5**	**738.6**	**3035.1**

Annual Funding TY$
2035 | Procurement | Other Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2007	--	--	--	--	--	9.7	9.7
2008	--	--	31.4	--	31.4	24.3	55.7
2009	1	151.2	15.3	--	166.5	43.4	209.9
Subtotal	**1**	**151.2**	**46.7**	**--**	**197.9**	**77.4**	**275.3**

Annual Funding BY$
2035 | Procurement | Other Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2010 $M	Non End Item Recurring Flyaway BY 2010 $M	Non Recurring Flyaway BY 2010 $M	Total Flyaway BY 2010 $M	Total Support BY 2010 $M	Total Program BY 2010 $M
2007	--	--	--	--	--	9.9	9.9
2008	--	--	31.6	--	31.6	24.5	56.1
2009	1	150.6	15.2	--	165.8	43.2	209.0
Subtotal	**1**	**150.6**	**46.8**	**--**	**197.4**	**77.6**	**275.0**

Annual Funding TY$
2050 | MILCON | Military Construction, Army

Fiscal Year	Total Program TY $M
2010	20.6
2011	102.0
2012	300.0
2013	376.0
2014	16.0
2015	33.0
Subtotal	**847.6**

Annual Funding BY$
2050 | MILCON | Military Construction, Army

Fiscal Year	Total Program BY 2010 $M
2010	20.0
2011	97.5
2012	282.0
2013	347.5
2014	14.5
2015	29.5
Subtotal	**791.0**

In concert with the change approved by the Army Acquisition Executive on November 5, 2010, the Army is re-evaluating Gray Eagle basing which, when approved, will result in less sites than planned in the original program. The difference between the APB and the PB12 MILCON funding reflects a cost reduction from the changed basing plan.

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	3/29/2010	3/25/2011
Approved Quantity	2	4
Reference	ADM, March 29, 2010	ADM, March 25, 2011
Start Year	2010	2010
End Year	2011	2011

The approved quantity for Initial Low Rate Initial Production (LRIP) is two Gray Eagle UAS systems, which equates to six (6) Platoon sets using the new unit of measure. The Current Total LRIP is four (4) Gray Eagle UAS systems, which equates to 12 Platoons sets.

The total LRIP buy is greater than 10 percent of the total program quantity. The Milestone Decision Authority (MDA) directed the LRIP quantity to facilitate the Gray Eagle UAS capability entrance into theater as quickly as possible.

Foreign Military Sales

There are no Foreign Military Sales data to display.

Nuclear Cost

There are no Nuclear Cost data to display.

Unit Cost

Unit Cost Report

Unit Cost	BY2010 $M Current UCR Baseline (MAR 2011 APB)	BY2010 $M Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	5252.0	5022.2	
Quantity	31	31	
Unit Cost	169.419	162.006	-4.38
Average Procurement Unit Cost (APUC)			
Cost	3364.7	3310.1	
Quantity	29	29	
Unit Cost	116.024	114.141	-1.62

Unit Cost	BY2010 $M Original UCR Baseline (MAR 2011 APB)	BY2010 $M Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	5252.0	5022.2	
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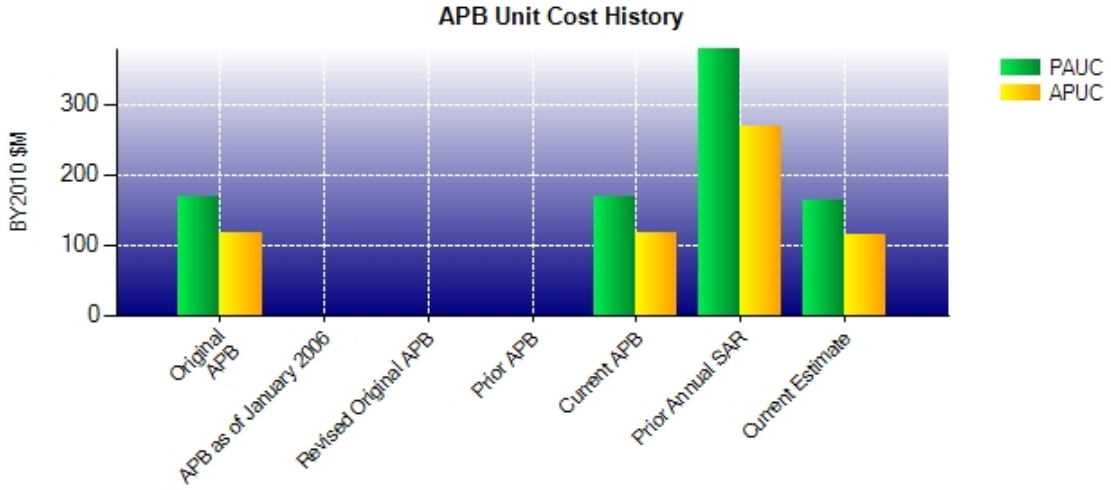
Unit Cost History



		BY2010 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	MAR 2011	169.419	116.024	179.000	123.172
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	N/A	N/A	N/A	N/A	N/A
Current APB	MAR 2011	169.419	116.024	179.000	123.172
Prior Annual SAR	DEC 2009	378.738	267.992	401.600	285.100
Current Estimate	DEC 2010	162.006	114.141	169.758	120.348

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY $M)

Initial PAUC Dev Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
401.600	0.094	-242.537	-7.813	13.968	6.952	0.000	-2.506	-231.842	169.758

Current SAR Baseline to Current Estimate (TY $M)

Initial APUC Dev Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
285.100	0.141	-177.121	0.000	14.931	-0.024	0.000	-2.679	-164.752	120.348

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	APR 2005	N/A	APR 2005
Milestone C	N/A	FEB 2010	N/A	MAR 2011
IOC	N/A	FEB 2012	N/A	JUN 2012
Total Cost (TY $M)	N/A	5322.6	N/A	5262.5
Total Quantity	N/A	13	N/A	31
Prog. Acq. Unit Cost (PAUC)	N/A	409.431	N/A	169.758

Cost Variance

Cost Variance Summary

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	708.7	3421.2	1090.9	5220.8
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	--	+4.1	-1.2	+2.9
Quantity	--	-289.8	--	-289.8
Schedule	--	--	-242.2	-242.2
Engineering	--	+433.0	--	+433.0
Estimating	+216.1	-0.7	+0.1	+215.5
Other	--	--	--	--
Support	--	-77.7	--	-77.7
Subtotal	+216.1	+68.9	-243.3	+41.7
Total Changes	+216.1	+68.9	-243.3	+41.7
CE - Cost Variance	924.8	3490.1	847.6	5262.5
CE - Cost & Funding	924.8	3490.1	847.6	5262.5

Summary Base Year 2010 $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	706.4	3215.9	1001.3	4923.6
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	--	--	--	--
Quantity	--	-238.9	--	-238.9
Schedule	--	--	-210.4	-210.4
Engineering	--	+401.4	--	+401.4
Estimating	+214.7	-0.5	+0.1	+214.3
Other	--	--	--	--
Support	--	-67.8	--	-67.8
Subtotal	+214.7	+94.2	-210.3	+98.6
Total Changes	+214.7	+94.2	-210.3	+98.6
CE - Cost Variance	921.1	3310.1	791.0	5022.2
CE - Cost & Funding	921.1	3310.1	791.0	5022.2

Previous Estimate: December 2009

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Research, Development, Test & Evaluation funding added to match the approved Cost Assessment & Program Evaluation Independent Cost Estimate (CAPE ICE) as directed by the Milestone C Acquisition Decision Memorandum. The CAPE ICE reflected higher software risk and potential schedule changes. (Estimating)	+214.8	+216.2
Adjustment for current and prior escalation. (Estimating)	-0.1	-0.1
RDT&E Subtotal	+214.7	+216.1

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+4.1
Quantity change due to the Army Force Generation (ARFORGEN) strategy reduction of aircraft and increase of support equipment to create "balanced Platoon sets". (Quantity)	-120.9	-152.0
Quantity change due to removing Common Sensor Payload (CSP) dollars FY 2017-FY 2021 to reflect acceleration of Gray Eagle program. (Quantity)	-93.2	-109.8
Net training dollars moved from FY 2016 to reflect acceleration of Gray Eagle program. (Quantity)	-24.8	-28.0
Adjustment for current and prior escalation. (Estimating)	-0.5	-0.7
Increase due to addition of CSP to the program of record in FY 2010-2016. (Engineering)	+401.4	+433.0
Adjustment for current and prior escalation. (Support)	-0.2	0.0
Decrease in Other Support to reflect accelerated Gray Eagle program to include removing CSP dollars from FY 2022-FY 2036. (Support)	-94.7	-112.2
Other support dollars moved from Other Procurement Army (OPA) to Aircraft Procurement Army (APA) in appropriate years to reflect Gray Eagle program. (Support)	+6.6	+6.8
Increase in Initial Spares due to the ARFORGEN strategy resulting in fieldings from 13 Companies to 17 Companies. (Support)	+129.8	+137.5
Initial Spares dollars moved from OPA to APA in appropriate years to reflect Gray Eagle program. (Support)	-109.3	-109.8
Procurement Subtotal	+94.2	+68.9

MILCON	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-1.2
Schedule Change is due to accelerated Gray Eagle UAS program. (Schedule)	-210.4	-242.2
Adjustment for current and prior escalation. (Estimating)	+0.1	+0.1
MILCON Subtotal	-210.3	-243.3

Contracts

Appropriation: RDT&E

Contract Name	**Extended Range Multi-Purpose (ER/MP)**
Contractor	General Atomics- Aeronautical Systems, Inc.
Contractor Location	Poway, CA 92064
Contract Number, Type	W58RGZ-05-C-0069, CPIF
Award Date	August 08, 2005
Definitization Date	August 08, 2005

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
214.4	N/A	N/A	374.1	N/A	N/A	474.8	477.7

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2010)	+0.4	-9.9
Previous Cumulative Variances	0.0	0.0
Net Change	+0.4	-9.9

Cost And Schedule Variance Explanations

The net favorable cost variance is due to Thielert 1.7L engines, training, and related Quick Reaction Capability (QRC) Spares costing less than anticipated.

The net unfavorable schedule variance is due to delays in Battery Unit Assembly (BUA) caused by test chamber failures and delays in completion of software schedule and ground and flight activities.

Contract Comments

A successful Integrated Baseline Review for the reprogramming and extension was conducted in April 2010. The reprogramming / extension is tentatively scheduled to be definitized on April 30, 2011. The Target Contract Price changed from the initial target to the current target due to increased scope of work in 2009 and 2010.

Appropriation: Procurement

Contract Name	**ER/MP SDD Additional Hardware**
Contractor	General Atomics Aeronautical Systems, Inc.
Contractor Location	Poway, CA 92064
Contract Number, Type	W58RGZ-05-C-0069/1, CPIF
Award Date	June 30, 2009
Definitization Date	June 30, 2009

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
67.5	N/A	N/A	71.1	N/A	N/A	65.7	66.0

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2010)	+4.8	-3.4
Previous Cumulative Variances	+0.4	+2.2
Net Change	+4.4	-5.6

Cost And Schedule Variance Explanations

The net favorable cost variance is due to less effort than originally planned in Engineering Support, Program Management, and Spares.

The net unfavorable schedule variance is due to delays in 48" antenna (L3), and late credit for receipt of Theilert and GA-ASI parts caused by performance claiming methodology.

Contract Comments

A successful Integrated Baseline Review (IBR) was conducted in January 2010. The Earned Value Management (EVM) data reflects the December 2010 Cost Performance Report (CPR).

Appropriation: Procurement

Contract Name	**Production Ready Test Asset (PRTA)**
Contractor	General Atomics- Aeronautical Systems, Inc.
Contractor Location	Poway, CA 94065
Contract Number, Type	W58RGZ-09-C-0151, CPIF
Award Date	April 28, 2009
Definitization Date	April 20, 2010

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
48.0	N/A	N/A	58.3	N/A	N/A	54.2	52.2

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2010)	+3.5	-0.2
Previous Cumulative Variances	--	--
Net Change	+3.5	-0.2

Cost And Schedule Variance Explanations

The net favorable cost variance is due to less effort than originally planned in Systems Engineering and Program Management.

The net unfavorable schedule variance is due to delays in Acceptance Test Procedure and integration at El Mirage, and two Remote Landing Modules (RLMs) caused by lack of a Production Test Procedure (PTP).

Contract Comments

The Initial contract target price of $48.0M, based on the Not to Exceed (NTE) price, changed to the current contract target price of $58.3M due to the contract definitization at $40.6M with options exercised during Calendar Year (CY) 2010 of $17.9M.

A successful Integrated Baseline Review (IBR) was conducted in October 2009. Earned Value Management data reflects the December 2010 Cost Performance Report.

This is the first time this contract is being reported in the SAR.

Appropriation: Procurement

Contract Name	**Low Rate Initial Production (LRIP-1)**
Contractor	General Atomics- Aeronautical Systems, Inc.
Contractor Location	Poway, CA 92064
Contract Number, Type	W58RGZ-10-C-0068, FPIF
Award Date	May 14, 2010
Definitization Date	February 28, 2011

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
242.5	287.9	N/A	201.3	241.5	2	242.5	242.5

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2010)	+0.9	+2.8
Previous Cumulative Variances	--	--
Net Change	+0.9	+2.8

Cost And Schedule Variance Explanations

The net favorable cost variance is due to less effort than originally planned in Program Management and Systems Engineering, and the cost of Thielert 2.0L engines being less than originally planned.

The net favorable schedule variance is due to being ahead of schedule on Satellite Communication (SATCOM) Antenna (SADT) and SATCOM Ground Data Terminal (GDT), and the earlier than planned receipt of One System Ground Control Station (OSGCS).

Contract Comments

An Integrated Baseline Review (IBR) was conducted in December 2010. The Contractor has not spread the Undistributed Budget (UB) to date. The UAS Project Office has asked the Defense Contract Management Agency for assistance regarding UB. Earned Value Management (EVM) data reflects December 2010 Cost Performance Report. The Current Contract quantity reflects two (2) full systems awarded on the LRIP I contract.

This is the first time this contract is being reported in the SAR.

Appropriation: RDT&E

Contract Name	**FY09 Supplemental Hardware**
Contractor	General Atomics- Aeronautical Systems, Inc.
Contractor Location	Poway, CA 94065
Contract Number, Type	W58RGZ-10-C-0068/1, FPIF
Award Date	May 14, 2010
Definitization Date	February 28, 2011

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
90.0	111.1	N/A	75.3	90.3	N/A	90.0	90.0

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (12/31/2010)	+0.5	+2.8
Previous Cumulative Variances	--	--
Net Change	+0.5	+2.8

Cost And Schedule Variance Explanations

The net favorable cost variance is due to less effort than originally planned in Program Management and Systems Engineering.

The net favorable schedule variance is due to being ahead of schedule on One System Ground Control Station (OSGCS) 2, 4 & 6, and earlier than planned receipt of Datalink Spares and Satellite Communications (SATCOM) Ground Data Terminal (GDT).

Contract Comments

An Integrated Baseline Review (IBR) was conducted in October 2010. Contractor has not spread the Undistributed Budget (UB) to date. The UAS Program Office has asked the Defense Contract Management Agency for assistance regarding UB. Earned Value Management data reflects December 2010 Cost Performance Report.

This is the first time this contract is being reported in the SAR.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	2	2	2	100.00%
Production	0	0	29	0.00%
Total Program Quantities Delivered	2	2	31	6.45%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	5262.5	Years Appropriated	7
Expenditures To Date	688.1	Percent Years Appropriated	58.33%
Percent Expended	13.08%	Appropriated to Date	2119.4
Total Funding Years	12	Percent Appropriated	40.27%

Operating and Support Cost

Assumptions And Ground Rules
Operating and Support (O&S) cost is based on a service life of 20 years, a unit of measure of 17 systems and one (1) training base system (18 systems total), and an average annual cost per system of $31.98M. The estimate used historical data based on Contractor Logistics Support (CLS) cost from the Predator Program. The cost is applied as steady state across the Gray Eagle UAS Program in accordance with the accelerated program schedule. The costs are expressed in terms of average annual cost per system with Satellite Communications (SATCOM) cost included.

Costs BY2010 $M		
Cost Element	**MQ-1C UAS GRAY EAGLE Average annual cost per system**	**No Antecedent**
Unit-Level Manpower	10.44	--
Unit Operations	3.05	--
Maintenance	11.38	--
Sustaining Support	3.43	--
Continuing System Improvements	0.46	--
Indirect Support	3.18	--
Other	0.04	--
Total Unitized Cost (Base Year 2010 $)	31.98	--

Total O&S Costs $M	MQ-1C UAS GRAY EAGLE	No Antecedent
Base Year	11507.0	--
Then Year	15134.1	--