



Selected Acquisition Report (SAR)

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



MQ-1C Gray Eagle Unmanned Aircraft System (MQ-1C Gray Eagle)

As of FY 2017 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
\$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
\$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
\$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost

PB - President's Budget
PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name

MQ-1C Gray Eagle Unmanned Aircraft System (MQ-1C Gray Eagle)

DoD Component

Army

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Date Assigned: July 11, 2014

References

SAR Baseline (Production Estimate)

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

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated September 12, 2013

Mission and Description

The MQ-1C Gray Eagle Unmanned Aircraft System (MQ-1C Gray Eagle) provides the Division Commander a dedicated, assured, multi-mission unmanned aircraft system for the tactical fight assigned to the Combat Aviation Brigade (CAB) in each Division and supports the Division Fires, Battlefield Surveillance Brigades, and Brigade Combat Teams based upon the Division Commander's priorities. Additionally, MQ-1C Gray Eagle provides reconnaissance, surveillance, and target acquisition; command and control; communications relay; signals intelligence; electronic warfare; attack; detection of weapons of mass destruction; battle damage assessment; and manned-unmanned teaming capabilities. Fifteen Gray Eagle Warfighting companies are assigned as follows: ten companies assigned to Army divisions, one company to the National Training Center (NTC), one company to the U.S. Army Special Operations Command (USASOC), and three companies to the Intelligence and Security Command (INSCOM).

Version 8.7, Revision 3 of the CPD for MQ-1C Gray Eagle defines an operational requirement for Improved Gray Eagle (IGE). IGE provides for increased range, endurance, and payload carrying capability for Echelons Above Division. IGE provides the Army with an extended range, multi-purpose unmanned aircraft system capable of executing reconnaissance, security, attack, and intelligence collection missions in the range of military operations. Sensors/payloads include an Electro-Optical/Infrared/Laser Designator, Synthetic Aperture Radar/Moving Target Indicator, Signals Intelligence, and Hellfire missiles; providing a near all-weather mission capability. When integrated with manned systems, manned-unmanned teaming, IGE enhances the capability to provide more accurate and timely information and intelligence, and significantly reduces the time to conduct tactical engagements. A total of 36 of the 167 MQ-1C UAS aircraft will be delivered in the IGE configuration.

A Gray Eagle Company is configured into three equal platoons. The Gray Eagle System consists of 12 MQ-1C aircraft, each with the following payloads: Electro-Optical/Infrared, Laser Range Finder/Laser Designator, Synthetic Aperture Radar/Ground Moving Target Indicator, communications relay, and Hellfire Missiles. Ground equipment includes: six Ground Control Stations (GCS), seven Ground Data Terminals, three satellite communication Ground Data Terminals, one Mobile GCS, the Automated Takeoff and Landing System which consists of six Tactical Automatic Landing System-Tracking Subsystems, two per runway, and Ground-Based Sense and Avoid. USASOC and INSCOM companies will contain the full complement of system equipment. However, the Divisional and NTC companies will have fewer assets while at Continental United States (CONUS) locations. These units will have nine aircraft and five GCS with corresponding support equipment. When deployed outside CONUS, the Army will reallocate equipment from other units which will bring these companies to full Gray Eagle System equipment strength. Each Gray Eagle company will consist of 125 soldiers within the Divisional CAB and the NTC. Each unit will have three identical platoons; each platoon is capable of operating independently when fully equipped.

MQ-1C Gray Eagle is fielded across tactical and operational elements: the CAB in support of Army divisions, the 116th Military Intelligence Brigade (also known as the Aerial Intelligence Brigade) in support of the Army INSCOM, and the 160th Special Operations Aviation Regiment (Airborne) in support of USASOC. All three organizations utilize the balanced platoon configuration, providing for three identical flight platoons within the company. This configuration provides increased employment flexibility to the commander (consolidated, split-based, or remote split-based operations) and increased operational tempo over previous configurations with minimal additions of equipment while keeping soldier numbers constant. INSCOM and SOCOM units are composed of eight IGE aircraft and four acquisition baseline aircraft; the eight IGE's will be deployed in split based operations at two separate locations. The four baseline aircraft will remain in CONUS for training purposes.

Executive Summary

A MQ-1C Gray Eagle Follow-on Test & Evaluation (FOT&E) was successfully completed on June 12, 2015. Performance and reliability data were collected on 1,160 flight hours and 1,500 Universal Ground Control Station (UGCS) hours during the 42 sorties flown between May 14, 2015 and June 12, 2015. The FOT&E primary purpose was to evaluate UGCS equipment and the new split-based operations concept. Additional goals accomplished during FOT&E included continuous operation of a Link-16 network (Net Ready KPP) throughout the test event, and successful execution of an Adversarial Assessment Cyber Test. While the Gray Eagle hardware performed exceptionally well throughout the test, preliminary observations and feedback from evaluators emphasized deficiencies directly attributable to training. The PM and U.S. Army Training and Doctrine Command are addressing these concerns.

A MQ-1C Gray Eagle Configuration Steering Board (CSB) was held on July 14, 2015. The CSB was a result of a FY 2016 Resource Management Decision that funded the MQ-1C Gray Eagle program to procure one additional Echelon Above Division (EAD) company and support equipment. Additionally, the CSB considered Courses of Action (COA) for the Army to pursue an extended range capable Improved Gray Eagle and considered the revised Gray Eagle CPD requirement for validation. The CSB, Army Systems Acquisition Review Council and Army Requirements Oversight Council concurred with the COA to validate the revised requirement for the EAD MQ-1C Gray Eagle and granted authority to pursue the extended range capable MQ-1C Gray Eagle configuration for FY 2015 and FY 2016 procurement. The CSB approved procurement of 36 Improved Gray Eagle aircraft. An ADM dated August 13, 2015, approved procurement of 15 additional MQ-1C Gray Eagle Unmanned Aircraft and associated ground support equipment for a total of 167 MQ-1C Gray Eagle aircraft. Additionally, the ADM approved and authorized an acquisition and contracting strategy for Gray Eagle extended range modifications. An updated APB is in staffing and planned for approval in 3rd Quarter FY 2016.

Overall, the MQ-1C Gray Eagle acquisition program costs are stable. There are no anticipated program requirements or issues that would negatively affect program cost. MQ-1C Gray Eagle production continues with Firm Fixed Price FRP I, II and III contracts. FRP IV is planned for contract award in FY 2016. As of December 31, 2015 a total of 131 of 167 MQ-1C Gray Eagle aircraft have been delivered. To date, there are nine companies fielded with approximately 175,000+ flight hours with greater than 90 percent operational availability.

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

Threshold Breaches

APB Breaches

| | | |
|---------------------|-------------|--------------------------|
| Schedule | | <input type="checkbox"/> |
| Performance | | <input type="checkbox"/> |
| Cost | RDT&E | <input type="checkbox"/> |
| | Procurement | <input type="checkbox"/> |
| | MILCON | <input type="checkbox"/> |
| | Acq O&M | <input type="checkbox"/> |
| O&S Cost | | <input type="checkbox"/> |
| Unit Cost | PAUC | <input type="checkbox"/> |
| | APUC | <input type="checkbox"/> |

Nunn-McCurdy Breaches

Current UCR Baseline

| | |
|------|------|
| PAUC | None |
| APUC | None |

Original UCR Baseline

| | |
|------|------|
| PAUC | None |
| APUC | None |

Schedule



| Schedule Events | | | | |
|--------------------------|----------------------------------|--|----------|------------------|
| Events | SAR Baseline Production Estimate | Current APB Production Objective/Threshold | | Current Estimate |
| Milestone B | Apr 2005 | Apr 2005 | Apr 2005 | Apr 2005 |
| SDD (EMD) Contract Award | Apr 2005 | Apr 2005 | Apr 2005 | Apr 2005 |
| Critical Design Review | Feb 2006 | Feb 2006 | Feb 2006 | Feb 2006 |
| Milestone C | Mar 2011 | Mar 2011 | Mar 2011 | Mar 2011 |
| IOT&E | | | | |
| IOT&E Start | Sep 2011 | Jul 2012 | Jul 2012 | Jul 2012 |
| IOT&E Complete | Oct 2011 | Aug 2012 | Aug 2012 | Aug 2012 |
| IOC | Jun 2012 | Dec 2012 | Dec 2012 | Dec 2012 |
| FRP Decision | Apr 2012 | Jul 2013 | Jul 2013 | Jun 2013 |
| FOT&E I | Aug 2012 | May 2015 | Nov 2015 | Jun 2015 |
| FOT&E II | May 2013 | N/A | N/A | N/A |

Change Explanations

None

Acronyms and Abbreviations

FOT&E - Follow-On Test and Evaluation

IOT&E - Initial Operational Test and Evaluation

SDD - System Development and Demonstration

Performance

| Performance Characteristics | | | | |
|---|---|---|---|---|
| SAR Baseline Production Estimate | Current APB Production Objective/Threshold | Demonstrated Performance | Current Estimate | |
| Net Ready | | | | |
| <p>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, authentication, confidentiality, and non-repudiation, 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.</p> | <p>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, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, 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.</p> | <p>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, authentication, confidentiality, and non-repudiation, and issuance of an IATO by the DAA, 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.</p> | <p>Met threshold at IOT&E, LINK16 demonstrated at FOT&E I</p> | <p>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, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, 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.</p> |

| Multi Payload/Weight Capability | | | | |
|---|--|---|--|--|
| The aircraft is capable of simultan-eously carrying two payloads with a combined minimum weight of 300 lbs. | UA will be capable of simultan-eously carrying three or more payloads with a combined minimum weight of 300 lbs. | UA will be capable of simultan-eously carrying two payloads with a combined minimum weight of 200 lbs. | Met threshold at IOT&E | UA will be capable of simultaneously carrying three or more payloads with a combined minimum weight of 300 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 | MQ-1C UA will be capable of accepting payloads that are: EO/IR/LD capable of providing: 90% PD of a military target, from the UA's operational altitude out to a minimum of 30 km slant range; 90% PR of a military target, from the UA's operational altitude, out to a minimum of 10 km slant range; SAR/GMTI sensor capable of providing 85% PD of a military target, from the UA's operational altitude, out to a minimum of 10 km slant range in clear weather. | EO/IR/LD capable of providing: 90% PD of a military target, from the UA's operational altitude out to a minimum of 25 km slant range; 90% PR of a military target, from the UA's operational altitude out to a minimum of 9 km slant range. | Met objective, verified CSP during Production Prove-Out Test | MQ-1C UA will be capable of accepting payloads that are: EO/IR/LD capable of providing: 90% PD of a military target, from the UA's operational altitude out to a minimum of 30 km slant range; 90% PR of a military target, from the UA's operational altitude, out to a minimum of 10 km slant range; SAR/GMTI sensor capable of providing 85% PD of a military target, from the UA's operational altitude, out to a minimum of 10 km slant range in clear weather. |
| Sustainment | | | | |
| The aircraft system must maintain a combat Ao of 90%. | MQ-1C must maintain a combat Ao of 90%. | MQ-1C must maintain a combat Ao of 80%. | Met updated threshold KPP at IOT&E | MQ-1C must maintain a combat Ao of 90%. |
| Aircraft Propulsion | | | | |
| The aircraft engine will be powered by DoD/NATO standard heavy fuel (JP8 Fuel). | UA engine will be powered by DoD/NATO standard heavy fuel (JP8 Fuel). | UA engine will be powered by DoD/NATO standard heavy fuel (JP8 Fuel). | Met objective | UA 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- | MQ-1C must be capable of engaging traditional and non-traditional ground moving and stationary and water borne moving and stationary targets with the AGM- | MQ-1C must be capable of engaging traditional and non-traditional ground moving and stationary targets with the AGM-114P-4A and AGM-114N-4. | Met threshold; (35) Hellfire shots DT/OT; (100+) Hellfire shots in OIF/OEF | MQ-1C must be capable of engaging traditional and non-traditional ground moving and stationary and water borne moving and stationary targets with the AGM-114P-4A and |

| | | | | |
|--|--|--|--|--|
| 114N-4 and other AGM-114 variants or similar future AGMs and small light weight precision munitions. | 114P-4A and AGM-114N-4 and other AGM-114 variants or similar future AGMs and small light weight precision munitions. | | | AGM-114N-4 and other AGM-114 variants or similar future AGMs and small light weight precision munitions. |
|--|--|--|--|--|

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 will be mounted onto an Army standard tactical vehicle with the ability to be up armored. | The GCS will be mounted onto an Army standard tactical vehicle with the ability to be up armored. | Met objective | The GCS will be mounted onto an Army standard tactical vehicle with the ability to be up armored. |
|--|---|---|---------------|---|

Requirements Reference

CPD dated March 24, 2009

Change Explanations

None

Acronyms and Abbreviations

% - Percent

AGMs - Air-to-Ground Missiles

Ao - Operational Availability

ATO - Approval to Operate

CSP - Common Sensor Payload

DAA - Designated Approval Authority

DISR - Department of Defense Information Technology Standards Registry

DT - Developmental Test

EO/IR/LD - Electro-Optical/Infrared/Laser Designator

FOT&E - Follow-On Test and Evaluation

GCS-V3 - Ground Control Station Version Three

GIG - Global Information Grid

IA - Information Assurance

IATO - Interim Approval to Operate

IOT&E - Initial Operational Test and Evaluation

IT - Information Technology

KIP - Key Interface Profile

km - Kilometers

lbs - Pounds

NATO - North Atlantic Treaty Organization

NCOW RM - Net Centric Operations Warfare Reference Model

OEF - Operation Enduring Freedom

OIF - Operation Iraqi Freedom

OT - Operational Test

PD - Probability of Detection

PR - Probability of Recognition

SAR/GMTI - Synthetic Aperture Radar/Ground Moving Target Indicator

TV - Technical View

UA - Unmanned Aircraft

Track to Budget

RDT&E

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

Procurement

| Appn | BA | PE | |
|------|------------------|--------------------------------|----------|
| Army | 2031 | 02 | 0305219A |
| | Line Item | Name | |
| | A00020 | MQ-1 Payload (Shared) (Sunk) | |
| Army | 2031 | 01 | 0305219A |
| | Line Item | Name | |
| | A0005 | MQ-1 UAV | |
| | Notes: | FY 2010 - FY 2036 | |
| Army | 2031 | 02 | 0313400A |
| | Line Item | Name | |
| | A01001 | MQ-1 Payload (Shared) | |
| | Notes: | Beginning in FY 2015 | |
| Army | 2031 | 02 | 0305219A |
| | Line Item | Name | |
| | A01005 | CSP FMV (Shared) | |
| Army | 2035 | 02 | 0030500A |
| | Line Item | Name | |
| | 00305000 | Other Procurement, Army (Sunk) | |
| | Notes: | FY 2007 - FY 2009 | |

Notes

The MQ-1C Gray Eagle program baseline includes the Common Sensor Payload (CSP) procurement, which is part of the MQ-1 Payloads Aircraft Procurement, Army budget line. The funding line is shared with the CSP, Synthetic Aperture Radar, Ground Moving Target Indicator, and the Tactical Signals Intelligence Payload.

MILCON

| Appn | BA | PE |
|---------|---------|----------|
| Army | 2050 02 | 0202096A |
| Project | Name | |
| VARIOUS | VARIOUS | |

Cost and Funding

Cost Summary

| Total Acquisition Cost | | | | | | | |
|------------------------|----------------------------------|--|--------|------------------|----------------------------------|----------------------------------|------------------|
| Appropriation | BY 2010 \$M | | | BY 2010 \$M | TY \$M | | |
| | SAR Baseline Production Estimate | Current APB Production Objective/Threshold | | Current Estimate | SAR Baseline Production Estimate | Current APB Production Objective | Current Estimate |
| RDT&E | 895.3 | 931.7 | 1024.9 | 940.4 | 896.3 | 945.3 | 951.8 |
| Procurement | 3364.7 | 2988.0 | 3286.8 | 3276.3 | 3572.0 | 3217.3 | 3502.4 |
| Flyaway | -- | -- | -- | 2472.2 | -- | -- | 2641.3 |
| Recurring | -- | -- | -- | 2215.2 | -- | -- | 2370.3 |
| Non Recurring | -- | -- | -- | 257.0 | -- | -- | 271.0 |
| Support | -- | -- | -- | 804.1 | -- | -- | 861.1 |
| Other Support | -- | -- | -- | 502.2 | -- | -- | 541.0 |
| Initial Spares | -- | -- | -- | 301.9 | -- | -- | 320.1 |
| MILCON | 992.0 | 578.5 | 636.4 | 608.9 | 1080.7 | 640.2 | 667.2 |
| Acq O&M | 0.0 | 0.0 | -- | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 5252.0 | 4498.2 | N/A | 4825.6 | 5549.0 | 4802.8 | 5121.4 |

Confidence Level

Confidence Level of cost estimate for current APB: 50%

The ICE to support the MQ-1C Gray Eagle program Milestone C decision, like all life cycle cost estimates previously performed by the CAPE office, is 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 confidence level for the Full Rate Production-approved Acquisition Program Baseline (APB) is 50% and is based on the May 9, 2013, approved Army Cost Position and are in accordance with Army cost guidance, Army Regulations (AR) 11-18. It is difficult to calculate mathematically the precise confidence levels associated with life cycle cost estimates prepared for MDAPs. Based on the rigor in methods used in building estimates, the strong adherence to the collection and use of historical cost information, and the review of applied assumptions, we project that it is about equally likely that the estimate will prove too low or too high for execution of the program described.

| Total Quantity | | | |
|----------------|----------------------------------|------------------------|------------------|
| Quantity | SAR Baseline Production Estimate | Current APB Production | Current Estimate |
| RDT&E | 2 | 2 | 2 |
| Procurement | 29 | 29 | 32 |
| Total | 31 | 31 | 34 |

Quantity Notes

A Gray Eagle Company is configured into three equal platoons. The Gray Eagle System consists of 12 MQ-1C aircraft, each with payloads. Ground equipment includes: six Ground Control Stations, seven Ground Data Terminals, three satellite communication Ground Data Terminals, one Mobile Ground Control Station, the Automated Takeoff and Landing System which consists of six Tactical Automatic Landing System-Tracking Subsystems (two per runway), and Ground Based Sense and Avoid. U.S. Army's Special Operations Command and Intelligence Support Command companies will contain the full complement of system equipment however, the Divisional and National Training Center (NTC) companies will have fewer assets while at Continental United States (CONUS) locations. These units will have nine aircraft and five GCS with corresponding support equipment. When deployed outside CONUS, the Army will reallocate equipment from other units which will bring these companies to full Gray Eagle System equipment strength. Each Gray Eagle company will consist of 125 soldiers within the divisional Combat Aviation Brigade and the NTC. Each unit will have three identical platoons; each platoon is capable of operating independently when fully equipped.

A Resource Management Decision in FY 2015 increased the FY 2016 PB budget for the procurement of an additional 15 aircraft. An ADM directed the Army Acquisition Objective increase from 152 to 167 aircraft and increased the total platoons by three from 31 to 34. Although the fielding strategy evolved, the Army continues to use the number of platoons as the metric to determine program APUC and PAUC.

Cost and Funding

Funding Summary

| Appropriation Summary | | | | | | | | | |
|---|--------|---------|---------|---------|---------|---------|---------|-------------|--------|
| FY 2017 President's Budget / December 2015 SAR (TY\$ M) | | | | | | | | | |
| Appropriation | Prior | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | To Complete | Total |
| RDT&E | 938.3 | 0.0 | 13.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 951.8 |
| Procurement | 3104.8 | 322.2 | 60.2 | 15.2 | 0.0 | 0.0 | 0.0 | 0.0 | 3502.4 |
| MILCON | 597.2 | 0.0 | 47.0 | 23.0 | 0.0 | 0.0 | 0.0 | 0.0 | 667.2 |
| Acq O&M | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| PB 2017 Total | 4640.3 | 322.2 | 120.7 | 38.2 | 0.0 | 0.0 | 0.0 | 0.0 | 5121.4 |
| PB 2016 Total | 4640.5 | 286.9 | 122.7 | 15.3 | 0.0 | 0.0 | 0.0 | 0.0 | 5065.4 |
| Delta | -0.2 | 35.3 | -2.0 | 22.9 | 0.0 | 0.0 | 0.0 | 0.0 | 56.0 |

| Quantity Summary | | | | | | | | | | |
|---|---------------|-------|---------|---------|---------|---------|---------|---------|-------------|-------|
| FY 2017 President's Budget / December 2015 SAR (TY\$ M) | | | | | | | | | | |
| Quantity | Undistributed | Prior | FY 2016 | FY 2017 | FY 2018 | FY 2019 | FY 2020 | FY 2021 | To Complete | Total |
| Development | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Production | 0 | 29 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 32 |
| PB 2017 Total | 2 | 29 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 34 |
| PB 2016 Total | 2 | 29 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 34 |
| Delta | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Cost and Funding

Annual Funding By Appropriation

| Annual Funding | | | | | | | |
|--|----------|----------------------------|--------------------------------|-----------------------|---------------|---------------|---------------|
| 2040 RDT&E Research, Development, Test, and Evaluation, Army | | | | | | | |
| Fiscal Year | Quantity | TY \$M | | | | | |
| | | End Item Recurring Flyaway | Non End Item Recurring Flyaway | Non Recurring Flyaway | Total Flyaway | Total Support | Total Program |
| 2005 | -- | -- | -- | -- | -- | -- | 54.3 |
| 2006 | -- | -- | -- | -- | -- | -- | 90.6 |
| 2007 | -- | -- | -- | -- | -- | -- | 123.7 |
| 2008 | -- | -- | -- | -- | -- | -- | 103.4 |
| 2009 | -- | -- | -- | -- | -- | -- | 61.8 |
| 2010 | -- | -- | -- | -- | -- | -- | 135.1 |
| 2011 | -- | -- | -- | -- | -- | -- | 119.2 |
| 2012 | -- | -- | -- | -- | -- | -- | 121.9 |
| 2013 | -- | -- | -- | -- | -- | -- | 68.7 |
| 2014 | -- | -- | -- | -- | -- | -- | 13.1 |
| 2015 | -- | -- | -- | -- | -- | -- | 46.5 |
| 2016 | -- | -- | -- | -- | -- | -- | -- |
| 2017 | -- | -- | -- | -- | -- | -- | 13.5 |
| Subtotal | 2 | -- | -- | -- | -- | -- | 951.8 |

| Annual Funding 2040 RDT&E Research, Development, Test, and Evaluation, Army | | | | | | | |
|--|----------|----------------------------|--------------------------------|-----------------------|---------------|---------------|---------------|
| Fiscal Year | Quantity | BY 2010 \$M | | | | | |
| | | End Item Recurring Flyaway | Non End Item Recurring Flyaway | Non Recurring Flyaway | Total Flyaway | Total Support | Total Program |
| 2005 | -- | -- | -- | -- | -- | -- | 58.8 |
| 2006 | -- | -- | -- | -- | -- | -- | 95.5 |
| 2007 | -- | -- | -- | -- | -- | -- | 127.3 |
| 2008 | -- | -- | -- | -- | -- | -- | 104.4 |
| 2009 | -- | -- | -- | -- | -- | -- | 61.6 |
| 2010 | -- | -- | -- | -- | -- | -- | 132.7 |
| 2011 | -- | -- | -- | -- | -- | -- | 114.8 |
| 2012 | -- | -- | -- | -- | -- | -- | 115.6 |
| 2013 | -- | -- | -- | -- | -- | -- | 64.1 |
| 2014 | -- | -- | -- | -- | -- | -- | 12.0 |
| 2015 | -- | -- | -- | -- | -- | -- | 41.8 |
| 2016 | -- | -- | -- | -- | -- | -- | -- |
| 2017 | -- | -- | -- | -- | -- | -- | 11.8 |
| Subtotal | 2 | -- | -- | -- | -- | -- | 940.4 |

| Annual Funding 2031 Procurement Aircraft Procurement, Army | | | | | | | | |
|---|----------|----------------------------|--------------------------------|-----------------------|---------------|---------------|---------------|--|
| Fiscal Year | Quantity | TY \$M | | | | | | |
| | | End Item Recurring Flyaway | Non End Item Recurring Flyaway | Non Recurring Flyaway | Total Flyaway | Total Support | Total Program | |
| 2010 | 6 | 249.9 | 67.7 | 73.0 | 390.6 | 100.1 | 490.7 | |
| 2011 | 6 | 242.7 | 57.7 | 92.9 | 393.3 | 110.3 | 503.6 | |
| 2012 | 6 | 301.3 | 85.6 | 25.5 | 412.4 | 196.0 | 608.4 | |
| 2013 | 4 | 192.8 | 116.5 | 54.1 | 363.4 | 87.1 | 450.5 | |
| 2014 | 4 | 277.8 | 144.6 | 19.7 | 442.1 | 87.8 | 529.9 | |
| 2015 | 2 | 122.9 | 58.2 | -- | 181.1 | 65.3 | 246.4 | |
| 2016 | 3 | 185.7 | 54.8 | 5.8 | 246.3 | 75.9 | 322.2 | |
| 2017 | -- | -- | 9.8 | -- | 9.8 | 50.4 | 60.2 | |
| 2018 | -- | -- | 4.4 | -- | 4.4 | 10.8 | 15.2 | |
| Subtotal | 31 | 1573.1 | 599.3 | 271.0 | 2443.4 | 783.7 | 3227.1 | |

| Annual Funding 2031 Procurement Aircraft Procurement, Army | | | | | | | | |
|---|----------|----------------------------------|---|-----------------------------|------------------|------------------|------------------|--|
| Fiscal Year | Quantity | BY 2010 \$M | | | | | | |
| | | End Item Recurring Flyaway | Non End Item Recurring Flyaway | Non Recurring Flyaway | Total Flyaway | Total Support | Total Program | |
| 2010 | 6 | 243.4 | 65.9 | 71.1 | 380.4 | 97.5 | 477.9 | |
| 2011 | 6 | 232.1 | 55.2 | 88.9 | 376.2 | 105.5 | 481.7 | |
| 2012 | 6 | 283.4 | 80.5 | 24.0 | 387.9 | 184.4 | 572.3 | |
| 2013 | 4 | 178.2 | 107.6 | 50.0 | 335.8 | 80.5 | 416.3 | |
| 2014 | 4 | 252.8 | 131.7 | 17.9 | 402.4 | 79.9 | 482.3 | |
| 2015 | 2 | 110.2 | 52.2 | -- | 162.4 | 58.5 | 220.9 | |
| 2016 | 3 | 164.3 | 48.5 | 5.1 | 217.9 | 67.2 | 285.1 | |
| 2017 | -- | -- | 8.5 | -- | 8.5 | 43.8 | 52.3 | |
| 2018 | -- | -- | 3.7 | -- | 3.7 | 9.2 | 12.9 | |
| Subtotal | 31 | 1464.4 | 553.8 | 257.0 | 2275.2 | 726.5 | 3001.7 | |

Common Sensor Payload (TY\$M):

FY 2010 (\$48.5M)

FY 2011 (\$48.2M)

FY 2012 (\$61.5M)

FY 2013 (\$73.6M)

FY 2014 (\$29.2M)

FY 2015 (\$8.4M)

FY 2016 (\$35.2M)

FY 2017 (\$4.8M)

FY 2018 (\$4.4M)

| Annual Funding 2035 Procurement Other Procurement, Army | | | | | | | | |
|--|----------|----------------------------|--------------------------------|-----------------------|---------------|---------------|-------|---------------|
| Fiscal Year | Quantity | TY \$M | | | | | | Total Program |
| | | End Item Recurring Flyaway | Non End Item Recurring Flyaway | Non Recurring Flyaway | Total Flyaway | Total Support | | |
| 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 2035 Procurement Other Procurement, Army | | | | | | | | |
|--|----------|----------------------------|--------------------------------|-----------------------|---------------|---------------|---------------|--|
| Fiscal Year | Quantity | BY 2010 \$M | | | | | | |
| | | End Item Recurring Flyaway | Non End Item Recurring Flyaway | Non Recurring Flyaway | Total Flyaway | Total Support | Total Program | |
| 2007 | -- | -- | -- | -- | -- | 9.9 | 9.9 | |
| 2008 | -- | -- | 31.6 | -- | 31.6 | 24.5 | 56.1 | |
| 2009 | 1 | 150.2 | 15.2 | -- | 165.4 | 43.2 | 208.6 | |
| Subtotal | 1 | 150.2 | 46.8 | -- | 197.0 | 77.6 | 274.6 | |

| Annual Funding 2050 MILCON Military Construction, Army | |
|---|------------------|
| Fiscal Year | TY \$M |
| | Total Program |
| 2011 | 102.0 |
| 2012 | 228.0 |
| 2013 | 107.2 |
| 2014 | 36.0 |
| 2015 | 124.0 |
| 2016 | -- |
| 2017 | 47.0 |
| 2018 | 23.0 |
| Subtotal | 667.2 |

| Annual Funding 2050 MILCON Military Construction, Army | |
|---|------------------|
| Fiscal Year | BY 2010 \$M |
| | Total Program |
| 2011 | 96.6 |
| 2012 | 213.1 |
| 2013 | 98.8 |
| 2014 | 32.2 |
| 2015 | 109.2 |
| 2016 | -- |
| 2017 | 39.9 |
| 2018 | 19.1 |
| Subtotal | 608.9 |

Low Rate Initial Production

| Item | Initial LRIP Decision | Current Total LRIP |
|--------------------------|-----------------------|--------------------|
| Approval Date | 3/29/2010 | 7/3/2012 |
| Approved Quantity | 2 | 6 |
| Reference | Milestone C ADM | LRIP III ADM |
| Start Year | 2010 | 2012 |
| End Year | 2011 | 2016 |

The Current Total LRIP Quantity is more than 10% of the total production quantity due to MDA directed quantities to facilitate the MQ-1C Gray Eagle capability entrance into theater as quickly as possible.

Initial LRIP Decision

The original LRIP quantity was two MQ-1C Gray Eagle systems which equates to six platoon sets (24 aircraft).

Current Total LRIP

The Current Total LRIP quantity is six MQ-1C Gray Eagle systems which equates to 18 platoon sets and includes LRIP I (24 aircraft and two attrition aircraft), LRIP II (24 aircraft and five attrition aircraft) and LRIP III (29 aircraft).

Foreign Military Sales

None

Nuclear Costs

None

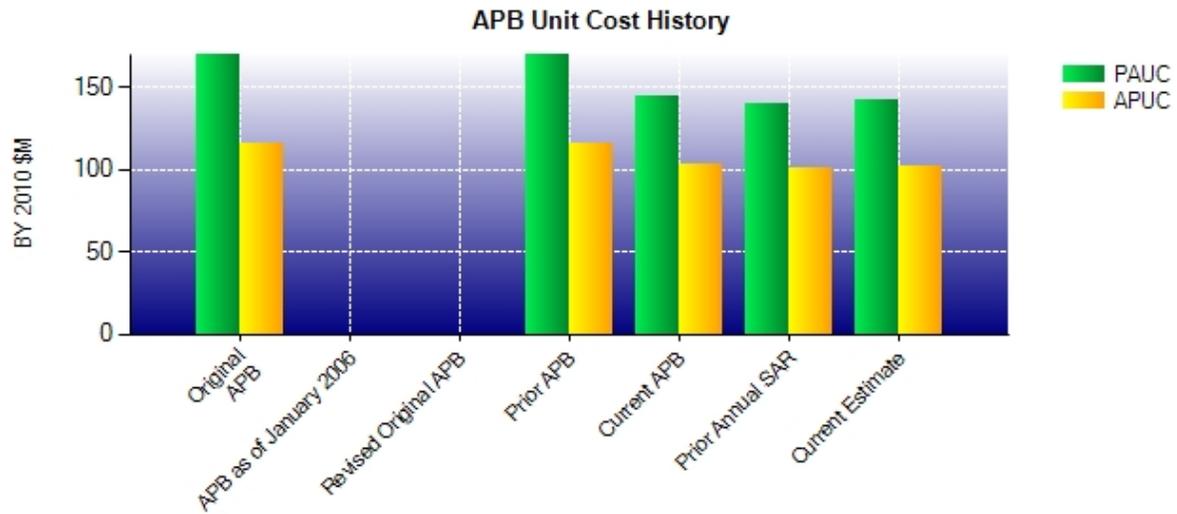
Unit Cost

Unit Cost Report

| Item | BY 2010 \$M | BY 2010 \$M | % Change |
|--------------------------------------|---|------------------------------------|----------|
| | Current UCR Baseline (Sep 2013 APB) | Current Estimate (Dec 2015 SAR) | |
| Program Acquisition Unit Cost | | | |
| Cost | 4498.2 | 4825.6 | |
| Quantity | 31 | 34 | |
| Unit Cost | 145.103 | 141.929 | -2.19 |
| Average Procurement Unit Cost | | | |
| Cost | 2988.0 | 3276.3 | |
| Quantity | 29 | 32 | |
| Unit Cost | 103.034 | 102.384 | -0.63 |

| Item | BY 2010 \$M | BY 2010 \$M | % Change |
|--------------------------------------|--|------------------------------------|----------|
| | Original UCR Baseline (Mar 2011 APB) | Current Estimate (Dec 2015 SAR) | |
| Program Acquisition Unit Cost | | | |
| Cost | 5252.0 | 4825.6 | |
| Quantity | 31 | 34 | |
| Unit Cost | 169.419 | 141.929 | -16.23 |
| Average Procurement Unit Cost | | | |
| Cost | 3364.7 | 3276.3 | |
| Quantity | 29 | 32 | |
| Unit Cost | 116.024 | 102.384 | -11.76 |

Unit Cost History



| Item | Date | BY 2010 \$M | | TY \$M | |
|------------------------|----------|-------------|---------|---------|---------|
| | | 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 | Feb 2012 | 169.419 | 116.024 | 179.000 | 123.172 |
| Current APB | Sep 2013 | 145.103 | 103.034 | 154.929 | 110.941 |
| Prior Annual SAR | Dec 2014 | 140.182 | 101.178 | 148.982 | 108.372 |
| Current Estimate | Dec 2015 | 141.929 | 102.384 | 150.629 | 109.450 |

SAR Unit Cost History

| Initial SAR Baseline to Current SAR Baseline (TY \$M) | | | | | | | | | |
|---|---------|----------|--------|--------|--------|-------|-------|----------|--------------------------|
| Initial PAUC Development Estimate | Changes | | | | | | | | PAUC Production Estimate |
| | Econ | Qty | Sch | Eng | Est | Oth | Spt | Total | |
| 401.600 | 0.094 | -242.537 | -7.813 | 13.968 | 13.152 | 0.000 | 0.536 | -222.600 | 179.000 |

| Current SAR Baseline to Current Estimate (TY \$M) | | | | | | | | | |
|---|---------|---------|-------|-------|---------|-------|--------|---------|-----------------------|
| PAUC Production Estimate | Changes | | | | | | | | PAUC Current Estimate |
| | Econ | Qty | Sch | Eng | Est | Oth | Spt | Total | |
| 179.000 | 0.976 | -11.079 | 0.129 | 2.562 | -18.068 | 0.000 | -2.891 | -28.371 | 150.629 |

| Initial SAR Baseline to Current SAR Baseline (TY \$M) | | | | | | | | | |
|---|---------|----------|-------|--------|--------|-------|-------|----------|--------------------------|
| Initial APUC Development Estimate | Changes | | | | | | | | APUC Production Estimate |
| | Econ | Qty | Sch | Eng | Est | Oth | Spt | Total | |
| 285.100 | 0.141 | -177.121 | 0.000 | 14.931 | -0.452 | 0.000 | 0.573 | -161.928 | 123.172 |

| Current SAR Baseline to Current Estimate (TY \$M) | | | | | | | | | |
|---|---------|--------|-------|-------|--------|-------|--------|---------|-----------------------|
| APUC Production Estimate | Changes | | | | | | | | APUC Current Estimate |
| | Econ | Qty | Sch | Eng | Est | Oth | Spt | Total | |
| 123.172 | 0.716 | -6.539 | 0.138 | 1.088 | -6.053 | 0.000 | -3.072 | -13.722 | 109.450 |

| SAR Baseline History | | | | |
|----------------------|-----------------------|--------------------------|-------------------------|------------------|
| Item | SAR Planning Estimate | SAR Development Estimate | SAR Production Estimate | Current Estimate |
| Milestone A | N/A | N/A | N/A | N/A |
| Milestone B | N/A | Apr 2005 | Apr 2005 | Apr 2005 |
| Milestone C | N/A | Feb 2010 | Mar 2011 | Mar 2011 |
| IOC | N/A | Feb 2012 | Jun 2012 | Dec 2012 |
| Total Cost (TY \$M) | N/A | 5322.6 | 5549.0 | 5121.4 |
| Total Quantity | N/A | 13 | 31 | 34 |
| PAUC | N/A | 409.431 | 179.000 | 150.629 |

Cost Variance

| Summary TY \$M | | | | |
|------------------------------------|-------|-------------|--------|--------|
| Item | RDT&E | Procurement | MILCON | Total |
| SAR Baseline (Production Estimate) | 896.3 | 3572.0 | 1080.7 | 5549.0 |
| Previous Changes | | | | |
| Economic | +4.8 | +31.8 | +8.3 | +44.9 |
| Quantity | -- | +160.3 | -- | +160.3 |
| Schedule | -- | +4.4 | -- | +4.4 |
| Engineering | +38.8 | +34.8 | -- | +73.6 |
| Estimating | -1.6 | -226.4 | -429.8 | -657.8 |
| Other | -- | -- | -- | -- |
| Support | -- | -109.0 | -- | -109.0 |
| Subtotal | +42.0 | -104.1 | -421.5 | -483.6 |
| Current Changes | | | | |
| Economic | -0.5 | -8.9 | -2.3 | -11.7 |
| Quantity | -- | -- | -- | -- |
| Schedule | -- | -- | -- | -- |
| Engineering | +13.5 | -- | -- | +13.5 |
| Estimating | +0.5 | +32.7 | +10.3 | +43.5 |
| Other | -- | -- | -- | -- |
| Support | -- | +10.7 | -- | +10.7 |
| Subtotal | +13.5 | +34.5 | +8.0 | +56.0 |
| Total Changes | +55.5 | -69.6 | -413.5 | -427.6 |
| CE - Cost Variance | 951.8 | 3502.4 | 667.2 | 5121.4 |
| CE - Cost & Funding | 951.8 | 3502.4 | 667.2 | 5121.4 |

| Summary BY 2010 \$M | | | | |
|------------------------------------|-------|-------------|--------|--------|
| Item | RDT&E | Procurement | MILCON | Total |
| SAR Baseline (Production Estimate) | 895.3 | 3364.7 | 992.0 | 5252.0 |
| Previous Changes | | | | |
| Economic | -- | -- | -- | -- |
| Quantity | -- | +140.8 | -- | +140.8 |
| Schedule | -- | +0.1 | -- | +0.1 |
| Engineering | +32.1 | +25.8 | -- | +57.9 |
| Estimating | +0.7 | -178.6 | -391.6 | -569.5 |
| Other | -- | -- | -- | -- |
| Support | -- | -115.1 | -- | -115.1 |
| Subtotal | +32.8 | -127.0 | -391.6 | -485.8 |
| Current Changes | | | | |
| Economic | -- | -- | -- | -- |
| Quantity | -- | -- | -- | -- |
| Schedule | -- | -- | -- | -- |
| Engineering | +11.8 | -- | -- | +11.8 |
| Estimating | +0.5 | +28.6 | +8.5 | +37.6 |
| Other | -- | -- | -- | -- |
| Support | -- | +10.0 | -- | +10.0 |
| Subtotal | +12.3 | +38.6 | +8.5 | +59.4 |
| Total Changes | +45.1 | -88.4 | -383.1 | -426.4 |
| CE - Cost Variance | 940.4 | 3276.3 | 608.9 | 4825.6 |
| CE - Cost & Funding | 940.4 | 3276.3 | 608.9 | 4825.6 |

Previous Estimate: December 2014

| RDT&E | \$M | |
|---|--------------|--------------|
| Current Change Explanations | Base Year | Then Year |
| Revised escalation indices. (Economic) | N/A | -0.5 |
| Adjustment for current and prior escalation. (Estimating) | +0.5 | +0.5 |
| Additional funding for Follow-On Test and Evaluation II associated with Improved Gray Eagle extended range modifications. (Engineering) | +11.8 | +13.5 |
| RDT&E Subtotal | +12.3 | +13.5 |

| Procurement | \$M | |
|---|--------------|--------------|
| Current Change Explanations | Base Year | Then Year |
| Revised escalation indices. (Economic) | N/A | -8.9 |
| Adjustment for current and prior escalation. (Estimating) | +5.8 | +6.4 |
| Revised estimate to align with FY 2017 PB which resulted in increased funding for Common Systems Payloads. (Estimating) | +7.8 | +8.8 |
| Revised estimate to reflect actuals. (Estimating) | +15.0 | +17.5 |
| Adjustment for current and prior escalation. (Support) | +1.8 | +1.9 |
| Decrease in Other Support for Contractor Logistics Support. (Support) | -4.4 | -5.4 |
| Increase in Initial Spares based on split based operations and FY 2017 PB impacts. (Support) | +12.6 | +14.2 |
| Procurement Subtotal | +38.6 | +34.5 |

| MILCON | \$M | |
|---|-------------|-------------|
| Current Change Explanations | Base Year | Then Year |
| Revised escalation indices. (Economic) | N/A | -2.3 |
| Adjustment for current and prior escalation. (Estimating) | +1.7 | +1.8 |
| Revised estimate for changes in Army baseline strategy for stationing and fielding MQ-1C Gray Eagle. (Estimating) | +6.8 | +8.5 |
| MILCON Subtotal | +8.5 | +8.0 |

Contracts

General Notes

Contract W58RGZ-12-C-0075, Performance Based Logistics (PBL), is not included in the December 2014 and December 2015 SAR. The MQ-1C Gray Eagle program does not have an Acquisition Operations and Maintenance (O&M) contract. Contract W58RGZ-12-C-0075 is for PBL to support fielded systems and funded with O&M, Army - Overseas Contingency Operations accounts.

Contract Identification

Appropriation: Procurement
Contract Name: LRIP 3
Contractor: General Atomics - Aeronautical Systems, Inc.
Contractor Location: 14200 Kirkham Way
 Poway, CA 92064
Contract Number: W58RGZ-12-C-0057
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: July 06, 2012
Definitization Date: July 06, 2012

| Contract Price | | | | | | | |
|------------------------------|---------|-----|------------------------------|---------|-----|-------------------------------------|-----------------|
| Initial Contract Price (\$M) | | | Current Contract Price (\$M) | | | Estimated Price At Completion (\$M) | |
| Target | Ceiling | Qty | Target | Ceiling | Qty | Contractor | Program Manager |
| 411.0 | 424.6 | 29 | 541.6 | 559.5 | 29 | 545.8 | 544.1 |

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to contract modifications P00001 through P00039 adding a platoon set of ground equipment, updated spares, changing from Portable Ground Control Station to Mobile Ground Control Station, and the definitization of an Engineering Change for Universal Ground Control Stations and spares.

| Contract Variance | | |
|---|---------------|-------------------|
| Item | Cost Variance | Schedule Variance |
| Cumulative Variances To Date (12/31/2015) | -5.8 | -0.7 |
| Previous Cumulative Variances | +2.8 | -11.2 |
| Net Change | -8.6 | +10.5 |

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to additional subcontractor support on UGCS effort and additional hours incurred in Program Management as a result of several programmatic UGCS and Mobile Ground Control Station changes.

The favorable net change in the schedule variance is due to the June 2015 replan of the Integrated Master Schedule and Performance Measurement Baseline incorporation of Engineering Changes. In addition, deliveries of UGCS hardware during FY 2015 reduced the cumulative schedule variance.

Contract Identification

Appropriation: Procurement
Contract Name: Full Rate Production (FRP)
Contractor: General Atomics - Aeronautical Systems, Inc.
Contractor Location: 14200 Kirkham Way
 Poway, CA 92064
Contract Number: W58RGZ-13-C-0109
Contract Type: Firm Fixed Price (FFP)
Award Date: September 13, 2013
Definitization Date: September 13, 2013

| Contract Price | | | | | | | |
|------------------------------|---------|-----|------------------------------|---------|-----|-------------------------------------|-----------------|
| Initial Contract Price (\$M) | | | Current Contract Price (\$M) | | | Estimated Price At Completion (\$M) | |
| Target | Ceiling | Qty | Target | Ceiling | Qty | Contractor | Program Manager |
| 199.7 | N/A | 15 | 580.5 | N/A | 57 | 580.5 | 580.5 |

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to exercising contract options established under the initial contract award, container modifications, and Engineering Changes for Universal Ground Control Stations, Spares, and production quantities for Improved Gray Eagle.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FFP) contract.

Contract Identification

Appropriation: RDT&E
Contract Name: 4.3.2 Software
Contractor: General Atomics - Aeronautical Systems, Inc
Contractor Location: 14200 Kirkham Way
 Poway, CA 92064-7103
Contract Number: W58RGZ-13-C-0136
Contract Type: Cost Plus Incentive Fee (CPIF)
Award Date: September 25, 2013
Definitization Date: September 25, 2013

| Contract Price | | | | | | | |
|------------------------------|---------|-----|------------------------------|---------|-----|-------------------------------------|-----------------|
| Initial Contract Price (\$M) | | | Current Contract Price (\$M) | | | Estimated Price At Completion (\$M) | |
| Target | Ceiling | Qty | Target | Ceiling | Qty | Contractor | Program Manager |
| 70.2 | N/A | N/A | 70.2 | N/A | N/A | 70.9 | 71.7 |

| Contract Variance | | |
|---|---------------|-------------------|
| Item | Cost Variance | Schedule Variance |
| Cumulative Variances To Date (12/31/2015) | -1.2 | 0.0 |
| Previous Cumulative Variances | -0.3 | -1.4 |
| Net Change | -0.9 | +1.4 |

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to additional efforts incurred on the subcontractor's Information Assurance on software builds, and Systems Engineering to address quality concerns.

The favorable net change in the schedule variance is due to completion of contractual effort for repair of damaged test components.

Notes

This contract is more than 90% complete; therefore, this is the final report for this contract.

Contract Identification

Appropriation: Procurement
Contract Name: Engineering Services II
Contractor: General Atomics - Aeronautical Systems, Inc.
Contractor Location: 14200 Kirkham Way
 Poway, CA 92064-7103
Contract Number: W58RGZ-13-C-0110
Contract Type: Cost Plus Fixed Fee (CPFF)
Award Date: September 30, 2013
Definitization Date: September 30, 2013

| Contract Price | | | | | | | |
|------------------------------|---------|-----|------------------------------|---------|-----|-------------------------------------|-----------------|
| Initial Contract Price (\$M) | | | Current Contract Price (\$M) | | | Estimated Price At Completion (\$M) | |
| Target | Ceiling | Qty | Target | Ceiling | Qty | Contractor | Program Manager |
| 38.5 | N/A | N/A | 76.2 | N/A | N/A | 71.4 | 69.6 |

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to exercising contract options established under initial contract award for Solid Core, Airworthiness and Universal Ground Control Stations and contract modifications through P00042.

| Contract Variance | | |
|---|---------------|-------------------|
| Item | Cost Variance | Schedule Variance |
| Cumulative Variances To Date (12/31/2015) | +6.7 | -2.9 |
| Previous Cumulative Variances | +10.6 | -3.2 |
| Net Change | -3.9 | +0.3 |

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to completion of Program Management effort and Tactical Signals Intelligence Payload Hardware/Software Development Sub-Engineering Services Memorandums (SESM).

The favorable net change in the schedule variance is due to ongoing efforts on Special Operations Command Vortex Integration SESM.

Deliveries and Expenditures

| Deliveries | | | | |
|----------------------------------|-----------------|----------------|----------------|-------------------|
| Delivered to Date | Planned to Date | Actual to Date | Total Quantity | Percent Delivered |
| Development | 2 | 2 | 2 | 100.00% |
| Production | 25 | 25 | 32 | 78.13% |
| Total Program Quantity Delivered | 27 | 27 | 34 | 79.41% |

| Expended and Appropriated (TY \$M) | | | |
|------------------------------------|--------|----------------------------|--------|
| Total Acquisition Cost | 5121.4 | Years Appropriated | 12 |
| Expended to Date | 3192.3 | Percent Years Appropriated | 85.71% |
| Percent Expended | 62.33% | Appropriated to Date | 4962.5 |
| Total Funding Years | 14 | Percent Appropriated | 96.90% |

The above data is current as of February 29, 2016.

131 MQ-1C Gray Eagle aircraft of 167 planned (152 planned in Current APB) completed the Material Inspection and Receiving Reporting process as of December 31, 2015. Inspected and received MQ-1C Gray Eagle aircraft is the metric used for deliveries and is converted to systems.

Operating and Support Cost

Cost Estimate Details

| | |
|---------------------------------|-------------------|
| Date of Estimate: | June 14, 2013 |
| Source of Estimate: | SCP |
| Quantity to Sustain: | 31 |
| Unit of Measure: | System |
| Service Life per Unit: | 20.00 Years |
| Fiscal Years in Service: | FY 2011 - FY 2037 |

The O&S estimate is based on the June 14, 2013 DAB approved FRP Service Cost Position. The MQ-1C Gray Eagle O&S cost estimate includes 152 MQ-1C Gray Eagle acquisition program aircraft, 31 platoons with associated ground equipment, and results in 327 operational system years over a 20 year service life. O&M cost was based on actual Unmanned Aircraft System (UAS) consumption data, analogy to Predator, and O&S Management Information System (OSMIS) Blackhawk data. The cost is applied as steady state across the MQ-1C Gray Eagle program in accordance with the program schedule.

An updated APB is currently being staffed with PM UAS and the Deputy Assistant Secretary of the Army for Cost Estimating and should be completed 3rd Quarter FY 2016.

O&S changes listed in earlier sections of the SAR, namely the Executive Summary and Cost and Funding sections, that relate to the FY 2015 Congressional Plus-up, FY 2016 PB with increased procurement from 152 to 167 aircraft, and an increase of three platoons from 31 to 34 are not included in this O&S section. These changes will be reflected in the next SAR.

A basic MQ-1C Gray Eagle system includes balanced platoons, each with four aircraft and associated support equipment and payloads to include: Electro-Optical/Infrared/Laser Designator, communications relay, and up to four Hellfire Missiles. The Common Sensor Payload and Synthetic Aperture Radar/Ground Moving Target Indicator are one per aircraft. Ground equipment at a platoon level includes: two Universal Ground Control Stations, three Universal Ground Data Terminals, one satellite communication Ground Data Terminal, one Mobile Ground Control Station per Gray Eagle Company, an Automated Take Off and Landing System which includes two Tactical Automatic Landing Systems and ground support equipment to include Ground-Based Sense and Avoid. A MQ-1C Gray Eagle Company is configured into three equal platoons and includes nine MQ-1C Gray Eagle aircraft for conventional companies (non-deployed) and when deployed the Army will adjust a company to full MQ-1C Gray Eagle System strength (12 aircraft and associated ground support equipment).

Sustainment Strategy

The sustainment strategy includes a Performance Based Logistics (PBL) contract. Soldiers operate systems and perform 85 percent of the basic field maintenance. Field Service Representatives support the remaining 15 percent of basic field maintenance through PBL efforts. Some of the Depot Level Repairables will be accomplished by organic depots through a Public Private Partnership (PPP) arrangement. The PPP with organic depot efforts will be determined through cost-benefit analysis and application of section 2466, title 10, U.S.C. and the 50-50 rule.

Antecedent Information

No Antecedent

| Annual O&S Costs BY2010 \$M | | | |
|--------------------------------|--|-----------------------------------|--|
| Cost Element | MQ-1C Gray Eagle Average Annual Cost Per System | No Antecedent (Antecedent) N/A | |
| Unit-Level Manpower | 10.300 | 0.000 | |
| Unit Operations | 1.300 | 0.000 | |
| Maintenance | 3.460 | 0.000 | |
| Sustaining Support | 3.750 | 0.000 | |
| Continuing System Improvements | 0.360 | 0.000 | |
| Indirect Support | 0.870 | 0.000 | |
| Other | 2.460 | 0.000 | |
| Total | 22.500 | -- | |

The \$2.460M Other cost is O&M related, Military Pay and Allowances (Medical & Morale, Welfare, Recreation) and includes other costs from U.S. Army Special Operations Command (USASOC) and Aerial Exploitation Battalions (AEB).

| Item | Total O&S Cost \$M | | | |
|------------------|---|------------------|----------------------------|-----|
| | MQ-1C Gray Eagle | | No Antecedent (Antecedent) | |
| | Current Production APB Objective/Threshold | Current Estimate | | |
| Base Year | 7357.3 | 8093.0 | 7357.3 | 0.0 |
| Then Year | 9950.8 | N/A | 9950.8 | N/A |

On February 5, 2013, the Chief of Staff of the Army approved an Execution Order (EXORD) changing the MQ-1C Gray Eagle fielding configuration to provide greater capability across the Army. The EXORD directed fielding MQ-1C Gray Eagle companies to ten Army divisions, one to the National Training Center (NTC), two to USASOC units, and two to the AEB for a total of 15 companies. The two USASOC companies will be configured with 12 aircraft each (24 total) and the 13 companies assigned to Army divisions, NTC and the AEBs will be fielded with nine aircraft each (117 total) while based in the Continental United States (CONUS). Seven aircraft are assigned to the institutional training base at Fort Huachuca, Arizona. The four remaining aircraft are for attrition. When a company or AEB assigned to a division deploys outside CONUS, the Army will reassign equipment, as required, to bring the company to full MQ-1C Gray Eagle system equipment strength (12 aircraft and associated ground support equipment).

Equation to Translate Annual Cost to Total Cost

Total O&S Costs \$7357.3 (BY 2010 \$M) / 327 Operational System years = \$22.5 (BY 2010 \$M) per system.

| O&S Cost Variance | | |
|---|----------------|---------------------|
| Category | BY 2010 \$M | Change Explanations |
| Prior SAR Total O&S Estimates - Dec 2014 SAR | 7357.3 | |
| Programmatic/Planning Factors | 0.0 | |
| Cost Estimating Methodology | 0.0 | |
| Cost Data Update | 0.0 | |
| Labor Rate | 0.0 | |

| | |
|------------------|--------|
| Energy Rate | 0.0 |
| Technical Input | 0.0 |
| Other | 0.0 |
| Total Changes | 0.0 |
| Current Estimate | 7357.3 |

Disposal Estimate Details

Date of Estimate: June 14, 2013
Source of Estimate: SCP
Disposal/Demilitarization Total Cost (BY 2010 \$M): Total costs for disposal of all System are 35.2

The Demilitarization costs per the FRP SCP in June 2013 is \$35.2 (BY 2010 \$M).