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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 2020 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Sensitivity Originator

No originator info Available at this time.

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)
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)

Program Information

Program Name

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

DoD Component

Army

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References

SAR Baseline (Production Estimate)

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

Approved APB

Army Acquisition Executive (AAE) Approved Acquisition Program Baseline (APB) dated December 20, 2017

Mission and Description

The MQ-1C Gray Eagle Unmanned Aircraft System (MQ-1C Gray Eagle) provides the Commander a dedicated, assured, long endurance, multi-mission UAS at the strategic, operational, and tactical echelons. The MQ-1C Gray Eagle provides reconnaissance, surveillance, target acquisition, command and control, communications relay, signals intelligence, electronic warfare, attack, battle damage assessment, and manned-unmanned teaming capabilities. Fifteen Gray Eagle Warfighting Companies are assigned: 11 companies assigned to Army divisions and four Echelon Above Division (EAD) Companies. Two EAD Companies are assigned to U.S. Army Special Operations Command and two to Intelligence and Security Command.

Version 8.7, Revision 3 of the MQ-1C Gray Eagle CPF defines an operational requirement for the MQ-1C Gray Eagle Extended Range. The MQ-1C Gray Eagle Extended Range provides for greater range, endurance, and payload carrying capability for EAD units.

The Gray Eagle System consists of 12 MQ-1C aircraft 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. The Divisional UAS Companies consists of 126 Soldiers within the Combat Aviation Brigade. EAD companies have three platoons of equipment and four platoons of people (165 Soldiers). Each company has three identical platoons; each platoon capable of operating independently.

Executive Summary

Program Highlights Since Last Report

The MQ-1C Gray Eagle Unmanned Aircraft System (UAS) production and fielding remains on schedule. Since the last report, Follow-On Test and Evaluation (FOT&E) II was successfully completed for the MQ-1C Gray Eagle Extended Range (ER). The final Defense Operational Test and Evaluation FOT&E II report deemed the system operationally effective and suitable and noted the system as having demonstrated a significant increase in endurance and maintainability over the current MQ-1C while preserving armed intelligence, surveillance, and reconnaissance capabilities. The system demonstrated an increase in Mean Time Between System Abort from 16.5 to 25.3 hours while Mean Time To Repair decreased from 1.9 to 0.7 hours. Results from FOT&E II will support Urgent Material Release and fielding of the Gray Eagle ER. Gray Eagle continues to face O&S cost risk as O&M funding continues to be an under resourced requirement.

Fourteen of 15 companies were fielded with the final Company activation scheduled for June 16, 2019. As of December 2018, 436,840 total hours were flown while maintaining 92% Combat Operational Availability for FY 2018. Additionally, the Performance Based Logistics (PBL) and Sustainment contract was definitized in support of more than 85,000 flight hours during the contract's period of performance. The six-month extension of services clause was executed to facilitate the negotiated award of a PBL FY 2019 - FY 2023 contract. Operational tempo continues to increase in terms of flight hours and deployments and it is expected that 95,000 hours will be required in FY 2019 PBL.

MQ-1C Gray Eagle Procurement and RDT&E requirements are stable and funding is adequate to meet cost and schedule baselines. Risk has not increased since the 2017 SAR and the program continues to realize improved reliability coupled with a significant decrease in the material failure rate.

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

History of Significant Developments Since Program Initiation	
History of Significant Developments Since Program Initiation	
Date	Significant Development Description
April 2005	The MQ-1C Unmanned Aircraft System (UAS) Gray Eagle (Gray Eagle UAS) program was initiated at Milestone 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.
May 2008	The Gray Eagle UAS was redesignated by the Defense Acquisition Executive as an ACAT ID program.
1st Quarter FY 2010	A Configuration Steering Board approved unit quantities to increase from 13 to 17 Gray Eagle UAS Companies.
March 2010	Milestone C was approved.
3rd Quarter FY 2010	A successful Limited User Test (LUT) was conducted.
March 2012	Deployment of the first full-up Gray Eagle Company (12 aircraft and 128 Soldiers) to support combat operations in Afghanistan.
August 2012	Successfully completed Initial Operational Test and Evaluation test event.
February 2013	Chief of Staff of the Army directs fielding of MQ-1C Gray Eagle companies to ten Army Divisions, one to the National Training Center (NTC), two Army Special Operations Forces (ARSOF) units, and two to the Aerial Exploitation Battalions (AEB) for a total of 15 companies.
June 2015	Successfully completed FOT&E.
August 2015	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 from 152. Additionally, the ADM approved and authorized an acquisition and contracting strategy for Gray Eagle extended range modifications.
May 2017	The Army increased the Army Acquisition Objective from 167 to 204 aircraft, increasing the total Platoons to 45 sets.
December 2017	Revised APB approved.
August 2018	Successfully completed FOT&E II.

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

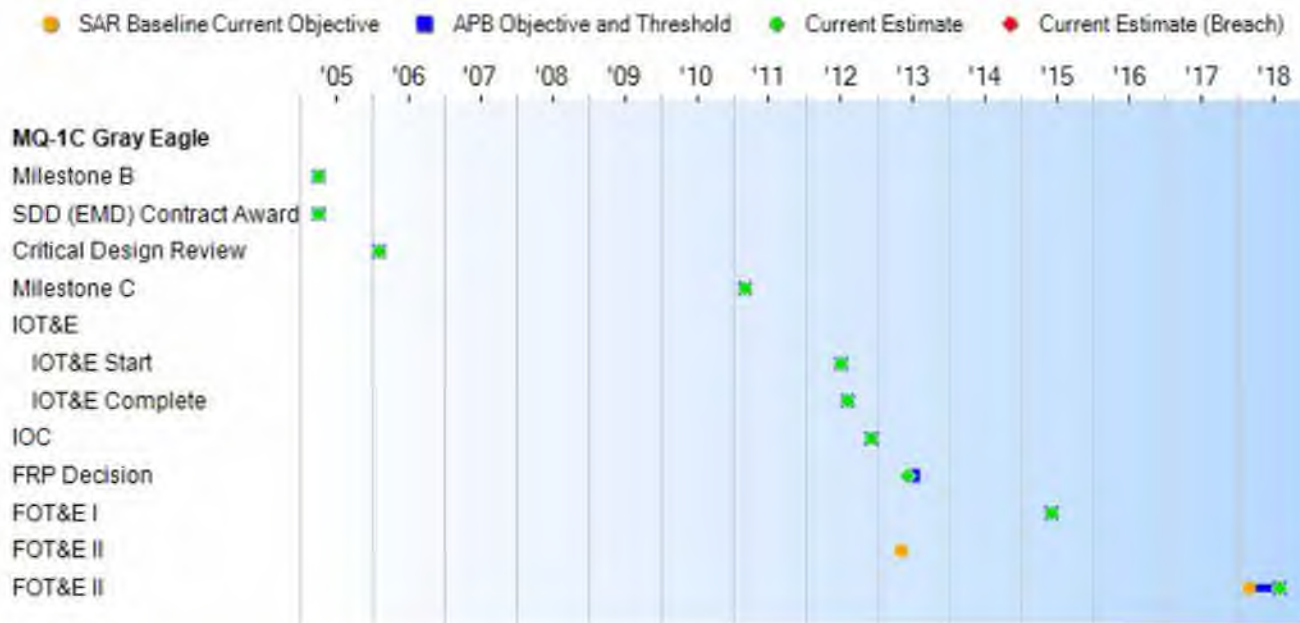
Current UCR Baseline

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	Jun 2015	Jun 2015	Jun 2015
FOT&E II	May 2013	N/A	N/A	N/A
FOT&E II	N/A	Mar 2018	Aug 2018	Aug 2018

(Ch-1)

Change Explanations

(Ch-1) The current estimate for FOT&E II changed from March 2018 to August 2018 due to lack of funding allotment until April 2018 due to a Congressional mark. August 14, 2018 was the completion date of FOT&E II.

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</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; LINK-16 demonstrated at FOT&E.</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>

data in a secure manner.				
Multi Payload/Weight Capability				
The aircraft is capable of simultaneously carrying two payloads with a combined minimum weight of 300 lbs.	UA will be capable of simultaneously carrying three or more payloads with a combined minimum weight of 300 lbs.	UA will be capable of simultaneously carrying two payloads with a combined minimum weight of 200 lbs.	Met threshold at IOT&E/FOT&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/FOT&E.	The Gray Eagle maintained a Combat Ao of 93% for the 4th Quarter FY 2018. The Gray Eagle maintained a Combat Ao of 92% for FY 2018.
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 at IOT&E/FOT&E	UA engine will be powered by DoD/NATO standard heavy fuel (JP8).
Weapons Capable				
The aircraft shall be capable of engaging	MQ-1C must be capable of engaging	MQ-1C must be capable of engaging	Met threshold; (35) Hellfire	MQ-1C must 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.	traditional and non-traditional ground moving and stationary and water borne moving and stationary 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.	traditional and non-traditional ground moving and stationary targets with the AGM-114P-4A and AGM-114N-4.	shots in DT/OT; (100+) Hellfire shots in OIF/OEF.	traditional and non-traditional ground moving and stationary and water borne moving and stationary 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.
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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 threshold/objective at IOT&E/FOT&E.	The GCS will be mounted onto an Army standard tactical vehicle with the ability to be up armored.
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Requirements Reference

CPD for Extended Range Multi-Purpose ERMP Unmanned Aircraft System MQ-1C Increment: 1, version 8.6 dated April 30, 2015

Change Explanations

None

Acronyms and Abbreviations

% - Percent

AGMs - Air-to-Ground Missiles

Ao - Operational Availability

ATO - Approval to Operate

CPD - Capability Production Document

DAA - Designated Approval Authority

DISR - Department of Defense Information Technology Standards Registry

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

IATO - Interim Approval to Operate

JROC - Joint Requirements Oversight Council

KIP - Key Interface Profile

km - Kilometers

KPP - Key Performance Parameter

lbs - Pounds

NATO - North Atlantic Treaty Organization

NCOW RM - Net Centric Operations Warfare Reference Model

PD - Probability of Detection

PR - Probability of Recognition

SAR/GMTI - Synthetic Aperature 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	(Sunk)
	Notes:	FY 2011 - FY 2018	

Procurement

Appn	BA	PE	
Army	2031	01	9670005A
	Line Item	Name	
	A00005	MQ-1 UAV	
	Notes:	FY 2010 - FY 2021	
Army	2031	02	0023010A
	Line Item	Name	
	A00020	MQ-1 Payload	(Sunk)
	Notes:	FY2015 - FY2018	
Army	2031	02	0313400A
	Line Item	Name	
	A01001	MQ-1 Payload	(Shared)
Army	2031	02	0023015A
	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	
069830	Military Construction, Army	

Acq O&M		
Appn	BA	PE
Army	2020 04	0702806A
Subactivity Group	Name	
070	Acquisition O&M Support MQ-1C (Shared)	

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	969.0	1065.9	969.3	896.3	984.3	984.6
Procurement	3364.7	4131.0	4544.1	4087.7	3572.0	4510.3	4452.7
Flyaway	--	--	--	2958.4	--	--	3234.2
Recurring	--	--	--	2946.9	--	--	3222.0
Non Recurring	--	--	--	11.5	--	--	12.2
Support	--	--	--	1129.3	--	--	1218.5
Other Support	--	--	--	916.6	--	--	988.4
Initial Spares	--	--	--	212.7	--	--	230.1
MILCON	992.0	633.4	696.7	633.4	1080.7	697.2	697.2
Acq O&M	0.0	5.6	6.2	5.6	0.0	6.1	6.1
Total	5252.0	5739.0	N/A	5696.0	5549.0	6197.9	6140.6

Current APB Cost Estimate Reference

Deputy Assistant Secretary of the Army for Cost and Economics sufficiency review of the MQ-1C Gray Eagle POE dated August 24, 2017

Cost Notes

No cost estimate was prepared in the past year for the MQ-1C UAS Program.

On August 24, 2017, the Deputy Assistant to the Secretary of the Army for Cost Estimating (DASA (CE)) conducted a Sufficiency Review and found the POE adequate to support the revised APB. The MQ-1C Gray Eagle APB was approved December 20, 2017.

On May 4, 2017, the Army approved an Army Acquisition Objective adjustment to bring the total requirement to 204 MQ-1C Gray Eagle aircraft, increasing the Platoon Sets to 45. Of the 204 MQ-1C Gray Eagle aircraft, a total of 101 will be in the Extended Range configuration. The MQ-1C Gray Eagle program is in Production and Deployment and remains on schedule. As of December 5, 2018, the Army accepted a total of 148 MQ-1C Gray Eagle procured aircraft.

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E	2	2	2
Procurement	29	43	43
Total	31	45	45

Quantity Notes

The MQ-1C Gray Eagle Unit of Measure is a Platoon. The CAB platoon equipment set consists of: four aircraft, two Universal Ground Control Stations (UGCS), two Universal Ground Data Terminals (UGDT), one Satellite Communication (SATCOM) Ground Data Terminal (SGDT), four Satellite Airborne Data Terminals (SADT), one Automatic Take-off and Landing Systems (ATLS), Government Furnished Equipment (GFE) and Ground Support Equipment (GSE). The USASOC and INSCOM Platoon equipment sets consists of: four aircraft, two UGCS, one Mobile Ground Control Station (MGCS), three UGDTs, one SGDT, four SADTs, one ATLS set, GFE and GSE.

MQ-1C Gray Eagle shows 45 Platoon Sets procured prior to FY 2018 given all units received at least a portion of the total required. FY 2018 and FY 2019 procurements fulfill the total requirement of 12 aircraft per company.

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2020 President's Budget / December 2018 SAR (TY\$ M)									
Appropriation	Prior	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
RDT&E	984.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	984.6
Procurement	4235.4	163.3	54.0	0.0	0.0	0.0	0.0	0.0	4452.7
MILCON	697.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	697.2
Acq O&M	5.2	0.3	0.1	0.1	0.2	0.2	0.0	0.0	6.1
PB 2020 Total	5922.4	163.6	54.1	0.1	0.2	0.2	0.0	0.0	6140.6
PB 2019 Total	5791.3	115.0	0.1	0.1	0.2	0.2	0.0	0.0	5906.9
Delta	131.1	48.6	54.0	0.0	0.0	0.0	0.0	0.0	233.7

Funding Notes

The current estimate reflects FY 2019 Procurement funding of \$163.326M, FY 2020 Procurement funding of \$54.000M, and an FY 2018 total support estimate revision that includes \$50.000M for the MQ-1C Common Sensor Payload funding reflected in the December 28, 2018 FYDP Procurement annex. The FY 2019 funding supports the procurement of four Base-funding and six OCO funded MQ-1C Gray Eagle Extended Range Aircraft and \$60.000M for the MQ-1C Gray Eagle Extended Range service life extension. The FY 2020 funding supports the procurement of six MQ-1C Gray Eagle Extended Range War Replacement Aircraft.

Quantity Summary										
FY 2020 President's Budget / December 2018 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Development	2	0	0	0	0	0	0	0	0	2
Production	0	43	0	0	0	0	0	0	0	43
PB 2020 Total	2	43	0	0	0	0	0	0	0	45
PB 2019 Total	2	43	0	0	0	0	0	0	0	45
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	--	--	--	--	--	--	22.3
2017	--	--	--	--	--	--	13.5
2018	--	--	--	--	--	--	10.5
Subtotal	2	--	--	--	--	--	984.6

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	--	--	--	--	--	--	19.9
2017	--	--	--	--	--	--	11.8
2018	--	--	--	--	--	--	9.0
Subtotal	2	--	--	--	--	--	969.3

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	283.4	78.5	--	361.9	126.2	488.1
2011	7	277.5	76.8	3.5	357.8	146.3	504.1
2012	7	236.2	118.3	8.7	363.2	249.0	612.2
2013	3	171.4	133.5	--	304.9	145.6	450.5
2014	5	274.0	118.6	--	392.6	167.6	560.2
2015	5	122.9	58.2	--	181.1	65.3	246.4
2016	4	221.7	88.3	--	310.0	72.8	382.8
2017	5	236.7	86.3	--	323.0	118.3	441.3
2018	--	--	224.5	--	224.5	50.0	274.5
2019	--	--	163.3	--	163.3	--	163.3
2020	--	--	54.0	--	54.0	--	54.0
Subtotal	42	1823.8	1200.3	12.2	3036.3	1141.1	4177.4

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	276.0	76.5	--	352.5	122.9	475.4
2011	7	265.4	73.5	3.3	342.2	140.0	482.2
2012	7	222.2	111.3	8.2	341.7	234.1	575.8
2013	3	158.4	123.2	--	281.6	134.6	416.2
2014	5	249.3	107.9	--	357.2	152.5	509.7
2015	5	110.1	52.1	--	162.2	58.5	220.7
2016	4	196.0	78.1	--	274.1	64.3	338.4
2017	5	205.0	74.8	--	279.8	102.4	382.2
2018	--	--	190.5	--	190.5	42.4	232.9
2019	--	--	135.6	--	135.6	--	135.6
2020	--	--	44.0	--	44.0	--	44.0
Subtotal	42	1682.4	1067.5	11.5	2761.4	1051.7	3813.1

The House Appropriations Committee page 7 of H.Rpt. 115-676. Unmanned Aerial System Units for Army National Guard (FY 2019). The committee understands the Army's current fielding plan for MQ-1C Gray Eagle units includes Active Duty combat aviation brigades and intelligence units, and that at present no systems are planned for fielding to the Army National Guard. However, the committee notes that there are many missions involving military support to civilian authorities for which the MQ-1C Gray Eagle could contribute, including wildfire response, search and rescue, border security, counter narcotics, and communications support during emergencies. Therefore, the committee directs the Secretary of the Army to provide a briefing to the House Committee on Armed Services by March 1, 2019, on the potential utility, feasibility, and cost of establishing MQ-1C Gray Eagle units in the Army National Guard. The briefing shall include, at a minimum, a detailed analysis of the resources needed to create a minimum of two Gray Eagle companies in the Army National Guard, and an analysis of how such units could provide support to civilian authorities for domestic emergencies.

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 (\$68.5M)
FY 2017 (\$37.7M)
FY 2018 (\$50.0M)

Note: FY 2018 CSP funding includes a potential \$10.0M reprogramming action.

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	53.0
Subtotal	697.2

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	109.1
2016	--
2017	39.7
2018	43.9
Subtotal	633.4

Annual Funding		
2020	Acq O&M	Operation and Maintenance, Army
Fiscal Year	TY \$M	
	Total Program	
2016	2.3	
2017	2.0	
2018	0.9	
2019	0.3	
2020	0.1	
2021	0.1	
2022	0.2	
2023	0.2	
Subtotal		6.1

Annual Funding 2020 Acq O&M Operation and Maintenance, Army		
Fiscal Year	BY 2010 \$M	
	Total Program	
2016		2.1
2017		1.8
2018		0.8
2019		0.3
2020		0.1
2021		0.1
2022		0.2
2023		0.2
Subtotal		5.6

In reviewing proposed the MQ-1C Gray Eagle APB, signed on December 20, 2017, the Deputy Assistant Secretary of the Army for Cost and Economics (DASA (CE)) directed the program office to incorporate Acq O&M dollars starting in FY 2016 in accordance with the annual funding table shown. This is a retroactive change directed by DASA (CE) in lieu of the fact that the program office will not receive Acq O&M dollars until FY 2019.

Acq O&M funding for FY 2019 and beyond is to be determined.

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	2017

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

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

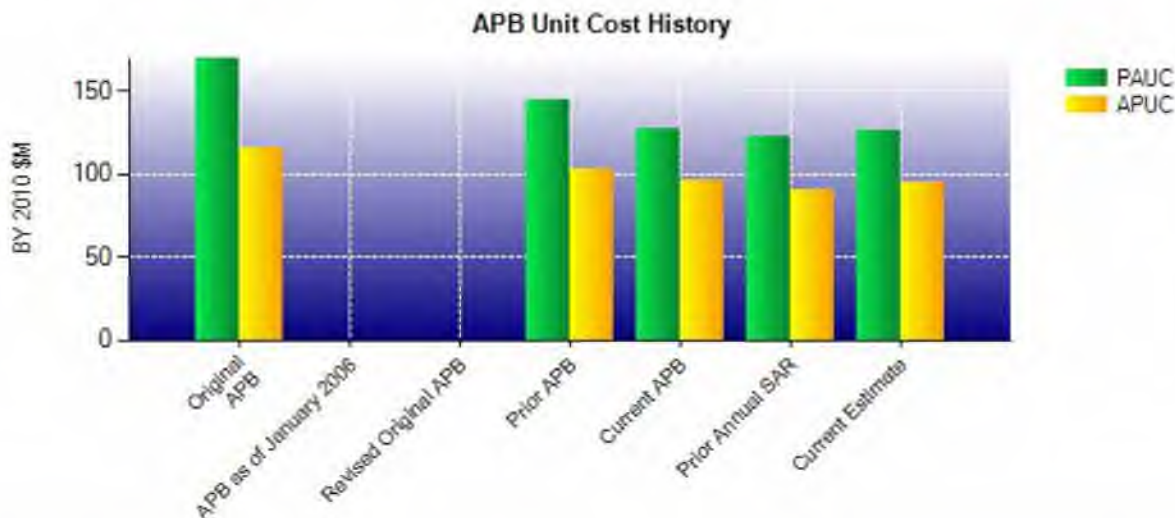
None.

Unit Cost

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2010 \$M	BY 2010 \$M	% Change
	Current UCR Baseline (Dec 2017 APB)	Current Estimate (Dec 2018 SAR)	
Program Acquisition Unit Cost			
Cost	5739.0	5696.0	
Quantity	45	45	
Unit Cost	127.533	126.578	-0.75
Average Procurement Unit Cost			
Cost	4131.0	4087.7	
Quantity	43	43	
Unit Cost	96.070	95.063	-1.05

Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2010 \$M	BY 2010 \$M	% Change
	Original UCR Baseline (Mar 2011 APB)	Current Estimate (Dec 2018 SAR)	
Program Acquisition Unit Cost			
Cost	5252.0	5696.0	
Quantity	31	45	
Unit Cost	169.419	126.578	-25.29
Average Procurement Unit Cost			
Cost	3364.7	4087.7	
Quantity	29	43	
Unit Cost	116.024	95.063	-18.07

The Gray Eagle Unit of Measure is a Platoon. The Combat Aviation Brigade platoon equipment set consists of: four aircraft, two Universal Ground Control Stations (UGCS), two Universal Ground Data Terminals (UGDT), one Satellite Communication Ground Data Terminal (SGDT), four Satellite Airborne Data Terminals (SADT), one Automatic Take-off and Landing Systems (ATLS), Government Furnished Equipment (GFE) and Ground Support Equipment (GSE). The U.S. Army Special Operations Command and Intelligence Support Command platoon equipment sets consists of: four aircraft, two UGCS, one Mobile Ground Control Station, three UGDT, one SGDT, four SADT, one ATLS set, GFE and GSE.



APB 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	Sep 2013	145.103	103.034	154.929	110.941
Current APB	Dec 2017	127.533	96.070	137.731	104.891
Prior Annual SAR	Dec 2017	122.431	90.707	131.264	98.137
Current Estimate	Dec 2018	126.578	95.063	136.458	103.551

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	0.813	-39.622	-0.049	2.536	-11.969	0.000	5.749	-42.542	136.458

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	0.607	-23.289	-0.051	0.919	-3.823	0.000	6.016	-19.621	103.551

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	6140.6
Total Quantity	N/A	13	31	45
PAUC	N/A	409.431	179.000	136.458

Cost Variance

Summary TY \$M					
Item	RDT&E	Procurement	MILCON	Acq O&M	Total
SAR Baseline (Production Estimate)	896.3	3572.0	1080.7	--	5549.0
Previous Changes					
Economic	+4.0	+17.3	+4.7	--	+26.0
Quantity	--	+723.0	--	--	+723.0
Schedule	--	-2.2	--	--	-2.2
Engineering	+74.6	+39.5	--	--	+114.1
Estimating	+8.8	-367.6	-388.2	+6.1	-740.9
Other	--	--	--	--	--
Support	--	+237.9	--	--	+237.9
Subtotal	+87.4	+647.9	-383.5	+6.1	+357.9
Current Changes					
Economic	+0.2	+8.8	+1.6	--	+10.6
Quantity	--	--	--	--	--
Schedule	--	--	--	--	--
Engineering	--	--	--	--	--
Estimating	+0.7	+203.2	-1.6	--	+202.3
Other	--	--	--	--	--
Support	--	+20.8	--	--	+20.8
Subtotal	+0.9	+232.8	--	--	+233.7
Total Changes	+88.3	+880.7	-383.5	+6.1	+591.6
CE - Cost Variance	984.6	4452.7	697.2	6.1	6140.6
CE - Cost & Funding	984.6	4452.7	697.2	6.1	6140.6

Summary BY 2010 \$M					
Item	RDT&E	Procurement	MILCON	Acq O&M	Total
SAR Baseline (Production Estimate)	895.3	3364.7	992.0	--	5252.0
Previous Changes					
Economic	--	--	--	--	--
Quantity	--	+635.2	--	--	+635.2
Schedule	--	+0.6	--	--	+0.6
Engineering	+63.7	+29.9	--	--	+93.6
Estimating	+9.7	-332.6	-357.3	+5.6	-674.6
Other	--	--	--	--	--
Support	--	+202.6	--	--	+202.6
Subtotal	+73.4	+535.7	-357.3	+5.6	+257.4
Current Changes					
Economic	--	--	--	--	--
Quantity	--	--	--	--	--
Schedule	--	--	--	--	--
Engineering	--	--	--	--	--
Estimating	+0.6	+169.8	-1.3	--	+169.1
Other	--	--	--	--	--
Support	--	+17.5	--	--	+17.5
Subtotal	+0.6	+187.3	-1.3	--	+186.6
Total Changes	+74.0	+723.0	-358.6	+5.6	+444.0
CE - Cost Variance	969.3	4087.7	633.4	5.6	5696.0
CE - Cost & Funding	969.3	4087.7	633.4	5.6	5696.0

Previous Estimate: December 2017

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+0.2
Adjustment for current and prior escalation. (Estimating)	-0.2	-0.2
Below Threshold Re-programming in FY 2018 was necessary to complete Operational Test and Development Test for Follow-On Test & Evaluation II. (Estimating)	+0.8	+0.9
RDT&E Subtotal	+0.6	+0.9

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+8.8
Congressional increase for nine aircraft in FY 2018. (Estimating)	+90.9	+107.0
Adjustment for current and prior escalation. (Estimating)	-5.9	-7.0
Congressional increase in FY 2019 for Service Life Extension Program. (Estimating)	+49.9	+60.0
Six additional War Replacement Aircraft added to FY 2020 Procurement Overseas Contingency Operations funding. (Estimating)	+44.0	+54.0
Common Sensor Payload reprogramming action. (Estimating)	-9.1	-10.8
Adjustment for current and prior escalation. (Support)	-1.7	-1.8
Increase in Other Support for the Ground Support Equipment (Army) (Support)	+19.1	+22.5
Increase in Initial Spares (Army). (Support)	+0.1	+0.1
Procurement Subtotal	+187.3	+232.8

MILCON	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+1.6
Adjustment for current and prior escalation. (Estimating)	-1.3	-1.6
MILCON Subtotal	-1.3	0.0

Contracts

General Notes

Contracts W58RGZ-12-C-0075 and W58RGZ-17-C-0018, Performance Based Logistics (PBL), are not included in the December 2018 SAR. These contracts are for PBL support to fielded systems and are O&M, Army funded.

Contract Identification

Appropriation: RDT&E
Contract Name: FRP
Contractor: General Atomics Corporation
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: December 06, 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	1048.2	N/A	106	1048.2	1048.2

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to additional hardware requirements.

Cost and Schedule Variance Explanations

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

Notes

Contract W58RGZ-13-C-0109, FRP, is Firm Fixed Price. The reported modification through month end August is P00153, with \$1,048,227,432.77 cumulatively obligated for the entire contract.

FRP I was awarded September 2013 (options awarded December 2013) for 19 MQ-1C Gray Eagle aircraft and associated ground equipment.

The FRP II aircraft section was awarded March 2015; the ground equipment section was awarded April 2015. The effort included 19 MQ-1C Gray Eagle aircraft and associated ground equipment. Mod P00075 added four additional war replacement aircraft for a total of 23 MQ-1C Gray Eagle aircraft and associated ground equipment.

The FRP III was awarded June 2015 for 19 aircraft. The MQ-1C Gray Eagle Extended Range Engineering Change Proposal (ECP) 714 was awarded September 2015 and definitized on February 8, 2017. (Note: Originally, the Extended Range aircraft was named Improved Gray Eagle.

The FRP IV contract was awarded May 2017 for 20 MQ-1C Gray Eagle Extended Range aircraft.

A supplemental contract was awarded September 2017 for 20 MQ-1C Gray Eagle Extended Range aircraft. An option for five Extended Range Aircraft was awarded October 2017.

FRP 5 is planned to award April 2019.

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	279.7	N/A	N/A	275.7	277.1

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to increased Engineering Change Proposals to support: 1) Increased fielding and operational tempo 2) Army requirements (Operational Needs Statement, Automatic Dependent Surveillance, and Mode 5), and 3) Establishment of Engineering requirements in support of the Gray Eagle Modification line FY 2017 - present.

Contract Variance

Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/17/2019)	+5.5	-2.8
Previous Cumulative Variances	+9.9	-5.7
Net Change	-4.4	+2.9

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to 1.) Gray Eagle maintenance trainer; 2.) Electronic checklist; 3.) Global Positioning System denied and 4.) 4.3.5 Maintenance Build.

The favorable net change in the schedule variance is due to Sub Engineering Service Memorandum: 1.) Redundant Control Module (RCM) 5566 Phase I; 2.) RCM Mission Control Module Re-Architecture; and 3.) MQ-1C Gray Eagle Maintenance Trainer.

Notes

FY 2018 Fifth Year Option was awarded with modification P00108, January 17, 2018. The total contract as of November 7, 2018 is \$281.9M.

Contract W58RGZ-13-C-0110 is 83.8 percent complete as of 11/30/2018. The cumulative Cost Performance Index is 1.026 and the Schedule Performance Index is 0.987 The Contractor is performing as expected.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	2	2	2	100.00%
Production	40	40	43	93.02%
Total Program Quantity Delivered	42	42	45	93.33%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	6140.6	Years Appropriated	15
Expended to Date	5200.3	Percent Years Appropriated	78.95%
Percent Expended	84.69%	Appropriated to Date	6086.0
Total Funding Years	19	Percent Appropriated	99.11%

The above data is current as of March 11, 2019.

Notes

The calculation in the Percent Delivered table above is based on a quantity of 45 Platoon Sets for initial fielding. Remaining procurement activity is focused on aircraft. FY 2019 includes three platoons to be fielded.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	September 20, 2017
Source of Estimate:	POE
Quantity to Sustain:	45
Unit of Measure:	Platoons
Service Life per Unit:	20.00 Years
Fiscal Years in Service:	FY 2011 - FY 2038

The 2017 POE assumes an Army Acquisition Objective (AAO) of 204 aircraft across 15 Companies (45 Platoon Sets). The Companies are 11 Combat Aviation Brigades (CAB), two Army Intelligence and Security Command (INSCOM) Companies, and two U.S. Army Special Operations Command (USASOC) Companies. The estimate includes one training battalion Company.

On May 4, 2017 the Army issued a memorandum for the adjustment to the MQ-1C Gray Eagle UAS AAO. The memorandum increased the AAO from 167 to 204 Air Vehicles. The air vehicles are 12 per Company for 15 Companies or 180 Aircraft. Additionally, the system includes 11 Training Base Aircraft and 13 Operational Readiness Float Aircraft for a total AAO of 204 Aircraft.

The Gray Eagle Unit of Measure is a Platoon. The CAB platoon equipment set consists of: four aircraft, two Universal Ground Control Stations (UGCS), two Universal Ground Data Terminals (UGDT), one Satellite Communication (SATCOM) Ground Data Terminal (SGDT), four Satellite Airborne Data Terminals (SADT), one Automatic Take-off and Landing Systems (ATLS), Government Furnished Equipment (GFE) and Ground Support Equipment (GSE). The USASOC and INSCOM platoon equipment sets consists of: four aircraft, two UGCS, one Mobile Ground Control Station (MGCS), three UGDT, one SGDT, four SADT, one ATLS set, GFE and GSE. The O&S Cost Estimate includes the training company which is not a fully-equipped platoon with a lower annual operating tempo (OPTEMPO).

The O&S Cost estimating methodology is based on historical Cost Performance Report actual data, logistics headcount actual experience, actual mishap cost, engineering software estimates, SATCOM actual historical cost, and the Army Manpower Cost System to estimate military manpower requirements by Military Occupational Specialty and grade.

Sustainment Strategy

The Sustainment Strategy includes a Performance Based Logistics (PBL) contract. Soldiers operate systems and perform 93-percent of the basic field maintenance. Field Service Representatives support the remaining seven percent of basic field maintenance through PBL efforts. Some of the Depot Level Repairables will be performed by organic depots through a Public Private Partnership (PPP) arrangement. Further PPP with organic depot efforts will be determined through cost-benefit analysis and application of section 2466 of title 10, U.S. Code 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 Platoons	No Antecedent (Antecedent) No Antecedent
Unit-Level Manpower	3.902	0.000
Unit Operations	0.181	0.000
Maintenance	3.847	0.000
Sustaining Support	3.556	0.000
Continuing System Improvements	0.009	0.000
Indirect Support	0.000	0.000
Other	0.000	0.000
Total	11.495	--

Item	Total O&S Cost \$M			
	MQ-1C Gray Eagle		No Antecedent (Antecedent)	
	Current Production APB Objective/Threshold	Current Estimate		
Base Year	10655.5	11721.1	10655.5	N/A
Then Year	14235.0	N/A	14235.0	N/A

Equation to Translate Annual Cost to Total Cost

Total O&S Cost is \$10,655.5M allocated over 927 Operational Platoon Systems. The Operational Platoon System consists of 15 Operational Companies with three platoons per company for a total of 45 Operational Platoons with an expected system life of 20-years which results in 900 Operational Platoon Systems. Additionally, MQ-1C Gray Eagle has one training base platoon with a system life of 27-years. This results a total of 927 total Operational Platoon Systems. The total O&S Cost \$10,655.5M divided by 927 Operational Platoon Systems equals 11.495 Average Annual Cost per Platoon.

O&S Cost Variance		
Category	BY 2010 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2017 SAR	10655.5	
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	10655.5	

The FY 2016 PB Resource Management Decision increased and accelerated the Army contribution to the Global Force Management Allocation Plan. The end result was the addition of two INSCOM companies and two USASOC companies

which resulted in a significant OPTEMPO increase. The MQ-1C Gray Eagle platform OPTEMPO increased from 28,990 annual flight hours to 96,852 annual flight hours and an increase from 152 Aircraft to 204 Aircraft.

Disposal Estimate Details

Date of Estimate:	September 20, 2017
Source of Estimate:	POE
Disposal/Demilitarization Total Cost (BY 2010 \$M):	158.5

The disposal cost estimate was revised to include the U.S. Army Environmental Estimate.