Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-252

RQ-4A/B Global Hawk Unmanned Aircraft System (RQ-4A/B Global Hawk)

As of FY 2015 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

Table of Contents

Common Acronyms and Abbreviations

Acq O&M - Acquisition-Related Operations and Maintenance
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
BA - Budget Authority/Budget Activity
BY - Base Year
DAMIR - Defense Acquisition Management Information Retrieval
Dev Est - Development Estimate
DoD - Department of Defense
DSN - Defense Switched Network
Econ - Economic
Eng - Engineering
Est - Estimating
FMS - Foreign Military Sales
FY - Fiscal Year
IOC - Initial Operational Capability
$K - Thousands of Dollars
LRIP - Low Rate Initial Production
$M - Millions of Dollars
MILCON - Military Construction
N/A - Not Applicable
O&S - Operating and Support
Oth - Other
PAUC - Program Acquisition Unit Cost
PB - President’s Budget
PE - Program Element
Proc - Procurement
Prod Est - Production Estimate
QR - Quantity Related
Qty - Quantity
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
Sch - Schedule
Spt - Support
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting

Program Information

Program Name

RQ-4A/B Global Hawk Unmanned Aircraft System (RQ-4A/B Global Hawk)

DoD Component

Air Force

Responsible Office

Responsible Office

Col Carlin Heimann
2530 Loop Road West
WPAFB, OH 45433-7106

carlin.heimann@us.af.mil

Phone 937-255-7764
Fax --
DSN Phone 785-7764
DSN Fax --
Date Assigned August 3, 2012

References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated March 6, 2001

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated March 23, 2007

Mission and Description

The RQ-4A/B Global Hawk Unmanned Aircraft System (RQ-4A/B Global Hawk) is a high altitude, long endurance Unmanned Aircraft System (UAS) with an integrated sensor suite and ground segment that provides Intelligence, Surveillance, and Reconnaissance (ISR) capabilities to joint warfighters. The system provides high-resolution, high-quality, digital Synthetic Aperture Radar (SAR) to include Ground Moving Target Indicator, plus Electro-Optical (EO), and medium wave Infrared (IR) imagery of targets and other critical areas of interest. The program does not have an antecedent system.

The current program profile consists of: Block 20, 30, and 40 aircraft which are larger than Block 10 aircraft and capable of carrying up to a 3,000-pound (lb) payload. All Block 10 aircraft have either been retired or transferred to the Navy or National Aeronautics and Space Administration. Block 20 was designed to be Image Intelligence only and carries an Enhanced Integrated Sensor Suite (EISS) that is designed for increased performance range and location accuracy over the Block 10 payload. The operational Block 20 aircraft have been converted to the Battlefield Airborne Communications Node (BACN) configuration, which provides airborne communications relay and gateway that allows real-time information exchanges between different tactical data link systems and provides decision makers with critical information. Block 30 carries the Airborne Signals Intelligence Payload that brings Signals Intelligence capability with the EISS. Block 40 incorporates the Multi-Platform Radar Technology Insertion Program Radar as its only sensor.

Executive Summary

The RQ-4A/B Global Hawk Unmanned Aircraft System (RQ-4A/B Global Hawk) team made several accomplishments over the last year. Global Hawk surpassed 105,900 flight hours while accumulating over 76,400 combat hours in support of Overseas Contingency Operations (OCO). The contractor delivered two Global Hawk aircraft during 2013: one Block 30 and one Block 40. The contractor also delivered three Airborne Signals Intelligence Payload (ASIP) retrofit kits. Global Hawk continues to complete critical operational missions to support OCO.

As previously reported in the December 2010 SAR, Global Hawk had a Nunn-McCurdy breach, schedule breach, and performance breach. Program recertification to Congress occurred on June 14, 2011. Since that time, due to ongoing discussions between the DoD and Congress concerning Global Hawk fleet structure, the System Program Office (SPO) has not been able to reach a Milestone C decision or re-establish the program baseline. The SPO completed an Interim Program Review (IPR) Defense Acquisition Board (DAB) on December 6, 2013. The Air Force is working to finalize Capability Production Documents for Block 30 and Block 40, and present a revised APB to the Milestone Decision Authority to establish new cost, schedule, and performance objectives and thresholds.

The FY 2013 PB proposed divestment of Block 30s and elimination of Block 30 related investment funding, which halted or slowed Block 30 related investments in modernization. The FY 2013 National Defense Authorization Act directed continued operations of the Block 30 aircraft through December 31, 2014. The Air Force restored Block 30 operations through FY 2032 in the FY 2015 PB submission due to a drop in cost per flying hour over FY 2013. Funding in the FY 2015 PB includes investment necessary to support Block 30 operations through its lifecycle.

Block 30 Production and Fielding: The SPO let a contract for Advance Procurement in support of a planned LRIP Lot 11 purchase of three additional Block 30 aircraft and two ASIP retrofit kits. The SPO is negotiating the LRIP Lot 11 contract. The Air Force deployed Block 30 aircraft with the integrated ASIP to an additional Geographic Command, completing worldwide deployment of ASIP.

Block 40 Early Operational Capability (EOC): A Joint Requirements Oversight Council Memorandum (April 20, 2012) directed Global Hawk to proceed with Block 40 EOC. The program complied via fielding of two Block 40s in September 2013, providing high-priority Ground Moving Target Indicator (GMTI) capability. Block 40 GMTI operations have been successful and the weapon system has proven reliable. United States Central Command declared IOC for Block 40 EOC on October 8, 2013.

Block 40 IOC: EOC operations focus on GMTI capability, but do not provide imaging. The program incorporated software revisions to capture lessons learned from operational testing, which was conducted in 2013 prior to EOC. The Program Office will complete interoperability testing with the Air Force Distributed Common Ground System (AFDCGS) in 2014, and will conduct full system Initial Operational Test & Evaluation. The final IOC configuration will add Synthetic Aperture Radar imaging capability to the existing GMTI operations, and allow AFDCGS to process the full suite of Intelligence, Surveillance and Reconnaissance data.

Battlefield Airborne Communications Node (BACN): Since deployment, the fleet of BACN Global Hawk aircraft has flown over 14,300 combat hours. During calendar year 2013, three Launch and Recovery Elements (LREs) were modified to include Beyond Line of Sight Satellite Communication capability, allowing the LREs to function as Mission Control Element equivalents for the BACN aircraft. The upgraded LREs increase overall Global Hawk ground station capabilities and permit “replace on station” (sequential operation and hand-off of mission control at the orbit location) for the BACN aircraft.

On July 27, 2012, the Air Force was tasked to provide a report to Congress to respond to five questions concerning the Global Hawk Block 30 Divestiture. A consolidated Global Hawk Block 30 Congressional Report was signed on April 24, 2013 and subsequently submitted to Congress.

The Air Force also responded to the Congressional Defense Committee, as written in Public Law, SR-112-26, Section 145, that directed the Secretary of the Air Force, in coordination with the Secretary of the Navy, to produce a plan to reduce the O&S costs of the Global Hawk and the MQ-4C Triton (Broad Area Maritime Surveillance) systems, and report to the congressional intelligence and defense committees. That report was submitted to Congress October 30, 2013.

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

Threshold Breaches

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

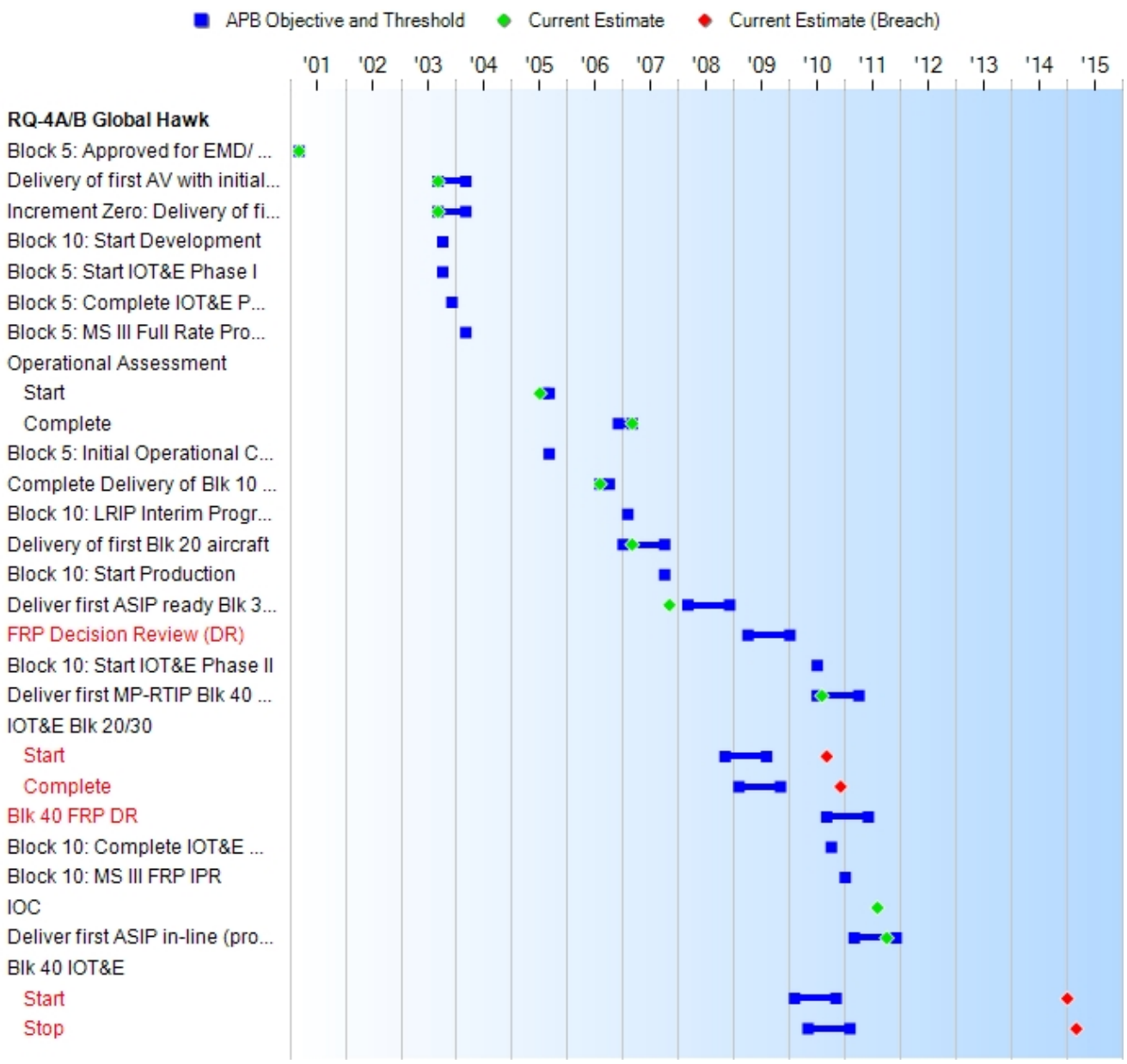
Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Explanation of Breach

As previously reported in the December 2010 SAR, Global Hawk had Nunn-McCurdy unit cost, schedule and performance breaches. The program was re-certified to Congress on June 14, 2011. Since that time, due to ongoing discussions between the DoD and Congress concerning Global Hawk fleet structure, the Air Force has not been able to re-establish a program baseline via a Milestone C decision. A new Acquisition Program Baseline (APB) will be prepared for the Milestone C decision, anticipated late 2014, to re-establish the (Milestone II) Low Rate Initial Production decision that had been rescinded as a result of the Nunn-McCurdy breach.

Classified Threshold Breaches information is provided in the classified annex to this submission.

Schedule


APB Objective and Threshold
Current Estimate
Current Estimate (Breach)
'01
'02
'03
'04
'05
'06
'07
'08
'09
'10
'11
'12
'13
'14
'15
RQ-4A/B Global Hawk
Block 5: Approved for EMD/ ...
Delivery of first AV with initial...
Increment Zero: Delivery of fi...
Block 10: Start Development
Block 5: Start IOT&E Phase I
Block 5: Complete IOT&E P...
Block 5: MS III Full Rate Pro...
Operational Assessment
Start
Complete
Block 5: Initial Operational C...
Complete Delivery of Blk 10 ...
Block 10: LRIP Interim Progr...
Delivery of first Blk 20 aircraft
Block 10: Start Production
Deliver first ASIP ready Blk 3...
FRP Decision Review (DR)
Block 10: Start IOT&E Phase II
Deliver first MP-RTIP Blk 40 ...
IOT&E Blk 20/30
Start
Complete
Blk 40 FRP DR
Block 10: Complete IOT&E ...
Block 10: MS III FRP IPR
IOC
Deliver first ASIP in-line (pro...
Blk 40 IOT&E
Start
Stop

Milestones	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate	
Block 5: Approved for EMD/ LRIP	FEB 2001	MAR 2001	MAR 2001	MAR 2001	
Delivery of first AV with initial Spiral 1 capability	N/A	SEP 2003	MAR 2004	SEP 2003	
Increment Zero: Delivery of first AV with initial Spiral 1 capability	N/A	SEP 2003	MAR 2004	SEP 2003	
Block 10: Start Development	OCT 2003	N/A	N/A	N/A	
Block 5: Start IOT&E Phase I	OCT 2003	N/A	N/A	N/A	
Block 5: Complete IOT&E Phase I	DEC 2003	N/A	N/A	N/A	
Block 5: MS III Full Rate Production (FRP) Review	MAR 2004	N/A	N/A	N/A	
Operational Assessment					
Start	N/A	AUG 2005	SEP 2005	JUL 2005	
Complete	N/A	DEC 2006	MAR 2007	MAR 2007	
Block 5: Initial Operational Capability (IOC)	SEP 2005	N/A	N/A	N/A	
Complete Delivery of Blk 10 aircraft	N/A	AUG 2006	OCT 2006	AUG 2006	
Block 10: LRIP Interim Program Review (IPR)	FEB 2007	N/A	N/A	N/A	
Delivery of first Blk 20 aircraft	N/A	JAN 2007	OCT 2007	MAR 2007	
Block 10: Start Production	OCT 2007	N/A	N/A	N/A	
Deliver first ASIP ready Blk 30 aircraft	N/A	MAR 2008	DEC 2008	NOV 2007	
FRP Decision Review (DR)	N/A	APR 2009	JAN 2010	**N/A** [1]	
Block 10: Start IOT&E Phase II	JUL 2010	N/A	N/A	N/A	
Deliver first MP-RTIP Blk 40 aircraft	N/A	JUL 2010	APR 2011	AUG 2010	
IOT&E Blk 20/30					
Start	N/A	NOV 2008	AUG 2009	**SEP 2010** [1]	
Complete	N/A	FEB 2009	NOV 2009	**DEC 2010** [1]	
Blk 40 FRP DR	N/A	SEP 2010	JUN 2011	**N/A** [1]	
Block 10: Complete IOT&E Phase II	OCT 2010	N/A	N/A	N/A	
Block 10: MS III FRP IPR	JAN 2011	N/A	N/A	N/A	
IOC	N/A	TBD	TBD	AUG 2011	
Deliver first ASIP in-line (production) Blk 30 aircraft	N/A	MAR 2011	DEC 2011	OCT 2011	
Blk 40 IOT&E					
Start	N/A	FEB 2010	NOV 2010	**JAN 2015** [1]	(Ch-2)
Stop	N/A	MAY 2010	FEB 2011	**MAR 2015** [1]	(Ch-2)

[1] *APB Breach*

Change Explanations

(Ch-2) The start of Block 40 IOT&E has changed from June 2014 to January 2015, and the stop of Block 40 IOT&E has changed from August 2014 to March 2015, due to delays in the Processing, Exploitation, and Dissemination system upgrades, which is necessary for conducting IOT&E.

Acronyms and Abbreviations

ASIP - Airborne Signals Intelligence Payload
AV - Air Vehicle (same as aircraft)
Blk - Block
EMD - Engineering and Manufacturing Development
IOT&E - Initial Operational Test & Evaluation
MP-RTIP - Multi Platform Radar Technology Insertion Program
MS - Milestone

Performance

Characteristics	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Demonstrated Performance	Current Estimate
Block 5: Endurance - Air Vehicle (AV)	Should be capable of flying an enroute distance of 3000 NM, remaining on-station 24 hours, and recover at the launch base.	N/A	N/A	N/A	N/A
Block 5: Airspace Coordination - Global Hawk System	The Global Hawk system must be sufficiently robust to allow world wide system employment in all classes of airspace.	N/A	N/A	N/A	N/A
Block 5: Mission Execution - Ground Station	The ground station will allow UAV operators to perform NRT mission control, mission monitoring, and mission updates/ modifications to include dymanic platform and payload control and retasking.	N/A	N/A	N/A	N/A
Block 5: Information Exchange Requirements (IERs)	100% of all top-level IERs.	N/A	N/A	N/A	N/A

Block 10: System Survivability - AV	The AV must be equipped to employ active counter measures against radar and IR-guided threats to the system as identified in the STAR.	N/A	N/A	N/A	N/A
Block 10: Mean Time Between Critical Failure (MTBCF)	System MTBCF of 160 hours.	N/A	N/A	N/A	N/A
Block 10: Signal Intelligence (SIGINT)	TBD	N/A	N/A	N/A	N/A
Endurance -- Aircraft (all Lots) KPP	N/A	40 hours	The Global Hawk aircraft, in mission capable configuration, must have a minimum total endurance of 28 hours plus appropriate fuel reserves IAW Air Force Instructions.	33.1 hrs	33.1 hrs
Airspace Coordination -- Global Hawk System (All Lots) KPP	N/A	The Global Hawk system must be sufficiently robust to allow world wide system employment in all classes of airspace	The Global Hawk system must be sufficiently robust to allow world wide system employment in all classes of airspace	TBD	Sufficiently robust to allow world wide system employment in all classes of airspace
Mission Execution -- Ground Station KPP	N/A	The Global Hawk ground station must	The Global Hawk ground station must	TBD	Currently working software to enhance the

		allow operators to perform NRT mission control, mission monitoring, and mission updates/ modifications to include dynamic platform and payload control and re-tasking.	allow operators to perform NRT mission control, mission monitoring, and mission updates/ modifications to include dynamic platform and payload control and re-tasking.		processes
Net Ready - All activity interfaces, services, policy-enforcement controls, and data-sharing of the NCOW-RM and GIG-KIPs will be satisfied to the requirements of the specific Joint Integrated Architecture products (including data correctness, data availability and data processing), and information assurance accreditation, specified in the threshold (T) and objective (O) values.	N/A	100% of interfaces; services; policy-enforcement controls; and data correctness, availability and processing requirements in the Joint integrated architecture.	100% of interfaces; services; policy-enforcement controls; and data correctness, availability and processing requirements designated as enterprise-level or critical in the Joint integrated architecture.	TBD	Software in work to enhance time-lines
FY 2008 IERs KPP	N/A	Satisfy 100% of all top-level IERs	Satisfy 100% of all top-level IERs designated critical.	TBD	Development work ongoing to improve useability and timeliness
Baseline SAR Spot Mode Capability (NIIRS X @ Km) KPP	N/A	160 km at NIIRS 5	120 km at NIIRS 5	TBD	120 km at NIIRS 5
Baseline EO Spot Mode (NIIRS X @ Km)	N/A	80 km at NIIRS 5	40 km at NIIRS 5	TBD	40 km at NIIRS 5
Baseline IR Spot Mode (NIIRS X @ Km)	N/A	40 km at NIIRS 5	30 km at NIIRS 5	TBD	30 km at NIIRS 5

Mission Planning /FY 2010	N/A	8 hours	12 hours	TBD	**16 hours + 6 weeks of 6-DOF**[1]
Delivery of first aircraft with a multi-Intelligence (multi-Int) Capability	N/A	Aircraft multi-Int capable	Aircraft multi-Int capable	Aircraft multi-Int capable.	Aircraft multi-Int capable.
Improved SAR Spot Mode Capability (NIIRS X @ Km)	N/A	185 Km at NIIRS 5	160 Km at NIIRS 5	160 Km at NIIRS 5	160 Km at NIIRS 5
Improved EO Spot Mode (NIIRS X @ Km) KPP	N/A	170 Km at NIIRS 5	80 Km at NIIRS 5	80 Km at NIIRS 5	80 Km at NIIRS 5
Improved IR Spot Mode (NIIRS x @ Km) KPP	N/A	80 Km at NIRRS 5	50 Km at NIIRS 5	50 Km at NIIRS 4.7	**50 Km at NIIRS 4.7**[1]
Effective Time on Station (ETOS)	N/A	90%	85%	56%	85%

[1] *APB Breach*

Classified Performance information is provided in the classified annex to this submission.

Requirements Source

Capability Development Document (CDD) for Global Hawk Remotely Piloted Aircraft (RPA) System Blocks 10/20/30/40 (Combat Air Forces (CAF) 353-92-C) dated July 28, 2006

Change Explanations

None

Acronyms and Abbreviations

DOF - Degrees of Freedom
EO - Electro-Optical
GIG-KIP - Global Information Grid Key Interface Profile
hrs - hours
IAW - In Accordance With
IR - Infrared
Km - Kilometer
KPP - Key Performance Parameter
NCOW-RM - Net-Centric Operation and Warfare Reference Model
NIIRS - National Image Interpretability Rating Scale
NM - Nautical Mile
NRT - Near Real Time
SAR - Synthetic Aperture Radar
STAR - System Threat Assessment Report
UAV - Unmanned Air Vehicle

Track to Budget

General Memo

The FY 2015 President's Budget includes funding for RQ-4 follow-on efforts that are not part of the MDAP. Those funds are excluded from this report.

RDT&E

Appn	BA	PE		
Air Force	3600	07	0305205F	
	Project		**Name**	
	4799		Global Hawk HAEUAV/Predator	(Sunk)
Air Force	3600	07	0305220F	
	Project		**Name**	
	5144		Global Hawk HAEUAV	(Sunk)
	5145		RQ-4 Block 30	(Shared)
	Notes:		This project is shared with other RQ-4 Block 30 follow-on efforts that are not a part of this MDAP.	
	5146		RQ-4 BLOCK 40	(Shared)
	Notes:		This project is shared with other RQ-4 Block 40 follow-on efforts that are not a part of this MDAP.	
	5147		RQ-4 GSRA/CSRA	(Shared) (Sunk)
	Notes:		This project is shared with other Ground Station and Communications System follow-on efforts that are not a part of this MDAP.	

Projects 5145, 5146 and 5147 share funding with other RQ-4 follow-on efforts that are not a part of this MDAP. Project 5147 is marked Sunk for funding for completed MDAP effort. This Project also identifies funding for upgrade work that will occur after the MDAP program has been completed.

Procurement

Appn	BA	PE		
Air Force	3010	07	0305220F	
	Line Item		**Name**	
	000075		OTHER PRODUCTION CHARGES RQ-4	(Shared) (Sunk)
	Notes:		This project is shared with other RQ-4 follow-on efforts that are not a part of this MDAP.	

Air Force	3010	06	0305220F		
	Line Item		**Name**		
	000999		(Air Force)	(Shared)	
	Notes:		This project is shared with other RQ-4 follow-on efforts that are not a part of this MDAP.		
Air Force	3010	04	0305205F		
	Line Item		**Name**		
	HAEUAV		(Air Force)	(Shared)	(Sunk)
Air Force	3010	04	0305220F		
	Line Item		**Name**		
	HAEUAV		(Air Force)		
Air Force	3010	05	0305220F		
	Line Item		**Name**		
	HAWK00		(Air Force)	(Shared)	
	Notes:		This project is shared with other RQ-4 follow-on efforts that are not a part of this MDAP.		
Air Force	3010	04	0305220F		
	Line Item		**Name**		
	RQ440P		RQ-4 BLOCK 40 PROC		(Sunk)
Air Force	3010	05	0305220F		
	Line Item		**Name**		
	RQ4GCM		RQ-4 GSRA/CSRA Mod	(Shared)	(Sunk)
	Notes:		This project is shared with other Ground Station and Communications System follow-on efforts that are not a part of this MDAP.		
Air Force	3080	02	0305220F		
	Line Item		**Name**		
	821800		(Air Force)	(Shared)	(Sunk)
Air Force	3080	03	0305220F		
	Line Item		**Name**		
	837300		(Air Force)	(Shared)	(Sunk)

Line Items 000075, 000999, HAWK00, and RQ4GCM share funding with other RQ-4 follow-on efforts that are not a part of this MDAP. Although Line Items 000075, 000999, and HAWK00 have funding in future years, they are also marked sunk because the future efforts funded in those projects are not a part of this MDAP.

MILCON

Appn	BA	PE
Air Force 3300	01	0305205F

	Project	Name		
	F030011X	(Air Force)	(Shared)	(Sunk)
	F04000XX	(Air Force)		(Sunk)

Air Force	3300	01	0305220F	

Project	Name		
0501003X	(Air Force)		(Sunk)
06BAEY09	(Air Force)		(Sunk)
07USAFE6	(Air Force)		(Sunk)
1030060B	(Air Force)		(Sunk)

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

Appropriation	BY2000 $M			BY2000 $M	TY $M		
	SAR Baseline Dev Est	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Dev Est	Current APB Development Objective	Current Estimate
RDT&E	840.4	3076.8	3384.5	3237.2	906.2	3572.0	3783.2
Procurement	3484.4	4904.9	5395.4	4302.0	4459.8	6022.6	5223.6
Flyaway	--	--	--	3349.0	--	--	4054.7
Recurring	--	--	--	3131.1	--	--	3771.4
Non Recurring	--	--	--	217.9	--	--	283.3
Support	--	--	--	953.0	--	--	1168.9
Other Support	--	--	--	305.4	--	--	368.2
Initial Spares	--	--	--	647.6	--	--	800.7
MILCON	25.5	121.9	134.1	106.0	28.0	139.8	122.9
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	4350.3	8103.6	N/A	7645.2	5394.0	9734.4	9129.7

Quantity	SAR Baseline Dev Est	Current APB Development	Current Estimate
RDT&E	0	0	0
Procurement	63	54	45
Total	63	54	45

Unit of measure is number of aircraft. The FY 2014 baseline is 45 aircraft (7 Block 10s, 6 Block 20s, 21 Block 30s, and 11 Block 40s).

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2015 President's Budget / December 2013 SAR (TY$ M)

Appropriation	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
RDT&E	3237.5	94.0	157.5	160.3	133.9	0.0	0.0	0.0	3783.2
Procurement	4773.0	45.7	86.8	150.0	64.3	69.9	15.2	18.7	5223.6
MILCON	122.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	122.9
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2015 Total	8133.4	139.7	244.3	310.3	198.2	69.9	15.2	18.7	9129.7
PB 2014 Total	8496.4	170.5	166.3	81.1	44.0	44.8	6.2	0.0	9009.3
Delta	-363.0	-30.8	78.0	229.2	154.2	25.1	9.0	18.7	120.4

Quantity	Undistributed	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	45	0	0	0	0	0	0	0	45
PB 2015 Total	0	45	0	0	0	0	0	0	0	45
PB 2014 Total	0	45	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 TY$
3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2001	--	--	--	--	--	--	129.5
2002	--	--	--	--	--	--	198.3
2003	--	--	--	--	--	--	329.1
2004	--	--	--	--	--	--	351.6
2005	--	--	--	--	--	--	368.3
2006	--	--	--	--	--	--	254.7
2007	--	--	--	--	--	--	223.1
2008	--	--	--	--	--	--	264.6
2009	--	--	--	--	--	--	227.7
2010	--	--	--	--	--	--	219.3
2011	--	--	--	--	--	--	190.9
2012	--	--	--	--	--	--	286.5
2013	--	--	--	--	--	--	193.9
2014	--	--	--	--	--	--	94.0
2015	--	--	--	--	--	--	157.5
2016	--	--	--	--	--	--	160.3
2017	--	--	--	--	--	--	133.9
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**3783.2**

Annual Funding BY$
3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2000 $M	Non End Item Recurring Flyaway BY 2000 $M	Non Recurring Flyaway BY 2000 $M	Total Flyaway BY 2000 $M	Total Support BY 2000 $M	Total Program BY 2000 $M
2001	--	--	--	--	--	--	126.6
2002	--	--	--	--	--	--	191.8
2003	--	--	--	--	--	--	314.0
2004	--	--	--	--	--	--	327.3
2005	--	--	--	--	--	--	334.3
2006	--	--	--	--	--	--	224.4
2007	--	--	--	--	--	--	191.5
2008	--	--	--	--	--	--	222.7
2009	--	--	--	--	--	--	189.1
2010	--	--	--	--	--	--	179.9
2011	--	--	--	--	--	--	153.7
2012	--	--	--	--	--	--	226.6
2013	--	--	--	--	--	--	150.7
2014	--	--	--	--	--	--	71.8
2015	--	--	--	--	--	--	118.2
2016	--	--	--	--	--	--	118.0
2017	--	--	--	--	--	--	96.6
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**3237.2**

Annual Funding TY$
3080 | Procurement | Other Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2003	--	--	--	--	--	0.6	0.6
2004	--	--	--	--	--	0.2	0.2
2005	--	--	--	--	--	0.3	0.3
2006	--	--	--	--	--	0.3	0.3
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	0.8	0.8
2009	--	--	--	--	--	0.3	0.3
Subtotal	**--**	**--**	**--**	**--**	**--**	**2.5**	**2.5**

Annual Funding BY$
3080 | Procurement | Other Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2000 $M	Non End Item Recurring Flyaway BY 2000 $M	Non Recurring Flyaway BY 2000 $M	Total Flyaway BY 2000 $M	Total Support BY 2000 $M	Total Program BY 2000 $M
2003	--	--	--	--	--	0.6	0.6
2004	--	--	--	--	--	0.2	0.2
2005	--	--	--	--	--	0.3	0.3
2006	--	--	--	--	--	0.3	0.3
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	0.7	0.7
2009	--	--	--	--	--	0.2	0.2
Subtotal	**--**	**--**	**--**	**--**	**--**	**2.3**	**2.3**

Annual Funding TY$
3010 | Procurement | Aircraft Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
2001	--	21.0	--	--	21.0	--	21.0
2002	3	144.4	--	8.7	153.1	7.1	160.2
2003	3	136.4	--	11.1	147.5	31.1	178.6
2004	4	210.4	--	3.5	213.9	38.1	252.0
2005	4	252.3	--	8.4	260.7	84.5	345.2
2006	5	290.3	--	2.4	292.7	59.1	351.8
2007	5	328.2	7.5	12.2	347.9	75.2	423.1
2008	5	362.5	25.7	7.4	395.6	132.0	527.6
2009	5	388.3	84.7	32.4	505.4	240.1	745.5
2010	4	341.1	86.7	20.3	448.1	127.2	575.3
2011	4	415.6	84.2	--	499.8	65.5	565.3
2012	3	293.3	88.9	--	382.2	106.6	488.8
2013	--	--	7.0	11.5	18.5	117.6	136.1
2014	--	--	33.0	11.0	44.0	1.7	45.7
2015	--	--	21.4	32.7	54.1	32.7	86.8
2016	--	--	46.1	90.1	136.2	13.8	150.0
2017	--	--	34.5	15.6	50.1	14.2	64.3
2018	--	--	38.4	16.0	54.4	15.5	69.9
2019	--	--	13.2	--	13.2	2.0	15.2
2020	--	--	9.5	--	9.5	1.4	10.9
2021	--	--	5.4	--	5.4	0.8	6.2
2022	--	--	1.4	--	1.4	0.2	1.6
Subtotal	**45**	**3183.8**	**587.6**	**283.3**	**4054.7**	**1166.4**	**5221.1**

Annual Funding BY$
3010 | Procurement | Aircraft Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2000 $M	Non End Item Recurring Flyaway BY 2000 $M	Non Recurring Flyaway BY 2000 $M	Total Flyaway BY 2000 $M	Total Support BY 2000 $M	Total Program BY 2000 $M
2001	--	20.3	--	--	20.3	--	20.3
2002	3	138.1	--	8.3	146.4	6.8	153.2
2003	3	128.3	--	10.4	138.7	29.3	168.0
2004	4	192.8	--	3.2	196.0	34.9	230.9
2005	4	224.6	--	7.5	232.1	75.2	307.3
2006	5	251.8	--	2.1	253.9	51.2	305.1
2007	5	277.2	6.3	10.3	293.8	63.6	357.4
2008	5	301.4	21.4	6.2	329.0	109.7	438.7
2009	5	317.4	69.2	26.5	413.1	196.3	609.4
2010	4	273.6	69.5	16.3	359.4	102.0	461.4
2011	4	327.8	66.4	--	394.2	51.7	445.9
2012	3	227.6	68.9	--	296.5	82.7	379.2
2013	--	--	5.3	8.7	14.0	89.0	103.0
2014	--	--	24.5	8.2	32.7	1.3	34.0
2015	--	--	15.6	23.9	39.5	23.8	63.3
2016	--	--	32.9	64.4	97.3	9.9	107.2
2017	--	--	24.2	10.9	35.1	9.9	45.0
2018	--	--	26.4	11.0	37.4	10.6	48.0
2019	--	--	8.9	--	8.9	1.3	10.2
2020	--	--	6.3	--	6.3	0.9	7.2
2021	--	--	3.5	--	3.5	0.5	4.0
2022	--	--	0.9	--	0.9	0.1	1.0
Subtotal	**45**	**2680.9**	**450.2**	**217.9**	**3349.0**	**950.7**	**4299.7**

Cost Quantity Information
3010 | Procurement | Aircraft Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2000 $M
2001	--	--
2002	3	128.3
2003	3	121.8
2004	4	182.9
2005	4	217.4
2006	5	252.8
2007	5	274.7
2008	5	287.1
2009	5	334.7
2010	4	235.2
2011	4	355.7
2012	3	290.3
2013	--	--
2014	--	--
2015	--	--
2016	--	--
2017	--	--
2018	--	--
2019	--	--
2020	--	--
2021	--	--
2022	--	--
Subtotal	**45**	**2680.9**

Annual Funding TY$
3300 | MILCON | Military Construction, Air Force

Fiscal Year	Total Program TY $M
2003	11.7
2004	22.2
2005	9.8
2006	14.1
2007	48.6
2008	--
2009	--
2010	16.5
Subtotal	**122.9**

Annual Funding BY$
3300 | MILCON | Military Construction, Air Force

Fiscal Year	Total Program BY 2000 $M
2003	10.9
2004	20.2
2005	8.6
2006	12.1
2007	40.9
2008	--
2009	--
2010	13.3
Subtotal	**106.0**

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	3/6/2001	9/9/2013
Approved Quantity	6	45
Reference	ADM	ADM
Start Year	2001	2001
End Year	2004	2017

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the small RQ-4A/B Global Hawk fleet size of 45. This exaggerates the effects of the 10% boundary.

The FY 2014 PB procurement baseline includes 45 aircraft and associated ground stations (ten Launch and Recovery Elements and ten Mission Control Elements).

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost $M	Memo
South Korea	3/26/2014	4	693.0	South Korea signed the Letter of Agreement on March 26, 2014. The South Korean Global Hawk program is a $693M FMS case (KS-D-SAD) to purchase 4 GH Block 30-I aircraft (capable for export,) 2 ground control elements (1 fixed, 1 transportable) and 2 spare engines. The anticipated contract award date is December 29, 2014 and the first aircraft is scheduled to be delivered to South Korea in the 4th quarter of FY 2018. The initial efforts in this case will deliver the aircraft with the Enhanced Integrated Sensor Suite with the potential to add other payloads later in the program.
NATO	9/3/2009	5	2383.0	The North Atlantic Treaty Organization (NATO) Alliance Ground Surveillance (AGS) program is pursuing a Direct Commercial Sale (DCS) to obtain five RQ-4B Global Hawk Block 40-like aircraft equipped with the Multi Platform Radar Technology Insertion Program (MP-RTIP) Synthetic Aperture Radar sensor and integrated with a NATO-unique ground station. The program is a cooperative development effort with 14 of the 28 NATO nations funding the procurement effort. Poland will officially join the program as soon as the Program Memorandum of Understanding (MOU) Amendment One is ratified by the two remaining nations in October 2014; industrial participation opportunities are under assessment. US Government (USG) costs include: 41.7% direct financial contribution to NATO for administrative/prime contract costs; alliance support (program management administration), and agreed MP-RTIP capability enhancements/configuration changes. The NATO AGS Management Agency (NAGSMA) program office awarded the DCS contract with Northrop Grumman on May 20, 2012. USG support is provided through a “Technical Arrangement” and not a Foreign Military Sales (FMS) case. Office of the Secretary of Defense transitioned the management of NATO AGS to the Air Force in May 2012. Incremental Preliminary Design Reviews are in progress and are scheduled to complete in March 2014.
Germany	9/25/2007	1	675.0	The Euro Hawk Risk Reduction Program (RRP)

is the DCS between the German Government and Euro Hawk GmbH (Northrop Grumman/Cassidian partnership). The German Government purchased a Euro Hawk system to replace their current signals intelligence system. The system consists of one modified RQ-4B Global Hawk air vehicle and ground segment, and a German-built Signals Intelligence (SIGINT) sensor payload. The USG provides support through a $34.8M FMS case (GY-D-STY). The air vehicle was delivered to Germany for sensor integration in July 2011. Germany's sensor integration flight testing began on January 11, 2013. On May 14, 2013, the German government announced the decision to cancel the Euro Hawk program. Although Germany obtained airworthiness certification for experimental aircraft flight testing, the program was cancelled due to the perceived cost to obtain permanent airworthiness certification. Germany halted sensor flight testing at the end of August 2013. Planned Air Force Block 30 participation in the NATO UNIFIED VISION 2014 exercise may reduce Germany’s airspace integration and airworthiness concerns.

Nuclear Costs

None

Unit Cost

Unit Cost Report

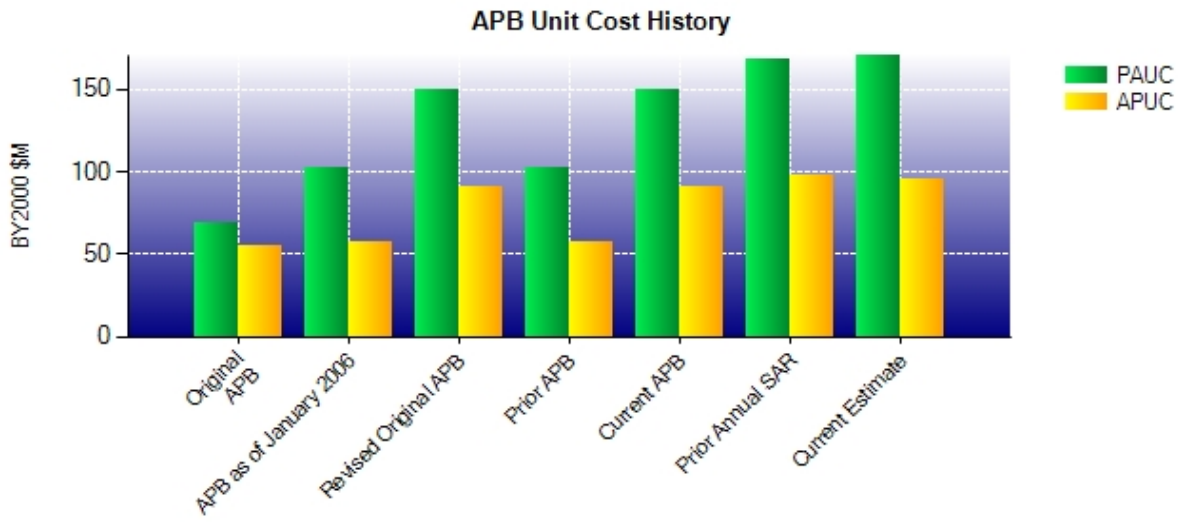
Unit Cost	BY2000 $M Current UCR Baseline (MAR 2007 APB)	BY2000 $M Current Estimate (DEC 2013 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	8103.6	7645.2	
Quantity	54	45	
Unit Cost	150.067	**169.893** [1]	+13.21
Average Procurement Unit Cost (APUC)			
Cost	4904.9	4302.0	
Quantity	54	45	
Unit Cost	90.831	95.600	+5.25

Unit Cost	BY2000 $M Revised Original UCR Baseline (MAR 2007 APB)	BY2000 $M Current Estimate (DEC 2013 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	8103.6	7645.2	
Quantity	54	45	
Unit Cost	150.067	169.893	+13.21
Average Procurement Unit Cost (APUC)			
Cost	4904.9	4302.0	
Quantity	54	45	
Unit Cost	90.831	95.600	+5.25

[1] **APB Unit Cost Breach**

Global Hawk initially reported a critical Nunn-McCurdy breach and provided detailed Unit Cost reporting in the December 2010 SAR. The unit cost percent change will continue to be measured against the March 2007 Acquisition Program Baseline (APB) until the revised APB is approved.

Unit Cost History



		BY2000 $M		TY $M	
	Date	PAUC	APUC	PAUC	APUC
Original APB	MAR 2001	69.052	55.308	85.619	70.790
APB as of January 2006	DEC 2002	101.896	56.953	115.459	65.673
Revised Original APB	MAR 2007	150.067	90.831	180.267	111.530
Prior APB	DEC 2002	101.896	56.953	115.459	65.673
Current APB	MAR 2007	150.067	90.831	180.267	111.530
Prior Annual SAR	DEC 2012	168.327	97.304	200.207	117.740
Current Estimate	DEC 2013	169.893	95.600	202.882	116.080

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY $M)

Initial PAUC Dev Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
85.619	0.802	20.726	1.664	51.896	24.833	0.000	17.342	117.263	202.882

Current SAR Baseline to Current Estimate (TY $M)

Initial APUC Dev Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
70.790	0.142	14.795	-10.502	14.564	10.682	0.000	15.609	45.290	116.080

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone I	N/A	N/A	N/A	N/A
Milestone II	N/A	FEB 2001	N/A	MAR 2001
Milestone III	N/A	N/A	N/A	N/A
IOC	N/A	N/A	N/A	AUG 2011
Total Cost (TY $M)	N/A	5394.0	N/A	9129.7
Total Quantity	N/A	63	N/A	45
Prog. Acq. Unit Cost (PAUC)	N/A	85.619	N/A	202.882

The Global Hawk Full Rate Production Decision Review, which would have replaced the previously planned Milestone III decision, is no longer applicable. Production is nearly complete. The Milestone C decision will set a revised APB and facilitate the transition into sustainment.

Cost Variance

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	906.2	4459.8	28.0	5394.0
Previous Changes				
Economic	+32.4	+18.4	+3.6	+54.4
Quantity	--	-608.5	--	-608.5
Schedule	+555.6	-472.6	-8.1	+74.9
Engineering	+1547.2	+644.3	+117.0	+2308.5
Estimating	+471.7	+559.2	-20.6	+1010.3
Other	--	--	--	--
Support	+75.0	+697.7	+3.0	+775.7
Subtotal	+2681.9	+838.5	+94.9	+3615.3
Current Changes				
Economic	-6.3	-12.0	--	-18.3
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	+15.7	+11.1	--	+26.8
Estimating	+185.7	-78.5	--	+107.2
Other	--	--	--	--
Support	--	+4.7	--	+4.7
Subtotal	+195.1	-74.7	--	+120.4
Total Changes	+2877.0	+763.8	+94.9	+3735.7
CE - Cost Variance	3783.2	5223.6	122.9	9129.7
CE - Cost & Funding	3783.2	5223.6	122.9	9129.7

Summary Base Year 2000 $M				
	RDT&E	**Proc**	**MILCON**	**Total**
SAR Baseline (Dev Est)	840.4	3484.4	25.5	4350.3
Previous Changes				
Economic	--	--	--	--
Quantity	--	-406.8	--	-406.8
Schedule	+414.4	-357.2	-2.1	+55.1
Engineering	+1405.8	+661.3	+98.3	+2165.4
Estimating	+355.7	+441.0	-18.2	+778.5
Other	--	--	--	--
Support	+73.7	+556.0	+2.5	+632.2
Subtotal	+2249.6	+894.3	+80.5	+3224.4
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	+11.6	+6.4	--	+18.0
Estimating	+135.6	-82.2	--	+53.4
Other	--	--	--	--
Support	--	-0.9	--	-0.9
Subtotal	+147.2	-76.7	--	+70.5
Total Changes	+2396.8	+817.6	+80.5	+3294.9
CE - Cost Variance	3237.2	4302.0	106.0	7645.2
CE - Cost & Funding	3237.2	4302.0	106.0	7645.2

Previous Estimate: December 2012

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-6.3
Removal of Ground Station Technology Refresh development. (Engineering)	-36.7	-49.5
Addition of Block 30 unique development of Airborne Signals Intelligence Payload. (Engineering)	+26.8	+36.4
Addition of Weather upgrades development. (Engineering)	+21.5	+28.8
Adjustment for current and prior escalation. (Estimating)	+3.2	+3.9
Net adjustments due to sequestration and congressional marks to the FY 2012, FY 2013 and FY 2014 PBs. (Estimating)	-21.5	-27.7
Adjustments to reconcile to prior years actual expenditures. (Estimating)	-0.3	-0.3
Revised estimate for contractor System Engineering/Program Management/System Testing to support additional development. (Estimating)	+97.4	+132.0
Revised estimate for Government Testing. (Estimating)	+27.1	+36.9
Revised estimate for Program Office support costs. (Estimating)	+4.7	+6.2
Revised Joint Mission Planning System development estimate and inclusion of Block 30 development. (Estimating)	+25.0	+34.7
RDT&E Subtotal	+147.2	+195.1

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-12.0
Removal of Ground Station Technology Refresh modifications. (Engineering)	-21.1	-29.0
Removal of Communications Systems Technology Refresh modifications. (Engineering)	-28.1	-40.2
Restored retrofits of Advanced Signals Intelligence Program sensors on Block 30 aircraft. (Engineering)	+39.7	+57.5
Addition of Weather Radar modifications. (Engineering)	+15.9	+22.8
Adjustment for current and prior escalation. (Estimating)	+6.2	+8.2
Net adjustments due to sequestration and congressional marks for FY 2012, FY 2013 and FY 2014. (Estimating)	-120.2	-157.6
Adjustments to reconcile to prior years actual expenditures. (Estimating)	-111.9	-131.6
Revised estimate of modifications for change requests and diminishing manufacturing sources. (Estimating)	+42.0	+59.7
Revised estimate and rephasing for program office management/other Government costs due to Block 30 continuation. (Estimating)	+16.5	+23.1
Revised estimate and rephasing of production shutdown costs due to Block 30 continuation. (Estimating)	+49.5	+69.4
Revised estimate for Mode 5/Automatic Dependent Surveillance-Broadcast Out modifications. (Estimating)	+3.7	+6.0
Revised estimate for International Maritime Satellite/Communication Security modifications due to rephasing and continuation of Block 30. (Estimating)	+29.9	+41.3
Revised estimate for low cost modifications. (Estimating)	+2.1	+3.0

Adjustment for current and prior escalation. (Support)	+2.5	+2.9
Increase in Other Support. Adjustments to reconcile to prior years actual expenditures. (Support)	+9.5	+9.8
Decrease in Initial Spares. Adjustments to reconcile to prior years actual expenditures. (Support)	-12.9	-8.0
Procurement Subtotal	-76.7	-74.7

Contracts

Appropriation: RDT&E	
Contract Name	**Global Hawk EMD Ground Station Re-Architecture (GSRA)**
Contractor	Northrop Grumman
Contractor Location	San Diego, CA 92127-2412
Contract Number, Type	F33657-01-C-4600/2, CPIF
Award Date	September 29, 2009
Definitization Date	October 27, 2010

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
16.2	N/A	N/A	84.2	N/A	N/A	90.3	90.9

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the addition of GSRA Phase 1A, supplier software licenses, change requests, and 2012 Blockload hardware/software maintenance licenses.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (2/21/2014)	-10.0	-0.8
Previous Cumulative Variances	-4.7	-1.2
Net Change	-5.3	+0.4

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to increased rates that occurred as part of the Northrop Grumman Corporation (NGC) corporate restructuring, as well as underestimated system engineering costs. These are a result of NGC merging two different System Engineering Organizations, which caused some delays but will benefit future programs by sharing NGC resources and reducing total costs across the enterprise.

The favorable net change in the schedule variance is due to materials for the software lab that have been purchased, but have not yet been received.

Contract Comments

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

This contract includes Phase 0 (study phase through System Requirements Review) and Phase 1A (development, program management, systems engineering, acceptance testing, administrative support, custom software using a modular open systems approach).

Appropriation: Procurement

Contract Name	**LRIP Lot 9 Air Vehicle and EISS**
Contractor	Northrop Grumman
Contractor Location	San Diego, CA 92150-9066
Contract Number, Type	FA8620-09-C-4001, FFP
Award Date	April 22, 2009
Definitization Date	February 04, 2011

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
188.2	N/A	4	188.4	N/A	4	188.4	188.4

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the addition of a Contract Line Item Number (CLIN) for replacement of Government Furnished Property (GFP) and Government Furnished Equipment (GFE) that has fallen into disrepair. Previously, only GFP and GFE repair were covered under the contract. By adding the CLIN and funding, the Government is better positioned to replace GFP and GFE more expediently.

Cost and Schedule Variance Explanations

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

Contract Comments

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

This contract procures four air vehicles (two Block 30 and two Block 40) and two Enhanced Integrated Sensor Suite (EISS) sensors. The contractor has delivered all sensors and aircraft.

Appropriation: Procurement

Contract Name	**LRIP Lot 10**
Contractor	Northrop Grumman
Contractor Location	San Diego, CA 92127-2412
Contract Number, Type	FA8620-10-C-4000, FPIF
Award Date	May 05, 2010
Definitization Date	May 29, 2013

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
30.0	580.6	4	462.8	498.2	4	456.6	460.5

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the initial target reflecting the value of Advance Procurement, while the current target reflects the definitized contract.

The initial ceiling reflected the Not To Exceed, while the current ceiling reflects the definitzed contract.

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (2/21/2014)	+4.9	-6.7
Previous Cumulative Variances	0.0	0.0
Net Change	+4.9	-6.7

Cost and Schedule Variance Explanations

The favorable cumulative cost variance is due to lower than planned materiel and labor costs for air vehicle integration, test, assembly and checkout.

The unfavorable cumulative schedule variance is due to late delivery of materiel from a subcontractor and missed milestones on AF-41 due to High Power Amplifier failures.

Contract Comments

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

Advance Procurement was awarded in May 2010. Subsequently, this contract was awarded on October 28, 2011, as an Undefinitized Contract Action (UCA) and later definitized on May 29, 2013.

This contract procures four air vehicles; two Block 30 with Enhanced Integrated Sensor Suite (EISS) sensors and Airborne Signals Intelligence Payload (ASIP) sensors and two Block 40 with Multi-Platform Radar Technology Insertion Program (MP-RTIP) sensors and three ASIP retrofit kits.

Appropriation: Procurement

Contract Name	**LRIP Lot 9 Payloads FFP**
Contractor	Northrop Grumman Systems Corporation
Contractor Location	17066 Goldentop Road San Diego, CA 92127-2412
Contract Number, Type	FA8620-10-C-4007/2, FFP
Award Date	May 20, 2010
Definitization Date	August 12, 2011

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
20.1	N/A	15	137.9	N/A	522	137.9	137.9

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the strategy to add additional spares and Peculiar Support Equipment (PSE).

Cost and Schedule Variance Explanations

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

Contract Comments

This contract procures PSE (339 items) and Enhanced Integrated Sensor Suite and Airborne Signals Intelligence Payload spares (183 items) for the LRIP Lot 9 Payloads captured under the LRIP Lot 9 Payloads FPIF contract, as well as supporting labor for the PSE and spares.

Appropriation: RDT&E

Contract Name	**IDIQTO1**
Contractor	Northrop Grumman
Contractor Location	San Diego, CA 92127-2412
Contract Number, Type	FA8620-13-D-3014/1, FFP
Award Date	May 15, 2013
Definitization Date	May 15, 2013

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
28.0	N/A	N/A	28.0	N/A	N/A	28.0	28.0

Cost and Schedule Variance Explanations

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

Contract Comments

This is the first time this contract is being reported.

This contract is for the procurement of Enterprise Management services.

Appropriation: RDT&E

Contract Name	**IDIQTO2**
Contractor	Northrop Grumman
Contractor Location	SanDiego, CA 92127-2412
Contract Number, Type	FA8620-13-D-3014/2, CPFF
Award Date	May 15, 2013
Definitization Date	May 15, 2013

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price at Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
22.9	N/A	N/A	22.9	N/A	N/A	23.1	23.8

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date (2/21/2014)	-0.5	-0.3
Previous Cumulative Variances	--	--
Net Change	-0.5	-0.3

Cost and Schedule Variance Explanations

The unfavorable cumulative cost variance is due to higher than planned program management labor and enterprise allocations/costs.

The unfavorable cumulative schedule variance is due to lagging invoices from the subcontractors.

Contract Comments

This is the first time this contract is being reported.

This contract is for flight test support for the Global Hawk fleet.

Deliveries and Expenditures

Delivered to Date	Plan to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	45	40	45	88.89%
Total Program Quantity Delivered	45	40	45	88.89%

Expended and Appropriated (TY $M)			
Total Acquisition Cost	9129.7	Years Appropriated	14
Expended to Date	7217.3	Percent Years Appropriated	63.64%
Percent Expended	79.05%	Appropriated to Date	8273.1
Total Funding Years	22	Percent Appropriated	90.62%

The above data is current as of 3/31/2014.

Operating and Support Cost

RQ-4A/B Global Hawk

Assumptions and Ground Rules

Cost Estimate Reference:
The costs shown below are from the program office as of January 2014.

Sustainment Strategy:
Global Hawk sustainment is accomplished by a combination of civil service, military, and contractor personnel. The Global Hawk is being maintained using a two level maintenance (2LM) concept – Organizational and Depot, which supports the maximum use of rapid transportation, minimum turnaround times for repair, and a capability to deploy with minimum direct mission support equipment. The 2LM concept is used at both the Forward Operating Locations and Main Operating Bases. Air Combat Command accomplishes organizational level maintenance tasks via military, civilian, and contractor support. The contractor accomplishes depot level maintenance tasks and repair actions under a Contractor Logistics Support contract.

Current sustainment planning assumes that Block 30s will fly through 2032, while Block 40s will fly through 2034 (end of life dates based on IOC +20 years). At this time, the Life Cycle Sustainment Plan, the Concept of Operations, and the Operations Tempo are all being re-examined in light of operational and budget decisions. Costs below span FY 2003 through FY 2034, the entire period of planned Global Hawk production fleet operations. Total quantity of aircraft supported over the life cycle is 45. Cost estimates assume all 45 aircraft will be operational. The service life of a Global Hawk air vehicle is 20 years.

Antecedent Information:
There is no antecedent system for the Global Hawk.

Unitized O&S Costs BY2000 $M		
Cost Element	**RQ-4A/B Global Hawk Avg Annual Cost per Aircraft**	**No Global Hawk Antecedent (Antecedent)**
Unit-Level Manpower	3.552	0.000
Unit Operations	2.069	0.000
Maintenance	7.311	0.000
Sustaining Support	2.243	0.000
Continuing System Improvements	0.297	0.000
Indirect Support	1.576	0.000
Other	0.000	0.000
Total	17.048	--

Unitized Cost Comments:
Unitized costs are calculated by dividing total estimated O&S costs in BY 2000 dollars ($12,909.7M) by total life cycle operational aircraft years (757), resulting in an average annual O&S cost per aircraft of $17.05M.

	Total O&S Cost $M			
	Current Development APB Objective/Threshold		Current Estimate	
	RQ-4A/B Global Hawk		RQ-4A/B Global Hawk	No Global Hawk Antecedent (Antecedent)
Base Year	N/A	N/A	12909.7	N/A
Then Year	N/A	N/A	16840.4	N/A

Total O&S Costs Comments:
The total estimated flying hours for the life of the program is 497,562, an increase from the previous estimated flying hours of 253,617. This increase includes Block 30s flying through FY 2032 and Block 40s through FY 2034.

O&S Cost Variance		
Category	**Base Year 2000 $M**	**Change Explanation**
Prior SAR Total O&S Estimate December 2012	7,313.514	
Cost Estimating Methodology	0.000	
Cost Data Update	0.000	
Labor Rate	0.000	
Energy Rate	0.000	
Technical Input	0.000	
Programmatic/Planning Factors	+5,596.149	Prior estimate assumed Block 40 only. The current estimate adds Block 30 aircraft/flying hours.
Other	0.000	
Total Changes	+5,596.149	
Current Estimate	12,909.7	

Disposal Costs:

Disposal Costs are estimated to be $11.130M (BY 2000$).