Selected Acquisition Report (SAR)

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

RQ-4A/B UAS GLOBAL HAWK

As of December 31, 2011

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Designation And Nomenclature (Popular Name)

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

DoD Component

Air Force

Responsible Office

Responsible Office

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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 Unmanned Aircraft System (UAS) Global Hawk is a high altitude, long endurance 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 current program profile consists of: Block 10 which carries up to a 2,000-lb payload featuring a basic Integrated Sensor Suite with EO/IR and SAR and the Block 20, 30, and 40 aircraft which are larger and capable of carrying up to a 3,000-lb payload. The Block 20 is 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. Block 30 adds the Airborne Signals Intelligence Payload that brings Signals Intelligence capability. Block 40 incorporates the Multi-Platform Radar Technology Insertion Program Radar as its only sensor.

Executive Summary

RQ-4A/B Unmanned Aircraft System (UAS) Global Hawk (GH) made several accomplishments over the last year. RQ-4A/B UAS GH surpassed 68,000 flight hours while accumulating over 53,000 combat hours in support of Overseas Contingency Operations (OCO). Additionally, there were eight GH aircraft delivered during 2011: two Block 30M aircraft and six Block 40 aircraft. The first Block 40 aircraft was delivered to Grand Forks Air Force Base, North Dakota. RQ-4A/B UAS GH also completed the ground station production line by delivering the last two ground stations by November 2011. RQ-4A/B UAS GH missions were successfully completed in support of Japanese humanitarian relief efforts and completed critical operational missions to support OCO. In light of successful Block 30 fielding to four operational locations, Air Combat Command (ACC) declared Initial Operational Capability (IOC) for the RQ-4A/B UAS GH Block 30 on August 10, 2011 and subsequently retired the Block 10 fleet. The program continues to pursue a Force Development Evaluation (FDE) to validate that the Block 20/30 Initial Operational Test and Evaluation (IOT&E) issues have been resolved. Operational use of RQ-4A/B UAS GH has demonstrated exploitable images in excess of ranges demonstrated in IOT&E.

As previously reported in the December 2010 SAR, RQ-4A/B UAS GH has a Nunn-McCurdy breach, schedule breach, and performance breaches. RQ-4 A/B UAS GH was certified to Congress on June 14, 2011 for a total of 55 aircraft. Subsequently, the GH aircraft quantities were reduced from 55 to 45 in the FY 2013 PB. A new Acquisition Program Baseline will be accomplished in preparation for a Milestone C decision. When the Milestone is approved, the new structure will be implemented and represented in a quarterly exception SAR.

The October 2011 Acquisition Decision Memorandum approving the Lot 10 buy increased the total approved procurement quantity to 42 aircraft. The FY 2013 President's Budget removes the Block 30 aircraft, reducing the baseline to 45 aircraft (7 Block 10's, 6 Block 20's, 21 Block 30's, and 11 Block 40's).

Battlefield Airborne Communications Node (BACN): On September 1, 2011, funding was approved by all committees in the Omnibus reprogramming action, directing two additional RQ-4B UAS GH Block 20 aircraft and associated ground segment modification to support Joint Urgent Operational Need CC-0336. These two BACN aircraft are scheduled for delivery in Summer/Fall 2012. BACN is an airborne communications relay and gateway that allows real-time information exchanges between different tactical data link systems and provides decision-makers with critical information. Since deployment of the original two BACN RQ-4B UAS GH aircraft through January 31, 2012, BACN RQ-4B UAS GH aircraft have flown over 4,145 combat hours.

MQ-4C Unmanned Aircraft System (UAS) Broad Area Maritime Surveillance (BAMS) Synergy: The Navy and the Air Force are continuing to seek synergies between the RQ-4B UAS GH and BAMS systems that align with Chief of Staff, United States Air Force/Chief of Naval Operations direction and are fiscally prudent. These efforts include common architectures for ground stations and communications, and joint design and development for airborne sense-and-avoid systems. The joint synergies teams conduct frequent reviews to ensure all possible synergies are achieved between the two systems and programs.

Software: RQ-4B UAS GH has experienced a minor command software deficiency. This has been resolved and will be incorporated in the next operational release due out the first quarter of FY 2013. There have been additional software deficiencies related to satisfying Distributed Common Ground System (DCGS) critical requirements in Pacific Command (PACOM.) These known deficiencies have been resolved. GH is closely monitoring and improving the software development process.

Threshold Breaches

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

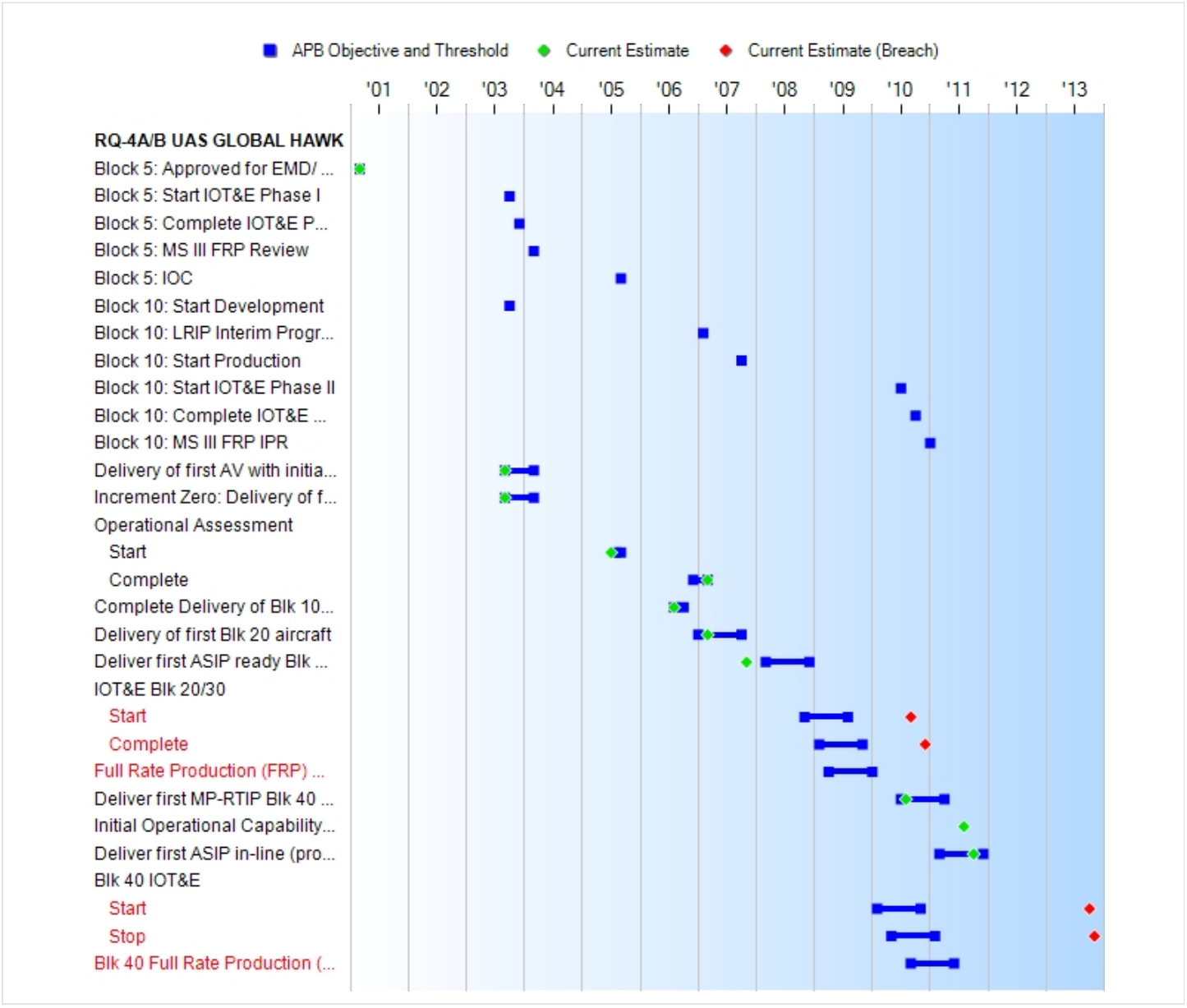
Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	Significant
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Explanation of Breach

As previously reported in the December 2010 SAR, RQ-4A/B UAS GH has a Nunn-McCurdy breach, schedule breach, and performance breaches.

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
RQ-4A/B UAS GLOBAL HAWK
Block 5: Approved for EMD/ ...
Block 5: Start IOT&E Phase I
Block 5: Complete IOT&E P...
Block 5: MS III FRP Review
Block 5: IOC
Block 10: Start Development
Block 10: LRIP Interim Progr...
Block 10: Start Production
Block 10: Start IOT&E Phase II
Block 10: Complete IOT&E ...
Block 10: MS III FRP IPR
Delivery of first AV with initia...
Increment Zero: Delivery of f...
Operational Assessment
Start
Complete
Complete Delivery of Blk 10...
Delivery of first Blk 20 aircraft
Deliver first ASIP ready Blk ...
IOT&E Blk 20/30
Start
Complete
Full Rate Production (FRP) ...
Deliver first MP-RTIP Blk 40 ...
Initial Operational Capability...
Deliver first ASIP in-line (pro...
Blk 40 IOT&E
Start
Stop
Blk 40 Full Rate Production (...

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	
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 FRP Review	MAR 2004	N/A	N/A	N/A	
Block 5: IOC	SEP 2005	N/A	N/A	N/A	
Block 10: Start Development	OCT 2003	N/A	N/A	N/A	
Block 10: LRIP Interim Program Review (IPR)	FEB 2007	N/A	N/A	N/A	
Block 10: Start Production	OCT 2007	N/A	N/A	N/A	
Block 10: Start IOT&E Phase II	JUL 2010	N/A	N/A	N/A	
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	
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	
Operational Assessment					
Start	N/A	AUG 2005	SEP 2005	JUL 2005	
Complete	N/A	DEC 2006	MAR 2007	MAR 2007	
Complete Delivery of Blk 10 aircraft	N/A	AUG 2006	OCT 2006	AUG 2006	
Delivery of first Blk 20 aircraft	N/A	JAN 2007	OCT 2007	MAR 2007	
Deliver first ASIP ready Blk 30 aircraft	N/A	MAR 2008	DEC 2008	NOV 2007	
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]	
Full Rate Production (FRP) Decision Review (DR)	N/A	APR 2009	JAN 2010	**N/A** [1]	(Ch-1)
Deliver first MP-RTIP Blk 40 aircraft	N/A	JUL 2010	APR 2011	AUG 2010	(Ch-2)
Initial Operational Capability (IOC)	N/A	TBD	TBD	AUG 2011	(Ch-3)
Deliver first ASIP in-line (production) Blk 30 aircraft	N/A	MAR 2011	DEC 2011	OCT 2011	(Ch-4)
Blk 40 IOT&E					
Start	N/A	FEB 2010	NOV 2010	**OCT 2013** [1]	(Ch-5)
Stop	N/A	MAY 2010	FEB 2011	**NOV 2013** [1]	(Ch-6)
Blk 40 Full Rate Production (FRP) Decision Review	N/A	SEP 2010	JUN 2011	**N/A** [1]	(Ch-7)

[1] *APB Breach*

Acronyms And Abbreviations

ASIP - Airborne Signals Intelligence Payload
AV - Air Vehicle (same as aircraft)
Blk - Block

DR - Decision Review
EMD - Engineering and Manufacturing Development
FRP - Full Rate Production
IOC - Initial Operational Capability
IOT&E - Initial Operational Test & Evaluation
IPR - Interim Program Review
LRIP - Low Rate Initial Production
MP-RTIP - Multi Platform Radar Technology Insertion Program
MS - Milestone
N/A - Not Applicable
TBD - To Be Determined

Change Explanations

(Ch-1) FRP DR changed from June 2011 to N/A due to cancellation of Block 30 program. GH will no longer have an FRP DR for Block 30. This breach reported previously in the 2010 SAR.

(Ch-2) Deliver first MP-RTIP Block 40 aircraft changed from April 2011 to August 2010 to reflect actual date. The first Block 40 aircraft with production payload delivered in August 2010. This aircraft is being used for testing.

(Ch-3) Block 30 IOC changed from September 2011 to August 2011 to reflect actual date that Air Combat Command declared IOC.

(Ch-4) Deliver first ASIP in-line (production) Block 30 aircraft changed from August 2011 to October 2011 due to limited production capacity, delayed negotiations with prime contractor, and a sub-contractor manufacturing issue

(Ch-5) Block 40 IOT&E Start changed from June 2013 to October 2013 due to inclusion of interoperability testing into Development Testing schedule planning, software maturity to reach required levels, and training to support testing. This breach reported previously in the 2010 SAR.

(Ch-6) Block 40 IOT&E Stop changed from July 2013 to November 2013 due to delay of Block 40 IOT&E Start. This breach reported previously in the 2010 SAR.

(Ch-7) Block 40 FRP DR changed from January 2014 to N/A due to Block 40 production schedule. GH will no longer have an FRP DR for Block 40. This breach reported previously in the 2010 SAR.

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 - Air	The AV must be equipped	N/A	N/A	N/A	N/A

Vehicle (AV)	to employ active counter measures against radar a nd IR-guided threats to the system as identified in the STAR.					
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	(Ch-1)
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 allow operators to perform NRT mission control,	The Global Hawk ground station must allow operators to perform NRT mission control,	TBD	Currently working software to enhance the processes	

		mission monitoring, and mission updates/modifications to include dynamic platform and payload control and re-tasking.	mission monitoring, and mission updates/modifications to include dynamic platform and payload control and re-tasking.			
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 (in	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	
FY08 Information Exchange Requirements (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 /FY10	N/A	8 hours	12 hours	TBD	**16 hours + 6 weeks of 6-DOF**[1]	(Ch-2)
Delivery of first aircraft with a multi-	N/A	Aircraft multi-Int capable	Aircraft multi-Int capable	Aircraft multi-Int capable.	Aircraft multi-Int capable.	

Intelligence (multi-Int) Capability						
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 5.0	80 km at NIIRS 5.0	(Ch-3)
Improved IR Spot Mode (NIIRS x @ Km)KPP	N/A	80 km at NIRRS 5	50 km at NIIRS 5	50km at NIIRS 4.7	**50 km at NIIRS 4.7**[1]	(Ch-4)
Effective Time on Station (ETOS)	N/A	90%	85%	56%	85%	(Ch-5)

[1] *APB Breach*

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

Acronyms And Abbreviations

AV - Air Vehicle
CDD - Capability Development Document
CPD - Capabilities Production Document
DOF - Degrees of Freedom
DT - Development Testing
EO - Electro-Optic
ETOS - Effective Time on Station
GIG-KIP - Global Information Grid Key Interface Profile
IAW - In Accordance With
IER - Information Exchange Requirement
IR - Infrared
Km - Kilometer
KPP - Key Performance Parameter
MTBCF - Mean Time Between Critical Failure
Multi-Int - Multi-Intelligence
N/A - Not Applicable
NCOW-RM - Net-Centric Operation and Warfare Reference Model
NIIRS - National Image Interpretability Rating Scale
NM - Nautical Mile
NRT - Near Real Time
OT - Operational Testing
SAR - Synthetic Aperture Radar
SIGINT - Signals Intelligence
STAR - System Threat Assessment Report
TBD - To Be Determined
UAV - Unmanned Air Vehicle

Change Explanations

(Ch-1) Endurance -- Aircraft (all Lots) KPP has been updated to reflect the longest Global Hawk Flight.

(Ch-2) 12 Hour Mission Planning is presently unfunded. This breach reported previously in 2010 Selected Acqusition Report (SAR.)

(Ch-3) Improved EO Spot Mode was demonstrated at 80 km at NIIRS 5 during DT/OT, as evaluated by National Geospatial-Intelligence Agency. It was the mean demonstrated from five flights.

(Ch-4) Block 20/30 IR Spot Mode was demonstrated at 50 km at NIIRS 4.7 during DT/OT, as evaluated by National Geospatial-Intelligence Agency. It was the mean demonstrated from three flights. NIIRS 5 quality was briefed as a shortfall to the Joint Requirements Oversight Council in 2009 and was deemed adequate for operational use. This breach reported previously in 2010 SAR.

(Ch-5) ETOS changed from 47% to 85%. ETOS requirements are 55% for Single Aircraft Control (per draft 2012 CPD) and 85% for Dual Aircraft Control (per 2007 CDD). Since Dual Aircraft Control is unavailable until 2015 (resulting from Ground Station Rearchitecture), the current demonstrated performance of 56% is based on Single Aircraft Control. This performance exceeds the 55% requirement. After 2015, ETOS is expected to meet the 85% requirement for Dual Aircraft Control.

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

Track To Budget

RDT&E				
APPN 3600	BA 07	PE 0305205F	(Air Force)	
	Project 4755	Global Hawk HAEUAV/Predator	(Shared)	(Sunk)
APPN 3600	BA 07	PE 0305220F	(Air Force)	
	Project 5144	Global Hawk HAEUAV		(Sunk)
	Project 5146	RQ-4 BLOCK 40		
	Project 5147	RQ-4 GSRA/CSRA		
Procurement				
APPN 3010	BA 07	PE 0305220F	(Air Force)	
	ICN 000075	OTHER PRODUCTION CHARGES RQ-4	(Shared)	(Sunk)
APPN 3010	BA 06	PE 0305220F	(Air Force)	
	ICN 000999	(Air Force)	(Shared)	(Sunk)
APPN 3010	BA 04	PE 0305220F	(Air Force)	
	ICN HAEUAV	(Air Force)		
APPN 3010	BA 04	PE 0305205F	(Air Force)	
	ICN HAEUAV	(Air Force)	(Shared)	(Sunk)
APPN 3010	BA 05	PE 0305220F	(Air Force)	
	ICN HAWK00	(Air Force)		
APPN 3010	BA 04	PE 0305220F	(Air Force)	
	ICN RQ440P	RQ-4 BLOCK 40 PROC		
APPN 3010	BA 05	PE 0305220F	(Air Force)	
	ICN RQ4GCM	GSRA/CSRA MODS		
APPN 3080	BA 02	PE 0305220F	(Air Force)	

	ICN 821800	(Air Force)	(Shared)	(Sunk)
APPN 3080	BA 03	PE 0305220F	(Air Force)	
	ICN 837300	(Air Force)	(Shared)	(Sunk)

MILCON

APPN 3300	BA 01	PE 0305205F	(Air Force)	
	Project F030011X	(Air Force)	(Shared)	(Sunk)
	Project F04000XX	(Air Force)		(Sunk)
APPN 3300	BA 01	PE 0305220F	(Air Force)	
	Project 0501003X	(Air Force)		(Sunk)
	Project 06BAEY09	(Air Force)		(Sunk)
	Project 07USAFE6	(Air Force)		(Sunk)
	Project 1030060B	(Air Force)		(Sunk)

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

	BY2000 $M			BY2000 $M	TY $M		
Appropriation	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	3113.9	906.2	3572.0	3601.9
Procurement	3484.4	4904.9	5395.4	4636.7	4459.8	6022.6	5638.2
Flyaway	3086.5	--	--	3602.3	3972.9	--	4371.7
Recurring	3072.8	--	--	3473.5	3957.0	--	4209.0
Non Recurring	13.7	--	--	128.8	15.9	--	162.7
Support	397.9	--	--	1034.4	486.9	--	1266.5
Other Support	173.4	--	--	303.8	216.7	--	369.4
Initial Spares	224.5	--	--	730.6	270.2	--	897.1
MILCON	25.5	121.9	134.1	105.9	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	7856.5	5394.0	9734.4	9363.0

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 October 2011 Acquisition Decision Memorandum approving the Lot 10 buy increased the total approved procurement quantity to 42 aircraft. The FY 2013 President's Budget removes the Block 30 aircraft, changing the baseline to 45 aircraft (7 Block 10's, 6 Block 20's, 21 Block 30's, and 11 Block 40's).

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2013 President's Budget / December 2011 SAR (TY$ M)

Appropriation	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
RDT&E	2797.1	300.3	199.5	140.7	100.9	35.5	27.9	0.0	3601.9
Procurement	4485.4	687.8	95.9	66.1	41.1	30.0	16.7	215.2	5638.2
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 2013 Total	7405.4	988.1	295.4	206.8	142.0	65.5	44.6	215.2	9363.0
PB 2012 Total	7713.6	990.3	868.0	807.3	764.5	659.0	1281.0	851.1	13934.8
Delta	-308.2	-2.2	-572.6	-600.5	-622.5	-593.5	-1236.4	-635.9	-4571.8

Quantity	Undistributed	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	42	3	0	0	0	0	0	0	45
PB 2013 Total	0	42	3	0	0	0	0	0	0	45
PB 2012 Total	0	42	3	3	3	1	1	6	7	66
Delta	0	0	0	-3	-3	-1	-1	-6	-7	-21

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	--	--	--	--	--	--	129.7
2002	--	--	--	--	--	--	213.0
2003	--	--	--	--	--	--	334.9
2004	--	--	--	--	--	--	356.2
2005	--	--	--	--	--	--	377.0
2006	--	--	--	--	--	--	257.7
2007	--	--	--	--	--	--	224.1
2008	--	--	--	--	--	--	265.5
2009	--	--	--	--	--	--	228.6
2010	--	--	--	--	--	--	219.4
2011	--	--	--	--	--	--	191.0
2012	--	--	--	--	--	--	300.3
2013	--	--	--	--	--	--	199.5
2014	--	--	--	--	--	--	140.7
2015	--	--	--	--	--	--	100.9
2016	--	--	--	--	--	--	35.5
2017	--	--	--	--	--	--	27.9
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**3601.9**

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	--	--	--	--	--	--	126.8
2002	--	--	--	--	--	--	206.0
2003	--	--	--	--	--	--	319.6
2004	--	--	--	--	--	--	331.6
2005	--	--	--	--	--	--	342.2
2006	--	--	--	--	--	--	227.1
2007	--	--	--	--	--	--	192.4
2008	--	--	--	--	--	--	223.4
2009	--	--	--	--	--	--	189.9
2010	--	--	--	--	--	--	179.9
2011	--	--	--	--	--	--	153.5
2012	--	--	--	--	--	--	237.1
2013	--	--	--	--	--	--	154.9
2014	--	--	--	--	--	--	107.4
2015	--	--	--	--	--	--	75.7
2016	--	--	--	--	--	--	26.2
2017	--	--	--	--	--	--	20.2
Subtotal	**--**	**--**	**--**	**--**	**--**	**--**	**3113.9**

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	153.8	--	--	153.8	9.5	163.3
2003	3	143.9	--	5.3	149.2	31.9	181.1
2004	4	220.2	--	0.7	220.9	32.7	253.6
2005	4	302.6	--	--	302.6	56.5	359.1
2006	5	290.7	--	--	290.7	68.9	359.6
2007	5	343.3	7.5	--	350.8	98.8	449.6
2008	5	374.0	25.8	50.0	449.8	78.9	528.7
2009	5	442.7	84.9	10.2	537.8	208.3	746.1
2010	4	403.5	97.0	2.5	503.0	226.3	729.3
2011	4	377.6	119.3	--	496.9	194.6	691.5
2012	3	290.8	160.7	--	451.5	236.3	687.8
2013	--	--	9.2	72.0	81.2	14.7	95.9
2014	--	--	39.3	22.0	61.3	4.8	66.1
2015	--	--	39.3	--	39.3	1.8	41.1
2016	--	--	30.0	--	30.0	--	30.0
2017	--	--	16.7	--	16.7	--	16.7
2018	--	--	90.1	--	90.1	--	90.1
2019	--	--	64.8	--	64.8	--	64.8
2020	--	--	60.3	--	60.3	--	60.3
Subtotal	**45**	**3364.1**	**844.9**	**162.7**	**4371.7**	**1264.0**	**5635.7**

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	147.0	--	--	147.0	9.1	156.1
2003	3	135.3	--	5.0	140.3	30.0	170.3
2004	4	201.8	--	0.6	202.4	30.0	232.4
2005	4	269.4	--	--	269.4	50.3	319.7
2006	5	252.1	--	--	252.1	59.8	311.9
2007	5	290.0	6.3	--	296.3	83.5	379.8
2008	5	310.9	21.4	41.6	373.9	65.6	439.5
2009	5	361.7	69.4	8.3	439.4	170.2	609.6
2010	4	323.3	77.7	2.0	403.0	181.3	584.3
2011	4	297.4	93.9	--	391.3	153.2	544.5
2012	3	225.1	124.4	--	349.5	183.0	532.5
2013	--	--	7.0	54.8	61.8	11.2	73.0
2014	--	--	29.3	16.5	45.8	3.6	49.4
2015	--	--	28.9	--	28.9	1.3	30.2
2016	--	--	21.6	--	21.6	--	21.6
2017	--	--	11.8	--	11.8	--	11.8
2018	--	--	62.7	--	62.7	--	62.7
2019	--	--	44.3	--	44.3	--	44.3
2020	--	--	40.5	--	40.5	--	40.5
Subtotal	**45**	**2834.3**	**639.2**	**128.8**	**3602.3**	**1032.1**	**4634.4**

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	137.2
2003	3	128.8
2004	4	191.9
2005	4	262.2
2006	5	253.1
2007	5	287.5
2008	5	296.7
2009	5	379.1
2010	4	285.0
2011	4	330.7
2012	3	282.1
2013	--	--
2014	--	--
2015	--	--
2016	--	--
2017	--	--
2018	--	--
2019	--	--
2020	--	--
Subtotal	**45**	**2834.3**

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$
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	13.2
Subtotal	**105.9**

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	3/6/2001	10/21/2011
Approved Quantity	6	42
Reference	ADM	ADM
Start Year	2001	2001
End Year	2004	2013

The RQ-4A/B UAS Global Hawk (GH) Low Rate Initial Production (LRIP) quantity now stands at 42 aircraft, based on the October 2011 Acquisition Decision Memorandum (ADM) approving the Lot 10 buy. The FY 2013 President's Budget changed the GH procurement baseline to include 45 aircraft and associated Ground Stations (ten Launch & Recovery Elements (LRE) and ten Mission Control Elements (MCE)). The total LRIP quantity exceeds 10% of the expected program buy. The small RQ-4A/B UAS GH fleet size (45) exaggerates the effects of the 10% boundary.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost $M	Memo
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 (SAR) sensor and integrated with a unique NATO-built ground station. Program is a cooperative development effort with 13 of the 28 NATO nations funding the procurement effort. 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 is expected to award the DCS contract with Northrop Grumman no later than second quarter FY 2012. USG support is provided through a “Technical Arrangement” and not an FMS case. Office of the Secretary of Defense anticipates transitioning the management of NATO AGS to the Air Force in FY 2012 after NAGSMA awards the prime contract.
Germany	1/31/2003	1	675.0	The Euro Hawk Risk Reduction Program (RRP) is the direct commercial sale (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 (SIGINT) system. The system consists of one modified RQ-4B Global Hawk air vehicle and ground segment, and a German-built SIGINT sensor payload. The US Government (USG) provides support through a $34.8M foreign military sales (FMS) case (GY-D-STY). The air vehicle was delivered to Germany for sensor integration in July 2011; sensor integration and final delivery is scheduled for August 2012. The potential follow on production effort has not advanced to the Foreign Military Sales (FMS) Letter of Offer and Acceptance (LOA) stage and thus is not included.

Nuclear Cost

None

Unit Cost

Unit Cost Report

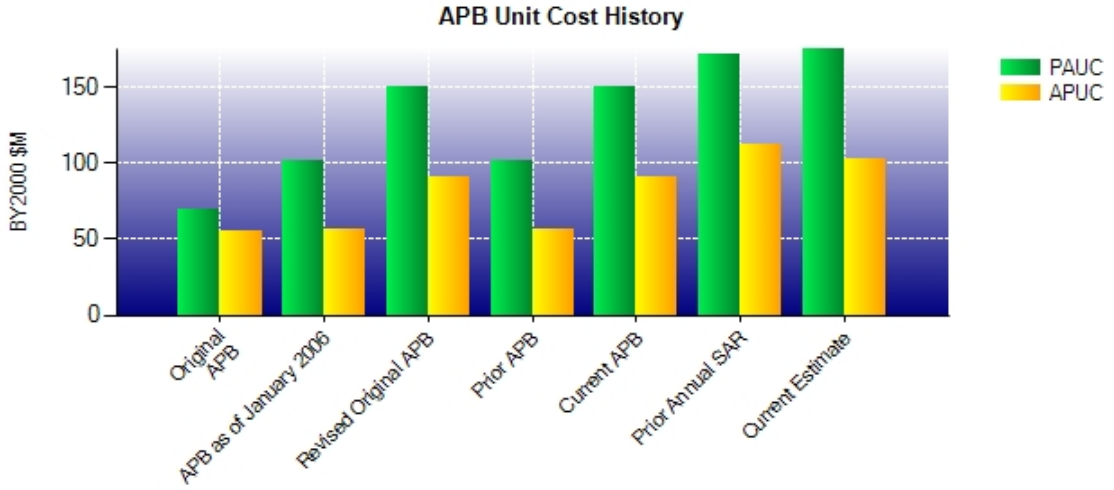
Unit Cost	BY2000 $M Current UCR Baseline (MAR 2007 APB)	BY2000 $M Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	8103.6	7856.5	
Quantity	54	45	
Unit Cost	150.067	174.589	**+16.34** [1]
Average Procurement Unit Cost (APUC)			
Cost	4904.9	4636.7	
Quantity	54	45	
Unit Cost	90.831	103.038	+13.44

Unit Cost	BY2000 $M Revised Original UCR Baseline (MAR 2007 APB)	BY2000 $M Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	8103.6	7856.5	
Quantity	54	45	
Unit Cost	150.067	174.589	+16.34
Average Procurement Unit Cost (APUC)			
Cost	4904.9	4636.7	
Quantity	54	45	
Unit Cost	90.831	103.038	+13.44

[1] **Nunn-McCurdy Breach**

Global Hawk previously reported a critical Nunn-McCurdy breach and provided detailed Unit Cost reporting in the December 2010 SAR. Further detailed Unit Cost reporting is not required at this time because a revised Acquisition Program Baseline has not yet been 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 2010	171.039	111.612	211.133	140.876
Current Estimate	DEC 2011	174.589	103.038	208.067	125.293

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	0.762	20.726	1.664	51.300	28.498	0.000	19.498	122.448	208.067

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	0.076	14.794	-10.502	14.318	18.053	0.000	17.764	54.503	125.293

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	9363.0
Total Quantity	N/A	63	N/A	45
Prog. Acq. Unit Cost (PAUC)	N/A	85.619	N/A	208.067

The Global Hawk Full Rate Production Decision Review, which would have replaced the previously planned Milestone III decision, is no longer applicable given the cancellation of the Global Hawk Block 30 in the FY 2013 President's Budget.

Cost Variance

Cost Variance Summary

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Dev Est)	906.2	4459.8	28.0	5394.0
Previous Changes				
Economic	+0.4	-85.3	+3.4	-81.5
Quantity	--	+264.5	--	+264.5
Schedule	+555.6	-889.0	-8.1	-341.5
Engineering	+2123.0	+2529.1	+117.0	+4769.1
Estimating	+744.8	+1728.0	-20.4	+2452.4
Other	--	--	--	--
Support	+184.1	+1290.7	+3.0	+1477.8
Subtotal	+3607.9	+4838.0	+94.9	+8540.8
Current Changes				
Economic	+26.8	+88.7	+0.3	+115.8
Quantity	--	-873.0	--	-873.0
Schedule	--	+416.4	--	+416.4
Engineering	-575.8	-1884.8	--	-2460.6
Estimating	-254.1	-915.6	-0.3	-1170.0
Other	--	--	--	--
Support	-109.1	-491.3	--	-600.4
Subtotal	-912.2	-3659.6	--	-4571.8
Total Changes	+2695.7	+1178.4	+94.9	+3969.0
CE - Cost Variance	3601.9	5638.2	122.9	9363.0
CE - Cost & Funding	3601.9	5638.2	122.9	9363.0

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	--	+235.8	--	+235.8
Schedule	+414.4	-655.9	-2.1	-243.6
Engineering	+1833.7	+2006.3	+98.3	+3938.3
Estimating	+572.7	+1288.8	-18.0	+1843.5
Other	--	--	--	--
Support	+154.8	+1007.0	+2.5	+1164.3
Subtotal	+2975.6	+3882.0	+80.7	+6938.3
Current Changes				
Economic	--	--	--	--
Quantity	--	-642.6	--	-642.6
Schedule	--	+298.7	--	+298.7
Engineering	-427.9	-1345.0	--	-1772.9
Estimating	-193.1	-670.3	-0.3	-863.7
Other	--	--	--	--
Support	-81.1	-370.5	--	-451.6
Subtotal	-702.1	-2729.7	-0.3	-3432.1
Total Changes	+2273.5	+1152.3	+80.4	+3506.2
CE - Cost Variance	3113.9	4636.7	105.9	7856.5
CE - Cost & Funding	3113.9	4636.7	105.9	7856.5

Previous Estimate: December 2010

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+26.8
Reduction in scope of Ground Station Rearchitecture. (Engineering)	-35.3	-48.5
Adjustment for current and prior escalation. (Estimating)	-5.8	-7.1
Reduction in scope of Communications System Rearchitecture. (Engineering)	-154.1	-206.9
Eliminated Weapon System Trainer. (Estimating)	-34.4	-46.1
Eliminated Anti-icing development. (Engineering)	-38.4	-51.0
Eliminated Block 30 unique development efforts. (Engineering)	-66.9	-90.1
Sense and Avoid to become separate acquisition program. (Engineering)	-12.7	-17.0
Reduction in scope of Systems Engineering/Program Management. (Engineering)	-120.5	-162.3
Reduction in scope of Contractor Test. (Estimating)	-30.9	-41.7
Reduction in scope of Government Test. (Estimating)	-50.7	-68.1
Reduction in scope of Ground Station Rearchitecture development. (Estimating)	-14.6	-17.9
Congressional rescission based on prior year execution. (Estimating)	-26.6	-33.1
Reduction in scope of development studies. (Estimating)	-14.2	-18.8
Reduction in scope of Government Program Office support costs. (Estimating)	-15.1	-20.3
Reduction in scope of Mode 5 integration. (Estimating)	-0.8	-1.0
Eliminate Depot Planning efforts. (Support)	-81.1	-109.1
RDT&E Subtotal	-702.1	-912.2

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+88.7
Total Quantity variance resulting from a decrease of 21 Block 30 Global Hawks from 66 to 45. (Subtotal)	-2136.5	-2975.7
Quantity variance resulting from a decrease of 21 Block 30 Global Hawks from 66 to 45. (Quantity)	(-1004.7)	(-1397.8)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(+298.7)	(+416.4)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-849.9)	(-1184.8)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-580.6)	(-809.5)
Additional quantity variance driven by prior estimate's fluctuating quantities (e.g., decreases to quantity of 1 per year for FY 2015 and FY 2016 and then jump to 6 per year in FY 2017 and 7 per year in FY 2018. (Quantity)	+362.1	+524.8
Adjustment for current and prior escalation. (Estimating)	-15.8	-19.9
Reduction in scope and rephasing of Communications System Rearchitecture. (Engineering)	-143.2	-210.2
Eliminated Block 30 Airborne Signals Intelligence Payload (ASIP) Sensor retrofits. (Engineering)	-16.5	-21.9
Eliminated Anti-icing retrofits. (Engineering)	-71.4	-98.0
Eliminated Block 30 unique Diminishing Manufacturing Sources (DMS). (Engineering)	-264.0	-369.9
Reduction as a result of Lot 8 final negotiation. (Estimating)	-57.8	-70.6
Reduction as a result of Lot 9 final negotiation. (Estimating)	-69.1	-86.1
Revised Lot 10 estimate. (Estimating)	-27.8	-35.2
Revised estimate for Common Data Link. (Estimating)	-32.2	-42.8

Increase for production closeout costs. (Estimating)	+74.2	+98.0
Congressional reduction to advanced procurement. (Estimating)	-14.7	-18.7
Previously appropriated Lot 12 advance procurement will not be used due to requirements (Estimating)	+55.3	+71.5
Miscellaneous reductions due to revised estimate. (Estimating)	-1.8	-2.3
Adjustment for current and prior escalation. (Support)	-7.9	-10.0
Decrease in Other Support. Eliminated depot activation and special test equipment. Also reduced peculiar support equipment. (Support)	-342.6	-452.4
Decrease in Initial Spares. (Support)	-20.0	-28.9
Procurement Subtotal	-2729.7	-3659.6

(QR) Quantity Related

MILCON	**$M**	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+0.3
Adjustment for current and prior escalation. (Estimating)	-0.3	-0.3
MILCON Subtotal	-0.3	0.0

Contracts

Appropriation: Procurement	
Contract Name	**LRIP Lot 7**
Contractor	Northrop Grumman Integrated Systems
Contractor Location	San Diego, CA 92150-9066
Contract Number, Type	FA8620-07-C-4015, FPIF
Award Date	February 22, 2007
Definitization Date	November 05, 2010

Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
5.0	N/A	5	380.6	416.0	5	383.7	383.7

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	-4.2	-4.9
Previous Cumulative Variances	+0.1	-6.9
Net Change	-4.3	+2.0
Percent Variance		
Percent Complete		

Cost And Schedule Variance Explanations

The unfavorable net change in the cost variance is due to higher than planned costs for the Airborne Signals Intelligence Payload (ASIP) and Multi-Platform Radar Technology Insertion Program (MP-RTIP) sensors.

The favorable net change in the schedule variance is due to recovery of schedule with recent deliveries of MP-RTIP sub-assemblies.

Contract Comments

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

The difference between the initial contract price target and the current contract price target is due to the initial contract target price reflecting award of only selected long lead items capped at $5M; whereas the current contract price reflects the final negotiated price of the total buy.

This contract procures five aircraft (two Block 30 and three Block 40), one Mission Control Element, one Launch & Recovery Element, four Enhanced Integrated Sensor Suites and three MP-RTIP sensors.

Appropriation: RDT&E

Contract Name	**Global Hawk EMD Ground Station Re-Architecture (GSRA)**
Contractor	Northrop Grumman Integrated Systems
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	87.1	N/A	N/A	84.2	88.1

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	-3.1	-0.5
Previous Cumulative Variances	--	--
Net Change	-3.1	-0.5
Percent Variance		
Percent Complete		

Cost And Schedule Variance Explanations

The unfavorable cumulative cost variance is due to higher than planned costs in Systems Engineering (SE) and Program Management (PM) due to additional requirements reviews.

The unfavorable cumulative schedule variance is due to software documentation taking longer than planned.

Contract Comments

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 CY 2012 Blockload hardware/software maintenance licenses.

This is the first time this contract is being reported. 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 8 Air Vehicle and EISS**
Contractor	Northrop Grumman
Contractor Location	San Diego, CA 92150-9066
Contract Number, Type	FA8620-08-C-3001, FFP
Award Date	April 02, 2008
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
288.7	N/A	5	290.8	N/A	5	290.8	290.8

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.

The difference between the initial contract price target and the current contract price target is due to modifications to the contract (e.g., incorporation of Engineering Change Proposals and Contract Change Proposals, increase for Government Funished Property and Government Furnished Equipment repairs, additional scheduled and unscheduled maintenance, etc.)

This contract procures five air vehicles (two Block 30 and three Block 40), two Enhanced Integrated Sensor Suite (EISS) sensors, and two ground stations.

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	187.0	187.0

Cost And Schedule Variance Explanations

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

Contract Comments

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 was covered under the contract. By adding the CLIN and funding, the Government is better positioned to replace GFP and GFE more expediently.

This contract procures four air vehicles (two Block 30 and two Block 40) and two Enhanced Integrated Sensor Suite (EISS) sensors.

Appropriation: Procurement

Contract Name	**LRIP Lot 10**
Contractor	Northrop Grumman
Contractor Location	San Diego, CA 92150-9066
Contract Number, Type	FA8620-10-C-4000, FPIF
Award Date	May 05, 2010
Definitization Date	

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	240.7	580.6	4	240.7	491.8

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	0.0	0.0
Previous Cumulative Variances	--	--
Net Change	+0.0	+0.0
Percent Variance		
Percent Complete		

Cost And Schedule Variance Explanations

None

Contract Comments

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 amount currently obligated on the Undefinitized Contract Action (UCA) including all Advance Procurement funding. The ceiling value reflects the Not-to-Exceed price of the UCA.

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

Earned Value Management data will commence in March 2012.

Appropriation: RDT&E

Contract Name	**LRIP Lot 9 Payloads FPIF**
Contractor	Northrop Grumman Systems Corporation
Contractor Location	17066 Goldentop Road San Diego, CA 92127-2412
Contract Number, Type	FA8620-10-C-4007/1, FPIF
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
184.6	203.3	7	184.6	203.3	7	189.2	181.3

Variance	Cost Variance	Schedule Variance
Cumulative Variances To Date	+1.6	+7.4
Previous Cumulative Variances	--	--
Net Change	+1.6	+7.4
Percent Variance		
Percent Complete		

Cost And Schedule Variance Explanations

The favorable cumulative cost variance is due to lower than planned cost for the Multi-Platform Radar Technology Insertion Program (MP-RTIP) sensors.

The favorable cumulative schedule variance is due to early delivery of MP-RTIP hardware.

Contract Comments

This is the first time this contract is being reported. This contract procures five Airborne Signals Intelligence Payload (ASIP) and two MP-RTIP sensors.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	34	34	45	75.56%
Total Program Quantities Delivered	34	34	45	75.56%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	9363.0	Years Appropriated	12
Expenditures To Date	5937.2	Percent Years Appropriated	60.00%
Percent Expended	63.41%	Appropriated to Date	8393.5
Total Funding Years	20	Percent Appropriated	89.65%

Total expenditures as of March 7, 2011.

Operating and Support Cost

Assumptions And Ground Rules

The FY 2013 President's Budget changes estimated Operating and Support (O&S) Costs significantly. At this time, the Life Cycle Management Plan, the Concept of Operations, and the operations tempo are all being re-examined in light of operational and budget decisions that reduced the Global Hawk fleet size and planned annual flying hours. The number of operating locations was also affected.

The costs shown below are based on the FY 2011 Program Office Estimate (POE) which was completed prior to the submission of the FY 2013 President's Budget. Costs assume approximately 24,600 planned flying hours per year across five operating locations and include manpower for surge capability to cover eight Combat Air Patrols. Cost totals do not include disposal costs. The service life of a Global Hawk aircraft is currently estimated to be 20 years, 1800 missions or 40,000 flying hours. Based on planned operations tempo, 20 years is currently the limiting factor for GH aircraft service life vice number of missions or number of flying hours. Costs below span the period from FY 2003, with fielding of the first Global Hawk Block 10 aircraft, through FY 2032, the last planned operational year for Global Hawk aircraft. Total estimated flying hours for the same period of time is 501,031.

There is no antecedent system for the Global Hawk.

Costs BY2000 $K		
Cost Element	**RQ-4A/B UAS GLOBAL HAWK Avg Annual Cost per Flying Hour**	**No Global Hawk Antecedent**
Unit-Level Manpower	7.325	--
Unit Operations	2.093	--
Maintenance	9.360	--
Sustaining Support	7.654	--
Continuing System Improvements	2.171	--
Indirect Support	2.515	--
Other	--	--
Total Unitized Cost (Base Year 2000 $)	31.118	--

Total O&S Costs $M	RQ-4A/B UAS GLOBAL HAWK	No Global Hawk Antecedent
Base Year	15591.1	--
Then Year	23388.8	--