



# Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-537



## National Airspace System (NAS)

As of FY 2011 President's Budget

Defense Acquisition Management  
Information Retrieval  
(DAMIR)

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## Common Acronyms and Abbreviations for MDAP Programs

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

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

## Program Information

**Program Name**

National Airspace System (NAS) (NAS)

**DoD Component**

AirForce

**Joint Participants**

Army; Navy

## Responsible Office

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## References

**SAR Baseline (Production Estimate)**

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated June 7, 2005

**Approved APB**

Air Force Acquisition Executive (AFAE) Approved Acquisition Program Baseline (APB) dated July 12, 2006

## **Mission and Description**

The DoD National Airspace System (NAS) is comprised of three systems: the Digital Airport Surveillance Radar (DASR), the DoD Advanced Automation System (DAAS), also known as the Standard Terminal Automation Replacement System (STARS) within the Federal Aviation Administration (FAA), and the Voice Communication Switching System (VCSS). The DoD NAS program is modernizing the DoD radar approach control facilities in parallel with the FAA. The DoD NAS program provides systems and facilities compatible/interoperable with the FAA modernization, prevents DoD flight delays and cancellations, continues DoD's access into Special Use Airspace, provides transparent services to military and civil aircraft, replaces aging DoD Air Traffic Control (ATC) systems, and increases flight safety. NAS is a Non-Developmental Item (NDI) acquisition. DoD will upgrade voice, data, and sensor systems as well as facility configurations and operations concepts to provide continued quantity and quality of ATC services to the aviation community. To supplement the DAAS, the DoD procured the Airfield Automation System (AFAS) to integrate weather, airport environmental data, and airfield equipment status at air traffic control positions. DoD military ATC and fighting/flying readiness will be maintained.

## Executive Summary

The sole source Phase II DASR production contract was awarded Sep 2008. This Phase II contract was required due to program extensions caused by the need to conduct three Multi-service Operational Test and Evaluations (MOT&E), subsequent budget cuts and other funding cuts that required delays in procurements and installations. The contract award included the prices for the FY08-FY09 procurements. The proposal evaluation for the FY10-FY12 procurements is complete with contract award by May 26, 2010.

NAS completed the Follow-on Operational Test and Evaluation (FOT&E) on May 16-22, 2009 at Luke AFB. The out-brief to DOT&E was conducted on September 17, 2009 with an Effective and Suitable determination. DOT&E stated NAS will remain on their oversight list until an operational evaluation is completed on the Advanced Signal Data Processor (ASDP), Monopulse Secondary Surveillance Radar, and the Automated Protocol EXchanger, all expected summer/fall 2010.

The Navy is planning for budget cuts to the program stretching procurements out into 2018, increasing costs and potentially impacting plant viability. The program office is evaluating the impacts to the unit costs based on the planning numbers provided by the Navy. Based on these funding and quantity profiles, the unit cost growth increase is predicted at: APUC-9.47% and PAUC-8.84%.

All 63 of the Airfield Automation Systems (AFAS) have been turned over to Air Force Flight Standards Agency (AFFSA/A3S) for operating and support.

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

## Threshold Breaches

### APB Breaches

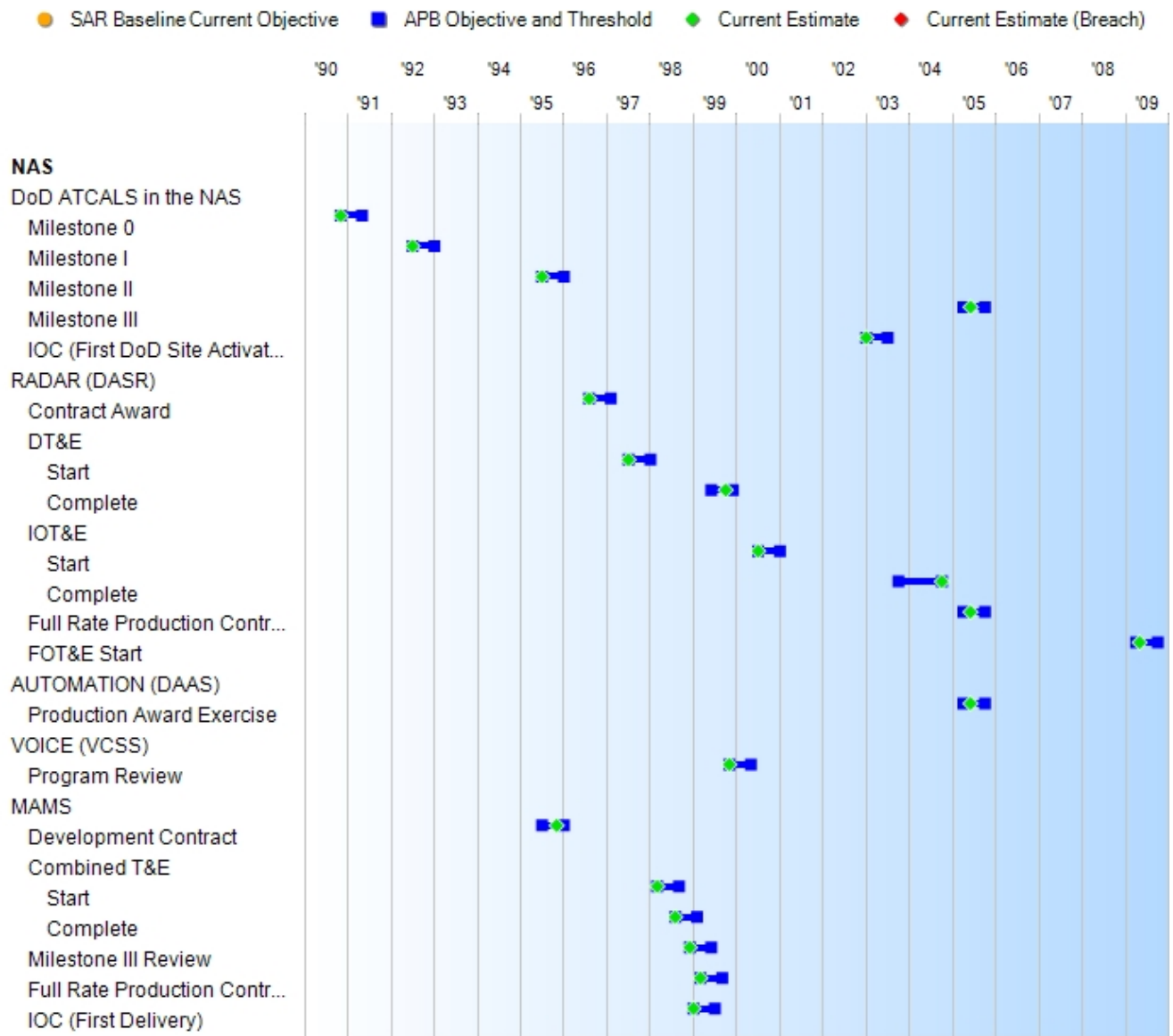
- Schedule
- Performance
- Cost
  - RDT&E
  - Procurement
  - MILCON
  - Acq O&M
- O&S Cost
- Unit Cost
  - PAUC
  - APUC

### Nunn-McCurdy Breaches

- Current UCR Baseline
  - PAUC None
  - APUC None
- Original UCR Baseline
  - PAUC None
  - APUC None



# Schedule



Schedule Events				
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold	Current Estimate	
<b>DoD ATCALs in the NAS</b>				
Milestone 0	Nov 1990	Nov 1990	May 1991	Nov 1990
Milestone I	Jul 1992	Jul 1992	Jan 1993	Jul 1992
Milestone II	Jul 1995	Jul 1995	Jan 1996	Jul 1995
Milestone III	Apr 2005	Apr 2005	Oct 2005	Jun 2005
IOC (First DoD Site Activation)	Jan 2003	Jan 2003	Jul 2003	Jan 2003
<b>RADAR (DASR)</b>				
Contract Award	Aug 1996	Aug 1996	Feb 1997	Aug 1996
<b>DT&amp;E</b>				
Start	Jul 1997	Jul 1997	Jan 1998	Jul 1997
Complete	Jun 1999	Jun 1999	Dec 1999	Oct 1999
<b>IOT&amp;E</b>				
Start	Jul 2000	Jul 2000	Jan 2001	Jul 2000
Complete	Oct 2003	Oct 2003	Oct 2004	Oct 2004
Full Rate Production Contract Award	Apr 2005	Apr 2005	Oct 2005	Jun 2005
FOT&E Start	Jun 2006	Apr 2009	Oct 2009	May 2009
<b>AUTOMATION (DAAS)</b>				
Production Award Exercise	Apr 2005	Apr 2005	Oct 2005	Jun 2005
<b>VOICE (VCSS)</b>				
Program Review	Nov 1999	Nov 1999	May 2000	Nov 1999
<b>MAMS</b>				
Development Contract	Jul 1995	Jul 1995	Jan 1996	Nov 1995
<b>Combined T&amp;E</b>				
Start	Mar 1998	Mar 1998	Sep 1998	Mar 1998
Complete	Aug 1998	Aug 1998	Feb 1999	Aug 1998
Milestone III Review	Dec 1998	Dec 1998	Jun 1999	Dec 1998
Full Rate Production Contract Award	Mar 1999	Mar 1999	Sep 1999	Mar 1999
IOC (First Delivery)	Jan 1999	Jan 1999	Jul 1999	Jan 1999

### Change Explanations

None

**Acronyms and Abbreviations**

ATCALs - Air Traffic Control and Landing Systems  
DAAS - DOD Advanced Automation System  
DASR - Digital Airport Surveillance Radar  
DT&E - Developmental Test & Evaluation  
FOT&E - Follow-on Operational Test & Evaluation  
IOC - Initial Operational Capability  
IOT&E - Initial Operational Test and Evaluation  
MAMS - Military Airspace Management System  
VCSS - Voice Communications Switching System

## Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
<b>DOD ATCALs IN THE NAS</b>				
<b>Inter/Intrafacility Data Transfer</b>				
<b>Auto Transfer of Position Track Data</b>				
IAW ICD	IAW ICD	IAW ICD	IAW ICD	IAW ICD
<b>Electronic Inter-facility Transfer of Flight Plans</b>				
IAW ICD	IAW ICD	IAW ICD	IAW ICD	IAW ICD
<b>Aircraft Tracked Medium (LCF)</b>				
900	900	250	522	900
<b>Radar Subclutter Visibility (dB)</b>				
55	55	42	47	47
<b>Net-Ready</b>				
100% of applicable, approved key inter-face profiles	100% of applicable, approved key interface profiles	With FAA agreement, 100% of enterprise-level or critical applicable, approved key interface profiles	TBD	With FAA agreement, 100% of enterprise-level or critical applicable, approved key interface profiles
<b>MAMS</b>				
<b>Conflict Identification</b>				
100% of conflicts identified; 85 % of conflicts identified <or = 10 (sec)	N/A	N/A	TBD	N/A
<b>Interface with FAA</b>				
Transmittal Time for 85% of mess ages between Scheduler and FAA < or = 5 (min)	N/A	N/A	TBD	N/A
<b>Reporting</b>				
Processing Time of Utilization Data Requests <or = 1 (min); Total Manual and Automatic Report Generation <or = 10 (min)	N/A	N/A	TBD	N/A

**Requirements Reference**

Operational Requirements Document (ORD) for DoD Air Traffic Control and Landing Systems (ATCALs) dated March 16, 2005

**Change Explanations**

None

**Acronyms and Abbreviations**

ATCALs - Air Traffic Control and Landing Systems

db - decibels

FAA - Federal Aviation Administration

IAW - In accordance with

ICD - Interface Control Document

LCF - Local Control Facility

MAMS - Military Airspace Management System

TBD - To Be Determined

### Track to Budget

**RDT&E**

Appn	BA	PE	
Navy	1319	05	0604504N
	<b>Project</b>	<b>Name</b>	
	1657	Navy NAS Mod/Shore Air Traffic Control Systems (Shared) (Sunk)	
Air Force	3600	07	0305137F
	<b>Project</b>	<b>Name</b>	
	4090	National Airspace System (NAS) (Sunk)	
Army	2040	05	0604633A
	<b>Project</b>	<b>Name</b>	
	D586	Army Airfield Support Equipment (Sunk)	

**Procurement**

Appn	BA	PE	
Navy	1810	02	0204696N
	<b>Line Item</b>	<b>Name</b>	
	284000	Navy NAS Mod (Shared)	
Air Force	3080	03	0305137F
	<b>Line Item</b>	<b>Name</b>	
	833020	NAS (Shared)	
Air Force	3080	05	0305137F
	<b>Line Item</b>	<b>Name</b>	
	86190A	NAS (Shared)	
Army	2031	01	0604633A
	<b>Line Item</b>	<b>Name</b>	
	AA0050	Army Airfield Support Equipment	
Navy	1810	08	0204696N
	<b>Line Item</b>	<b>Name</b>	
	Y8JC	Navy NAS Mod (Shared)	

## Cost and Funding

### Cost Summary

Total Acquisition Cost							
Appropriation	BY 2005 \$M			BY 2005 \$M	TY \$M		
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective	Current Estimate
RDT&E	134.0	134.0	147.4	135.1	115.8	115.8	115.8
Procurement	1239.2	1239.2	1363.1	1287.9	1305.3	1305.3	1360.5
Flyaway	--	--	--	935.3	--	--	995.6
Recurring	--	--	--	935.3	--	--	995.6
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	352.6	--	--	364.9
Other Support	--	--	--	290.2	--	--	300.9
Initial Spares	--	--	--	62.4	--	--	64.0
MILCON	0.0	0.0	--	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	--	0.0	0.0	0.0	0.0
Total	1373.2	1373.2	N/A	1423.0	1421.1	1421.1	1476.3

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E		0	0
Procurement		93	91
Total		93	91

#### Quantity Notes

The unit of measure of this program represents National Airspace System (NAS) operational sites. A NAS site (unit) represents at least one paired DoD Advanced Automation Systems (DAAS) and Digital Airport Surveillance Radars(DASR). This definition of a unit is not representative of the typical equipment installed at a NAS site. It does not account for Voice Communication Switching System (VCSS) equipment, stand-alone DAAS equipment, or sites that have multiple DASR systems. Costs vary significantly from site to site due to particular site unique configuration requirements.

## Cost and Funding

### Funding Summary

Appropriation Summary									
FY 2011 President's Budget / December 2009 SAR (TY\$ M)									
Appropriation	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
RDT&E	115.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	115.8
Procurement	949.8	96.5	133.0	69.2	41.0	25.8	32.3	12.9	1360.5
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2011 Total	1065.6	96.5	133.0	69.2	41.0	25.8	32.3	12.9	1476.3
PB 2009 Total	1036.3	103.2	90.0	93.7	114.0	45.4	8.1	0.0	1490.7
Delta	29.3	-6.7	43.0	-24.5	-73.0	-19.6	24.2	12.9	-14.4

Quantity Summary										
FY 2011 President's Budget / December 2009 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total
Development	0	0	0	0	0	0	0	0	0	0
Production	0	66	7	9	6	1	1	0	1	91
PB 2011 Total	0	66	7	9	6	1	1	0	1	91
PB 2009 Total	0	63	7	7	7	5	2	0	0	91
Delta	0	3	0	2	-1	-4	-1	0	1	0



## Cost and Funding

### Annual Funding By Appropriation

Annual Funding							
1319   RDT&E   Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1990	--	--	--	--	--	--	4.0
Subtotal	--	--	--	--	--	--	4.0

Annual Funding 1319   RDT&E   Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2005 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1990	--	--	--	--	--	--	5.2
Subtotal	--	--	--	--	--	--	5.2

Annual Funding 2040   RDT&E   Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1990	--	--	--	--	--	--	3.0
Subtotal	--	--	--	--	--	--	3.0

Annual Funding 2040   RDT&E   Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	BY 2005 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1990	--	--	--	--	--	--	3.9
Subtotal	--	--	--	--	--	--	3.9

Annual Funding							
3600   RDT&E   Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1990	--	--	--	--	--	--	4.0
1991	--	--	--	--	--	--	9.9
1992	--	--	--	--	--	--	4.2
1993	--	--	--	--	--	--	6.7
1994	--	--	--	--	--	--	14.2
1995	--	--	--	--	--	--	29.5
1996	--	--	--	--	--	--	13.3
1997	--	--	--	--	--	--	11.8
1998	--	--	--	--	--	--	11.6
1999	--	--	--	--	--	--	1.8
2000	--	--	--	--	--	--	1.8
Subtotal	--	--	--	--	--	--	108.8

Annual Funding 3600   RDT&E   Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	BY 2005 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1990	--	--	--	--	--	--	5.2
1991	--	--	--	--	--	--	12.4
1992	--	--	--	--	--	--	5.1
1993	--	--	--	--	--	--	8.0
1994	--	--	--	--	--	--	16.6
1995	--	--	--	--	--	--	33.9
1996	--	--	--	--	--	--	15.0
1997	--	--	--	--	--	--	13.1
1998	--	--	--	--	--	--	12.8
1999	--	--	--	--	--	--	2.0
2000	--	--	--	--	--	--	1.9
Subtotal	--	--	--	--	--	--	126.0

Annual Funding 1810   Procurement   Other Procurement, Navy								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
1998	--	--	0.9	--	0.9	1.3	2.2	
1999	2	5.3	--	--	5.3	3.4	8.7	
2000	5	27.0	--	--	27.0	6.4	33.4	
2001	--	--	23.6	--	23.6	7.8	31.4	
2002	3	13.3	--	--	13.3	5.3	18.6	
2003	2	5.1	--	--	5.1	1.9	7.0	
2004	1	11.3	--	--	11.3	4.6	15.9	
2005	1	8.4	--	--	8.4	4.7	13.1	
2006	4	14.4	--	--	14.4	3.8	18.2	
2007	4	22.8	--	--	22.8	4.5	27.3	
2008	1	19.9	--	--	19.9	4.1	24.0	
2009	3	21.5	--	--	21.5	1.5	23.0	
2010	3	23.9	--	--	23.9	1.1	25.0	
2011	1	13.3	--	--	13.3	0.1	13.4	
2012	3	21.2	--	--	21.2	0.5	21.7	
2013	1	11.5	--	--	11.5	0.9	12.4	
2014	1	11.9	--	--	11.9	1.9	13.8	
2015	--	--	23.5	--	23.5	2.1	25.6	
2016	1	7.0	--	--	7.0	1.5	8.5	
Subtotal	36	237.8	48.0	--	285.8	57.4	343.2	

Annual Funding 1810   Procurement   Other Procurement, Navy								
Fiscal Year	Quantity	BY 2005 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
1998	--	--	1.0	--	1.0	1.4	2.4	
1999	2	5.7	--	--	5.7	3.7	9.4	
2000	5	28.9	--	--	28.9	6.8	35.7	
2001	--	--	25.0	--	25.0	8.2	33.2	
2002	3	13.9	--	--	13.9	5.5	19.4	
2003	2	5.2	--	--	5.2	2.0	7.2	
2004	1	11.3	--	--	11.3	4.6	15.9	
2005	1	8.1	--	--	8.1	4.6	12.7	
2006	4	13.5	--	--	13.5	3.6	17.1	
2007	4	21.0	--	--	21.0	4.1	25.1	
2008	1	18.0	--	--	18.0	3.7	21.7	
2009	3	19.2	--	--	19.2	1.4	20.6	
2010	3	21.1	--	--	21.1	1.0	22.1	
2011	1	11.6	--	--	11.6	0.1	11.7	
2012	3	18.1	--	--	18.1	0.5	18.6	
2013	1	9.7	--	--	9.7	0.7	10.4	
2014	1	9.8	--	--	9.8	1.6	11.4	
2015	--	--	19.1	--	19.1	1.7	20.8	
2016	1	5.6	--	--	5.6	1.2	6.8	
Subtotal	36	220.7	45.1	--	265.8	56.4	322.2	



Annual Funding 2031   Procurement   Aircraft Procurement, Army								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
1997	--	--	0.7	--	0.7	--	0.7	
1998	--	--	0.1	--	0.1	1.0	1.1	
1999	--	--	1.6	--	1.6	0.1	1.7	
2000	--	--	2.4	--	2.4	--	2.4	
2001	--	--	12.0	--	12.0	1.2	13.2	
2002	--	--	5.5	--	5.5	2.9	8.4	
2003	1	6.7	2.4	--	9.1	4.6	13.7	
2004	1	7.3	0.3	--	7.6	5.2	12.8	
2005	2	7.7	1.0	--	8.7	4.8	13.5	
2006	1	10.1	1.1	--	11.2	4.0	15.2	
2007	2	18.6	4.8	--	23.4	4.8	28.2	
2008	2	9.0	4.2	--	13.2	6.2	19.4	
2009	1	19.1	4.1	--	23.2	5.1	28.3	
2010	1	12.6	3.5	--	16.1	2.2	18.3	
2011	--	--	3.0	--	3.0	1.6	4.6	
2012	--	--	2.8	--	2.8	1.8	4.6	
2013	--	--	2.6	--	2.6	1.9	4.5	
2014	--	--	2.7	--	2.7	1.4	4.1	
2015	--	--	2.5	--	2.5	1.4	3.9	
2016	--	--	3.4	--	3.4	1.0	4.4	
Subtotal	11	91.1	60.7	--	151.8	51.2	203.0	

Annual Funding 2031   Procurement   Aircraft Procurement, Army							
Fiscal Year	Quantity	BY 2005 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
1997	--	--	0.8	--	0.8	--	0.8
1998	--	--	0.1	--	0.1	1.1	1.2
1999	--	--	1.7	--	1.7	0.1	1.8
2000	--	--	2.6	--	2.6	--	2.6
2001	--	--	12.6	--	12.6	1.3	13.9
2002	--	--	5.6	--	5.6	3.1	8.7
2003	1	6.8	2.4	--	9.2	4.8	14.0
2004	1	7.2	0.3	--	7.5	5.2	12.7
2005	2	7.4	1.0	--	8.4	4.6	13.0
2006	1	9.5	1.0	--	10.5	3.8	14.3
2007	2	17.1	4.5	--	21.6	4.4	26.0
2008	2	8.2	3.8	--	12.0	5.6	17.6
2009	1	17.1	3.7	--	20.8	4.5	25.3
2010	1	11.1	3.1	--	14.2	2.0	16.2
2011	--	--	2.6	--	2.6	1.4	4.0
2012	--	--	2.4	--	2.4	1.5	3.9
2013	--	--	2.2	--	2.2	1.6	3.8
2014	--	--	2.2	--	2.2	1.2	3.4
2015	--	--	2.1	--	2.1	1.1	3.2
2016	--	--	2.7	--	2.7	0.8	3.5
Subtotal	11	84.4	57.4	--	141.8	48.1	189.9

Annual Funding 3080   Procurement   Other Procurement, Air Force								
Fiscal Year	Quantity	TY \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
1998	--	--	4.5	--	4.5	11.3	15.8	
1999	--	--	5.9	--	5.9	9.2	15.1	
2000	3	28.0	7.9	--	35.9	12.7	48.6	
2001	2	33.7	12.0	--	45.7	14.5	60.2	
2002	4	32.4	0.3	--	32.7	21.1	53.8	
2003	1	13.3	2.9	--	16.2	21.5	37.7	
2004	--	--	13.2	--	13.2	16.8	30.0	
2005	1	28.3	2.5	--	30.8	12.8	43.6	
2006	3	34.3	5.5	--	39.8	24.5	64.3	
2007	6	40.6	2.2	--	42.8	26.7	69.5	
2008	4	52.4	--	--	52.4	15.1	67.5	
2009	6	47.8	--	--	47.8	14.5	62.3	
2010	3	38.7	--	--	38.7	14.5	53.2	
2011	8	98.4	--	--	98.4	16.6	115.0	
2012	3	33.0	--	--	33.0	9.9	42.9	
2013	--	--	16.4	--	16.4	7.7	24.1	
2014	--	--	3.5	--	3.5	4.4	7.9	
2015	--	--	0.3	--	0.3	2.5	2.8	
Subtotal	44	480.9	77.1	--	558.0	256.3	814.3	

Annual Funding 3080   Procurement   Other Procurement, Air Force								
Fiscal Year	Quantity	BY 2005 \$M						
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program	
1998	--	--	4.9	--	4.9	12.3	17.2	
1999	--	--	6.3	--	6.3	9.9	16.2	
2000	3	29.7	8.4	--	38.1	13.4	51.5	
2001	2	35.1	12.6	--	47.7	15.1	62.8	
2002	4	33.2	0.3	--	33.5	21.6	55.1	
2003	1	13.8	3.0	--	16.8	22.3	39.1	
2004	--	--	13.4	--	13.4	17.1	30.5	
2005	1	27.9	2.5	--	30.4	12.6	43.0	
2006	3	32.9	5.3	--	38.2	23.4	61.6	
2007	6	38.0	2.1	--	40.1	24.9	65.0	
2008	4	48.0	--	--	48.0	13.8	61.8	
2009	6	43.2	--	--	43.2	13.1	56.3	
2010	3	34.6	--	--	34.6	12.9	47.5	
2011	8	86.8	--	--	86.8	14.7	101.5	
2012	3	28.6	--	--	28.6	8.6	37.2	
2013	--	--	14.0	--	14.0	6.6	20.6	
2014	--	--	2.9	--	2.9	3.7	6.6	
2015	--	--	0.2	--	0.2	2.1	2.3	
Subtotal	44	451.8	75.9	--	527.7	248.1	775.8	

## Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
<b>Approval Date</b>	7/1/1995	8/8/2001
<b>Approved Quantity</b>	8	20
<b>Reference</b>	Milestone II Decision	Acquisition Decision Memorandum (ADM) dated August 8, 2001
<b>Start Year</b>	1995	1995
<b>End Year</b>	2001	2001

The LRIP quantity of eight Digital Airport Surveillance Radar (DASR) and zero DOD Advanced Automation System (DAAS) approved at MS II during July 1995 was for the radar and automation portions of NAS. Air Force approved an Acquisition Decision Memorandum (ADM) on June 30, 1997 increasing the LRIP up to 20 DASRs and 20 DAAS. Air Force approved an ADM on August 8, 2001 authorizing a second LRIP of 20 DASR and 13 DAAS to keep DoD DASR production and deployment efforts on track avoiding shutdown, restart, and retraining impacts.

## **Foreign Military Sales**

None

## **Nuclear Costs**

None

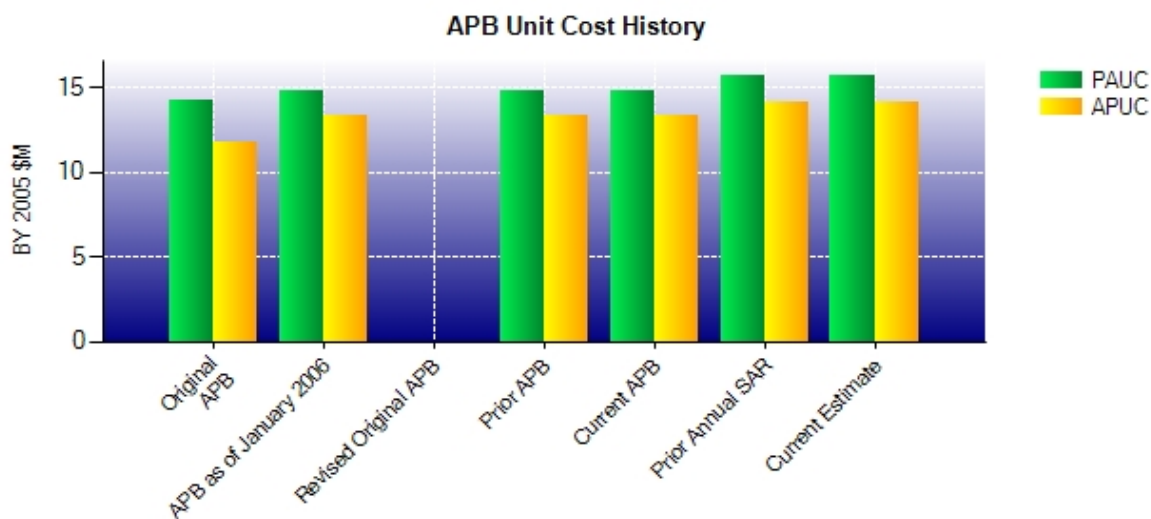
## Unit Cost

### Unit Cost Report

Item	BY 2005 \$M	BY 2005 \$M	% Change
	Current UCR Baseline (Jul 2006 APB)	Current Estimate (Dec 2009 SAR)	
<b>Program Acquisition Unit Cost</b>			
Cost	1373.2	1423.0	
Quantity	93	91	
Unit Cost	14.766	15.637	+5.90
<b>Average Procurement Unit Cost</b>			
Cost	1239.2	1287.9	
Quantity	93	91	
Unit Cost	13.325	14.153	+6.21

Item	BY 2005 \$M	BY 2005 \$M	% Change
	Original UCR Baseline (Jul 1995 APB)	Current Estimate (Dec 2009 SAR)	
<b>Program Acquisition Unit Cost</b>			
Cost	762.1	1423.0	
Quantity	53	91	
Unit Cost	14.379	15.637	+8.75
<b>Average Procurement Unit Cost</b>			
Cost	629.7	1287.9	
Quantity	53	91	
Unit Cost	11.881	14.153	+19.12

**Unit Cost History**



Item	Date	BY 2005 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Jul 1995	14.270	11.789	14.926	12.711
APB as of January 2006	Jun 2005	14.766	13.325	15.281	14.035
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	Jun 2005	14.766	13.325	15.281	14.035
Current APB	Jul 2006	14.766	13.325	15.281	14.035
Prior Annual SAR	Dec 2007	15.643	14.158	16.381	15.109
Current Estimate	Dec 2009	15.637	14.153	16.223	14.951

**SAR Unit Cost History**

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial PAUC Development Estimate	Changes								PAUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
14.926	-0.815	-3.104	1.517	1.544	-0.791	0.000	2.004	0.355	15.281

Current SAR Baseline to Current Estimate (TY \$M)									
PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
15.281	-0.029	0.133	0.099	0.000	1.238	0.000	-0.499	0.942	16.223



Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
12.711	-0.747	-2.152	1.517	1.544	-0.842	0.000	2.004	1.324	14.035

Current SAR Baseline to Current Estimate (TY \$M)									
APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
14.035	-0.018	0.107	0.099	0.000	1.227	0.000	-0.499	0.916	14.951

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone I	Jul 1992	Jul 1992	Jul 1992	Jul 1992
Milestone II	Jan 1994	Jul 1995	Jul 1995	Jul 1995
Milestone III	Mar 1997	Jun 1998	Apr 2005	Jun 2005
IOC	Oct 1999	Apr 2000	Jan 2003	Jan 2003
Total Cost (TY \$M)	122.6	791.1	1421.1	1476.3
Total Quantity	N/A	53	93	91
PAUC	N/A	14.926	15.281	16.223

## Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	115.8	1305.3	--	1421.1
Previous Changes				
Economic	-1.0	+9.8	--	+8.8
Quantity	--	-18.5	--	-18.5
Schedule	--	+11.0	--	+11.0
Engineering	--	--	--	--
Estimating	+1.0	+50.2	--	+51.2
Other	--	--	--	--
Support	--	+17.1	--	+17.1
Subtotal	--	+69.6	--	+69.6
Current Changes				
Economic	--	-11.4	--	-11.4
Quantity	--	--	--	--
Schedule	--	-2.0	--	-2.0
Engineering	--	--	--	--
Estimating	--	+61.5	--	+61.5
Other	--	--	--	--
Support	--	-62.5	--	-62.5
Subtotal	--	-14.4	--	-14.4
Total Changes	--	+55.2	--	+55.2
Current Estimate	115.8	1360.5	--	1476.3

Summary BY 2005 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Production Estimate)	134.0	1239.2	--	1373.2
Previous Changes				
Economic	--	--	--	--
Quantity	--	-15.1	--	-15.1
Schedule	--	+11.6	--	+11.6
Engineering	--	--	--	--
Estimating	+1.1	+38.2	--	+39.3
Other	--	--	--	--
Support	--	+14.5	--	+14.5
Subtotal	+1.1	+49.2	--	+50.3
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	+54.9	--	+54.9
Other	--	--	--	--
Support	--	-55.4	--	-55.4
Subtotal	--	-0.5	--	-0.5
Total Changes	+1.1	+48.7	--	+49.8
Current Estimate	135.1	1287.9	--	1423.0

Previous Estimate: December 2007

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-11.4
Stretch-out of procurement buy profile (Navy). (Schedule)	0.0	+1.5
Acceleration of procurement buy profile (Air Force). (Schedule)	0.0	-3.5
Adjustment for current and prior escalation. (Estimating)	+1.7	+1.9
Revised estimate due to Navy procurement stretch-out. (buy profile). (Estimating)	-9.6	-11.2
Revised estimate due to increased Air Force procurement rate (Estimating)	+51.6	+58.9
Decrease in budget due to AF priorities (Estimating)	-0.3	-0.8
Increased quantities due to Army budget priorities (Estimating)	+11.5	+12.7
Adjustment for current and prior escalation. (Support)	+0.6	+0.6
Decrease in Other Support (Navy). (Support)	-18.2	-21.3
Increase in Other Support (Army). (Support)	+5.8	+7.1
Decrease in Other Support (Air Force). (Support)	-30.0	-33.4
Decrease in Initial Spares (Air Force). (Support)	-13.6	-15.5
Procurement Subtotal	-0.5	-14.4

## Contracts

<b>Contract Identification</b>							
--------------------------------	--	--	--	--	--	--	--

**Appropriation:** Procurement  
**Contract Name:** DASR  
**Contractor:** Raytheon Company  
**Contractor Location:** Marlborough, MA 01752  
**Contract Number:** F19628-96-D-0038/1  
**Contract Type:** Firm Fixed Price (FFP)  
**Award Date:** August 09, 1996  
**Definitization Date:** August 09, 1996

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
17.9	N/A	0	17.9	N/A	0	17.9	17.9

<b>Cost and Schedule Variance Explanations</b>
--

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

**Contract Identification**

**Appropriation:** Procurement  
**Contract Name:** DASR  
**Contractor:** Raytheon Company  
**Contractor Location:** Marlborough, MA 01752  
**Contract Number:** F19628-96-D-0038/2  
**Contract Type:** Firm Fixed Price (FFP)  
**Award Date:** August 09, 1996  
**Definitization Date:** August 09, 1996

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
372.0	N/A	92	476.8	N/A	91	476.8	476.8

**Target Price Change Explanation**

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to

**Cost and Schedule Variance Explanations**

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

**Notes**

The current contract price and estimated price at completion have increased from the initial contract price due to contract extension.

**Contract Identification**

**Appropriation:** Procurement  
**Contract Name:** Digital Airport Surveillance Radar II  
**Contractor:** Raytheon Company  
**Contractor Location:** Marlborough, MA 01752  
**Contract Number:** FA8730-08-D-0001/1  
**Contract Type:** Firm Fixed Price (FFP)  
**Award Date:** May 22, 2008  
**Definitization Date:** September 30, 2008

Contract Price							
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
679.0	679.0	N/A	679.0	679.0	N/A	679.0	679.0

**Cost and Schedule Variance Explanations**

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

**Notes**

First time this contract is being reported

### Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	0	--
Production	66	66	91	72.53%
Total Program Quantity Delivered	66	66	91	72.53%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	1476.3	Years Appropriated	21
Expended to Date	940.8	Percent Years Appropriated	77.78%
Percent Expended	63.73%	Appropriated to Date	1162.1
Total Funding Years	27	Percent Appropriated	78.72%



## Operating and Support Cost

### Assumptions and Ground Rules

The Operating and Support (O&S) cost estimate is based on analysis performed for the MS III decision, letter from SAF/FMC dated March 18, 2005. The estimate assumes a 34 year life from year FY00 to FY34 for the 91 sites. There is no antecedent system.

Cost Estimate Reference:

None

Sustainment Strategy:

None

Antecedent Information:

None

Unitized O&S Costs BY2005 \$M			
Cost Element	NAS		Avg Annual Cost Per (Antecedent) Antecedent
	Avg Annual Cost Per NAS Site		
Mission Pay & Allowance	2.100		--
Unit Level Consumption	0.200		--
Intermediate Maintenance	0.000		--
Depot Maintenance	0.000		--
Contractor Support	0.100		--
Sustaining Support	0.400		--
Indirect	0.300		--
Other	0.000		--
<b>Total</b>	<b>3.100</b>		<b>--</b>

Unitized Cost Comments:

None

Item	Total O&S Cost \$M			
	NAS			Avg Annual Cost Per (Antecedent)
	Current Production APB Objective/Threshold	Current Estimate		
<b>Base Year</b>	N/A	N/A	9726.6	N/A
<b>Then Year</b>	N/A	N/A	14115.2	N/A

Total O&S Cost Comment

None

### Disposal Estimate Details

Date of Estimate:

Source of Estimate:

Disposal/Demilitarization Total Cost (BY 2005 \$M):