

## **Selected Acquisition Report (SAR)**

RCS: DD-A&T(Q&A)823-560



## **Joint Primary Aircraft Training System (JPATS)**

As of December 31, 2012

Defense Acquisition Management Information Retrieval (DAMIR)

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## **Program Information**

### **Program Name**

Joint Primary Aircraft Training System (JPATS)

## **DoD Component**

Air Force

## **Joint Participants**

United States Air Force; United States Navy

## **Responsible Office**

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## References

## SAR Baseline (Production Estimate)

Air Force Acquisition Executive (AFAE) Approved Acquisition Program Baseline (APB) dated February 28, 2002

### Approved APB

Air Force Acquisition Executive (AFAE) Approved Acquisition Program Baseline (APB) dated September 26, 2007

## **Mission and Description**

The Joint Primary Aircraft Training System (JPATS) is a United States Air Force (USAF)/United States Navy (USN)/United States Army (USA) program to replace USAF's T-37B aircraft, USN's T-34C aircraft, and the associated Ground Based Training Systems (GBTS); and add four T-6B aircraft with hardpoint wings for the Army Test and Evaluation Command mission requirements. The Air Force and Navy aircraft and GBTS are being used to train entry-level students in the fundamentals of flying so they can transition into advanced training tracks leading to rated qualification. The Army aircraft will be used as chase assets for test and evaluation missions.

The program represents a systems approach to aviator training requiring the purchase of air vehicles (750 production units), aircrew training devices (126), associated ground based training devices, an integrated training management system (TIMS), instructional courseware, as well as the entire logistics and sustainment of the training system which includes contractor logistics support (CLS).

The USAF will train at six bases and the USN at three bases. Each operational training location will be equipped with a full complement of operational flight trainers, instrument flight trainers, unit training devices and egress training devices. Courseware has been developed for the T-6A and converted from existing courseware for other platforms where appropriate. The TIMS will provide a training and scheduling management capability which will tie the efforts and activities of all Air Education and Training Command (AETC) and Chief of Naval Air Training operating locations together. The Army is planning on locating aircraft at two locations in support of test flights.

The USAF will have CLS for most of the off-aircraft equipment maintenance. The on-aircraft equipment maintenance will be performed by third party contractor or organically supported. The USN will employ total CLS for the entire aircraft. The GBTS will be a total CLS effort for both services.

## **Executive Summary**

JPATS continued to meet mission requirements of the Air Force's Air Education and Training Command and the Chief of Naval Air Training through delivery and sustainment of T-6 aircraft and Ground Based Training Systems (GBTS). In 2012 performance of this mission was significantly characterized by the prime contractor's bankruptcy filing and transition to a Contractor Operated and Maintained Base Supply (COMBS) contractor.

Significant events in 2012 included: Lot 18 (36 a/c) contract award; Hawker Beechcraft Company (HBC) Chapter 11 Bankruptcy filing; COMBS source selection and transition to a new contractor, DynCorp International (DCI); delivery of initial aircraft to Naval Air Station, Corpus Christi, Texas; acquisition planning and inclusion for procurement of four Army T-6B variants; resolution of the ejection seat cartridge obsolescence issue; redesign of the flight control stick, and significant progress toward improving the flight control system.

In January 2012 JPATS awarded production of Lot 18 aircraft. This contract award followed an FY 2011 Congressional Mark of 38 aircraft. Hawker Beechcraft Defense Corporation (HBDC) continued production at risk and extended FY 2011 pricing into FY 2012. This allowed the government to order the planned FY 2012 lot buy of 36 aircraft without repricing and maintained the existing production schedule but placed HBDC at financial risk (est. \$100M termination liability) for 10-12 months of long-lead parts. The 38 marked aircraft were restored in FY 2013 and FY 2014. HBDC submitted an updated proposal for Lots 19 and 20 in March 2012. HBDC incurred risks associated with long-lead parts for these final T-6B lots throughout 2012.

On May 3, 2012 HBC (parent of HBDC) filed for Chapter 11 Bankruptcy protection and received court approval to conduct "ordinary course of business" operations. In June, following a three week production line shutdown, HBDC resumed production of Lot 17 aircraft. The company's reorganization plan was approved by the bankruptcy court in October 2012 and HBC emerged from bankruptcy in February 2013. The JPATS program office continues to proceed with due diligence on business actions, to include negotiating Lots 19 and 20 aircraft, and sustaining engineering and program management support contracts. In 2012, the program office continued procurement actions with HBDC on a limited basis. Lack of a Forward Pricing Rate Agreement coupled with HBDC's financial instability significantly hindered contracting efforts. Defense Contractor Auditing Agency (DCAA) completed audit of the Lot 19 and 20 proposal in October 2012 and Defense Contractor Management Agency provided an updated Forward Pricing Rate Recommendation in December 2012. JPATS entered negotiations on Lots 19 and 20 (final lots) in December 2012. Entering 2013 HBDC is eight (8) aircraft ahead of the Lot 18 contract production schedule.

In 2012, JPATS received an Acquisition Decision Memorandum for procurement of four (4) U.S. Army T-6B variants anticipated to deliver in 2014 and 2015. These airplanes will replace T-34 C aircraft fulfilling Army Test and Evaluation Command mission requirements and are planned to be contracted with Lots 19 and 20.

JPATS continues to meet mission requirements of Air Force and Navy training commands though 2012, but aircraft readiness declined in both services due to increased Not Mission Capable due to Supply (NMCS) rates following source selection of a new COMBS contractor, DynCorp International (DCI) in June 2012. In the period following contract award, it was discovered that the previous COMBS provider had not ordered sufficient quantities of consumable, time change, and long-lead parts up through the contract period of performance. This created a supply chain deficit, which though aggressively addressed by the new vendor, will impact the fleet through most of 2013, with slow improvement evident at the close of 2012. In addition to NMCS issues, sustainment funding requirements shortfalls continue to impact engine overhaul and repair functions increasing risk to meeting aircrew production requirements. Cost savings afforded by the new COMBS contract allowed the program to buy back some engine and all of the propeller and landing gear overhauls in 2012. Current Weapon System Sustainment reductions in FY 2013 allow for funding of 3 engine overhauls out of a total 54 required in FY 2013. Cumulative unfunded engine overhauls are projected to total 108 by the end of FY 2014.

In July of 2012, the Navy accepted delivery of the first two aircraft designated for NAS Corpus Christi. These aircraft will facilitate initial flight instructor and maintenance training and are significant to meeting the Initial Operational Capability (IOC) milestone established for February 2013.

Throughout 2012, the program office took continued steps to mitigate ejection seat propellant cartridge shortages caused by lot acceptance test failures in November 2010; a new design was completed. The redesign effort of the primary cartridge, originally scheduled for completion in August 2011 was expanded to include the secondary cartridge, due to primary cartridge technical challenges. Requalification was completed in November 2012 and the first new cartridges were delivered to the production line in December 2012. As these cartridges are procured in quantity, this significant sustainment issue will close.

On September 13, 2011, a Sheppard AFB aircraft experienced an in-flight emergency caused by the fracture of the aft stick control assembly housing, resulting in loss of aileron control in the front cockpit and loss of pitch control in the aft cockpit; All Navy/Air Force aircraft were grounded until they successfully passed inspection. By November 2012 a machined design had been validated and cut into production. The new machined control stick lever design will replace cast control sticks on fielded aircraft; contract award for this effort will occur in June 2013.

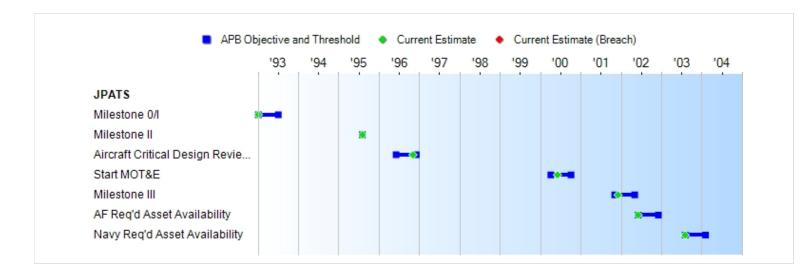
During a November 2012 training flight at NAS Pensacola the right hand aft rudder pedal became separated from its mounting and the rudder controls froze in a neutral position. Post flight inspection revealed that the inboard retaining clip had dislodged. Following fleet inspections, additional engineering analysis is being conducted to determine whether a redesign is warranted. In November 2012 the System Program Manager initiated independent review team to conduct a thorough evaluation of the T-6 flight control system to find areas where design improvements may be required.

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-McC	urdy Breache	S							
<b>Current UCR B</b>	aseline								
	PAUC	None							
	APUC	None							
<b>Original UCR E</b>	Baseline								
	PAUC	None							
	APUC	None							

## **Schedule**



Milestones	SAR Baseline Prod Est	Curre Prod Objective	Current Estimate	
Milestone 0/I	JAN 1993	JAN 1993	JUL 1993	JAN 1993
Milestone II	AUG 1995	AUG 1995	AUG 1995	AUG 1995
Aircraft Critical Design Review (CDR)	JUN 1996	JUN 1996	DEC 1996	NOV 1996
Start MOT&E	APR 2000	APR 2000	OCT 2000	JUN 2000
Milestone III	NOV 2001	NOV 2001	MAY 2002	DEC 2001
AF Req'd Asset Availability	JUN 2002	JUN 2002	DEC 2002	JUN 2002
Navy Req'd Asset Availability	AUG 2003	AUG 2003	FEB 2004	AUG 2003

## **Acronyms And Abbreviations**

AF - Air Force

MOT&E - Multi-Service Operational Test and Evaluation

Req'd - Required

## **Change Explanations**

None

## **Performance**

Characteristics	cteristics  SAR Baseline Prod Est  Current APB Production Objective/Threshold			Demonstrated Performance	Current Estimate
Syllabus Maneuvers Mission Profiles (Contact, Familiarization, Precision Aerobatics, Instrument, and Navigation -High and Low)	Accomplish all five mission profiles	Accomplish all five mission profiles	Accomplish all five mission profiles	Demon- strated all five mission profiles	Demonstrat- ed all five mission profiles
Sustained Speed at 1000 ft MSL, hot day (KTAS)	270	270	250 (270 Dash)	250 (270 Dash)	250 (270 Dash)
Operational G Envelope (Gs)	+7 to -3 symmetric	+7 to -3 symmetric	+6 to -3 symmetric; +4 to 0 asymmetric	+7 to -3.5 symmetric +4.0 to 0 asymmetric	+7 to -3.5 symmetric +4.0 to 0 asymmetric
Pressurization (PSI Differential)	5.0	5.0	3.5	3.5	3.5
Bird Strike Capability (4 lb bird, no catastropic damage) (KTAS)	Max Low Level Airspeed	Max Low Level Airspeed	270	270	270
Ejection Seat with Survival Kit (Altitude/Airspeed in Knots)	0/0	0/0	0/60	0/0	0/0
Able To Perform an Engine Out Landing	Unprepared surface	Unprepared surface	Runway	Runway	Runway
Anthropometric Accommodation (Sitting Height in inches)	31.0 to 40.0	31.0 to 40.0	32.8 to 40.0	31.0 to 40.0	31.0 to 40.0
Cockpit Configuration	Interchange- able Instructor/ Student	Interchange- able Instructor/ Student	Yes	Interchange- able Instructor/Stu- den	Interchange- able Instructor/Stu- dent
Cockpit Seating Configuration	0 Degree Over-the- Nose Visibility from the Rear Cockpit at Design Eye Height	O Degree Over-the- Nose Visibility from the Rear Cockpit at Design Eye Height	Stepped Tandem	Stepped Tandem	Stepped Tandem

Exterior Noise	FAR Part 36, Most Restrictive Applicable Standard	FAR Part 36, Most Restrictive Applicable Standard	FAR Part 36, Most Restrictive Applicable Standard	FAR Part 36, Most Restrictive Applicable Standard	FAR Part 36, Most Restrictive Applicable Standard
Takeoffs/Touch & Go/Land (Wx, Weight, Configuration) at Main Operating Bases (Runway Length - FT)	4000	4000	5000	4000	4000
IFR Certified Instrumentation	All Digital except Backups	All Digital except Backups	IFR Certified (Selectable EADI/EHSI)	IFR Certified (Select-able EADI/EHSI)	IFR Certified (Select-able EADI/EHSI)
Visual System For IFT/OFT	Yes	Yes	view commens- urate with the JPPT syllabus training	Provide a visual field of view commensurate with the JPPT syllabus training requirements	Provide a visual field of view commensurate with the JPPT syllabus training requirements

Requirements Source: Operational Requirements Document (ORD) 005-88-III dated April 1, 2000

## **Acronyms And Abbreviations**

EADI - Electronic Attitude/Directional Indicator

EHSI - Electronic Horizontal Situation Indicator

FAR - Federal Aviation Regulation

FT - Feet

G - Gravitational Acceleration

IFR - Instrument Flight Rules

IFT - Instrument Flight Trainer

JPPT - Joint Primary Pilot Training

KTAS - Knots True Airspeed

lb - Pound

MSL - Mean Sea Level

**OFT - Operational Flight Trainer** 

PSI - Pounds Per Square Inch

Wx - Weather

### Change Explanations

None

### Memo

Demonstrated performance for JPATS meets all Key Performance Parameters.

## **Track To Budget**

RDT&E				
APPN 1319	BA 05	PE 0603208N	(Navy)	
		Training System Aircraft		(Sunk)
APPN 3600	BA 05	PE 0604233F	(Air Force)	
	Project 4102	Specialized Undergraduate Pilot Training	(Shared)	
Procurement				
APPN 1506	BA 03	PE 0804745N	(Navy)	
	ICN 033900	Undergraduate Pilot Training		
APPN 1506	BA 05	PE 0804745N	(Navy)	
	ICN 057100	Undergraduate Pilot Training		
APPN 1506	BA 06	PE 0804745N	(Navy)	
	ICN 060500	Undergraduate Pilot Training	(Shared)	
APPN 2031	BA 01	PE 0210100A	(Army)	
	ICN A11300	Utility F/W Aircraft	(Shared)	
APPN 3010	BA 06	PE 0804740F	(Air Force)	
	ICN 000999	T-6	(Shared)	
APPN 3010	BA 05	PE 0804740F	(Air Force)	
	ICN JPAT00	AETC Aircraft Systems Modification	(Shared)	
APPN 3010	BA 07	PE 0804740F	(Air Force)	
	ICN JPATP0	T-6		(Sunk)

APPN 3010	BA 03	PE 0804740F	(Air Force)	
	ICN JPATS0	New AETC Aircraft Systems		(Sunk)
MILCON				
APPN 1205		PE 0212176N	(Navy)	
	Project N1000203 (Sunk)	Operational Facilities for T-6		
	,	T-6 Outlying Landing Field		
APPN 1205		PE 0805796N	(Navy)	
		Base Operations, Training		
	(Sunk)			
APPN 3300		PE 0804741F	(Air Force)	
	(Sunk)	Undergraduate Pilot Training		
	` ,	Columbus T-6 Parts Warehouse		
	,	T-6 Combs Warehouse		

## **Cost and Funding**

## **Cost Summary**

## **Total Acquisition Cost and Quantity**

	BY2002 \$M BY2002 \$M TY \$M					TY \$M			
Appropriation	SAR Baseline Prod Est	Current APB Production Objective/Threshold		SAR Baseline Production		Current Estimate	SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	289.2	302.4	332.6	308.7	275.5	293.3	301.3		
Procurement	4177.1	4512.4	4963.6	4322.5	4699.2	5139.0	4889.4		
Flyaway	3277.3			3463.1	3700.1		3928.4		
Recurring	3250.4			3406.7	3666.2		3856.6		
Non Recurring	26.9			56.4	33.9		71.8		
Support	899.8			859.4	999.1		961.0		
Other Support	776.6			632.5	860.7		712.2		
<b>Initial Spares</b>	123.2			226.9	138.4		248.8		
MILCON	62.7	103.8	114.2	95.8	66.4	120.5	110.5		
Acq O&M	0.0	0.0		0.0	0.0	0.0	0.0		
Total	4529.0	4918.6	N/A	4727.0	5041.1	5552.8	5301.2		

Quantity SAR Baseline Prod Est		Current APB Production	Current Estimate
RDT&E	1	1	1
Procurement	782	767	751
Total	783	768	752

## **Cost and Funding**

## **Funding Summary**

# Appropriation and Quantity Summary FY2014 President's Budget / December 2012 SAR (TY\$ M)

Appropriation	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
RDT&E	291.4	2.3	2.3	2.7	2.6	0.0	0.0	0.0	301.3
Procurement	4229.7	319.6	274.0	33.1	16.8	16.2	0.0	0.0	4889.4
MILCON	110.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	110.5
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2014 Total	4631.6	321.9	276.3	35.8	19.4	16.2	0.0	0.0	5301.2
PB 2013 Total	4659.7	305.6	316.8	33.2	17.9	2.7	0.0	0.0	5335.9
Delta	-28.1	16.3	-40.5	2.6	1.5	13.5	0.0	0.0	-34.7

The FY 2011 Defense Appropriations Bill marked all 38 Navy aircraft in FY 2011. The 2014 Presidents Budget procures the remaining 29 aircraft (other 9 aircraft procured in FY 2013) to restore the Navy program of record of 295 aircraft. This includes a reduction of 2 aircraft in FY 2014 to adjust for an anticipated but unrealized loss of 2 aircraft in FY 2012. The addition of 2 Army aircraft in FY 2014 results in a net zero quantity change in FY 2014.

May 2012 Acquisition Decision Memorandum added 4 Army Aircraft in the JPATS program (2 FY 2013/2 FY 2014) to be delivered in FY 2014. Full reporting for the Army aircraft and funding begins with the December 2012 Selected Acquisition Report.

Program funding and production quantities listed in this SAR are consistent with the FY 2014 President's Budget (PB). The FY 2014 PB did not reflect the enacted DoD appropriation for FY 2013, nor sequestration; it reflected the President's requested amounts for FY 2013.

Quantity	Undistributed	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
Development	1	0	0	0	0	0	0	0	0	1
Production	0	685	35	31	0	0	0	0	0	751
PB 2014 Total	1	685	35	31	0	0	0	0	0	752
PB 2013 Total	1	685	33	31	0	0	0	0	0	750
Delta	0	0	2	0	0	0	0	0	0	2

## **Cost and Funding**

## **Annual Funding By Appropriation**

**Annual Funding TY\$** 

1319 | RDT&E | Research, Development, Test, and Evaluation, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	urring Recurring Recurring Recurring Flyaway		Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
1994							3.6
1995							3.7
1996							1.1
1997							1.7
1998							0.3
1999							0.6
2000							0.3
Subtotal							11.3

## **Annual Funding BY\$**

1319 | RDT&E | Research, Development, Test, and Evaluation, Navy

Fiscal Year	Quantity	Flyaway	Non End Item Recurring Flyaway BY 2002 \$M	Non Recurring Flyaway BY 2002 \$M	Total Flyaway BY 2002 \$M	Total Support BY 2002 \$M	Total Program BY 2002 \$M
1994							4.0
1995							4.0
1996							1.2
1997							1.8
1998							0.3
1999							0.6
2000							0.3
Subtotal	-						12.2

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
1992							0.9
1993							1.9
1994							2.6
1995							35.4
1996							27.1
1997							40.9
1998							49.4
1999							38.3
2000							36.4
2001							23.8
2002							1.8
2003							1.8
2004							1.8
2005							1.6
2006							1.6
2007							2.5
2008							2.0
2009							2.2
2010							1.4
2011							2.1
2012							4.6
2013							2.3
2014							2.3
2015							2.7
2016							2.6
Subtotal	1		-				290.0

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2002 \$M	Non End Item Recurring Flyaway BY 2002 \$M	Non Recurring Flyaway BY 2002 \$M	Total Flyaway BY 2002 \$M	Total Support BY 2002 \$M	Total Program BY 2002 \$M
1992							1.0
1993							2.1
1994							2.9
1995							38.4
1996							28.8
1997							43.0
1998							51.6
1999							39.6
2000							37.0
2001							23.9
2002							1.8
2003							1.8
2004							1.7
2005							1.5
2006							1.4
2007							2.2
2008							1.7
2009							1.9
2010							1.2
2011							1.7
2012							3.7
2013							1.8
2014							1.8
2015							2.1
2016							1.9
Subtotal	1						296.5

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
1995	9	59.9			59.9	20.6	80.5
1996	4	13.7			13.7	1.2	14.9
1997	11	37.7			37.7	22.7	60.4
1998	22	65.2			65.2	6.7	71.9
1999	22	76.7			76.7	31.1	107.8
2000	29	71.7			71.7	35.7	107.4
2001	34	101.7			101.7	37.8	139.5
2002	40	178.2			178.2	40.8	219.0
2003	35	171.0			171.0	64.1	235.1
2004	52	220.5			220.5	61.7	282.2
2005	53	270.1			270.1	40.8	310.9
2006	54	290.6			290.6	43.5	334.1
2007	48	238.5			238.5	90.9	329.4
2008	39	208.4			208.4	31.7	240.1
2009		7.5			7.5	34.2	41.7
2010		17.4	1.3		18.7	17.2	35.9
2011		30.9	3.1		34.0	0.5	34.5
2012		12.1	2.6		14.7	1.9	16.6
2013		12.8	2.7		15.5		15.5
2014		3.3	3.1		6.4	0.6	7.0
2015		11.6	3.0		14.6	1.0	15.6
2016		11.1	3.1		14.2	0.9	15.1
2017		10.4	3.2		13.6	0.9	14.5
Subtotal	452	2121.0	22.1		2143.1	586.5	2729.6

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2002 \$M	Non End Item Recurring Flyaway BY 2002 \$M	Non Recurring Flyaway BY 2002 \$M	Total Flyaway BY 2002 \$M	Total Support BY 2002 \$M	Total Program BY 2002 \$M
1995	9	63.5			63.5	21.8	85.3
1996	4	14.3			14.3	1.3	15.6
1997	11	39.1			39.1	23.5	62.6
1998	22	67.1			67.1	6.9	74.0
1999	22	78.1			78.1	31.7	109.8
2000	29	71.9			71.9	35.8	107.7
2001	34	101.0			101.0	37.5	138.5
2002	40	174.8			174.8	40.0	214.8
2003	35	165.0			165.0	61.9	226.9
2004	52	207.3			207.3	58.0	265.3
2005	53	246.8			246.8	37.2	284.0
2006	54	258.6			258.6	38.7	297.3
2007	48	206.7			206.7	78.8	285.5
2008	39	177.8			177.8	27.0	204.8
2009		6.3			6.3	28.7	35.0
2010		14.3	1.1		15.4	14.1	29.5
2011		24.9	2.5		27.4	0.4	27.8
2012		9.6	2.0		11.6	1.5	13.1
2013		9.8	2.1		11.9		11.9
2014		2.5	2.3		4.8	0.5	5.3
2015		8.6	2.3		10.9	0.7	11.6
2016		8.1	2.2		10.3	0.7	11.0
2017		7.4	2.3		9.7	0.6	10.3
Subtotal	452	1963.5	16.8		1980.3	547.3	2527.6

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

Fiscal Year	urement   A	Aircraft Procu End Item Recurring Flyaway (Aligned with Quantity)
		BY 2002 \$M
1995	9	65.8
1996	4	15.3
1997	11	41.9
1998	22	72.6
1999	22	83.5
2000	29	78.9
2001	34	109.2
2002	40	184.3
2003	35	174.2
2004	52	220.0
2005	53	258.1
2006	54	266.1
2007	48	212.6
2008	39	181.0
2009		
2010		
2011		
2012		
2013		
2014		
2015		
2016		
2017		
Subtotal	452	1963.5

Annual Funding TY\$
1506 | Procurement | Aircraft Procurement, Navy

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
2000	12	44.1			44.1	14.5	58.6
2001	24	77.0			77.0	3.6	80.6
2002	7	34.6		0.1	34.7	4.1	38.8
2003	4	18.8		0.1	18.9	10.6	29.5
2004	2	8.5		0.2	8.7	14.3	23.0
2005	3	13.2		0.2	13.4	4.7	18.1
2006	2	11.8		5.5	17.3	4.8	22.1
2007	20	118.7		3.8	122.5	30.2	152.7
2008	44	262.1		0.1	262.2	43.6	305.8
2009	43	254.0		2.4	256.4	47.6	304.0
2010	36	218.2		4.6	222.8	46.8	269.6
2011		1.8		2.4	4.2	23.7	27.9
2012	36	194.1		4.3	198.4	38.7	237.1
2013	33	241.7		12.2	253.9	34.0	287.9
2014	29	184.3		17.5	201.8	51.5	253.3
2015		1.6		15.9	17.5		17.5
2016		1.7			1.7		1.7
2017		1.7			1.7		1.7
Subtotal	295	1687.9		69.3	1757.2	372.7	2129.9

Annual Funding BY\$
1506 | Procurement | Aircraft Procurement, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2002 \$M	Non End Item Recurring Flyaway BY 2002 \$M	Non Recurring Flyaway BY 2002 \$M	Total Flyaway BY 2002 \$M	Total Support BY 2002 \$M	Total Program BY 2002 \$M
2000	12	44.3			44.3	14.6	58.9
2001	24	76.4			76.4	3.6	80.0
2002	7	33.9		0.1	34.0	4.0	38.0
2003	4	18.1		0.1	18.2	10.1	28.3
2004	2	8.0		0.2	8.2	13.3	21.5
2005	3	12.0		0.2	12.2	4.3	16.5
2006	2	10.5		4.9	15.4	4.2	19.6
2007	20	102.8		3.3	106.1	26.1	132.2
2008	44	223.5		0.1	223.6	37.2	260.8
2009	43	213.6		2.0	215.6	40.0	255.6
2010	36	179.4		3.8	183.2	38.4	221.6
2011		1.4		1.9	3.3	19.1	22.4
2012	36	152.9		3.4	156.3	30.4	186.7
2013	33	186.7		9.4	196.1	26.3	222.4
2014	29	139.7		13.3	153.0	39.1	192.1
2015		1.2		11.8	13.0		13.0
2016		1.2			1.2		1.2
2017		1.2			1.2		1.2
Subtotal	295	1406.8		54.5	1461.3	310.7	1772.0

Cost Quantity Information 1506 | Procurement | Aircraft Procurement, Navy

1506	Proc	urement   1	Aircraft Proc
Fis Ye		Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2002 \$M
	2000	12	47.0
	2001	24	81.7
	2002	7	35.4
	2003	4	18.9
	2004	2	7.9
	2005	3	11.5
	2006	2	10.2
	2007	20	104.4
	2008	44	223.8
	2009	43	211.2
	2010	36	178.5
	2011		
	2012	36	153.3
	2013	33	186.2
	2014	29	136.8
	2015		<del></del>
	2016		
	2017		
Sul	ototal	295	1406.8

# Annual Funding TY\$ 2031 | Procurement | Aircraft Procurement, Army

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
2013	2	12.7		2.5	15.2	1.0	16.2
2014	2	12.9			12.9	8.0	13.7
Subtotal	4	25.6		2.5	28.1	1.8	29.9

# Annual Funding BY\$ 2031 | Procurement | Aircraft Procurement, Army

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2002 \$M	Non End Item Recurring Flyaway BY 2002 \$M	Non Recurring Flyaway BY 2002 \$M	Total Flyaway BY 2002 \$M	Total Support BY 2002 \$M	Total Program BY 2002 \$M
2013	2	9.8		1.9	11.7	0.8	12.5
2014	2	9.8			9.8	0.6	10.4
Subtotal	4	19.6		1.9	21.5	1.4	22.9

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

Fiscal Year	Total Program TY \$M
1998	2.5
1999	3.3
2000	3.2
2001	
2002	
2003	6.0
2004	2.2
2005	
2006	3.0
Subtotal	20.2

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

Fiscal Year	Total Program BY 2002 \$M
1998	2.6
1999	3.4
2000	3.2
2001	
2002	
2003	5.7
2004	2.0
2005	
2006	2.6
Subtotal	19.5

Annual Funding TY\$
1205 | MILCON | Military Construction,
Navy and Marine Corps

Fiscal Year	Total Program TY \$M
1998	1.4
1999	1.4
2000	5.2
2001	5.4
2002	
2003	
2004	
2005	
2006	
2007	
2008	23.9
2009	
2010	23.9
2011	29.1
Subtotal	90.3

Annual Funding BY\$
1205 | MILCON | Military Construction,
Navy and Marine Corps

ivavy and marine	zoi pa
Fiscal Year	Total Program BY 2002 \$M
1998	1.4
1999	1.4
2000	5.2
2001	5.4
2002	
2003	
2004	
2005	
2006	
2007	
2008	20.3
2009	
2010	19.5
2011	23.1
Subtotal	76.3

## **Low Rate Initial Production**

	Initial LRIP Decision	Current Total LRIP
Approval Date	8/9/1995	2/21/2001
<b>Approved Quantity</b>	108	170
Reference	ADM	ADM
Start Year	1996	1996
End Year	2000	2004

The Current Total LRIP Quantity is more than 10% of the total production quantity due to more efficient manufacturing capability. LRIP for 108 aircraft was included in the Acquisition Decision Memorandum (ADM) dated August 9, 1995. LRIP quantity increased to 170 aircraft in ADM dated February 21, 2001.

## **Foreign Military Sales**

Country	Date of Sale	Quantity	Total Cost \$M	Memo
Iraq	6/23/2009	7	100.0	The Letter of Offer and Acceptance (LOA) signed June 23, 2009 is Foreign Military Sales (FMS) Case # (E4-D-SBU) using Iraq Special Forces Fund FY 2009 appropriated funds for seven T-6A aircraft. All aircraft have been delivered. Still supporting contractor logistics support.
Iraq	5/20/2009	8	110.0	The LOA signed May 20, 2009 for eight T-6A aircraft is FMS Case # (IQ-D-SAD) using Iraqi country funds. All aircraft have been delivered. Still supporting contractor logistics support.
Israel	9/11/2008	20	153.6	The LOA signed September 11, 2008 is FMS Case # (IS-D-SAB), all aircraft have been delivered. Letter of Request (LOR) received December 20, 2010 requesting the procurement of one additional aircraft delivered September 23, 2012 and Technical Orders.
Morocco	6/18/2008	24	205.9	The LOA signed June 18, 2008 is FMS Case # (MO-D-SAB) for 24 T-6C aircraft. All aircraft have been delivered. Working on addendum for Engineering Change Proposals (ECPs) and Customer Specific Technical Orders (CSTOs).

The Iraq LOA was split in two to accommodate reduced Iraq funds availability.

## **Nuclear Cost**

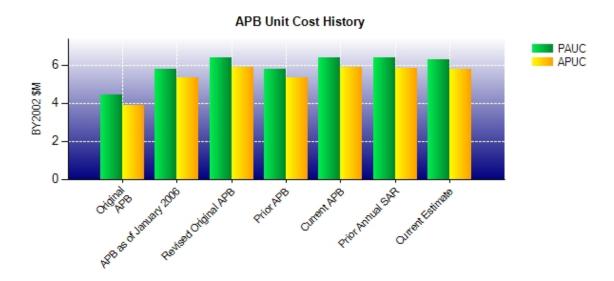
None

## **Unit Cost**

## **Unit Cost Report**

	BY2002 \$M	BY2002 \$M	
Unit Cost	Current UCR Baseline (SEP 2007 APB)	Current Estimate (DEC 2012 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	4918.6	4727.0	
Quantity	768	752	
Unit Cost	6.404	6.286	-1.84
Average Procurement Unit Cost (APUC	C)		
Cost	4512.4	4322.5	
Quantity	767	751	
Unit Cost	5.883	5.756	-2.16
	BY2002 \$M	BY2002 \$M	
Unit Cost	BY2002 \$M  Revised  Original UCR  Baseline (SEP 2007 APB)	BY2002 \$M  Current Estimate (DEC 2012 SAR)	BY % Change
Unit Cost  Program Acquisition Unit Cost (PAUC)	Revised Original UCR Baseline (SEP 2007 APB)	Current Estimate	
	Revised Original UCR Baseline (SEP 2007 APB)	Current Estimate	
Program Acquisition Unit Cost (PAUC)	Revised Original UCR Baseline (SEP 2007 APB)	Current Estimate (DEC 2012 SAR)	
Program Acquisition Unit Cost (PAUC) Cost	Revised Original UCR Baseline (SEP 2007 APB)	Current Estimate (DEC 2012 SAR)	
Program Acquisition Unit Cost (PAUC) Cost Quantity	Revised Original UCR Baseline (SEP 2007 APB)  4918.6 768 6.404	Current Estimate (DEC 2012 SAR) 4727.0 752	% Change
Program Acquisition Unit Cost (PAUC)  Cost Quantity Unit Cost	Revised Original UCR Baseline (SEP 2007 APB)  4918.6 768 6.404	Current Estimate (DEC 2012 SAR) 4727.0 752	% Change
Program Acquisition Unit Cost (PAUC) Cost Quantity Unit Cost Average Procurement Unit Cost (APUC)	Revised Original UCR Baseline (SEP 2007 APB)  4918.6 768 6.404	Current Estimate (DEC 2012 SAR) 4727.0 752 6.286	% Change

## **Unit Cost History**



		BY2002 \$M		TY	\$M
	Date	PAUC	APUC	PAUC	APUC
Original APB	AUG 1995	4.439	3.861	5.689	5.068
APB as of January 2006	FEB 2002	5.784	5.342	6.438	6.009
Revised Original APB	SEP 2007	6.404	5.883	7.230	6.700
Prior APB	FEB 2002	5.784	5.342	6.438	6.009
Current APB	SEP 2007	6.404	5.883	7.230	6.700
Prior Annual SAR	DEC 2011	6.356	5.824	7.115	6.575
Current Estimate	DEC 2012	6.286	5.756	7.049	6.511

## **SAR Unit Cost History**

## Initial SAR Baseline to Current SAR Baseline (TY \$M)

Initial PAUC		Changes							
Dev Est	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	Prod Est
5.689	-0.750	-0.035	-0.155	0.000	1.550	0.000	0.139	0.749	6.438

## **Current SAR Baseline to Current Estimate (TY \$M)**

PAUC	Changes								PAUC
Prod Est	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	Current Est
6.438	0.034	-0.004	0.093	0.564	-0.053	0.068	-0.091	0.611	7.049

## Initial SAR Baseline to Current SAR Baseline (TY \$M)

Initial APUC	Changes								APUC
Dev Est	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	Prod Est
5.068	-0.753	0.021	-0.151	0.000	1.680	0.000	0.144	0.941	6.009

## **Current SAR Baseline to Current Estimate (TY \$M)**

APUC		Changes								
Prod Est	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	Current Est	
6.009	0.032	-0.020	0.093	0.551	-0.063	0.000	-0.091	0.502	6.511	

## **SAR Baseline History**

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone I	N/A	JAN 1993	JAN 1993	JAN 1993
Milestone II	N/A	AUG 1995	AUG 1995	AUG 1995
Milestone III	N/A	SEP 1999	NOV 2001	DEC 2001
IOC	N/A	JUN 2002	JUN 2002	JUN 2002
Total Cost (TY \$M)	N/A	4050.6	5041.1	5301.2
Total Quantity	N/A	712	783	752
Prog. Acq. Unit Cost (PAUC)	N/A	5.689	6.438	7.049

Initial Operational Capability (IOC) is equal to Air Force Required Assets Available (RAA) and occurred June 2002.

IOC is equal to United States Navy RAA and occurred August 2003.

## **Cost Variance**

Summary Then Year \$M						
	RDT&E	Proc	MILCON	Total		
SAR Baseline (Prod Est)	275.5	4699.2	66.4	5041.1		
Previous Changes						
Economic	+1.6	+8.9	-1.0	+9.5		
Quantity		-162.3		-162.3		
Schedule		+70.1		+70.1		
Engineering	+10.3	+415.7		+426.0		
Estimating	+13.4	-43.2	-5.9	-35.7		
Other			+51.0	+51.0		
Support		-63.8		-63.8		
Subtotal	+25.3	+225.4	+44.1	+294.8		
Current Changes						
Economic	+0.1	+15.3	+0.5	+15.9		
Quantity		-39.4		-39.4		
Schedule		-0.4		-0.4		
Engineering		-2.2		-2.2		
Estimating	+0.4	-3.8	-0.5	-3.9		
Other						
Support		-4.7		-4.7		
Subtotal	+0.5	-35.2		-34.7		
Total Changes	+25.8	+190.2	+44.1	+260.1		
CE - Cost Variance	301.3	4889.4	110.5	5301.2		
CE - Cost & Funding	301.3	4889.4	110.5	5301.2		

Summary Base Year 2002 \$M							
	RDT&E	Proc	MILCON	Total			
SAR Baseline (Prod Est)	289.2	4177.1	62.7	4529.0			
Previous Changes							
Economic							
Quantity		-127.3		-127.3			
Schedule		+8.7		+8.7			
Engineering	+8.9	+323.6		+332.5			
Estimating	+10.3	+17.3	-7.6	+20.0			
Other			+41.1	+41.1			
Support		-37.1		-37.1			
Subtotal	+19.2	+185.2	+33.5	+237.9			
Current Changes							
Economic							
Quantity		-30.7		-30.7			
Schedule		-0.3		-0.3			
Engineering		-1.7		-1.7			
Estimating	+0.3	-3.8	-0.4	-3.9			
Other							
Support		-3.3		-3.3			
Subtotal	+0.3	-39.8	-0.4	-39.9			
Total Changes	+19.5	+145.4	+33.1	+198.0			
CE - Cost Variance	308.7	4322.5	95.8	4727.0			
CE - Cost & Funding	308.7	4322.5	95.8	4727.0			

Previous Estimate: December 2011

RDT&E		V
Ourmant Ohamas Fundametians	Base	Then
Current Change Explanations	Year	Year
Revised escalation indices. (Economic)	N/A	+0.1
Adjustment for current and prior escalation. (Estimating)	+0.3	+0.4
RDT&E Subtotal	+0.3	+0.5

Procurement	\$N	1
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+15.3
Total Quantity variance resulting from a decrease of 2 T-6's from 297 to 295. (Navy) (Subtotal)	-9.5	-12.5
Quantity variance resulting from a decrease of 2 T-6's from 297 to 295. (Navy) (Quantity) (QR)	(-7.7)	(-10.2)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.3)	(-0.4)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-1.7)	(-2.2)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(+0.2)	(+0.3)
Additional Quantity variance due to change in estimating assumptions with the addition of Army Aircraft (Navy). (Quantity) (QR)	-44.5	-57.3
Quantity variance resulting from an increase of 4 T-6s from 0 to 4 (Army). (Quantity) (QR)	+19.0	+24.8
Total Quantity variance resulting from a decrease of 2 T-6's from 297 to 295 (Army). (Quantity) (QR)	+2.5	+3.3
Adjustment for current and prior escalation. (Estimating)	-6.4	-7.9
Increase due to corrections of deficiencies in FY 2017 (Air Force). (Estimating)	-0.7	-1.2
Revised estimate to reflect application of new escalation indicies (Navy). (Estimating)	+9.0	+12.7
Decrease due to higher Navy priorities (Navy). (Estimating)	-5.9	-7.7
Adjustment for current and prior escalation. (Support)	-1.1	-1.5
Increase in Other Support due to site activation for Corpus Christi and increase in Aircrew Training Device support (Navy). (Support)	+7.5	+9.3
Decrease in Initial Spares Requirements due to unrealized risk (Navy). (Support)	-11.7	-15.2
Increase in Other Support for Army Aircraft added to program (Army). (Support) (QR)	+0.6	+0.8
Increase in Initial Spares for Army Aircraft added to program (Army). (Support) (QR)	+0.8	+1.0
Increase in Initial Spares due to correction of deficiencies in FY 2017 modifications (Air Force). (Support)	+0.6	+0.9
Procurement Subtotal	-39.8	-35.2

## (QR) Quantity Related

MILCON	\$I	M
	Base	Then
Current Change Explanations	Year	Year
Revised escalation indices (Economic)	N/A	+0.5

Adjustment for current and prior escalation. (Estimating)	-0.4	-0.5
MILCON Subtotal	-0.4	0.0

### **Contracts**

## **Appropriation: Procurement**

Contract Name JPATS Follow-on Production Contract Lot 17

Contractor Hawker Beechcraft Defense Corporation

Contractor Location Wichita, KS 67201

Contract Number, Type FA8617-07-D-6151/17, FFP

Award Date February 18, 2011
Definitization Date March 31, 2011

Initial Cor	ntract Price (	(\$M)	Current Co	ontract Price	(\$M)	Estimated Pi	rice At Completion (\$M)
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
255.9	N/A	36	255.9	N/A	36	255.9	255.9

## **Cost And Schedule Variance Explanations**

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

### **Contract Comments**

This contract includes both Aircrew Training Devices and Aircraft for Lot 17.

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

**Appropriation: Procurement** 

Contract Name JPATS Follow-on Production Contract Lot 18

Contractor Hawker Beechcraft Defense Corporation

Contractor Location Wichita, KS 67201

Contract Number, Type FA8617-07-D-6151/18, FFP

Award Date January 19, 2012 Definitization Date January 19, 2012

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
195.3	N/A	36	195.3	N/A	36	195.3	195.3

## **Cost And Schedule Variance Explanations**

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

## **Deliveries and Expenditures**

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	1	1	1	100.00%
Production	656	663	751	88.28%
Total Program Quantities Delivered	657	664	752	88.30%

Expenditures and Appropriations (TY \$M)						
Total Acquisition Cost	5301.2	Years Appropriated	22			
Expenditures To Date	4341.0	Percent Years Appropriated	84.62%			
Percent Expended	81.89%	Appropriated to Date	4953.5			
Total Funding Years	26	Percent Appropriated	93.44%			

The above data is current as of 3/31/2013.

## **Operating and Support Cost**

### **JPATS**

### **Assumptions and Ground Rules**

### Cost Estimate Reference:

Source for operating & support (O&S) costs is the JPATS Program Office Life Cycle Cost Estimate (POE) dated January 2012. O&S cost elements are combined Air Force and Navy requirements for Air Vehicle (AV) and Ground Based Training Systems (GBTS) in Base Year 2002 dollars. The POE was derived from historical cost for the JPATS program, extrapolated to future years, and from the approved program office estimate for the AV Contractor Logistics Support (CLS) source selection.

### Sustainment Strategy:

O&S costs are based on the purchase of 747 operational aircraft, 126 Aircrew Training Devices, Training Integration Management System (TIMS), development and conversion courseware, and AV CLS which will be provided by Dyncorp International LLC. GBTS CLS support is provided separately. The JPATS logistics support concept assumes that organizational, intermediate and depot support are CLS; therefore, there is no additional cost for intermediate or depot level maintenance. Useful life for the Air Force is FY2005-2035 (36 years), and FY2003-2039 for the Navy (37 years). \$320.5M is the total annual cost for both the Air Force and the Navy based on an average useful life of 36.5 years. It is derived by taking the total annual cost of \$11,697.8M and dividing it by the 36.5 average useful life.

### Antecedent Information:

The antecedent system is the T-37 for the Air Force and the T-34 for the Navy. At the JPATS Milestone I Decision, the requirement for a Cost/Operations Effectiveness Analysis was waived due to the streamlining initiatives for pilot programs. Thus, the direct comparison to the antecedent system was not prepared. Program Authorized Aircraft of 346 T-37 aircraft was used to determine the antecedent O&S per steady state year cost per aircraft. T-37 only per steady state year antecedent costs are derived from the Air Force Total Ownership Cost (AFTOC) and the Naval Visibility and Management of Operating and Support Cost (VAMOSC) databases for the years 1996 through 2000. T-37 total O&S costs are not available.

Unitized O&S Costs BY2002 \$K						
Cost Element	JPATS average annual per aircraft	Antecedent: T-37 (AF Only) (Antecedent) per steady state year per aircraft				
Unit-Level Manpower	0.180	0.260				
Unit Operations	0.052	0.310				
Maintenance	0.095	0.020				
Sustaining Support	0.062	0.110				
Continuing System Improvements	0.000	0.000				
Indirect Support	0.040	0.200				
Other	0.000	0.000				
Total	0.429	0.900				

### **Unitized Cost Comments:**

The estimate consists of six elements. Unit Level Manpower includes the cost of military and civilian system-related personnel involved in the operation of this system. Unit Operations include the cost of fuel resources and unit level consumables. Maintenance costs for contract support include contract labor, materials, and overhead incurred in providing the logistics support required by an aircraft system, subsystem or associated support equipment. Sustaining Support includes the cost of replacement support equipment, modification kits, sustaining engineering, software maintenance, and simulator operations for the aircraft system. Indirect Support includes the costs of personnel support for specialty training, permanent changes of station, and medical care.

\$320.5M is the total annual cost for both the Air Force and the Navy. This does not include 4 Army Aircraft that were added to the JPATS program in the May 2012 Acquisition Decision Memorandum. The O&S costs associated with the Army aircraft are in development and not included in this report. \$.429M is the annual per aircraft cost for the Air Force and Navy. It is derived by taking the total O&S cost of \$11,697.8, divided by the average useful life of 36.5 years, divided by 747 aircraft.

	Total O&S Cost \$M					
	Current Production APB Objective/Threshold		Current	Estimate		
	JPATS		JPATS	Antecedent: T-37 (AF Only) (Antecedent)		
<b>Base Year</b>	0.0	0.0	11697.8	N/A		
<b>Then Year</b>	0.0	N/A	19448.8	N/A		

## **Total O&S Costs Comments:**

The \$11,697.8M is the estimated cost of operating both fleets during their useful lives as reflected in the projected buy/delivery profiles at the time of the POE. There is no cost variance between this estimate and the estimate presented in the prior SAR submission.

## **Disposal Costs**

Total O&S costs do not include the cost of disposal or demilitarization and at this time an estimate of disposal or demilitarization costs has not been developed.