



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-503



Joint Direct Attack Munition (JDAM)

As of FY 2015 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

Report Documentation Page				Form Approved OMB No. 0704-0188	
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Common Acronyms and Abbreviations

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

Program Information

Program Name

Joint Direct Attack Munition (JDAM)

DoD Component

Air Force

Joint Participants

Navy

Responsible Office

Responsible Office

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References

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated March 23, 2001

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated October 7, 2002

Mission and Description

The Joint Direct Attack Munition (JDAM) program is a joint Air Force/Navy program with the Air Force as the lead acquisition service. Designated Acquisition Category IC, this program upgrades the existing inventory of general purpose bombs (MK-84, BLU-109, MK-82 and MK-83) by integrating the bombs with a field installed guidance kit using a Global Positioning System Aided Inertial Navigation System. JDAM provides an accurate, adverse weather capability. JDAM is integrated with the B-52H, B-2A, B-1B, F-16C/D, F/A-18A+/C/D/E/F, F-15E, A-10C, AV-8B and F-22A aircraft.

Executive Summary

Deliveries of JDAM Lot 15 production of 8,139 tailkits were completed in March 2013, one month ahead of schedule. Deliveries of JDAM Lot 16 production of 9,861 tailkits are ahead of schedule with final delivery scheduled for September 2014. JDAM Lot 17 production of 5,708 tailkits was awarded in December 2012 with deliveries scheduled to start April 2014.

The Air Force received funding to acquire 1,500 Laser JDAM sensors with an Adjustable Proximity Sensor capability. The U.S. Navy put this requirement on contract in February 2013 with deliveries scheduled to commence in November 2014.

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	☐

Explanation of Breach

FY 2018 added 2,689 tailkits and \$109.0M to the funding profile causing the total procurement funding to exceed the APB threshold by \$34.2M. A Program Deviation Report has been approved by the Air Force, however, due to the nature of the breach (total procurement cost), the Air Force decided that an APB update was not required.

Nunn-McCurdy Breaches

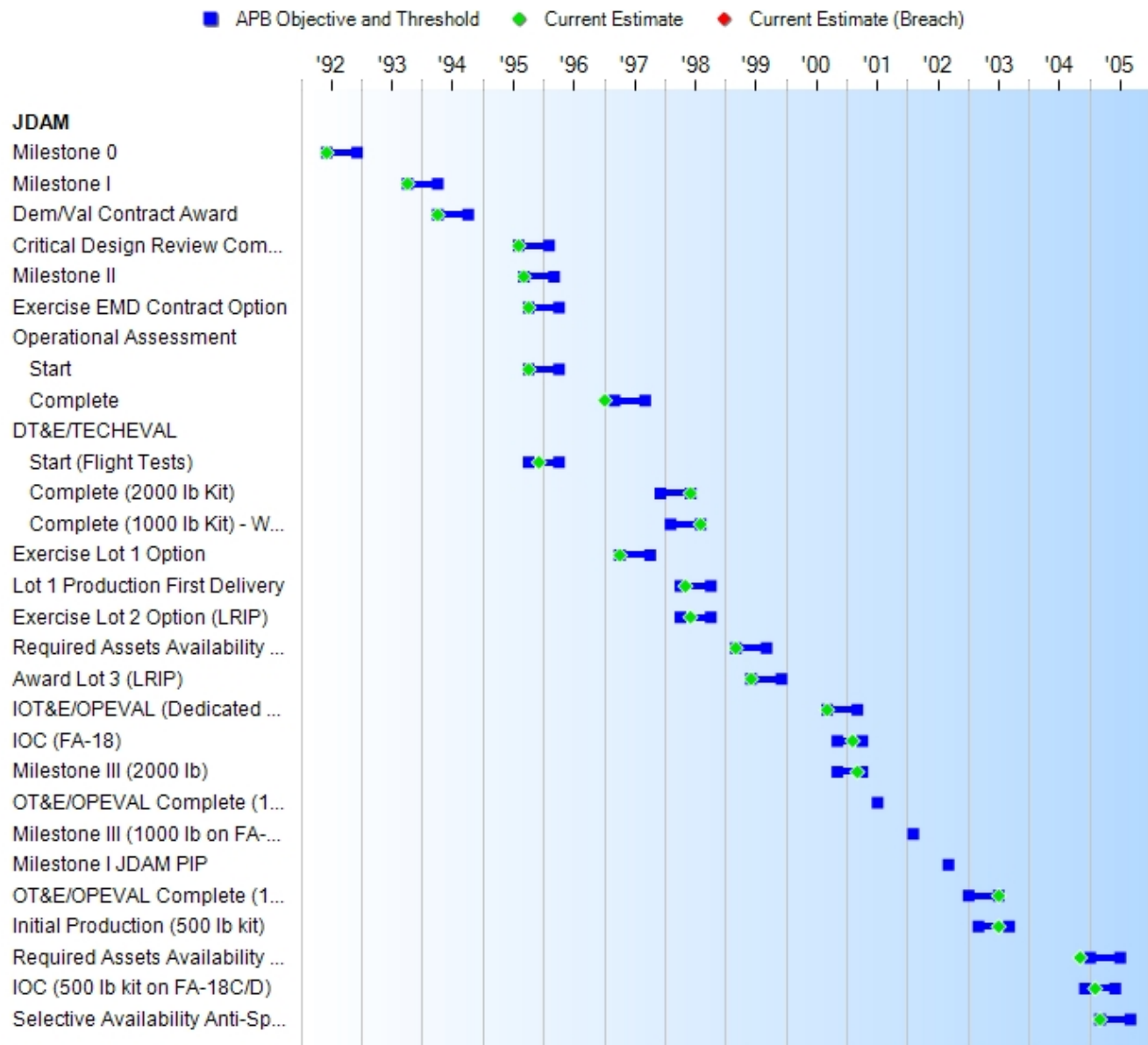
Current UCR Baseline

PAUC	None
APUC	None

Original UCR Baseline

PAUC	None
APUC	None

Schedule



Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate
Milestone 0	JUN 1992	JUN 1992	DEC 1992	JUN 1992
Milestone I	OCT 1993	OCT 1993	APR 1994	OCT 1993
Dem/Val Contract Award	APR 1994	APR 1994	OCT 1994	APR 1994
Critical Design Review Complete	AUG 1995	AUG 1995	FEB 1996	AUG 1995
Milestone II	SEP 1995	SEP 1995	MAR 1996	SEP 1995
Exercise EMD Contract Option	OCT 1995	OCT 1995	APR 1996	OCT 1995
Operational Assessment				
Start	OCT 1995	OCT 1995	APR 1996	OCT 1995
Complete	MAR 1997	MAR 1997	SEP 1997	JAN 1997
DT&E/TECHEVAL				
Start (Flight Tests)	OCT 1995	OCT 1995	APR 1996	DEC 1995
Complete (2000 lb Kit)	DEC 1997	DEC 1997	JUN 1998	JUN 1998
Complete (1000 lb Kit) - Weapon Only	FEB 1998	FEB 1998	AUG 1998	AUG 1998
Exercise Lot 1 Option	APR 1997	APR 1997	OCT 1997	APR 1997
Lot 1 Production First Delivery	APR 1998	APR 1998	OCT 1998	MAY 1998
Exercise Lot 2 Option (LRIP)	APR 1998	APR 1998	OCT 1998	JUN 1998
Required Assets Availability (AF)	MAR 1999	MAR 1999	SEP 1999	MAR 1999
Award Lot 3 (LRIP)	JUN 1999	JUN 1999	DEC 1999	JUN 1999
IOT&E/OPEVAL (Dedicated 2000 lb Kit) Complete	SEP 2000	SEP 2000	MAR 2001	SEP 2000
IOC (FA-18)	NOV 2000	NOV 2000	APR 2001	FEB 2001
Milestone III (2000 lb)	NOV 2000	NOV 2000	APR 2001	MAR 2001
OT&E/OPEVAL Complete (1000 lb Kit/FA-18C/D)	JUL 2001	N/A	N/A	N/A
Milestone III (1000 lb on FA-18C/D)	FEB 2002	N/A	N/A	N/A
Milestone I JDAM PIP	SEP 2002	N/A	N/A	N/A
OT&E/OPEVAL Complete (1000 lb Kit/FA-18C/D)	N/A	JAN 2003	JUL 2003	JUL 2003
Initial Production (500 lb kit)	N/A	MAR 2003	SEP 2003	JUL 2003
Required Assets Availability (RAA) (500 lb on B-2)	N/A	JAN 2005	JUL 2005	NOV 2004
IOC (500 lb kit on FA-18C/D)	N/A	DEC 2004	JUN 2005	FEB 2005
Selective Availability Anti-Spoofing Module (SAASM)/GPS Anti-Jam Production Award	N/A	MAR 2005	SEP 2005	MAR 2005

Change Explanations

None

Acronyms and Abbreviations

AF - Air Force
Dem/Val - Demonstration/Validation
DT&E - Development Test and Evaluation
EMD - Engineering, Manufacturing and Development
GPS - Global Positioning System
IOT&E - Initial Operational Test and Evaluation
lb - Pound
OPEVAL - Operational Evaluation
OT&E - Operational Test and Evaluation
PIP - Product Improvement Program
TECHEVAL - Technical Evaluation

Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Weather Capability	Adverse	Adverse	Adverse	Adverse	Adverse
Accuracy (CEP) (Meters)					
GPS Available, Impact Angles > 60 Deg	13 Horizontal Targets	5 Horizontal targets	13	4.3	5 Horizontal Targets
Inflight Re-targeting Capability (captive carry)	Yes	Yes	Yes	Yes	Yes
Carrier Operability	Yes	Yes	Yes	Yes	Yes
Warhead Compatibility	MK-82/BLU- 111, MK-83, Improved 1000-lbs, BLU- 113/116/117	MK-82/BLU- 111, MK- 83, Improved 1000-lbs, BLU- 113/116/117	BLU-109, MK-84, MK- 83 (F-22)	BLU-109, MK-84, MK- 83 (F-22), MK-82	BLU-109, MK-84, MK- 83 (F-22), MK-82
Aircraft Compatibility					
Bomber	B-1B, B-2	B-1B, B-2	B-52H	Yes	B-52H, B- 1B, B-2
Fighter Attack	F-16C/D, F/A-18E/F, F-117A, F- 15E, F- 14A/B/D, P- 3, S-3, JSF, A-10	F-16C/D, F/A-18E/F, F-117A, F- 15E, F- 14A/B/D, P- 3, S-3, JSF, A-10	F/A-18C/D, F-22 (MK- 83), AV-8B & F/A- 18C/D (MK- 83)	Yes	F-16C/D, F- 117, F/A- 18A+/C/D/E/ F, F-15E, AV-8B, A- 10, F-22A
Mission Reliability	.90	.90	.90	.957	.90
JDAM PIP Accuracy (CEP) (Meters)	3	N/A	N/A	N/A	N/A
JDAM PIP Weather Capability	Adverse	N/A	N/A	N/A	N/A
JDAM PIP Warhead Compatibility	MK-82, MK- 83	N/A	N/A	N/A	N/A
Interoperability	N/A	Satisfy 100% of critical IERs	Satisfy 100% of critical IERs	Satisfied	Satisfied

Requirements Source

Joint Operational Requirements Document (JORD) dated March 10, 2001

Change Explanations

None

Acronyms and Abbreviations

CEP - Circular Error Probable

Deg - Degree

GPS - Global Positioning System

IER - Information Exchange Requirement

JSF - Joint Strike Fighter

lbs - Pound

PIP - Product Improvement Program

Track to Budget

RDT&E

Appn	BA	PE	
Navy	1319	05	0604618N
	Project	Name	
	2137	JDAM	(Sunk)
Air Force	3600	05	0604618F
	Project	Name	
	3890	JDAM	(Sunk)
Air Force	3600	04	0604618F
	Project	Name	
	674138	JDAM Development	
Air Force	3600	07	0604618F
	Project	Name	
	674138	JDAM Development	

Procurement

Appn	BA	PE	
Navy	1508	01	0206138M
	Line Item	Name	
	0148	JDAM	(Sunk)
Navy	1508	01	0204162N
	Line Item	Name	
	0148	JDAM	(Sunk)
Air Force	3011	01	0207583F
	Line Item	Name	
	353620	JDAM	

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

Appropriation	BY1995 \$M			BY1995 \$M	TY \$M		
	SAR Baseline Prod Est	Current APB Production Objective/Threshold	Current Estimate		SAR Baseline Prod Est	Current APB Production Objective	Current Estimate
RDT&E	490.3	575.1	661.4	572.8	517.3	604.3	602.3
Procurement	1810.0	4307.5	4738.3	5291.3 ¹	2089.4	5026.5	6627.5
Flyaway	--	--	--	4896.9	--	--	6136.0
Recurring	--	--	--	4896.9	--	--	6136.0
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	394.4	--	--	491.5
Other Support	--	--	--	394.4	--	--	491.5
Initial Spares	--	--	--	0.0	--	--	0.0
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	2300.3	4882.6	N/A	5864.1	2606.7	5630.8	7229.8

¹ APB Breach

Quantity	SAR Baseline Prod Est	Current APB Production	Current Estimate
RDT&E	630	778	804
Procurement	88435	221091	271844
Total	89065	221869	272648

Cost and Funding

Funding Summary

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

Appropriation	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
RDT&E	597.3	2.5	2.5	0.0	0.0	0.0	0.0	0.0	602.3
Procurement	5148.1	250.5	101.4	295.4	308.9	160.1	363.1	0.0	6627.5
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 2015 Total	5745.4	253.0	103.9	295.4	308.9	160.1	363.1	0.0	7229.8
PB 2014 Total	5756.6	191.0	105.0	135.1	145.1	109.0	0.0	0.0	6441.8
Delta	-11.2	62.0	-1.1	160.3	163.8	51.1	363.1	0.0	788.0

Quantity	Undistributed	Prior	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	To Complete	Total
Development	804	0	0	0	0	0	0	0	0	804
Production	0	221862	7059	2852	11058	11224	5064	12725	0	271844
PB 2015 Total	804	221862	7059	2852	11058	11224	5064	12725	0	272648
PB 2014 Total	804	221638	6965	2104	3775	3915	2689	0	0	241890
Delta	0	224	94	748	7283	7309	2375	12725	0	30758

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	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
1993	--	--	--	--	--	--	23.2
1994	--	--	--	--	--	--	7.8
1995	--	--	--	--	--	--	23.0
1996	--	--	--	--	--	--	25.4
1997	--	--	--	--	--	--	22.1
1998	--	--	--	--	--	--	11.6
1999	--	--	--	--	--	--	6.1
2000	--	--	--	--	--	--	7.2
2001	--	--	--	--	--	--	23.0
2002	--	--	--	--	--	--	27.3
2003	--	--	--	--	--	--	15.5
2004	--	--	--	--	--	--	1.3
2005	--	--	--	--	--	--	0.5
2006	--	--	--	--	--	--	0.3
Subtotal	114	--	--	--	--	--	194.3

Annual Funding BY\$

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 1995 \$M	Non End Item Recurring Flyaway BY 1995 \$M	Non Recurring Flyaway BY 1995 \$M	Total Flyaway BY 1995 \$M	Total Support BY 1995 \$M	Total Program BY 1995 \$M
1993	--	--	--	--	--	--	23.8
1994	--	--	--	--	--	--	7.8
1995	--	--	--	--	--	--	22.7
1996	--	--	--	--	--	--	24.7
1997	--	--	--	--	--	--	21.2
1998	--	--	--	--	--	--	11.0
1999	--	--	--	--	--	--	5.7
2000	--	--	--	--	--	--	6.7
2001	--	--	--	--	--	--	21.0
2002	--	--	--	--	--	--	24.7
2003	--	--	--	--	--	--	13.8
2004	--	--	--	--	--	--	1.1
2005	--	--	--	--	--	--	0.4
2006	--	--	--	--	--	--	0.2
Subtotal	114	--	--	--	--	--	184.8

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
1993	--	--	--	--	--	--	21.5
1994	--	--	--	--	--	--	61.9
1995	--	--	--	--	--	--	62.9
1996	--	--	--	--	--	--	76.4
1997	--	--	--	--	--	--	32.7
1998	--	--	--	--	--	--	21.1
1999	--	--	--	--	--	--	28.7
2000	--	--	--	--	--	--	11.3
2001	--	--	--	--	--	--	9.7
2002	--	--	--	--	--	--	16.5
2003	--	--	--	--	--	--	17.0
2004	--	--	--	--	--	--	36.0
2005	--	--	--	--	--	--	--
2006	--	--	--	--	--	--	--
2007	--	--	--	--	--	--	7.3
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	--
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	2.5
2015	--	--	--	--	--	--	2.5
Subtotal	690	--	--	--	--	--	408.0

Annual Funding BY\$

3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway BY 1995 \$M	Non End Item Recurring Flyaway BY 1995 \$M	Non Recurring Flyaway BY 1995 \$M	Total Flyaway BY 1995 \$M	Total Support BY 1995 \$M	Total Program BY 1995 \$M
1993	--	--	--	--	--	--	21.9
1994	--	--	--	--	--	--	62.1
1995	--	--	--	--	--	--	62.0
1996	--	--	--	--	--	--	73.9
1997	--	--	--	--	--	--	31.2
1998	--	--	--	--	--	--	20.0
1999	--	--	--	--	--	--	26.9
2000	--	--	--	--	--	--	10.5
2001	--	--	--	--	--	--	8.8
2002	--	--	--	--	--	--	14.9
2003	--	--	--	--	--	--	15.1
2004	--	--	--	--	--	--	31.3
2005	--	--	--	--	--	--	--
2006	--	--	--	--	--	--	--
2007	--	--	--	--	--	--	5.8
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	--
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	1.8
2015	--	--	--	--	--	--	1.8
Subtotal	690	--	--	--	--	--	388.0

PE 0604618F funded an additional \$13.7M in FY 2007 for Laser JDAM and \$50M in FY 2010 for Very Low Collateral Damage Weapon.

Annual Funding TY\$**1508 | Procurement | Procurement of Ammunition, Navy and Marine Corps**

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
1998	547	10.0	--	--	10.0	10.9	20.9
1999	745	14.6	--	--	14.6	20.6	35.2
2000	916	19.3	--	--	19.3	15.7	35.0
2001	2325	50.2	--	--	50.2	15.4	65.6
2002	14551	292.4	--	--	292.4	10.1	302.5
2003	12280	242.4	--	--	242.4	8.5	250.9
2004	12422	243.7	--	--	243.7	8.2	251.9
2005	6876	142.5	--	--	142.5	8.6	151.1
2006	3288	72.5	--	--	72.5	9.0	81.5
2007	3324	73.9	--	--	73.9	12.7	86.6
2008	1422	35.5	--	--	35.5	7.1	42.6
2009	560	13.3	--	--	13.3	5.2	18.5
2010	--	--	--	--	--	2.0	2.0
Subtotal	59256	1210.3	--	--	1210.3	134.0	1344.3

Annual Funding BY\$**1508 | Procurement | Procurement of Ammunition, Navy and Marine Corps**

Fiscal Year	Quantity	End Item Recurring Flyaway BY 1995 \$M	Non End Item Recurring Flyaway BY 1995 \$M	Non Recurring Flyaway BY 1995 \$M	Total Flyaway BY 1995 \$M	Total Support BY 1995 \$M	Total Program BY 1995 \$M
1998	547	9.4	--	--	9.4	10.2	19.6
1999	745	13.5	--	--	13.5	19.1	32.6
2000	916	17.6	--	--	17.6	14.4	32.0
2001	2325	45.3	--	--	45.3	13.9	59.2
2002	14551	261.2	--	--	261.2	9.0	270.2
2003	12280	211.7	--	--	211.7	7.4	219.1
2004	12422	207.3	--	--	207.3	7.0	214.3
2005	6876	117.8	--	--	117.8	7.1	124.9
2006	3288	58.5	--	--	58.5	7.2	65.7
2007	3324	58.2	--	--	58.2	10.1	68.3
2008	1422	27.6	--	--	27.6	5.5	33.1
2009	560	10.2	--	--	10.2	4.0	14.2
2010	--	--	--	--	--	1.5	1.5
Subtotal	59256	1038.3	--	--	1038.3	116.4	1154.7

Annual Funding TY\$

3011 | Procurement | Procurement of Ammunition, 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
1997	937	16.6	--	--	16.6	6.4	23.0
1998	1828	33.5	--	--	33.5	5.7	39.2
1999	3778	72.4	--	--	72.4	7.1	79.5
2000	8725	180.1	--	--	180.1	9.1	189.2
2001	8904	189.9	--	--	189.9	13.6	203.5
2002	14392	285.9	--	--	285.9	14.5	300.4
2003	23420	458.5	--	--	458.5	18.6	477.1
2004	20476	404.2	--	--	404.2	20.3	424.5
2005	22880	491.8	--	--	491.8	22.6	514.4
2006	8205	200.8	--	--	200.8	24.4	225.2
2007	7261	180.7	--	--	180.7	13.4	194.1
2008	4319	102.1	--	--	102.1	22.0	124.1
2009	6340	149.1	--	--	149.1	16.9	166.0
2010	7488	177.1	--	--	177.1	21.3	198.4
2011	14551	357.5	--	--	357.5	15.9	373.4
2012	4600	111.5	--	--	111.5	15.7	127.2
2013	4502	133.7	--	--	133.7	10.9	144.6
2014	7059	239.0	--	--	239.0	11.5	250.5
2015	2852	84.3	--	--	84.3	17.1	101.4
2016	11058	277.5	--	--	277.5	17.9	295.4
2017	11224	291.3	--	--	291.3	17.6	308.9
2018	5064	143.4	--	--	143.4	16.7	160.1
2019	12725	344.8	--	--	344.8	18.3	363.1
Subtotal	212588	4925.7	--	--	4925.7	357.5	5283.2

Annual Funding BY\$**3011 | Procurement | Procurement of Ammunition, Air Force**

Fiscal Year	Quantity	End Item Recurring Flyaway BY 1995 \$M	Non End Item Recurring Flyaway BY 1995 \$M	Non Recurring Flyaway BY 1995 \$M	Total Flyaway BY 1995 \$M	Total Support BY 1995 \$M	Total Program BY 1995 \$M
1997	937	15.7	--	--	15.7	6.1	21.8
1998	1828	31.4	--	--	31.4	5.3	36.7
1999	3778	67.0	--	--	67.0	6.6	73.6
2000	8725	164.8	--	--	164.8	8.4	173.2
2001	8904	171.9	--	--	171.9	12.3	184.2
2002	14392	254.6	--	--	254.6	12.9	267.5
2003	23420	403.5	--	--	403.5	16.4	419.9
2004	20476	348.1	--	--	348.1	17.5	365.6
2005	22880	411.9	--	--	411.9	18.9	430.8
2006	8205	163.5	--	--	163.5	19.8	183.3
2007	7261	143.5	--	--	143.5	10.6	154.1
2008	4319	79.6	--	--	79.6	17.2	96.8
2009	6340	114.6	--	--	114.6	13.0	127.6
2010	7488	134.2	--	--	134.2	16.2	150.4
2011	14551	265.4	--	--	265.4	11.8	277.2
2012	4600	81.3	--	--	81.3	11.5	92.8
2013	4502	94.9	--	--	94.9	7.8	102.7
2014	7059	166.7	--	--	166.7	8.0	174.7
2015	2852	57.7	--	--	57.7	11.7	69.4
2016	11058	186.2	--	--	186.2	12.0	198.2
2017	11224	191.6	--	--	191.6	11.6	203.2
2018	5064	92.5	--	--	92.5	10.8	103.3
2019	12725	218.0	--	--	218.0	11.6	229.6
Subtotal	212588	3858.6	--	--	3858.6	278.0	4136.6

Air Force does not provide inflation tables for appropriation 3011, Procurement of Ammunition, Air Force. JDAM uses inflation tables for appropriation 3020, Missile Procurement, Air Force.

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	9/20/1995	1/21/2000
Approved Quantity	425	15998
Reference	Milestone II ADM	LRIP 4 ADM
Start Year	1997	1997
End Year	1998	2000

The LRIP quantities approved in the Acquisition Decision Memorandum (ADM) at Milestone II, September 20, 1995, were 425 units for Lot 1. Subsequent FY 1997 budget cycle decisions approved a buy-to-budget approach for determining annual quantities and Lot 1 became 937 units. With the lower than expected unit costs and a higher demand for JDAM Guidance Kits, a second, third and fourth LRIP were added making LRIP a total quantity of 15,998. The additional LRIP quantities, required to replenish JDAM inventories depleted during Operation Allied Force, caused the Air Force to exceed the 10% LRIP limit. However, all four Congressional Defense committees concurred with the Air Force's plan before the Lot 4 contract was awarded on February 24, 2000.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost \$M	Memo
Oman	7/1/2013		0.9	Fuzes
Belgium	5/15/2013		0.1	Fuzes
Norway	3/8/2013		2.8	Fuzes
Israel	3/7/2013	3113	88.8	JDAM Kits and Support
Korea	3/7/2013	210	7.8	JDAM Kits, Fuzes
Japan	3/1/2013	68	4.2	JDAM Kits
Poland	1/31/2013		1.1	JDAM Manpower
Turkey	12/19/2012	300	13.4	JDAM Kits, Fuzes
Korea	11/27/2012	140	5.1	JDAM Kits, Fuzes
Israel	11/21/2012	1500	40.8	JDAM Kits
Finland	7/15/2012		0.2	Repair and Return, Spares, Support
Korea	5/1/2012	106	3.6	JDAM Kits
Iraq	4/19/2012	358	2.0	Fuzes
Canada	4/17/2012	0	0.2	Fuzes
Saudi Arabia	2/22/2012	0	61.4	Engineering Support
Saudi Arabia	2/22/2012		5.4	Repair and Return, Spares, Support
Saudi Arabia	2/11/2012	600	154.5	JDAM Kits, PLGS, Fuzes
Japan	10/12/2011	16	0.7	JDAM Kits
Japan	10/12/2011	8	0.7	JDAM Kits
Belgium	9/8/2011	180	5.4	JDAM Kits, Fuzes
Malaysia	8/23/2011	0	1.8	JDAM Spares, Test Assets
Canada	8/11/2011	533	15.9	JDAM Kits, Integration Support
Japan	7/15/2011	0	2.7	Fuzes
Chile	6/10/2011	210	8.0	JDAM Kits, Fuzes
Norway	4/26/2011	254	9.5	JDAM Kits
Denmark	4/11/2011	210	8.9	JDAM Kits
Belgium	2/2/2011	30	0.8	Spares
Brazil	1/28/2011	0	0.3	Fuzes
Morocco	9/8/2010	10	6.0	JDAM Kits
Japan	2/9/2010	96	4.9	JDAM Kits, Fuzes
Japan	1/29/2010	31	1.7	JDAM Kits, Fuzes

Singapore	1/27/2010	670	35.5	JDAM Kits
Israel	1/22/2010	150	2.1	Precision Laser Guidance Set
Israel	1/12/2010	150	3.5	JDAM Kits
Netherlands	12/4/2009	0	2.8	Fuzes
South Korea	11/30/2009	0	3.8	JDAM Integration on F-16
Malaysia	9/28/2009	50	5.8	JDAM Kits
Norway	6/10/2009	30	5.2	JDAM Kits, Support
Kuwait	3/31/2009	51	5.9	JDAM Kits, Support
United Arab Emirates	3/24/2009	0	1.1	Repair and Return, Spares, Support
Japan	3/12/2009	120	9.2	JDAM Kits
Finland	2/25/2009	96	7.0	JDAM Kits
Singapore	2/11/2009	35	4.1	JDAM Kits
Japan	2/3/2009	36	3.1	JDAM Kits, Fuzes
Oman	2/2/2009	0	0.8	Repair and Return, Spares, Support
Israel	1/12/2009	500	14.9	JDAM Kits
Israel	1/12/2009	2950	71.6	JDAM Kits
South Korea	12/29/2008		0.4	Fuzes
South Korea	12/16/2008	4	0.5	JDAM Kits
Germany	10/28/2008		0.2	Fuzes
South Korea	9/3/2008		0.2	Fuzes
Israel	7/21/2008		0.6	Engineering Support
Saudi Arabia	7/2/2008	900	44.2	JDAM Kits, Support
South Korea	3/11/2008		2.2	Fuzes
Japan	3/7/2008	36	2.1	JDAM Kits, Fuzes
United Arab Emirates	2/21/2008	300	70.6	JDAM Kits
South Korea	2/19/2008		4.3	Fuzes, Global Positioning System (GPS) Security
South Korea	12/28/2007		0.4	Fuzes
South Korea	12/28/2007		0.4	Fuzes
Australia	12/11/2007		2.6	Engineering Support
Greece	11/20/2007	100	21.9	JDAM Kits, Integration Support
Netherlands	10/24/2007		2.8	Fuzes
Israel	10/2/2007	1000	28.0	JDAM Kits
Israel	9/26/2007	650	17.3	JDAM Kits
Israel	7/13/2007	300	8.3	JDAM Kits
Turkey	5/29/2007		0.4	Fuzes

Israel	3/5/2007	500	12.9	JDAM Kits
Japan	12/18/2006	42	1.8	JDAM Kits
Spain	12/14/2006	40	2.5	JDAM Kits
Pakistan	9/30/2006	500	23.6	JDAM Kits
Israel	7/25/2006		0.1	Engineering Support
Japan	3/27/2006	44	3.5	JDAM Kits
Japan	3/17/2006		0.1	Engineering Support
Turkey	12/28/2005		6.9	Integration
Turkey	12/28/2005	398	9.9	JDAM Kits
Greece	12/13/2005		2.3	Integration Support
Netherlands	10/7/2005	56	1.7	JDAM Kits
Turkey	4/26/2005		4.7	Integration Support
Australia	4/5/2005		0.3	Integration Support
Netherlands	3/1/2005	360	8.7	JDAM Kits, Support
Japan	1/25/2005	27	8.5	JDAM Kits, Integration, Test Assets
Belgium	12/22/2004	300	7.9	JDAM Kits
Israel	8/16/2004		17.6	F-15 Integration
Israel	7/14/2004	840	18.1	JDAM Kits, Integration
Portugal	4/15/2004	50	3.7	JDAM Kits, Support
Netherlands	2/23/2004	350	13.8	JDAM Kits, Support
Oman	2/15/2004	20	0.5	JDAM Kits
Israel	7/3/2003	1000	21.5	JDAM Kits
Poland	4/18/2003	272	10.6	JDAM Kits, Integration, Test Assets
Denmark	12/20/2002	274	11.0	JDAM Kits, Support
United Arab Emirates	8/20/2002	300	9.0	JDAM Kits
South Korea	6/12/2002	14	1.1	JDAM Kits
Oman	5/2/2002	80	3.2	JDAM Kits
Belgium	2/11/2002		0.8	Fuzes
Chile	2/1/2002	12	3.0	JDAM Kits, Integration, Test Assets
Australia	11/28/2000		6.8	Fuzes
Australia	11/28/2000		3.2	Fuzes
United Arab Emirates	8/8/2000		1.3	Integration, Test Assets
Israel	2/9/2000	700	31.5	JDAM Kits, Integration

Nuclear Costs

None

Unit Cost

Unit Cost Report

	BY1995 \$M	BY1995 \$M	
Unit Cost	Current UCR Baseline (OCT 2002 APB)	Current Estimate (DEC 2013 SAR)	BY % Change

Program Acquisition Unit Cost (PAUC)

Cost	4882.6	5864.1	
Quantity	221869	272648	
Unit Cost	0.022	0.022	0.00

Average Procurement Unit Cost (APUC)

Cost	4307.5	5291.3	
Quantity	221091	271844	
Unit Cost	0.019	0.019	0.00

	BY1995 \$M	BY1995 \$M	
Unit Cost	Original UCR Baseline (SEP 1995 APB)	Current Estimate (DEC 2013 SAR)	BY % Change

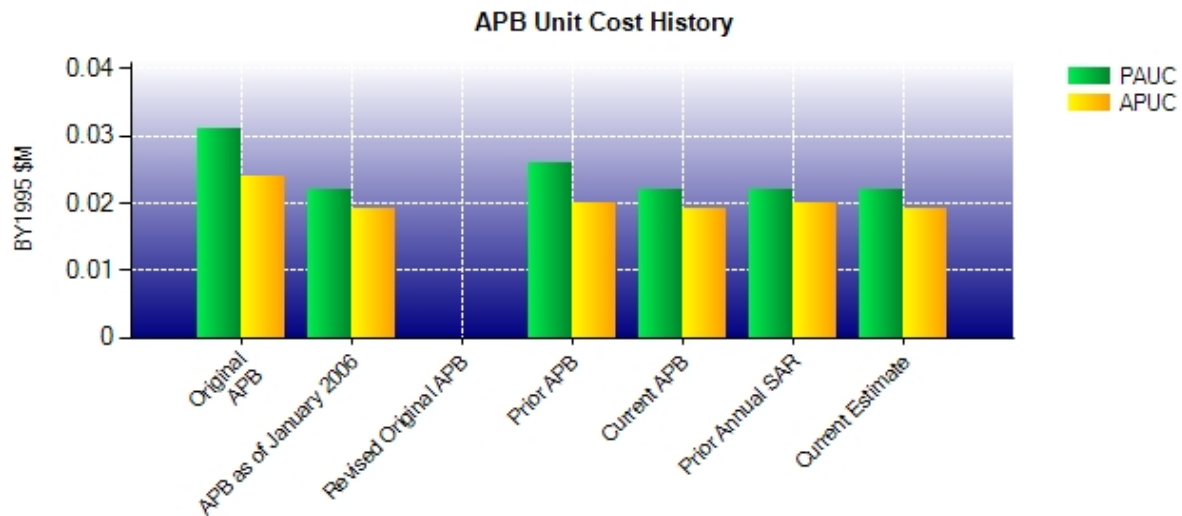
Program Acquisition Unit Cost (PAUC)

Cost	2720.4	5864.1	
Quantity	88126	272648	
Unit Cost	0.031	0.022	-29.03

Average Procurement Unit Cost (APUC)

Cost	2090.6	5291.3	
Quantity	87496	271844	
Unit Cost	0.024	0.019	-20.83

Unit Cost History



	Date	BY1995 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	SEP 1995	0.031	0.024	0.038	0.033
APB as of January 2006	OCT 2002	0.022	0.019	0.025	0.023
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	MAR 2001	0.026	0.020	0.029	0.024
Current APB	OCT 2002	0.022	0.019	0.025	0.023
Prior Annual SAR	DEC 2012	0.022	0.020	0.027	0.024
Current Estimate	DEC 2013	0.022	0.019	0.027	0.024

SAR Unit Cost History

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

Initial PAUC Dev Est	Changes								PAUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.038	-0.002	-0.005	0.002	0.001	-0.005	0.000	0.000	-0.009	0.029

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

PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.029	0.000	-0.007	0.000	0.000	0.004	0.000	0.001	-0.002	0.027

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

Initial APUC Dev Est	Changes								APUC Prod Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.033	-0.002	-0.003	0.002	0.000	-0.006	0.000	0.000	-0.009	0.024

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

APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.024	0.000	-0.005	0.000	0.000	0.004	0.000	0.001	0.000	0.024

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone I	OCT 1993	OCT 1993	OCT 1993	OCT 1993
Milestone II	OCT 1995	SEP 1995	SEP 1995	SEP 1995
Milestone III	JUL 1999	NOV 2000	NOV 2000	MAR 2001
IOC	SEP 1999	SEP 1999	NOV 2000	FEB 2001
Total Cost (TY \$M)	681.5	3392.3	2606.7	7229.8
Total Quantity	378	88126	89065	272648
Prog. Acq. Unit Cost (PAUC)	1.803	0.038	0.029	0.027

IOC of February 2001 is specifically for the F/A-18C/D.

Cost Variance

Summary Then Year \$M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	517.3	2089.4	--	2606.7
Previous Changes				
Economic	+3.6	+87.6	--	+91.2
Quantity	--	+2430.0	--	+2430.0
Schedule	--	-71.8	--	-71.8
Engineering	+15.5	--	--	+15.5
Estimating	+65.9	+980.1	--	+1046.0
Other	--	--	--	--
Support	--	+324.2	--	+324.2
Subtotal	+85.0	+3750.1	--	+3835.1
Current Changes				
Economic	-0.1	-9.3	--	-9.4
Quantity	--	+712.6	--	+712.6
Schedule	--	-12.3	--	-12.3
Engineering	--	--	--	--
Estimating	+0.1	+88.7	--	+88.8
Other	--	--	--	--
Support	--	+8.3	--	+8.3
Subtotal	--	+788.0	--	+788.0
Total Changes	+85.0	+4538.1	--	+4623.1
CE - Cost Variance	602.3	6627.5	--	7229.8
CE - Cost & Funding	602.3	6627.5	--	7229.8

Summary Base Year 1995 \$M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	490.3	1810.0	--	2300.3
Previous Changes				
Economic	--	--	--	--
Quantity	--	+1906.1	--	+1906.1
Schedule	--	-2.5	--	-2.5
Engineering	+12.5	--	--	+12.5
Estimating	+69.9	+805.8	--	+875.7
Other	--	--	--	--
Support	--	+253.1	--	+253.1
Subtotal	+82.4	+2962.5	--	+3044.9
Current Changes				
Economic	--	--	--	--
Quantity	--	+460.1	--	+460.1
Schedule	--	-3.6	--	-3.6
Engineering	--	--	--	--
Estimating	+0.1	+57.6	--	+57.7
Other	--	--	--	--
Support	--	+4.7	--	+4.7
Subtotal	+0.1	+518.8	--	+518.9
Total Changes	+82.5	+3481.3	--	+3563.8
CE - Cost Variance	572.8	5291.3	--	5864.1
CE - Cost & Funding	572.8	5291.3	--	5864.1

Previous Estimate: December 2012

RDT&E	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	-0.1
Adjustment for current escalation. (Estimating)	+0.1	+0.1
RDT&E Subtotal	+0.1	0.0

Procurement	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	-9.3
Acceleration of procurement buy profile (Air Force). (Schedule)	0.0	-6.7
Total Quantity variance resulting from an increase of 30758 JDAM Tailkits from 181830 to 212588 (Air Force). (Subtotal)	+602.5	+933.1
Quantity variance resulting from an increase of 30758 JDAM Tailkits from 181830 to 212588 (Air Force). (Quantity)	(+558.6)	(+865.1)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-3.6)	(-5.6)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(+47.5)	(+73.6)
Additional Quantity variance resulting from an increase of 30758 JDAM Tailkits. (Quantity)	-98.5	-152.5
Adjustment for current and prior escalation. (Estimating)	+3.3	+4.7
Adjustment for current and prior escalation. (Estimating)	+6.8	+10.4
Adjustment for current and prior escalation. (Support)	+0.4	+0.5
Increase in Other Support is due to program extension into FY 2019 (Air Force). (Support)	+4.3	+7.8
Procurement Subtotal	+518.8	+788.0

(QR) Quantity Related

Contracts

General Contract Memo

Ongoing switch to strategy requiring Certified Cost or Pricing data has put pressure on procurement schedule for Lots 18 through 22 (future contracts). Will mitigate risk with contract action in July 2014.

Appropriation: Procurement

Contract Name	JDAM Lot 16
Contractor	Boeing
Contractor Location	St. Louis, MO 63166
Contract Number, Type	FA8681-12-C-0160, FFP
Award Date	November 30, 2011
Definitization Date	November 30, 2011

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
125.9	N/A	4977	238.8	N/A	9861	238.8	238.8

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the purchase of additional guidance kits and for production incentive.

Cost and Schedule Variance Explanations

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

Appropriation: Procurement

Contract Name	JDAM Lot 17
Contractor	Boeing
Contractor Location	St. Louis, MO 63166
Contract Number, Type	FA8681-13-C-0063, FFP
Award Date	December 21, 2012
Definitization Date	December 21, 2012

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price at Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
118.0	N/A	4501	142.0	N/A	5708	142.0	142.0

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to the purchase of additional guidance kits.

Cost and Schedule Variance Explanations

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

Deliveries and Expenditures

Delivered to Date	Plan to Date	Actual to Date	Total Quantity	Percent Delivered
Development	804	804	804	100.00%
Production	226819	231105	271844	85.01%
Total Program Quantity Delivered	227623	231909	272648	85.06%

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	7229.8	Years Appropriated	22
Expended to Date	5491.8	Percent Years Appropriated	81.48%
Percent Expended	75.96%	Appropriated to Date	5998.4
Total Funding Years	27	Percent Appropriated	82.97%

The above data is current as of 2/28/2014.

Expenditures include both U.S. Navy and Air Force.

Operating and Support Cost

JDAM

Assumptions and Ground Rules

Cost Estimate Reference:

Milestone III March 2001. An update to the O&S cost estimate is currently in work to coincide with the Lots 18-22 procurement contract. An updated O&S estimate will be presented in the 2014 SAR.

Sustainment Strategy:

The JDAM O&S cost estimate was based on the Joint Munitions Operations & Support Model which was tailored to reflect specific JDAM program attributes. This model estimated Air Force and Navy O&S costs for the JDAM tailkits only. Assumptions used in the O&S cost estimate are as follows: The total JDAM inventory used was 88,569 tailkits. The warranty assumed was a 20 year extended warranty to cover all tailkit repairs except for government induced failures. In the model, one half of a percent of the total JDAM failures were assumed to be induced out-of-warranty failures. The Milestone III estimate included calculations for 35 years. This was an increase of five years from the previous Milestone estimate. The model also included new assumptions to calculate unwarranted failures for 15 years after the warranty period ended.

Antecedent Information:

None

Unitized O&S Costs BY1995 \$M			
Cost Element	JDAM Avg Annual Cost for Total Quantity	None (Antecedent) None	
Unit-Level Manpower	0.400		0.000
Unit Operations	1.900		0.000
Maintenance	0.000		0.000
Sustaining Support	2.600		0.000
Continuing System Improvements	0.000		0.000
Indirect Support	0.300		0.000
Other	0.000		0.000
Total	5.200		--

Unitized Cost Comments:

Total O&S: (6.634 x 35 years) = 232.2 (BY1995 \$M).

Total O&S Cost \$M				
	Current Production APB Objective/Threshold		Current Estimate	
	JDAM		JDAM	None (Antecedent)
Base Year	N/A	N/A	180.9	N/A
Then Year	N/A	N/A	319.0	N/A

Total O&S Costs Comments:

O&S Cost Variance		
Category	Base Year 1995 \$M	Change Explanation
Prior SAR Total O&S Estimate December	232.2	
Cost Estimating Methodology	0.0	
Cost Data Update	0.0	
Labor Rate	0.0	
Energy Rate	0.0	
Technical Input	0.0	
Programmatic/Planning Factors	0.0	
Other	-51.3	Removal of Disposal Costs from the Total O&S estimate.
Total Changes	-51.3	
Current Estimate	180.9	

Disposal Costs:

Total Disposal Cost is \$51.3M BY1995.