



Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-554



MIDS

As of December 31, 2011

Defense Acquisition Management
Information Retrieval
(DAMIR)

UNCLASSIFIED

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Program Information

Designation And Nomenclature (Popular Name)

Multifunctional Information Distribution System (MIDS)

DoD Component

DoD

Joint Participants

Navy; Air Force; Army

Army is the lead Component per SECDEF Memo dated August 31, 2009.

Responsible Office

Responsible Office

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Date Assigned June 12, 2008

References

SAR Baseline (Production Estimate)

Navy Acquisition Executive (NAE) Approved Acquisition Program Baseline (APB) dated March 22, 2006

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated March 9, 2010

Mission and Description

The Multifunctional Information Distribution System (MIDS) Program is a multinational (U.S., France, Germany, Italy, Spain) cooperative development program with joint service participation (Navy, Marine Corps, Army, Air Force).

DoD established the program to design, develop and deliver low volume, lightweight tactical information system terminals for U.S. and Allied fighter aircraft, bombers, helicopters, ships, and ground sites. The MIDS Program consists of the MIDS Low Volume Terminal (MIDS-LVT) and the MIDS Joint Tactical Radio System (MIDS JTRS) terminal.

MIDS-LVT provides interoperability with international users significantly increasing force effectiveness and minimizing hostile actions and friend-on-friend engagements. The MIDS-LVT terminal design is smaller, lighter, highly reliable, interoperable with Joint Tactical Information Distribution System (JTIDS) Class 2 terminal, compatible with all the participants' designated platforms, affordable, and re-configurable to individual user needs and budgets.

Three principal configurations of the MIDS-LVT terminal are in production and use an open system, modular architecture. MIDS-LVT(1) includes voice, Tactical Air Navigation (TACAN) and variable power transmission with maximum power of 200 watts and provides a Link 16 capability to U.S. Navy and U.S. Air Force platforms. MIDS-LVT(2) is a ground variant and is a functional replacement for the JTIDS Class 2M terminal. MIDS-LVT(3), also referred to as MIDS Fighter Data Link (FDL), is a reduced function terminal for the Air Force (no voice, no TACAN, and a maximum power of 40 watts).

The MIDS JTRS terminal meets JTRS compliance. The technical objective of MIDS JTRS is to transform the current MIDS-LVT into a four-channel, Software Communications Architecture (SCA) compliant Joint Tactical Radio (JTR) set, while maintaining current Link 16 and TACAN functionality. The MIDS JTRS design is plug-and-play interchangeable with U.S. Navy and U.S. Air Force platforms that use MIDS-LVT, and accommodates future technologies and capabilities. The MIDS JTRS design will also add improvements such as Link 16 enhanced throughput, Link 16 frequency re-mapping, and programmable crypto. In addition to the Link 16 and TACAN functionality, MIDS JTRS will provide three additional 2 megahertz (MHz) to 2 gigahertz (GHz) programmable channels to accommodate incremental delivery of the advanced JTRS waveforms through MIDS JTRS Platform Capability Packages (JPCP). The first of these JPCP waveforms will be the Joint Airborne Networking-Tactical Edge (JAN-TE) capability. Total program requirements include terminal development, F/A-18E/F integration, software hosting (Operating Environment/JTRS Waveforms), implementation of National Security Agency (NSA) guidelines and production transition.

Executive Summary

The Multifunctional Information Distribution System (MIDS) Program Office (MPO) consists of two products, the MIDS Low Volume Terminal (MIDS-LVT) and the MIDS Joint Tactical Radio System (MIDS JTRS). The MIDS Program Manager (PM) has implemented an acquisition strategy that maintains continuous competition between the two U.S. production contractors, Data Link Solutions (DLS) and ViaSat, Inc.

The MPO awarded MIDS-LVT Production Lot 12 on July 15, 2011. EuroMIDS Lot 4 (167 MIDS-LVTs) Production Contract was awarded to EuroMIDS (Paris, FRA) for a base cost of €30M. This contract between the MIDS International Program Office and EuroMIDS is funded exclusively with European MIDS Nations' funding. As of December 30, 2011, there are 7,078 MIDS terminals on contract with DLS, ViaSat, and EuroMIDS of which 6,647 total production terminals have been delivered. These terminals are for the United States Navy (USN), United States Air Force (USAF), United States Army (USA), and Foreign Military Sales.

An Acquisition Decision Memorandum (ADM) dated December 23, 2009 approved Limited Production and Fielding (LP&F) of 41 MIDS JTRS variant terminals to support the F/A-18E/F production schedule and the Joint Surveillance Target Attack Radar System (JSTARS) integration and testing requirements. A follow-on MIDS JTRS ADM was signed on March 9, 2010 and provided further guidance, including entrance criteria for a Full Production and Fielding (FP&F) Defense Acquisition Board (DAB) decision. A MIDS JTRS variant ADM was signed on January 31, 2011, authorizing the award of a second Limited Production and Fielding (LP2) for 42 MIDS JTRS variant terminals to support F/A-18 E/F production, RC-135 Rivet Joint, EC-130H Compass Call, and other service requirements. The MIDS JTRS LP2 award was made on February 2, 2011.

Initial Operational Test and Evaluation (IOT&E) for the MIDS JTRS variant was conducted from July 6, 2010 until November 15, 2010. During IOT&E, 650.5 flight hours were achieved. The MPO received notification of 14 IOT&E anomalies (1 terminal/13 system) from Commander, Operational Test and Evaluation Force (COTF). The COTF Executive System Engineering Review Board (SERB) was held on January 5, 2011. The COTF IOT&E report was released on February 25, 2011 and concluded that F/A-18 E/F with MIDS JTRS installed was not operationally effective and not operationally suitable. Further, it recommended correction of identified critical deficiencies followed by verification in operational test by Air Test and Evaluation Squadron (AIRTEVRON) NINE (VX-9). The Director, Operational Test & Evaluation (DOT&E) IOT&E report was released on April 21, 2011. The COTF and DOT&E reports were in substantial agreement with the exception of TACAN where COTF rated mobility as unsatisfactory while DOT&E called TACAN effective with limitations with a requirement for additional testing to resolve discrepancies. Following the completion of IOT&E, VX-23 (Pax River) and VX-31 (China Lake) accumulated the following F/A-18 E/F operational flight hours to build confidence prior to a Verification of Correction of Deficiencies (VCD): 102 flights with 163 hours (ViaSat terminals) and 94 flights with 150.1 hours (DLS terminals).

The MPO VCD request letter to COTF was delivered on July 15, 2011. The COTF VCD Concept of OPS was briefed to DOT&E on July 28, 2011. VCD began on August 15, 2011. VCD concluded in January 2012 with end of test declared on January 9, 2012. Through January 9th, VX-9 flew 477 flights for a total of 791.9 hours. The COTF SERB was held the week of January 30, 2012. Reports from COTF are that the SERB is positive and will result in an assessment of "Effective and Suitable with Major Deficiencies, Recommend Fielding."

An Overarching Integrated Product Team (OIPT) was held on February 9, 2012. An FP&F DAB is scheduled for March 8, 2012.

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

Threshold Breaches

APB Breaches	
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Schedule		<input checked="" type="checkbox"/>
Performance		<input type="checkbox"/>
Cost	RDT&E	<input checked="" type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
Unit Cost	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

Explanation of Breach

Schedule Breach

This breach was previously reported in the December 2010 SAR.

RDT&E Cost Breach

In the President's Budget 2013 (PB13), the MIDS Program Office received additional RDT&E funding to incorporate Concurrent Multi-Netting (CMN-4) and Tactical Targeting Network Technology (TTNT) into the MIDS JTRS terminal, including completion of TTNT waveform development. The cost of these additional efforts exceeds the threshold of the currently approved Acquisition Program Baseline (APB) of March 2010.

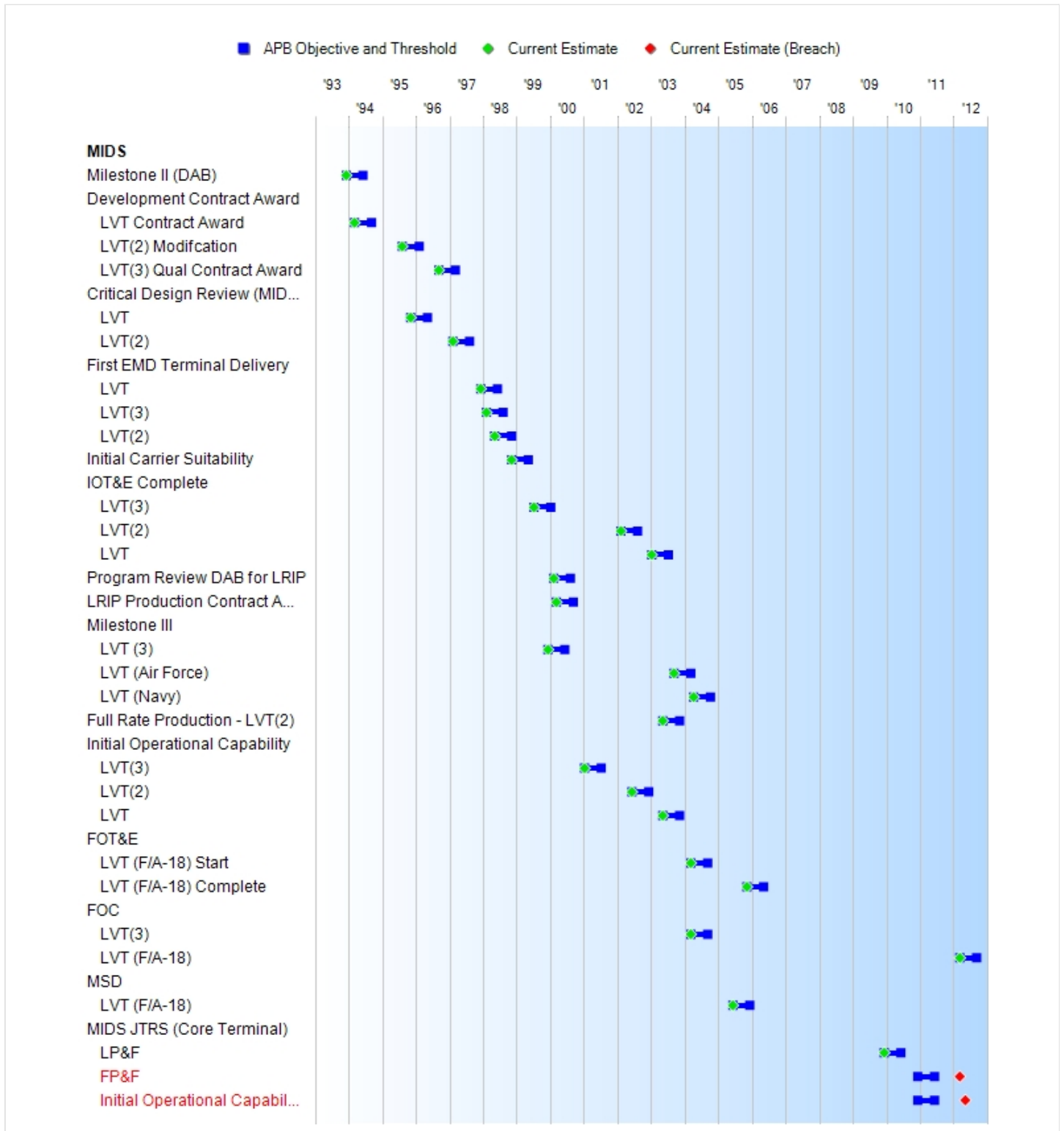
Nunn-McCurdy Breaches	
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Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

A Program Deviation Report (PDR) was signed by the MIDS Program Manager (PM) on March 5, 2012. The Joint Program Executive Officer (JPEO) signed a letter of concurrence on March 7, 2012. The PDR and letter of concurrence have been submitted to the Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT)).

A revised APB is at the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics (OUSD, AT&L) staffing to support a March 2012 Full Production and Fielding (FP&F) Defense Acquisition Board (DAB).

Schedule



Milestones	SAR Baseline Prod Est	Current APB Production		Current Estimate
		Objective/Threshold		
Milestone II (DAB)	DEC 1993	DEC 1993	JUN 1994	DEC 1993
Development Contract Award				
LVT Contract Award	MAR 1994	MAR 1994	SEP 1994	MAR 1994
LVT(2) Modification	AUG 1995	AUG 1995	FEB 1996	AUG 1995
LVT(3) Qual Contract Award	SEP 1996	SEP 1996	MAR 1997	SEP 1996
Critical Design Review (MIDS Terminal)	N/A			
LVT	NOV 1995	NOV 1995	MAY 1996	NOV 1995
LVT(2)	FEB 1997	FEB 1997	AUG 1997	FEB 1997
First EMD Terminal Delivery				
LVT	DEC 1997	DEC 1997	JUN 1998	DEC 1997
LVT(3)	FEB 1998	FEB 1998	AUG 1998	FEB 1998
LVT(2)	MAY 1998	MAY 1998	NOV 1998	MAY 1998
Initial Carrier Suitability	NOV 1998	NOV 1998	MAY 1999	NOV 1998
IOT&E Complete				
LVT(3)	JUL 1999	JUL 1999	JAN 2000	JUL 1999
LVT(2)	FEB 2002	FEB 2002	AUG 2002	FEB 2002
LVT	JAN 2003	JAN 2003	JUL 2003	JAN 2003
Program Review DAB for LRIP	FEB 2000	FEB 2000	AUG 2000	FEB 2000
LRIP Production Contract Award	MAR 2000	MAR 2000	SEP 2000	MAR 2000
Milestone III				
LVT (3)	DEC 1999	DEC 1999	JUN 2000	DEC 1999
LVT (Air Force)	SEP 2003	SEP 2003	MAR 2004	SEP 2003
LVT (Navy)	APR 2004	APR 2004	OCT 2004	APR 2004
Full Rate Production - LVT(2)	MAY 2003	MAY 2003	NOV 2003	MAY 2003
Initial Operational Capability				
LVT(3)	JAN 2001	JAN 2001	JUL 2001	JAN 2001
LVT(2)	JUN 2002	JUN 2002	DEC 2002	JUN 2002
LVT	MAY 2003	MAY 2003	NOV 2003	MAY 2003
FOT&E				
LVT (F/A-18) Start	MAR 2004	MAR 2004	SEP 2004	MAR 2004
LVT (F/A-18) Complete	NOV 2005	NOV 2005	MAY 2006	NOV 2005
FOC				
LVT(3)	MAR 2004	MAR 2004	SEP 2004	MAR 2004
LVT (F/A-18)	MAR 2012	MAR 2012	SEP 2012	MAR 2012

cont.				
Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate
MSD				
LVT (F/A-18)	JUN 2005	JUN 2005	DEC 2005	JUN 2005
MIDS JTRS (Core Terminal)				
LP&F	N/A	DEC 2009	JUN 2010	DEC 2009
FP&F	N/A	DEC 2010	JUN 2011	MAR 2012 ¹ (Ch-1)
Initial Operational Capability (IOC)	N/A	DEC 2010	JUN 2011	MAY 2012 ¹ (Ch-2)

¹APB Breach

Acronyms And Abbreviations

APB - Acquisition Program Baseline
 DAB - Defense Acquisition Board
 EMD - Engineering and Manufacturing Development
 FOC - Full Operational Capability
 FOT&E - Follow-On Test and Evaluation
 FP&F - Full Production and Fielding
 FRP - Full Rate Production
 IOC - Initial Operational Capability
 IOT&E - Initial Operational Test and Evaluation
 IRT - Integration Readiness Test
 JTRS - Joint Tactical Radio System
 LP&F - Limited Production and Fielding
 LRIP - Low Rate Initial Production
 LVT - Low Volume Terminal
 MIDS - Multifunctional Information Distribution System
 MS - Milestone
 MSD - Material Support Date
 OPEVAL - Operational Evaluation
 PDR - Program Deviation Report
 Qual - Qualification

Change Explanations

(Ch-1) The FP&F date was changed from July 2011 to March 2012 to align with the new MIDS JTRS program schedule which includes completion of all operational test reports associated with IOT&E. A PDR was submitted in February 2011. A revised APB is in staffing to support a March 2012 FP&F DAB.

(Ch-2) The IOC date was changed from July 2011 to May 2012 to align with the F/A-18 (MIDS JTRS lead integration platform) schedule. A PDR was submitted in February 2011. A revised APB is at the Office of the in staffing to support a March 2012 FP&F DAB.

Memo

An OSD decision was made in December 2009 that MIDS JTRS (Core Terminal) did not require a MS C decision since the MIDS Program had a MS C decision in September 2003.

Performance

Characteristics	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Interoperability	All top level IERs in SMORD	All top level IERs in SMORD	All critical top level IERs in SMORD	100% Demonstrated	All top level IERs in SMORD
Waveform Compatibility	STANAG 4175 & JTIDS SSS	STANAG 4175 & JTIDS SSS	STANAG 4175 & JTIDS SSS	JITC Certified	STANAG 4175 & JTIDS SSS
Message Standard	STANAG 5516 (& 5616 for Data Fwds) & MIL-STD-6016B	STANAG 5516 (& 5616 for Data Fwds) & MIL-STD-6016B	STANAG 5516 (& 5616 for Data Fwds) & MIL-STD-6016B	JITC Certified	STANAG 5516 (& 5616 for Data Fwds) & MIL-STD-6016B
Maximum Power Transmission (w)					
LVT	Multiple selectable levels	Multiple selectable levels	>=200 with IF for 1000	200 Watts with IF	Multiple selectable levels
LVT(2)	Multiple selectable levels	Multiple selectable levels	>=200 or 25 selectable	200/25	Multiple selectable levels
LVT(3)	Multiple selectable levels	Multiple selectable levels	>=50	50	Multiple selectable levels
Information Exchange Rate (Kbps)	1000	>=1000	28.8 -115.2	1100 Kbps	>=1000
Paired Time Slot Relay Capability	Integral and automated	Integral and automated	Integral and automated	Yes	Integral and automated
Paired Time Slot Relay Range (nm) (USN Only)	1200	>=1200	>=500	520 nm	>=1200
Repromulgation Relay (nm) MIDS-LVT(2)	4 hop	4 hop	3 hop	4 hops	4 hop
Communication Range					
LVT (USN: C2 to C2)	300	>=300	>=300	350	>=300
LVT (USN: Non-C2 to C2)	240	>=240	>=220	240	>=240
LVT (USN: Non-C2 to Non-C2)	200	>=200	>=180	220	>=200
LVT (USN: Surface Platforms)	LOS up to 300	LOS >=300	LOS >=300	300	LOS >=300
LVT (F-16: Non-C2 to C2)	300	>=300	>=200	200	>=300
LVT (F-16: Non-C2 to Non-C2)	150	>=150	>=100	150	>=150

LVT(2)	Up to 300 with LOS at 200 w	Up to 300 with LOS at 200 w	Up to 300 with LOS at 200 w	300	Up to 300 with LOS at 200 w
LVT(3) (Non-C2 to C2)	300	>=300	>=200	300	>=300
LVT(3) (Non-C2 to Non-C2)	150	>=150	>=100	170	>=150
Voice Channels: LVT (USN)	Capable of 2	Capable of 2	1	2	Capable of 2
Coded Message Error Probability (%)					
LVT	1	<=1	<=2	Passed - measured results classified	<=1
LVT(2)	1	<=1	<=2	Passed - measured results classified	<=1
LVT(3)	< 1 detected	<= 1 detected	<=2	Passed - measured results classified	<= 1 detected
Jam Resistance					
LVT (USN) (db)	MJCS-194 - 89	MJCS-194- 89	MJCS-194- 89	Compliant	MJCS-194- 89
LVT (F-16) (%)	< 1 detected error	<=1 detected error	<= 1 detected error	Passed - measured results classified	<=1 detected error
LVT(2) (%)	< 1 detected error	<= 1 detected error	<= 5	Passed - measured results classified	<= 1 detected error
LVT(3) (%)	< 1 detected error	<= 1 detected error	<= 1 detected error	Passed - measured results classified	<= 1 detected error
Ao					
LVT	.90	>=.90	>=.90	.91	>=.90
LVT(2) (Terminal)	.94	>=.94	>=.90	.94	>=.94
LVT(3)	.97	>=.97	>=.95	.965	>=.97
MTBF (hr)(lab)					
USN	1000	>=1000	>=1000	1850	>=1000
USA	1800	>=1800	>=1000	1850	>=1800
USAF	1500	>=1500	>=1000	1850	>=1500
MFHBOMF/MTBOMF (hr)					
System	25	>=25	>=25	32	>=25
LVT (Aircraft) (Terminal)	300	>=300	>=220	240	>=300
LVT (Ships) (Terminal)	350	>=350	>=257	275	>=350

LVT(2) (Terminal)	393	>=393	>=393	425	>=393
MTTR (O-level) (min)					
LVT(2) (Terminal)	30	<=30	<=30	25	<=30
MCMTOMF					
LVT (USN Aircraft)	60	<=60	<=90	75	<=60
LVT (USN Ships)	60	<=60	<=90	80	<=60
LVT (USAF)	MRT < 20	MRT < 20	MRT < 30	25	MRT < 20
LVT(3)	MRT < 20	MRT < 20	MRT < 30	28	MRT < 20
Volume (Cubic Feet)					
LVT	< .6	<= .6	<= .6	.58	<= .6
LVT(2)	< 1.4	<=1.4	<=1.4	1.32	<=1.4
LVT(3)	< .6	<= .6	<= .6	.56	<= .6
Weight (lbs)					
LVT	< 65	<=65	<=65	63.8	<=65
LVT(2)	< 88	<=88	<=88	87.9	<=88
LVT(3)	< 65	<=65	<=65	63.8	<=65
MIDS-LVT Enhancement ECPs					
Message Standards	N/A	STANAG 5516 (& 5616 for Data Fwds) & MIL-STD-6016C	STANAG 5516 (& 5516 for Data Fwds) & MIL-STD-6016B	Enhancement not Implemented.	Enhancement not Implemented.
Communications Range	N/A	see notes	see notes	Enhancement not Implemented.	Enhancement not Implemented.
Information Exchange Rate (Kbps)					
LET 0	N/A	>=358	>=107	Enhancement not Implemented.	Enhancement not Implemented.
LET 1	N/A	>=546	>=358	Enhancement not Implemented.	Enhancement not Implemented.
LET 2	N/A	>=833	>=546	Enhancement not Implemented.	Enhancement not Implemented.
LET 3	N/A	>=968	>=833	Enhancement not Implemented.	Enhancement not Implemented.
LET 4	N/A	>=1100	>=968	Enhancement not Implemented.	Enhancement not Implemented.
Coded Message Error Probability (%)					
LET 0	N/A	<=1%	<=2%	Enhancement not Implemented.	Enhancement not Implemented.

LET 1	N/A	<=1%	<=2%	Enhancement not Implemented.	Enhancement not Implemented.
LET 2	N/A	<=1%	<=2%	Enhancement not Implemented.	Enhancement not Implemented.
LET 3	N/A	<=1%	<=2%	Enhancement not Implemented.	Enhancement not Implemented.
LET 4	N/A	<=1%	<=2%	Enhancement not Implemented.	Enhancement not Implemented.
Jam Resistance	N/A	MJCS-194-89	MJCS-194-89	Enhancement not Implemented.	Enhancement not Implemented.
MIDS JTRS Performance Parameters					
Link-16 Waveform compatibility	N/A	STANAG 4175 and MIDS LVT SSS	STANAG 4175 and MIDS LVT SSS	Passed JITC waveform conformance test.	Passed JITC waveform conformance test.
Link-16 Message Standard	N/A	MIL-STD-6016C and STANAG 5516	MIL-STD-6016C and STANAG 5516	Passed JITC waveform conformance test.	Passed JITC waveform conformance test.
Link-16 Information Exchange Rate					
Normal Operations with JTRS	N/A	>=1100 Kbps	>=28-115.2 Kbps	128	128
LET 0	N/A	>=358	>=107	107	107
LET 1	N/A	>=546	>=358	358	358
LET 2	N/A	>=833	>=546	546	546
LET 3	N/A	>=968	>=833	837	837
LET 4	N/A	>=1100	>=968	968	968
Interoperability: All top level IERs will be satisfied to the standards specified in the threshold (T) and objective (O) values.	N/A	All top-level Information exchange Requirements (IERs) are met.	All top-level Information Exchange Requirements (IERs) are met.	All top-level IERs transferred.	All top-level IERs transferred.
Link-16 Coded Message Error Probability (CMEP)					
LET 0	N/A	<=1%	<=2%	Threshold met - results classified.	<=1%
LET 1	N/A	<=1%	<=2%	Threshold met - results classified.	<=1%
LET 2	N/A	<=1%	<=2%	Threshold met - results	<=1%

				classified.	
LET 3	N/A	<=1%	<=2%	Threshold met - results classified.	<=1%
LET 4	N/A	<=1%	<=2%	Threshold met - results classified.	<=1%
Weight/Volume	N/A	<=65 lbs, <=.6 cu.ft.	<=65 lbs, <=.6 cu.ft.	Measured 54.7 lbs; measured .573 cu. ft.	<=65 lbs, <=.6 cu.ft.
Link-16 Jam Resistance					
JTRS (USN) (db)	N/A	MJCS-194-89	MJCS-194-89	Exceeds threshold by 1-3 db in 95% of all cases.	Exceeds threshold by 1-3 db in 95% of all cases.
All Others	N/A	<=1% Detected message error rate	<=1% Detected message error rate	.98%	.98%
Link-16 J-Voice Channels	N/A	2	2	2	2
Link-16 Communications Range Data	N/A	see notes	see notes	>=250 nm	>=250 nm.
Link-16 Communications Range J-Voice	N/A	>=220nm (C2-C2 w/HPA); >=140nm (C2-non-C2); >=90nm (non-C2-nonC2/non C2-C2)	>=220nm (C2-C2 w/HPA); >=140nm (C2-non-C2); >=90nm (non-C2-nonC2/non C2-C2)	>=220nm (C2-C2 w/HPA) - Not Tested; >=140nm (C2-non-C2 - Not tested; >=90nm (non-C2-nonC2/non C2-C2) - 150.	>=220nm (C2-C2 w/HPA) - Terminal not installed in C2 platform yet; >=140nm (C2-non-C2 - Terminal not installed in C2 platform yet; >=90nm (non-C2-nonC2/non C2-C2) - 150.
Link-16 Relay	N/A	>=1200nm	>=500nm	Not tested yet.	>=500 nm
Link-16 Operating Frequency Range	N/A	Operate 2-2000 MHz	Operate 2-2000 MHz	2-2000 MHz	2-2000 MHz
Multi-Channels/Networks	N/A	4 Channels simultaneously with TACAN/multi	4 Channels simultaneously with TACAN/multi	4 Channels passed.	4 Channels passed.

		-net (single network) Link-16 fixed operation on Channel 1	-net (single network) Link-16 fixed operation on Channel 1*		
Scan Frequencies	N/A	Scan a minimum of 10 frequencies or presets	Scan a minimum of 10 frequencies or presets	FOT&E: No MIDS JTRS waveforms require presets.	FOT&E: No MIDS JTRS waveforms require presets.
Terminal Start-up/Restart (Link-16 only)	N/A	<=2.0 minutes	<=3.5 minutes	3.2 minutes	3.2 minutes
IBIT Performance (Link-16 only)	N/A	<=30seconds	<=70 seconds	29 seconds	29 seconds
Link-16 Net Entry/Synchronization	N/A	<=30 seconds	Not to exceed 4 minutes from time that course sync is initiated	30 sec - 2.5 minutes	30 sec - 2.5 minutes
Crypto-Rekeying	N/A	Over the Air Rekeying (OTAR) through electronic media, or common reprogramming hardware / software	At O-level	Not implemented in Core Terminal.	Not implemented in Core Terminal.
Link-16 Transmission of Unit Position and Status Reports	N/A	<=100 ft accuracy	<=300 ft accuracy	78 ft	78 ft
TACAN Performance Start-up/Restart	N/A	<=14 seconds	<=30 seconds	15 seconds	15 seconds
MFHBOMF (System/Single Channel)	N/A	>=36 hrs (Other Platforms)	>=25 hrs (F/A-18E/F, EA-18G, TACAIR)	36.5 hrs.	36.5 hrs
MTBF Lab (Ch. 1(Link-16))	N/A	>=1800 hrs	>= 1200 hrs	1285 hrs	1285 hrs
MTBF Lab (Ch. 2, 3 & 4)	N/A	>=1800 hrs	>=1550 hrs	1550 hrs	1550 hrs
MFHBOMF (Terminal/Single Channel))	N/A	>=300 hrs	>=220 hrs	724 (includes lab data)	220 hrs
MCMTOMF (Single Channel)	N/A	<= 60 min	<=120 min; <= 90 min (F/A-18 E/F, EA-18G,	60 min	60 min (Single channel)

			NAVAIR)		
MRT	N/A	<= 20 min	<= 45 min	20 min	45 min
BIT PCD	N/A	PCD>= 98%	PCD>= 95%	97%	97%
BIT MFHBFA	N/A	MFHBFA: >= 451 hrs	MFHBFA: >= 113 hrs	80 hrs	120 hrs
Start-Up (Terminal/Single Channel)	N/A	<=2min (OE, crypto and waveform); <=2min (fine sync)	<=3.5min (OE, Crypto and waveform); <=4min (fine sync)	3.2 min	3.2 min
Start-Up (Waveform/Link-16 only)	N/A	<=2min (OE, crypto and waveform); <=2min (fine sync)	<=4min (OE, Crypto and waveform); <=4min (fine sync)	.5 - 2.5 min	.5 - 2.5 min
Restart < 50 milliseconds (Core configuration only)	N/A	Operates through	Operates through	Operates through	Operates through
Restart <10 seconds (Terminal)	N/A	<=2min	<=3.5min	2.5 min	2.5 min
Restart <10 seconds (Link-16 waveform)	N/A	<=10sec	<=10sec	9 sec	9 sec
Restart >=10 seconds and <2min (Terminal)	N/A	<=2min	<=3.5min	3.2 min	3.2 min
Restart >=10 seconds and <2min (Link-16)	N/A	<=2min	<=4min	3.2 min	3.2 min
Restart >= 2 minutes (Terminal)	N/A	<=2min	<=3.5min	3.2 min	3.2 min
Restart >=2 minutes (Link-16 Waveform)	N/A	<=2min	<=4min	3.2 min	3.2 min
TACAN Start- up/Restart	N/A	<=14sec	<=30sec	15 sec	15 sec
IBIT Performance	N/A	<=30sec	<=70sec	30 sec	30 sec
MIDS JTRS Capability	N/A	F3I for MIDS- LVT and meet the performance measures in MIDS JTRS Core Terminal KPP 1 (SMORD) Performance Measures in addition to TACAN and J-Voice.	F3I for MIDS- LVT and meet the performance measures in MIDS JTRS Core Terminal KPP 1 (SMORD) Performance Measures in addition to TACAN and J-Voice.	11 of 11 Performance measures have been achieved in a Development al Test period.	11 of 11 Performance measures have been achieved in a Development al Test period.
Functionality	N/A	MIDS JTRS Core	The MIDS JTRS Core	15 of 15 Performance	15 of 15 Performance

		Terminal will meet connectivity requirements of ALL Airborne (MIDS JTRS) Domain Waveforms.	Terminal shall be capable of supporting secure and non-secure voice, video, and data communications by porting narrowband and wideband JTRS developed waveforms in compliance with the Software Communications Architecture. MIDS JTRS Core Terminal will meet connectivity requirements of ported Waveforms.	measures have been achieved.	measures have been achieved.
Number of Channels	N/A	Threshold same as Objective (One TACAN/Link-16 plus three additional channels for JTRS Waveforms).	One TACAN/Link-16 plus three additional channels for JTRS Waveforms. Navy Initial Implementation - TACAN/Link-16 plus 3 additional channels. USAF Initial Implementation - Link-16 for B-1.	1 of 1 Performance measures have been achieved.	1 of 1 Performance measures have been achieved.
Net Ready	N/A	The system must fully support execution of	The system must fully support execution of	5 of 5 Performance measures have been	5 of 5 Performance measures have been

		<p>all operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV1, 2) DISR mandated GIG KIPs identified in the KIP declaration (Table 31), 3) NCOW RM Enterprise Services 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5)</p>	<p>joint critical operational activities identified in the applicable joint and system integrated architectures and the system must satisfy the technical requirements for transition to Net-Centric military operations to include 1) DISR mandated GIG IT standards and profiles identified in the TV-1, 2) DISR mandated GIG KIPs identified in the KIP declaration (Table 31), 3) NCOW RM Enterprise Services 4) Information assurance requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an IATO by the DAA,</p>	<p>achieved. System certified by NSA in March 2010</p>	<p>achieved. System certified by NSA in March 2010.</p>
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		Operationally effective information exchanges; and mission critical performance and information assurance attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture reviews.	and 5) Operationally effective information exchanges; and mission critical performance and information assurance attributes, data correctness, data availability, and consistent data processing specified in the applicable joint and system integrated architecture reviews.		
Operational Availability (Ao)	N/A	Each MIDS JTRS Core Terminal shall demonstrate an operational availability Ao of >0.99 for all channels.	Each MIDS JTRS Core Terminal shall demonstrate an operational Availability Ao of >0.90 for Link-16 / TACAN Channel and >0.96 for the remaining channels.	96.8%.	96.8
Software Configurable	N/A	Each MIDS JTRS Core Terminal shall provide any designated operator with the ability to load and reconfigure its	Each MIDS JTRS Core Terminal shall provide any designated operator with the ability to load and reconfigure its	1 of 1 Performance measures have been achieved.	1 of 1 Performance measures have been achieved.

		modes/capabilities via software while in the operational environment. (Note: This capability does not apply to F/A-18E/F, EA-18G or B-1)	modes/capabilities via software while in the operational environment. (Note: This capability does not apply to F/A-18E/F, EA-18G or B-1)		
Growth	N/A	The MIDS JTRS Core Terminal shall provide an internal growth capability through an open systems architecture approach, and shall be modular, scaleable, and flexible as defined to suit specific operational requirements	The MIDS JTRS Core Terminal shall provide an internal growth capability through an open systems architecture approach, and shall be modular, scaleable, and flexible as defined to suit specific operational requirements	2 of 2 Performance measures achieved.	2 of 2 Performance measures achieved.

Requirements Source:

Requirements for MIDS are derived from the Single MIDS Operational Requirements Document (ORD) (MIDS-LVT) approved July 25, 2004 and the MIDS JTRS Capability Production Document (CPD) (MIDS JTRS) approved May 29, 2008.

Acronyms And Abbreviations

- Ao - Operational Availability
- ATO - Authority to Operate
- BIT - Built in Test
- C2 - Command and Control
- CMEP - Coded Message Error Probability
- cu. ft. - cubic feet
- DAA - Designated Approving Authority
- db - decibel(s)
- DISR - Defense Information Standards Registry
- ECP - Engineering Change Proposal
- F3I - Form, Fit, Function and interface

FDL - Fighter Data Link
 FOT&E - Follow-on Test and Evaluation
 GIG IT - Global Information Grid Information Technology
 HPA - High Power Amplifier
 hr - hour(s)
 IATO - Interim Authority to Operate
 IBIT - Initialization Built in Test
 IER - Information Exchange Requirements
 IF - Interface
 JITC - Joint Interoperability Test Command
 JTIDS - Joint Tactical Information Distribution System
 kbps - Kilobits per second
 KIPs - Key Interface Profiles
 KPP - Key Performance Parameter
 lbs - Pounds
 LET - Link 16 Enhanced Throughput
 LOS - Line of sight
 LVT - Low Volume Terminal
 MCMTOMF - Mean Corrective Maintenance Time for Operational Mission Failures
 MFHBFA - Mean Flight Hours Between False Alarms
 MFHBOMF - Mean Flight Hours Between Operational Mission Failures
 MHz - Megahertz
 Mil-Std - Military Standard
 min - minute(s)
 MJCS - Memorandum Joint Chiefs of Staff
 MRT - Mean Repair Time
 MTBF - Mean Time Between Failure
 MTBOMF - Mean Time Between Operational Mission Failures
 MTTR - Mean Time to Repair
 NCOW RM - Net-Centric Operations and Warfare Reference Model
 nm, nmi - Nautical mile
 NSA - National Security Agency
 OE - Operational Environment
 O-Level - Organization Level
 ORD - Operational Requirements Document
 OTAR - Over the Air Re-keying
 PAC4 - Packed-4
 PCD - Percent Correct Detect
 sec - second(s)
 SMORD - Single MIDS ORD
 SSS - System Segment Specification
 STANAG - Standardization Agreement
 TACAN - Tactical Air Navigation
 TV - Technical View
 w - watt(s)

Change Explanations

None

Memo

1. For Link 16 Enhanced Throughput (LET) 0 there is a 5 db loss in jam resistance and 44% loss in range over Packed-4 (PAC4) Single Pulse. The 1% error rate will be calculated based on the decrease in jamming resistance.
2. For LET 1 there is a 7 db loss in jam resistance and 56% loss in range over PAC4 Single Pulse. The 1% error

rate will be calculated based on the decrease in jamming resistance.

3. For LET 2 there is a 9 db loss in jam resistance and 65% loss in range over PAC4 Single Pulse. The 1% error rate will be calculated based on the decrease in jamming resistance.

4. For LET 3 there is a 10 db loss in jam resistance and 67% loss in range over PAC4 Single Pulse. The 1% error rate will be calculated based on the decrease in jamming resistance.

5. For LET 4 there is an 11 db loss in jam resistance and 72% loss in range over PAC4 Single Pulse. The 1% error rate will be calculated based on the decrease in jamming resistance.

6. For Frequency Remap, there will be a db loss for the number of frequencies remapped based on the formula $10 \log (51/51-NR)$ where NR = the number of frequencies remapped. There is a corresponding decrease in range of approximately 1% for each frequency that is remapped.

Track To Budget

General Memo

As part of the Joint Tactical Radio System (JTRS) Joint Program Acquisition Strategy, each Military Department (MILDEP) budgets approximately one-third of the total program for future years. During each Budget cycle, each MILDEP'S Budget Year RDT&E for JTRS is transferred into a Navy Program Element for budgeting and execution. Thus, all FY08-FY11 RDT&E funding is in Navy PE 0604280N. Outyear budget data is in Army PE 0604280A (SSN/APE 654280) Project 162, Navy PE 0604280N Project 3020, and Air Force PE 0604280F Project 6556068.

RDT&E

APPN 1319	BA 05	PE 0205604N	(Navy)	
	Project 2126	Navy/Multifunctional Information Distribution System	(Shared)	(Sunk)
APPN 1319	BA 05	PE 0604270N	(Navy)	
	Project E0556	Navy EA-6B Integration/EA-6B	(Shared)	(Sunk)
	Project E2781	Navy EA-6B Integration/EA-6B	(Shared)	(Sunk)
APPN 1319	BA 05	PE 0604280N	(Navy)	
	Project 3020	Joint Tactical Radio System (JTRS)/MIDS JTRS	(Shared)	
	Project 3073	Joint Tactical Radio System (JTRS)/AMF JTRS	(Shared)	(Sunk)
APPN 2040	BA 05	PE 0603713A	(Army)	
	Project D370	Army MIDS/Army MIDS	(Shared)	(Sunk)
APPN 2040	BA 05	PE 0604280A	(Army)	
	Project 162	Joint Tactical Radio / Network Enterprise Domain (NED)	(Shared)	
APPN 3600	BA 05	PE 0207130F	(Air Force)	
	Project F15	Air Force MIDS/F-15C/D	(Shared)	(Sunk)
APPN 3600	BA 05	PE 0207133F	(Air Force)	
	Project 672671	Air Force MIDS/F-16	(Shared)	(Sunk)
APPN 3600	BA 05	PE 0207134F	(Air Force)	

	Project 674703	Air Force MIDS/F-15E	(Shared)	(Sunk)
APPN 3600	BA 05	PE 0604240F	(Air Force)	
	Project 11B002	Air Force MIDS	(Shared)	(Sunk)
APPN 3600	BA 05	PE 0604280F	(Air Force)	
	Project 655068	Joint Tactical Radio System (JTRS)	(Shared)	
APPN 0400	BA 05	PE 0603883C	(DoD)	
	Project 0010	DOD	(Shared)	(Sunk)
APPN 0400	BA 05	PE 0604771D	(DoD)	
	Project P771	OSD, DA/JTRS	(Shared)	(Sunk)
	Project P773	OSD, DA/Multifunctional Information Distribution System	(Shared)	(Sunk)

Procurement

APPN 1506	BA 01	PE 0204163N	(Navy)	
	ICN 0145	F-18 Series	(Shared)	
APPN 1506	BA 05	PE 0204154N	(Navy)	
	ICN 0511	EW Development: EA-6B	(Shared)	
APPN 1506	BA 05	PE 0204136N	(Navy)	
	ICN 0525	F/A-18	(Shared)	
APPN 1611	BA 02	PE 0204112N	(Navy)	
	ICN 2001	Navy	(Shared)	(Sunk)
	ICN 2086	Multi-Purpose CVNs	(Shared)	(Sunk)
APPN 1611	BA 02	PE 0204222N	(Navy)	
	ICN 2122	DDG-51	(Shared)	(Sunk)
APPN 1611	BA 02	PE 0204230N	(Navy)	
	ICN 2127	Navy	(Shared)	(Sunk)

APPN 1611	BA 03	PE 0204411N	(Navy)	
	ICN 3035	Amphibious Assault Ships	(Shared)	(Sunk)
	ICN 3036	LPD-17	(Shared)	(Sunk)
APPN 1810	BA 02	PE 0205604N	(Navy)	
	ICN 2614	Advanced Tactical Data Link System	(Shared)	
APPN 2035	BA 02	PE 0214400A	(Army)	
	ICN B22603	Radio Terminal Set, MIDS-LVT (2)		
APPN 3010	BA 05		(Air Force)	
	ICN B00200	ABL	(Shared)	
	ICN F01500	F-15	(Shared)	
	ICN F01600	F-16	(Shared)	(Sunk)
APPN 3010	BA 05	PE 0207423F	(Air Force)	
	ICN MN9860	Joint Tactical Radio System	(Shared)	
APPN 3080	BA 02		(Air Force)	
	ICN F01600	F-16	(Shared)	(Sunk)
APPN 0300	BA 02		(DoD)	
	ICN 10	DOD	(Shared)	(Sunk)
APPN 0300	BA 02	PE 0208865C	(DoD)	
	ICN 2257	DA, Patriot	(Shared)	(Sunk)
APPN 0300	BA 02	PE 0208861C	(DoD)	
	ICN 2260	DA, THAAD	(Shared)	(Sunk)
APPN 0300	BA 02		(DoD)	
	ICN 30	DOD	(Shared)	(Sunk)

Cost and Funding

Cost Summary

Total Acquisition Cost and Quantity

Appropriation	BY2003 \$M			BY2003 \$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	869.4	1326.0	1458.6	1573.8 ¹	825.8	1345.9	1661.5
Procurement	955.4	1149.5	1264.5	1226.3	993.1	1246.6	1348.9
Flyaway	814.0	--	--	1031.9	844.8	--	1132.9
Recurring	733.6	--	--	959.3	765.7	--	1061.5
Non Recurring	80.4	--	--	72.6	79.1	--	71.4
Support	141.4	--	--	194.4	148.3	--	216.0
Other Support	25.5	--	--	57.1	27.4	--	67.7
Initial Spares	115.9	--	--	137.3	120.9	--	148.3
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	1824.8	2475.5	N/A	2800.1	1818.9	2592.5	3010.4

¹ APB Breach

The cost position reflects the Program Office Life Cycle Cost Estimate dated February 29, 2012 supporting the MIDS JTRS Full Production & Fielding (FP&F) Decision. The confidence level is 50%.

RDT&E costs include MIDS-LVT and MIDS JTRS terminal development, terminal acquisition, integration and test on the U.S. Navy platforms. In the Fiscal Year 2013 President's Budget (PB13) the MIDS Program Office received additional RDT&E funding to incorporate Concurrent Multi-Netting (CMN-4) and Tactical Targeting Network Technology (TTNT) into the MIDS JTRS terminal. A revised Acquisition Program Baseline (APB) is at the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics (OUSD, AT&L) staffing to support a March 2012 FP&F Defense Acquisition Board (DAB).

Procurement costs are for MIDS-LVT and MIDS JTRS terminals.

The costs of platform installation and platform kits, and Air Force and Army platform integration and testing of MIDS-LVT and MIDS JTRS are to be included in the respective budgets and baseline agreements of the various platforms implementing MIDS.

Quantity	SAR Baseline Prod Est	Current APB Production	Current Estimate
RDT&E	143	403	441
Procurement	2821	4150	4817
Total	2964	4553	5258

The unit of measure is terminals.

Procurement quantities include MIDS terminals for Navy (including ships, F/A-18s, and EA-6Bs), Air Force (including F-15s, and F-16s), and Army platforms. The current estimate includes MIDS JTRS procurement quantities for the Phase 2B Core Terminals, but does not include quantities for Concurrent Multi-Netting-4 (CMN-4) or Tactical Targeting Network Technology (TTNT).

Cost and Funding

Funding Summary

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

Appropriation	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
RDT&E	1287.3	41.7	100.4	131.2	73.7	15.6	11.6	0.0	1661.5
Procurement	1147.7	62.0	47.5	26.3	30.8	15.0	19.6	0.0	1348.9
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 2013 Total	2435.0	103.7	147.9	157.5	104.5	30.6	31.2	0.0	3010.4
PB 2012 Total	2421.9	83.3	77.8	26.7	31.3	15.6	5.6	0.0	2662.2
Delta	13.1	20.4	70.1	130.8	73.2	15.0	25.6	0.0	348.2

Quantity	Undistributed	Prior	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	To Complete	Total
Development	441	0	0	0	0	0	0	0	0	441
Production	0	4209	197	168	98	96	25	24	0	4817
PB 2013 Total	441	4209	197	168	98	96	25	24	0	5258
PB 2012 Total	422	4070	158	155	81	94	24	24	0	5028
Delta	19	139	39	13	17	2	1	0	0	230

Cost and Funding

Annual Funding By Appropriation

Annual Funding TY\$

0400 | RDT&E | Research, Development, Test, and Evaluation, Defense-Wide

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
1990	--	--	--	--	--	--	9.0
1991	--	--	--	--	--	--	5.0
1992	--	--	--	--	--	--	16.5
1993	--	--	--	--	--	--	23.9
1994	--	--	--	--	--	--	23.3
1995	--	--	--	--	--	--	49.6
1996	--	--	--	--	--	--	42.7
1997	--	--	--	--	--	--	36.9
1998	--	--	--	--	--	--	45.2
1999	--	--	--	--	--	--	27.9
2000	--	--	--	--	--	--	39.0
2001	--	--	--	--	--	--	12.0
2002	--	--	--	--	--	--	13.1
2003	--	--	--	--	--	--	7.7
2004	--	--	--	--	--	--	7.0
2005	--	--	--	--	--	--	9.6
2006	--	--	--	--	--	--	1.0
2007	--	--	--	--	--	--	2.0
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	0.8
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	0.2
Subtotal	69	--	--	--	--	--	372.4

Annual Funding BY\$

0400 | RDT&E | Research, Development, Test, and Evaluation, Defense-Wide

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
1990	--	--	--	--	--	--	11.1
1991	--	--	--	--	--	--	5.9
1992	--	--	--	--	--	--	19.1
1993	--	--	--	--	--	--	27.2
1994	--	--	--	--	--	--	26.0
1995	--	--	--	--	--	--	54.3
1996	--	--	--	--	--	--	45.9
1997	--	--	--	--	--	--	39.2
1998	--	--	--	--	--	--	47.6
1999	--	--	--	--	--	--	29.0
2000	--	--	--	--	--	--	40.0
2001	--	--	--	--	--	--	12.1
2002	--	--	--	--	--	--	13.1
2003	--	--	--	--	--	--	7.6
2004	--	--	--	--	--	--	6.7
2005	--	--	--	--	--	--	9.0
2006	--	--	--	--	--	--	0.9
2007	--	--	--	--	--	--	1.8
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	0.7
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	0.2
Subtotal	69	--	--	--	--	--	397.4

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
1990	--	--	--	--	--	--	2.9
1991	--	--	--	--	--	--	4.7
1992	--	--	--	--	--	--	10.0
1993	--	--	--	--	--	--	12.4
1994	--	--	--	--	--	--	23.0
1995	--	--	--	--	--	--	18.4
1996	--	--	--	--	--	--	31.0
1997	--	--	--	--	--	--	28.2
1998	--	--	--	--	--	--	39.8
1999	--	--	--	--	--	--	45.4
2000	--	--	--	--	--	--	62.3
2001	--	--	--	--	--	--	37.7
2002	--	--	--	--	--	--	26.2
2003	--	--	--	--	--	--	16.8
2004	--	--	--	--	--	--	22.4
2005	--	--	--	--	--	--	27.6
2006	--	--	--	--	--	--	98.2
2007	--	--	--	--	--	--	162.5
2008	--	--	--	--	--	--	77.2
2009	--	--	--	--	--	--	26.6
2010	--	--	--	--	--	--	14.8
2011	--	--	--	--	--	--	20.1
2012	--	--	--	--	--	--	41.7
2013	--	--	--	--	--	--	100.4
2014	--	--	--	--	--	--	127.0
2015	--	--	--	--	--	--	72.6
2016	--	--	--	--	--	--	15.6
2017	--	--	--	--	--	--	11.6
Subtotal	112	--	--	--	--	--	1177.1

Annual Funding BY\$

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
1990	--	--	--	--	--	--	3.6
1991	--	--	--	--	--	--	5.6
1992	--	--	--	--	--	--	11.6
1993	--	--	--	--	--	--	14.1
1994	--	--	--	--	--	--	25.6
1995	--	--	--	--	--	--	20.1
1996	--	--	--	--	--	--	33.3
1997	--	--	--	--	--	--	30.0
1998	--	--	--	--	--	--	41.9
1999	--	--	--	--	--	--	47.3
2000	--	--	--	--	--	--	63.9
2001	--	--	--	--	--	--	38.2
2002	--	--	--	--	--	--	26.3
2003	--	--	--	--	--	--	16.6
2004	--	--	--	--	--	--	21.5
2005	--	--	--	--	--	--	25.8
2006	--	--	--	--	--	--	89.2
2007	--	--	--	--	--	--	144.0
2008	--	--	--	--	--	--	67.2
2009	--	--	--	--	--	--	22.9
2010	--	--	--	--	--	--	12.5
2011	--	--	--	--	--	--	16.7
2012	--	--	--	--	--	--	34.0
2013	--	--	--	--	--	--	80.6
2014	--	--	--	--	--	--	100.2
2015	--	--	--	--	--	--	56.3
2016	--	--	--	--	--	--	11.9
2017	--	--	--	--	--	--	8.7
Subtotal	112	--	--	--	--	--	1069.6

Annual Funding TY\$

2040 | RDT&E | Research, Development, Test, and Evaluation, 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
1997	--	--	--	--	--	--	0.5
1998	--	--	--	--	--	--	2.4
1999	--	--	--	--	--	--	5.2
2000	--	--	--	--	--	--	--
2001	--	--	--	--	--	--	0.1
2002	--	--	--	--	--	--	3.1
2003	--	--	--	--	--	--	0.6
2004	--	--	--	--	--	--	3.1
2005	--	--	--	--	--	--	4.4
2006	--	--	--	--	--	--	--
2007	--	--	--	--	--	--	1.5
2008	--	--	--	--	--	--	1.9
2009	--	--	--	--	--	--	3.3
2010	--	--	--	--	--	--	0.2
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	1.2
2015	--	--	--	--	--	--	0.3
Subtotal	74	--	--	--	--	--	27.8

Annual Funding BY\$**2040 | RDT&E | Research, Development, Test, and Evaluation, Army**

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
1997	--	--	--	--	--	--	0.5
1998	--	--	--	--	--	--	2.5
1999	--	--	--	--	--	--	5.4
2000	--	--	--	--	--	--	--
2001	--	--	--	--	--	--	0.1
2002	--	--	--	--	--	--	3.1
2003	--	--	--	--	--	--	0.6
2004	--	--	--	--	--	--	3.0
2005	--	--	--	--	--	--	4.1
2006	--	--	--	--	--	--	--
2007	--	--	--	--	--	--	1.3
2008	--	--	--	--	--	--	1.6
2009	--	--	--	--	--	--	2.8
2010	--	--	--	--	--	--	0.2
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	0.9
2015	--	--	--	--	--	--	0.2
Subtotal	74	--	--	--	--	--	26.3

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
1997	--	--	--	--	--	--	3.9
1998	--	--	--	--	--	--	8.0
1999	--	--	--	--	--	--	0.2
2000	--	--	--	--	--	--	6.3
2001	--	--	--	--	--	--	3.9
2002	--	--	--	--	--	--	2.9
2003	--	--	--	--	--	--	4.3
2004	--	--	--	--	--	--	14.3
2005	--	--	--	--	--	--	19.6
2006	--	--	--	--	--	--	4.5
2007	--	--	--	--	--	--	2.2
2008	--	--	--	--	--	--	1.4
2009	--	--	--	--	--	--	5.7
2010	--	--	--	--	--	--	1.5
2011	--	--	--	--	--	--	1.7
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	3.0
2015	--	--	--	--	--	--	0.8
Subtotal	186	--	--	--	--	--	84.2

Annual Funding BY\$

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
1997	--	--	--	--	--	--	4.1
1998	--	--	--	--	--	--	8.4
1999	--	--	--	--	--	--	0.2
2000	--	--	--	--	--	--	6.5
2001	--	--	--	--	--	--	4.0
2002	--	--	--	--	--	--	2.9
2003	--	--	--	--	--	--	4.3
2004	--	--	--	--	--	--	13.8
2005	--	--	--	--	--	--	18.4
2006	--	--	--	--	--	--	4.1
2007	--	--	--	--	--	--	2.0
2008	--	--	--	--	--	--	1.2
2009	--	--	--	--	--	--	4.9
2010	--	--	--	--	--	--	1.3
2011	--	--	--	--	--	--	1.4
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	--
2014	--	--	--	--	--	--	2.4
2015	--	--	--	--	--	--	0.6
Subtotal	186	--	--	--	--	--	80.5

Annual Funding TY\$

0300 | Procurement | Procurement, Defense-Wide

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
1999	11	2.7	0.1	4.5	7.3	0.6	7.9
2000	--	--	--	--	--	--	--
2001	19	4.8	0.1	--	4.9	1.0	5.9
2002	--	--	--	--	--	0.3	0.3
2003	10	2.5	--	--	2.5	0.1	2.6
2004	--	--	--	--	--	--	--
2005	4	1.0	--	--	1.0	--	1.0
2006	--	--	--	--	--	--	--
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	--
2010	7	1.5	--	--	1.5	--	1.5
Subtotal	51	12.5	0.2	4.5	17.2	2.0	19.2

Annual Funding BY\$**0300 | Procurement | Procurement, Defense-Wide**

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
1999	11	2.8	0.1	4.7	7.6	0.6	8.2
2000	--	--	--	--	--	--	--
2001	19	4.8	0.1	--	4.9	1.0	5.9
2002	--	--	--	--	--	0.3	0.3
2003	10	2.4	--	--	2.4	0.1	2.5
2004	--	--	--	--	--	--	--
2005	4	0.9	--	--	0.9	--	0.9
2006	--	--	--	--	--	--	--
2007	--	--	--	--	--	--	--
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	--
2010	7	1.3	--	--	1.3	--	1.3
Subtotal	51	12.2	0.2	4.7	17.1	2.0	19.1

Note: This appropriation provides for the procurement of the Army unique MIDS-LVT(2) variant for the Patriot Air Defense System.

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
1999	16	5.9	1.3	0.5	7.7	0.3	8.0
2000	58	15.1	1.8	35.5	52.4	8.3	60.7
2001	64	20.2	3.7	0.2	24.1	2.5	26.6
2002	103	23.9	0.5	--	24.4	10.6	35.0
2003	116	22.7	3.6	--	26.3	10.4	36.7
2004	138	27.8	3.2	--	31.0	8.4	39.4
2005	130	25.7	2.9	--	28.6	13.8	42.4
2006	169	31.0	2.9	0.1	34.0	1.8	35.8
2007	169	35.2	3.0	--	38.2	5.2	43.4
2008	202	40.4	2.9	--	43.3	9.4	52.7
2009	127	28.5	2.9	--	31.4	1.0	32.4
2010	173	29.2	0.2	--	29.4	3.8	33.2
2011	178	32.3	0.2	--	32.5	9.7	42.2
2012	116	25.3	0.2	--	25.5	9.6	35.1
2013	108	24.4	0.2	--	24.6	3.5	28.1
2014	72	15.5	--	--	15.5	1.8	17.3
2015	53	10.1	--	--	10.1	1.3	11.4
2016	1	1.1	--	--	1.1	--	1.1
Subtotal	1993	414.3	29.5	36.3	480.1	101.4	581.5

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
1999	16	6.1	1.3	0.5	7.9	0.3	8.2
2000	58	15.3	1.8	36.1	53.2	8.4	61.6
2001	64	20.2	3.8	0.2	24.2	2.5	26.7
2002	103	23.7	0.5	--	24.2	10.4	34.6
2003	116	22.0	3.5	--	25.5	10.1	35.6
2004	138	26.3	3.0	--	29.3	8.0	37.3
2005	130	23.6	2.7	--	26.3	12.7	39.0
2006	169	27.7	2.6	0.1	30.4	1.6	32.0
2007	169	30.8	2.6	--	33.4	4.5	37.9
2008	202	34.8	2.5	--	37.3	8.1	45.4
2009	127	24.2	2.5	--	26.7	0.8	27.5
2010	173	24.3	0.2	--	24.5	3.2	27.7
2011	178	26.5	0.2	--	26.7	7.9	34.6
2012	116	20.4	0.2	--	20.6	7.7	28.3
2013	108	19.3	0.2	--	19.5	2.7	22.2
2014	72	12.1	--	--	12.1	1.4	13.5
2015	53	7.7	--	--	7.7	1.0	8.7
2016	1	0.8	--	--	0.8	--	0.8
Subtotal	1993	365.8	27.6	36.9	430.3	91.3	521.6

NOTE: This appropriation identifies the MIDS-LVT and MIDS JTRS core terminals that are planned for the F/A-18C/D/E/F, E/A-18G, MH-60R/S and the EA-6B.

Annual Funding TY\$

1611 | Procurement | Shipbuilding and Conversion, 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
2001	1	0.4	--	--	0.4	--	0.4
2002	2	0.9	--	--	0.9	--	0.9
2003	5	2.1	--	--	2.1	--	2.1
2004	5	0.9	--	--	0.9	--	0.9
2005	3	0.7	--	--	0.7	--	0.7
2006	4	0.7	--	--	0.7	--	0.7
2007	--	--	--	--	--	--	--
2008	2	0.4	--	--	0.4	--	0.4
2009	2	0.4	--	--	0.4	--	0.4
2010	4	0.9	--	--	0.9	--	0.9
2011	8	1.7	--	--	1.7	--	1.7
Subtotal	36	9.1	--	--	9.1	--	9.1

Annual Funding BY\$
1611 | Procurement | Shipbuilding and Conversion, Navy

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
2001	1	0.4	--	--	0.4	--	0.4
2002	2	0.9	--	--	0.9	--	0.9
2003	5	1.9	--	--	1.9	--	1.9
2004	5	0.8	--	--	0.8	--	0.8
2005	3	0.6	--	--	0.6	--	0.6
2006	4	0.6	--	--	0.6	--	0.6
2007	--	--	--	--	--	--	--
2008	2	0.3	--	--	0.3	--	0.3
2009	2	0.3	--	--	0.3	--	0.3
2010	4	0.6	--	--	0.6	--	0.6
2011	8	1.2	--	--	1.2	--	1.2
Subtotal	36	7.6	--	--	7.6	--	7.6

Note: This appropriation identifies the MIDS on ship variant for new construction surface ships.

Annual Funding TY\$

1810 | Procurement | Other 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
1999	3	1.1	--	--	1.1	--	1.1
2000	--	--	--	--	--	--	--
2001	--	--	--	--	--	--	--
2002	2	0.5	--	--	0.5	--	0.5
2003	6	1.7	--	--	1.7	--	1.7
2004	8	1.8	--	--	1.8	--	1.8
2005	--	--	--	--	--	0.1	0.1
2006	8	1.9	--	0.1	2.0	--	2.0
2007	17	3.8	--	--	3.8	0.6	4.4
2008	26	6.6	--	--	6.6	--	6.6
2009	6	1.2	--	--	1.2	--	1.2
2010	12	2.5	--	--	2.5	--	2.5
2011	35	8.1	--	--	8.1	--	8.1
Subtotal	123	29.2	--	0.1	29.3	0.7	30.0

Annual Funding BY\$**1810 | Procurement | Other Procurement, Navy**

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
1999	3	1.1	--	--	1.1	--	1.1
2000	--	--	--	--	--	--	--
2001	--	--	--	--	--	--	--
2002	2	0.5	--	--	0.5	--	0.5
2003	6	1.7	--	--	1.7	--	1.7
2004	8	1.7	--	--	1.7	--	1.7
2005	--	--	--	--	--	0.1	0.1
2006	8	1.7	--	0.1	1.8	--	1.8
2007	17	3.3	--	--	3.3	0.6	3.9
2008	26	5.7	--	--	5.7	--	5.7
2009	6	1.0	--	--	1.0	--	1.0
2010	12	2.1	--	--	2.1	--	2.1
2011	35	6.7	--	--	6.7	--	6.7
Subtotal	123	25.5	--	0.1	25.6	0.7	26.3

Note: This appropriation identifies the MIDS on ship variant for Amphibious Assault Ships and shore stations.

Annual Funding TY\$

2035 | Procurement | Other 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
2001	1	0.3	--	--	0.3	--	0.3
2002	--	--	--	--	--	--	--
2003	4	1.0	--	--	1.0	0.4	1.4
2004	5	1.3	--	--	1.3	0.4	1.7
2005	62	15.7	--	--	15.7	1.2	16.9
2006	67	16.3	--	--	16.3	0.1	16.4
2007	40	9.4	--	--	9.4	1.1	10.5
2008	144	33.5	--	--	33.5	--	33.5
2009	29	6.4	--	--	6.4	2.2	8.6
2010	30	7.0	--	--	7.0	1.6	8.6
2011	22	4.8	--	--	4.8	1.0	5.8
2012	25	7.5	--	--	7.5	0.8	8.3
2013	23	6.9	--	--	6.9	0.9	7.8
2014	--	--	--	--	--	1.4	1.4
2015	22	12.5	--	--	12.5	1.1	13.6
2016	24	13.7	--	--	13.7	0.2	13.9
2017	24	5.6	--	--	5.6	14.0	19.6
Subtotal	522	141.9	--	--	141.9	26.4	168.3

Annual Funding BY\$**2035 | Procurement | Other Procurement, Army**

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
2001	1	0.3	--	--	0.3	--	0.3
2002	--	--	--	--	--	--	--
2003	4	1.0	--	--	1.0	0.4	1.4
2004	5	1.2	--	--	1.2	0.4	1.6
2005	62	14.5	--	--	14.5	1.1	15.6
2006	67	14.7	--	--	14.7	0.1	14.8
2007	40	8.3	--	--	8.3	0.9	9.2
2008	144	29.0	--	--	29.0	--	29.0
2009	29	5.5	--	--	5.5	1.8	7.3
2010	30	5.9	--	--	5.9	1.3	7.2
2011	22	3.9	--	--	3.9	0.9	4.8
2012	25	6.1	--	--	6.1	0.6	6.7
2013	23	5.5	--	--	5.5	0.7	6.2
2014	--	--	--	--	--	1.1	1.1
2015	22	9.6	--	--	9.6	0.8	10.4
2016	24	10.3	--	--	10.3	0.2	10.5
2017	24	4.1	--	--	4.1	10.4	14.5
Subtotal	522	119.9	--	--	119.9	20.7	140.6

Note: This appropriation provides for the procurement of the Army unique MIDS-LVT(2) variant.

Annual Funding TY\$

3010 | Procurement | Aircraft Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
2001	52	8.5	--	4.4	12.9	6.9	19.8
2002	150	32.5	--	--	32.5	10.2	42.7
2003	180	36.8	--	--	36.8	10.5	47.3
2004	137	24.3	--	--	24.3	13.8	38.1
2005	164	35.5	--	0.1	35.6	4.3	39.9
2006	129	25.1	--	--	25.1	1.7	26.8
2007	152	31.1	--	--	31.1	3.4	34.5
2008	52	14.7	--	--	14.7	4.4	19.1
2009	15	5.0	--	--	5.0	1.6	6.6
2010	51	13.0	--	--	13.0	2.4	15.4
2011	45	12.9	--	--	12.9	3.3	16.2
2012	56	15.4	--	--	15.4	3.2	18.6
2013	37	8.4	--	--	8.4	3.2	11.6
2014	26	5.9	--	--	5.9	1.7	7.6
2015	21	4.1	--	--	4.1	1.7	5.8
Subtotal	1267	273.2	--	4.5	277.7	72.3	350.0

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
2001	52	8.5	--	4.4	12.9	7.0	19.9
2002	150	32.2	--	--	32.2	10.1	42.3
2003	180	35.9	--	--	35.9	10.2	46.1
2004	137	23.1	--	--	23.1	13.1	36.2
2005	164	32.8	--	0.1	32.9	3.9	36.8
2006	129	22.6	--	--	22.6	1.5	24.1
2007	152	27.2	--	--	27.2	3.0	30.2
2008	52	12.7	--	--	12.7	3.8	16.5
2009	15	4.2	--	--	4.2	1.4	5.6
2010	51	10.8	--	--	10.8	2.0	12.8
2011	45	10.5	--	--	10.5	2.7	13.2
2012	56	12.4	--	--	12.4	2.5	14.9
2013	37	6.6	--	--	6.6	2.6	9.2
2014	26	4.6	--	--	4.6	1.3	5.9
2015	21	3.1	--	--	3.1	1.3	4.4
Subtotal	1267	247.2	--	4.5	251.7	66.4	318.1

NOTE: This appropriation identifies the MIDS-LVT and MIDS JTRS core terminals that are planned for the F-16, B-2, AC-130, the Airborne Laser and US Air Force shore sites.

Annual Funding TY\$

3080 | Procurement | Other Procurement, Air Force

Fiscal Year	Quantity	End Item Recurring Flyaway TY \$M	Non End Item Recurring Flyaway TY \$M	Non Recurring Flyaway TY \$M	Total Flyaway TY \$M	Total Support TY \$M	Total Program TY \$M
1996	6	3.0	--	--	3.0	--	3.0
1997	--	--	--	0.3	0.3	--	0.3
1998	77	18.5	--	15.2	33.7	1.0	34.7
1999	173	33.0	0.3	--	33.3	2.1	35.4
2000	294	49.8	0.7	0.5	51.0	3.8	54.8
2001	148	26.7	0.6	4.4	31.7	1.0	32.7
2002	97	18.6	--	5.6	24.2	--	24.2
2003	30	0.4	--	--	0.4	5.3	5.7
Subtotal	825	150.0	1.6	26.0	177.6	13.2	190.8

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

Fiscal Year	Quantity	End Item Recurring Flyaway BY 2003 \$M	Non End Item Recurring Flyaway BY 2003 \$M	Non Recurring Flyaway BY 2003 \$M	Total Flyaway BY 2003 \$M	Total Support BY 2003 \$M	Total Program BY 2003 \$M
1996	6	3.2	--	--	3.2	--	3.2
1997	--	--	--	0.3	0.3	--	0.3
1998	77	19.2	--	15.8	35.0	1.0	36.0
1999	173	33.8	0.3	--	34.1	2.2	36.3
2000	294	50.3	0.7	0.5	51.5	3.9	55.4
2001	148	26.6	0.6	4.3	31.5	1.0	32.5
2002	97	18.2	--	5.5	23.7	--	23.7
2003	30	0.4	--	--	0.4	5.2	5.6
Subtotal	825	151.7	1.6	26.4	179.7	13.3	193.0

NOTE: This appropriation identifies the MIDS Fighter Data Link (FDL) terminals for the F-15C/D/E that are being procured on a separate contract. The FY96 funding (\$3.0M) identified above, reports the Air Force funds contributed to the qualification and build of six FDL terminals. Additional funds in excess of \$8M were contributed by the contractor, Data Link Solutions, for completion of the full qualification program requirements.

Cost Quantity Information**3080 | Procurement | Other Procurement, Air Force**

Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned with Quantity) BY 2003 \$M
1996	6	3.2
1997	--	--
1998	77	19.3
1999	173	33.8
2000	294	50.3
2001	148	26.5
2002	97	18.2
2003	30	0.4
Subtotal	825	151.7

Low Rate Initial Production

	Initial LRIP Decision	Current Total LRIP
Approval Date	5/11/2000	12/8/2003
Approved Quantity	70	544
Reference	ADM	ADM
Start Year	2000	2000
End Year	2001	2003

The Milestone Decision Authority (MDA) authorized Low Rate Initial Production (LRIP) on May 11, 2000 for 70 MIDS-LVT. Three additional LRIP decisions were authorized for a cumulative total of 544 MIDS-LVT and MIDS-LVT (2) variants (about 25 percent of the then planned procurement of 2,145 terminals). Based on a Milestone C decision in 2003 for the MIDS program, USD(AT&L) General Counsel and senior staff changed the title of the 2009 Defense Acquisition Board (DAB) decision for MIDS JTRS to Limited Production and Fielding (LP&F). A follow-on decision for the MIDS JTRS variant will be made for Full Production and Fielding (FP&F), and not Full Rate Production (FRP). On December 23, 2009, an Acquisition Decision Memorandum (ADM) approved the award of the limited production of 41 MIDS JTRS variant terminals to support the F/A-18E/F production schedule and Joint Surveillance Target Attack Radar System (JSTARS) integration and testing requirements. On January 31, 2011, an ADM approved an award of a second limited production for 42 MIDS JTRS variant terminals to support F/A-18E/F production, RC-135 Rivet Joint, EC-130H Compass Call, and other Service requirements. These authorizations exceed 10% of total terminals.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost \$M	Memo
Japan	11/17/2011	85	21.1	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Pakistan	9/16/2011	68	16.2	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Australia	8/25/2011	178	41.8	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Canada	4/27/2011	107	25.9	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Saudi Arabia	11/16/2010	165		Foreign Military Sales (FMS) total costs not releasable for Saudi Arabia.
United Arab Emirates	11/10/2010	6	1.1	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Finland	9/16/2010	90	17.6	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Hungary	9/16/2010	22	4.1	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Morocco	5/14/2010	30	4.8	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Singapore	4/22/2010	46		Foreign Military Sales (FMS) total costs not releasable for Singapore.
Turkey	3/26/2010	267	51.2	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
South Korea	3/10/2010	19	6.5	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Norway	6/23/2009	77	22.9	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Poland	6/23/2009	71	15.1	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Switzerland	6/23/2009	55	11.9	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Greece	12/22/2008	40	6.9	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Austria	9/10/2008	24		Foreign Military Sales (FMS) total costs not

				releasable for Austria.
Portugal	6/11/2008	44	8.1	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Netherlands	12/19/2007	5	4.2	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Taiwan	9/6/2007	135	49.0	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Belgium	7/13/2007	82	17.7	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Sweden	8/28/2006	28	4.9	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
New Zealand	6/10/2005	3	0.7	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Germany	2/20/2004	10	6.4	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Denmark	5/16/2002	3	0.9	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.

Direct Commercial Sales totaling 774 MIDS terminals have been implemented to date with Australia (2), Belgium (2), Denmark (68), Greece (4), Iceland (3), Japan (2), Korea (119), NACMA (47), Netherlands (147), NATO EF 2000 and Tornado Management Agency (36), Norway (31), Sweden (82), Turkey (6) and United Kingdom (225). (Cost information for direct commercial sales is not available nor is date of sale).

Other foreign sales for 36 MIDS terminals at a cost of \$8.7M were implemented through Calendar Year 2011 with the European Participating Air Force (EPAF) (3) and German competitive buys (33).

Nuclear Cost

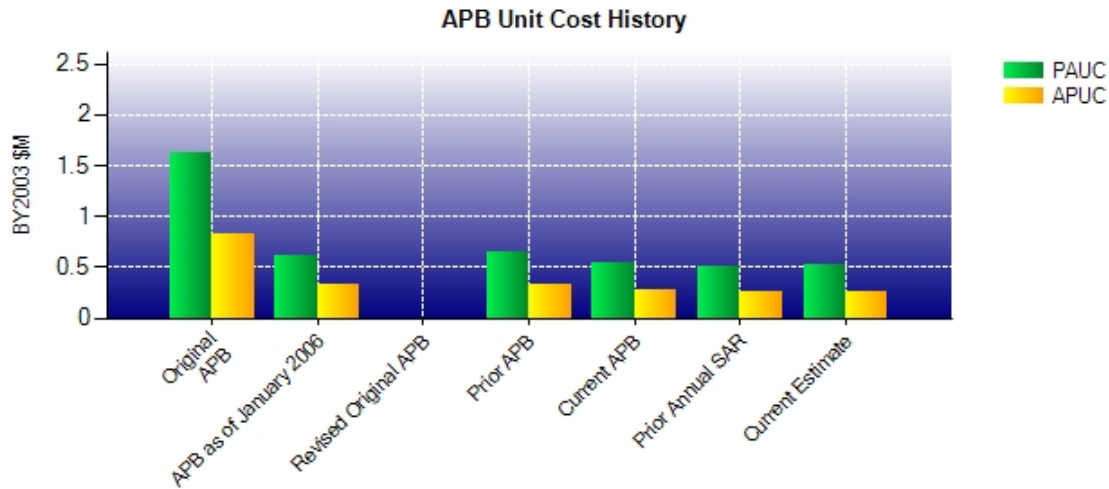
None

Unit Cost**Unit Cost Report**

	BY2003 \$M	BY2003 \$M	
Unit Cost	Current UCR Baseline (MAR 2010 APB)	Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	2475.5	2800.1	
Quantity	4553	5258	
Unit Cost	0.544	0.533	-2.02
Average Procurement Unit Cost (APUC)			
Cost	1149.5	1226.3	
Quantity	4150	4817	
Unit Cost	0.277	0.255	-7.94

	BY2003 \$M	BY2003 \$M	
Unit Cost	Original UCR Baseline (MAR 1994 APB)	Current Estimate (DEC 2011 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	1091.4	2800.1	
Quantity	672	5258	
Unit Cost	1.624	0.533	-67.18
Average Procurement Unit Cost (APUC)			
Cost	523.7	1226.3	
Quantity	630	4817	
Unit Cost	0.831	0.255	-69.31

Unit Cost History



	Date	BY2003 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	MAR 1994	1.625	0.831	1.666	0.931
APB as of January 2006	JUN 2004	0.616	0.339	0.614	0.352
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	MAR 2006	0.656	0.339	0.661	0.352
Current APB	MAR 2010	0.544	0.277	0.569	0.300
Prior Annual SAR	DEC 2010	0.503	0.257	0.529	0.280
Current Estimate	DEC 2011	0.533	0.255	0.573	0.280

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	
1.670	-0.023	-1.090	0.015	-0.017	0.058	0.000	0.001	-1.056	0.614

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

PAUC Prod Est	Changes								PAUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.614	0.006	-0.127	-0.004	0.122	-0.051	0.000	0.013	-0.041	0.573

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	
0.931	-0.019	-0.520	0.016	-0.036	-0.021	0.000	0.001	-0.579	0.352

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

APUC Prod Est	Changes								APUC Current Est
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.352	0.004	-0.007	-0.005	-0.012	-0.066	0.000	0.014	-0.072	0.280

SAR Baseline History

Item/Event	SAR Planning Estimate (PE)	SAR Development Estimate (DE)	SAR Production Estimate (PdE)	Current Estimate
Milestone I	N/A	N/A	N/A	N/A
Milestone II	N/A	DEC 1993	DEC 1993	DEC 1993
Milestone III	N/A	N/A	N/A	N/A
IOC	N/A	DEC 2000	MAY 2003	MAY 2003
Total Cost (TY \$M)	N/A	1119.5	1818.9	3010.4
Total Quantity	N/A	672	2964	5258
Prog. Acq. Unit Cost (PAUC)	N/A	1.666	0.614	0.573

The baseline includes separate Milestone (MS) III decisions for the Low Volume Terminal (LVT) (1) and LVT(3) and a separate Initial Operational Capability (IOC) for each MIDS variant. A MS III decision was originally planned for the Army unique LVT(2) variant but it was replaced by a Full Rate Production decision approved by the Assistant Secretary of the Navy (Research, Development and Acquisition) in the Acquisition Decision Memorandum dated December 8, 2003.

Cost Variance**Cost Variance Summary**

Summary Then Year \$M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	825.8	993.1	--	1818.9
Previous Changes				
Economic	+7.7	+16.9	--	+24.6
Quantity	+75.7	+588.3	--	+664.0
Schedule	-0.2	-19.8	--	-20.0
Engineering	+415.6	-54.0	--	+361.6
Estimating	+48.2	-275.5	--	-227.3
Other	--	--	--	--
Support	--	+40.4	--	+40.4
Subtotal	+547.0	+296.3	--	+843.3
Current Changes				
Economic	+1.6	+3.9	--	+5.5
Quantity	--	+79.0	--	+79.0
Schedule	--	-3.5	--	-3.5
Engineering	+286.0	-4.0	--	+282.0
Estimating	+1.1	-41.4	--	-40.3
Other	--	--	--	--
Support	--	+25.5	--	+25.5
Subtotal	+288.7	+59.5	--	+348.2
Total Changes	+835.7	+355.8	--	+1191.5
CE - Cost Variance	1661.5	1348.9	--	3010.4
CE - Cost & Funding	1661.5	1348.9	--	3010.4

Summary Base Year 2003 \$M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	869.4	955.4	--	1824.8
Previous Changes				
Economic	--	--	--	--
Quantity	+70.7	+485.1	--	+555.8
Schedule	-0.2	-1.5	--	-1.7
Engineering	+365.1	-43.4	--	+321.7
Estimating	+43.2	-246.6	--	-203.4
Other	--	--	--	--
Support	--	+33.6	--	+33.6
Subtotal	+478.8	+227.2	--	+706.0
Current Changes				
Economic	--	--	--	--
Quantity	--	+61.1	--	+61.1
Schedule	--	-1.1	--	-1.1
Engineering	+224.5	-3.1	--	+221.4
Estimating	+1.1	-32.6	--	-31.5
Other	--	--	--	--
Support	--	+19.4	--	+19.4
Subtotal	+225.6	+43.7	--	+269.3
Total Changes	+704.4	+270.9	--	+975.3
CE - Cost Variance	1573.8	1226.3	--	2800.1
CE - Cost & Funding	1573.8	1226.3	--	2800.1

Previous Estimate: December 2010

RDT&E	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	+1.6
Adjustment for current and prior escalation. (Estimating)	-0.8	-0.9
Development funding to incorporate Concurrent Multi-Netting (CMN-4) and Tactical Targeting Network Technology (TTNT) into the MIDS JTRS terminal. (Engineering)	+153.7	+195.0
Development of Tactical Targeting Network Technology waveform. (Engineering)	+70.8	+91.0
Adjustment for current and prior escalation. (Estimating)	+1.9	+2.0
RDT&E Subtotal	+225.6	+288.7

Procurement	\$M	
	Base Year	Then Year
Current Change Explanations		
Revised escalation indices. (Economic)	N/A	+3.9
Quantity variance resulting from an increase of 110 MIDS Terminals from 1883 to 1993 (Navy Aircraft). (Subtotal)	+20.8	+27.0
Quantity variance resulting from an increase of 110 MIDS Terminals from 1883 to 1993 (Navy Aircraft). (Quantity)	(+31.9)	(+41.4)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.6)	(-0.8)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-1.7)	(-2.2)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-8.8)	(-11.4)
Total Quantity variance resulting from an increase of 11 MIDS Terminals from 25 to 36 (Navy Ships). (Subtotal)	+2.1	+2.9
Total Quantity variance resulting from an increase of 11 MIDS Terminals from 25 to 36 (Navy Ships). (Quantity)	(+3.2)	(+4.6)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-0.1)	(-0.1)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-1.0)	(-1.6)
Quantity variance resulting from an increase of 39 MIDS Terminals from 84 to 123 (Navy other platforms). (Subtotal)	+7.5	+9.1
Quantity variance resulting from an increase of 39 MIDS Terminals from 84 to 123 (Navy other platforms). (Quantity)	(+11.2)	(+13.6)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.2)	(-0.2)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-0.5)	(-0.6)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-3.0)	(-3.7)
Quantity variance resulting from an increase of 10 MIDS Terminals from 512 to 522 (Army). (Subtotal)	+1.9	+2.6
Quantity variance resulting from an increase of 10 MIDS Terminals from 512 to 522 (Army). (Quantity)	(+2.9)	(+3.9)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.1)	(-0.1)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-0.2)	(-0.3)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-0.7)	(-0.9)
Quantity variance resulting from an increase of 41 MIDS Terminals from 1226 to 1267 (Air Force Aircraft). (Subtotal)	+7.8	+10.2
Quantity variance resulting from an increase of 41 MIDS Terminals from 1226 to 1267 (Air Force Aircraft). (Quantity)	(+11.9)	(+15.5)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.2)	(-0.2)

Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-0.6)	(-0.8)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-3.3)	(-4.3)
Overall cost decrease due to acceleration of procurement buy profile (Navy). (Schedule)	0.0	-1.5
Overall cost decrease due to acceleration of procurement buy profile (Army). (Schedule)	0.0	-0.3
Overall cost decrease due to acceleration of procurement buy profile (Air Force). (Schedule)	0.0	-0.4
Adjustment for current and prior escalation. (Estimating)	-1.4	-1.0
Updated cost estimate based on revised procurement schedule (Army). (Estimating)	-2.1	-2.5
Updated cost estimate based on revised procurement schedule (Navy). (Estimating)	-12.3	-16.0
Adjustment for current and prior escalation. (Support)	-0.6	-1.2
Decrease in other support requirements due to efficiencies. (Support)	-0.8	-0.9
Increase in spares requirements due to increase in total terminal requirements (Navy). (Support) (QR)	+9.9	+12.3
Increase in support requirements for additional spares (Navy). (Support)	0.0	+0.1
Increase in spares requirements due to increase in total terminal requirements (Army). (Support) (QR)	+9.8	+13.5
Increase in support requirements for additional spares (Air Force). (Support)	+0.1	+0.2
Increase in spares requirements due to increase in total terminal requirements (Air Force). (Support) (QR)	+1.1	+1.6
Decrease in other support requirements due to efficiencies (DoD). (Support)	-0.1	-0.1
Procurement Subtotal	+43.7	+59.5

(QR) Quantity Related

Contracts

Appropriation: Procurement

Contract Name **MIDS Production Contract**
 Contractor BAE SYSTEMS/ROCKWELL COLLINS DATA LINK SOLUTIONS L.L.C.
 Contractor Location CEDAR RAPIDS, IA 52498
 Contract Number, Type N00039-10-D-0031, FFP/IDIQ
 Award Date March 10, 2010
 Definitization Date March 10, 2010

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
134.8	N/A	59	63.7	N/A	253	134.8	134.8

Cost And Schedule Variance Explanations

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

Contract Comments

The difference between the initial contract price target and the current contract price target is due to delivery orders not yet awarded.

This production contract includes nonrecurring engineering, supportability, and the manufacture of MIDS Low Volume Terminal (LVT), Joint Tactical Radio System (JTRS) and associated spares. Foreign Military Sales are not included in the supplemental contract cost information.

This is a Multiple Award Firm Fixed Price (FFP) Indefinite Delivery Indefinite Quantity (IDIQ) contract. Delivery Orders are competed between two vendors, ViaSat and DLS. Current Contract Target Price reflects orders awarded to this vendor.

Appropriation: Procurement

Contract Name **MIDS Production Contract**
 Contractor VIASAT, INC
 Contractor Location CARLSBAD, CA 92009
 Contract Number, Type N00039-10-D-0032, FFP/IDIQ
 Award Date March 10, 2010
 Definitization Date March 10, 2010

Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
134.8	N/A	76	77.6	N/A	308	134.8	134.8

Cost And Schedule Variance Explanations

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

Contract Comments

The difference between the initial contract price target and the current contract price target is due to delivery orders not yet awarded.

This production contract includes nonrecurring engineering, supportability, and the manufacture of MIDS-Low Volume Terminal (LVT), Joint Tactical Radio System (JTRS) and associated spares. Foreign Military Sales are not included in the supplemental contract cost information.

This is a Multiple Award Firm Fixed Price (FFP) Indefinite Delivery Indefinite Quantity (IDIQ) contract. Delivery Orders are competed between two vendors, ViaSat and DLS. Current Contract Target Price reflects orders awarded to this vendor.

Deliveries and Expenditures

Deliveries To Date	Plan To Date	Actual To Date	Total Quantity	Percent Delivered
Development	403	399	441	90.48%
Production	3478	3547	4817	73.64%
Total Program Quantities Delivered	3881	3946	5258	75.05%

Expenditures and Appropriations (TY \$M)			
Total Acquisition Cost	3010.4	Years Appropriated	23
Expenditures To Date	2336.3	Percent Years Appropriated	82.14%
Percent Expended	77.61%	Appropriated to Date	2538.7
Total Funding Years	28	Percent Appropriated	84.33%

This data is as of December 31, 2011.

Operating and Support Cost

Assumptions And Ground Rules

The Operating & Support (O&S) costs are based on the Program Office Life Cycle Cost Estimate (dated February 29, 2012), which was evaluated by the Air Force Cost Analysis Agency (AFCAA) and Naval Center for Cost Analysis (NCCA) in support of the MIDS JTRS Full Production & Fielding (FP&F) decision. Cost portion of the current program office estimate depicts 4,817 MIDS terminals which have a 20-year operational life. The quantity of 4,817 includes US-only terminals currently fielded and on contract plus known requirements for FY 2011 through FY 2017. This period includes a phase-in, steady state, and phase-down profile for a total 33-year support period.

The annual operating hours per aircraft for peacetime deployment are estimated to be approximately 400. The annual operating hours per ship for peacetime deployment are estimated to be 3,977. The annual operating hours per Army Ground Air Defense station are estimated to be 2,212.

For Navy aircraft and Army platforms, O&S is a three-level structure (i.e., Organizational, Intermediate/Direct Support, and Depot). For Navy ships and Air Force aircraft platforms it is a two-level structure (i.e., Organizational and Depot). Navy aircraft support costs assume the use of the Consolidated Automated Support System at the Intermediate level of maintenance. The terminal reliability and maintainability characteristics used are consistent with the requirements contained in the Operational Requirements Document (ORD). Other pertinent cost estimates include use of values experienced by analogous systems including the Joint Tactical Information and Distribution System (JTIDS) and the AN/ARC-182 radio. The MIDS-LVT terminal does not replace an existing DOD system in that it provides Link-16 capability to platforms that were unable to employ JTIDS due to space and weight constraints; there is no antecedent system. The MIDS JTRS terminal is a form, fit, and function replacement and upgrade for MIDS-LVT in selected DOD systems.

The calculation of total operating and support costs is based on total quantities of 4,817; times an economic life of 20 years; times unit cost of \$10.24K per year.

Disposal costs are not included in this estimate.

Costs BY2003 \$K		
Cost Element	MIDS Avg Annual Cost Per Terminal	Antecedent System
Unit-Level Manpower	0.250	--
Unit Operations	0.000	--
Maintenance	0.440	--
Sustaining Support	4.120	--
Continuing System Improvements	5.430	--
Indirect Support	0.000	--
Other	0.000	--
Total Unitized Cost (Base Year 2003 \$)	10.240	--

Total O&S Costs \$M	MIDS	Antecedent System
Base Year	986.5	--
Then Year	1326.9	--