Selected Acquisition Report (SAR)

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

Multifunctional Information Distribution System (MIDS)

As of December 31, 2012

Defense Acquisition Management
Information Retrieval
(DAMIR)

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Program Information

Program Name

Multifunctional Information Distribution System (MIDS)

DoD Component

Navy

Joint Participants

Air Force; Army

Navy is the lead Component as of July 24, 2012.

Responsible Office

Responsible Office

CAPT Drew Williams
MIDS Program Office
33050 Nixie Way
Bldg 17A, Suite 422
San Diego, CA 92147-5416
drew.j.williams@navy.mil

Phone 619-524-1549
Fax 619-524-1639
DSN Phone 524-1549
DSN Fax 524-1639

Date Assigned September 27, 2012

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 April 4, 2012

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 also adds 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 provides 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). Total program requirements include terminal development; software hosting (Operating Environment/JTRS Waveforms); implementation of National Security Agency (NSA) guidelines; production transition; and F/A-18E/F, E-2D, and EA-18G coordination. Additional MIDS JTRS terminals will be provided to support follow-on platform integration and waveform porting efforts. These may include MIDS on Ship (MOS), USAF RC-135, EC-130H, and other manned and unmanned Navy platforms.

Executive Summary

The 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., and directed procurements to EuroMIDS.

The MPO awarded MIDS-LVT Production Lot 13 on August 9, 2012. EuroMIDS Lot 4 Production Contract was awarded to EuroMIDS (Paris, FR) on December 16, 2011 for a base cost of €30M. This contract between the MIDS International Program Office and EuroMIDS is funded exclusively with European MIDS Nations' funding. Modification Order (MOD) 8 was awarded March 13, 2013, and brings the total up to 209 MIDS-LVT terminals.

The Under Secretary of Defense (Acquisition, Technology, and Logistics (USD(AT&L)) signed an Acquisition Decision Memorandum (ADM) on April 4, 2012 approving Full Production and Fielding (FP&F) of the 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. MIDS awarded the MIDS JTRS FP&F Lot 1 contract on April 10, 2012 to DLS and ViaSat.

The JSTARS held an Operational Test (OT) for MIDS JTRS from June 27 through 29, 2011. The MPO received the signed Final JSTARS OT Report on July 13, 2012. The report found the MIDS JTRS terminal "Operationally Effective and Operationally Suitable with Limitations." The Suitability Limitations were related to Human Machine Interface (HMI) and Reliability (for which acceptable work-arounds are available). The MPO is analyzing the OT recommendations and will determine an affordable path forward to improve MIDS JTRS Effectiveness and Suitability for JSTARS.

Rivet Joint (RC-135) began Developmental Testing (DT) on MIDS JTRS on December 2, 2011, and OT began on December 16, 2011. The MPO received the final signed RC-135 OT Report, dated September 7, 2012. It found the MIDS JTRS “Operationally Effective and Suitable” with two measures requiring additional analysis and data to fully assess suitability. Rivet Joint is currently deployed overseas with MIDS JTRS.

USD(AT&L) delegated Navy the authority to act as the Milestone Decision Authority (MDA) for MIDS and identified MIDS as an Acquisition Category (ACAT) IC program in an ADM on July 24, 2012. MIDS transferred to the Navy effective September 27, 2012 and reports to the Assistant Secretary of the Navy (Research, Development, and Acquisition (ASN (RD&A)) through the Program Executive Office Tactical Aircraft Programs (PEO)(T)).

A MIDS-LVT Cryptographic Modernization (LCM) development contract was awarded to ViaSat on September 13, 2012 for $5.5M as a Firm Fixed Price (FFP) contract. The contract includes production of ~10,000 modules for MIDS LVT terminals. LCM is a key effort leading into Block Upgrade 2 (BU2) development.

A MIDS-LVT BU2 Request for Proposal (RFP) was released to BAE, DLS, ViaSat and EuroMIDS on September 27, 2012. All proposals have been received and are being evaluated. BU2 includes the following modernization updates – Cryptographic Modernization (CM), Enhanced Throughput (ET), and Frequency Remapping (FR).

On November 6, 2012, ASN (RD&A) concurred with the assessment that MIDS JTRS was fully installed on VFA-213 aircraft and has successfully met the Capabilities Production Document (CPD) established criteria for Initial Operational Capability (IOC).

The MIDS Program Office (MPO) received additional RDT&E funding In the President’s Budget 2013 (PB13) to incorporate Four Nets Concurrent Multi-Netting with Concurrent Contention Receive (CMN-4) and Tactical Targeting

Network Technology (TTNT) into the MIDS JTRS terminal, including completion of the TTNT waveform. On July 27, 2012, MIDS JTRS awarded a CMN-4 risk reduction contract to DLS and ViaSat.

A Justification and Approval (J&A) was approved December 4, 2012 to support two new, limited source contracts with DLS and ViaSat for the design and implementation of the requirements for a CMN-4 configuration in support of the MIDS Program for MIDS JTRS terminal modernization activities.

The DoD Chief Information Officer (CIO) provided interim approval December 20, 2012 for TTNT version 7 to support US Navy's networking communications requirement hosted on the MIDS JTRS terminal. This interim approval supports continued Research Development Test & Evaluation activities.

As of December 31, 2012, there are 7,832 MIDS terminals on contract with DLS, ViaSat, and EuroMIDS of which 7,250 total production terminals have been delivered. These terminals are for the United States Navy (USN), United States Air Force (USAF), United States Army (USA), MPO, and Foreign Military Sales.

As of December 31, 2012, there are 309 MIDS JTRS terminals on contract with DLS and ViaSat of which 143 have been delivered. These terminals are for the USN, USAF, and MPO.

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

Threshold Breaches

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

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

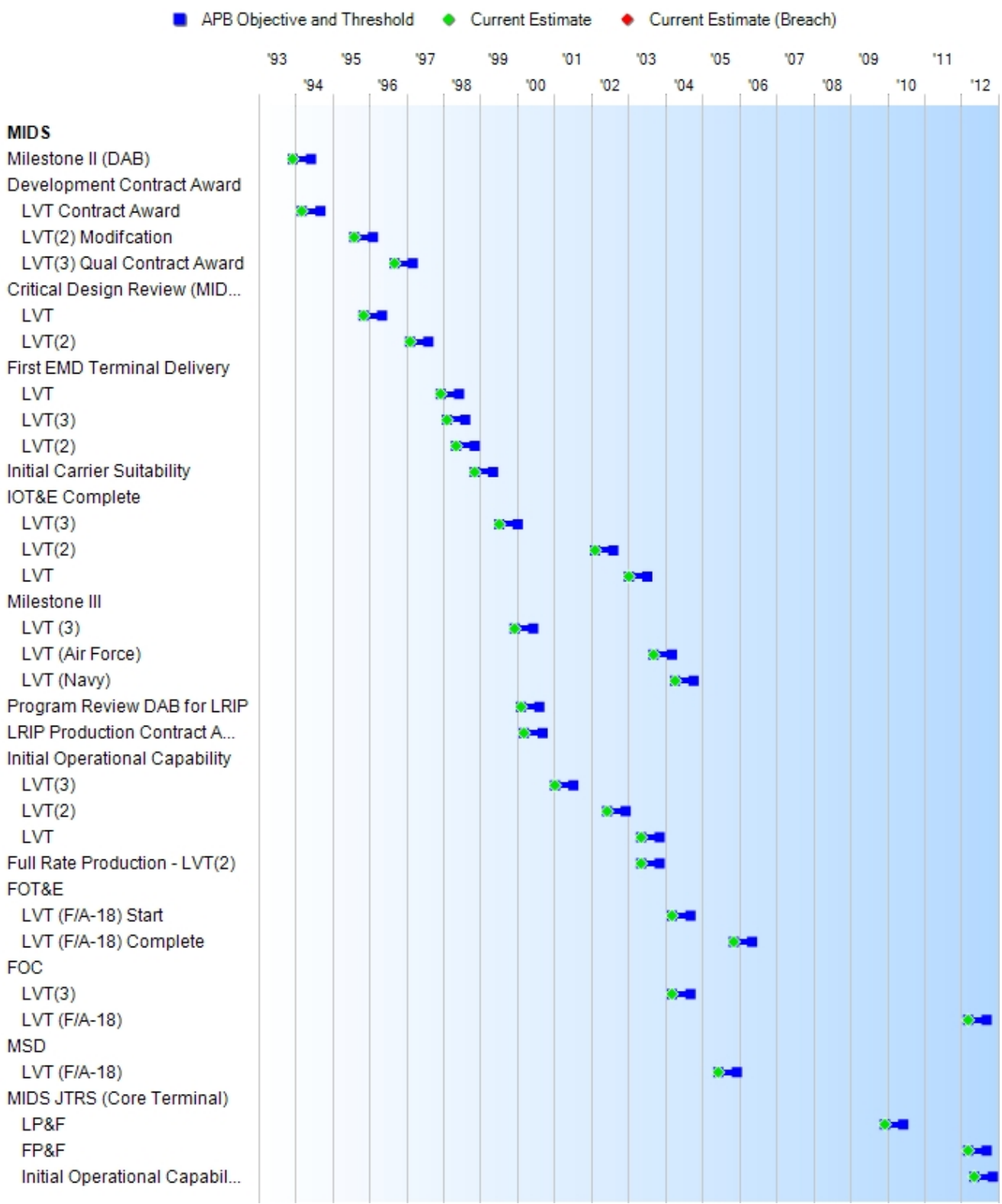
Explanation of Breach

Procurement and Operations and Support Breachs

The terminal Current Procurement Estimate increased by a total of 928 terminals. Of the 928 terminal increase, six were MIDS JTRS Core terminals and 19 were Tactical Targeting Network Technology (TTNT) terminals and would not have caused a breach by themselves. 903 of the additional terminals were Four Net Concurrent Multi-Netting with Concurrent Contention Receive (CMN-4) terminals and caused the Procurement, and O&S breaches.

A Program Deviation Report (PDR) was signed by the MIDS PM on March 29, 2013. PEO(T) concurred with the Program Manager's determination and forwarded the PDR to the Assistant Secretary of the Navy for Research, Development, and Acquisition (ASN(RD&A)) on 12 April, 2013. A revised APB is being staffed and will be submitted to PEO(T) for review and forwarding to ASN(RD&A).

Schedule


APB Objective and Threshold
Current Estimate
Current Estimate (Breach)
'93
'94
'95
'96
'97
'98
'99
'00
'01
'02
'03
'04
'05
'06
'07
'08
'09
'10
'11
'12
MIDS
Milestone II (DAB)
Development Contract Award
LVT Contract Award
LVT(2) Modifcation
LVT(3) Qual Contract Award
Critical Design Review (MID...
LVT
LVT(2)
First EMD Terminal Delivery
LVT
LVT(3)
LVT(2)
Initial Carrier Suitability
IOT&E Complete
LVT(3)
LVT(2)
LVT
Milestone III
LVT (3)
LVT (Air Force)
LVT (Navy)
Program Review DAB for LRIP
LRIP Production Contract A...
Initial Operational Capability
LVT(3)
LVT(2)
LVT
Full Rate Production - LVT(2)
FOT&E
LVT (F/A-18) Start
LVT (F/A-18) Complete
FOC
LVT(3)
LVT (F/A-18)
MSD
LVT (F/A-18)
MIDS JTRS (Core Terminal)
LP&F
FP&F
Initial Operational Capabil...

Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate
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) Modifcation	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
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
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
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
Full Rate Production - LVT(2)	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
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	MAR 2012	SEP 2012	MAR 2012

Initial Operational Capability (IOC)	N/A	MAY 2012	NOV 2012	MAY 2012

Acronyms And Abbreviations

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
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
MSD - Material Support Date
Qual - Qualification

Change Explanations

None

Memo

An Office of Secretary of Defense (OSD) decision was made in December 2009 that MIDS JTRS (Core Terminal) did not require a Milestone (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% Demonstrat-ed	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 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	Integral and automated	Integral and automated	
Repromulgation Relay (nm) MIDS-LVT(2)	4 hop	4 hop	3 hop	4 hops	4 hop	(Ch-1)
Paired Time Slot Relay Range (nm) (USN Only)	1200	>=1200	>=500	520	>=1200	
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	300	>=300	>=200	200	>=300	

C2)					
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	<=1
LVT(3)	< 1 detected	<= 1 detected	<=2	Passed	<= 1 detected
LVT(2)	1	<=1	<=2	Passed	<=1
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	<=1 detected error
LVT(2) (%)	< 1 detected error	<= 1 detected error	<= 5	Passed	<= 1 detected error
LVT(3) (%)	< 1 detected error	<= 1 detected error	<= 1 detected error	Passed	<= 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	To Be Determined (TBD) until Block Upgrade 2 (BU2) Enhanced Throughput (ET) is implemented	STANAG 5516 (& 5616 for Data Fwds) & MIL-STD-6016C	(Ch-2)
Communications Range	N/A	see note 12c through 17c	see note 12c through 17c	TBD until MIDS-LVT BU2 ET is implemented	see note 12c through 17c	(Ch-2)
Information Exchange Rate (Kbps)						
LET 0	N/A	>=358	>=107	TBD until MIDS-LVT BU2 ET is implemented	>=358	(Ch-2)
LET 1	N/A	>=546	>=358	TBD until MIDS-LVT BU2 ET is implemented	>=546	(Ch-2)
LET 2	N/A	>=833	>=546	TBD until MIDS-LVT BU2 ET is implemented	>=833	(Ch-2)
LET 3	N/A	>=968	>=833	TBD until MIDS-LVT BU2 ET is implemented	>=968	(Ch-2)

LET 4	N/A	>=1100	>=968	TBD until MIDS-LVT BU2 ET is implemented	>=1100	(Ch-2)
Coded Message Error Probability (%)						
LET 0	N/A	<=1%	<=2%	TBD until MIDS-LVT BU2 ET is implemented	<=1%	(Ch-2)
LET 1	N/A	<=1%	<=2%	TBD until MIDS-LVT BU2 ET is implemented	<=1%	(Ch-2)
LET 2	N/A	<=1%	<=2%	TBD until MIDS-LVT BU2 ET is implemented	<=1%	(Ch-2)
LET 3	N/A	<=1%	<=2%	TBD until MIDS-LVT BU2 ET is implemented	<=1%	(Ch-2)
LET 4	N/A	<=1%	<=2%	TBD until MIDS-LVT BU2 ET is implemented	<=1%	(Ch-2)
Jam Resistance	N/A	MJCS-194-89	MJCS-194-89	TBD until MIDS-LVT BU2 ET is implemented	MJCS-194-89	(Ch-2)
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%	<=2%	<=1%
LET 1	N/A	<=1%	<=2%	<=2%	<=1%
LET 2	N/A	<=1%	<=2%	<=2%	<=1%
LET 3	N/A	<=1%	<=2%	<=2%	<=1%
LET 4	N/A	<=1%	<=2%	<=2%	<=1%
Weight/Volume	N/A	<=65 lbs, <=.6 cu.ft.	<=65 lbs, <=.6 cu.ft.	Measured 54.7 lbs; measured .5 73 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	≥300 nm (C2-C2 w/HPA); ≥240 nm (C2-non-C2); ≥200 nm (non-C2-non- C2)	≥300 nm (C2-C2 w/HPA); ≥220 nm (C2-non-C2); ≥180 nm (non-C2-non-C2)	>=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	>=220nm (C2-C2 w/HPA); >=140nm (C2-non-C2); >=90nm (non-C2-nonC2/non	>=220nm (C2-C2 w/HPA) - Not Tested; >=140nm (C2-non-C2 - Not tested; >=90nm (non-C2-	>=220nm (C2-C2 w/HPA) - Terminal not installed in C2 platform yet; >=140nm (C2-non-C2 -

		C2-C2)	C2-C2)	nonC2/non C2-C2) - 150.	Terminal not installed in C2 platform yet; >=90nm (non-C2-nonC2/non C2-C2) - 150.
Link-16 Relay	N/A	>=1200nm	>=500mn	Not tested yet.	>=500 nm
Multi-Channels/Networks	N/A	4 Channels simultan-eously with TACAN/multi-net (single network) Link-16 fixed operation on Channel 1	4 Channels simultan-eously with TACAN/multi-net (single network) Link-16 fixed operation on Channel 1*	4 Channels passed.	4 Channels passed.
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 coarse 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	N/A	<=14	<=30	15 seconds	15 seconds

Start-up/Restart		seconds	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, NAVAIR)	60 min	60 min (Single channel)
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)	<=3.5min (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	
Terminal Operating Frequency Range	N/A	Operate 2-2000 MHz	Operate 2-2000 MHz	Operation within 2-2000 MHz	Operate 2-2000 MHz	(Ch-3)
MIDS JTRS Capability	N/A	F3I for MIDS-LVT (1) and shall meet the performance measures in MIDS JTRS Core Terminal in Table 6 of the CPD in addition to TACAN and J-Voice.	F3I for MIDS-LVT (1) and shall meet the performance measures in MIDS JTRS Core Terminal in Table 6 of the CPD in addition to TACAN and J-Voice.	11 of 11 Performance measures have been achieved in a Developmental Test period.	11 of 11 Performance measures have been achieved in a Developmental Test period.	
Functionality	N/A	MIDS JTRS Core Terminal will meet connectivity requirements of ALL Airborne (MIDS JTRS) Domain Waveforms.	The MIDS JTRS Core Terminal shall be capable of supporting secure and non-secure voice, video, and data communica-tions by porting narrowband and wideband JTRS developed waveforms in compliance with the Software Communica-tions Architecture. Where a MIDS JTRS Core Terminal	15 of 15 Performance measures have been achieved.	15 of 15 Performance measures have been achieved.	

			replaces the WF/radio function(s) of one or more legacy radios and continued interoperabil-ity with legacy radios is required, software WFs will be ported and JTRS radio shall perform the same WF/radio function(s) and mission (s) supported by the legacy radios. JTRS Core Terminal will meet connectivity requirements of ported Waveforms.		
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 Implementa-tion - TACAN/Link-16 plus 3 additional channels ((2MHz- 2 GHz transceivers) as capability for future	1 of 1 Performance measures have been achieved.	1 of 1 Performance measures have been achieved.

			JTRS WFs) for F/A-18E/F. USAF Initial Implementa-tion - Link-16 for B-1.		
Net Ready	N/A	The system must fully support execution of 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) IA requirements	The MIDS JTRS Core Terminal will support Net-Centric military operations via a gateway. The system must be able to enter and be managed in the network, and exchange data in a secure manner to enhance mission effective-ness. The systems must have the ability to provide survivable, interoperable, secure and operationally effective information exchanges to enable a Net-centric military capability. The system must fully support execution of all operational	5 of 5 Performance measures have been achieved. System certified by NSA in March 2010	5 of 5 Performance measures have been achieved. System certified by NSA in March 2010.

		including availability, integrity, authentica-tion, confidential-ity, and non-repudiation, and issuance of an IATO by the DAA, 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.	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) IA requirements including availability, integrity, authentica-tion, confidential-ity, and non-repudiation, and issuance of an ATO by the DAA, 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	Each MIDS JTRS Core Terminal shall provide any designated operator with the ability to load and	1 of 1 Performance measures have been achieved.	1 of 1 Performance measures have been achieved.

		reconfigure its modes/ capabilities via software while in the operational environment	reconfigure its modes/ capabilities via software while in the operational environment			
Growth	N/A	MIDS JTRS Core Terminal shall provide an internal growth capability through an open systems architecture approach, and shall be modular, scaleable and flexible as designed to suit specific operational requirements.	MIDS JTRS Core Terminal shall provide an internal growth capability through an open systems architecture approach, and shall be modular, scaleable and flexible as designed to suit specific operational requirements.	2 of 2 Performance measures achieved.	2 of 2 Performance measures achieved.	
Navigation – Link-16 Position (PPLI)	N/A	≤100 feet	≤300 feet	Operation at ≤100 feet	≤100 feet	(Ch-3)
Tactical Air Navigation (TACAN)	N/A	Capabilities equivalent to LVT	Capabilities equivalent to LVT	Capabilities equivalent to LVT	Capabilities equivalent to LVT	(Ch-3)
Spectrum Certification	N/A	Meets DD-1494 Stage 4	Meets DD-1494 Stage 4	DD-1494 Stage 4 issued.	Meets DD-1494 Stage 4	(Ch-4)
Memory/Processor Reserve	N/A	Provide growth memory and processor reserve to allow for an increased capability or functionality of each set and with each generation	Provide growth memory and processor reserve to allow for an increased capability or functionality of each set and with each generation	Met with no issues.	Provide growth memory and processor reserve to allow for an increased capability or functionality of each set and with each generation	(Ch-5)

		of radios	of radios		of radios	
Operational Communications						
Passive Syncronization	N/A	Fine Sync achieved passively	Fine Sync achieved passively	Achieved Fine Sync passively	Fine Sync achieved passively	(Ch-3)
Automatic Message Acknowledgement	N/A	IAW MILSTD 6016C	IAW MILSTD 6016C	Automatic Message Acknowledgement IAW MILSTD 6016C	IAW MILSTD 6016C	(Ch-3)
Crypto Control (CTP-11)	N/A	Proper O-level control of NSA approved crypto device	Proper O-level control of NSA approved crypto device	Proper O-level control of NSA approved crypto device	Proper O-level control of NSA approved crypto device	(Ch-3)
Multi-Net (CTP-10)/8d	N/A	2 simultaneous nets	2 simultaneous nets	Performance of two simultaneous nets	2 simultaneous nets	(Ch-3)
GIG Requirements	N/A	DISR mandated GIG requirements specified in TV-1 of ISP	DISR mandated GIG requirements specified in TV-1 of ISP	Met DISR mandated GIG requirements specified in TV-1 of ISP	DISR mandated GIG requirements specified in TV-1 of ISP	(Ch-6)
Key Information Profile (KIP)	N/A	DISA mandated GIG KIPs are identified in ISP in the KIP Declaration Table	DISA mandated GIG KIPs are identified in ISP in the KIP Declaration Table	The DISA mandated GIG KIPs are identified in the ISP in the KIP Declaration Table	DISA mandated GIG KIPs are identified in ISP in the KIP Declaration Table	(Ch-7)
Design per NCOW RM	N/A	NCOW RM Enterprise Services are met	NCOW RM Enterprise Services are met	The NCOW RM Enterprise Services are met	NCOW RM Enterprise Services are met	(Ch-8)
Information Exchange Requirements met	N/A	Operationally Effective exchanges of all messages IAW ISP	Operationally Effective exchanges of all messages IAW ISP	Showed Operationally Effective exchange of all messages IAW ISP	Operationally Effective exchanges of all messages IAW ISP	(Ch-3)

Requirements Source: MIDS Operational Requirements Document (ORD) (MIDS-LVT) dated July 25, 2004 and MIDS JTRS Capability Production Document (CPD) dated May 29, 2008

Acronyms And Abbreviations

Ao - Operational Availability
ATO - Authority to Operate
BIT - Built in Test
BU2 - Block Upgrade 2
C2 - Command and Control
CFAQT - Contractor First Article Qualification Testing
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
ET - Enhanced Throughput
F3I - Form, Fit, Function and interface
FDL - Fighter Data Link
FOT&E - Follow-on Test and Evaluation
GFAQT - Government First Article Qualification Testing
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
MIDS - Multifunctional Information Distribution System
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)
SINCGARS - Single Channel Ground and Airborne Radio System
SMORD - Single MIDS ORD
SSS - System Segment Specification
STANAG - Standardization Agreement
TACAN - Tactical Air Navigation
TBD - To Be Determined
TV - Technical View
w - watt(s)

Change Explanations

(Ch-1) Revised Current Estimate of '4 hop' to read '4 hops'

(Ch-2) Demonstrated Performance for MIDS-LVT Enhancement ECPs of Message Standards, Communication Range and Jam Resistance; MIDS Information Exchange Rate (kbps) for LET 0, LET 1, LET 2, LET 3, LET 4; and MIDS Coded Message Error Probability % for LET 0, LET 1, LET 2, LET 3, and LET 4 is TBD. Revised the Current Estimate to reflect the Objective.

(Ch-3) Due to test results from Contractor First Article Qualification Testing (CFAQT) and Government First Article Qualification Testing (GFAQT), the following test results have changed: Terminal Operating Frequency Range, Navigation - Link-16 Position (PPLI), Tactical Air Navigation (TACAN), Passive Synchronization, Automatic Messaging Acknowledgement, Crypto Control (CTP-11), Multi-Net (CTP-10)/8d, and Information Exchange Requirements

(Ch-4) DD-1494 Stage 4 issued.

(Ch-5) Demonstrated growth memory and processor reserve to allow for an increased capability or functionality of each set and with each generation of radios

(Ch-6) Demonstrated met DISR mandated GIG requirements specified in TV-1 of ISP

(Ch-7) Demonstrated the DISA mandated GIG KIPs are identified in the ISP in the KIP Declaration Table

(Ch-8) Demonstrated the NCOW Reference Model Enterprise Services are met

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

In accordance with the Acquisition Decision Memorandum (ADM) dated July 11, 2012, the Joint Tactical Radio System (JTRS) Program of Records (PORs) transitioned to a Military Department-managed program. Airborne Maritime Fixed/Station (AMF) JTRS and Handheld, Manpack Small Form Fit (HMS) JTRS transitioned to the Army and can be found under PE 0604280A and MIDS transitioned to the Navy under PE 0205604N.

RDT&E

APPN 1319	BA 05	PE 0205604N	(Navy)	
	Project 2126	Navy/Multifunctional Information Distribution System	(Shared)	(Sunk)
APPN 1319	BA 07	PE 0205604N	(Navy)	
	Project 3020	Navy Tactical Data Links/MIDS	(Shared)	
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)	(Sunk)
	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)	(Sunk)
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)	(Sunk)
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)	(Sunk)
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)	(Sunk)
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)	
APPN 3010	BA 05	PE 0207130F	(Air Force)	
	ICN F01500	F-15	(Shared)	(Sunk)
APPN 3010	BA 05		(Air Force)	
	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	1573.8	1731.2	1637.5	825.8	1661.5	1750.6
Procurement	955.4	1226.3	1348.9	**1393.5** [1]	993.1	1348.9	1585.6
Flyaway	814.0	--	--	1190.8	844.8	--	1356.9
Recurring	733.6	--	--	1118.2	765.7	--	1285.5
Non Recurring	80.4	--	--	72.6	79.1	--	71.4
Support	141.4	--	--	202.7	148.3	--	228.7
Other Support	25.5	--	--	48.3	27.4	--	55.6
Initial Spares	115.9	--	--	154.4	120.9	--	173.1
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	2800.1	N/A	3031.0	1818.9	3010.4	3336.2

[1] ***APB Breach***

Confidence Level for Current APB Cost 47% -
The MIDS cost model is built using Automated Cost Estimating Integrated Tools (ACEIT). Total Life Cycle Cost point estimate for MIDS is at the 47% confidence level on the generated S-Curve. The generated point estimate is based on the developed Cost Estimating Relationships (CERs) and inputted sunk costs rather than an estimate at a chosen confidence level. MIDS has incorporated the actual costs of our most recent development of MIDS JTRS Phase 2B to build in more confidence and validate the confidence level.

Research, Development, Test and Evaluation (RDT&E) costs include the MIDS-LVT and MIDS JTRS terminal development, terminal acquisition, integration and test on the U.S. Navy platforms for all current MIDS Program Managment Office (PMO) enhancement efforts. In the PB14 budget, the MIDS PMO received additional RDT&E funding for Tactical Targeting Network Technology (TTNT) for the MIDS JTRS terminals.

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	441	488
Procurement	2821	4817	5745
Total	2964	5258	6233

The unit of measure is terminals.

Procurement quantities include MIDS terminals for Navy, Air Force, and Army platforms. The current estimate includes MIDS JTRS procurement quantities for the Phase 2B Core Terminals, Four Net Concurrent Multi-Netting with Concurrent Contention Receive (CMN-4), and Tactical Targeting Network Technology (TTNT). The current estimate does not include procurement quantities for MIDS-LVT Block Upgrade 2 (BU2).

Cost and Funding

Funding Summary

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

Appropriation	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
RDT&E	1345.5	104.3	119.9	78.5	61.4	30.4	10.6	0.0	1750.6
Procurement	1198.0	49.9	23.3	32.5	71.3	127.5	83.1	0.0	1585.6
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 2014 Total	2543.5	154.2	143.2	111.0	132.7	157.9	93.7	0.0	3336.2
PB 2013 Total	2538.7	147.9	157.5	104.5	30.6	31.2	0.0	0.0	3010.4
Delta	4.8	6.3	-14.3	6.5	102.1	126.7	93.7	0.0	325.8

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

Quantity	Undistributed	Prior	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	To Complete	Total
Development	488	0	0	0	0	0	0	0	0	488
Production	0	4388	214	90	112	218	447	276	0	5745
PB 2014 Total	488	4388	214	90	112	218	447	276	0	6233
PB 2013 Total	441	4406	168	98	96	25	24	0	0	5258
Delta	47	-18	46	-8	16	193	423	276	0	975

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	--	--	--	--	--	--	16.2
2011	--	--	--	--	--	--	24.2
2012	--	--	--	--	--	--	49.8
2013	--	--	--	--	--	--	104.3
2014	--	--	--	--	--	--	119.9
2015	--	--	--	--	--	--	78.5
2016	--	--	--	--	--	--	61.4
2017	--	--	--	--	--	--	30.4
2018	--	--	--	--	--	--	10.6

Subtotal	**149**	**--**	**--**	**--**	**--**	**--**	**1268.6**

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	--	--	--	--	--	--	13.7
2011	--	--	--	--	--	--	20.0
2012	--	--	--	--	--	--	40.3
2013	--	--	--	--	--	--	82.8
2014	--	--	--	--	--	--	93.4
2015	--	--	--	--	--	--	60.0
2016	--	--	--	--	--	--	46.0
2017	--	--	--	--	--	--	22.4
2018	--	--	--	--	--	--	7.7

Subtotal	**149**	**--**	**--**	**--**	**--**	**--**	**1135.0**

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
Subtotal	**74**	**--**	**--**	**--**	**--**	**--**	**26.3**

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
Subtotal	**74**	**--**	**--**	**--**	**--**	**--**	**25.2**

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

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
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	--	--	--	--	--	--	2.4
2012	--	--	--	--	--	--	2.2
Subtotal	**196**	**--**	**--**	**--**	**--**	**--**	**83.3**

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	--	--	--	--	--	--	2.0
2012	--	--	--	--	--	--	1.8
Subtotal	**196**	**--**	**--**	**--**	**--**	**--**	**79.9**

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
2011	5	1.1	--	--	1.1	--	1.1
Subtotal	**56**	**13.6**	**0.2**	**4.5**	**18.3**	**2.0**	**20.3**

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
2011	5	0.9	--	--	0.9	--	0.9
Subtotal	**56**	**13.1**	**0.2**	**4.7**	**18.0**	**2.0**	**20.0**

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	174	29.9	0.2	--	30.1	3.9	34.0
2011	145	28.6	0.2	--	28.8	3.9	32.7
2012	125	24.1	0.2	--	24.3	14.5	38.8
2013	154	21.1	0.2	--	21.3	12.4	33.7
2014	64	12.7	0.2	--	12.9	2.3	15.2
2015	69	16.8	2.9	--	19.7	1.4	21.1
2016	194	55.3	2.9	--	58.2	7.3	65.5
2017	423	106.1	2.9	--	109.0	12.0	121.0
2018	276	72.2	2.9	--	75.1	8.0	83.1
Subtotal	**2916**	**643.2**	**41.3**	**36.3**	**720.8**	**137.4**	**858.2**

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	174	24.8	0.2	--	25.0	3.2	28.2
2011	145	23.2	0.2	--	23.4	3.1	26.5
2012	125	19.2	0.2	--	19.4	11.5	30.9
2013	154	16.5	0.2	--	16.7	9.6	26.3
2014	64	9.7	0.2	--	9.9	1.7	11.6
2015	69	12.6	2.2	--	14.8	1.1	15.9
2016	194	40.8	2.1	--	42.9	5.4	48.3
2017	423	76.8	2.1	--	78.9	8.7	87.6
2018	276	51.3	2.1	--	53.4	5.6	59.0
Subtotal	**2916**	**529.6**	**36.3**	**36.9**	**602.8**	**117.3**	**720.1**

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, E-2D, P-3, P-8, KC-130, EP-3E, 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	0.7	--	--	0.7	--	0.7
2011	8	1.4	--	--	1.4	--	1.4
2012	6	1.1	--	--	1.1	--	1.1
Subtotal	**42**	**9.7**	**--**	**--**	**9.7**	**--**	**9.7**

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	0.5	--	--	0.5	--	0.5
2011	8	1.0	--	--	1.0	--	1.0
2012	6	0.7	--	--	0.7	--	0.7
Subtotal	**42**	**8.0**	**--**	**--**	**8.0**	**--**	**8.0**

This appropriation identifies the MIDS on Ship (MOS) 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	46	10.2	--	--	10.2	--	10.2
2012	2	0.4	--	--	0.4	--	0.4
Subtotal	**136**	**31.7**	**--**	**0.1**	**31.8**	**0.7**	**32.5**

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	46	8.4	--	--	8.4	--	8.4
2012	2	0.3	--	--	0.3	--	0.3
Subtotal	**136**	**27.5**	**--**	**0.1**	**27.6**	**0.7**	**28.3**

This appropriation identifies the MIDS on Ship (MOS) 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	7	1.6	--	--	1.6	0.5	2.1
2013	23	5.3	--	--	5.3	0.9	6.2
2014	--	--	--	--	--	1.4	1.4
2015	22	5.1	--	--	5.1	1.1	6.2
2016	24	5.6	--	--	5.6	0.2	5.8
2017	24	5.6	--	--	5.6	0.9	6.5
Subtotal	**504**	**118.9**	**--**	**--**	**118.9**	**13.0**	**131.9**

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	7	1.3	--	--	1.3	0.4	1.7
2013	23	4.2	--	--	4.2	0.7	4.9
2014	--	--	--	--	--	1.1	1.1
2015	22	3.8	--	--	3.8	0.9	4.7
2016	24	4.1	--	--	4.1	0.2	4.3
2017	24	4.1	--	--	4.1	0.6	4.7
Subtotal	**504**	**101.8**	**--**	**--**	**101.8**	**10.8**	**112.6**

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	34	9.5	--	--	9.5	0.2	9.7
2012	66	20.0	--	--	20.0	0.4	20.4
2013	37	8.9	--	--	8.9	1.1	10.0
2014	26	6.2	--	--	6.2	0.5	6.7
2015	21	4.2	--	--	4.2	1.0	5.2
Subtotal	**1266**	**275.3**	**--**	**4.5**	**279.8**	**62.4**	**342.2**

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	34	7.7	--	--	7.7	0.2	7.9
2012	66	16.0	--	--	16.0	0.3	16.3
2013	37	6.9	--	--	6.9	0.9	7.8
2014	26	4.7	--	--	4.7	0.4	5.1
2015	21	3.1	--	--	3.1	0.8	3.9
Subtotal	**1266**	**248.4**	**--**	**4.5**	**252.9**	**58.6**	**311.5**

This appropriation identifies the MIDS-LVT and MIDS JTRS core terminals that are planned for the F-16, B-2, AC-130, RC-135, EC130E/H, B-1, E-8C, 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**

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 FY 1996 funding ($3.0M) 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 (DLS), 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	Milestone II ADM	Milestone C 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 was 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.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost $M	Memo
Turkey	1/7/2013	314	60.9	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Oman	12/19/2012	32	6.2	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
United Arab Emirates	12/14/2012	9	1.6	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Jordan	11/30/2012	10	1.4	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Saudi Arabia	9/21/2012	213		Foreign Military Sales (FMS) total costs not releasable for Saudi Arabia.
Australia	9/20/2012	179	42.0	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Japan	9/20/2012	100	23.7	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Finland	8/9/2012	116	22.5	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
South Korea	8/9/2012	24	7.4	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Taiwan	5/2/2012	193	58.8	Total Costs are cumulative over multiple years and FMS cases, but date of sale listed is the most current buy.
Canada	4/12/2012	125	28.5	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.
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.

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.
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 849 MIDS terminals have been implemented to date with Australia (2), Belgium (2), Denmark (68), Greece (4), Iceland (3), Japan (2), Korea (129), NACMA (50), Netherlands (149), NATO EF 2000 and Tornado Management Agency (36), Norway (31), Sweden (140), Turkey (6) and United Kingdom (227). (Cost information for direct commercial sales is not available nor is date of sale).

Other foreign sales for 51 MIDS terminals at a cost of $11.9M were implemented through Calendar Year 2012 with the European Participating Air Force (EPAF) (3) and German competitive buys (48).

Nuclear Cost

None

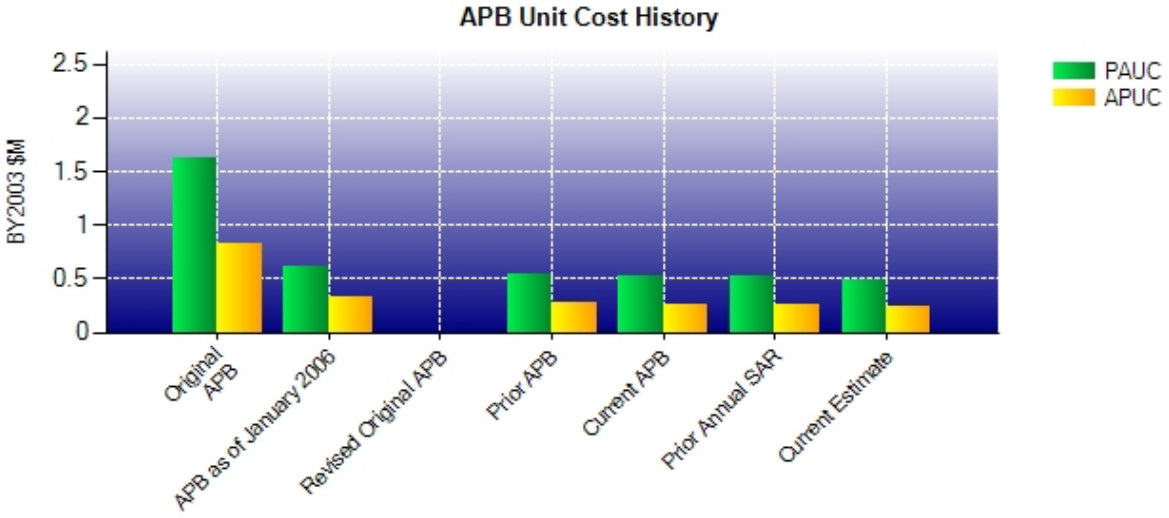
Unit Cost

Unit Cost Report

Unit Cost	BY2003 $M Current UCR Baseline (APR 2012 APB)	BY2003 $M Current Estimate (DEC 2012 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	2800.1	3031.0	
Quantity	5258	6233	
Unit Cost	0.533	0.486	-8.82
Average Procurement Unit Cost (APUC)			
Cost	1226.3	1393.5	
Quantity	4817	5745	
Unit Cost	0.255	0.243	-4.71

Unit Cost	BY2003 $M Original UCR Baseline (MAR 1994 APB)	BY2003 $M Current Estimate (DEC 2012 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	1091.4	3031.0	
Quantity	672	6233	
Unit Cost	1.624	0.486	-70.07
Average Procurement Unit Cost (APUC)			
Cost	523.7	1393.5	
Quantity	630	5745	
Unit Cost	0.831	0.243	-70.76

Unit Cost History



		BY2003 $M		TY $M	
	Date	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 2010	0.544	0.277	0.569	0.300
Current APB	APR 2012	0.533	0.255	0.573	0.280
Prior Annual SAR	DEC 2011	0.533	0.255	0.573	0.280
Current Estimate	DEC 2012	0.486	0.243	0.535	0.276

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	-0.142	-0.005	0.101	-0.052	0.000	0.013	-0.079	0.535

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	0.002	-0.005	-0.014	-0.077	0.000	0.014	-0.076	0.276

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	3336.2
Total Quantity	N/A	672	2964	6233
Prog. Acq. Unit Cost (PAUC)	N/A	1.666	0.614	0.535

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

Summary Then Year $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	825.8	993.1	--	1818.9
Previous Changes				
Economic	+9.3	+20.8	--	+30.1
Quantity	+75.7	+667.3	--	+743.0
Schedule	-0.2	-23.3	--	-23.5
Engineering	+701.6	-58.0	--	+643.6
Estimating	+49.3	-316.9	--	-267.6
Other	--	--	--	--
Support	--	+65.9	--	+65.9
Subtotal	+835.7	+355.8	--	+1191.5
Current Changes				
Economic	+5.1	+3.6	--	+8.7
Quantity	+7.2	+376.5	--	+383.7
Schedule	--	-7.7	--	-7.7
Engineering	+3.9	-20.8	--	-16.9
Estimating	+69.2	-127.0	--	-57.8
Other	--	--	--	--
Support	+3.7	+12.1	--	+15.8
Subtotal	+89.1	+236.7	--	+325.8
Total Changes	+924.8	+592.5	--	+1517.3
CE - Cost Variance	1750.6	1585.6	--	3336.2
CE - Cost & Funding	1750.6	1585.6	--	3336.2

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	+546.2	--	+616.9
Schedule	-0.2	-2.6	--	-2.8
Engineering	+589.6	-46.5	--	+543.1
Estimating	+44.3	-279.2	--	-234.9
Other	--	--	--	--
Support	--	+53.0	--	+53.0
Subtotal	+704.4	+270.9	--	+975.3
Current Changes				
Economic	--	--	--	--
Quantity	+5.9	+272.9	--	+278.8
Schedule	-0.2	-6.0	--	-6.2
Engineering	+3.2	-15.1	--	-11.9
Estimating	+51.6	-92.9	--	-41.3
Other	--	--	--	--
Support	+3.2	+8.3	--	+11.5
Subtotal	+63.7	+167.2	--	+230.9
Total Changes	+768.1	+438.1	--	+1206.2
CE - Cost Variance	1637.5	1393.5	--	3031.0
CE - Cost & Funding	1637.5	1393.5	--	3031.0

Previous Estimate: December 2011

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+5.1
Quantity variance resulting from addition of 10 MIDS-LVT terminals (Air Force). (Quantity) (QR)	+1.8	+2.2
Addition of 6 terminals erroneously left out of the previous SAR (Navy). (Quantity) (QR)	+0.9	+1.1
Quantity variance resulting from addition of 2 MIDS-LVT and 29 MIDS JTRS terminals (Navy). (Quantity) (QR)	+3.2	+3.9
Schedule variance due to funding realignment with overall Research, Development, Test and Evaluation (RDT&E) efforts (Navy). (Schedule)	-0.2	0.0
Reprogramming actions to support Four Net Concurrent Multi-Netting with Concurrent Contention Receive (CMN-4) (Navy). (Estimating)	+4.4	+5.6
Increased funding for seperate incorporation Tactical Targeting Network Technology (TTNT) into the MIDS JTRS terminal (Navy). (Estimating)	+55.5	+74.8
Increased funding for Block Cycle 2 for MIDS JTRS (Navy). (Engineering)	+3.2	+3.9
Decrease reflects budget realignment from Army to Navy (Army). (Estimating)	-1.1	-1.5
Decrease reflects budget realignment from Air Force to Navy (Air Force). (Estimating)	-3.0	-3.8
Increase reflects budget realignment from the Army and Air Force to Navy (Navy). (Estimating)	+4.3	+5.3
Realignment of funding from RDT&E to Operation and Maintenance, Navy (Navy). (Estimating)	-4.5	-6.0
Revised estimate for miscellaneous program costs (Navy). (Estimating)	-2.7	-3.6
Adjustment for current and prior escalation. (Estimating)	-1.3	-1.6
Addition of $0.7 funds for Software Support in FY 2011 erroneously left out of the previous SAR (Air Force). (Support)	+0.6	+0.7
Addition of $0.3 funds for Software Support in FY 2010 erroneously left out of the previous SAR (Navy). (Support)	+0.3	+0.3
Additional funding for Software Support (Navy). (Support)	+2.3	+2.7
RDT&E Subtotal	+63.7	+89.1

(QR) Quantity Related

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	+3.6
Quantity variance resulting from a decrease of 18 MIDS terminals from 522 to 504 (Army). (Quantity) (QR)	-3.3	-4.6
Stretch-out of procurement buy profile from FY 2012 to FY 2015 to fit the current need of ground units (Army). (Schedule) (QR)	0.0	+0.5
Stretch-out of procurement buy profile from FY 2011 to FY 2012 to fit the current need of the available aircraft platforms (Air Force). (Schedule) (QR)	0.0	+0.1
Quantity variance resulting from a decrease of 1 MIDS terminal from 1267 to 1266 (Air Force). (Quantity) (QR)	-0.2	-0.3

Total Quantity variance resulting from an increase of 13 MIDS terminals from 123 to 136 (Navy). (Subtotal)	+2.5	+3.1
Quantity variance resulting from an increase of 13 MIDS terminals from 123 to 136 (Navy). (Quantity) (QR)	(+3.8)	(+4.6)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.1)	(-0.1)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-0.2)	(-0.2)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-1.0)	(-1.2)
Total Quantity variance resulting from an increase of 6 MIDS terminals from 36 to 42 (Navy). (Subtotal)	+1.1	+1.6
Quantity variance resulting from an increase of 6 MIDS terminals from 36 to 42 (Navy). (Quantity) (QR)	(+1.7)	(+2.5)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-0.1)	(-0.1)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-0.5)	(-0.8)
Total Quantity variance resulting from an increase of 923 MIDS terminals from 1993 to 2916 (Navy). (Subtotal)	+169.3	+234.0
Quantity variance resulting from an increase of 923 MIDS terminals from 1993 to 2916 (Navy). (Quantity) (QR)	(+269.5)	(+372.6)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-5.9)	(-8.1)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-14.7)	(-20.4)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-79.6)	(-110.1)
Total Quantity variance resulting from an increase of 5 MIDS terminals from 51 to 56 (DoD). (Subtotal)	+0.9	+1.1
Quantity variance resulting from an increase of 5 MIDS terminals from 51 to 56 (DoD). (Quantity) (QR)	(+1.4)	(+1.7)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-0.1)	(-0.1)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-0.4)	(-0.5)
Acceleration of procurement buy profile in FY 2012 and FY 2015 to meet demands of Aircraft delivery (Navy). (Schedule) (QR)	0.0	-0.1
Revised estimate to Cost Model Assumptions. (Subtotal)	+1.3	+1.2
Revised estimating assumptions for Cost Model (Army 2035). (Estimating)	(-0.2)	(-0.3)
Revised estimating assumptions for Cost Model (Air Force 3010). (Estimating)	(+0.7)	(+0.8)
Revised estimating assumptions for Cost Model (Navy 1611). (Estimating)	(-0.6)	(-1.0)
Revised estimating assumptions for Cost Model (Navy 1810). (Estimating)	(-0.5)	(-0.6)
Revised estimating assumptions for Cost Model (Navy 1506). (Estimating)	(+1.9)	(+2.3)
Revised estimate due to lower average unit cost for terminals procured. (Subtotal)	-11.1	-13.9
Revised estimate due to the inclusion of average terminal cost only vice Army MIDS budget (Army 2035). (Estimating)	(-14.4)	(-19.1)
Revised estimate due to change in terminal variant being procured (Air Force 3010). (Estimating) (QR)	(+0.9)	(+1.2)
Revised estimate due to lower average unit cost for terminals procured. Average unit cost decreased due to the increased quantities in the out years (Navy 1506). (Estimating) (QR)	(+2.4)	(+4.0)
Adjustment for current and prior escalation. (Estimating)	-1.6	-1.7
Adjustment for current and prior escalation. (Support)	-0.3	-0.5
Decrease in Initial Spares due to purchase of fewer terminals (Air Force). (Support) (QR)	-5.4	-6.7
Increase in Initial Spares to support inclusion of CMN-4 and TTNT terminals (Navy). (Support) (QR)	+22.8	+31.5

Decrease in Other Support due to training efforts no longer required with purchase of fewer terminals (Army). (Support) (QR)	-9.9	-13.7
Decrease in Other Support due to training efforts no longer required with purchase of fewer terminals (Air Force). (Support) (QR)	-2.4	-3.1
Increase in Other Support training and data to support the inclusion of CMN-4 and TTNT terminals (Navy). (Support) (QR)	+3.5	+4.6
Procurement Subtotal	+167.2	+236.7

(QR) Quantity Related

Contracts

Appropriation: Procurement

Contract Name	**MIDS Production Contract**
Contractor	BAE Systems/Rockwell Collins Data Link Solutions L.L.C. (DLS)
Contractor Location	Cedar Rapids, IA 52498
Contract Number, Type	N00039-10-D-0031, IDIQ/FFP/CPFF
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	114.6	N/A	384	538.6	538.6

Cost And Schedule Variance Explanations

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

General Contract Variance Explanation

This is an Indefinite Delivery Indefinite Quantity (IDIQ) contract with both Firm Fixed Price (FFP) and Cost Plus Fixed Fee (CPFF) orders. The CPFF orders are not above the $20M threshold and thus no Earned Value Management (EVM) is reported. Once the CPFF reaches the threshold, EVM will be reported.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to delivery orders not yet awarded.

Original value of the contract when awarded was $134.8M in 2010. Since then more IDIQ orders have been awarded and options exercised increasing the value of the contract to now be $538.6M (although only $114.6M has been obligated).

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 FFP 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, IDIQ/FFP/CPFF
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	155.5	N/A	525	565.7	565.7

Cost And Schedule Variance Explanations

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

General Contract Variance Explanation

This is an Indefinite Delivery Indefinite Quantity (IDIQ) contract with both Firm Fixed Price (FFP) and Cost Plus Fixed Fee (CPFF) orders. The CPFF orders are not above the $20M threshold and thus no Earned Value Management (EVM) is reported. Once the CPFF reaches the threshold, EVM will be reported.

Contract Comments

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to delivery orders not yet awarded.

Original value of the contract when awarded was $134.8M in 2010. Since then more IDIQ orders have been awarded and options exercised increasing the value of the contract to now be $565.7M (although only $155.5M has been obligated).

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 FFP IDIQ contract. Delivery Orders are competed between two vendors, ViaSat and Data Links Solutions LLC (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	418	413	488	84.63%
Production	3761	3816	5745	66.42%
Total Program Quantities Delivered	4179	4229	6233	67.85%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	3336.2	Years Appropriated	24
Expenditures To Date	2470.5	Percent Years Appropriated	82.76%
Percent Expended	74.05%	Appropriated to Date	2697.7
Total Funding Years	29	Percent Appropriated	80.86%

The above data is current as of 3/15/2013.

Operating and Support Cost

MIDS

Assumptions and Ground Rules

Cost Estimate Reference:

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 5,745 MIDS terminals which have a 20-year operational life. The quantity of 5,745 includes US-only terminals currently fielded and on contract plus known requirements for FY 2013 through FY 2018. This period includes a phase-in, steady state, and phase-down profile for a total 33-year support period.

Sustainment Strategy:

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).

Antecedent Information:

Other pertinent cost estimates include the 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.

Unitized O&S Costs BY2003 $K		
Cost Element	**MIDS Avg Annual Cost Per Terminal**	**N/A (Antecedent) N/A**
Unit-Level Manpower	0.25	0.00
Unit Operations	0.00	0.00
Maintenance	0.44	0.00
Sustaining Support	4.12	0.00
Continuing System Improvements	5.43	0.00
Indirect Support	0.00	0.00
Other	0.00	0.00
Total	10.24	--

Unitized Cost Comments:
Base Year 2003 $

The calculation of total operating and support costs is based on total quantities of 5,745; times an economic life of 20 years; times unit cost of $10.24K per year.

	Total O&S Cost $M			
	Current Production APB Objective/Threshold		**Current Estimate**	
	MIDS		**MIDS**	**N/A (Antecedent)**
Base Year	986.6	1085.3	**1176.6** [1]	N/A
Then Year	1326.9	N/A	1573.7	N/A

[1] **APB O&S Cost Breach**

Total O&S Costs Comments:
In the President's Budget for 2014 (PB14), the MIDS program office is accounting for 928 additional terminals. Of the 928 additional terminals, six were MIDS JTRS Core terminals and 19 were Tactical Targeting Network Technology (TTNT) terminals which would not have caused a breach by themselves. 903 of the additional terminals were Four Net Concurrent Multi-Netting with Concurrent Contention Receive (CMN-4) terminals which increased the O&S dollars and caused a breach consistent with the overall procurement breach.

Disposal Costs

Disposal costs are not included in this estimate.