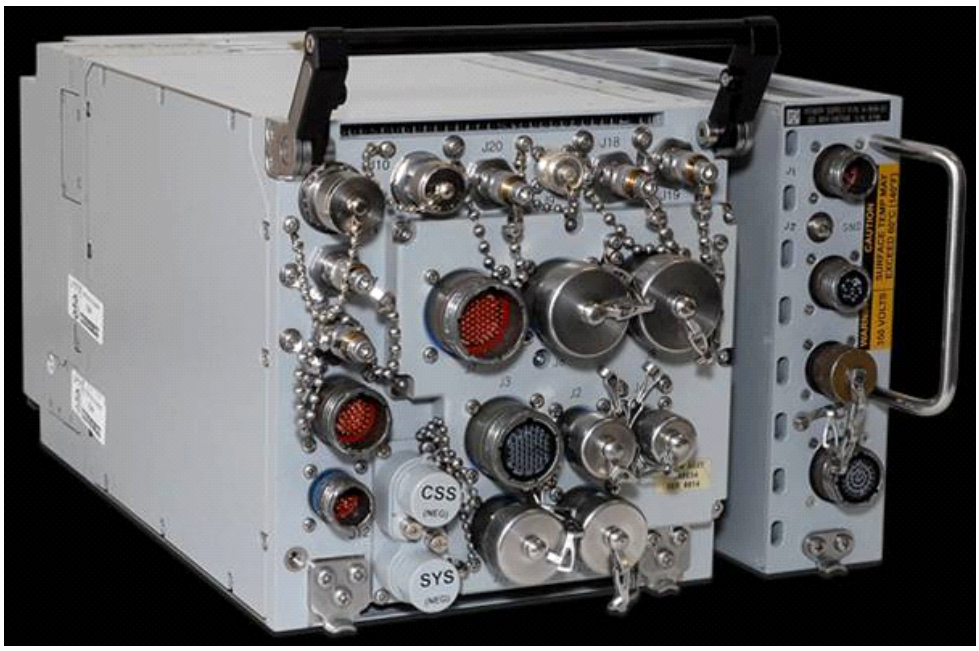
Selected Acquisition Report (SAR)

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



MIDS

As of December 31, 2010

Defense Acquisition Management
Information Retrieval
(DAMIR)

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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 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 Manager (PM) has implemented an acquisition strategy that maintains continuous competition between the two U.S. MIDS Low Volume Terminal (LVT) production contractors, Data Link Solutions (DLS) and ViaSat, Inc. The MIDS-LVT Production Lot 11 was awarded on March 10, 2010. As of December 30, 2010, there are 6,592 MIDS terminals on contract with DLS, ViaSat, and EuroMIDS of which 6,106 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.

A Defense Acquisition Board (DAB) was held December 18, 2009. 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. Delivery of the JSTARS terminals began in July 2010. The MIDS Acquisition Strategy Report (ASR) and Acquisition Program Baseline (APB) were signed by the Defense Acquisition Executive (DAE) on March 9, 2010.

MIDS JTRS achieved National Security Agency (NSA) certification to provide secure distribution of situational awareness and command and control information among airborne warfighters on March 9, 2010. This is the first fully compliant JTRS product to achieve full Type I certification by the NSA. The NSA Certification confirms that the MIDS JTRS terminal has met the highest standards in ensuring the confidentiality and integrity of the data and the availability of the system. NSA Certification is a critical milestone in support of the Initial Operational Capability (IOC) for MIDS JTRS on the F/A-18E/F Super Hornet. A successful NSA Technical Review Board (TRB) was conducted on MIDS JTRS in December 2009, which was the precursor to this NSA announcement.

MIDS JTRS ADM II was signed on March 9, 2010 and provided further guidance resulting from the December 18, 2009 DAB. The ADM directed that (i) the MIDS Program Manager submit a Reliability Growth Plan (RGP) for the MIDS JTRS terminal by March 30, 2010 for DAE approval, (ii) the Director, Defense Research and Engineering (D, DR&E) provide a final assessment of the maturity of the Link-16 waveform to the Overarching Integrated Product Team (OIPT) co-chairs within six weeks after completion of Developmental Test (DT) flight tests, and (iii) the USAF and USN develop and staff Test and Evaluation Master Plans (TEMP) to address test strategy and support integration of MIDS JTRS into host platforms. The MIDS Program Manager delivered the RGP to the OSD staff on March 29, 2010. DT flight tests were completed on April 14, 2010 and the DT/OT Transition Report was published on May 7, 2010. The DT/OT Transition Report recommended proceeding to Initial Operational Testing and Evaluation (IOT&E). On May 21, 2010, the D, DR&E completed the Technology Readiness Assessment (TRA) as directed and they have assessed that all the Critical Technology Elements (CTEs), including the maturity of the Link-16 waveform, have been demonstrated to be Technology Readiness Level (TRL) 7.

The Assessment of Operational Test Readiness (AOTR) Memo was issued by D, DR&E (DT&E) on June 28, 2010 and recommended proceeding to IOT&E. A successful Operational Test Readiness Review (OTRR) was conducted on June 29, 2010. IOT&E was conducted from July 6, 2010 until November 15, 2010. During IOT&E, 650.5 flight hours were achieved. The MIDS Program Office (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. On January 16, 2011, the MPO provided comments and feedback to COTF on the Executive SERB results. The COTF IOT&E report was released on February 25, 2011 and the Director, Operational Test and Evaluation (DOT&E) IOT&E report is expected in March 2011.

A MIDS JTRS Variant ADM was signed on January 31, 2011 authorizing the award of a second Limited Production (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.

There are no significant software issues with this program.

Threshold Breaches

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

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

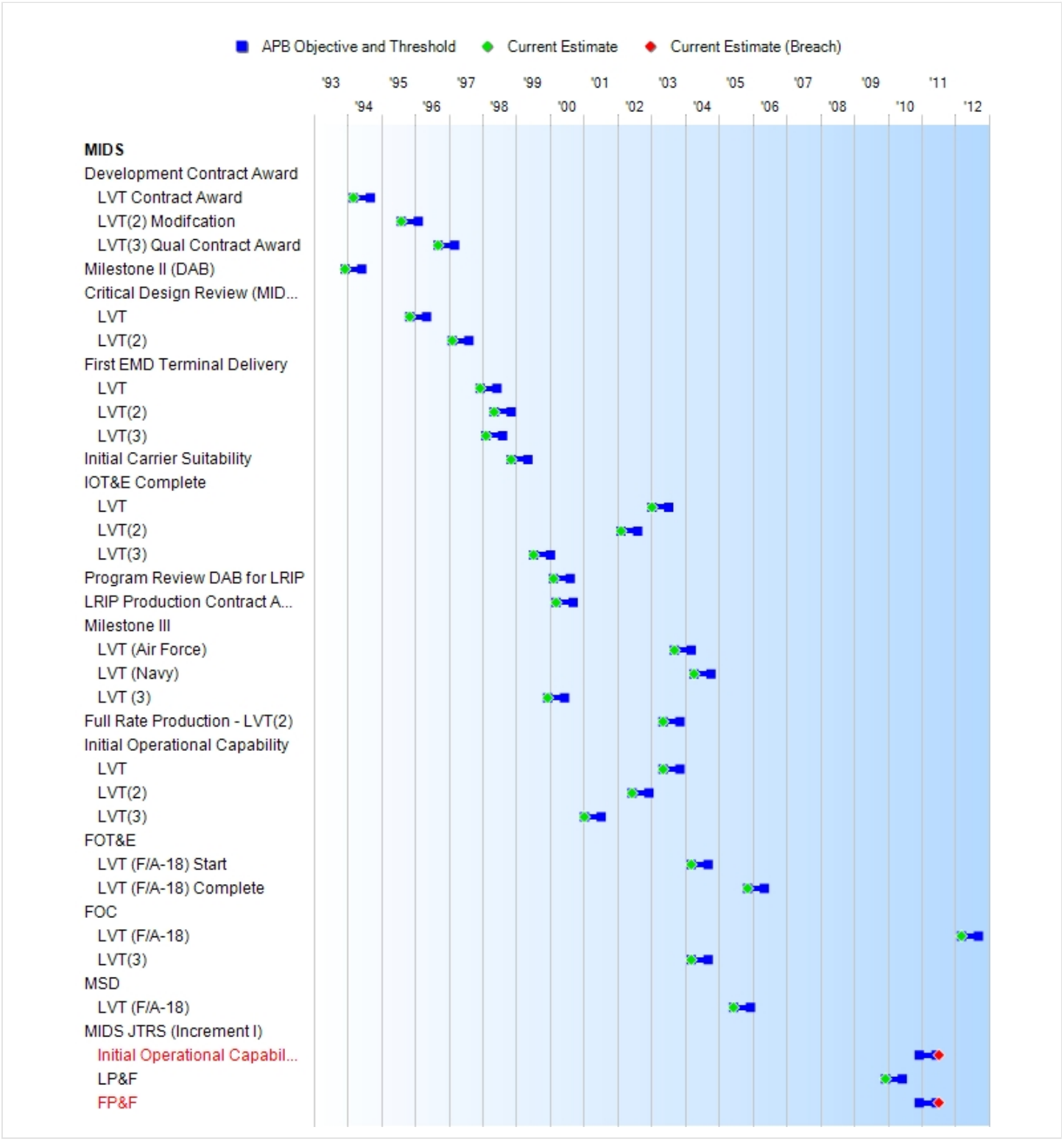
Explanation of Breach

The Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS) variant terminal experienced anomalies during Initial Operational Test and Evaluation (IOT&E). Corrective actions to the hardware and software are being implemented to address the anomalies and will be verified in a Verification of Correction of Deficiencies (VCD). In February 2011, the Program Manager briefed the Overarching Integrated Product Team (OIPT) Lead on the plan and timeline to resolve MIDS JTRS IOT&E deficiencies and conduct a successful VCD. Based upon these events, the MIDS JTRS June 2011 Acquisition Program Baseline (APB) Initial Operational Capability (IOC) and Full Production and Fielding (FP&F) thresholds will not be met.

A Program Deviation Report (PDR) was signed by the MIDS Program Manager on February 14, 2011. The Joint Program Executive Officer signed a letter of concurrence on February 15, 2011. The PDR and letter of concurrence were forwarded to the Assistant Secretary of the Army for Acquisition, Logistics and Technology on February 15, 2011.

A revised APB, including IOC and FP&F dates projected in Fourth Quarter Fiscal Year 2011, will be provided to the Defense Acquisition Board in support of the MIDS JTRS variant FP&F decision.

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
Development Contract Award
LVT Contract Award
LVT(2) Modifcation
LVT(3) Qual Contract Award
Milestone II (DAB)
Critical Design Review (MID...
LVT
LVT(2)
First EMD Terminal Delivery
LVT
LVT(2)
LVT(3)
Initial Carrier Suitability
IOT&E Complete
LVT
LVT(2)
LVT(3)
Program Review DAB for LRIP
LRIP Production Contract A...
Milestone III
LVT (Air Force)
LVT (Navy)
LVT (3)
Full Rate Production - LVT(2)
Initial Operational Capability
LVT
LVT(2)
LVT(3)
FOT&E
LVT (F/A-18) Start
LVT (F/A-18) Complete
FOC
LVT (F/A-18)
LVT(3)
MSD
LVT (F/A-18)
MIDS JTRS (Increment I)
Initial Operational Capabil...
LP&F
FP&F

Milestones	SAR Baseline Prod Est	Current APB Production Objective/Threshold		Current Estimate
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
Milestone II (DAB)	DEC 1993	DEC 1993	JUN 1994	DEC 1993
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(2)	MAY 1998	MAY 1998	NOV 1998	MAY 1998
LVT(3)	FEB 1998	FEB 1998	AUG 1998	FEB 1998
Initial Carrier Suitability	NOV 1998	NOV 1998	MAY 1999	NOV 1998
IOT&E Complete				
LVT	JAN 2003	JAN 2003	JUL 2003	JAN 2003
LVT(2)	FEB 2002	FEB 2002	AUG 2002	FEB 2002
LVT(3)	JUL 1999	JUL 1999	JAN 2000	JUL 1999
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 (Air Force)	SEP 2003	SEP 2003	MAR 2004	SEP 2003
LVT (Navy)	APR 2004	APR 2004	OCT 2004	APR 2004
LVT (3)	DEC 1999	DEC 1999	JUN 2000	DEC 1999
Full Rate Production - LVT(2)	MAY 2003	MAY 2003	NOV 2003	MAY 2003
Initial Operational Capability				
LVT	MAY 2003	MAY 2003	NOV 2003	MAY 2003
LVT(2)	JUN 2002	JUN 2002	DEC 2002	JUN 2002
LVT(3)	JAN 2001	JAN 2001	JUL 2001	JAN 2001
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 (F/A-18)	MAR 2012	MAR 2012	SEP 2012	MAR 2012
LVT(3)	MAR 2004	MAR 2004	SEP 2004	MAR 2004

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 (Increment I)					
Initial Operational Capability (IOC)	N/A	DEC 2010	JUN 2011	**JUL 2011**[1]	(Ch-1)
LP&F	N/A	DEC 2009	JUN 2010	DEC 2009	
FP&F	N/A	DEC 2010	JUN 2011	**JUL 2011**[1]	(Ch-2)

[1] *APB 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
Qual - Qualification

Change Explanations

(Ch-1) MIDS JTRS IOC slipped from June 2011 to July 2011 due to corrective actions implemented to address anomalies identified during Initial Operational Test and Evaluation (IOT&E).

(Ch-2) MIDS JTRS FP&F slipped from June 2011 to July 2011 due to corrective actions implemented to address anomalies identified during Initial Operational Test and Evaluation (IOT&E).

Memo

"MIDS JTRS (Increment I)" should read "MIDS JTRS (Core Terminal)."

Office of the 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 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	Enhance-ment not Implemented.	Enhance-ment not Implemented.
Communications Range	N/A	see notes	see notes	Enhance-ment not Implemented.	Enhance-ment not Implemented.
Information Exchange Rate (Kbps)					
LET 0	N/A	>=358	>=107	Enhance-ment not Implemented.	Enhance-ment not Implemented.
LET 1	N/A	>=546	>=358	Enhance-ment not Implemented.	Enhance-ment not Implemented.
LET 2	N/A	>=833	>=546	Enhance-ment not Implemented.	Enhance-ment not Implemented.
LET 3	N/A	>=968	>=833	Enhance-ment not Implemented.	Enhance-ment not Implemented.
LET 4	N/A	>=1100	>=968	Enhance-ment not Implemented.	Enhance-ment not Implemented.
Coded Message Error Probability (%)					
LET 0	N/A	<=1%	<=2%	Enhance-ment not Implemented.	Enhance-ment not Implemented.

LET 1	N/A	<=1%	<=2%	Enhance-ment not Implemented.	Enhance-ment not Implemented.
LET 2	N/A	<=1%	<=2%	Enhance-ment not Implemented.	Enhance-ment not Implemented.
LET 3	N/A	<=1%	<=2%	Enhance-ment not Implemented.	Enhance-ment not Implemented.
LET 4	N/A	<=1%	<=2%	Enhance-ment not Implemented.	Enhance-ment not Implemented.
Jam Resistance	N/A	MJCS-194-89	MJCS-194-89	Enhance-ment not Implemented.	Enhance-ment 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 .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	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 Developmental Test period.	11 of 11 Performance measures have been achieved in a Developmental 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

		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)	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,	achieved. System certified by NSA in March 2010.	achieved. System certified by NSA in March 2010.

		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 ORD (MIDS-LVT) approved July 25, 2004 and the MIDS JTRS CPD (MIDS JTRS) approved May 29, 2008.

Acronyms And Abbreviations

Ao - Operational Availability
APB - Acquisition Program Baseline
BIT - Built in Test
C2 - Command and Control
cu. ft. - cubic feet
db - decibel(s)
DISR - Defense Information Standards Registry
dm3 - Decimeters cubed
DP - Double Pulse
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)
IBIT - Initialization Built in Test
IER - Information Exchange Requirements
IF - Interface
JAN-TE - Joint Airborne Network-Tactical Edge
JITC - Joint Interoperability Test Command
JPCP - JTRS Platform Capability Package
JTIDS - Joint Tactical Information Distribution System
kbps - Kilobits per second
Kg - Kilograms
KIPs - Key Interface Profiles
KM - Kilometers
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
MFHBMCF - Mean Flight Hours Between Mission Critical Failures
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
MLDT - Mean Logistics Delay Time
MROC - Multiple Required Operational Capabilities
MRT - Mean Repair Time
MTBCF - Mean Time Between Critical Failures
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
NSAF - United States Air Force
OE - Operational Environment
O-Level - Organization Level
ORD - Operational Requirements Document
OTAR - Over the Air Re-keying
PAC4 - Packed-4
PCD - Percent Correct Detect
SCA - Software Communications Architecture
sec - second(s)
SMORD - Single MIDS ORD
SSS - System Segment Specification
STANAG - Standardization Agreement
TACAN - Tactical Air Navigation
TTNT - Tactical Targeting Network Technology
USA - United States Army
USN - United States Navy

VDC - Volt Direct Current
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	Navy (Shared)/JTRS	(Shared)	
	Project 3073	Navy (Shared)/MIDS SCA	(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	Army (Shared)/JTRS	(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	Air Force (Shared)/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	Short-Range Air Defense		
APPN 3010	BA 05		(Air Force)	
	ICN B00200	ABL	(Shared)	
	ICN F01500	F-15	(Shared)	
	ICN F01600	F-16	(Shared)	
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

	BY2003 $M			BY2003 $M	TY $M		
Appropriation	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	1348.2	825.8	1345.9	1372.8
Procurement	955.4	1149.5	1264.5	1182.6	993.1	1246.6	1289.4
Flyaway	814.0	--	--	1007.6	844.8	--	1099.2
Recurring	733.6	--	--	935.0	765.7	--	1027.8
Non Recurring	80.4	--	--	72.6	79.1	--	71.4
Support	141.4	--	--	175.0	148.3	--	190.2
Other Support	25.5	--	--	48.2	27.4	--	55.4
Initial Spares	115.9	--	--	126.8	120.9	--	134.8
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	2530.8	1818.9	2592.5	2662.2

Research, Development, Test & Evaluation (RDT&E) costs include Multifunctional Information DIstribution System (MIDS) MIDS Low Volume Terminal (LVT) and MIDS Joint Tactical Radio System (JTRS) development, acquisition, integration and test for MIDS JTRS. Procurement costs are for the MIDS terminals. 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.

The Acquisition Program Baseline (APB) cost estimate is at the standard Cost Assessment and Program Evaluation (CAPE) office confidence level of 50%. The program was directed by the December 2009 Acquisition Decision Memorandum (ADM) to use the Office of the Secretary of Defense (OSD) Independent Cost Estimate, which is at the 50% confidence level, for the APB.

Quantity	SAR Baseline Prod Est	Current APB Production	Current Estimate
RDT&E	143	403	422
Procurement	2821	4150	4606
Total	2964	4553	5028

The Unit of Measure is terminals.

Procurement quantities include MIDS terminals for Navy ships, F/A-18s and EA-6Bs; Air Force F-15s and F-16s; and other Navy, Air Force and Army platforms. The current estimate includes MIDS JTRS procurement quantities for the Phase 2B Core Terminals.

Cost and Funding

Funding Summary

Appropriation and Quantity Summary
FY2012 President's Budget / December 2010 SAR (TY$ M)

Appropriation	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
RDT&E	1265.3	20.7	41.7	35.5	7.2	1.8	0.6	0.0	1372.8
Procurement	1073.1	62.8	41.6	42.3	19.5	29.5	15.0	5.6	1289.4
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 2012 Total	2338.4	83.5	83.3	77.8	26.7	31.3	15.6	5.6	2662.2
PB 2011 Total	2348.3	76.5	83.0	62.3	28.5	18.4	2.3	0.0	2619.3
Delta	-9.9	7.0	0.3	15.5	-1.8	12.9	13.3	5.6	42.9

Quantity	Undistributed	Prior	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	To Complete	Total
Development	422	0	0	0	0	0	0	0	0	422
Production	0	3862	208	158	155	81	94	24	24	4606
PB 2012 Total	422	3862	208	158	155	81	94	24	24	5028
PB 2011 Total	403	3636	177	169	124	73	45	3	0	4630
Delta	19	226	31	-11	31	8	49	21	24	398

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	--	--	--	--	--	--	12.1
2002	--	--	--	--	--	--	13.1
2003	--	--	--	--	--	--	7.7
2004	--	--	--	--	--	--	7.0
2005	--	--	--	--	--	--	9.6
2006	--	--	--	--	--	--	1.0
2007	--	--	--	--	--	--	2.0
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	0.8
Subtotal	**68**	**--**	**--**	**--**	**--**	**--**	**372.3**

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	--	--	--	--	--	--	12.2
2002	--	--	--	--	--	--	13.1
2003	--	--	--	--	--	--	7.6
2004	--	--	--	--	--	--	6.7
2005	--	--	--	--	--	--	9.0
2006	--	--	--	--	--	--	0.9
2007	--	--	--	--	--	--	1.8
2008	--	--	--	--	--	--	--
2009	--	--	--	--	--	--	0.7
Subtotal	**68**	**--**	**--**	**--**	**--**	**--**	**397.3**

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	--	--	--	--	--	--	27.7
2006	--	--	--	--	--	--	98.3
2007	--	--	--	--	--	--	162.5
2008	--	--	--	--	--	--	77.2
2009	--	--	--	--	--	--	26.6
2010	--	--	--	--	--	--	14.8
2011	--	--	--	--	--	--	20.7
2012	--	--	--	--	--	--	41.7
2013	--	--	--	--	--	--	11.1
2014	--	--	--	--	--	--	3.0
2015	--	--	--	--	--	--	0.7
2016	--	--	--	--	--	--	0.6
Subtotal	**104**	**--**	**--**	**--**	**--**	**--**	**866.1**

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	--	--	--	--	--	--	25.9
2006	--	--	--	--	--	--	89.3
2007	--	--	--	--	--	--	144.0
2008	--	--	--	--	--	--	67.2
2009	--	--	--	--	--	--	22.9
2010	--	--	--	--	--	--	12.6
2011	--	--	--	--	--	--	17.4
2012	--	--	--	--	--	--	34.4
2013	--	--	--	--	--	--	9.0
2014	--	--	--	--	--	--	2.4
2015	--	--	--	--	--	--	0.5
2016	--	--	--	--	--	--	0.5
Subtotal	**104**	**--**	**--**	**--**	**--**	**--**	**825.7**

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	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	8.0
2014	--	--	--	--	--	--	1.2
2015	--	--	--	--	--	--	0.3
Subtotal	**73**	**--**	**--**	**--**	**--**	**--**	**35.6**

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	--	--	--	--	--	--	1.7
2009	--	--	--	--	--	--	2.8
2010	--	--	--	--	--	--	--
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	6.5
2014	--	--	--	--	--	--	1.0
2015	--	--	--	--	--	--	0.2
Subtotal	**73**	**--**	**--**	**--**	**--**	**--**	**32.8**

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

Fiscal Year	Quantity	End Item Recurring Flyaway TY $M	Non End Item Recurring Flyaway TY $M	Non Recurring Flyaway TY $M	Total Flyaway TY $M	Total Support TY $M	Total Program TY $M
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	--	--	--	--	--	--	2.1
2008	--	--	--	--	--	--	1.4
2009	--	--	--	--	--	--	5.7
2010	--	--	--	--	--	--	1.5
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	16.4
2014	--	--	--	--	--	--	3.0
2015	--	--	--	--	--	--	0.8
Subtotal	**177**	**--**	**--**	**--**	**--**	**--**	**98.8**

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	--	--	--	--	--	--	1.9
2008	--	--	--	--	--	--	1.2
2009	--	--	--	--	--	--	4.9
2010	--	--	--	--	--	--	1.3
2011	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--
2013	--	--	--	--	--	--	13.4
2014	--	--	--	--	--	--	2.4
2015	--	--	--	--	--	--	0.6
Subtotal	**177**	**--**	**--**	**--**	**--**	**--**	**92.4**

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	0.7	8.0
2000	--	--	--	--	--	--	--
2001	19	4.8	--	--	4.8	1.0	5.8
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**	**0.1**	**4.5**	**17.1**	**2.1**	**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	0.7	8.3
2000	--	--	--	--	--	--	--
2001	19	4.8	--	--	4.8	1.0	5.8
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**	**0.1**	**4.7**	**17.0**	**2.1**	**19.1**

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	2.4	26.5
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	35.0	3.0	--	38.0	5.2	43.2
2008	202	39.4	2.9	--	42.3	10.3	52.6
2009	115	26.0	2.9	--	28.9	1.4	30.3
2010	133	28.9	0.2	--	29.1	3.8	32.9
2011	159	39.0	0.2	--	39.2	5.8	45.0
2012	94	19.5	0.2	--	19.7	1.6	21.3
2013	102	23.4	0.2	--	23.6	2.1	25.7
2014	61	11.4	--	--	11.4	1.3	12.7
2015	54	10.0	--	--	10.0	1.3	11.3
2016	--	--	--	--	--	1.3	1.3
Subtotal	**1883**	**404.9**	**29.5**	**36.3**	**470.7**	**90.1**	**560.8**

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	2.4	26.6
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	30.6	2.6	--	33.2	4.6	37.8
2008	202	34.0	2.5	--	36.5	8.9	45.4
2009	115	22.2	2.4	--	24.6	1.2	25.8
2010	133	24.3	0.2	--	24.5	3.2	27.7
2011	159	32.3	0.2	--	32.5	4.8	37.3
2012	94	15.9	0.2	--	16.1	1.3	17.4
2013	102	18.8	0.2	--	19.0	1.6	20.6
2014	61	9.0	--	--	9.0	1.0	10.0
2015	54	7.8	--	--	7.8	1.0	8.8
2016	--	--	--	--	--	1.0	1.0
Subtotal	**1883**	**359.8**	**27.5**	**36.9**	**424.2**	**82.5**	**506.7**

This appropriation identifies the MIDS-LVT and MIDS JTRS core terminals that are planned for the F/A-18 C/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	2.0	--	--	2.0	--	2.0
2004	5	0.9	--	--	0.9	--	0.9
2005	3	0.6	--	--	0.6	--	0.6
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	1	0.2	--	--	0.2	--	0.2
Subtotal	**25**	**6.5**	**--**	**--**	**6.5**	**--**	**6.5**

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	1.8	--	--	1.8	--	1.8
2004	5	0.8	--	--	0.8	--	0.8
2005	3	0.5	--	--	0.5	--	0.5
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	1	0.1	--	--	0.1	--	0.1
Subtotal	**25**	**5.7**	**--**	**--**	**5.7**	**--**	**5.7**

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	0.6	--	--	0.6	--	0.6
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	3.0	--	--	3.0	0.6	3.6
2008	26	6.6	--	--	6.6	--	6.6
2009	6	1.2	--	--	1.2	--	1.2
2010	8	1.8	--	--	1.8	--	1.8
Subtotal	**84**	**19.7**	**--**	**0.1**	**19.8**	**0.7**	**20.5**

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	0.6	--	--	0.6	--	0.6
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	2.6	--	--	2.6	0.6	3.2
2008	26	5.7	--	--	5.7	--	5.7
2009	6	1.0	--	--	1.0	--	1.0
2010	8	1.5	--	--	1.5	--	1.5
Subtotal	**84**	**17.6**	**--**	**0.1**	**17.7**	**0.7**	**18.4**

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	9.5	--	--	9.5	1.2	10.7
2008	144	33.5	--	--	33.5	--	33.5
2009	29	8.6	--	--	8.6	2.2	10.8
2010	30	7.0	--	--	7.0	1.6	8.6
2011	12	3.7	--	--	3.7	2.1	5.8
2012	25	7.5	--	--	7.5	0.8	8.3
2013	23	6.9	--	--	6.9	0.8	7.7
2014	--	--	--	--	--	1.4	1.4
2015	22	12.5	--	--	12.5	0.9	13.4
2016	24	13.7	--	--	13.7	--	13.7
2017	24	5.6	--	--	5.6	--	5.6
Subtotal	**512**	**143.1**	**--**	**--**	**143.1**	**13.1**	**156.2**

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	8.4	--	--	8.4	1.0	9.4
2008	144	29.0	--	--	29.0	--	29.0
2009	29	7.4	--	--	7.4	1.8	9.2
2010	30	5.9	--	--	5.9	1.4	7.3
2011	12	3.1	--	--	3.1	1.7	4.8
2012	25	6.1	--	--	6.1	0.7	6.8
2013	23	5.6	--	--	5.6	0.6	6.2
2014	--	--	--	--	--	1.1	1.1
2015	22	9.7	--	--	9.7	0.7	10.4
2016	24	10.5	--	--	10.5	--	10.5
2017	24	4.2	--	--	4.2	--	4.2
Subtotal	**512**	**121.6**	**--**	**--**	**121.6**	**11.0**	**132.6**

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	24.4	--	--	24.4	13.8	38.2
2005	164	35.5	--	0.1	35.6	4.4	40.0
2006	129	25.2	--	--	25.2	1.7	26.9
2007	152	31.1	--	--	31.1	3.4	34.5
2008	52	16.3	--	--	16.3	4.4	20.7
2009	15	4.7	--	--	4.7	2.4	7.1
2010	51	12.7	--	--	12.7	2.4	15.1
2011	37	9.5	--	--	9.5	2.5	12.0
2012	39	8.4	--	--	8.4	3.6	12.0
2013	30	6.2	--	--	6.2	2.7	8.9
2014	20	4.4	--	--	4.4	1.0	5.4
2015	18	3.7	--	--	3.7	1.1	4.8
Subtotal	**1226**	**259.9**	**--**	**4.5**	**264.4**	**71.0**	**335.4**

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	23.2	--	--	23.2	13.1	36.3
2005	164	32.8	--	0.1	32.9	4.0	36.9
2006	129	22.7	--	--	22.7	1.5	24.2
2007	152	27.2	--	--	27.2	3.0	30.2
2008	52	14.1	--	--	14.1	3.8	17.9
2009	15	4.0	--	--	4.0	2.0	6.0
2010	51	10.6	--	--	10.6	2.1	12.7
2011	37	7.8	--	--	7.8	2.1	9.9
2012	39	6.8	--	--	6.8	2.9	9.7
2013	30	5.0	--	--	5.0	2.1	7.1
2014	20	3.5	--	--	3.5	0.7	4.2
2015	18	2.9	--	--	2.9	0.8	3.7
Subtotal	**1226**	**237.2**	**--**	**4.5**	**241.7**	**65.4**	**307.1**

This appropriation identifies the MIDS-LVT and MIDS JTRS core terminals that are planned for the F-16, B-2, AC-130, JSTARS, the Airborne Laser and U.S. 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 ($3.2M) identified above, reports the Air Force funds contributed to the qualification and build of six FDL terminals.

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 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, which was 25 percent of the then planned procurement of 2,145 terminals.

Foreign Military Sales

Country	Date of Sale	Quantity	Total Cost $M	Memo
Australia		171	40.5	Total Costs are cumulative over multiple years and FMS cases.
Austria		24		Foreign Military Sales (FMS) total costs not releasable for Austria.
Belgium		82	17.7	Total Costs are cumulative over multiple years and FMS cases.
Canada		106	25.7	Total Costs are cumulative over multiple years and FMS cases.
Denmark		3	0.9	Total Costs are cumulative over multiple years and FMS cases.
Finland		90	17.6	Total Costs are cumulative over multiple years and FMS cases.
Germany		10	6.4	Total Costs are cumulative over multiple years and FMS cases.
Greece		40	6.9	Total Costs are cumulative over multiple years and FMS cases.
Hungary		22	4.1	Total Costs are cumulative over multiple years and FMS cases.
Japan		66	17.1	Total Costs are cumulative over multiple years and FMS cases.
Morocco		30	4.8	Total Costs are cumulative over multiple years and FMS cases.
Netherlands		5	4.2	Total Costs are cumulative over multiple years and FMS cases.
New Zealand		3	0.7	Total Costs are cumulative over multiple years and FMS cases.
Norway		77	22.9	Total Costs are cumulative over multiple years and FMS cases.
Pakistan		68	16.2	Total Costs are cumulative over multiple years and FMS cases.
Poland		71	15.1	Total Costs are cumulative over multiple years and FMS cases.
Portugal		44	8.1	Total Costs are cumulative over multiple years and FMS cases.
Saudi Arabia		165		Foreign Military Sales (FMS) total costs not releasable for Saudi Arabia.
Singapore		46		Foreign Military Sales (FMS) total costs not releasable for Singapore.
South Korea		19	6.5	Total Costs are cumulative over multiple years and FMS cases.
Sweden		28	4.9	Total Costs are cumulative over multiple years and FMS cases.
Switzerland		55	11.9	Total Costs are cumulative over multiple years and FMS cases.
Taiwan		135	49.0	Total Costs are cumulative over multiple years and FMS cases.

Turkey	267	51.2	Total Costs are cumulative over multiple years and FMS cases.
United Arab Emirates	6	1.1	Total Costs are cumulative over multiple years and FMS cases.

Direct Commercial Sales totaling 575 MIDS terminals have been implemented to date with Australia (2), Belgium (1), Denmark (77), Greece (4), Iceland (3), Japan (2), Korea (49), NACMA (5), Netherlands (147), NATO EF 2000 and Tornado Management Agency (36), Norway (31), Sweden (15), Turkey (6) and United Kingdom (197). (Cost information for direct commercial sales is not available).

Other foreign sales for 36 MIDS terminals at a cost of $8.7M were implemented through Calendar Year 2010 with the European Participating Air Force (EPAF) (3) and German competitive buys (33).

Nuclear Cost

None

Unit Cost

Unit Cost Report

Unit Cost	BY2003 $M Current UCR Baseline (MAR 2010 APB)	BY2003 $M Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	2475.5	2530.8	
Quantity	4553	5028	
Unit Cost	0.544	0.503	-7.54
Average Procurement Unit Cost (APUC)			
Cost	1149.5	1182.6	
Quantity	4150	4606	
Unit Cost	0.277	0.257	-7.22

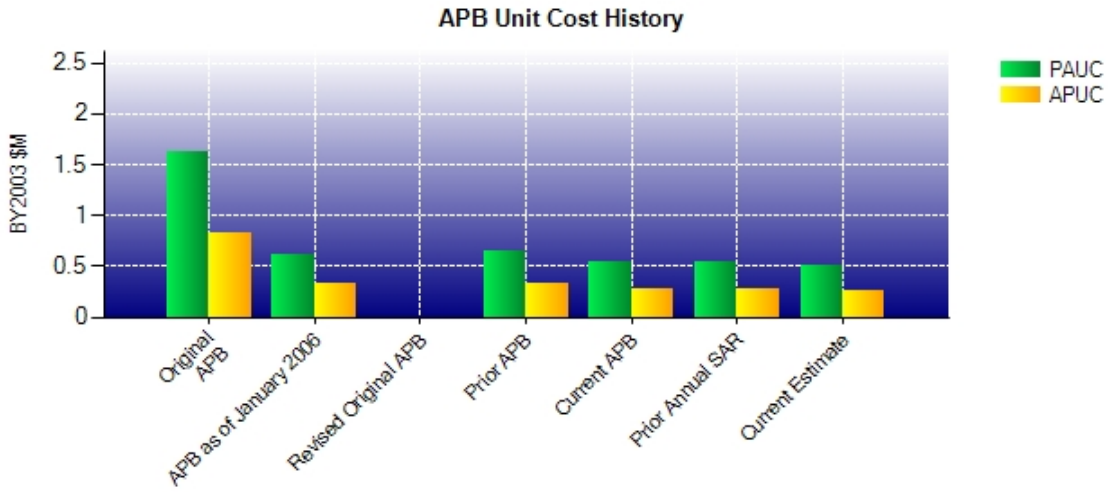
Unit Cost	BY2003 $M Original UCR Baseline (MAR 1994 APB)	BY2003 $M Current Estimate (DEC 2010 SAR)	BY % Change
Program Acquisition Unit Cost (PAUC)			
Cost	1091.4	2530.8	
Quantity	672	5028	
Unit Cost	1.624	0.503	-69.03
Average Procurement Unit Cost (APUC)			
Cost	523.7	1182.6	
Quantity	630	4606	
Unit Cost	0.831	0.257	-69.07

	MIDS-LVT Objective/Threshold	MIDS JTRS Objective/Threshold	MIDS Total Objective/Threshold
Then-Year $M			
RDT&E *	891.8 N/A	453.7 N/A	1345.5 N/A
Procurement	1103.0 N/A	143.0 N/A	1246.0 N/A
MILCON	0.0 N/A	0.0 N/A	0.0 N/A
Acq O&M	0.0 N/A	0.0 N/A	0.0 N/A
Total Acquisition Cost	1994.8 N/A	596.7 N/A	2591.5 N/A
O&S	859.9 N/A	475.1 N/A	1335.0 N/A
Total Life Cycle Cost	2854.7 N/A	1071.8 N/A	3926.5 N/A
Prog Acq Unit Cost ($M)	0.474 N/A	1.715 N/A	0.569 N/A
Avg Proc Unit Cost ($M)	0.287 N/A	0.466 N/A	0.300 N/A

Base-Year $M (BY 2003)						
RDT&E*	919.8	1011.8	405.6	446.2	1325.4	1457.9
Procurement	1028.9	1131.8	120.0	132.0	1148.9	1263.8
MILCON	0.0	N/A	0.0	N/A	0.0	N/A
Acq O&M	0.0	N/A	0.0	N/A	0.0	N/A
Total Acquisition Cost	1948.7	2143.6	525.6	578.2	2474.3	2721.7
O&S	655.6	721.2	320.1	352.1	975.7	1073.3
Total Life Cycle Cost	2604.3	2864.7	845.7	930.3	3450.0	3795.0
Prog Acq Unit Cost ($M)	0.463	0.510	1.510	1.661	0.543	0.598
Avg Proc Unit Cost ($M)	0.268	0.295	0.391	0.430	0.277	0.305
Quantity						
RDT&E	362	N/A	41	N/A	403	N/A
Procurement **	3843	N/A	307	N/A	4150	

* RTD&E does not include European Funding ($40M [TY] / $33.2M [BY03])

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 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 2009	0.539	0.277	0.566	0.301
Current Estimate	DEC 2010	0.503	0.257	0.529	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	0.005	-0.121	-0.004	0.072	-0.045	0.000	0.008	-0.085	0.529

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	-0.009	-0.004	-0.012	-0.060	0.000	0.009	-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	2662.2
Total Quantity	N/A	672	2964	5028
Prog. Acq. Unit Cost (PAUC)	N/A	1.666	0.614	0.529

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	+8.0	+17.2	--	+25.2
Quantity	+74.2	+456.0	--	+530.2
Schedule	-0.2	-11.9	--	-12.1
Engineering	+393.9	-46.6	--	+347.3
Estimating	+44.2	-190.9	--	-146.7
Other	--	--	--	--
Support	--	+56.5	--	+56.5
Subtotal	+520.1	+280.3	--	+800.4
Current Changes				
Economic	-0.3	-0.3	--	-0.6
Quantity	+1.5	+132.3	--	+133.8
Schedule	--	-7.9	--	-7.9
Engineering	+21.7	-7.4	--	+14.3
Estimating	+4.0	-84.6	--	-80.6
Other	--	--	--	--
Support	--	-16.1	--	-16.1
Subtotal	+26.9	+16.0	--	+42.9
Total Changes	+547.0	+296.3	--	+843.3
CE - Cost Variance	1372.8	1289.4	--	2662.2
CE - Cost & Funding	1372.8	1289.4	--	2662.2

Summary Base Year 2003 $M				
	RDT&E	Proc	MILCON	Total
SAR Baseline (Prod Est)	869.4	955.4	--	1824.8
Previous Changes				
Economic	--	--	--	--
Quantity	+69.4	+376.3	--	+445.7
Schedule	-0.2	--	--	-0.2
Engineering	+347.2	-37.3	--	+309.9
Estimating	+40.0	-169.9	--	-129.9
Other	--	--	--	--
Support	--	+46.7	--	+46.7
Subtotal	+456.4	+215.8	--	+672.2
Current Changes				
Economic	--	--	--	--
Quantity	+1.3	+108.8	--	+110.1
Schedule	--	-1.5	--	-1.5
Engineering	+17.9	-6.1	--	+11.8
Estimating	+3.2	-76.7	--	-73.5
Other	--	--	--	--
Support	--	-13.1	--	-13.1
Subtotal	+22.4	+11.4	--	+33.8
Total Changes	+478.8	+227.2	--	+706.0
CE - Cost Variance	1348.2	1182.6	--	2530.8
CE - Cost & Funding	1348.2	1182.6	--	2530.8

Previous Estimate: December 2009

RDT&E	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-0.3
Increase due to increased quantity of terminals procured at a higher average unit cost than baseline terminal configuration. (Quantity)	+1.3	+1.5
Adjustment for current and prior escalation. (Estimating)	+0.1	+0.1
Increased funding for Enhanced Throughput (Enhanced Link 16) (Navy). (Engineering)	+12.0	+14.5
Increased funding for Enhanced Throughput (Enhanced Link 16) (Army). (Engineering)	+3.1	+3.8
Increased funding for Enhanced Throughput (Enhanced Link 16) (Air Force). (Engineering)	+2.8	+3.4
Increase due to estimating change for miscellaneous program support costs. (Estimating)	+2.0	+2.3
Adjustment for current and prior escalation (DoD). (Estimating)	+0.2	+0.2
Adjustment for current and prior escalation (Army). (Estimating)	-0.1	-0.1
Adjustment for current and prior escalation (Air Force). (Estimating)	-0.2	-0.2
Increase due to estimating change/allocation for misc. engineering costs. (Estimating)	+0.8	+0.9
Decrease reflects annual budget realignment from Army RDT&E to Navy RDT&E. (Estimating)	-14.9	-18.0
Decrease reflects annual budget realignment from Air Force RDT&E to Navy RDT&E. (Estimating)	-4.3	-5.2
Increase reflects annual budget realignment from Air Force and Army RDT&E to Navy RDT&E. (Estimating)	+19.1	+23.4
Adjustment for current and prior escalation (Navy). (Estimating)	+0.5	+0.6
RDT&E Subtotal	+22.4	+26.9

Procurement	$M	
Current Change Explanations	**Base Year**	**Then Year**
Revised escalation indices. (Economic)	N/A	-0.3
Total variance resulting from an increase of 7 terminals from 44 to 51 (DoD). (Subtotal)	+1.4	+1.7
Quantity variance resulting from an increase of 7 terminals from 44 to 51 (DoD). (Quantity)	(+2.0)	(+2.4)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-0.1)	(-0.1)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-0.5)	(-0.6)
Total variance resulting from an increase of 81 terminals from 1,802 to 1,883 for airborne platforms (Navy). (Subtotal)	+15.8	+20.2
Quantity variance resulting from an increase of 81 terminals from 1,802 to 1,883 for airborne platforms (Navy). (Quantity)	(+23.4)	(+30.0)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.3)	(-0.4)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-1.5)	(-1.9)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-5.8)	(-7.5)
Total variance resulting from a decrease of 7 terminals from 32 to 25 for MIDS-LVT on new construction ships (Navy). (Quantity)	-1.4	-1.9
Total variance resulting from an increase in terminals for Amphibious Assault ships (Navy). (Subtotal)	+1.6	+1.9
Quantity variance resulting from an increase in terminal quantites for Amphibious Assault ships (Navy). (Quantity)	(+2.3)	(+2.7)

Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-0.1)	(-0.1)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-0.6)	(-0.7)
Total variance resulting from an increase in terminal quantities for Air Force platforms. (Subtotal)	+10.4	+13.6
Quantity variance resulting from an increase in terminal quantities for Air Force platforms. (Quantity)	(+15.4)	(+20.2)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.2)	(-0.2)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-0.9)	(-1.1)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-3.9)	(-5.3)
Total variance resulting from an increase of 169 terminals from 1,057 to 1,226 (Air Force). (Subtotal)	+33.3	+41.2
Quantity variance resulting from an increase of 169 terminals from 1,057 to 1,226 (Air Force). (Quantity)	(+48.7)	(+60.2)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.8)	(-0.8)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-2.9)	(-3.6)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-11.7)	(-14.6)
Total variance resulting from an increase of 53 terminals from 459 to 512 (Army). (Subtotal)	+15.0	+15.3
Quantity variance resulting from an increase of 53 terminals from 459 to 512 (Army). (Quantity)	(+18.4)	(+18.7)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(-0.2)	(-0.2)
Allocation to Engineering resulting from Quantity change. (Engineering) (QR)	(-0.6)	(-0.6)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-2.6)	(-2.6)
Acceleration of the Procurement buy profile (Air Force). (Schedule)	0.0	-0.9
Acceleration of the Procurement buy profile (Air Force). (Schedule)	0.0	-0.1
Acceleration of procurement buy profile (Navy). (Schedule)	0.0	-5.0
Acceleration of procurement buy profile (Army). (Schedule)	0.0	-0.3
Acceleration of procurement buy profile (Air Force). (Estimating)	-0.2	-0.2
Adjustment for current and prior escalation (Navy). (Estimating)	+0.3	+0.6
Adjustment for current and prior escalation (Navy). (Estimating)	-0.1	-0.1
Changes in estimating assumptions for cost model (Navy). (Estimating)	-21.6	-25.7
Adjustment for current and prior escalation (Navy). (Estimating)	-1.3	-1.4
Adjustment for current and prior escalation (Air Force). (Estimating)	-1.1	-1.2
Changes in estimating assumptions for cost model (Air Force). (Estimating)	-25.9	-27.3
Adjustment for current and prior escalation (Air Force). (Estimating)	-1.1	-1.1
Changes in estimating assumptions for cost model (Air Force). (Estimating)	-14.8	-14.8
Correction to December 2009 SAR to eliminate double counting of the FY 2009 1810 terminals. (Estimating)	-1.0	-1.2
Changes in estimating assumptions for cost model (Army). (Estimating)	+18.0	+22.8
Adjustment for current and prior escalation (Army). (Estimating)	-2.9	-3.6
Adjustment for current and prior escalation. (Estimating)	+0.1	-0.1
Adjustment for current and prior escalation. (Support)	0.0	+0.2
Increase in Other Support due to quantity change (Navy). (Support) (QR)	+0.7	+1.1
Decrease in Initial Spares due to quantity change (Navy). (Support) (QR)	-17.7	-22.1
Increase in Other Support (Army). (Subtotal)	+0.6	+0.7
Increase in Other Support requirements due to quantity change (Army) (Support) (QR)	(+3.2)	(+4.0)
Decrease in initial spares due to quantity change (Support) (QR)	(-2.6)	(-3.3)
Total increase in Other Support (Air Force) (Subtotal)	+3.3	+4.0

Increase in Other Support requirements due to acceleration of procurement profile (Air Force) (Support)	(+0.6)	(+0.9)
Increase in Initial Spares (Air Force) due to acceleration of procurement profile. (Support)	(+2.6)	(+3.0)
Increase in support for Initial Spares (Air Force) due to increased quantities (Support)	(+0.1)	(+0.1)
Procurement Subtotal	+11.4	+16.0

(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	22.7	N/A	109	134.8	134.8

Cost And Schedule Variance Explanations

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

Contract Comments

This is the first time this contract is being reported.

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	25.6	N/A	141	134.8	134.8

Cost And Schedule Variance Explanations

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

Contract Comments

This is the first time this contract is being reported.

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	388	388	422	91.94%
Production	3252	3467	4606	75.27%
Total Program Quantities Delivered	3640	3855	5028	76.67%

Expenditures and Appropriations (TY $M)			
Total Acquisition Cost	2662.2	Years Appropriated	22
Expenditures To Date	2241.9	Percent Years Appropriated	78.57%
Percent Expended	84.21%	Appropriated to Date	2421.9
Total Funding Years	28	Percent Appropriated	90.97%

Operating and Support Cost

Assumptions And Ground Rules

The Operating & Support (O&S) Cost portion of the current program office estimate depicts 4,606 MIDS terminals which have a 20-year operational life. The quantity of 4,606 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 4,606 times an economic life of 20 years times unit cost of $10.9K per year.

Costs BY2003 $K		
Cost Element	**MIDS Avg Annual Cost Per Terminal**	**Antecedent System**
Unit-Level Manpower	0.3	--
Unit Operations	0.0	--
Maintenance	0.4	--
Sustaining Support	4.9	--
Continuing System Improvements	5.3	--
Indirect Support	0.0	--
Other	0.0	--
Total Unitized Cost (Base Year 2003 $)	10.9	--

Total O&S Costs $M	MIDS	Antecedent System
Base Year	1004.1	--
Then Year	1385.5	--