Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*				R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	410.015	263.439	188.482	-	188.482	53.734	19.521	18.098	14.300	Continuing	Continuing
0728: *EHF SATCOM Terminals*	18.026	18.805	31.731	-	31.731	16.819	19.521	18.098	14.300	Continuing	Continuing
0731: *FLTSATCOM*	0.607	0.721	10.828	-	10.828	11.215	-	-	-	0.000	23.371
2472: *Mobile User Objective Sys (MUOS)*	391.382	243.913	145.923	-	145.923	25.700	-	-	-	130.912	937.830

A. Mission Description and Budget Item Justification

The Navy Multiband Terminal (NMT) Program is the required Navy component to the Advanced Extremely High Frequency (AEHF) Program for enhancing protected and survivable satellite communications to Naval forces. The NMT system provides an increase in single service capability from 1.5 Megabits per second (Mbps) to 8 Mbps, increases the number of coverage areas and retains Anti-Jam/Low Probability of Intercept (AJ/LPI) protection characteristics. It is compatible with today's Navy Low Data Rate/Medium Data Rate (LDR/MDR) terminals and will sustain the Military Satellite Communications (MILSATCOM) architecture by providing connectivity across the spectrum of mission areas, to include land, air and naval warfare, special operations, strategic nuclear operations, strategic defense, theater missile defense, and space operations and intelligence. The NMT system will replenish and improve on Navy terminal capabilities of the Military Strategic, Tactical & Relay System (MILSTAR), Defense Satellite Communications System (DSCS), Wideband Global Satellite (WGS) and Global Broadcast System (GBS). The new system will equip the warfighters with the assured, jam resistant, secure communications as described in the joint AEHF Satellite Communications System and WGS Operational Requirements Documents (ORD). The NMT will provide multiband Satellite Communications (SATCOM) capability for ship, submarine, and shore platforms.

The Joint Ultra-High Frequency (UHF) MILSATCOM Network Integrated Control System (JMINI CS) is a legacy system that commenced in 1998. JMINI CS is a Navy-led, Joint-interest program providing integrated, dynamic, and centralized control of non-processed UHF MILSATCOM 5/25 kHz Demand Assigned Multiple Access (DAMA) and Demand Assign Single Access (DASA) channels to maximize existing highly sought after SATCOM resources. The system also provides decentralized web-based management of those resources for use as a situational awareness tool for Combatant Commanders, Global SATCOM Support Centers, and Regional SATCOM Support Centers. The system is expected to operate well beyond the original 2015 End of Life (EoL) date to 2025. The JMINI Program of Record (POR) will perform concept development and exploration to identify cost-effective solutions to address multiple life cycle support issues, in order to minimize loss of service to the fleet. The effort will involve evaluation, development, laboratory and integration testing of COTS and GOTS hardware and software to replace obsolete components or subsystems for effectiveness with existing systems.

The Sensitive Compartmented Information Networks (SCI Networks) provides enabling technology for Intelligence, Cryptologic, and Information Warfare Systems with protected and reliable delivery of Special Intelligence (SI)/SCI data through a secure, controllable network interface with the Automated Digital Network System (ADNS) architecture. This network connectivity allows cryptologic and intelligence personnel to fully interact with shore based nodes to provide support to their commanders, including situational awareness, indications and warning (I&W), enemy force intentions, intelligence preparation for the Battlefield, and Battle Damage Assessment (BDA).

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*

Maritime Integrated Broadcast Service (MIBS) (formerly Tactical Data Information Exchange Subsystem Broadcast (TADIXS-B)) Program Charter is to deliver Integrated Broadcast Service (IBS) data to operational and tactical decision makers aboard United States Navy ships, shore headquarters, and other joint platforms. It will provide means to disseminate organically derived data from Navy platforms to other tactical, operational, and strategic users in theatre. MIBS provides the Navy a capability to deliver near real time data, enhancing the Common Operational Picture (COP), to support operations in all warfare areas, including: Ballistic Missile Defense (BMD), Anti-Air Warfare (AAW), Anti-Surface Warfare (ASW), Undersea Warfare (USW), Electronic Warfare (EW). The program encompasses Navy IBS systems (Joint Tactical Terminal - Maritime (JTT-M)). These systems will provide the Navy and other joint platforms with a coherent approach to fielding maritime IBS systems that takes advantage of all available pathways and services.

Internet Protocol version 6 (IPv6): Manage and resource/coordinate resourcing of experiments and pilot testing of IPv6 technologies to reduce acquisition and operational risk associated with the IPv6 Transition. Experiments identified are in direct support of and identified in the Navy Technical Transition Strategy for IPv6.

The Mobile User Objective System (MUOS) program provides for the development of the next generation Department of Defense (DoD) advanced narrowband communications satellite constellation. The current Ultra-High Frequency (UHF) Follow-On (UFO) constellation is projected to degrade below acceptable availability parameters in 2012.

This MUOS Research Development Test & Evaluation, Navy (RDT&E,N) effort supports an On-Orbit Capability (OOC) in fiscal year (FY) 2012 and Full Operational Capability (FOC) in FY 2017.

B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	422.268	263.712	143.689	-	143.689
Current President's Budget	410.015	263.439	188.482	-	188.482
Total Adjustments	-12.253	-0.273	44.793	-	44.793
• Congressional General Reductions	-	-0.273			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	2.742	-			
• SBIR/STTR Transfer	-12.667	-			
• Program Adjustments	-	-	24.525	-	24.525
• Rate/Misc Adjustments	-	-	20.268	-	20.268
• Congressional General Reductions Adjustments	-2.328	-	-	-	-

Change Summary Explanation

Schedule:

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*

EHF SATCOM Terminals (project 0728)
Milestone C was achieved on 29 July 2010.
Q/Ka integration was completed September 2010.
Reflects adjustments to Airborne XDR Development, and FRP DR milestone date.

Mobile User Objective System (project 2472)
MUOS schedule reflects adjustments to Ship, Launch, On-Orbit Capability (OOC) dates for satellites # 2-5; associated test events, and Full Operating Capability (FOC).

Technical:
No significant technical changes.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0728: *EHF SATCOM Terminals*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
0728: *EHF SATCOM Terminals*	18.026	18.805	31.731	-	31.731	16.819	19.521	18.098	14.300	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Navy Multiband Terminal (NMT) Program is the required Navy component to the Advanced Extremely High Frequency (AEHF) Program for enhancing protected and survivable satellite communications to Naval forces. The NMT system provides an increase in single service capability from 1.5 Megabits per second (Mbps) to 8 Mbps, increases the number of coverage areas, and retains Anti-Jam/Low Probability of Intercept (AJ/LPI) protection characteristics. It is compatible with today's Navy Low Data Rate/Medium Data Rate (LDR/MDR) terminals and will sustain the Military Satellite Communications (MILSATCOM) architecture by providing connectivity across the spectrum of mission areas, to include land, air and naval warfare, special operations, strategic nuclear operations, strategic defense, theater missile defense, and space operations and intelligence. The NMT system will replenish and improve on Navy terminal capabilities of the Military Strategic, Tactical & Relay System (MILSTAR), Defense Satellite Communications System (DSCS), Wideband Global Satellite (WGS), and Global Broadcast System (GBS). The new system will equip the warfighters with assured, jam resistant, secure communications as described in both the joint AEHF Satellite Communications System and the WGS Operational Requirement Documents (ORD). Mission requirements specific to Navy operations, including threat levels and scenarios, are contained in the ORD. The NMT will provide multiband Satellite Communications (SATCOM) capability for ship, submarine, and shore platforms.

FY13 funding will be used to complete the Developmental Testing (DT) and Operational Testing (OT) of Q/Ka, submarine X-band, and Ship X/Ka capabilities into the NMT system, complete the Follow On Test and Evalution (FOT&E) of the NMT system for testing with the on-orbit Extended Data Rate (XDR) waveform and demonstration of communications planning with the Tactical Mission Planning Sub-System (T-MPSS), continue Airborne XDR and AEHF development to provide protected satellite communications in an Anti-Access Area Denial (A2AD) environment, continue the development and integration of the Advanced Time Delay Multiple Access Interface Processor(ATIP) into the NMT Terminal, perform system modifications to correct deficiencies discovered during testing, and continue on going efforts to test the Enhanced Polar System (EPS) functionality within the NMT system. NMT is expected to achieve Initial Operational Capability by FY13.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: NMT Development	18.026	18.805	31.731
Articles:	0	0	0
Description: Overall program efforts include investigation of emerging technologies through study, development, and associated testing for feasibility of satellite communications-related program insertion. They also include first and second phases of Navy Multiband Terminal (NMT) development for System Design and Development (SDD) for ship, shore, and submarine platforms.			
FY 2011 Accomplishments: Continued the development of Q/Ka, submarine X-band, and Ship X/Ka capabilities. Completed Q/Ka, submarine X-band, Ship X/Ka Design Verification Testing (DVT) and Anti-Jam/Low Probability of Intercept Testing. Began Q/Ka, submarine X-band, and			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0728: *EHF SATCOM Terminals*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Ship X/Ka Developmental Testing (DT) and Operational Testing (OT). Performed system modifications to correct deficiencies discovered during testing. Continued efforts to incorporate the Enhanced Polar System (EPS) capability. ***FY 2012 Plans:*** Complete the development of Q/Ka, submarine X-band, and Ship X/Ka capabilities. Continue the Developmental Testing (DT) and Operational Testing (OT) of Q/Ka, submarine X-band, and Ship X/Ka capabilities into the NMT system. Begin Follow On Test and Evalution (FOT&E) of the NMT system for testing with the on-orbit Extended Data Rate (XDR) waveform and demonstration of communications planning with the Tactical Mission Planning Sub-System (T-MPSS). Begin the development and integration of the Advanced Time Delay Multiple Access Interface Processor (ATIP) into the NMT Terminal. Perform system modifications to correct deficiencies discovered during testing. Continue on going efforts to test the Enhanced Polar System (EPS) functionality within the NMT system. Achieve NMT Initial Operational Capability milestone. ***FY 2013 Plans:*** Complete the Developmental Testing (DT) and Operational Testing (OT) of Q/Ka, submarine X-band, and Ship X/Ka capabilities into the NMT system. Complete the Follow On Test and Evalution (FOT&E) of the NMT system for testing with the on-orbit Extended Data Rate (XDR) waveform and demonstration of communications planning with the Tactical Mission Planning Sub-System (T-MPSS). Complete the development and integration of the Advanced Time Delay Multiple Access Interface Processor (ATIP) into the NMT Terminal. Perform system modifications to correct deficiencies discovered during testing. Continue on going efforts to test the Enhanced Polar System (EPS) functionality within the NMT system. Continue Airborne XDR and AEHF development to provide protected satellite communications in an Anti-Access Area Denial (A2AD) environment. Maritime Aerial Layer Network (MALN) is the Navy solution to support the Joint Aerial Layer Network (JALN). MALN will use the Extended Data Rate (XDR) waveform for intra-battlegroup communications.			
Accomplishments/Planned Programs Subtotals	18.026	18.805	31.731

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPN/3216: *Navy Multiband Terminal (NMT)*	140.207	107.242	184.825	0.000	184.825	217.101	289.030	117.094	56.991	91.666	1,265.769

D. Acquisition Strategy

Navy Multiband Terminal concept exploration contracts were awarded in FY 2001. Two System Development and Demonstration (SDD) contracts were competitively awarded in FY 2004 for the development and demonstration of four prototype terminals per vendor (eight total). In FY 2007, a down select to Raytheon occurred for

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0728: *EHF SATCOM Terminals*

the development, demonstration and procurement of 20 Engineering Development Models (EDMs) which will incorporate integrated multi-band capabilities for Q/Ka band, Submarine X-Band, and Ship X/Ka frequency band communication requirements.

E. Performance Metrics

The RDT&E goal for the NMT program is to create a military satellite communications system that consolidates capabilities of current and future satellite systems in a single terminal.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0728: *EHF SATCOM Terminals*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hardware Development	C/CPAF	Various:Various	126.499	-		-		-		-	0.000	126.499	
Hardware Development	C/FFP	Harris:Melbourne, FL	6.136	-		-		-		-	0.000	6.136	
NMT EDM Development	C/CPAF	Raytheon:Marlborough, MA	198.680	-		-		-		-	0.000	198.680	
Hardware Development	WR	SSC PAC:San Diego, CA	1.009	-		-		-		-	0.000	1.009	
Ancillary Hardware Development	C/CPAF	Raytheon:Marlborough, MA	55.923	-		-		-		-	0.000	55.923	
Software Development	WR	NUWC:Newport, RI	8.581	-		-		-		-	0.000	8.581	
Software Development	C/CPAF	Raytheon:Marlborough, MA	41.453	4.792	Jan 2012	8.172	Jan 2013	-		8.172	19.406	73.823	
Systems Engineering	WR	SSC PAC:San Diego, CA	22.088	-		-		-		-	0.000	22.088	
Systems Engineering	WR	NUWC:Newport, RI	25.206	1.270	Nov 2011	1.548	Nov 2012	-		1.548	3.676	31.700	
Systems Engineering	C/CPAF	Linquest:San Diego, CA	34.905	-		-		-		-	0.000	34.905	
Systems Engineering	C/CPAF	Systech:San Diego, CA	-	1.284	Nov 2011	8.532	Nov 2012	-		8.532	20.260	30.076	
Software Development	C/CPAF	Unknown:Unknown	-	8.233	Jun 2012	9.561	Nov 2012	-		9.561	22.702	40.496	
		Subtotal	520.480	15.579		27.813		-		27.813	66.044	629.916	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Support	WR	SSC PAC:San Diego, CA	11.412	-		-		-		-	0.000	11.412	
Logistics Support	WR	SSC PAC:San Diego, CA	3.555	-		-		-		-	0.000	3.555	
Studies & Analysis	WR	NUWC:Newport, RI	6.869	-		-		-		-	0.000	6.869	
Information Assurance	WR	SSC PAC:San Diego, CA	3.886	-		-		-		-	0.000	3.886	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0728: *EHF SATCOM Terminals*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	25.722	-		-		-		-	0.000	25.722	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	SSC PAC:San Diego, CA	17.341	1.215	Nov 2011	1.481	Nov 2012	-		1.481	0.000	20.037	
Operational Test & Evaluation 1	WR	COMOPTEVFOR:Norfolk, VA	3.756	0.329	Nov 2011	0.403	Nov 2012	-		0.403	0.000	4.488	
Developmental Test & Evaluation	C/CPAF	Raytheon:Marlborough, MA	-	1.098	Nov 2011	1.340	Nov 2012	-		1.340	0.000	2.438	
		Subtotal	21.097	2.642		3.224		-		3.224	0.000	26.963	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contract Management	C/CPAF	BAH:San Diego	8.194	0.247	Nov 2011	0.300	Nov 2012	-		0.300	1.200	9.941	
Program Management	C/CPAF	BAH:San Diego	8.214	0.247	Nov 2011	0.300	Nov 2012	-		0.300	1.200	9.961	
Acquisition Management	WR	NCCA:Various	0.653	-		-		-		-	0.000	0.653	
Travel	Reqn	SPAWAR:Various	1.607	0.090	Nov 2011	0.094	Nov 2012	-		0.094	0.376	2.167	
		Subtotal	18.668	0.584		0.694		-		0.694	2.776	22.722	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	585.967	18.805		31.731		-		31.731	68.820	705.323	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0728: *EHF SATCOM Terminals*

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0303109N: *Satellite Communications (Space)*	**PROJECT** 0728: *EHF SATCOM Terminals*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0728				
Q/Ka/X-Band Development	1	2011	2	2012
Q/Ka/X-Band DVT	1	2011	4	2011
Low Rate Initial Production (LRIP) Procurement Year 2 (PY2)	2	2011	2	2011
Q/Ka/X-band DT/OT	4	2011	1	2013
ATIP Development & Integration	1	2012	4	2013
WGS Launch #4	1	2012	1	2012
FRPDR	2	2012	2	2012
Procurement Year 3 (PY3)	2	2012	2	2012
LRIP PY1 Delivery	1	2012	1	2012
1st Install	1	2012	1	2012
AEHF Launch SV-2	2	2012	2	2012
WGS Launch #5	3	2012	3	2012
LRIP PY2 Delivery	3	2012	3	2012
Initial Operational Capability (IOC)	4	2012	4	2012
XDR FOT&E	4	2012	4	2013
AEHF Launch SV-3	1	2013	1	2013
Procurement Year 4 (PY4)	2	2013	2	2013
WGS Launch #6	2	2013	2	2013
PY3 Delivery	3	2013	3	2013
Procurement Year 5 (PY5)	2	2014	2	2014
PY4 Delivery	3	2014	3	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0303109N: *Satellite Communications (Space)*	**PROJECT** 0728: *EHF SATCOM Terminals*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Extension Airborne XDR/AEHF Adaptive Coding Development	1	2013	4	2017
Procurement Year 6 (PY6)	2	2015	2	2015
PY5 Delivery	3	2015	3	2015
PY6 Delivery	3	2016	3	2016
AEHF Launch SV-4	4	2016	4	2016
NMT Full Operational Capability (FOC)	2	2017	2	2017

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0731: *FLTSATCOM*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
0731: *FLTSATCOM*	0.607	0.721	10.828	-	10.828	11.215	-	-	-	0.000	23.371
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Joint Ultra-High Frequency (UHF) Military Satellite Communications (MILSATCOM) Network Integrated Control System (JMINI CS) is a legacy system that commenced in 1998. JMINI CS is a Navy-led, Joint-interest program providing integrated, dynamic, and centralized control of non-processed UHF MILSATCOM 5/25 kHz Demand Assigned Multiple Access (DAMA) and Demand Assign Single Access (DASA) channels to maximize existing highly sought after SATCOM resources. The system also provides decentralized web-based management of those resources for use as a situational awareness tool for Combatant Commanders, Global SATCOM Support Centers, and Regional SATCOM Support Centers. The system is expected to operate well beyond the original 2015 End of Life (EoL) date to 2025. The JMINI CS Program will perform concept development and exploration to identify cost-effective solutions to address multiple life cycle support issues, in order to minimize loss of service to the fleet. The effort will involve evaluation, development, laboratory and integration testing of Commercially available Off-The-Shelf (COTS) and Government off-the-shelf (GOTS) hardware and software to replace obsolete components or subsystems while maintaining interoperability with existing systems.

The Sensitive Compartmented Information Networks (SCI Networks) provides enabling technology necessary to provide Intelligence, Cryptologic, and Information Warfare Systems with protected and reliable delivery of Special Intelligence (SI)/SCI data through a secure, controllable network interface with the Automated Digital Network System (ADNS) architecture. SCI Networks provide real time indications and warning support to joint and component commanders through reliable high-speed transfer of sensor data and intelligence information.

(U) Maritime Integrated Broadcast Service (MIBS) (formerly Tactical Data Information Exchange Subsystem Broadcast (TADIXS-B)) Program Charter is to deliver Integrated Broadcast Service (IBS) data to operational and tactical decision makers aboard United States Navy ships, shore headquarters, and other joint platforms. It will provide means to disseminate organically derived data from Navy platforms to other tactical, operational, and strategic users in theater. MIBS provides the Navy a capability to deliver near real time data, enhancing the Common Operational Picture (COP), to support operations in all warfare areas, including: Ballistic Missile Defense (BMD), Anti-Air Warfare (AAW), Anti-Surface Warfare (ASW), Undersea Warfare (USW), Electronic Warfare (EW). The program encompasses Navy IBS systems (Joint Tactical Terminal - Maritime (JTT-M)). These systems will provide the Navy and other joint platforms with a coherent approach to fielding maritime IBS systems that takes advantage of all available pathways and services.
FY13 funding will be used for analysis and final reporting on the Multiservice Operational Test and Evaluation (MOT&E) of the new Common Integrated Broadcast (CIB) waveform.

Internet Protocol version 6 (IPv6): The management and coordination of experiments and pilot testing of IPv6 technologies to reduce acquisition and operational risk associated with the IPv6 Transition.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Maritime Integrated Broadcast Service (MIBS)	0.116	0.069	0.059

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0731: *FLTSATCOM*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Articles:	0	0	0
FY 2011 Accomplishments: Funds supported Navy integration testing of the AN/USC-62, Joint Tactical Terminal Senior (JTT-Sr) Upgrade Kit, which worked to enhance existing terminal capability to support the Common Integrated Broadcast (CIB) waverform, Common Message Format (CMF), and the National Security Agency (NSA) mandated Crypto Modernization Initiative (CMI). ***FY 2012 Plans:*** Funding will be used to begin Navy participation support in the Multiservice Operational Test and Evaluation (MOT&E) of the new Common Integrated Broadcast (CIB) waveform. ***FY 2013 Plans:*** Funding will be used to complete Navy Participation of the analysis and final reporting on the Multiservice Operational Test and Evaluation (MOT&E) of the new Common Integrated Broadcast (CIB) waveform.			
Title: SCI Networks	0.390	-	-
Articles:	0		
FY 2011 Accomplishments: Conducted 148G(V)2 with COMPOSE 4.0 Lab Development Test Assist (DTA). Completed 148G(V)2 with COMPOSE 4.0 DT/ OT. Conducted 148F(V)2 Lab Development Test Assist (DTA). The RDT&E phase of the SCI Networks program completed in 2011.			
Title: IPv6 Transition	0.101	-	-
Articles:	0		
FY 2011 Accomplishments: Managed and resourced / coordinated resourcing of experiments and pilot testing of IPv6 technologies. This program was cancelled in FY2012.			
Title: JMINI CS	-	0.652	10.769
Articles:		0	0
FY 2012 Plans: Concept exploration and development to support product improvement that extends product life cycle, enabling continued support for warfighter missions until alternate capabilities become available. ***FY 2013 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0731: *FLTSATCOM*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Continue concept development and product improvement framework for a cost effective refresh, to extend the planned life cycle of the legacy JMINI program. Begin software development and testing.			
Accomplishments/Planned Programs Subtotals	0.607	0.721	10.828

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPN/2900: *Maritime Integrated Broadcast Service (MIBS)*	2.928	13.529	16.026	0.000	16.026	12.578	4.398	0.000	0.000	Continuing	Continuing
• OPN/3050: *Comm Auto - SCI NETWORKS*	22.333	20.082	1.716	0.000	1.716	0.000	0.000	0.000	0.000	Continuing	Continuing
• OPN/3215: *Sat Comm - JMINI*	3.984	1.545	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.871

D. Acquisition Strategy

JMINI CS: The Joint Ultra-High Frequency (UHF) Military Satellite Communications (MILSATCOM) is an ACAT IV (T) system that is post-FRP. As a legacy system that commenced in 1998, JMINI CS is expected to operate well beyond the original 2015 End of Life (EoL) date to 2025. The JMINI CS Program of Record (POR) will evaluate the most cost-effective solutions to address multiple life cycle support issues, in order to minimize loss of service to the fleet. The effort will involve evaluating COTS and GOTS hardware and software, and conducting laboratory/integration testing to ensure proper functionality and interoperability.

SCI Networks: Sensitive Compartmented Information (SCI) Networks variants are comprised of Commercial Off the Shelf (COTS) equipment and Government Off the Shelf (GOTS) software integrated into SCI Networks designs associated with each class of ship. Procurement equipment buys are done via the SSC PAC Network Integration Engineering Facility (NIEF) contract vehicle.

MIBS: The Joint Tactical Terminal (JTT) AN/USC-62 (JTT) will be upgraded, enhancing existing terminal capability to support the Common Integrated Broadcast (CIB), Common Message Format (CMF), and the National Security Agency (NSA) mandated Crypto Modernization Initiative (CMI). The upgrade requires integration testing to be completed by Space and Naval Warfare (SPAWAR) System Center Pacific personnel. Participation in the CIB Multiservice Operational Test and Evaluation (MOT&E) prior installation.

IPv6: IPv6 testing and experimentation will be used to manage the risk of transition within existing Programs of Record (PORs). Ultimately, the results of the testing and experimentation will influence the acquisition of IPv6 capable products and minimize risk of transition.

E. Performance Metrics

JMINI CS: The JMINI CS POR will perform concept development and exploration of the JMINI CS 5 KHz and 25 KHz systems, to analyze alternatives for the most advantageous use of new technologies to lengthen the JMINI CS system life span in order to minimize loss of service to the Fleet.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0731: *FLTSATCOM*

Sensitive Compartmented Information (SCI) Networks: Develops a consolidated SCI architecture that reduces total ownership cost (TOC) of the afloat SI Local Area Network (LAN) systems and reduces the risk for implementation of CANES by introducing a Common Computing Environment (CCE) and an Afloat Cores Services (ACS) Architecture.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0731: *FLTSATCOM*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JMINI Contractor Engineering Support	C/CPFF	Unknown:Not Specified	12.188	0.461	Feb 2012	7.170	Dec 2012	-		7.170	7.466	27.285	
JMINI Government Engineering	WR	SSC PAC:San Diego, CA.	0.295	0.191	Feb 2012	3.599	Oct 2012	-		3.599	3.749	7.834	
		Subtotal	12.483	0.652		10.769		-		10.769	11.215	35.119	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IPv6 Support	WR	SSC PAC:San Diego	2.418	-		-		-		-	0.000	2.418	
		Subtotal	2.418	-		-		-		-	0.000	2.418	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIBS Development Test & Evaluation	WR	SSC PAC:San Diego, CA.	0.314	0.050	Nov 2011	0.049	Nov 2012	-		0.049	0.000	0.413	
		Subtotal	0.314	0.050		0.049		-		0.049	0.000	0.413	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MIBS Program Management	WR	SSC PAC:San Diego, CA.	0.014	0.019	Nov 2011	0.010	Nov 2012	-		0.010	0.000	0.043	
		Subtotal	0.014	0.019		0.010		-		0.010	0.000	0.043	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0731: *FLTSATCOM*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	15.229	0.721		10.828		-		10.828	11.215	37.993	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0731: *FLTSATCOM*

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 0731: *FLTSATCOM*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 0731				
Concept Development	2	2012	1	2013
Software Development Contract Award	1	2013	1	2013
Software Development	2	2013	4	2014
Development Test	4	2013	4	2014
Software Delivery	1	2015	1	2015

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 2472: *Mobile User Objective Sys (MUOS)*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2472: *Mobile User Objective Sys (MUOS)*	391.382	243.913	145.923	-	145.923	25.700	-	-	-	130.912	937.830
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Mobile User Objective System (MUOS) program provides for the development of the next generation Department of Defense (DoD) advanced narrowband communications satellite constellation. The current Ultra-High Frequency (UHF) Follow-On (UFO) constellation is projected to degrade below acceptable availability parameters in 2012.

This MUOS Research Development Test & Evaluation, Navy (RDT&E,N) effort supports an On-Orbit Capability (OOC) in fiscal year (FY) 2012 and Full Operational Capability (FOC) in FY 2017.

FY13: Complete remaining testing and preparation efforts to support launch of satellite 2. The MUOS activities planned for the ground segment will include system software testing and fixes resulting from site testing; and ground security updates resulting from Information Assurance (IA) Vulnerability Alerts. Complete software installation, test, and certification of hardware/software at Niscemi site. Complete site acceptance testing, for Build 3 software (B3), at Wahiawa, Geraldton, Northwest, and Niscemi in preparation for launch of satellite 2. Complete acceptance testing of the MUOS follow-on waveform. Begin IA waveform assessment and remediation of findings.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
Title: Mobile User Objective Sys (MUOS)	391.382	243.913	145.923
Articles:	0	0	0
FY 2011 Accomplishments: Continued work on assembly, integration and testing of satellites 1 and 2. Completed development, verification and factory acceptance tests for the ground system software builds. Completed all segment qualification testing for Ground Transport and Network Management segments. Completed development and testing of initial MUOS waveform. Continued development of follow-on version of the MUOS waveform. Completed site acceptance test, for initial software builds (B1a/B2), in Wahiawa in preparation for launch of satellite 1.			
FY 2012 Plans: Complete work on the assembly, integration and testing of satellite 1. Complete satellite 1 shipment, launch vehicle mate operations, launch and on-orbit testing. Complete work on the assembly, integration and testing of satellite 2. Provide fixes to ground software resulting from system testing, Information Assurance Vulnerability Alerts, and site testing. Continue development			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 2472: *Mobile User Objective Sys (MUOS)*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013
and initial testing of the follow-on version of the MUOS waveform. Complete installation and testing of final ground software at the Wahiawa, Northwest and Geraldton sites. Begin installation of final ground software at the site in Sicily. ***FY 2013 Plans:*** Complete remaining testing and preparation efforts to support launch of satellite 2. The MUOS activities planned for the Ground segment will include system software testing and fixes resulting from site testing; and ground security updates resulting from Information Assurance (IA) Vulnerability Alerts. Complete software installation, test, and certification of hardware/software at Niscemi site. Complete site acceptance testing, for Build 3 software (B3), at Wahiawa, Geraldton, Northwest, and Niscemi in preparation for launch of satellite 2. Complete acceptance testing of the MUOS follow-on waveform. Begin IA waveform assessment and remediation of findings.			
Accomplishments/Planned Programs Subtotals	391.382	243.913	145.923

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• WPN/2433: *Mobile User Objective System (MUOS)*	503.056	238.215	21.454	0.000	21.454	248.038	9.135	9.399	8.053	778.966	2,869.394

D. Acquisition Strategy

Two Component Advancement Development (CAD) contracts were awarded in Q4 FY 2002. A Risk Reduction & Design Development (RRDD) contract was awarded in September 2004 for the first two satellites, system engineering and associated ground infrastructure. Research Development Test & Evaluation, Navy (RDT&E,N) funds will be used to procure the first two satellites and to prepare the MUOS ground site located in Australia. Weapons Procurement, Navy (WPN) funds will be used to procure the remaining four satellites and launch services for all six satellites.

E. Performance Metrics

The RDT&E,N funding profile from contract award to completion is represented by the following efforts:

FY 2005-2006: System Engineering efforts associated with preparation and completion of the Preliminary Design Review (PDR); and preparation for the Critical Design Review (CDR).

FY 2007-2008: Completion of CDR phase; procure material and begin fabrication of satellites (Qty 2); and begin design and development of entire ground segment.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 2472: *Mobile User Objective Sys (MUOS)*

FY 2009-2014: Continue assembly, integration and testing, launch and achieve On-Orbit Capability of satellites 1 and 2; develop and test initial and follow-on waveforms; complete ground system software development/final qualification and acceptance testing. Complete site acceptance test of Wahiawa, Australia, Northwest and Niscemi ground stations. Begin IA waveform assessment and remediation of findings.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 2472: *Mobile User Objective Sys (MUOS)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
RRDD AOS Contract	C/CPAF	Lockheed Martin (LM):Sunnyvale, CA	3,161.715	222.822	Oct 2011	131.906	Nov 2012	-		131.906	138.712	3,655.155	Continuing
CE Contracts & Demos	C/FFP	LM / Raytheon / Spec Astro / Boeing:VAR	21.320	-		-		-		-	0.000	21.320	Continuing
CAD Contracts	C/FFP	LM / Raytheon:VAR	105.154	-		-		-		-	0.000	105.154	Continuing
AoA for MUOS	MIPR	Aerospace:El Segundo, CA	2.782	-		-		-		-	0.000	2.782	Continuing
Government Studies	MIPR	Aerospace:El Segundo, CA	0.711	-		-		-		-	0.000	0.711	Continuing
Crypto Procurement	MIPR	NSA:Fort Meade, MD	3.703	-		-		-		-	0.000	3.703	Continuing
UHF Augmentation	C/CPAF	Lockheed Martin (LM):Sunnyvale, CA	0.491	-		-		-		-	0.000	0.491	Continuing
		Subtotal	3,295.876	222.822		131.906		-		131.906	138.712	3,789.316	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
UFO TT&C Terminal Upgrades	WR	SSC PAC:San Diego, CA	10.692	-		-		-		-	0.000	10.692	Continuing
Facilities Modifications	WR	SSC LANT:Norfolk, VA	2.623	0.164	Oct 2011	-		-		-	0.000	2.787	Continuing
Australian Site Prep	C/FFP	Boeing:Brisbane, AUS	25.470	-		-		-		-	0.000	25.470	Continuing
Studies & Analyses (EELV)	MIPR	SMC/FMAIC:El Segundo, CA	0.825	-		-		-		-	0.000	0.825	Continuing
ISCS Integration	WR	NAVSOC:Point Mugu, CA	7.203	-		-		-		-	0.000	7.203	Continuing
Narrowband SATCOM SE Group (NSSEG) - MUOS N2N	WR	SSC LANT:Charleston, SC	1.869	-		-		-		-	0.000	1.869	Continuing
		Subtotal	48.682	0.164		-		-		-	0.000	48.846	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 2472: *Mobile User Objective Sys (MUOS)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WR	SSC PAC:San Diego, CA	11.178	4.143	Nov 2011	4.267	Nov 2012	-		4.267	5.500	25.088	Continuing
Operational Test & Evaluation	WR	OPTEVFOR:Norfolk, VA	3.539	0.900	Nov 2011	1.335	Nov 2012	-		1.335	1.750	7.524	Continuing
		Subtotal	14.717	5.043		5.602		-		5.602	7.250	32.612	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Engineering Support	C/CPAF	Accenture:San Diego, CA	135.592	-		-		-		-	0.000	135.592	Continuing
Contractor Engineering Support - FY2012	C/CPFF	Unknown:Unknown	-	10.525	Feb 2012	5.749	Nov 2012	-		5.749	1.050	17.324	Continuing
Government Engineering	WR	SSC PAC:San Diego, CA	30.883	3.326	Nov 2011	1.812	Nov 2012	-		1.812	9.400	45.421	Continuing
Program Management Support	C/CPAF	Booz Allen Hamilton:McLean, VA	41.321	-		-		-		-	0.000	41.321	Continuing
Program Management Support - FY2012	C/CPFF	Booz Allen Hamilton:McLean, VA	-	1.193	Oct 2011	0.654	Nov 2012	-		0.654	0.100	1.947	Continuing
Travel	WR	PMW 146:San Diego, CA	2.441	0.400	Oct 2011	0.200	Oct 2012	-		0.200	0.100	3.141	Continuing
Frequency Filing	C/FFP	ITU:Geneva, CH	0.855	0.440	Feb 2012	-		-		-	0.000	1.295	Continuing
IPA/ICAT	WR	Aerospace:El Segundo, CA	0.390	-		-		-		-	0.000	0.390	Continuing
Acquisition Workforce Fund	C/FP	Not Specified:Not Specified	2.454	-		-		-		-	0.000	2.454	Continuing
		Subtotal	213.936	15.884		8.415		-		8.415	10.650	248.885	

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 2472: *Mobile User Objective Sys (MUOS)*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3,573.211	243.913		145.923		-		145.923	156.612	4,119.659	

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303109N: *Satellite Communications (Space)*	PROJECT 2472: *Mobile User Objective Sys (MUOS)*

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0303109N: *Satellite Communications (Space)*	**PROJECT** 2472: *Mobile User Objective Sys (MUOS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Proj 2472				
Follow-on Production	2	2011	2	2011
Blackside Waveform V1.3 FQT	3	2011	3	2011
Operational Assessment (OT-D2)	4	2011	4	2011
Ground Software Build 3.1 FAT	4	2011	4	2011
Mission Readiness Review (MRR)	1	2012	1	2012
Ready to Ship date #1	1	2012	1	2012
Launch of Satellite #1 (MUOS 1)	2	2012	2	2012
On-Orbit Capability for Satellite #1 (MUOS 1)	3	2012	3	2012
DT-D3 Tech Eval 1	3	2012	3	2012
Operational Test Readiness Review (OTRR) #1	3	2012	3	2012
OT-D3 Multi-Service Operational Testing & Evaluation (MOT&E 1)	3	2012	4	2012
Ready to Ship date #2	4	2012	4	2012
Australia Build 3.1	1	2013	1	2013
Wahiawa Build 3.1	1	2013	1	2013
Northwest Build 3.1	1	2013	1	2013
Italy Build 3.1	4	2013	4	2013
Ready to Ship date #3	4	2013	4	2013
Launch of Satellite #2 (MUOS 2)	4	2013	4	2013
On-Orbit Capability for Satellite #2 (MUOS 2)	1	2014	1	2014
DT-D4 Tech Eval 2	1	2014	1	2014
Operational Test Readiness Review (OTRR) #2	1	2014	1	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: *Research, Development, Test & Evaluation, Navy* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0303109N: *Satellite Communications (Space)*	**PROJECT** 2472: *Mobile User Objective Sys (MUOS)*

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
OT-D4 Multi-Service Operational Testing & Evaluation (MOT&E 2)	1	2014	1	2014
Launch of Satellite #3 (MUOS 3)	4	2014	4	2014
Ready to Ship date #4	4	2014	4	2014
On-Orbit Capability for Satellite #3 (MUOS 3)	1	2015	1	2015
Launch of Satellite #4 (MUOS 4)	4	2015	4	2015
Ready to Ship date #5	4	2015	4	2015
On-Orbit Capability for Satellite #4 (MUOS 4)	1	2016	1	2016
Launch of Satellite #5 (MUOS 5)	4	2016	4	2016
On-Orbit Capability for Satellite #5 (MUOS 5)	1	2017	1	2017
Full Operational Capability (FOC)	1	2017	1	2017