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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Defense Information Systems Agency **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY

0400: *Research, Development, Test & Evaluation, Defense-Wide*
BA 7: *Operational Systems Development*

R-1 ITEM NOMENCLATURE

PE 0303126K: *Long-Haul Communications - DCS*

COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	42.772	32.255	11.324	10.500	21.824	25.890	21.470	11.906	10.907	Continuing	Continuing
PC01: <i>Presidential and National Voice Conferencing</i>	1.643	1.910	4.345	-	4.345	18.626	13.954	4.267	3.267	Continuing	Continuing
T82: <i>DISN Systems Engineering Support</i>	41.129	30.345	6.979	10.500	17.479	7.264	7.516	7.639	7.640	Continuing	Continuing

Note

*The FY 2012 total includes a request \$10.500 million in OCO funding.

**The FY 2011 total includes a request \$23.125 million in OCO funding.

***DoD submitted a JUON Prior Approval Reprogramming for \$32.500 million of FY 2010 RDT&E in support of the DTCS effort.

A. Mission Description and Budget Item Justification

The Defense Information Systems Network (DISN) is the Department's consolidated worldwide telecommunications capability that provides secure, end-to-end information transport for Department of Defense (DoD) operations. It also provides the warfighter and the Combatant Commands (COCOMs) with robust Command, Control, Communications, Computing, and Intelligence (C4I) infrastructure to support DoD netcentric missions and business requirements. The Defense Red Switch Network (DRSN) is a DoD Secure Voice, Command and Control Network that is controlled and directed by the Joint Staff and the Office of the Secretary of Defense. It provides multilevel secure, rapid, ad hoc, voice calling and conferencing capability to senior Government leadership including the President, Secretary of Defense, Services, COCOMs, subordinate organizations (military and civilian) and allies. DRSN will also support the National Emergency Action Decision Network (NEADN)/ Presidential and National Voice Conferencing (PNVC) and the Enhanced Pentagon Capability/Survivable Emergency Conferencing Network (EPC/SECN).

DISN Systems Engineering Support: The RDT&E effort includes 1) engineering for Internet Protocol (IP) and Optical transport capabilities to ensure the essential operations of a robust and secure DISN, 2) refreshment of operational systems and network operating systems that instrument and automate the operations, administration, maintenance and provisioning functions and creating a single DISN-wide view for network managers and operators, and 3) the peripheral and component design in support of the DRSN to sustain continued highly classified, critical senior leadership communications capabilities.

NEADN/PNVC: The NEADN provides selected system engineering for continued development and testing of the Presidential and National Voice Conferencing (PNVC) equipment for senior leaders. The PNVC system provides a military satellite-based, survivable, secure, and near toll-quality voice conferencing capability for the President, Secretary of Defense, Chairman, Joint Chiefs of Staff, and other senior national/military leaders anywhere in the world as needed. Specifically, the project funding supports the acquisition activities for the PNVC baseband equipment, including critical and essential engineering required to develop new vocoder and cryptographic, and audio-summing equipment. Lack of sufficient funding will significantly impact the implementation of an enhanced, survivable voice conferencing capability to the President and other decision makers.

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0400: *Research, Development, Test & Evaluation, Defense-Wide*
 BA 7: *Operational Systems Development*

R-1 ITEM NOMENCLATURE

PE 0303126K: *Long-Haul Communications - DCS*

Distributed Tactical Communications System (DTCS): The DTCS is a variation of the Iridium Satellite Phone used by the warfighter under the Enhanced Mobile Satellite Service. The variation improves Iridium's capability to network and sub-network users to improve performance, reduce end-to-end latency and improve data handling to the handset. New handsets and software modifications will be required to utilize the improved service and allow Iridium satellites to "relay" information between the satellites. A separate Network Management capability will be required because the new service cannot leverage the standard commercial Iridium Network Manager. Funding provides engineering, development and testing resources for continued improvement to the Naval Surface Weapons Center's (NSWC) Technology Prototype to a fully fielded operational capability. Handsets are already fielded as part of a Central Command (CENTCOM) Joint Urgent Operational Needs Statement. Follow-on Research and Development effort includes two additional Handset Variants (Command and Control and Secret Command and Control), Network Management System, User Control Interface, and Satellite Software Modifications. Failure to fully fund would have severe negative impacts on the warfighter in the field in the Southwest Asia area of responsibility (SWA AOR).

B. Program Change Summary (\$ in Millions)	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>
Previous President's Budget	9.157	32.255	8.452	-	8.452
Current President's Budget	42.772	32.255	11.324	10.500	21.824
Total Adjustments	33.615	-	2.872	10.500	13.372
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	32.500	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustment	1.115	-	2.872	10.500	13.372

Change Summary Explanation

The increase of \$+33.615 in FY 2010 is due to a +\$32.500M JUON Congressional prior approval OCO reprogramming for the Distributed Tactical Communications System (DTCS); +\$1.505M below threshold priority reprogramming to provide funding for the Integrated SATCOM Operations Management (ISOM) JCTD to pay a portion of the consortium funding for the policy based network management tool; -\$.206M funding reduction of software engineering and design for new DISN Element Technologies ; the requirement was deferred to FY 2011; -\$.337M reduction from contract efficiencies from classified voice Engineering Change Proposals; +\$.458M Classified Voice DSS-2A switch development and -\$.305M reduction PNVC/NEADN due to contract efficiencies.

The FY 2012 base funding increase of +\$2.872 is due to increased funding for PNVC Broadband Interface Group (BIG) contract.

The increase for FY 2012 OCO funding of +\$10.500 is to support the demand for an additional 3,000 to 5,000 devices requested by CENTCOM.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency	DATE: February 2011
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development				PE 0303126K: Long-Haul Communications - DCS				PC01: Presidential and National Voice Conferencing			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
PC01: Presidential and National Voice Conferencing	1.643	1.910	4.345	-	4.345	18.626	13.954	4.267	3.267	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The National Emergency Action Decision Network (NEADN) provides system engineering, development and testing of the Presidential and National Voice Conferencing (PNVC) equipment for senior leaders. The PNVC system provides a military satellite-based, world-wide, survivable, secure, and near toll-quality voice conferencing capability for the President, Secretary of Defense, Chairman, Joint Chiefs of Staff, and other senior national/military leaders. By implementing new technology capabilities (e.g. Ethernet-Framing and higher data rate), this project provides improved performance to the survivable voice conferencing capability. Specifically, the project funding supports the acquisition activities for the PNVC baseband equipment, including critical and essential engineering required to develop new vocoder and cryptographic and audio-summing equipment. PNVC baseband development and production schedule is synchronized with the fielding of military Advanced Extremely High Frequency (AEHF) satellite communications (SATCOM) terminals. PNVC is STRATCOM's highest priority for the NC2 mission and lack of sufficient funding will significantly delay DISA's delivery of the baseband equipment leaving the enhanced, survivable voice conferencing capability for the national decision makers at risk.

Distributed Tactical Communications System (DTCS) is a tactical and scalable over-the-horizon, on-the-move, and beyond line of sight voice communications system for the small unit disadvantaged user.

- Phase 1 supports CENTCOM Joint Urgent Operational Needs CC-0278 by fielding 500 radios with basic functionality for 100 mile communications in an austere environment. This provided basic functionality with the initial development and fielding of the Radio Only handset.
- Phase 2 supports basic CENTCOM Joint Urgent Operational Needs CC-0368 requirements by fielding more than 5,000 handsets to the CENTCOM Area of Operation. Improvements to DTCS are increased in range from 100 miles to 250 miles, improved network capacity from 250 to 16,000, user operated management tool, color screen command and control handset with NSA approved encryption, and tactical vehicle integration.
- Phase 3 supports on improving CENTCOM Joint Urgent Operational Needs CC-0368 requirements. Improvements to DTCS are improved architecture that enables self management and monitoring, alternate supplier development, interoperability interfaces, and internet protocol infrastructure.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: National Emergency Action Decision Network (NEADN)	1.643	1.910	4.345	-	4.345
Description: NEADN/PNVC Systems Engineering - Conducts analyses for continuity of NEADN voice conferencing for national/military leaders through the PNVC deployment. Continue engineering, technical					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency								DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development			R-1 ITEM NOMENCLATURE PE 0303126K: Long-Haul Communications - DCS			PROJECT PC01: Presidential and National Voice Conferencing					
B. Accomplishments/Planned Programs (\$ in Millions)						FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	
analysis, development and coordination to ensure terminal, baseband, and satellite synchronization for voice conferencing amongst senior leaders. FY 2010 Accomplishments: In FY 2010 funding was used to update the PNVC Capabilities Production Document and define the Concept of Operations (CONOPs) for PNVC to fully utilize the enhanced capabilities provided by the system. Funding also initiated the development of MSD-III and other Defense Red Switch Network (DRSN) interface equipment, which will continue into FY 2011. In addition, funding was used to begin preparations for the PNVC Baseband Interface Group (BIG) development contract including refreshing the equipment specifications. FY 2011 Plans: In FY 2011, development contract preparations for BIG continue with an anticipated contract award in FY 2012. Funding also continues developing the MSD-III PNVC/DRSN interface equipment. FY 2012 Base Plans: The funding available will support the continued intent for a BIG contract award. Additionally, DRSN equipment will undergo development testing and evaluation.											
Accomplishments/Planned Programs Subtotals						1.643	1.910	4.345	-	4.345	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• O&M, DW/PE 0303126K: Operation & Maintenance, Defense-Wide	119.006	104.396	109.561	56.100	165.661	119.500	123.430	126.590	117.961	Continuing	Continuing
• Procurement, DW/PE 0303126K: Procurement, Defense-Wide	91.661	86.206	500.932	0.000	500.932	115.376	122.657	100.240	91.379	Continuing	Continuing
D. Acquisition Strategy											
Engineering support for the NEADN is provided by existing DoD contracts and FFRDC support.											
The program is leveraging the Naval Surface Warfare Center contracts used for the prototype efforts and JUON CC-0278. This includes a contract to Iridium Communications Inc. as the sole provider for the satellite constellation. Program Executive Office Satellite Communications Teleport & Services (PEO-STC) plans to											

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0303126K: <i>Long-Haul Communications - DCS</i>	PROJECT PC01: <i>Presidential and National Voice Conferencing</i>
implement a DISA contract in FY 2011 that will allow flexibility for continued development and provide long term support for this system. DISA Component Acquisition Executive and PEO-STC conduct program reviews to ensure compliance with Federal and Defense Acquisition Regulations.		
E. Performance Metrics PNVC project metrics track the development of various documents: Project Management Plan (PMP), Concept of Operations (CONOPs), Acquisition Strategy, Capability Production Document (CPD), and other documents needed to manage the project. Data metrics based on cost, schedule, and performance are used for the NEADN development and certification efforts. DTCS tracks performance through competition of requirements for JUON CC-0368 <ul style="list-style-type: none"> • FY 2010 Upgraded and tested satellite software that provides improved performance. • FY 2010 Fielded a user management software that allows warfighters to program their own devices • FY 2010 Field the Command and Control Handset • FY 2010 Integrate DTCS into tactical vehicles to include variants of the MRAP • FY 2011 Provide a range extension from 100 miles @ 95% availability to 250 miles @ 95% availability • FY 2011 Increase the number of available networks from 250 to 16,000. • FY 2011 Develop the NSA approved Secure Command and Control Handset • FY 2012 Increase the push to talk speed from 2 seconds to .7 seconds • FY 2012 Improve network architecture to integrate internet management of the network 		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Defense Information Systems Agency											DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0303126K: Long-Haul Communications - DCS				PROJECT PC01: Presidential and National Voice Conferencing						
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Systems Engineering	C/CPFF	Booz Allen Hamilton:McLean, VA	-	-		0.437	Nov 2011	-		0.437	Continuing	Continuing	N/A	
Systems Engineering	FFRDC	Mitre:McLean, VA	0.123	0.100	Nov 2010	0.250	Nov 2011	-		0.250	Continuing	Continuing	N/A	
BIG Development Preparation	MIPR	NSA:Various	0.180	-		0.100	Feb 2012	-		0.100	Continuing	Continuing	N/A	
MSD-III Development	C/T&M	Raytheon:Largo, FL	1.240	1.660	Jan 2011	3.258	Nov 2011	-		3.258	Continuing	Continuing	N/A	
Management Services	FFRDC	Aerospace Corporation:Falls Church, VA	0.100	0.150	Nov 2010	0.300	Nov 2011	-		0.300	Continuing	Continuing		
Subtotal			1.643	1.910		4.345		-		4.345				
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal			-	-		-		-		-	0.000	0.000	0.000	
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Certification Testing	MIPR	JITC:Various	-	-		-		-		-	Continuing	Continuing	Continuing	
Subtotal			-	-		-		-		-				
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal			-	-		-		-		-	0.000	0.000	0.000	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Defense Information Systems Agency										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0303126K: Long-Haul Communications - DCS				PROJECT PC01: Presidential and National Voice Conferencing					
			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			1.643	1.910		4.345		-		4.345			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Defense Information Systems Agency **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0303126K: <i>Long-Haul Communications - DCS</i>	PROJECT PC01: <i>Presidential and National Voice Conferencing</i>
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Acquisition Documentation for PNVC																												
Acquisition Documentation for PNVC																												
Command and Control Secure Handset																												
Command and Control Secure Handset																												
Increased Push to talk time to .7 seconds																												
Improved Network Architecture																												
PNVC Capabilities Production Doc																												
PNVC Capabilities Production Doc																												
PNVC CONOPS																												
PNVC CONOPS																												
PNVC Development Contract Preps																												
PNVC Development Contract Preps																												
PNVC/DRSN Interface Equip Dev																												
PNVC/DRSN Interface Equip Dev																												
PNVC/DRSN Spec Dev																												
PNVC/DRSN Spec Dev																												
Special Users Requirements Doc																												
Special Users Requirements Doc																												
Systems Engineering for NEADN/PNVC																												
Systems Engineering for NEADN/PNVC																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Defense Information Systems Agency			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0303126K: <i>Long-Haul Communications - DCS</i>	PROJECT PC01: <i>Presidential and National Voice Conferencing</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Acquisition Documentation for PNVC</i>				
Acquisition Documentation for PNVC	1	2010	2	2012
<i>Command and Control Secure Handset</i>				
Command and Control Secure Handset	2	2010	1	2012
Increased Push to talk time to .7 seconds	4	2010	3	2012
Improved Network Architecture	4	2010	3	2012
<i>PNVC Capabilities Production Doc</i>				
PNVC Capabilities Production Doc	3	2010	3	2011
<i>PNVC CONOPS</i>				
PNVC CONOPS	4	2010	2	2011
<i>PNVC Development Contract Preps</i>				
PNVC Development Contract Preps	1	2010	4	2011
<i>PNVC/DRSN Interface Equip Dev</i>				
PNVC/DRSN Interface Equip Dev	4	2010	3	2014
<i>PNVC/DRSN Spec Dev</i>				
PNVC/DRSN Spec Dev	1	2010	2	2011
<i>Special Users Requirements Doc</i>				
Special Users Requirements Doc	1	2010	1	2010
<i>Systems Engineering for NEADN/PNVC</i>				
Systems Engineering for NEADN/PNVC	1	2010	4	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency								DATE: February 2011			
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
T82: DISN Systems Engineering Support	41.129	30.345	6.979	10.500	17.479	7.264	7.516	7.639	7.640	Continuing	Continuing
Quantity of RDT&E Articles											
A. Mission Description and Budget Item Justification											
Internet Protocol (IP) & Optical Transport Technology Refresh (TR): Provides the engineering technical expertise necessary to support and integrate newer, more efficient technologies required to replace the current end of lifecycle equipment and to achieve more efficient IP and optical technologies. This allows DISN to provide protected and assured services for mobility; high-quality information sharing and collaboration capabilities provide critical support to the Warfighter as well as other DoD and federal customers.											
Element Management System (EMS): Provides operational and network operating systems that instrument and automate the operations, administration, maintenance and provisioning functions creating a single DISN-wide view for network managers and operators. EMS is a component of the DISN Operational Support Systems (OSS).											
Secure Voice Switches: Must meet a number of military unique requirements for multilevel security (i.e., extensive conferencing/conference management capabilities and features, and gateway functions) that are not available in commercial products. Due to the proprietary multi-level security and conferencing solutions embedded in Secure Voice Switch equipment, the only alternative to wholesale replacement is the Engineering Change Proposal (ECP) process which is used to identify and manage the development of replacement parts and peripherals necessary to ensure the continued supportability of the system.											
Distributed Tactical Communications System (DTCS) is a tactical and scalable over-the-horizon, on-the-move, and beyond line of sight voice communications system for the small unit disadvantaged user.											
• Phase 1 supports CENTCOM Joint Urgent Operational Needs CC-0278 by fielding 500 radios with basic functionality for 100 mile communications in an austere environment. This provided basic functionality with the initial development and fielding of the Radio Only handset. • Phase 2 supports basic CENTCOM Joint Urgent Operational Needs CC-0368 requirements by fielding more than 5,000 handsets to the CENTCOM Area of Operation. Improvements to DTCS are increased in range from 100 miles to 250 miles, improved network capacity from 250 to 16,000, user operated management tool, color screen command and control handset with NSA approved encryption, and tactical vehicle integration. • Phase 3 supports on improving CENTCOM Joint Urgent Operational Needs CC-0368 requirements. Improvements to DTCS are improved architecture that enables self management and monitoring, alternate supplier development, interoperability interfaces, and internet protocol infrastructure.											
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: IP & Optical Transport (a component of Tech Refresh)							4.160	3.912	3.715	-	3.715

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B. Accomplishments/Planned Programs (\$ in Millions)					
	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
FY 2010 Accomplishments: Continued on schedule and within cost, progress on Phase III of the DSS-2A Switch modification for the DRSN. Phase III is the completion phase of the DSS-2A development project.					
FY 2011 Plans: FY 2011 Tech Refresh (TR) funding supports the delivery of the Phase III system for testing and accreditation of the DSS-2A Switch, with continued project cleanup and testing support. Final result will be a complete large capacity secure voice switch capable of replacing the large obsolete SDS-1 switches. In FY 2011, funds will be used to develop engineering alternatives and acquire test equipment to facilitate the TR of the current Optical CORE originally designed and procured in FY 2003-2005. Based on industry, the accepted life cycle of Optical Network (OTN) equipment is about 8-10 years; DISN must identify alternatives and plans for replacing the existing optical core. The DISN transport layer will have to accommodate the next-generation 40/100G capable system as early as 2013 in CONUS and 2014 in Europe. To support this lifecycle replacement, DISN will engineer and begin testing of new 40/100G optical equipment to meet network requirements. The SONET/SDH layer is also expected to be replaced with a packet-based, Layer 2 technology such as Connection-Oriented Ethernet Switch. If not fully funded, the DISN capabilities essential to the warfighter will reach end of life without an identified and tested replacement capability.					
FY 2012 Base Plans: The FY 2012 DISN TR funds will continue the assessment of engineering technologies in order to select transport and IP equipment to facilitate implementation the optical platforms and IP equipment and associated network management layers. Engineering assessment and testing is required to ensure that the replacement equipment will support all current and projected DoD performance and mission requirements, in order to address phased deployment of the optical core capabilities as early as FY 2013. FY 2012 funding has been reduced by (\$.219M) for directed reductions in service support contracts, FY 2010 under execution and non-pay, non-fuel revised rates. If not fully funded, the DISN capabilities essential to the warfighter will reach end of life without an identified and tested replacement capability.					
Title: Elements Management System (a component of DISN OSS)					
FY 2010 Accomplishments: In FY 2010, the funding provided the capability of standardized data sharing interfaces for network management data and the implementation of a shared data model on service oriented architecture for all EMS applications. Accomplishments included a single database consisting of all circuit data for all technologies for the first time					

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B. Accomplishments/Planned Programs (\$ in Millions)				FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p>in DISA history. In addition there was a one time below threshold priority reprogramming of +\$1.500 for the Integrated SATCOM Operations Management(ISOM) policy based network management tool.</p> <p>FY 2011 Plans: In FY 2011, the funding will continue to provide a standardized capability for all data sharing interfaces for network management data and the implementation of a shared data model on service oriented architecture for all EMS applications. Specific activities for FY 2011 include the development of additional “out-of-the-box” data translations as well as additional data protocols for pulling data to and pushing data from the Common Communications Vehicles (CCV) in the production environment.</p> <p>Funding this initiative will result in decommissioning of stove-pipe network management systems which will decrease costs and the time required to exchange data among systems. Failure to fully fund will severely restrict the integration of network management, data interface and mediation integration through the CCV which is critical to the operational awareness and viability of the DISN.</p> <p>Information Sharing Services for Voice - In FY 2011, funding for this requirement supports data sharing of systems providing management of DISN voice services. The capability includes the development of data standards, data sharing interfaces, web services for legacy voice and Real Time Services (RTS) network management systems. Funding will decrease response time to problems and provisioning of voice services.</p> <p>Network Management Solutions for New DISN Technologies – In FY 2011, this capability is fundamental in providing network management support for new DISN catalogue services. FY 2011 activities include research on network management solutions for Secure Voice over IP and RTS technologies. Providing network management in parallel with the deployment of new DISN services and technologies is vital to supporting network operations and the changing missions of the warfighter.</p> <p>FY 2012 Base Plans: In FY 2012, the funding will focus on network management integration of RTS and future DISN services. FY 2012 funding has been reduced by (\$.079M) for directed reductions in service support contracts, FY 2010 under execution and non-pay, non-fuel revised rates.</p> <p>Data Integration for RTS - For RTS, emphasis will include a standardized capability for all data sharing interfaces for network management data and the implementation of a shared data model on service oriented architecture.</p>								

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B. Accomplishments/Planned Programs (\$ in Millions)				FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
This effort supports the information sharing and network operations objectives of a unified view and situational awareness through a common user interface for obtaining information about the DISN, specifically related to DISN RTS.								
Network Management Solutions for New DISN Technologies – It is critical to provide network management support for future DISN catalogue services requirements. FY 2012 activities include research on network management solutions for Secure Voice over IP and RTS technologies. Providing network management in parallel with the deployment of new DISN services and technologies is vital to supporting network operations and the changing missions of the warfighter.								
Title: Peripheral and Component Design (formerly Engineering Change Proposals (ECP) DRSN Components)				1.653	1.991	1.928	-	1.928
FY 2010 Accomplishments: Began a two year effort to develop and produce a replacement for the Secure Telephone Equipment-Remote (STE-R) based Channel Encryption Unit (CEU) to support future gateways for STEs and secure wireless devices using the Secure Communications Interoperability Protocol (SCIP).								
FY 2011 Plans: FY 2011 funding for DRSN component refresh will continue development and production of the replacement for the STE-R based CEU, and develop specifications and Engineering Change Proposals (ECP) for replacement of the Dual Narrowband Interface (DNI) card used in the DSS-2A switch. It is anticipated that current parts will be obsolete and the user interface software on the Command Center Consoles will require update. If not funded, the effort to replace the DNI card will be halted and the efforts to deal with obsolete parts and aging software will not go forward. This will adversely affect the mid and long term viability of the DRSN and other systems (EPC/ SECN) that use these switch systems. To the extent that funding is reduced, these efforts will take longer to complete and development costs are likely to increase as work would be stretched out over a longer period.								
FY 2012 Base Plans: FY 2012 funding will continue the DNI replacement development effort and the Console User Interface update effort initiated in FY 2011. Due to the level of funding, it is expected that these efforts will occur over several years. Depending on final costs and funding availability, an ECP for refresh of other components or peripheral that have obsolete parts or EOL software issues would be initiated. Decreases or lack of funding would								

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0303126K: Long-Haul Communications - DCS				PROJECT T82: DISN Systems Engineering Support			
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
necessitate stretching out or stopping these refresh efforts, which would adversely affect the sustainability of the secure voice systems.											
Title: Distributed Tactical Communications System							32.500	23.125	-	10.500	10.500
FY 2010 Accomplishments: N/A											
FY 2011 Plans: Planned improvements to JUON CC-0368 requirements include software updates to the gateway infrastructure and user management tools, fielding of the command and control handset. Prototype and design of the secure command and control handset, interoperability improvements and integration into tactical vehicles are planned.											
FY 2012 Base Plans: NA - these are OCO funds.											
FY 2012 OCO Plans: Phase 3 implementation and completion of JUON CC-0368. This will include the fielding of the secure command and control handset, web compatible architecture that will expand network management functionality, and increase response time for push-to-talk from ~ 2 seconds to ~ .7 seconds.											
Accomplishments/Planned Programs Subtotals							41.129	30.345	6.979	10.500	17.479
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• O&M/PE0303126K: Operation & Maintenance, Defense-Wide	119.006	104.396	109.561	56.100	165.661	119.500	12.430	126.590	117.961	Continuing	Continuing
• Procurement/PE0303126K: Procurement, Defense-Wide	91.661	86.206	500.932	0.000	500.932	115.376	122.657	100.240	91.379	Continuing	Continuing
D. Acquisition Strategy											
Products acquired for EMS requirements are professional services, network management software, supporting hardware, and development tools. Professional services will be procured through existing contracts available to DISA. For hardware and software, the DISA Computing Services group will be utilized for leased managed services, as well as the NASA enterprise equipment contracting vehicle when necessary and applicable.											

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency				DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE		PROJECT	
0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development		PE 0303126K: Long-Haul Communications - DCS		T82: DISN Systems Engineering Support	
The DSS-2A large switch modification and DRSN components will use an existing Air Force Command and Control Switching Systems (CCSS) Depot Support contract with the DSS-2A manufacturer (Raytheon) to perform the development and modification work, system integration and testing support.					
E. Performance Metrics					
FY 2010	FY 2011	FY 2010			
Execute within	Execute within	Execute within			
Network Management Solutions	5% of Plan	5 % of Plan	5% of Plan		
Network Solutions – New DISN Technologies	Execute within	Execute within	Execute within		
5% of Plan	5% of Plan	5% of Plan			
DSS-2A Switch Replacement	100% of Plan	Complete	N/A		
DTCS tracks performance through competition of requirements for JUON CC-0368					
<ul style="list-style-type: none">• FY 2010 Upgraded and tested satellite software that provides improved performance.• FY 2010 Fielded a user management software that allows warfighters to program their own devices• FY 2010 Field the Command and Control Handset• FY 2010 Integrate DTCS into tactical vehicles to include variants of the MRAP• FY 2011 Provide a range extension from 100 miles @ 95% availability to 250 miles @ 95% availability• FY 2011 Increase the number of available networks from 250 to 16,000• FY 2011 Develop the NSA approved Secure Command and Control Handset• FY 2012 Increase the push to talk speed from 2 seconds to .7 seconds• FY 2012 Improve network architecture to integrate internet management of the network					

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Defense Information Systems Agency											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0303126K: Long-Haul Communications - DCS				PROJECT T82: DISN Systems Engineering Support					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering for DSRN Components & Peripherals	Various	Raytheon:Florida	1.738	1.991	Dec 2010	1.928	Feb 2011	-		1.928	Continuing	Continuing	Continuing
Systems Engineering for DSS-2A Secure Voice Switch Replacement	Various	Raytheon:Florida	19.440	2.000	Jan 2011	-		-		-	Continuing	Continuing	Continuing
Systems Engineering for IP and Optical Technology Refresh	Various	DITCO:Various	-	1.912	Jan 2011	3.715	Feb 2011	-		3.715	Continuing	Continuing	Continuing
Engineering & Technical Services for Web Based Mediation	C/T&M	Apptis:VA	1.168	-		-		-		-	Continuing	Continuing	Continuing
Engineering & Technical Services for Information Sharing Services for Voice	C/T&M	SAIC:VA	1.400	0.728	Jun 2011	0.546		-		0.546	Continuing	Continuing	Continuing
Engineering & Technical Services for Network Mgmt Solutions for New DISN Element Technologies	C/T&M	SAIC:VA	0.206	0.589	Feb 2011	0.790		-		0.790	Continuing	Continuing	Continuing
Single Sign On	C/T&M	SAIC:Various	1.397	-		-		-		-	Continuing	Continuing	Continuing
System Engineering for VoSIP	C/T&M	Various:Various	1.218	-		-		-		-	Continuing	Continuing	Continuing
Space Vehicle Upload	SS/CPFF	Iridium:McLean, VA	5.400	6.185	Sep 2008	-		1.050		1.050	Continuing	Continuing	Continuing
Gateway Improvement	SS/CPFF	Iridium:McLean, VA	5.500	4.310	Sep 2008	-		3.755		3.755	Continuing	Continuing	Continuing
Field Application Tool	MIPR	NSWC:Dahlgren	2.900	2.115	Mar 2010	-		1.620		1.620	Continuing	Continuing	Continuing
DTCS Handset	SS/CPFF	Iridium:McLean, VA	4.250	1.450	Sep 2008	-		0.150		0.150	Continuing	Continuing	Continuing
Command and Control Handset	SS/CPFF	Iridium:McLean, VA	4.870	1.880	Sep 2008	-		0.525		0.525	Continuing	Continuing	Continuing
Alt. Supplier Development	MIPR	NSWC:Dahlgren, VA	2.000	0.900	Mar 2010	-		0.550		0.550	Continuing	Continuing	Continuing
Radio Only Interface	MIPR	NSWC:Dahlgren, VA	0.980	1.200	Mar 2010	-		0.345		0.345	Continuing	Continuing	Continuing
Remote Control Unit	SS/CPFF	Iridium:McLean, VA	1.200	0.900	Sep 2009	-		-		-	Continuing	Continuing	Continuing
Type 1 Security	SS/CPFF	Iridium:McLean, VA	4.300	1.800	Sep 2008	-		0.355		0.355	Continuing	Continuing	Continuing
Vehicle Integration	MIPR	NSWC:Dahlgren, VA	1.100	1.155	Mar 2010	-		0.930		0.930	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Defense Information Systems Agency											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0303126K: <i>Long-Haul Communications - DCS</i>				PROJECT T82: <i>DISN Systems Engineering Support</i>					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			59.067	29.115		6.979		9.280		16.259			
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Certification Testing	MIPR	JITC:Various	-	1.230	Nov 2010	-		1.220	Nov 2011	1.220	Continuing	Continuing	Continuing
Subtotal			-	1.230		-		1.220		1.220			
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000
Project Cost Totals			59.067	30.345		6.979		10.500		17.479			
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Defense Information Systems Agency										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>					R-1 ITEM NOMENCLATURE PE 0303126K: <i>Long-Haul Communications - DCS</i>					PROJECT T82: <i>DISN Systems Engineering Support</i>			

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Data Integration for Real Time Services																												
Data Integration for Real Time Services																												
User Management Tool/Field Application Tool																												
Command and Control Handset																												
Tactical Vehicle Integration																												
Tactical Vehicle Integration																												
Systems Engineering for DSS-2A Secure Voice Switch Replacement																												
Systems Engineering for DSS-2A Secure Voice Switch Replacement																												
Systems Engineering for DRSN Components and Peripherals																												
Systems Engineering for DRSN Components and Peripherals																												
Satellite Software Upgrade																												
Satellite Software Upgrade																												
Range Extension																												
Range Extension																												
Increase number of networks to 16K																												
Network Management Solutions for New DISN Technologies																												
Network Management Solutions for New DISN Technologies																												
Information Sharing Services for Voice																												
Legacy Systems																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Defense Information Systems Agency										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>					R-1 ITEM NOMENCLATURE PE 0303126K: <i>Long-Haul Communications - DCS</i>					PROJECT T82: <i>DISN Systems Engineering Support</i>			

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Real Time Services (RTS)																												
Web-Based Mediation Admin																												
Web-Based Mediation Admin																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Defense Information Systems Agency			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0303126K: <i>Long-Haul Communications - DCS</i>	PROJECT T82: <i>DISN Systems Engineering Support</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Data Integration for Real Time Services</i>				
Data Integration for Real Time Services	1	2012	4	2012
<i>User Management Tool/Field Application Tool</i>				
Command and Control Handset	1	2010	4	2011
<i>Tactical Vehicle Integration</i>				
Tactical Vehicle Integration	2	2010	4	2011
<i>Systems Engineering for DSS-2A Secure Voice Switch Replacement</i>				
Systems Engineering for DSS-2A Secure Voice Switch Replacement	1	2010	3	2011
<i>Systems Engineering for DRSN Components and Peripherals</i>				
Systems Engineering for DRSN Components and Peripherals	4	2010	4	2016
<i>Satellite Software Upgrade</i>				
Satellite Software Upgrade	1	2010	2	2011
<i>Range Extension</i>				
Range Extension	3	2010	2	2011
Increase number of networks to 16K	3	2010	1	2011
<i>Network Management Solutions for New DISN Technologies</i>				
Network Management Solutions for New DISN Technologies	1	2011	4	2012
<i>Information Sharing Services for Voice</i>				
Legacy Systems	2	2010	4	2010
Real Time Services (RTS)	1	2011	4	2011
<i>Web-Based Mediation Admin</i>				
Web-Based Mediation Admin	1	2010	3	2011

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