Defense Information Systems Agency

Fiscal Year (FY) 2010 Budget Estimates

May 2009

Research, Development, Test and Evaluation, Defense-Wide

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Fiscal Year (FY) 2010 Budget Estimates
Exhibit R-1, RDT&E Programs
Defense Information Systems Agency

Appropriation: RDT&E **Date: May 2009**

R-1 Line Item No	Program Element Number	Item	Budget Activity	FY 2008	FY 2009	FY 2010
113	0604764K	Advanced IT Services Joint Program Office	05	7.894	13.597	39.911
123	0303141K	Global Combat Support System (GCSS)	05	17.536	18.370	18.431
124	0303158K	Joint Command and Control Program	05	56.461	56.618	49.047
		Total System Development and Demonstration (BA 05)		81.891	88.585	107.389
178	0208045K	C4I Interoperability	07	73.510	76.019	74.786
180	0301144K	Joint/Allied Coalition Information Sharing	07	21.392	19.021	10.767
187	0302016K	National Military Command System - Wide Support	07	0.706	0.613	0.548
188	0302019K	Defense Info. Infras.(DII) Engin. & Integ.	07	8.249	15.852	17.655
189	0303126K	Long Haul Communications	07	16.591	8.485	9.406
190	0303131K	Min. Essen. Emerg. Comm. Netw. (MEECN)	07	9.306	9.659	9.830
195	0303140K	Information Systems Security Program (ISSP)	07	5.225	0.000	0.000
196	0303148K	DISA Mission Support Operations	07	0.000	2.175	1.205
198	0303150K	*Global Command and Control System	07	50.504	35.917	26.511
199	0303153K	Joint Spectrum Center	07	18.303	19.267	18.944
200	0303170K	Net-Centric Enterprise Services	07	37.692	0.428	1.782
202	0303610K	Teleport Program	07	5.633	2.054	5.239
208	0305103K	Cyber Security Initiative	07	0.000	12.765	10.080
224	0305208K	Distributed Common Ground/Surface Systems	07	15.689	3.218	3.158
		Total Operational System Develop (BA 07)		262.800	205.473	189.911
		TOTAL DISA RDT&E		344.691	294.058	297.300

*The FY 2010 Overseas Contingency Operations (OCO) request of $2.750 million is included in the FY 2010 annual base funding request for the GCCS-J program.

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Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05				R-1 ITEM NOMENCLATURE Advanced IT Services Joint Program Office (AITS-JPO)/PE 0604764K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Leading Edge Pilot Information Technology/T26	7.894	13.597	39.911					

A. Mission Description and Budget Item Justification: The objective of the Advanced IT Services Joint Program Office (AITS-JPO) is to demonstrate and integrate new, mature Information Technology (IT) and advanced operational concepts into net-centric battlespace technologies in order to: access and exchange critical information; exploit opportunities to enhance Current Force capabilities; and project Future Force IT requirements. The focus is on responding to and meeting emergent warfighter requirements in an innovative and collaborative method, to put these new or improved capabilities in the hands of the warfighter in a responsible yet rapid manner. DISA leverages existing Programs of Record (POR) and enterprise service environments to speed implementation time and improve return on investment. The DISA Chief Technology Office (CTO) has broad responsibilities for the rapid transfer of advanced IT and Operational Concepts to the warfighter and the CTO Advanced Concepts Office is responsible for the technical management of these efforts.

The FY 2010 $26.314 million increase drives the DISA Chief Technology Office objective as concept innovator and rapid enabler of advanced data, information and knowledge to provide the President of the United States (POTUS), Secretary of Defense (SECDEF), Chairman of the Joint Chiefs of Staff (CJCS), Combatant Commands (COCOMS), and Interagency with critical solutions to innovate, operationalize and mature technology and concepts quickly. This includes supporting technologies for information sharing and technologies to enable webs of people, organizations, and processes. These capabilities include the ability to anticipate and preempt actions, to drive and advise on the preferred course of action, and to promote information and sharing in an open environment. The capabilities need to be flexible to respond to various operational missions and events and agile to expand to the dynamic nature of the networks, technologies, and global security. Shared information and situational awareness requires 24X7 persistence leveraging a communications web to enable best military advice. It also requires leveraging innovative technologies to rapidly transform information to knowledge and quickly gain 'Commanders Intent'. Innovation and technology that is cross functional provides the best understanding of the heartbeat for the range of global security. These tools facilitate an understanding that enables persistent connection with the web of people and organizations across DOD and Interagency. Crucial within these capabilities is the ability to activate/alert associated players to focus on problems (reactive) and drive solutions (proactive). This funding supports IT-enabling, both information and communications technologies, in order to out think and out decide the adversary. Within the social networking, persistent collaboration technologies create an agile and flexible environment where data can more quickly become knowledge, leading to wise counsel.

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DISA must have funding to ensure it succeeds in its mandate to deliver prioritized emergent IT capabilities and services faster, extend enterprise services to the edge, accelerate operational effectiveness and efficiency, and enable information sharing and assurance. The program utilizes three key mechanisms to streamline the process of fielding emergent requirements: (1) Advanced Concept Technology Demonstrations (ACTD)/Joint Capability Technology Demonstrations (JCTD), with OSD/Combatant Commands (COCOMS)/Service/Agency teaming; (2) Joint Ventures, with Combatant Commanders /Program of Record (POR) teaming; and (3) Risk Mitigation Pilots, with POR/Community of Interest (COI) teaming. By teaming with the appropriate offices, costs are shared and risk is reduced as funds and skill sets are leveraged across all participants. The added focus of feedback from the operational community, via a focused set of mission threads, increases the robustness of the ultimate solutions and provides strategic outreach to Combatant Commanders, military services, and Agency partners to ensure our customers know and understand the value of net-centric capabilities and services.

There are four major mission thrusts within the AITS-JPO Program. Two are application-centered: Global Information Grid (GIG) Command and Control (C2) and Combat Support (CS) and GIG Information Sharing. The C2/CS mission involves advanced technology experiments to enhance the planning and collaboration tools and processes; to accelerate and synchronize component and agency participation in effects-based activities and exercises; and, to meet the combatant commander’s needs for state-of-the-art technology that is effective in interfacing with the intelligence community and coalition partners. The C2/CS applications include adaptive near-real-time situation assessment and decision support; improvement of targeting-related positional accuracy; exchange of situational awareness and information assurance; and an enterprise planning system to improve cross-domain information sharing and joint planning. The C2/CS portion supports planning and executing deployment, sustainment of forces, and redeployment activities, while the Information Sharing provides crisis action planning tools and supports joint force protection and coalition interoperability.

The GIG Network Infrastructure (NI) and GIG Network Operations (NetOps) are service-centered mission areas that are focused on infrastructure improvements. The NI effort will allow the integration of technologies for handling very large, heterogeneous data sets. NI will support global data access and visualization of geospatially referenced data and includes wideband networking, integrated with smart remote data storage, data conferencing and collaboration, as

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well as search and visualization capabilities, all of which are needed by the Intelligence Community. Key NetOps areas cover GIG Enterprise Service Management, GIG Content Management, and GIG Net-Defense. These provide the environment so that different systems can effectively work together to provide alerting, visualization, and collaboration capabilities.

The AITS-JPO Program provides critical new customer focus on the long-term global war on terrorism via the confluence of technology, security cooperation, and education. The program components support preparation for future joint and coalition initiatives through development and integration of a full range of data services and advanced IT applications to support practical aspects of United States (US) and coalition partner approved cooperative activities. These emergent capabilities are not a plethora of new systems; rather, they are technologies that will transition into Programs of Record or other viable sustainment options. The goal is to make supporting technology for today and tomorrow a reality for the warfighter and to achieve interoperability and integration goals outlined in Joint Vision 2020, working in concert with joint, allied and coalition forces to effectively counter terrorism and enhance homeland defense and security.

In FY 2006, the JCTD Program was initiated to enhance and accelerate the support to the joint, coalition and interagency warfighters and users in this era of the global war on terrorism and updated to meet DoD’s goal of becoming capability-based rather than threat-based in its focus. The JCTD process aligns with the new Joint Capability Integration and Development System (JCIDS) developed by the Joint Chiefs of Staff (JCS) by adapting technology and concept solutions to meet pressing warfighter needs. At the same time, a new funding model was implemented for JCTDs applied a ‘cradle to grave’ approach. JCTDs are pre-acquisition activities that provide a path for innovation technology capabilities to transition to acquisition more rapidly than the previous Advanced Concepts Technology Development (ACTD) program.

FY 2010 funding changes are required to perform engineering innovation of rapid solutions that enable warfighting operational transformation. Organizations are currently constrained to existing acquisition, development, and operational structures. The innovation transformation approach will address the current inability of organizations to move beyond these constraints and to quickly innovate and make technology and concepts rapidly operational by funding advanced data, enterprise information and knowledge services. Innovation in the following areas will be addressed:

- Acceleration of commercial Internet concepts and technology (e.g., social networking, persistent chat) that

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improve collaboration across the DoD and with non-DoD partners;
- Improvement of global situational awareness through a shared collaboration architecture;
- Expansion of enterprise services to support tactical collaboration, application, data and processing services to deployed operational users;
- Development of integrated NetOps services to enable secure management of end-user capabilities and determine the health of network-based services and information sources; and,
- Development of trusted access, application, data services that enable “anytime, anywhere” capabilities for individual end users.

The AITS-JPO investments in advanced technology will benefit strategic and tactical users by providing them with a rich, reliable, persistent collaboration and networking toolset; computing on demand; and support for virtual end-user environments and semantic search capabilities --- all of which enhance the decision-making process.

The DISA Chief Technical Officer’s (CTO’s) AITS-JPO endeavors will provide senior military leadership with (1) the ability to support senior-level initiatives; (2) the capability to maintain global situational awareness of leading edge technologies; (3) the capability to rapidly field solutions to emerging problems; and (4) the benefit of securing a competitive edge through intellectual capital.

A shared understanding that comes by persistent connection with the web of people, systems, and processes will be available. We must be IT-enabled with the ability to out-think our adversary. There must be an openness to the web of players. It is crucial to have activation/alerting for the web of players so they can quickly focus on problems and deliver solutions. They will have the ability to discern situations, specify participants needed in the collaboration course of action planning, and engage in decision-making. To this end, it is critical to have an enterprise security model that allows for authentication and attribute-based access into the collaboration environments. The goal is to make supporting technology for today and tomorrow a reality for the warfighter. Without funding, DISA will be unable to provide innovative technology capabilities for fully-informed decision-making and the warfighter will suffer.

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Accomplishments/Planned Program:

	FY 2008	FY 2009	FY 2010
Subtotal Cost	5.082	4.938	12.928

Command and Control (C2) and Combat Support (CS) (C2/CS): C2/CS is a key AITS-JPO application mission thrust that represents emergent GIG capabilities in the Command and Control & Combat Support arena. These capabilities transition into Programs of Record or other viable sustainment options and enable the achievement of interoperability and integration goals for working in concert with joint, allied and coalition forces, especially in order to effectively counter terrorism and enhance homeland defense and security. C2/CS includes military demonstrations within a collaborative crisis action development environment. C2/CS enables rapid planning, synchronization, and execution of forces with global impact, such as demonstrated in FY 2008 during the Navy's Trident Warrior. C2/CS also provides tools to plan and execute strategic deployment/redeployment and to field and sustain services. The change in funds requirement from FY 2008 to FY 2009 is the result of reprogramming resources into more tightly focused mission threads. Beginning in FY 2009, more focus will be placed on Coalition Information Sharing and Network Infrastructure improvements driven by the Intelligence Community's need for larger bandwidth and storage capabilities, and strengthening the DISA/STRATCOM the NETOPS capabilities. The AITS-JPO brings critical command and control support mechanisms that will provide senior military leaders with more accurate and more real-time situational information for decision-making. The AITS-JPO will provide strategic and tactical users with a rich, reliable, persistent collaboration and networking toolset that will give senior military leaders:

- Ability to support senior-level initiatives;
- Maintain global situational awareness of leading edge technologies;
- Rapidly field solutions to emerging problems; and
- Secure competitive edge through intellectual capital.

These investments will also provide strategic and tactical users by providing them with a rich, reliable, persistent collaboration and networking toolset, computing on demand, and support for virtual end-user environments and semantic search capabilities --- all of which enhance the decision-making process. The DISA AITS-JPO endeavors will provide senior military leadership with (1) the ability to support senior-level initiatives; (2) the capability to maintain

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global situational awareness of leading edge technologies; (3) the capability to rapidly field solutions to emerging problems; and (4) the benefit of securing a competitive edge through intellectual capital.

The AITS-JPO efforts will result in a Communication Web to enable Joint Chiefs of Staff (JCS) to provide the best military advice and to rapidly transform information to knowledge and quickly gain Commander's intent; Information Sharing will be improved to provide the ability to share information will cut across JCS, COCOM, Inter-Agency, Service/Agency (S/A) organization; and the Network Infrastructure (NI) will be enhanced to support the innovative technology transformation.

The changes in funds requirement from FY 2008 to FY 2009 (-$0.144 million) is a result of programming resources into Network Information (NI) focused capabilities. The increase in FY 2010 ($7.990 million) is the result of significant Innovation Transformation capabilities, most of which are in the C2/CS arena, especially the National Senior Leadership Decision Support System (NSLDSS) and global situational awareness. Without funding, DISA will be unable to provide command and control innovative technology capabilities for fully-informed strategic and tactical decision-making.

	FY 2008	FY 2009	FY 2010
Subtotal Cost	2.812	3.209	10.371

Information Sharing (IS): Information Sharing encompasses IT support for crisis action planning tools, joint force protection, and coalition interoperability. It supports development of advanced collaborative and iterative crisis action planning and execution tools. It assists Combatant Commanders and Homeland Security Incident Managers in developing their own Courses of Action (COA) by providing them with the capability to rapidly correlate information from disparate Communities of Interest (COI). The Transnational Information Sharing Coalition (*TISC)* and Event Management Framework (EMF) JCTDs were successfully demonstrated during FY 2008's Coalition Warrior Interoperability Demonstration (CWID) 08 and at Northern Command (NORTHCOM). The decrease in funding requirement from FY 2008 to FY 2009 is the result of reprogramming of resources from this mission thread to provide more focus on the Network Infrastructure and Network Operations mission threads. The AITS-JPO will provide the means for significantly expanded information sharing. These efforts will result in a Communication Web to enable JCS to provide the best military advice, and to rapidly transform

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information to knowledge and quickly gain Commander's intent. The ability to share information will cut across JCS, COCOM, Inter-Agency, and Service/Agency (S/A) organizations.

The changes in funds requirement from FY 2008 to FY 2009 ($0.397 million) is a result of programming resources into C2/CS-focused capabilities. The increase in FY 2010 ($7.162 million) is the result of significant Innovation Transformation capabilities, especially in providing the senior leadership decision-support and global situational awareness. A shared understanding that comes by persistent connection with the web of people, systems, and processes will be available. We must be IT-enabled with the ability to out-think our adversary. There must be an openness to the web of players. It is crucial to have activation/alerting for the web of players. These players can then quickly focus on problems and deliver solutions. They will have the ability to discern situations, specify participants needed in the collaboration course of action planning, and engage in decision-making. To this end, it is critical to have an enterprise security model that allows for authentication and attribute-based access into the collaboration environments. The goal is to make supporting technology for today and tomorrow a reality for the warfighter. Without funding, DISA will be unable to provide information sharing innovative technology capabilities for fully-informed strategic and tactical decision-making.

	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.000	2.775	8.832

Network Infrastructure (NI): Network Infrastructure assists in supporting and providing Programs of Record (POR) with agile, adaptive, and capabilities-based IT, while providing US forces with peacetime and contingency access. Network Infrastructure can augment future en route infrastructure provisioning and support. These efforts will integrate technologies for handling very large, heterogeneous data sets, to enhance the deployed warfighter's situational awareness and information superiority and will do so within a secure framework that supports both joint and multi-national operations. The enterprise-wide information infrastructure will be enhanced with advanced capabilities that support global data access and visualization of geospatially referenced data. Features include wideband networking integrated with smart remote data storage, data conferencing and collaboration, and search and visualization. The change in funding requirements from FY 2008 to FY 2009 ($2.775 million) is a result of programming resources to focus on

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providing the Intelligence Community with enhanced Computing and Communications Infrastructure capabilities. The increase in FY 2010 ($6.057 million) is the result of increased NI in support of C2/CS and IS Innovation Transformation capabilities. The Innovation Transformation will result in the National Military Command Center (NMCC) becoming the hub for distributed efforts, with the capability to understand the heartbeat for the range of global security issues. The Network Infrastructure (NI) will incorporate the Communications Web necessary for JCS to provide shared information across JCS, COCOM, Inter-Agency, and Service/Agency (S/A) organizations. Without funding, DISA will be unable to provide the infrastructure that supports the command and control and information sharing innovative technology capabilities for fully-informed strategic and tactical decision-making.

	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.000	0.987	2.498

NetOps: NetOps will provide IT solutions and advanced concepts to address warfighter capability gaps which preclude delivering the right information, to the right person, in the right place, at the right time in such a way that the information is protected from interception and exploitation and presented in a useful format. NetOps use different systems working together to provide alerting, visualization, and collaboration capability. DISA will work with the Joint Staff Anti-terrorism/Force Protection community to develop concepts of operation and provide transition capabilities to assist COCOMs in employing a decision support environment that will provide a tailored rendering of relevant information to the Commanders, their staff, Joint Task Forces, non-government organizations, and coalition forces. NetOps will leverage network-centric enterprise technologies and services provided by the GIG and dynamically update data/information to improve situational awareness and provide more efficient collaboration. The changes in funds requirement from FY 2008 to FY 2009 is the result of programming resources into Network Operations to provide a synergy between DISA and STRATCOM operations. The change in funding requirements from FY 2008 to FY 2009 ($0.987 million) is a result of programming resources for NetOps to provide the network operations support for C2/CS and IS Innovation Transformation capabilities. The increase in FY 2010 ($1.511 million) is the result of focused efforts on NI Innovation Transformation capabilities.

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	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.000	1.688	5.282

Program Management Support: Program management funds are required to provide technical architecture white papers, technical reports, architecture designs, and enterprise reports. This cost also includes Information Assurance oversight, as well as program level acquisition planning, contract administration, and a majority of the program management and financial planning activities. The change in funds requirement from FY 2008 to FY 2009 ($1.688 million) results in establishing the Chief Technology Office's Advanced Concepts Office (total cost of ownership), progressively reducing the number of overall contracts managed, and streamlining internal processes. The change in funding requirements FY 2009 to FY 2010 ($3.594 million) is a result of increasing resources appropriately to support the program growth in the four key mission areas above.

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President's Budget	9.642	13.770	15.157
FY 2010 Budget Estimate Submission	7.894	13.597	39.911
Total Adjustments	-1.748	-0.173	24.754

Change Summary Explanation: FY 2008 changes are due to below-threshold reprogramming to support mission critical requirements within the Agency. FY 2009 reflects reductions of -$0.136 million to support FFRDCs and -$0.037 million for Economic Assumptions. FY 2010 funding changes in the amount of $24.754 million, result from an increasing DoD focus on rapid technology insertion. Building on DISA's rapid technology insertion success, the Vice Chairman Joint Chiefs of Staff (VCJCS) and other senior DoD leaders have tasked DISA to take the initiative in developing, rapidly prototyping, and inserting innovative technologies into key strategic and tactical venues, such as the National Military Command Center (NMCC) and COCOM Command Centers.

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The new work includes intense efforts that are game-changing (e.g., VCJCS initiatives, NMCS transformation, enterprise services, GIG 2.0/joint basing, etc); routine tasks (e.g., information sharing pilot, DSB/National Academy of Sciences work, etc.); new policy and governance engagement (e.g., oversight of network costs and enterprise services); and tasks specific to DISA (e.g., BRAC, DAI, clean audit, etc.). We envision that additional new work will include DISA on the evolving cyber initiative, evolving coalition and information sharing, Federal information sharing and defense, and the NMCS transformation. Without funding, DISA will be unable to perform engineering innovation of rapid solutions that enable warfighting operational transformation. This would result in the continued inability to quickly innovate and operationalize technology and concepts by funding advanced data, enterprise information and knowledge services outside their existing acquisition, development, and operational structures. These capabilities are vital to military decision-making.

C. Other Program Funding Summary:

Other Funding for the salaries and operating expenses of this RDT&E project:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M	9.026	5.889	11.368						Cont'g	Cont'g

D. Acquisition Strategy: The AITS-JPO Program accomplishes its mission through a combination of strategies focused on operations, technical integration, program management, and financial tracking. Market research during the acquisition process included a review of DISA contracts, other DoD contract vehicles, and other Government agency contracts which were advertised for Government-wide usage. This market research also included consideration of small business, minority/women owned (8A), Historically Black Colleges and Universities (HBCU), mentor/protégé and other specialized contract vehicles and processes. It evaluated all contractors available from DISA sources for their ability to deliver the products specifically required for the unique AITS-JPO Program efforts. Additionally, many of the DISA contracts were awarded with multiple options and cost factors already defined for several years. Investigations considered prior success in these areas. Several sources were also contacted for cost estimates. The AITS-JPO works collaboratively

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with vendors when possible to obtain generic cost data for planning and analysis purposes. Past and current contract prices for similar work and other government-wide agency contracts provided additional sources of information. Quotes from multiple sources helped provide an average for a more realistic cost estimate. The ACO has reviewed existing contract vehicles and begun reducing the number of contracts to minimize administrative overhead. A Broad Agency Announcement (BAA) will be used to solicit vendor Research and Development participation, and separate contracts will be used for engineering support, technical oversight support, and program management services.

E. Major Performers: SAIC (Science Applications International Corporation) and BAA (Broad Agency Announcement) -- multiple vendors will propose against the BAA.

Performance Metrics: Metrics are tracked for each type of technology project within the AITS-JPO, which utilizes JCTDs, Joint Ventures, and Risk Mitigation Pilots to support DISA's mandate to deliver prioritized emergent IT capabilities and services faster, extend enterprise services to the edge, accelerate operational effectiveness and efficiency, and enable information sharing and assurance. JCTDs comprise the bulk of the efforts. The AITS-JPO collaborates with the Combatant Commands to develop each JCTD proposal. Each formalized proposal undergoes a vetting process involving leadership in DISA, OSD, the Joint Staff, and the COCOMs. Senior leadership within the OSD R&D JCTD community also reviews the proposal and subjects it to additional requirements scrutiny to eliminate any duplication of effort. Approved proposals become formal JCTDs, and the next step for the JCTD is to develop an Implementation Directive and a Management Plan. These guidance documents outline the basic objectives, schedule, and funding for the JCTD. During the first year, the JCTD develops and documents the detailed objectives against which the Operational Sponsor (a COCOM) will assess military utility, as well as the detailed mechanisms by which military utility will be assessed and results measured. Regular oversight is maintained through JCTD program managers who are the central point of contact for maintaining cognizance over cost, schedule, and performance and for managing program risk. The AITS-JPO also incorporates internal processes to enhance financial reporting and track contractor spending. The AITS-JPO utilizes several web-based financial management tools as well as internal measures to monitor status.

Exhibit R-3 RDT&E Cost Analysis		Date: May 2009
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05	PROGRAM ELEMENT PE 0604764K	PROJECT NAME AND NUMBER Leading Edge Pilot Information Technology/T26

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
PRODUCT DEVELOPMENT														
Development & Tech Services	MIPR	SPAWAR SSC, Charleston, SC	8.566	0.890	3/08	1.000	12/08	5.000	12/09			Cont'g	Cont'g	Cont'g
	CPFF	SAIC (TO 50 & 57) Arlington, VA	17.900	3.743	2/08	3.634	2/09	3.634	02/10			Cont'g	Cont'g	39.196
	TBD	BAA (TBD)	N/A	N/A	N/A	2.388	10/08	5.258	10/09			Cont'g	Cont'g	Cont'g
	TBD	ENCORE II	N/A	N/A	N/A	3.360	03/09	4.532	10/09			Cont'g	Cont'g	Cont'g
SUPPORT COSTS														
Engineering/ Technical Support	T&M, FFP	ENCORE II/GIG TIE (TBD)	N/A	0.155	09/08	1.254	09/09	15.706	08/09			Cont'g	Cont'g	48.881
	T&M, FFP	HAI	1.548	0.300	05/08	N/A	N/A	N/A	N/A			1.848	1.848	1.848
TEST & EVALUATION	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			N/A	N/A	N/A
MANAGEMENT SERVICES														
Technical Oversight	FFRDC	MITRE, Arlington, VA	N/A	0.400	11/07	0.450	10/08	0.500	10/09			Cont'g	Cont'g	Cont'g

Exhibit R-3 RDT&E Cost Analysis		Date: May 2009
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05	PROGRAM ELEMENT PE 0604764K	PROJECT NAME AND NUMBER Leading Edge Pilot Information Technology/T26

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Information Assurance Consulting		TWM	N/A	0.613	07/08	0.650	07/09	0.475	07/10			1.325	1.325	1.325
Program Management		GEMS/Keylogic	3.298	0.944	01/08	0.258	01/09	0.944	01/10			Cont'g	Cont'g	Cont'g
Financial Management		GSA/Ingenium	1.568	0.849	09/07	0.573	09/08	0.849	09/09			Contg	Contg	Contg
Business Operations Support Services		MOBIS / TBD	N/A	N/A	N/A	N/A	N/A	3.013	06/09			Contg	Contg	Contg
Total			32.880	7.894		13.597		39.911						

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide, 05	Program Element Number and Name PE 0604764K, Advanced Information Services Joint Program Office	Project Number and Name T26/Leading Edge Pilot Information Technology

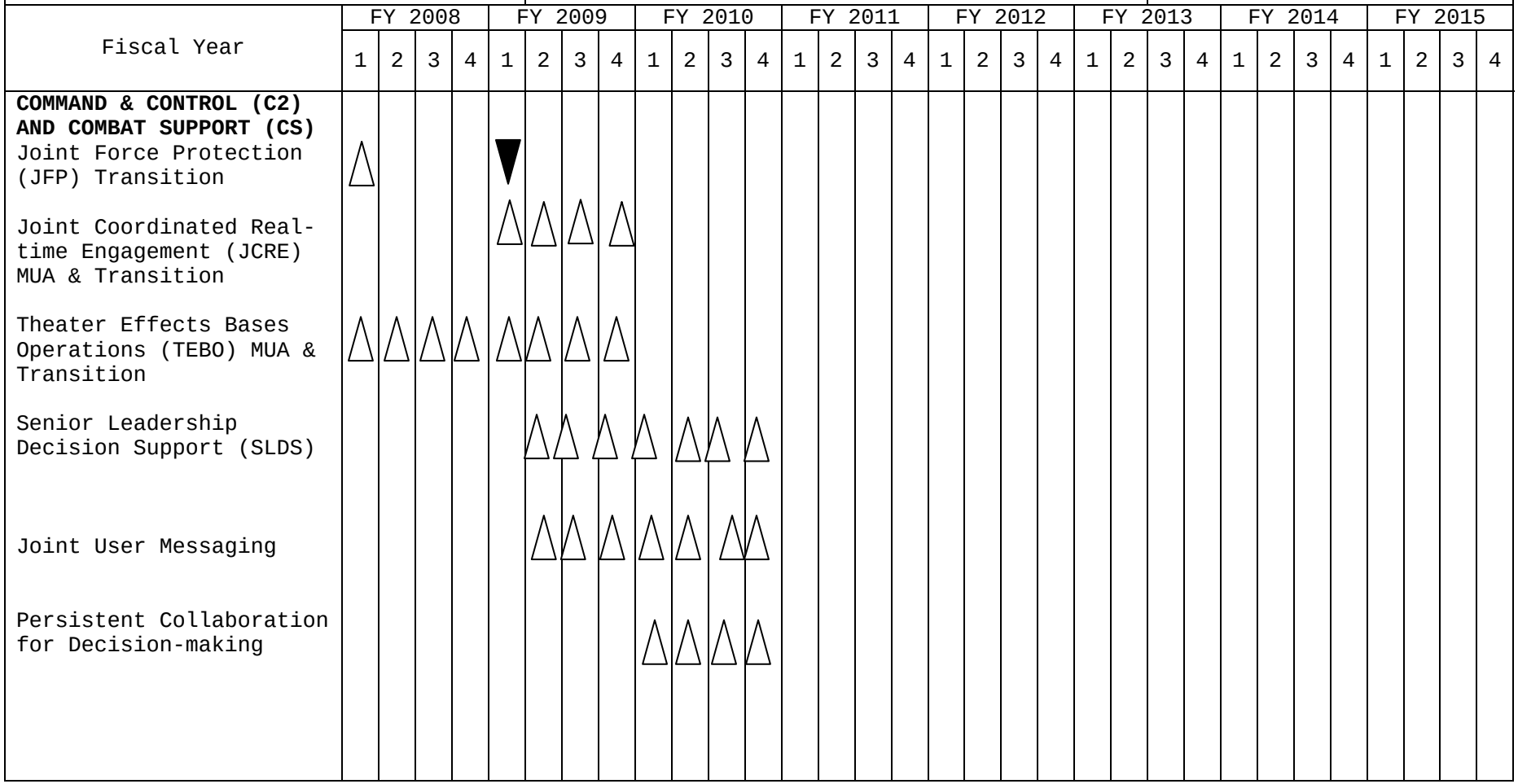

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide, 05	Program Element Number and Name PE 0604764K, Advanced Information Services Joint Program Office	Project Number and Name T26/Leading Edge Pilot Information Technology

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Information Sharing (IS)																																
Transitional Information Sharing Cooperation (TISC)	△	△	△	△	△	△	△	△	△	△	△	△																				
Coalition Secure Management and Operations System (COSMOS)	△	△	△	△	△	△	△	△																								
Event Management Framework (EMF)	△	△	△	△	△	△	△	△	△	△	△	△																				
IS FY2010 JCTD								△	△	△	△	△																				
Communications Web									△	△	△	△																				

Exhibit R-4, RDT&E Program Schedule Profile		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide, 05	Program Element Number and Name PE 0604764K, Advanced Information Services Joint Program Office	Project Number and Name T26/Leading Edge Pilot Information Technology

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Network Infrastructure (NI)																																
Large Data Cost Model Intelligence Community Storage	△	△	△	△	△	△	△	△																								
Intelligence Community Storage JCTD									△	△	△	△																				
Network Operations (NetOps)																																
GIG Enterprise Service Management					△	△	△	△	△	△	△	△																				
Mission Assurance Decision Support Systems (MADSS)					△	△	△	△	△	△	△	△																				

Exhibit R-4a, RDT&E Program Schedule Detail		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/05	Program Element Number and Name PE 0604764K/Advanced Information Technology Services Joint Program Office	Project Number and Name T26/Leading Edge Pilot Information Technology

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Command and Control (C2) and Combat Support (CS)								
▪ Joint Force Protection (JFP) Transition	1Q-4Q	1Q						
▪ Joint Coordinated Real-time Engagement (JCRE) MUA & Transition		1Q-4Q						
▪ Theater Effects Bases Operations (TEBO) MUA & Transition	1Q-4Q	1Q-4Q						
▪ Senior Leadership Decision Support (SLDS) POP, IOC, MUA & Transition		1Q-4Q	1Q-4Q					
▪ Joint User Messaging – POP, IOC, MUA & Transition		1Q-4Q	1Q-4Q					
▪ Persistent Collaboration for Decision-making - POP, IOC, MUA & Transition			1Q-4Q					
Information Sharing (IS)								
▪ Transnational Information Sharing Cooperation (TISC) POP, IOC, MUA, Transition	1Q-4Q	1Q-4Q	1Q-4Q					
▪ Coalition Secure Management and Operations System (COSMOS) POP, IOC, MUA, Transition	1Q-4Q	1Q-4Q						

Exhibit R-4a, RDT&E Program Schedule Detail		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/05	Program Element Number and Name PE 0604764K/Advanced Information Technology Services Joint Program Office	Project Number and Name T26/Leading Edge Pilot Information Technology

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
▪ Event Management Framework (EMF)	1Q-4Q	1Q-4Q	1Q-4Q					
▪ IS FY2010 JCTD - POP, IOC, MUA & Transition			1Q-4Q					
▪ Communications Web			1Q-4Q					
Network Infrastructure (NI)								
▪ Large Data Cost Model	1Q-4Q	1Q-4Q						
▪ Intelligence Community Storage JCTD POP, IOC, MUA, Transition			1Q-4Q					
Network Operations (NetOps)								
▪ GIG Enterprise Service Management) ESM POP, IOC, MUA, Transition		1Q-4Q	1Q-4Q					
▪ Mission Assurance Decision Support Systems (MADSS) POP, IOC, MUA1, MUA2, Transition		1Q-4Q	1Q-4Q					

Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/05			R-1 Item Nomenclature Global Combat Support System/PE 0303141K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Global Combat Support System/CS01	17.536	18.370	18.431					

A. Mission Description and Budget Item Justification:

The Global Combat Support System (Combatant Command/Joint Task Force) [GCSS (CC/JTF)] is an initiative that provides end-to-end visibility of retail and unit level Combat Support (CS) capability up through the National Strategic Level, facilitating information interoperability across and between CS and Command and Control (C2) functions. GCSS(CC/JTF) provides decision makers with fused CS data and C2 information on the same workstation, with access to joint logistics applications that allow the warfighter to plan, execute, and control logistics operations. GCSS (CC/JTF) provides the critical information technology capabilities required to move and sustain joint forces throughout the spectrum of military operations. GCSS (CC/JTF) uses a web-based Portal environment with Single Sign On (SSO) access (Public Key Infrastructure / Common Access Card) to meet the Focused Logistics tenets and to implement the vision of Network Centric Warfare.

Within the GCSS Family of Systems (FoS), Defense Information Systems Agency (DISA) is responsible for two main efforts: System Architecture and Engineering for the GCSS FoS, and development, integration, fielding, operation and maintenance of the GCSS (CC/JTF). GCSS (CC/JTF) provides enhanced CS situational awareness to the joint warfighter by integrating CS information with C2 information to provide the joint warfighter with the ability to plan, execute, monitor, and control logistics operations. GCSS (CC/JTF) provides applications, decision support tools, and visualization mechanisms to enable the joint logistics warfighter to assess and analyze information to rapidly make critical decisions. GCSS (CC/JTF) significantly increases access to information stored in multiple databases via a SSO web portal application, using a Secret Internet Protocol Router Network (SIPRNet) Public Key Infrastructure (PKI) certificate and for the Non-secure Internet Protocol Router Network (NIPRNet) capability, a Common Access Card (CAC). The GCSS (CC/JTF) infrastructure provides secure web-access, discrete user account administration, data mediation, and enterprise management features that facilitate delivery of capabilities to meet the vision of a net-centric architecture to better support the warfighter.

During FY 2009 through FY 2010, the Program will continue its transition to a service-oriented architecture (SOA) in a net-centric environment, which includes enhancements of the Portal, integrated data environment, Business Intelligence (BI), Workflow, Knowledge Management, Web Service Management, and security tools. The new net-centric environment also includes implementation of a more robust Continuity of Operations Plan (COOP), Contingency Site, Enterprise System Management (ESM), and security (e.g., intrusion detection on GCSS strategic servers and next generation guards) processes and tools. Increment 7 will implement an SOA, enabling development of fully net-enabled capabilities and

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/05				R-1 Item Nomenclature Global Combat Support System/PE 0303141K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Global Combat Support System/CS01	17.536	18.370	18.431					

also accelerates the introduction of new data source and application development and integration; permits greater flexibility for the joint logistics warfighter in how they evaluate and view fused data; increases dynamic report capability; provides more rapid exposure of data to communities of interest; and, enhances the security posture of the system. System architecture and engineering support to GCSS FoS focuses on the integration of new technologies that improve interoperability and data sharing at the Combatant Command and Joint Task Force levels. If funding is not provided, system development and testing will be significantly diminished due to not having the funds required to support R&D contract efforts, denying the joint logistic warfighter required capabilities.

	FY 2008	FY 2009	FY 2010
Subtotal Cost:	2.249	2.401	2.571

System Architecture and Engineering - This effort involves system architecture and engineering for the GCSS (CC/JTF) and for the GCSS FoS. During FY 2008, funds were used to complete system and data architecture for the GCSS FoS, improving interoperability and information sharing at the Combatant Command and Joint Task Force levels. Funds were also used to complete system development, Operational Test and Evaluation, and fielding of GCSS (CC/JTF) SIPRNet v6.1.

Additionally, funds were used to conduct initial requirements analysis and development of Increment 7. Increment 7, continues the transition to a more net-centric, capabilities-driven environment providing the warfighter with more robust functionality to support planning, execution, and control of the flow of assets to and through the theater of operation. It integrates disparate COTS tools, in a secure architecture framework that assures both user authentication and security among and within the various layers of the GCSS (CC/JTF) architecture to authoritative data sources.

	FY 2008	FY 2009	FY 2010
Subtotal Cost:	15.287	15.969	15.860

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/05				R-1 Item Nomenclature Global Combat Support System/PE 0303141K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Global Combat Support System/CS01	17.536	18.370	18.431					

GCSS (CC/JTF) – In 2008, Increment 7 was based on the v6.1 architecture and utilized an agile development methodology to rapidly deliver critical capability to the joint logistics warfigther. The agile development methodology allowed the Program to deliver critical capabilites annually, along with smaller sub-releases as required, replacing the traditional “block” approach of releasing capabilities/functionality every 18 months.

GCSS (CC/JTF) Increment 7 provided a more robust net-centric, net-enabled, service-oriented architecture. The objective was to leverage enterprise level services; provide capabilities on the Global Information Grid (GIG) allowing access to applications on the network to authorized users; and, reduce the point-to-point data connections to a more seamless, transparent discovery process through service contracts. Capabilities included the Joint Engineer Planning and Execution System (JEPES), which allowed the warfighter to determine civil engineering support requirements and document Civil Engineering Support Plans; real-time, map-based displays and charts via an interactive mapping capability; and, the CENTCOM Logistic Common Operational Picture which allows the warfighter to track fuels, munitions, and intra-theater distribution assets. Additionally, the Program enhanced existing system and functional capabilities and applications, and the integration of external applications via SSO, or federating external applications via Unified Resource Locator.

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President’s Budget	17.939	18.604	19.408
FY 2010 Budget Estimate	17.536	18.370	18.431
Total Adjustments	-0.403	-0.234	-0.977

Change Summary Explanation: FY 2008 adjustments reflect a realignment of funding to emerging mission critical requirements within the Agency. FY 2009 reflects reductions of -$0.184 million in support of FFRDC’s and -$0.050 million for Economic Assumptions. The FY 2010 adjustments reflect a realignment of funding to emerging mission critical requirements within the Agency and revised inflation rates.

Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/05			R-1 Item Nomenclature Global Combat Support System/PE 0303141K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Global Combat Support System/CS01	17.536	18.370	18.431					

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010
O&M, DW	15.512	17.843	16.195
Procurement, DW	1.886	2.780	2.820

D. **Acquisition Strategy:** GCSS (CC/JTF) strives to maximize system performance, promotes the use of commercial services, shifts risk away from the government, and attempts to achieve savings. To realize these goals, a Performance Based Services Acquisition Task Order for Software Development & Integration (SD&I) services was awarded. The intent of the Task Order is to improve the software development and integration process by using a single system integrator who is responsible for effectively executing the associated processes and delivering exceptional products to support the warfighter.

Each discrete GCSS (CC/JTF) functional area (e.g., testing, performance metrics, Program Management Office (PMO) support) individually contracts for its own products (hardware, software, etc.) while the bulk of services (software development activities, fielding, and testing) falls under the SD&I Task Order. GCSS (CC/JTF) uses a mix of contract types for the various task orders, which includes Firm Fixed Price (FFP), Cost Plus Fixed Fee (CPFF), and Cost Plus Award Fee (CPAF). When CPAF contracts are awarded, the objective criteria will be utilized, whenever possible, to measure contract performance and the work to be performed is neither feasible nor effective to devise predetermined objective incentive targets applicable to cost, schedule and technical performance. The SD&I effort incorporates a hybrid of Firm Fixed Price and Cost Plus Award Fee elements, which mitigates risks associated with cost.

E. Performance Metrics: GCSS (CC/JTF) develops and fields capabilities that are based upon Joint Staff validated, approved, and prioritized functional requirements derived from the approved GCSS (CC/JTF) Capability Development Document. All of these requirements and goals are translated into releases with specific capabilities, which have established cost, schedule, and performance parameters. Additionally, GCSS (CC/JTF) has an approved Acquisition Program Baseline for the Increment, which baselines cost, schedule, and performance metrics specific to each capability release.

Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/05			R-1 Item Nomenclature Global Combat Support System/PE 0303141K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Global Combat Support System/CS01	17.536	18.370	18.431					

Metrics are gathered through several sources and include functional user's satisfaction surveys, local system administrator feedback, and customer surveys. For each release, GCSS (CC/JTF) gathers metrics from the strategic servers throughout the lifecycle of the release. Metrics and requirements are also gathered directly by the GCSS Customer Requirements Team and the GCSS Fielding and Installation Team during onsite training/installations. GCSS (CC/JTF) also gathers metrics on a routine basis directly from the strategic servers. These metrics are analyzed by the PMO to ensure that Key Performance Parameters (KPPs) continue to be met and/or determine whether system enhancements/capabilities could be of benefit to the warfighter. Future capabilities include tools that allow GCSS (CC/JTF) to refine and enhance the type of performance metrics that can be gathered and analyzed. This becomes increasingly important as GCSS (CC/JTF) continues to integrate additional data sources and federated applications, and completes the implementation of the integrated data environment, Business Intelligence and Knowledge Management tools. This postures and allows GCSS (CC/JTF) to directly support DoD's Net-Centric Vision of exposing and consuming web services. However, performance is key in this type of environment and as GCSS (CC/JTF) usage increases and new capability increments are fielded, GCSS (CC/JTF) will continue to gather metrics to ensure the system is meeting established KPPs and the customer's requirements.

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/05	Program Element PE 0303141K	Project Name and Number Global Combat Support System/CS01

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Management Services	FFRDC	MITRE, Vienna, VA	15.142	0.602	11/07	0.678	11/08	0.600	11/09			Cont'g	17.572	17.572
	CPFF	UMD, Eastern Shore MD	1.021	N/A	05/08	N/A	05/09	N/A	05/10			Cont'g	1.021	1.021
	MIPR	IDA, Alexandria, VA	0.749	N/A	01/08	N/A	01/09	N/A	01/10			Cont'g	0.749	0.749
	MIPR	JFCOM, Norfolk, VA	0.100	N/A	N/A	N/A	N/A	N/A	N/A			N/A	0.100	0.100
Product Development	T&M	ENTERWORKS, Sterling, VA	8.745	N/A	N/A	N/A	N/A	N/A	N/A			N/A	8.745	8.745
	T&M	WFI (DSI), Manassas, VA	4.125	N/A	N/A	N/A	N/A	N/A	N/A			N/A	4.125	4.125
	FFP/CPAF	NGMS, Reston, VA	23.038	12.630	11/07	13.040	11/08	13.042	11/09			Cont'g	74.765	74.765
	T&M	SAIC, Falls Church, VA	19.064	N/A	N/A	N/A	N/A	N/A	N/A			N/A	19.064	19.064
	CPFF	NGIT, Reston, VA	18.997	1.300	N/A	1.372	N/A	1.413	N/A			Cont'g	24.482	24.482
	T&M/CPFF	UNISYS, Falls Church, VA	7.613	1.181	02/08	1.240	02/09	1.115	02/10			Cont'g	12.268	12.268
	MIPR	FGM, Reston, VA	5.482	N/A	N/A	N/A	N/A	N/A	N/A			0.000	5.482	5.482
	FFP	Merlin, McLean, VA	1.664	N/A	N/A	N/A	N/A	N/A	N/A			0.000	1.664	1.664
	MIPR	JDTC, Ft Eustis, VA	1.502	0.421	11/07	0.500	11/08	0.551	11/09			Cont'g	3.474	3.474
	MIPR	CSC, Norfolk, VA	0.300	N/A	03/08	N/A	03/09	N/A	03/10			Cont'g	0.300	0.300
Test & Evaluation	CPFF	COMTEK, Sterling VA	3.902	N/A	03/08	N/A	03/09	N/A	03/10			Cont'g	3.902	3.902

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/05	Program Element PE 0303141K	Project Name and Number Global Combat Support System/CS01

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
	MIPR	SSO, Montgomery	0.500	N/A	10/07	N/A	10/08	N/A	10/09			Cont'g	0.500	0.500
	MIPR	NSA	N/A	N/A	08/08	N/A	08/09	N/A	08/10			Cont'g	N/A	N/A
	MIPR	DIA	0.276	0.210	10/07	0.250	10/08	0.338	10/09			Cont'g	1.398	1.398
	NexGen	Pragmatics	0.764	0.430	06/08	0.490	06/09	0.550	06/10			Cont'g	2.733	2.733
	MIPR	JITC, Ft. Huachuca,AZ	0.500	0.762	11/07	0.800	11/08	0.822	11/09			Cont'g	3.684	3.684
Total			113.484	17.536		18.370		18.431					186.028	186.028

Exhibit R-4, RDT&E Program Schedule Profile			Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide, 05	Program Element Number and Name PE 0303141K, Global Combat Support System		Project Number and Name CS01, Global Combat Support System

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Acquisition Events – Milestone B/C		△																														
Engineering Events & Milestones - SW System Reqts Review (SSRR)		△				△				△																						
Preliminary Decision Review (PDR)			△				△				△																					
Critical Decision Review (CDR)			△				△				△																					
Developmental Test & Evaluation (DT&E)			△				△				△																					
Contractor Integration Test (CIT)				△				△				△																				
Accept/Security Testing					△				△																							
Operational Test & Evaluation (OT&E) – Operational Test Readiness Review (OTRR)					△				△																							
Fielding Decision						△				△																						

Exhibit R-4a, RDT&E Program Schedule Detail	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide, 05	Program Element and Name PE 0303141K, Global Combat Support System	Project Number and Name CS01, Global Combat Support System

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Acquisition Events – Milestone B/C	2Q							
Engineering Events & Milestones								
- Software Sys Requirements Review	2Q	2Q	2Q					
- Preliminary Design Review	3Q	3Q	3Q					
- Critical Design Review	3Q	3Q	3Q					
Developmental Test & Evaluation	3Q	3Q	3Q					
Contractor Integration Test	4Q	4Q	4Q					
Accept/Security Testing		1Q	1Q					
Operational Test & Evaluation Operational Test Readiness Review		1Q	1Q					
Fielding Decision		2Q	2Q					

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Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/05			R-1 Item Nomenclature Joint Command and Control Program (JC2)/PE 0303158K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Joint Command and Control Program (JC2)/JC01	56.461	56.618	49.047					

A. Mission Description & Budget Item Justification

The Net-Enabled Command Capability (NECC) is the DoD's principal command and control capability focused on providing the Warfighter with the data and information needed to make timely, effective and informed decisions. Commanders use NECC to adapt rapidly to changing mission needs by defining and tailoring their information environment and drawing on capabilities that enable the efficient, timely and effective command of forces and control of engagements. NECC provides the DoD with next-generation C2 capabilities using a Service Oriented Architecture (SOA) on the Global Information Grid (GIG). NECC draws from the C2 community to evolve current and provide new C2 capabilities into a fully integrated, interoperable, collaborative Joint solution. NECC replaces the Global Command and Control System (GCCS) Family of Systems (FoS) with a single joint C2 architecture and capabilities-based implementation that enables advanced distributive, collaborative information sharing vertically and horizontally. NECC provides additional critical C2 functionality not present today, and establishes the C2 SOA foundation for future net-centric C2 capabilities. NECC will facilitate exchange of information across multiple security domains and reduce logistics and support requirements.

Accomplishments/Planned Program:

	FY 2008	FY 2009	FY 2010
Subtotal Cost	**56.461**	**56.618**	**49.047**
Capability Module Development	10.313	22.281	25.000
Systems Eng/T&E	30.216	23.469	16.258
Program Management	15.932	10.868	7.789

FY 2008: In early FY 2008, the Director of Defense Research and Engineering (DDRE) reviewed NECC's technology readiness assessment, and together with the Director of Operational Test and Evaluation raised issues regarding technical risk, aggressive and overly optimistic scheduling, and unclear testing and deployment strategies. The DDRE assessment stated a lack of definition of the program as to requirements or agreement on program definition with stakeholders. These issues were also noted in the FY 2009 Senate Armed Services Committee (SASC) report which also expressed a need for a transition plan for the information systems that the Services are currently developing under the GCCS FoS, which are planned for integration into a single NECC architecture.

Program Definition. The NECC Program understood and concurred with the concerns regarding lack of agreement with program definition. To resolve this issue, the Joint Program Executive Officer (JPEO) worked with US Joint Forces

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Command (JFCOM) to create Mission Capability Area (MCA) Teams. The MCA Teams were led and staffed by the Services, and focused on describing the NECC capabilities with respect to the GCCS FoS. The MCA Teams documented the program definition in the GCCS FoS to NECC Functionality Transition Plan. Further decomposition of the Program by the joint, Service-led MCA Teams into System Requirements Specifications and Requirements Traceability Matrices formed the basis for all Capability Module development activities to be conducted in FY 2009.

Integration. The NECC Program understands the concerns regarding integration. The Program agrees that the previous approach to integration was insufficiently defined, and integration must be a focus area to achieve success. To that end, the NECC Program worked the integration issue throughout FY 2008's Systems Engineering (SE) process execution. The Program addressed gaps in the integration process and integration environment identified during the technical development phase, and produced an Integration Strategy to document the integration way forward. The program's draft integration plan includes process activities derived from and synchronized with the SE process, the Integration Strategy, the Federated Development and Certification Environment (FDCE) stages and the Test, Evaluation and Piloting processes.

Technical Risk. The NECC Program concurred with expressed concerns and addressed technical risk in FY 2008 by conducting prototyping activities, detailed modeling and simulation, comprehensive testing, and SE efforts to better portray the NECC architecture. The prototyping activities consist of: 1) Market Research, 2) Competitive Analysis, 3) both competitive and non-competitive Technology Maturity Experiments, and 4) both competitive and non-competitive Capability Prototypes. These activities support program maturity and readiness by contributing to risk reduction, design and cost validation, process evaluation, requirements refinement and fielding time reduction. All NECC prototyping activities began with market research which produced a C2 Catalog of Capabilities describing 48 existing DoD C2 IT capabilities that may fulfill NECC capability needs. Market research activities included virtualization experiments to select cross platform solutions for further evaluation in a Technology Maturity Experiment. Competitive Analysis, inherent to the NECC SE process, was continuously applied and refined as the SE process matured in FY 2008, by referencing the C2 Catalog of Capabilities, identifying existing potential solutions, and then performing analysis of competing solutions. This process was exercised over 20 times as the initial capability module design efforts were completed in FY 2008, and it continues into FY 2009. In order to determine the level of risk posed by a proposed technology or process, the NECC Program conducts formal Technology Maturity Experiments. In these experiments, the program is working to achieve Technology Readiness Level (TRL) 6 criteria in conjunction with guidance from DUSD (S&T). To examine the maturity of NECC processes, the program has conducted 21 separate events to date and a detailed evaluation of the FDCE.

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Testing. The NECC Program addressed concerns regarding testing by revising the test strategy to resolve the gap between CM functionality and minimum acceptable "warfighter utility". The program stood up a tri-chaired board called the Joint System Team (JST), with representatives from the program, the operational sponsor, and the operational test agency each having co-equal voices for decisions. The JST established the concept of Operational Capability Sets (OCSs) and testing of these OCSs using real-world mission threads.

Schedule. To address concerns with schedule, the NECC Program reworked activities to provide for more event-driven activities. The program reassessed the capability module development schedules to add more design and coding time and to reduce overhead activities. Early schedules did not allow enough time for learning and assumed more of an end-state development schedule. The new schedule approach factors in the time required to work through design solutions with Services and stakeholders. As a long-term schedule activity, the Milestone B event is scheduled after a full system preliminary design review as directed by the new DoD 5000.02, which ensures the system design is ready for developmental activities before the Milestone is authorized. In this regard, the program incorporates successful events prior to moving forward to a Milestone.

Development. On February 1, 2008 the Defense Acquisition Executive (DAE) directed NECC to develop five capability modules (CMs), use the FDCE to pilot the CMs through the end-to-end systems engineering process, demonstrate the full developmental and operational test process and the fielding decision procedures, demonstrate cost control to monitor execution performance and provide data to support Milestone B cost estimate development, and continue experimentation and other risk reduction activities.

FY 2008, NECC developed the first planned spiral of five NECC capabilities, exercising the systems engineering end-to-end process, as directed by the DAE. A successful Early User Test (EUT) and Mock Fielding Decision Review were conducted for the five Situational Awareness CMs in June 2008. Additionally, FY 2008 RDT&E funds supported the initial design and development of three cross functional capabilities.

In July 2008, a DAE review evaluated the delivery of the first five CMs. The evaluation included a review of cost returns, and the program acquisition strategy and milestones. The review was positive and the DAE directed NECC to move forward into FY 2009 by conducting planning activities throughout the remainder of FY 2008 and executing those activities in FY 2009.

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FY 2009: FY 2009 funds support program development, testing, production, and activities to prepare for delivery, fielding and operations all aimed at conducting a September 2009 End-to-End (E2E) integration test event. These activities are specifically designed to improve the cost estimating process by gathering data on capability development activities, and the tasking to demonstrate technology maturity. The NECC Program efforts regarding technology maturity further emphasize the program's agreement with expressed concerns and the JPEO's desire to meet those concerns and demonstrate a strong technological foundation.

Capability Development. NECC planned to develop 61 CMs in FY 2009. Due to the funding reduction, NECC will develop and test 14 interim releases of CMs, leveraging and expanding beyond the CMs started in FY 2008. The FY 2009 CMs are designed to demonstrate a Joint Mission Thread (JMT) provided by JFCOM in coordination with the Military Services. JMTs are a functional grouping of mission specific, synchronized activities (materiel and non-materiel), tasks and associated attributes directed toward a comprehensive C2 capability from its beginning to its desired end state. The thread consists of specific aggregated tasks that must be performed by Warfighters to succeed in their mission. The JMT is the Joint Personnel Recovery, and contains the Operational Sponsor's highest priority capability needs for Shared Situational Awareness. By 4QFY2009, interim capability releases in four functional areas are planned, with five CMs providing Shared Situational Awareness, five CMs for Cross Functional Capabilities, three CMs for Force Projection, and one CM providing Intelligence capabilities.

Integration. In FY 2009, to further address integration concerns, the program is establishing an integration environment to include the Net-Centric Enterprise Service (NCES) capabilities and the Military Services' SOAs or prototypes. This integration environment includes a cross-functional reference implementation to support the development and integration of the functional capability modules. The establishment of the integration environment and governance process will significantly reduce the risk in development by providing a common environment for all developers to reference and use. This approach directly addresses the stakeholders' concerns regarding integration.

Engineering and Prototyping. The development and demonstration of the integrated capabilities within the mission threads demonstrates the end-to-end NECC SE process, and is tightly integrated with critical activities designed to respond to concerns within the stakeholder community. Continued engineering activities will support FDCE maturity, with three FDCE deliveries in FY 2009. The FDCE is a key tool to support NECC capability development, certification, test and delivery, and fully supports the 14 CMs, their use in the mission threads, and the necessary testing activities to demonstrate CM completion. While the mission threads and CMs show the operational relevance of NECC development activities, concurrent FY 2009 prototyping activities are designed to demonstration future capabilities and

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integration processes not yet available, such as interdependencies with NCES and the Military Services' infrastructures.

Modeling and Simulation. The NECC Program recognizes the need to understand the scalability and performance of the NECC architecture and deployed capabilities. Detailed modeling and simulation activities show scalability of the NECC architecture beyond the operationally relevant test environment to a much larger installation throughout the Global Information Grid. In FY 2009, the program uses data gathered from prototyping activities to produce models which will simulate the operational environments using enterprise and Service infrastructures, network environments including disadvantaged communication conditions, the deployed component of capability modules, and two intended mission threads. These simulations will be used to run a series of scalability analyses designed to produce a stressing load while executing the simulated mission threads. Data from all simulation activities will be provided to the DUSD(S&T) and used to update the architecture, design, deployment strategies, and other relevant technical activities within NECC.

Testing. Comprehensive testing culminates the FY 2009 activities. The NECC Program will conduct an End-to-End (E2E) Developmental Test (DT) which tests a set of capability modules within the context of the Joint Personnel Rescue (JPR) Mission Thread using the operational environment to the maximum extent possible. The Operational Tester community supports the E2E DT event. An Operation Test Agency (OTA) Milestone Assessment Report will be completed by the Lead OTA to inform Milestone B. Through the FY 2009 testing events, the program will demonstrate a mature and repeatable testing process that has been fully coordinated with DOT&E and directly responds to the testing concerns. The program is updating the Test and Evaluation Master Plan (TEMP) to further define the details of this strategy, and DOT&E and DDRE are major stakeholders in the TEMP development process. The JST has overseen significant improvements to testing governance using the Test, Evaluation, and Certification Criteria and the FDCE. Process improvements have been made in the areas of test planning and test execution.

In FY 2009, NECC will complete a Preliminary Design Review (PDR) as directed by the DAE and the DoD 5000.02, prior to a Milestone B decision to reduce risk and provide a better program baseline. The PDR establishes the allocated baseline and the underlying architecture to support a high-confidence design. The PDR describes requirement trade-offs, improves the program office estimate, and identifies residual design, integration and development risks. The PDR will include participation from all key NECC stakeholders. The PDR report will be provided to the Milestone Decision Authority at Milestone B and include the recommended requirements trades based upon an assessment of cost, schedule, and performance risk.

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FY 2010: The NECC Program anticipates achieving a Milestone B decision for Increment 1 in early FY 2010, at which point NECC will enter the Integrated System Design effort of the Engineering and Manufacturing Development phase. FY 2010 will continue the migration of current GCCS FoS system functionality to NECC through extensive engineering and CM development activities. FY 2010 funds will be used to provide the required program development, testing, production, and activities to prepare for delivery, fielding and operations of interim and final releases of three (3) additional CMs. FY 2010 continues and expands upon FY 2009 development with approximately 14 CMs focused on Shared Situational Awareness, Deployment Planning and Cross Functional CMs. From a Warfighter perspective, FY 2010 is crucial to providing common solutions across the Combatant Commands, Joint Task Forces, and Services; providing significantly improved capabilities at reduced sustainment cost. The development schedule is established to provide operational capability for the Warfighter in a cost effective and timely manner, and will be organized to demonstrate the capabilities in Joint Mission Threads.

FY 2010 funding will also provide for the standup of servers at the Enterprise GIG Computing Nodes (GCNs); information assurance technical support; OTA support; training; and establishment of the required piloting activities, especially with the interim releases to the Warfighter for early assessment. FY 2010 will continue engineering and development activities for the FDCE, incorporating new features based upon input from FY 2009 experience.

In FY 2010, NECC will conduct a Critical Design Review (CDR) and submit a report to the DAE providing an overall assessment of design maturity and a summary of the system-level CDR results. A successful CDR will grant NECC authority to enter the System Capability and Manufacturing Process Demonstration effort within the Engineering and Manufacturing Development phase. FY 2010 funding is critical to begin the realization of significant enhancements and capability improvements for the Warfighter. NECC plans to demonstrate the use of newly-developed and integrated CMs in the context of additional Joint Mission Threads. The span of C2 capability to be demonstrated in FY 2010 includes not only the Situational Awareness prioritized tasks but also expands into the Deliberate and Adaptive Planning domain, the second priority for the Operational Sponsor. The Situational Awareness and Deliberate and Adaptive Planning threads include the use of operational Business Process Models (BPMs) of specific Warfighter functions selected to linked dependencies of activities and events within the threads to materiel and non-materiel capability needs. A BPM represents both the current ("as is") and future ("to be") processes of an enterprise, so that the current process may be analyzed and improved. By including the non-materiel capability needs into the mission thread demonstrations of FY 2010, the NECC Program moves beyond simple CM development into the exploration of doctrine, organization, training, leadership development and education, personnel, facilities, and policy (DOT-LPF-P) issues that should be modified by the department to take advantage of new and innovative C2 capabilities. For example, by using NECC capabilities

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through the Enterprise and exploring reachback activities for Deliberate and Adaptive Planning, the department may realize the benefits of smaller-deployed headquarters footprints with greater reliance on US-based assets, creating more agile and capable forward headquarters while increasing their responsiveness with greater access to US-based people, capabilities, and systems. The holistic solutions provided by NECC capabilities combined with DOT-LPF-P changes provide force-multiplying benefits from the modern C2 architectures. By 4QFY2010 NECC anticipates achieving a Milestone C decision, entering the Production and Deployment phase.

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President's Budget	57.913	147.339	201.236
FY 2010 Budget Estimate	56.461	56.618	49.047
Total Adjustments	(1.452)	(90.721)	(152.189)

FY 2009 changes reflect the Congressional mark ($90M) and reductions due to Economic Assumptions as cited in Section 8101 of the FY 2009 Conference Report. FY 2010 changes reflect an internal realignment of funds to adjust the NECC funding profile to correspond with FY 2009 funding reductions and revised inflation rates.

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010
O&M, DW	14.813	10.893	9.602
Procurement, DW	0.000	3.988	2.835

D. Acquisition Strategy: NECC acquires CMs, services, and materials from various full and open, competitively awarded, performance-based and performance-driven outcome contracts. NECC uses indefinite-delivery-indefinite-quantity (IDIQ) contracts to develop CMs; the NECC JPMO, acting as NECC systems integrator, has the flexibility to award multiple Task Orders (TOs) under these vehicles. The program leverages various types of existing and logical follow-on contracts associated with GCCS FoS programs and general purpose IDIQs. In many cases, NECC TOs are competed among the

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numerous vendors available under these IDIQ contracts through the fair opportunity to compete process required by the Federal Acquisition Streamlining Act (FASA). In instances in which using an existing IDIQ contract is not feasible, NECC acquires services and materials through a full and open competitively awarded contract. NECC uses Federally Funded Research and Development Centers (FFRDC), Systems Engineering and Technical Assistance (SETA) and small business procurement opportunities. NECC accesses some services and material through Military Interdepartmental Purchase Requests (MIPRs) to a fee-for-service Government Agency/Service. NECC evaluates performance by conducting thorough Post-award Contract Reviews (PCRs) and periodic Contract Performance Reviews (CPRs).

E. Performance Metrics: NECC developed a cost control plan in conjunction with the Cost Analysis Improvement Group (CAIG), Office of the Secretary of Defense for Acquisition, Technology and Logistics (OSD AT&L), and Office of the Secretary of Defense for Program Analysis and Evaluation (OSD PA&E). The Cost Control Plan Version 3.0, dated November 2008, describes both earned value (EV) management and performance metrics.

In FY 2008, NECC implemented an EV pilot that would provide NECC and OSD (AT&L) with EV information for monitoring the program's cost/schedule/and technical performance. NECC's EV pilot has two foci: NECC Joint Program processes and CM development. NECC Joint Program processes provides technical and program control services to complete programmatic responsibilities. Under the pilot, NECC internal support costs are consolidated monthly and tracked against a Planned Value baseline and EV milestones. EV is realized when a milestone is considered to be 100 percent complete. EV for the CM development approach includes establishing a Planned Value baselines and milestones for each CM. Monthly reports define the actual costs incurred and the dates when milestones were. EV for CM development is realized when a milestone is considered to be 100 percent complete. In FY 2008, EV data collected for NECC Joint Program processes reported a 1.0 for both CPI and SPI. EV data for three CMs developed by the Navy reported a .90 CPI and a .94 SPI.

The Program Office is collecting and analyzing a broad set of performance metrics to evaluate performance of the end-to-end NECC process. Essential criteria for validating the NECC business strategy is being gathered through performance measurement data that will be collected over the course of the program. Performance data (metrics) is a contract requirement for all development activities. The aggregated data obtained from NECC end-to-end process surveillance and CM development metrics are being used to define a baseline of repeatable performance for all stages of the acquisition process.

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
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Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost To Complete ($000)	Total Cost ($000)	Target Value of Contract
PEO C2C Operations	F&O	Various	7.207	0.117	1-Oct	1.607	1-Oct	1.074	1-Oct			Cont'g	Cont'g	10.007
DISA CPMO Management Operations	F&O	Various	2.002	2.578	1-Oct	3.455	1-Oct	2.313	1-Oct			Cont'g	Cont'g	10.348
JPMO Management Operations	MIPR	SSC San Diego, CA	0.470	0.489	1-Oct	0.338	1-Oct	0.226	1-Oct			Cont'g	Cont'g	1.523
NECC Program Control (PC) Financial Management Support	SBSA/FFP	GS5 LLC; Dumfries, VA	1.991	1.800	1-Jan	0.800	1-Jan	0.536	1-Jan			Cont'g	Cont'g	5.127
NECC PC Acquisition Support	T&M	BIT; Falls Church, VA	2.861	1.127	12-Jan	N/A	N/A	N/A	N/A			3.988	3.988	3.988
NECC PC Acquisition Support	F&O/TBD	TBD	N/A	N/A	N/A	0.551	23-Feb	0.732	23-Feb			Cont'g	Cont'g	1.283
BEA Licenses	F&O/FFP	Merlin International; Vienna, VA	1.906	0.879	N/A	N/A	N/A	N/A	N/A			2.785	2.785	2.785
System Documentation	MIPR	SSC San Diego, CA	0.803	N/A	N/A	N/A	N/A	N/A	N/A			0.803	0.803	0.803
Federated Development and Certification Environment Engineering Design, Development, and Operations	F&O/CPFF	FGM; Reston, VA	N/A	2.632	12-Dec	1.807	12-Dec	1.390	12-Dec			Cont'g	Cont'g	5.829

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FDCE Engineering Design, Development, and Operations	F&O/CPFF	TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Cont'g	Cont'g	0.000
FDCE Hardware	F&O/FFP	Various	N/A	0.285	1-Jan	N/A	N/A	N/A	N/A	0.285	0.285	0.285
FDCE Cots Software Tools	F&O/FFP	Various	N/A	1.302	1-Jan	N/A	N/A	N/A	N/A	1.302	1.302	1.302
Piloting / Test and Evaluation (T&E) Support Contract	F&O/CPFF	SYZYGY; San Diego, CA	N/A	3.083	18-Oct	2.334	18-Oct	N/A	N/A	5.417	5.417	5.417
Piloting / T&E Support Contract	F&O/CPFF	TBD	N/A	0.000	N/A	N/A	N/A	1.563	18-Oct	Cont'g	Cont'g	1.563
Piloting/CPAS Operational Test Agency (OTA) Support	MIPR	SSC San Diego, CA	N/A	0.522	18-Oct	0.114	18-Oct	0.076	18-Oct	Cont'g	Cont'g	0.712
Joint Interoperability Testing Center (JITC) OTA Support	MIPR	DISA	0.642	1.000	18-Oct	0.577	18-Oct	0.386	18-Oct	Cont'g	Cont'g	2.605
Operational Test and Evaluation Force (OPTEVFOR)	MIPR	Navy	N/A	0.356	18-Oct	0.356	18-Oct	0.239	18-Oct	Cont'g	Cont'g	0.951

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OTA Support - Army Test and Evaluation Center (ATEC)	MIPR	Army	0.125	0.830	18-Oct	1.055	18-Oct	0.707	18-Oct		Cont'g	Cont'g	2.717
OTA Support - Marine Corps Test and Evaluation Activity (MCOTEA)	MIPR	Marine Corps	0.115	0.293	18-Oct	0.189	18-Oct	0.127	18-Oct		Cont'g	Cont'g	.724
OTA Support - Air Force Operational Test and Evaluation Center (AFOTEC)	MIPR	Air Force	0.125	0.382	18-Oct	0.382	18-Oct	0.255	18-Oct		Cont'g	Cont'g	1.144
Transformational Command and Control (TC2)	FFRDC	MITRE; Reston, VA	6.665	3.315	1-Oct	1.808	1-Oct	1.210	1-Oct		Cont'g	Cont'g	12.998
Information Assurance (IA) Technical Support	MIPR	SSC Charleston, SC	0.632	1.842	18-Oct	3.433	18-Oct	2.218	18-Oct		Cont'g	Cont'g	8.125
Systems Engineering Support	MIPR	SSC San Diego, CA	3.413	2.243	18-Oct	0.800	18-Oct	0.536	18-Oct		Cont'g	Cont'g	6.992
Architecture and Design	F&O/FFP	S&T Assoc; Arlington, VA	3.963	7.044	1-Apr	6.405	1-Apr	4.288	1-Apr		Cont'g	Cont'g	21.700
Systems Engineering Integration Support	F&O/CFPP	SAIC; McLean, VA	N/A	4.490	7-Nov	N/A	N/A	N/A	N/A		4.490	4.490	4.490
Systems Engineering Integration Support	F&O/CFPP	TBD	N/A	N/A	N/A	2.513	8-Nov	1.784	8-Nov		Cont'g	Cont'g	4.297
Capability Modules (CMs)	MIPR	CPMO's	4.110	10.013	Various	22.281	Various	25.000	Various		Cont'g	Cont'g	61.404

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APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05			PROGRAM ELEMENT PE 0303158K						PROJECT NAME AND NUMBER Joint Command and Control Program (JC2)/JC01			
Logistical Support Development	MIPR	SAIC; McLean, VA	N/A	1.818	24-Oct	0.874	24-Oct	N/A	N/A	2.692	2.692	2.692
Logistical Support Development	MIPR	TBD	N/A	N/A	N/A	N/A	N/A	0.636	24-Oct	Cont'g	Cont'g	0.636
Tier 1 Help Desk	MIPR	SSC Charleston, SC	N/A	0.552	18-Oct	0.494	18-Oct	0.331	18-Oct	Cont'g	Cont'g	1.377
Tier 2 FDCE Help Desk	MIPR	SSC Charleston, SC	N/A	0.079	18-Oct	0.226	18-Oct	0.151	18-Oct	Cont'g	Cont'g	0.456
Tier 2/3 Help Desk (Allocated to CPMO's)	MIPR	CPMO's Naval Research Lab (NRL)	N/A	0.000	N/A	0.240	18-Oct	0.161	18-Oct	Cont'g	Cont'g	0.401
Training Enterprise Node	MIPR	/ SSC - San Diego	N/A	0.250	18-Oct	0.500	18-Oct	0.335	18-Oct	Cont'g	Cont'g	1.085
Joint Technical Operations Control Capability (JTOCC) Operations	MIPR	SSC Charleston, SC	N/A	2.381	1-Oct	0.000	N/A	N/A	N/A	Cont'g	Cont'g	2.381
Technical Operations Support	MIPR	SSC San Diego, CA	N/A	N/A	N/A	0.430	1-Oct	0.288	1-Oct	Cont'g	Cont'g	0.718
Piloting Framework and other Operational support	MIPR	SAIC; McLean, VA	N/A	0.682	30-Oct	0.553	30-Oct	N/A	N/A	1.235	1.235	1.235
Piloting Framework and other Operational support	MIPR	TBD	N/A	N/A	N/A	N/A	N/A	0.426	30-Oct	Cont'g	Cont'g	0.426

Exhibit R-3 RDT&E Project Cost Analysis										Date: May 2009		
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05		PROGRAM ELEMENT PE 0303158K								PROJECT NAME AND NUMBER Joint Command and Control Program (JC2)/JC01		
Electronic Performance Support System (e.g. DMI)												
Environment	MIPR	NRL	N/A	0.500	18-Oct	0.450	18-Oct	0.302	18-Oct	Cont'g	Cont'g	1.252
Joint Training Integration Support	MIPR	SSC San Diego, CA	N/A	N/A	N/A	0.175	18-Oct	0.117	18-Oct	Cont'g	Cont'g	0.292
FDCE Development Nodes for CPMO's	MIPR	CPMO's	N/A	0.781	1-Jan	0.000	Various	N/A	Various	Cont'g	Cont'g	0.781
I&TP Technical IPA	MOD	UMES; Princess Anne, MD	0.402	0.000	N/A	0.000	N/A	N/A	N/A	0.402	0.402	0.402
CTF Support	MIPR	NSMA	0.160	0.000	N/A	0.000	N/A	N/A	N/A	0.160	0.160	0.160
DISN LES / BN12 and ACTD Lab Net Enabled Command Capability (NECC) Federated Development Certification (FDC) and Capability Provisioning Activities (CPA)	F&O/CPFF	FGM; Reston, VA	3.470	N/A	N/A	N/A	N/A	N/A	N/A	3.470	3.470	3.470
Integration & Tech Piloting	F&O/CPFF	SAIC; McLean, VA	6.963	N/A	N/A	N/A	N/A	N/A	N/A	6.963	6.963	6.963
FDCE / T&E / OILS / IA / I&TP Support	F&O/CPFF	SAIC; McLean, VA	5.443	N/A	N/A	N/A	N/A	N/A	N/A	5.443	5.443	5.443

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05	PROGRAM ELEMENT PE 0303158K	PROJECT NAME AND NUMBER Joint Command and Control Program (JC2)/JC01

ASAP ACTD	MIPR	Air Force	0.050	0.300	1-Jan	N/A	N/A	N/A	N/A		Cont'g	Cont'g	0.350
AEC	MIPR	Army	N/A	0.225	31-Dec	N/A	N/A	N/A	N/A		0.225	0.225	0.225
DAA Support	MIPR	DISA	N/A	N/A	N/A	0.210	1-Oct	0.140	1-Oct		Cont'g	Cont'g	0.350
Command and Control (C2) Catalog Support	F&O/FFP	BIT; Falls Church, VA	N/A	0.630	1-Feb	0.124	4-Oct	0.151	N/A		Cont'g	Cont'g	0.905
Certification Agents	MIPR	DISA / STRATCOM	N/A	N/A	N/A	N/A	18-Oct	0.280	18-Oct		Cont'g	Cont'g	0.280
Prototyping	MIPR	CPMO's	0.569	1.329	Various	1.362	Various	0.912	Various		Cont'g	Cont'g	4.172
TOTAL			**54.505**	**56.461**		**56.618**		**49.047**					**216.632**

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009

Appropriation/Budget Activity RDT&E, Defense-Wide, 05	Program Element Number and Name PE 0303158K, Joint Command and Control Program (JC2)	Project Number and Name JC01, Joint Command and Control Program (JC2)

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Technology Development (TD) Activities – Increment I																																
System Engineering	X	—	—	—	—	—	—	—	X																							
Establishing Federated Development Certification Environment	X	—	—	—	—	—	—	—	X																							
Tech Risk Reduction/Piloting	X	—	—	—	—	—	—	—	X																							
Piloting Integration	X	—	—	—	—	—	—	—	X																							
Define/Design/Dev Capability Modules	X	—	—	—	—	—	—	—	X																							

Exhibit R-4, RDT&E Program Schedule Profile			Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide, 05	Program Element Number and Name PE 0303158K, Joint Command and Control Program (JC2)		Project Number and Name JC01, Joint Command and Control Program (JC2)

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Engineering and Manufacturing Development Activities – Increment I																																
System Engineering									X			X																				
Operate Federated Development Certification Environment									X			X																				
Tech Risk Reduction/Piloting									X			X																				
Piloting Integration									X			X																				
Define/Design/Dev Capability Modules									X			X																				

Exhibit R-4a, RDT&E Program Schedule Detail	Date: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05	PROGRAM ELEMENT NUMBER AND NAME PE 0303158K/Joint Command and Control Program (JC2)	PROJECT NUMBER AND NAME Joint Command and Control Program (JC2)/JC01

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Technology Development (TD) Activities – Increment I								
System Engineering	1Q–4Q	1Q–4Q						
Establish Federated Development Certification Environment	1Q-4Q	1Q-4Q						
Tech Risk Reduction/Piloting	1Q-4Q	1Q-4Q						
Piloting Integration	1Q-4Q	1Q-4Q						
Define/Design/Dev Capability Modules	1Q-4Q	1Q-4Q						
Engineering and Manufacturing Dev Activities - Increment I								
System Engineering			1Q–4Q					
Operate Federated Development Certification Environment			1Q–4Q					
Define/Design/Dev Capability Modules			1Q-4Q					

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Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature C4I Interoperability/PE 0208045K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Program Element	73.510	76.019	74.786					
Test and Evaluation/T30	20.714	20.916	20.820					
Major Range Test Facility Base (MRTFB)/T40	52.796	55.103	53.966					

A. Mission Description and Budget Item Justification: The Joint Interoperability Test Command (JITC) is the sole interoperability certifier for all National Security System/Information Technology (NSS/IT) for the Department of Defense (DoD) and the warfighter. Other JITC core missions include testing of DoD terrestrial, space, and tactical communications capabilities, supporting warfighters on technical NSS/IT issues, and assisting Combatant Command to Coalition partner interoperability. JITC is also the only Joint Operational Test Agency (OTA) and supports the acquisition process of the Defense Information Systems Agency (DISA), National Security Agency (NSA), Defense Intelligence Agency (DIA), military Services, and other DoD agencies.

DISA's Major Range and Test Facility Base (MRTFB) resources include over 1300 military, civilians, and contractor personnel, and facilities that include nearly 149,125 square feet of Command, Control, Communications, Computing and Intelligence (C4I)/Global Information Grid (GIG) testing laboratories.

In FY 2010, to ensure its relevancy to DoD and the warfighter community JITC will continue to manage and maintain its current base, as well as continue to:

- Perform major upgrades to its power, high voltage air conditioning, and communications infrastructure;
- Procure, install, and perform configuration management of test solutions for transformational GIG "to be" capabilities;
- Expand its test operations capability to provision, federate, and monitor required GIG Test and Evaluation (T&E) capabilities;
- Coordinate and manage functional area products required for Joint T&E of Intelligence, Warfighting, and Business capabilities.
- Evolve the laboratory testbeds to meet future technology changes and enhancements in hardware and testing software, with an emphasis on preparing testbeds and test networks to facilitate the testing of Service Oriented Architectures (SOAs).

JITC provides consistent, repeatable test capabilities to support Military Services and Government agencies; ensures DISA and other DoD Agency acquired capabilities are operationally effective and suitable; and certifies Joint Warfighter capabilities are interoperable with the currently fielded systems. This project is under Budget Activity 07

Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature C4I Interoperability/PE 0208045K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Program Element	73.510	76.019	74.786					
Test and Evaluation/T30	20.714	20.916	20.820					
Major Range Test Facility Base (MRTFB)/T40	52.796	55.103	53.966					

because it involves efforts supporting operational systems development. Specifically, this project:

- Supports Combatant Commanders during exercises and contingency operations to ensure Joint interoperability throughout the lifecycle of DoD NSS/ITS and successful combined operations with Allies and Coalition partners;
- Conducts multiple Joint and Combined interoperability test events to verify Service/Agency Tactical Data Link capabilities;
- Conducts the DoD Interoperability Communications Exercise (DICE) three times a year to evaluate current and new communications capabilities;
- Enables development and operational testing of GIG capabilities to include the Optical and IP Core, Real-Time Voice, Data, and Video Service, GIG Enterprise Services, and the Net Centric Command Capability;
- Supports interoperability test certification to verify Intelligence, Warfighting, and Business capabilities comply with Net-Ready Key Performance Parameters and can interoperate within and across Joint mission areas; and
- Supports JITC’s Office of the Secretary Defense (OSD)-mandated mission to serve as an MRTFB by providing NSS/IT T&E infrastructure upgrades to keep pace with the dynamic technology and operational environments.

Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature C4I Interoperability/PE 0208045K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Program Element	73.510	76.019	74.786					
Test and Evaluation/T30	20.714	20.916	20.820					
Major Range Test Facility Base (MRTFB)/T40	52.796	55.103	53.966					

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President's Budget	75.694	76.226	77.911
Current submission	73.510	76.019	74.786
Total Adjustments	-2.184	-0.207	-3.125

Change Summary Explanation:
Fiscal year (FY) 2008 adjustments are due to the realignment of funding to emerging mission critical requirements within the Agency. FY 2009 reflects reductions of -$0.207 million for Economic Assumptions. FY 2010 adjustments are due to the realignment of funding to emerging mission critical requirements within the Agency and revised inflation rates.

Exhibit R-2a, RDT&E Project Justification						Date: May 2009		
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name And Number Test and Evaluation/T30					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	20.714	20.916	20.820					

A. Mission Description and Budget Item Justification: The Joint Interoperability Test Command (JITC), as the only Joint Operational Test Agency, conducts Operational Test and Evaluation (OT&E) to determine the operational effectiveness and suitability of the systems acquired, assigned, or managed by the Defense Information Systems Agency (DISA), Services, and other Agencies. As the sole joint interoperability test certification authority, JITC conducts lifecycle test, evaluation, and certification of the Department of Defense (DoD) National Security Systems/Information Technology (NSS/IT).

- This project provides direct interoperability support to Combatant Commanders during exercises and contingency operations to ensure joint interoperability throughout the lifecycle of DoD NSS/IT, and supports Combatant Commanders to ensure successful combined operations with Allies and Coalition partners. This project provides the funding for direct test support to Combatant Command (COCOM) operations in the theater as well as technical 24-hr/day, 365-day/yr Warfighter Command, Control, Communications, Computing and Intelligence (C4I) Hotline support to the COCOMs and Services.
- JITC conducts three annual distributed Joint and Combined Tactical Data Link hardware-in-the-loop interoperability test events to evaluate Service and Agency warfighting capabilities. Each event includes approximately seven COCOM/Service/Agency facilities and 11 participating systems. Overall this testing will result in over 35 system/capability assessments or certifications.
- This project provides for planning, conduct, analysis and reporting for three annual DoD Interoperability Communications Exercises (DICE) which provides a distributed Joint Task Force (JTF) network to support agile, responsive, and efficient testing and rapid deployment of Joint Warfighting communications capabilities. Annual participation includes over 60 systems/capabilities and results in approximately 30 system/capability assessments or certifications.
- This project provides a sustaining capability to support engineering, development, and operational evaluation of DISA, Service, Combatant Commander, and DoD Agency existing and legacy IT and NSS. The project develops an evaluation infrastructure for current and future IT and NSS and is used to evaluate IT and NSS being considered for fielding. Additionally, this project ensures the success of DoD's Global Information Grid (GIG)-enabling programs throughout their entire lifecycle and ultimately ensures these capabilities are available to the rest of the DoD community to verify their own net-centric C4I warfighting capabilities.

Exhibit R-2a, RDT&E Project Justification						Date: May 2009		
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name And Number Test and Evaluation/T30					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	20.714	20.916	20.820					

- This project provides for the development, implementation, and maintenance of the Major Range and Test Facility Base's (MRTFB's) interoperability testing tools necessary to provide DoD with a Center of Excellence for testing net-centric systems in a realistic operational environment. As an MRTFB facility, these capabilities and mission are considered a national asset.
- From a NSS/IT perspective, DISA acquisition and test and evaluation (T&E) supported by this project are responsible for DoD's corollary and nerve systems. Without this project, the Services and Agencies would be forced to operate independently and fail to achieve net-centric C4I warfighting capability requirements.

B. Accomplishments/Planned Program:

Operational Test and Evaluation	FY 2008	FY 2009	FY 2010
Subtotal Cost	1.957	1.988	2.000

JITC conducts operational evaluations of GIG-enabling capabilities and of IT and NSS acquired, assigned, or managed by DISA to determine if the systems meet user requirements. This includes the following: Conduct Operational Evaluations of Global Command and Control System-Joint (GCCS-J) and Global Combat Support System (GCSS) Combatant Commander/Joint Task Force (CC/JTF) major and minor software releases to help ensure that operational requirements are met in a operational environment with real users; develop and execute operational evaluation strategies for key enablers for implementing DoD wide network centric capabilities including Network Centric Enterprise Services (NCES) and Net-Enabled Command Capability (NECC); assess Teleport systems for operational effectiveness and suitability; and assess operational upgrades to Teleport sites to support fielding decisions. JITC also provides operational evaluation support for Combatant Commanders, Services, and Defense Agencies to include: the National Security Agency (NSA), the Defense Logistic Agency (DLA), the Defense Finance and Accounting Service (DFAS), and the Defense Commissary Agency (DeCA) acquisition programs.

Joint Interoperability Testing	FY 2008	FY 2009	FY 2010
Subtotal Cost	13.802	13.959	13.850

Conducts joint testing and certification of DoD NSS/IT to ensure tactical data link implementations are effectively

Exhibit R-2a, RDT&E Project Justification						Date: May 2009		
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name And Number Test and Evaluation/T30					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	20.714	20.916	20.820					

interoperable for the Airborne Warning and Control System (AWACS), Aegis, Phased Array Tracking Radar Intercept Of Target (PATRIOT), Air Defense System Integrator (ADSI), Joint Stars (JSTARS), Joint Strike Fighter (JSF) and other legacy COCOM/Service/Agency platforms. Conducts the DICE efforts that validate joint communications architectures; identify warfighting connectivity and operational issues; perform system assessments; and certify, verify and validate the interoperability of voice, video, data, transmission, and messaging systems in a operationally realistic Joint Task Force (JTF) environment that typically support our countries peace keeping, humanitarian aid, disaster relief and Overseas Contingency Operations (OCO) missions, that include our Homeland Defense, Federal, State, and Coalition partners. The Command responds to approximately 300 Warfighter C4I Hotline requests submitted from the COCOMs and Services, many directly relating to the War on Terrorism. JITC participates in various COCOM sponsored exercises (e.g., Balikatan, Talisman Saber, Cobra Gold, Air Force – Integrated Collaborative Environment, and Rim of the Pacific) and contingency operations (e.g., Joint Special Operations Task Force Philippines, ThinClient, Radio Over Internet Protocol Routed Network, Cobb Ring) per year and identifies and resolves thousands of interoperability, networking, communications, and general exercise or operational support-related issues. JITC deploys teams ranging from 2 to 16 people to various theater locations for up to three months at a time. JITC provides 24-hr/day, 365-day/yr Warfighter C4I Hotline technical support to the COCOMs and Services.

	FY 2008	FY 2009	FY 2010
Support to Warfighter			
Subtotal Cost	4.955	4.969	4.970

Provides on-site support to Combatant Commanders for exercises and contingency operations to document, review and analyze architectures, conduct interoperability assessments, identify and resolve technical issues, identify uncertified and/or untested interfaces, and determine compliance with Chairman of the Joint Chiefs of Staff (CJCS) manuals; provide solutions to problems raised in hotline calls; and publish four issues annually of Lessons Learned Reports. This support also includes Coalition exercise support, tactical data link testing support and Command and Control Interoperability Boards (CCIB) support, Coalition Network migration, and United States/Coalition communications equipment testing to ensure successful combined operations with our Allies and Coalition partners.

Exhibit R-2a, RDT&E Project Justification						Date: May 2009		
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name And Number Test and Evaluation/T30					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	20.714	20.916	20.820					

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M, DW	3.507	12.851	14.252						Cont'g	Cont'g

D. Acquisition Strategy:

Three prime contracts, with multiple sub-contracts, support this project. These competitively-awarded, non-personal services contracts provide maximum flexibility and allow for expansion and contraction of staff years as workload expands and contracts.

E. Performance Metrics:

Performance is tracked through measures of workload. In support of JITC's primary mission for FY 2008, JITC responded to nearly 300 hotline calls for urgent support from across the DoD, other federal agencies and the commercial sector. JITC supported six COCOM sponsored exercises, four contingency operations, and provided liaison officers at four COCOM locations. JITC provided operational, interoperability, and/or information assurance joint assessment, test, and certification support for 44 test projects. JITC supported three DICE events, in which annual participation included over 60 systems/capabilities and resulted in approximately 30 system/capability assessments or certifications. For FY 2009 and FY 2010, JITC will continue to track performance through measures of workload such as the number of: exercises supported; test-related documents produced and delivered; hotline requests; interoperability networking, communication, and general exercise-related issues identified and resolved; JITC personnel deployments; tests conducted; projects supported; and interoperability certifications issued.

Exhibit R-3 RDT&E Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0208045K	Project Name And Number Test and Evaluation/T30

Test & Evaluation

Cost Category	Contract Method & Type	Performing Activity & Location	Total PYs Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Engineering/ Technical Services	FFP/LOE	NGMS Ft. Hua, AZ	22.785	3.251	10/07	3.209	10/08	3.143	10/09			Cont'g	Cont'g	Cont'g
	FFP/LOE	Interop Ft. Hua, AZ	25.776	2.836	10/07	2.625	10/08	2.738	10/09			Cont'g	Cont'g	Cont'g
	FFP/LOE	NGIT Ft. Hua, AZ	17.873	2.090	10/07	1.834	10/08	1.917	10/09			Cont'g	Cont'g	Cont'g
		TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A			Cont'g	Cont'g	Cont'g
Subtotal Contracts				8.177		7.668		7.798						
In-House				12.537		13.248		13.022						
Total Project				20.714		20.916		20.820						

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E, Defense-Wide/07	PE 0208045K, C4I Interoperability	T30, Test and Evaluation

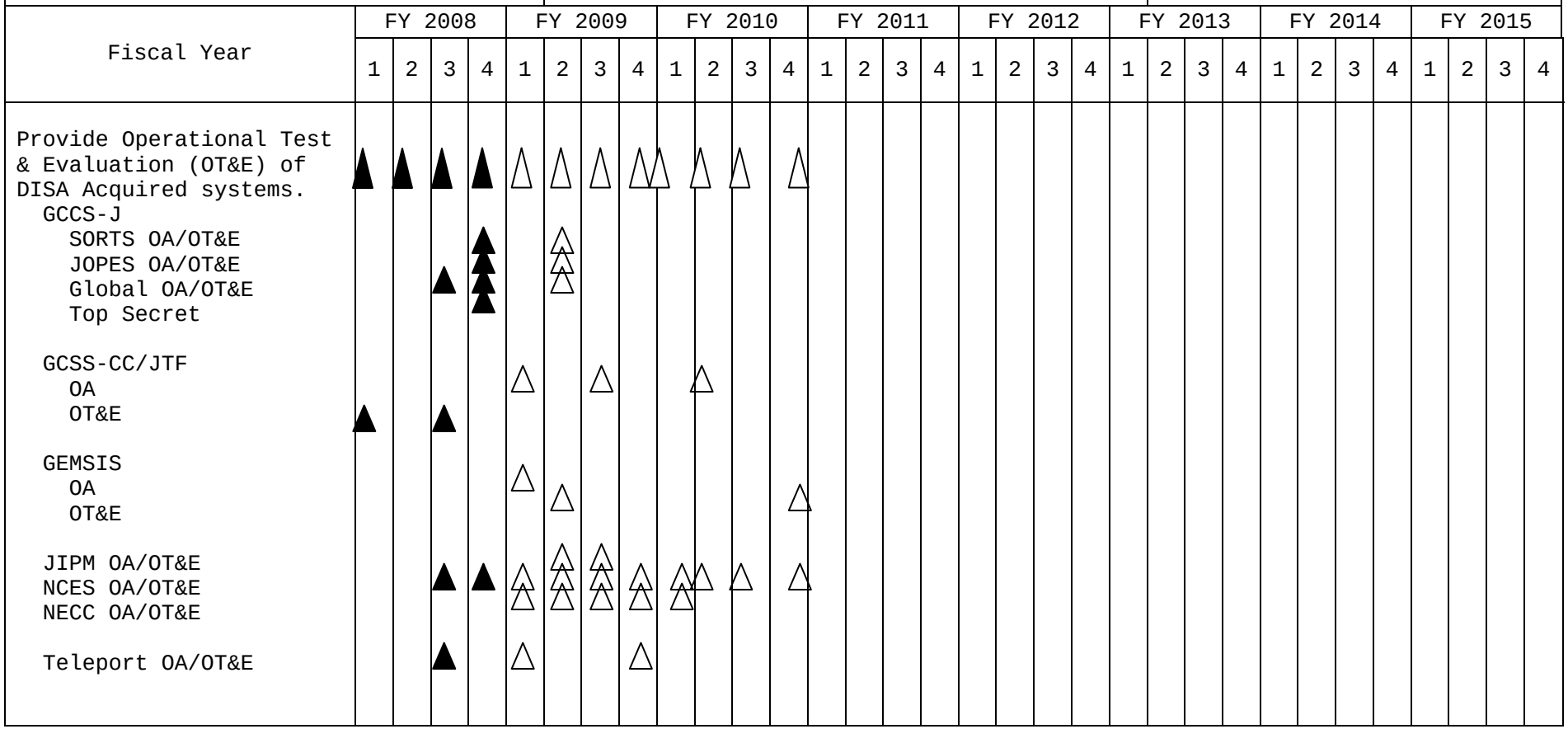

Exhibit R-4, RDT&E Program Schedule Profile		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name PE 0208045K, C4I Interoperability	Project Number and Name T30, Test and Evaluation

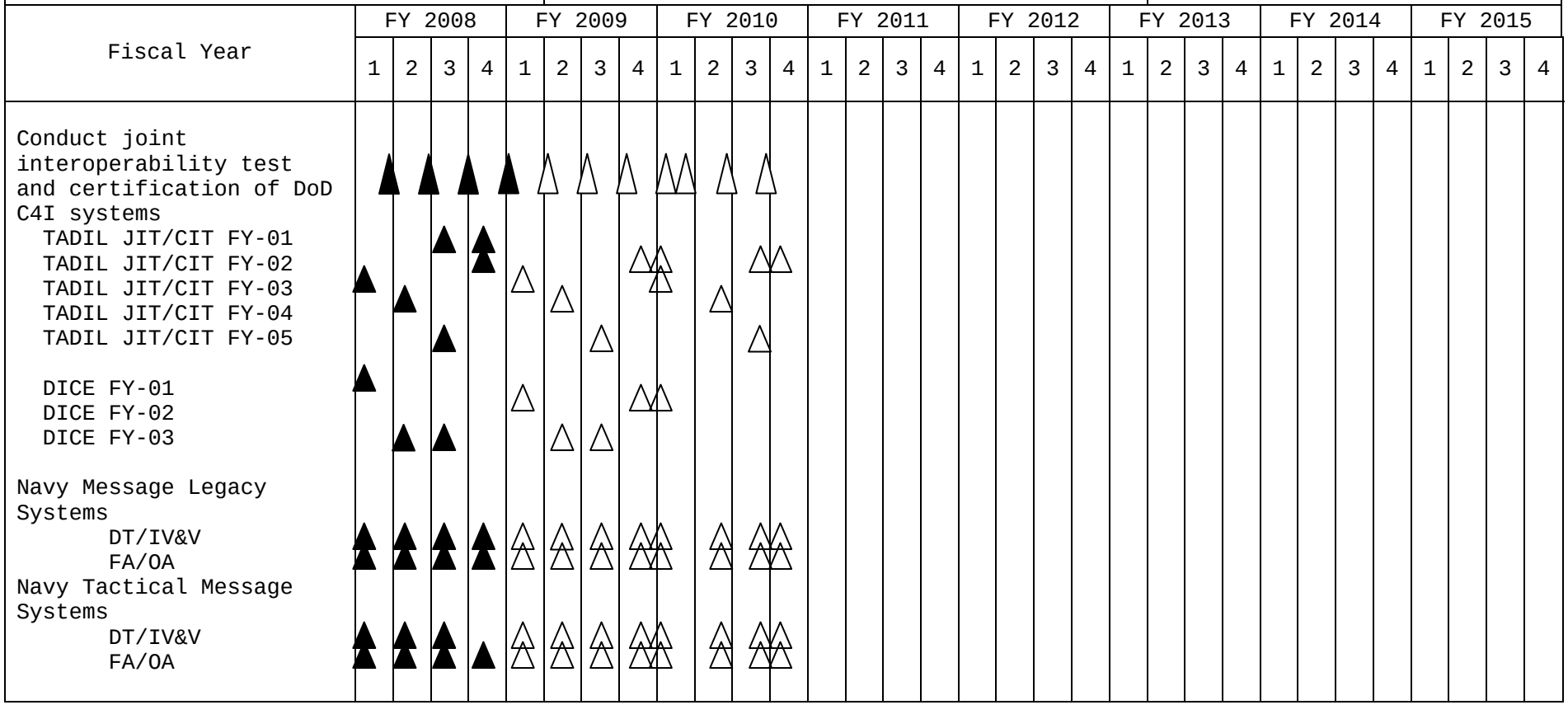

Exhibit R-4, RDT&E Program Schedule Profile		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name PE 0208045K, C4I Interoperability	Project Number and Name T30, Test and Evaluation

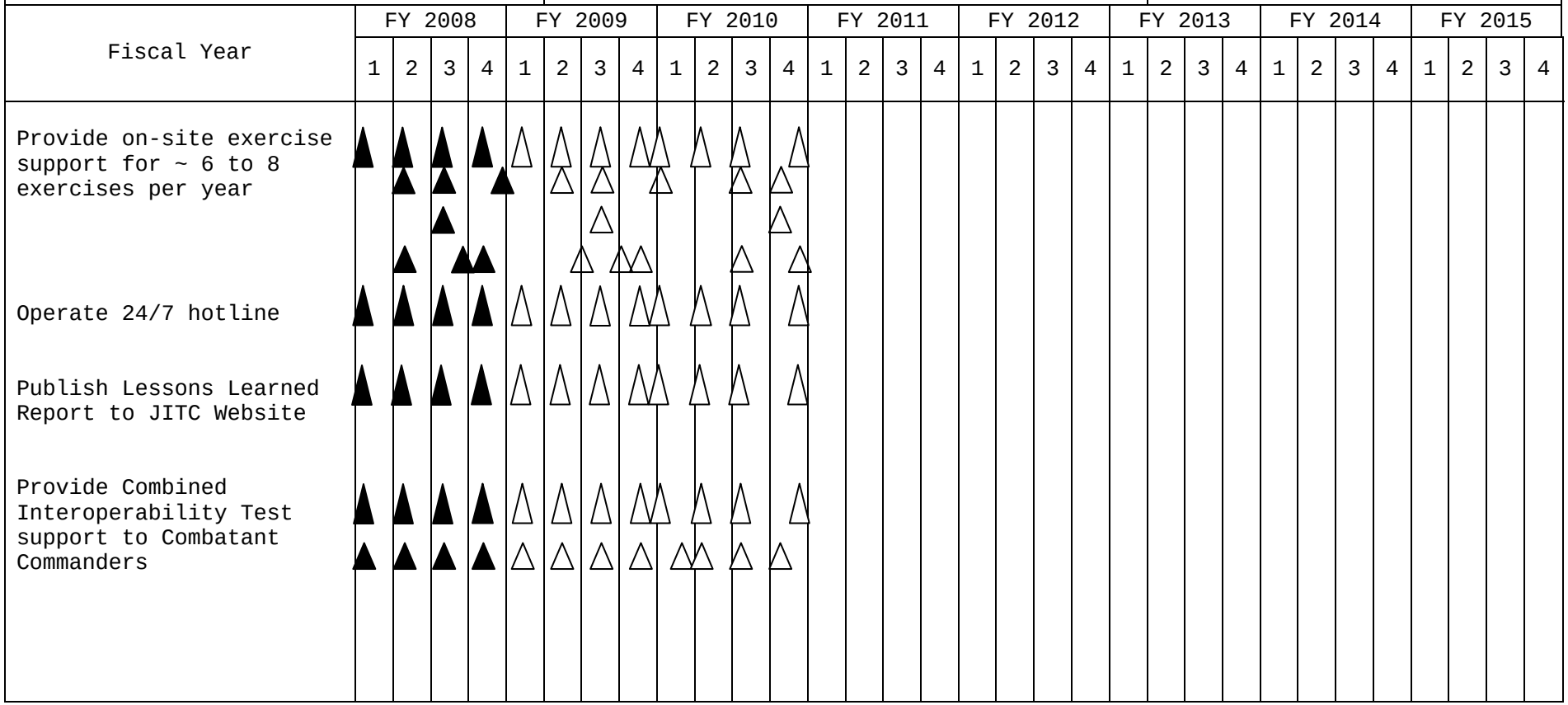

Exhibit R-4a, RDT&E Program Schedule Detail		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number And Name PE 0208045K/C4I Interoperability	Project Number And Name T30/Test and Evaluation

Schedule Profile

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Provide Operational Test & Evaluation (OT&E) of DISA acquired systems (e.g, GCCS-J, NECC, NCES)	1Q-4Q	1Q-4Q	1Q-4Q					
Conduct joint interoperability test and certification on DoD C41 systems such as TADIL Link 11 & Link 16 tests, JSF, etc., including planning and conducting Defense Interoperability Communications Exercise (DICE)	1Q-4Q	1Q-4Q	1Q-4Q					
Navy Message Legacy Systems	1Q-4Q	1Q-4Q	1Q-4Q					
Navy Tactical Message Systems	1Q-4Q	1Q-4Q	1Q-4Q					
Provide on-site exercise support for 6 to 8 exercises per year.	1Q-4Q	1Q-4Q	1Q-4Q					
Operate 24/7 hotline & Publish quarterly Lessons Learned reports	1Q-4Q	1Q-4Q	1Q-4Q					
Publish Lessons Learned Report to JITC Website	1Q-4Q	1Q-4Q	1Q-4Q					
Provide Combined Interoperability Test support to Combatant Commanders	1Q-4Q	1Q-4Q	1Q-4Q					

Exhibit R-2a, RDT&E Project Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name And Number Major Range Test Facility Base/T40					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	52.796	55.103	53.966					

A. Mission Description and Budget Item Justification: This project provides Institutional funds for the Defense Information Systems Agency's (DISA's) Joint Interoperability Test Command (JITC) and the Test and Evaluation Management Center (TEMC). These organizations serve as the only non-Service members of the Department of Defense's (DoD's) Major Range and Test Facility Base (MRTFB), which provides the policy and responsibilities for the management and operation of DoD MRTFB activities. The DISA MRTFB increased its scope within the Agency beginning in FY 2007.

- This project makes JITC mission capable, thus making DISA capable of executing its National Security System/ Information Technology (NSS/IT) interoperability test and evaluation (T&E) mission mandated in the Chairman of the Joint Chief of Staff Instruction (CJCSI) 6212 and DoD policies which establish procedures for JITC system interoperability test certification and prescribe DoD policy and responsibilities for interoperability and supportability of NSS/IT.
- This project provides the necessary test capabilities and facilities infrastructure, internal automated accounting and document tracking and reporting systems, and hardware and software maintenance so that JITC can provide direct test support to DISA NSS/IT acquisitions (e.g., Net Enabled Command Capability (NECC), Net Centric Enterprise Services (NCES), Global Command and Control System (GCCS), Global Combat Support System (GCSS), etc.) as well as Service Tactical Digital Information Link (TADIL), command and control, messaging, and communications systems. This project supports JITC's Office of the Secretary of Defense (OSD) mandated mission to serve as an MRTFB by providing NSS/IT T&E infrastructure upgrades. The laboratory and testing software enhancements allow the testing efforts to keep pace with the rapid change in technology. These upgrades impact the testing of all DoD and DISA NSS/IT acquisitions that require Joint interoperability T&E in accordance with DoD's policy for developing, evaluating and providing interoperability and supportability certification of NSS/IT.
- From an NSS/IT perspective, DISA acquisition and T&E supported by this project are responsible for DoD's corollary and nerve systems. Without this project, the Services and Agencies would be forced to operate independently and fail to achieve net-centric C4I warfighting capability requirements.
- This project includes working with industry consortiums on best practices, investing in process based modeling and simulation, evolving standards based frameworks to support testing and analysis as a service, and evolving and virtualizing the laboratories to meet future technology changes and enhancements in hardware and testing software with an emphasis on unified communications requirements, and service oriented architectures (SOA) enabled net-centric capabilities. It also provides test services via the Federated Development and Certification Environment (FDCE).

Exhibit R-2a, RDT&E Project Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name And Number Major Range Test Facility Base/T40					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	52.796	55.103	53.966					

- This project allows the DISA MRTFB to continue to implement Net Readiness Capabilities Resources (NRCR), which will provide DoD with an off-line, lifecycle support capability for DoD's tactical and strategic networks and their interfaces, as well as build communications and test environments for the current and future Converged Real-time Internet Protocol (IP) Services for voice, data and video, Software as a Service (SaaS), NCES, and NECC.

B. Accomplishments/Planned Program:

Interoperability Test Support	FY 2008	FY 2009	FY 2010
Subtotal Cost	52.796	55.103	53.966

This project funds the DISA MRTFB institutional and overhead costs associated with operating JITC and TEMC. Institutional costs include maintaining and operating base operations, multi-purpose testbeds, contract management, award fee costs, communications, automation support, operating expenses, T&E standards, policies, and procedures. This project funds the associated civilian pay costs for all overhead functions at Indian Head, MD, Fort Huachuca, AZ, and Arlington, VA, as well as the construction of virtual communications capability and enhanced laboratory upgrades. This project provides for the development, implementation, and maintenance of the MRTFB's interoperability testing tools necessary to provide DoD with a Center of Excellence for testing of net-centric systems in a realistic operational environment. The NRCR allows testers to assess and evaluate performance of new systems, software revisions, and hardware modifications to various elements without risking disruption of operational IT networks. The laboratory and testing software enhancements allow the testing efforts to keep pace with the rapid change in technology. This initiative requires hardware and software refreshes on a periodic basis (approximately every two years). Staggering the hardware refreshment acquisitions with the software acquisitions (i.e. one year hardware refresh the next year software) smoothes the spending curve for the out years. The many initiatives spanning all years will provide optimal flexibility in a dynamic IT laboratory environment. The DISA MRTFB consolidates operational, interoperability and development testing into a single program managed under MRTFB rules and procedures.

Exhibit R-2a, RDT&E Project Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name And Number Major Range Test Facility Base/T40					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	52.796	55.103	53.966					

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M, DW	3.507	12.851	14.252						Cont'g	Cont'g

D. Acquisition Strategy: Three prime contracts, with multiple sub-contracts, support this project. These competitively awarded, performance-based, non-personal-services contracts provide maximum flexibility, and allows for expansion and contraction of staff years as workload expands and contracts.

E. Performance Metrics: This project funds institutional costs incurred to operate and maintain the Major MRTFB that contains over 1300 military, civilians, and contractor personnel, and nearly 149,125 square feet of C4I/GIG testing laboratories. The output associated with this project is the development of standard T&E methods and practices, and availability of testbeds and testing software and testing facilities for customer testing.

Exhibit R-3 RDT&E Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0208045K	Project Name And Number Major Range and Test Facility Base/T40

Test & Evaluation

Cost Category	Contract Method & Type	Performing Activity & Location	Total PYs Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Engineering/ Technical Services	FFP/LOE	NGMS Ft. Hua, AZ	19.855	9.413	10/07	8.677	10/08	8.702	10/09			Cont'g	Cont'g	Cont'g
	FFP/LOE	Interop Ft. Hua, AZ	38.219	11.108	10/07	9.874	10/08	10.393	10/09			Cont'g	Cont'g	Cont'g
	FFP/LOE	NGIT Ft. Hua, AZ	21.897	5.460	10/07	4.717	10/08	5.075	10/09			Cont'g	Cont'g	Cont'g
		TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A			Cont'g	Cont'g	Cont'g
Subtotal Contracts				25.981		23.268		24.170						
In-House				26.815		31.835		29.796						
Total Project				52.796		55.103		53.966						

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide, 07	Program Element Number and Name PE 0208045K, C4I Interoperability	Project Number and Name T40, Major Range Test Facility Base (MRTFB)

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Provide interoperability test support to Warfighter	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Base Operations	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Facilities Lease	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Award Fee	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Contractor Management Support	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Consolidated Test Support	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Test Operations	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Net Readiness	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Financial Staff Salaries	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Internal Automated Systems	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Policy & Certification Support	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Test Tool Instrumen-Tation	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Leased Circuits	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
H/W and S/W Maintenance System	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Administration	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				
Functional Lab Support	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲																				

Exhibit R-4a, RDT&E Program Schedule Detail	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number And Name PE 0208045K/C4I Interoperability	Project Number And Name T40/Major Range and Test Facility Base

Schedule Profile

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Develop and Implement Interoperability test systems to support warfighters	1Q-4Q	1Q-4Q	1Q-4Q					

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature: Joint/Allied Coalition Information Sharing/PE 0301144K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Multinational Information Sharing (MNIS)/NND	21.392	19.021	10.767					

A. Mission Description and Budget Item Justification: The Multinational Information Sharing (MNIS) program will improve sharing operational and intelligence information with multinational partners building on the current capabilities in the following systems: Combined Enterprise Regional Information Exchange System (CENTRIXS); Griffin; and the Combined Federated Battle Lab Network (CFBLNet).

In FY 2010, RDT&E funding will support the continued design, integration and testing of the CENTRIXS Combined Enclave Requirement (CCER), a pre-planned product improvement to CENTRIXS intended to satisfy combatant command (COCOM) coalition information sharing requirements while reducing infrastructure footprint and sustainment costs. CCER will leverage available technologies and capabilities to satisfy validated requirements. The objective CCER will be a global Secret Releasable environment, centrally managed, delivering enterprise services and access to centrally stored data to authorized coalition users. CCER will converge multiple secret coalition networks into a single environment and infrastructure. Functional and security requirements, representing the collaborative MNIS single vision of future multinational information sharing capabilities, were defined and documented by the Joint Staff J6, approved by the Net-Centric Functional Capabilities Board (NC FCB), and have been distributed to the COCOMs. CCER Phase I (FY 2009-FY 2010) will collapse the two largest CENTRIXS networks, Global Counter Terrorism Forces (GCTF) and Multinational Coalition Forces Iraq (MCFI), beginning with Communities Of Interest (COI) separation in early releases via Virtual Private Networks (VPN) using the SIPRNet as a common foundational network infrastructure and shared services where feasible, followed by data/storage separation in later releases as labeling and tagging technologies mature. Subsequent phases will enable future consolidation of additional networks once the Information Assurance and monitoring technologies and processes prove sufficiently mature to maintain the required protection of information and data. We will also build out a lab environment at the Joint Interoperability Test Command (JITC) to test the CCER Release versions that support the collapsing of networks and the convergence of data from those networks.

In addition, RDT&E funds will be used to accomplish the necessary security, interoperability and certification testing of new Joint Staff-validated CENTRIXS capabilities for the non-CCER CENTRIXS networks that DISA supports (e.g., providing non-maritime, off-island/off-peninsula centralized services for the CENTRIXS Four Eyes, CENTRIXS-Japan and CENTRIXS-Korea networks). RDT&E funding will be used for the Information Assurance Computing Network Defense (IA/CND), VPN and PKI testing also required prior to the fielding of CCER. RDT&E funding will support the proof of concept deployment of the VPN foundational network infrastructure Global IP Transport enabling access to consolidated services within the networked converged CCER environment.

In FY 2010, Griffin will continue to improve architectural design and support the integration and testing of several new

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature: Joint/Allied Coalition Information Sharing/PE 0301144K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Multinational Information Sharing (MNIS)/NND	21.392	19.021	10.767					

US capabilities for the exchange of strategic and theater level information sharing between the national C2 networks of the Combined Communications-Electronics Board (CCEB) nations. The Improved Connectivity Initiative (ICI) is a 5-phase effort to transition the high assurance guard-based interfaces to COTS security appliances. Transitioning to COTS–based interfaces will enable the rapid introduction of a richer set of services among the CCEB nations as current high assurance guard products only satisfy a small number of the overall information sharing requirements. Initial efforts are focused on email services with Australia and will expand to other services and CCEB nations as the proof of concept is achieved. In FY 2009 and FY 2010, additional services will be provided using CDS and COTS security appliances as appropriate. Chat, web browsing, and file publishing are projected for implementation and deployment within the U.S. Griffin community.

CFBLNet is a Research, Develop, Trials and Assessment (RDT&A) environment between CCEB Nations and NATO. It supports a wide range of R&D, interoperability and collaboration initiatives to improve coalition information exchange capabilities; and, technology refresh and experimentation with emerging capabilities to identify deficiencies and practical solutions in existing applications, systems or equipment. CFBLNet initiatives also support the development and refinement of tactics, techniques and procedures prior to operational deployment. Key initiatives support Intelligence, Surveillance and Reconnaissance (ISR), missile defense, and NATO force interoperability testing. RDT&E funding supports the US Secretariat which include overall network management and CFBLNet security compliance procedures plus MNIS PMO participation in initiatives that support pre-deployment integration and testing of CENTRIXS, CCER, Griffin and ICI capabilities with key mission partners in an operationally realistic coalition information sharing environment.

B. Accomplishments/Planned Program:

	FY 2008	FY 2009	FY 2010	
Subtotal cost	21.392	19.021	10.767	

FY 2008:

-CCER Technical Advisory Group (CTAG)
-CCER Program Implementation Plan signed
-CWID CCER Trials/Results (promising COTS solutions identified for further testing and validation)

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature: Joint/Allied Coalition Information Sharing/PE 0301144K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Multinational Information Sharing (MNIS)/NND	21.392	19.021	10.767					

-MNIS Cross Command CONOPS / Migration Plan
-System Technology Evolution Plan (STEP) Analysis v1.0 and final review

FY 2009 – FY 2010:

CCER/CENTRIXS
-Engineer and install supporting VPN infrastructure for GCTF and MCFI convergence
-Establish CCER at DECCs
-Collapse GCTF & MCFI Networks to CCER
-Mature role-based access
-Commence leveraging core enterprise, C2 & DISN Services

Griffin
-Support Web Services for all CCEB Nations Extend Chat Services to all CCEB Nations
-The Improved Connectivity Initiative is a five-phase effort to transition the high assurance guard-based interfaces to COTS security appliances

CFBLNet
-Conduct CWID 10 Exercises / EMPIRE CHALLENGE 10 Exercise
-Key initiatives will support Intelligence, Surveillance, and Reconnaissance, missile defense, and NATO force interoperability testing

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President’s Budget	25.818	19.073	22.164
FY 2010 Budget Estimate	21.392	19.021	10.767
Total Adjustments	-4.426	-0.052	-11.397

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature: Joint/Allied Coalition Information Sharing/PE 0301144K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Multinational Information Sharing (MNIS)/NND	21.392	19.021	10.767					

Change Summary Explanation: FY 2008 program change due to program offset for CENTRIX Combined Enclave Requirements (CCER). FY 2009 reflects reductions of -$0.052 million for Economic Assumptions. FY 2010 reductions are due to a realignment of funding to SOUTHCOM to support the executability of the CENTRIX and CCER programs and to mission critical requirements within the Agency.

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M,DW	33.092	39.870	44.136						Cont'g	Cont'g
Procurement, DW	5.030	0.000	10.993						Cont'g	Cont'g

D. Acquisition Strategy:
MNIS uses the expertise of contractors that can satisfy cost, schedule and performance objectives. Firm, Fixed Price, performance-based contracts are used to the maximum extent feasible. Cost reimbursable contracts are also used due to the complexity and/or uncertainties involved in meeting the emerging requirements of our operational systems. MNIS maximizes the use of competitive awards.

E. Performance Metrics:
FY 2009 - Integration test for CCER Release 1.0 capability; initial Joint Staff validated Griffin / Improved Connectivity Initiative (ICI) capability; perform CFBLNet Secretariat duties.
FY 2010 – Integration test for CCER Release 1.1 capability and Joint Staff validated Griffin / Improved Connectivity Initiative (ICI) capability; perform CFBLNet Secretariat duties.

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0301144K	Project Name and Number Multinational Information Sharing (MNIS)/NND

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost To Complete ($000)	Total Cost ($000)	Target Value of Contract
Product Development														
Cross Domain Chat – development & tech services	T&M	Harris, Alexandria, VA		6.885	02/08	3.316	02/09	3.000	02/10			Cont'g	Cont'g	16.707
Cross Domain Solutions – operational capabilities support	CPFF	HAI, Arlington, VA		2.530	05/08	2.770	05/09	1.500	05/10			Cont'g	Cont'g	7.745
Test & Integration														
Coalition Lab T&E, IAVA STIG	MIPR	JITC		1.800	10/07	1.700	10/08	1.560	10/09			Cont'g	Cont'g	6.670
Support Costs														
CLASSIFIED	MIPR	TBD		4.265	12/07	6.804	12/08	0.000	N/A			Cont'g	Cont'g	11.069
Federally Funded Research Develop Center (FFRDC)	CPFF	Mitre, Arlington, VA		2.564	10/07	1.683	10/08	1.835	10/09			Cont'g	Cont'g	7.982
SPAWAR	CPFF	TBD		0.750	07/08	1.648	10/08	2.372	10/09			Cont'g	Cont'g	5.780
Program support	T&M	Ingenium, Upper Marlboro, MD		0.200	12/07	0.300	09/08	0.500	09/09			Cont'g	Cont'g	1.600
Engineering Support	CPFF	HAI, Arlington, VA		2.398	01/08	0.800	10/08	N/A	N/A					3.198
Total				21.392		19.021		10.767						60.751

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E, Defense-Wide/07	PE 0301144K, Joint/Allied Coalition Information	NND, Multinational Information Sharing (MNIS)

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Multinational Information Sharing (MNIS) – Current Systems Capability	△	△	△	△	△	△	△	△	△	△	△	△																				
Griffin CDS																																
CDCIE			△	△																												
SOCM				△	△																											
CCER					△				△	△	△	△																				
Security/C&A																																
DECC-C	△	△	△	△	△	△	△	△	△	△	△	△																				
DECC-P	△	△	△	△	△	△	△	△	△	△	△	△																				
CFLBNet																																
CWID			△				△				△																					
Empire Challenge				△				△				△																				

Exhibit R-4a, RDT&E Program Schedule Detail		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name PE 0301144K/Joint/Allied Coalition Information Sharing	Project Number and Name NND/Multinational Information Sharing (MNIS)

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
MULTINATIONAL INFORMATION SHARING (MNIS) – Current Systems Capability	1Q-4Q	1Q-4Q	1Q-4Q					
Griffin CDS								
CDCIE	4Q							
SOCM	4Q	1Q						
CCER		1Q	1Q-4Q					
Security/C&A								
DECC-C	1Q-4Q	1Q-4Q	1Q-4Q					
DECC-P	1Q-4Q	1Q-4Q	1Q-4Q					
CFBLNet								
CWID	3Q	3Q	3Q					
Empire Challenge	4Q	4Q	4Q					

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Exhibit R-2, RDT&E Budget Item Justification					Date: May 2009			
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature National Military Command System-Wide Support (NMCS)/PE 0302016K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
NMCS Command Center Engineering/S32	0.706	0.613	0.548					

A. Mission Description and Budget Item Justification:

The National Military Command System (NMCS) provides the President of the United States, the Secretary of Defense, National Military Command Center (NMCC) and NMCC Site R, Executive Travel Fleet, Office of the Secretary of Defense (OSD), and Chairman, Joint Chiefs of Staff, with the ability to maintain Command and Control (C2) capabilities, ensure continuous availability of emergency messaging, and maintain situational and operational awareness. Additionally, the NMCS provides informed, decision-making linkage between the President, the Secretary of Defense, and the Combatant Commanders. The NMCS program utilizes improved C2 methodologies and technology insertion opportunities to meet the command, control and information requirements for all crises and security threats involving U.S. military forces.

DISA NMCS Engineering Branch, within the Strategic Communications Division, provides innovative and cost-effective engineering solutions to ensure that the NMCS components and facilities located at the NMCC and NMCC Site R provide the Joint Staff with the necessary emergency messaging, situation awareness, crisis action, and operational capabilities. The projects comprising NMCS support provide systems engineering for the NMCS in direct execution of Director, DISA's role as the DoD systems engineer in accordance with Defense policy (Department of Defense Directive 5105.19). Furthermore, these projects support the DoD objective to provide responsive, timely, and accurate information to the warfighter. Support is provided to the Joint Staff in configuration management of over 150 systems and to the planning and continuous modernization of the NMCS. All efforts emphasize interoperability and are designed to contribute directly to the achievement of the global information infrastructure.

FY 2009 funding purchases engineering services to assist the DISA NMCS Engineering Branch in providing to the Joint Staff, OSD, and the NMCS community engineering concept development, requirements definition and calibration, technical specifications, proofs-of-concept, testing, rapid prototyping, technology insertions, systems engineering and integration and technical assessments. Specific NMCS systems that will be evaluated and/or upgraded include the Missile Warning System (MWS), Enhanced Pentagon Capability (EPC) configurations at three sites, and UHF Emergency Network installation at Site R. Specific deliverables include technical reports, system engineering management and maintenance manuals. The NMCS Reference Guide (NRG), a detailed description of all NMCS systems and facilities, will be redeveloped from its current document format to a Wikipedia format.

Exhibit R-2, RDT&E Budget Item Justification					Date: May 2009			
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature National Military Command System-Wide Support (NMCS)/PE 0302016K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
NMCS Command Center Engineering/S32	0.706	0.613	0.548					

FY 2010 funding will purchase engineering services to assist the DISA NMCS Engineering Branch in providing the Joint Staff, OSD, and the NMCS community engineering concept development, requirements definition and calibration, technical specifications, proofs-of-concept, testing, rapid prototyping, technology insertions, systems engineering and integration and technical assessments. Specific NMCS systems that will be evaluated and/or upgraded include the DRSN Red Switch, BC2F replacement for the NORAD Contingency Suite (NCS), Enhanced Pentagon Capability (EPC) configurations at two sites, and upgrades to the fiber optics for Site C and Site R. Specific deliverables include technical reports, system engineering management and maintenance manuals, and implementation of upgraded systems. The new Wikipedia version of the NMCS Reference Guide (NRG), a detailed description of all NMCS systems and facilities, will be released to the NMCS community for their use and update of the content.

Accomplishments/Planned Program:

NMCS Systems Engineering	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.706	0.613	0.548

Specific accomplishments in FY 2008 included completion of the migration of the NMCS Information Resource Management (IRM) portals (NIPRNet and SIPRNet) to Defense Knowledge On-Line (DKO), technical insertion evaluations, engineering studies/analyses/designs for NMCS component system upgrades/modernization, and configuration management of NMCS systems and facilities. The continuations of these efforts are planned outputs for FY 2010.

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature National Military Command System-Wide Support (NMCS)/PE 0302016K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
NMCS Command Center Engineering/S32	0.706	0.613	0.548					

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President's Budget	0.708	0.615	0.572
FY 2010 Budget Estimate	0.706	0.613	0.548
Total Adjustments	-0.002	-0.002	-0.024

Change Summary Explanation: Fiscal years (FY) 2008 reductions of -$0.002 million are due to a below threshold reprogramming to support mission critical requirements within the Agency. FY 2009 reflects reductions of -$0.002 million due for Economic Assumptions. FY 2010 adjustments reflect a realignment of funding due to emerging mission critical requirements within the Agency.

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M, DW	26.623	31.522	32.818						Cont'g	Cont'g

D. Acquisition Strategy:

Full and open competition; work is currently tasked via cost plus fixed fee contract.

E. Performance Metrics:

The NMCS Engineering Branch conducts regularly scheduled In-progress Program Reviews (IPRs) and Configuration Control Board (CCB) meetings to monitor status of engineering projects/tasks. Each current project/task is evaluated in terms of how well the technical work is progressing and how allocated resources are being utilized. Adjustments to

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature National Military Command System-Wide Support (NMCS)/PE 0302016K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
NMCS Command Center Engineering/S32	0.706	0.613	0.548					

resources, schedules, and technical directions are made, as required. Future projects/tasks are also discussed, thereby ensuring an integrated approach is maintained across all related project/task areas.

To further increase the utility of the IPR/CCB structure, the Joint Staff customer participates in the project/task reviews. The result of this approach is a truly integrated effort of NMCS Engineering, contractor, and Joint Staff working together to achieve common program goals.

Major Performers

The NMCS Engineering and Evaluations contract obligates all FY 2010 RDT&E funding. The contractor, Raytheon, will provide engineering plans, analyses, and C2 assessments for the continued upgrades and modernization of NMCS systems and facilities.

Exhibit R-3 RDT&E Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0302016K	Project Name and Number NMCS Command Center Engineering/S32

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Support Costs														
Engineering/ Tech Services	CPFF/C	Raytheon E-Sys Arlington, VA	2.153	0.500	11/07	0.613	11/08	0.548	11/09			Cont'g	Cont'g	4.325
Systems Engineering	CPFF/C	SRA Fairfax, VA	0.208	0.206	01/08	N/A		N/A				N/A	N/A	0.208
Total Cost			2.361	0.706		0.613		0.548				1.641		

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide, 07	Program Element Number and Name PE 0302016K, National Military Command System-Wide Support	Project Number and Name S32, NMCS Command Center Engineering

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Update NMCS Reference Guide (NRG) content		△								△																						
Develop NRG in Wikipedia format available via DKO							△					△																				
NMCS Transformation Technical Insertion Evaluations	△		△		△		△		△		△																					
NMCS C2 engineering analyses	△	△	△	△	△	△	△	△	△	△	△	△																				
NMCS Configuration Management assessments	△	△	△	△	△	△	△	△	△	△	△	△																				

Exhibit R-4a, RDT&E Program Schedule Detail		DATE: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name National Military Command System-Wide Support PE 0302016K	Project Name and Number NMCS Command Center Engineering / S32

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Update NMCS Reference Guide (NRG) content	2Q		2Q					
Develop NRG in Wikipedia format available via DKO		3Q	4Q					
NMCS Transformation Technical Insertion Evaluations	1Q,3Q	1Q,3Q	1Q,3Q					
NMCS C2 engineering analyses	1Q-4Q	1Q-4Q	1Q-4Q					
NMCS Configuration Management assessments	1Q-4Q	1Q-4Q	1Q-4Q					

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Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature Defense Info Infrastructure Engineering and Integration/PE 0302019K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Program Element	8.249	15.852	17.655					
Modeling and Simulation/E65	4.114	6.199	7.237					
UHF SATCOM Integrated Waveform/KCD	0.000	6.911	0.000					
Global Information Grid Systems Engineering & Support/T62	4.135	2.742	10.418					

A. Mission Description and Budget Item Justification: This program element funds efforts involving the development and fielding of Global Information Grid (GIG) Enterprise Services, including engineering support for the resolution of critical interoperability and integration issues, and assessment of C4I initiatives that will ensure compatibility, interoperability, and technical integration. Three projects encompass this program: (1) Modeling and Simulation, project E65, (2) UHF SATCOM Integrated Waveform, project KCD, and (3) GIG Engineering and Support, project T62.

Modeling and Simulation, Project E65, provides architecture, systems engineering and end-to-end analytical functions for DISA and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Specifically, Modeling and Simulation performs a broad spectrum of activities for the DoD communications planning and investment strategy, to include: application assessments; contingency planning; network capacity planning and diagnostics; and systems-level modeling and simulation.

The Ultra High Frequency (UHF) Satellite Communications (SATCOM) Integrated Waveform (IW) System, Project KCD, is developed by DISA as an improvement to the present UHF SATCOM waveforms.

Global Information Grid (GIG) Systems Engineering and Support, Project T62, involves the definition and implementation of various aspects of evolving the GIG. It will strengthen critical GIG foundation technologies and programs through the application of precise, short-term, technical, and engineering and integration expertise.

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Defense Info Infrastructure Engineering and Integration/PE 0302019K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Program Element	8.249	15.852	17.655					

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President's Budget	5.229	16.054	10.548
FY 2010 President's Budget	8.249	15.852	17.655
Total Adjustments	3.020	-0.202	7.107

Change Summary Explanation: The FY 2008 funding was increased due to a below threshold reprogramming to support the GIG Engineering Services program efforts. FY 2009 reflects reductions of -$0.159 million for FFRDC's and -$0.043 million for Economic Assumptions. FY 2010 adjustments reflect an increase of $7.700 million for the Demand-Assigned Multiple Access Compatible (DAMA-C) effort, an essential capability, supporting combat search and rescue for the warfighter. There were decreases of -$0.118 million due to revised inflation rates and a realignment of -$0.475 million to support emerging mission critical requirements within the Agency.

Exhibit R-2a, RDT&E Project Justification					Date: May 2009			
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name and Number Modeling & Simulation/E65					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	4.114	6.199	7.237					

A. Mission Description and Budget Item Justification: This Modeling and Simulation project provides architecture, systems engineering and end-to-end analytical functions for DISA and its customers, ensuring integrated capabilities to fulfill warfighter mission requirements. Specifically, Modeling and Simulation performs a broad spectrum of activities for the DoD communications planning and investment strategy, to include: application assessments; contingency planning; network capacity planning and diagnostics; and systems-level modeling and simulation. Modeling and Simulation develops across-theater information awareness for Combatant Commands through application solutions for integrated networks, to include DoD's missions in Iraq and Afghanistan and the Defense Information Systems Network (DISN), by: (1) supporting the development and implementation of GIG Enterprise-Wide (EW) Systems Engineering (SE) processes essential to evolving the GIG in a manner that enables interoperability and end-to-end performance for critical GIG programs that are consistent with them and with each other; (2) developing standardized DISA systems analyses and integration processes to improve systems integration across DISA for all DISA developed communication systems and services; and, (3) providing the underlying modeling and simulation and analytical support for end-to-end DISA and DoD systems engineering and assessment. These operations are to provide DoD decision makers, from the OSD level to the warfighter, with services and a suite of tools capable of identifying key points of impact on DoD command and control information systems and recommending tradeoffs within the GIG configuration with regard to prioritized performance, availability, and security. Benefits include: improved performance and cost-avoidance in the selected transitions and network deployments. Cost avoidance of even 1 percent of yearly DISN costs exceeds cost of Modeling & Simulation; improved network performance and cost reductions via accurate capacity design, as facilitated by insightful traffic analyses; improved performance of applications for DoD and the warfighter; cost avoidance of troubleshooting and redesign; reduced risk in the program products provided to the warfighter; and, reduced cost of instrumenting for troubleshooting.

B. Accomplishments/Planned Program:

Modeling and Simulation	FY 2008	FY 2009	FY 2010
Subtotal Cost	4.114	6.199	7.237

Exhibit R-2a, RDT&E Project Justification					Date: May 2009			
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name and Number Modeling & Simulation/E65					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	4.114	6.199	7.237					

FY 2008 - Funded Modeling and Simulation applications to support DISN predictive modeling capacity planning, topology, and DISN Transport design. Incorporated Services models to provide end to end performance capacity to analyze the GIG performance. Provided performance analysis and technical recommendations for COCOMs network redesign and upgrades. Built and simulated the GIG Internet Protocol (IP) convergence model to predict network behavior for design and upgrade. Performed modeling and simulation to assist DISA and DoD programs and services in migration to the IPv6 network.

FY 2009 – Funds Modeling and Simulation applications to support DISN predictive modeling capacity planning, topology, and DISN Transport design. Incorporates Services models and evolves the Joint Communication Simulation System core model to provide capabilities to analyze End to End capacity and assess the GIG performance. Provides performance analysis and technical recommendations for COCOMs network redesign and upgrades. Builds and simulates the GIG IP convergence model to predict network behavior for design and upgrade, in accordance with the DISN Strategic Vision. Provides an instrumentation capability to allow detailed performance measures for deployed DISA applications.

FY 2010 and FY 2011 - Funds continual evolution of Modeling and Simulation tools and techniques to support capacity planning, topology design, and predictive performance assessments of the multi-layer (e.g., IP, Optical, Real Time Services) evolving DISN, as it incorporates/adapts to newer technologies. The funds will build a model to validate the GIG architecture frame work. Provides performance measurement and instrumentation to DISA acquisition programs. The program will collaborate with Services to build and simulate the DoD Command and Control information systems and recommend tradeoffs within the GIG configuration with regard to prioritized performance, availability, and security. Performs, analyzes, and provides technical recommendations to improve performance of the tactical edge network within the GIG. Incorporates Services models to provide end-to-end performance analysis of the GIG. Provides performance analysis and technical recommendations for COCOMs network redesign, upgrades. This project will build and simulate the GIG IP convergence model to predict network behavior, for design and upgrade. Performs modeling and simulation to assist DISA and DoD programs and services in migration to IPv6 network.

Additionally, funds pay for development of a model to validate and solve technical issues on the GIG. Supports end-to-end systems engineering in performing Performance Analysis, Topology Design, Capacity Planning, Traffic Analysis and Modeling of the DISN IP/Transport layers, to include modeling and design of the optical mesh and leased extension

Exhibit R-2a, RDT&E Project Justification					Date: May 2009			
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name and Number Modeling & Simulation/E65					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	4.114	6.199	7.237					

topologies for the DISN. Tool and capabilities enhancements provide modeling and analysis of the transport networks to identify, investigate, and develop solutions for network and routing anomalies. Provide analysis, design, and "what-if" modeling capability for the DISN IP Layer, as use of Multiprotocol Label Switching (MPLS), Virtual Private Networks (VPNs), High Assurance Internet Protocol Encryption (HAIPEs), IPv6 and other new methods affect the CONOPS. Establish capability to continue end-to-end traffic analysis under such changes. Provide an automated means for traffic insight for performance management and capacity planning; ensure collection, rapid processing, and useful statistics presentation.

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M, DW	6.585	18.514	19.347						Cont'g	Cont'g

D. Acquisition Strategy: Uses a number of contractors for modeling support with OPNET Technologies, Booz Allen Hamilton, SRA, SAIC, Comptel, and APPTIS being the main providers of these services. The level of support includes network modeling tool and processes development to adapt to ever-evolving OSD/DISA programs and projects; analyses using the topological models; and capacity planning and network redesign using the models. These companies are uniquely qualified to provide the necessary level of technical support and services to ensure DISA uses the leading edge communication technologies.

E. Performance Metrics: Modeling and Simulation's systems engineering is measured by its impact on the DoD communications planning and investment strategy, for communications systems and other programs/projects. The most significant criteria are total operational cost followed by installation cost. Modeling supports laying out the DISN target network in a methodical way that ensures undue-cost avoidance, to include early evaluation of alternative approaches/architectures to allow selection of the most cost-effective approach. Additional criteria include

Exhibit R-2a, RDT&E Project Justification					Date: May 2009			
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name and Number Modeling & Simulation/E65					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	4.114	6.199	7.237					

application assessments and resulting improvements made; contingency planning; network capacity planning and diagnostics; system architecture evaluation; technical and operational assessments of emerging technologies; and systems-level modeling and simulation.

1 – Timeliness of M&S tools/techniques – R&D funds the development of modeling tools and techniques, which in turn support DISA programs/projects. A basic success metric is whether the necessary developments are planned and completed in time to ensure the M&S capabilities are ready for addressing the program/project questions. For instance, the DISN has a strategic plan, calling for IP convergence of services. M&S capabilities must evolve to be consistent with the planning and implementation of the evolving technical strategy, e.g., DISN models at the proper granularity that reflect the evolving proposed then deployed and operational networks.

2 – Effectiveness of M&S tools/techniques –

- meeting Program/Project decision-point schedules. Modeling processes provide decision support to Program/project managers throughout the life cycle of their programs/projects. Programs/projects have their schedules and deadlines. A performance metric for M&S is whether results/recommendations required from M&S are provided in time to meet the decision points of the program/project they are supporting. An example is providing results in time for meeting recurring POM or other budget/expense planning by the PMs.
- cost-savings resulting from M&S application. An expectation of M&S is that it can make PM decisions better regarding system cost. M&S is largely predictive, meaning identifying a smart course of action or target design that should avoid undue-cost. When used for cost optimization, a metric for M&S is whether the models and modeling process properly considers all relevant cost factors in leading to recommended designs/implementations. In some cases, when applied to an operational, stable, system, a direct metric for M&S is the actual dollar savings achieved by redesigning the operational system in accord with M&S redesign.
- performance improvements from M&S application. Similarly, a metric for M&S is its success in providing recommendations that result in observed improvements, in the operational system, over previously measured system performance.

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0302019K	Project Name and Number Modeling & Simulation/E65

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Modeling and Simulation	FFP	OPNET Tech, Inc. Bethesda, MD	0.631	0.631	01/08	1.250	1/09	1.512	1/10			Cont'g	Cont'g	5.209
	ENCORE II FFP/T&M	TBD; Probables : SRA, Fairfax, VA; BAH, McLean, VA	0.394	0.394	03/08	0.850	1/09	1.028	1/10			Cont'g	Cont'g	3.489
	DGS CPFF	APPTIS, Chantilly, VA	0.257	0.257	01/08	0.250	1/09	0.303	1/10			Cont'g	Cont'g	1.168
	Sole Source 8A CPFF	Comptel, Arlington, VA	0.636	0.636	01/08	0.400	1/09	0.484	1/10			Cont'g	Cont'g	2.093
	Sole Source FFP	Noblis, Falls Church, VA	0.316	0.316	01/08	0.300	1/09	0.363	1/10			Cont'g	Cont'g	1.409
	BPA (H/W, S/W for R&D)	TBD	N/A	N/A	N/A	0.108	4/09	0.130	4/10			Cont'g	Cont'g	0.393
	FFP	TBD	N/A	N/A	N/A	0.463	7/09	0.560	7/10			Cont'g	Cont'g	1.686
	Booz Allen & Hamilton McLean, VA		1.880	1.880	10/07	1.554	10/08	2.021	10/09			Cont'g	Cont'g	8.231

Exhibit R-3 RDT&E Project Cost Analysis										Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Program Element PE 0302019K							Project Name and Number Modeling & Simulation/E65
TBD	N/A		1.024	10/08	0.836	10/08		Cont'g	Cont'g	2.729
TOTAL	4.114	4.114	6.199		7.237					

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide, 07	Program Element Number and Name PE 0302019K, Defense Info Infrastructure Engineering and Integration	Project Number and Name E65, Modeling & Simulation

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Horizontal Engineering	△	△	△	△	△	△	△	△	△	△	△	△																				
Modeling and Simulation Applications	△	△	△	△	△	△	△	△	△	△	△	△																				

Exhibit R-4a, RDT&E Program Schedule Detail	DATE: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name PE 0302019K/Defense Info Infrastructure Engineering and Integration	Project Number and Name E65/Modeling and Simulation

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Horizontal Engineering	1Q-4Q	1Q-4Q	1Q-4Q					
Modeling and Simulation Applications	1Q-4Q	1Q-4Q	1Q-4Q					

Exhibit R-2a, RDT&E Project Justification					Date: May 2009			
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name and Number UHF SATCOM Integrated Waveform/KCD					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	0.000	6.911	0.000					

A. Mission Description and Budget Item Justification: The Ultra High Frequency (UHF) satellite communications (SATCOM) system provides the US Department of Defense (DoD) and other US Government departments and agencies critical beyond line-of-sight communications for tactical and special forces operations. UHF SATCOM is currently the only military system that enables users to operate communications on-the-move and under all weather conditions and cover. The present UHF SATCOM constellation is aging, and remains extremely oversubscribed. The replacement system, the Mobile User Objective System (MUOS), will not provide initial operational capability (IOC) until approximately 2010. The MUOS deployment is contingent on the Joint Tactical Radio System (JTRS) terminals being fielded across all services. Even after MUOS and JTRS are fully deployed, the need and demand for legacy UHF SATCOM will remain. DISA developed the Integrated Waveform (IW) as an improvement on the present UHF SATCOM waveforms. IW implementation will more than doubles the UHF SATCOM capacity in accesses and data throughput. The majority of fielded UHF SATCOM terminals are software programmable and can be upgraded to IW by updating the software in the field. The Commander of US Central Command (CENTCOM) reports that for the present military operations in Iraq and Afghanistan, CENTCOM was provided additional UHF SATCOM channels from the PACOM and EUCOM apportionments. But even with these additional channels, UHF SATCOM resources are not sufficient to meet CENTCOM needs.

B. Accomplishments/Planned Program:

	FY 2008	FY 2009	FY 2010
UHF SATCOM Integrated Waveform			
Subtotal Cost	0.000	6.911	0.000

FY 2009 - Development of IW capabilities in PRC-152 and ARC-210 radios to realize a larger community of IW users. The approach for the PRC-152 and ARC-210 will include both Phases and will allow greater use of on orbit UFO resources.

C. Other Program Funding Summary: N/A

D. Acquisition Strategy:
Based on current military operations, Joint Staff and STRATCOM evaluated and recommended which fielded terminals should be IW upgraded. The Net-Centric Functional Capabilities Board endorsed the recommendations and DISA took the lead of

Exhibit R-2a, RDT&E Project Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name and Number UHF SATCOM Integrated Waveform/KCD					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	0.000	6.911	0.000					

the software development for six families of deployed UHF SATCOM terminals. The terminal list includes: the PRC-117F developed by Harris Corporation; the PSC-5C, PSC-5D and ARC-231 developed by Raytheon Corporation; and the MD-1324 and RT-1828 developed by ViaSat Corporation. In addition, the software of the channel Control Terminal (CT) and the Satellite Access Control (SAC) system developed by ViaSat Corporation will be fielded to support IW. Fixed price contracts have been awarded for IW software development for the selected UHF SATCOM terminals. The software will be certified for waveform compliance and interoperability and then fielded. Software installation and operating instructions will be developed to assist the UHF SATCOM users with the software upgrades and operation of the terminals. Fixed price contracts will be awarded to Harris Corporation, Inc. for PRC-152 and to Rockwell Collins for ARC-210 airborne radios.

E. Performance Metrics:

The system engineering for the IW waveform improvement has been completed and published in the latest revisions of information technology standards for UHF SATCOM. Integrated Waveform demonstrations using UHF SATCOM terminals have proven the performance improvement of IW, in terms of link and voice quality and capacity. The performance of the terminal software developed by the various vendors will be measured against the IW standards interoperability and performance requirements. Standards compliance and interoperability testing will be performed by the Joint Interoperability Test Command (JITC) on each and every terminal type upgraded to IW. Currently, the PSC-5D is progressing through testing at JITC. The PRC-117F is scheduled to begin testing at JITC in the second quarter of fiscal year 2009.

In addition, the following metrics have been implemented:

1. Planned versus actual schedule (difference in days) for major milestones/deliverables.
2. Number of planned versus actual funds spent.
3. Adherence of contractor deliverables to SOW specifications.
4. Compliance with Performance Plans contained in contracted efforts.

F. Major Performers:

Harris Corporation, Rochester, NY. The Harris Corp. provides expertise in the development of software and firmware that will upgrade UHF SATCOM radio terminals to be IW capable.

Exhibit R-2a, RDT&E Project Justification					Date: May 2009			
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name and Number UHF SATCOM Integrated Waveform/KCD					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	0.000	6.911	0.000					

Raytheon Corporation, Ft. Wayne, IN. Raytheon Corp. provides expertise in the development of software and firmware that will upgrade UHF SATCOM radio terminals to be IW capable.

ViaSat Corporation, Carlsbad, CA. ViaSat Corp. provides expertise in the development of software and firmware that will upgrade UHF SATCOM radio terminals to be IW capable, and the IW Satellite Access Controller and Control Terminal

Xenotran, Linthicum Heights, MD. Xenotran provides expertise in the development of software for the Integrated Broadcast Service.

Rockwell Collins, Cedar Rapids, IA. Rockwell Collins provides expertise in the development of software and firmware that will upgrade airborne UHF SATCOM radio terminals to be IW capable.

Exhibit R-3 RDT&E Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0302019K	Project Name and Number UHF SATCOM Integrated Waveform/KCD

0Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Integrated Waveform software development for deployed legacy terminals	FPAF	Harris Corp Rochester, NY	14.817	N/A	N/A	3.000	TBD	N/A	N/A			N/A	N/A	17.817
	FPAF	Raytheon Corp Ft.Wayne, IN	12.674	N/A	N/A	N/A	N/A	N/A	N/A			N/A	N/A	12.674
	FPAF	ViaSat Corp Carlsbad, CA	1.547	N/A	N/A	N/A	N/A	N/A	N/A			N/A	N/A	1.547
	FPAF	Rockwell Collins Cedar Rapids, IA	0.000	N/A	N/A	3.000	TBD	N/A	N/A			N/A	N/A	3.000
Channel Controller (CC) Software development	FFP	ViaSat Corp Carlsbad, CA	9.318	N/A	N/A	N/A	N/A	N/A	N/A			N/A	N/A	9.318
CC terminal Software development	FPAF	Gen. Dynamics Scottsdale, AZ	1.824	N/A	N/A	N/A	N/A	N/A	N/A			N/A	N/A	1.824
Terminal certification testing	FPAF	JITC Various Contracts	3.792	N/A	N/A	0.456	04/09	N/A	N/A			N/A	N/A	4.247
Engineering & Help Desk Support	CPFF	Able Comm. Sterling, VA	9.524	N/A	N/A	0.455	02/09	N/A	N/A			N/A	N/A	9.979
Integrated Broadcast Service Software development	FPAF	Xenotran Linthicum Heights, MD	4.604	N/A	N/A	N/A	N/A	N/A	N/A			N/A	N/A	4.604
Fielding	FPAF	Able Comm. Sterling, VA	0.746	N/A	N/A	N/A	N/A	N/A	N/A			N/A	N/A	0.746
TOTAL			58.846	N/A		6.911		N/A				N/A	N/A	65.756

Exhibit R-4, RDT&E Program Schedule Profile																																	
Date: May 2009																																	
Appropriation/Budget Activity RDT&E, Defense-Wide, 07					Program Element Number and Name PE 0302019K, Defense Info Infrastructure Engineering and Integration																				Project Number and Name KCD, UHF SATCOM Integrated Waveform											
Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015					
	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	1	2	3	4	
Integrated Waveform (IW) Software Development for selected UHF SATCOM terminals JITC Certification						△					△																						

Exhibit R-4a, RDT&E Program Schedule Detail		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element and Name PE 0302019K/DII Engineering & Integration	Project Number and Name KCD/UHF SATCOM Integrated Waveform

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Integrated Waveform (IW) Software Development for UHF SATCOM terminals		2Q						
JITC Certification			3Q					

Exhibit R-2a, RDT&E Project Justification						Date: May 2009		
Appropriation/Budget Activity RDT&E, Defense-Wide/07		Project Name and Number Global Information Grid (GIG) Systems Engineering and Support/T62						
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	4.135	2.742	10.418					

A. Mission Description and Budget Item Justification: Efforts under this project will strengthen the delivery of critical Global Information Grid (GIG) products, services, and capabilities to the warfighter through the establishment of DISA technology positions, strategies, and roadmaps, as well as technology development and insertion into DISA programs of record while also influencing Service/Agency program technology investments. This project is important because the CTO provides the venue for technology assessment and insertion in DISA (and DoD) that results in more efficient and effective technology investments and ultimately improved global, net-centric operations. If this project is not funded in FY 2010, the DoD will lose this crucial capability that ensures engineering rigor, technical soundness, and alignment with GIG architectural constructs in the products, services, and capabilities delivered to the Services, COCOMS, OSD, and the Joint Staff. In order to provide this engineering rigor in support of the DISA (and DoD) programs implementing the GIG, the CTO project conducts a multi-tiered approach to technical research and analysis which includes identification of near-term critical technical solutions, mid-term technology investments, and long-term, high-potential over-the-horizon technology innovation. CTO engineering and technical expertise will be applied in conducting technical assessments and reviews of all solutions, products, services, and capabilities to determine compliance with overall DISA mission and strategy, and to evaluate soundness of technical approach.

B. Accomplishments/Planned Program:

	FY 2008	FY 2009	FY 2010
Subtotal Cost	4.135	2.742	10.418

FY 2008 funding was to support the Technology Readiness Assessments ($4.135 million) for several key DISA programs of record, GIG FDCE foundational efforts, forward edge computing technology demonstrations, extension of broadcast-to-desktop video services using non-traditional fielded technology, development of Security Technical Implementation Guidelines for specialized operating systems for the DISA Field Security Operations group, and focused technology tiger teams to develop a design and execution plan for the next generation DoD intranet infrastructure to improve information sharing, information security, and network performance.

In FY 2009, the CTO project will continue to support the Technology Readiness Assessments ($2.742 million) for several key DISA programs of record, GIG FDCE foundational efforts, the extension of broadcast-to-desktop video services using non-traditional fielded technology, and focused technology tiger teams to develop a design and execution plan for the next generation DoD intranet infrastructure, as well as enterprise thin client architecture for the Joint Staff.

Exhibit R-2a, RDT&E Project Justification						Date: May 2009		
Appropriation/Budget Activity RDT&E, Defense-Wide/07		Project Name and Number Global Information Grid (GIG) Systems Engineering and Support/T62						
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	4.135	2.742	10.418					

In FY 2010, funding in the CTO project will support Technology Readiness Assessments (TRA) ($2.718 million), technology analysis and demonstrations involving cloud computing and GIG 2.0, focused technology tiger teams to develop a design and execution plan for the next generation DoD intranet infrastructure, technology integration and insertion into programs of record, and technology positions, strategies, and roadmaps for DISA and DoD.

Demand-Assigned Multiple Access Compatible (DAMA-C) ($7.700 million) is an essential capability supporting combat search and rescue. It will provide significantly improved sharing of legacy UHF satellite resources for tens of thousands of disadvantaged user terminals, mainly handhelds deployed as survival radios, or as support to special operations forces (Combat Survivor Evader Locater, etc.). DAMA-C is compatible with existing UHF DAMA systems using legacy UHF SATCOM. The development and fielding of the DAMA-C standard and infrastructure IOC cost is $11.700 million. This includes certification by both JITC and NSA. Specifically the funding for FY 2010 is $7.700 million to complete development of the DAMA-C specification; DAMA-C engineering and design; hardware certification; and begin development and fielding DAMA-C controller infrastructure.

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M, DW	0.691	0.733	0.737						Cont'g	Cont'g

D. Acquisition Strategy: This project provides technical, engineering, and integration expertise to the DISA Chief Technology Officer (CTO) in support of the major GIG components, which include: GIG Enterprise Services (GES), Defense Information Systems Network (DISN), Satellite Communications (SATCOM), GIG Directory Service, Global Combat Support System (GCSS), Net-Enabled Command Capability (NECC), Teleport, Global Command and Control System (GCCS), Enterprise Services Management (ESM), Information Assurance (IA), Wireless Services, Net-Centric Enterprise Services (NCES), and other related components. Through this project MITRE will support the definition and implementation of various aspects involving the GIG. MITRE will provide support to DISA in its mission of providing end-to-end systems engineering for the DoD for GIG Enterprise Services. MITRE will ensure that system integration and implementation is coordinated with other major C2 systems via its support to other C2 System Program Executive Offices.

Exhibit R-2a, RDT&E Project Justification					Date: May 2009			
Appropriation/Budget Activity RDT&E, Defense-Wide/07		Project Name and Number Global Information Grid (GIG) Systems Engineering and Support/T62						
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	4.135	2.742	10.418					

E. Performance Metrics: The CTO's task order is composed of multiple short-suspense technology research/exploration components with a concrete deliverable targeted at some facet of the DISA mission. Examples of deliverables include: Technology Readiness Assessments (TRA); technology analysis and demonstrations involving cloud computing and GIG 2.0; focused technology tiger teams to develop a design and execution plan for the next generation DoD intranet infrastructure; technology integration and insertion into programs of record; technology positions, strategies, and roadmaps for DISA and DoD. These engineering tasks use a three-tiered approach designed to facilitate near-term technical solutions, mid-term technology investments, and bring high-potential over-the-horizon technology innovation into engineering programs supporting the Agency mission. Engineering support is provided for CTO technical reviews of DISA programs, at least 4 reviews supported per month, a minimum of 2 positions, strategies, or roadmaps per year, and several technology demonstrations throughout the year as required.

F. Major Performers:

MITRE, McLean, VA. MITRE applies systems engineering, advanced technology, and research and development to provide technical expertise in support of DISA's mission as described in the Acquisition Strategy section. FY 2009 – 10/08; FY 2010 – 10/09

Encore II. The winning bidder will provide expertise to support technology assessments, feasibility studies, and development of guidance/policy recommendations on current and emerging technologies to include unified communications and collaboration, wired and wireless networking, Web 2.0, GIG 2.0, SOA, etc. These efforts are the basis for the development, fielding, operations and sustainment of critical, DOD net-centric products and services. FY 2009 – 10/08; FY 2010 – 10/09

Exhibit R-3 RDT&E Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0302019K	Project Name and Number Global Information Grid (GIG) Systems Engineering and Support/T62

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost To Complete ($000)	Total Cost ($000)	Target Value of Contract
Engineering/ Tech Services	Other Than Full & Open CPFF	MITRE McLean, VA	13.912	3.782	10/07	2.191	10/08	2.178	10/09			Cont'g	Cont'g	22.711
SME Support		Various Contracts	N/A	0.051	Various	0.127	Various	0.130	Various			Cont'g	Cont'g	0.440
Engineering Support	FFP	SRA, Inc. Fairfax, VA	0.485	0.302	06/08	0.424	10/08	0.410	10/09			Cont'g	Cont'g	1.719
DAMA-C	Other Than Full & Open CPFF	Defense Microelec-tronics Activity	N/A	N/A	N/A	N/A	N/A	7.700	3/10			11.700	11.700	11.700
Total			14.397	4.135		2.742		10.418						36.570

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009

Appropriation/Budget Activity RDT&E, Defense-Wide, 07	Program Element Number and Name PE 0302019K, Defense Info Infrastructure Engineering and Integration	Project Number and Name T62, Global Information Grid (GIG) Systems Engineering and Support

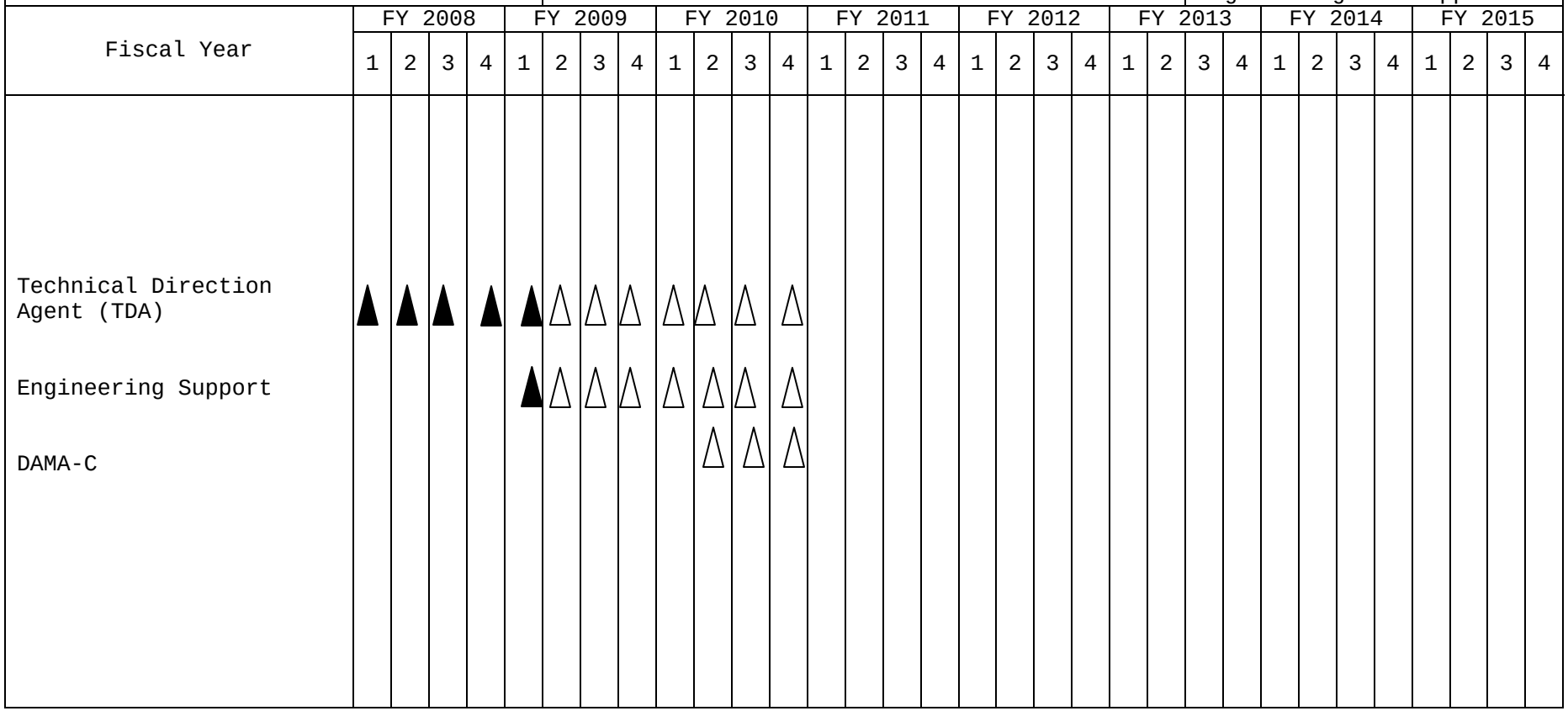

Exhibit R-4a Schedule Detail		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name PE 0302019K/DII Engineering & Integration	Project Number and Name T62/Global Information Grid (GIG) Systems Engineering and Support

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Technical Direction Agent (TDA)	1Q-4Q	1Q-4Q	1Q-4Q					
Engineering Support		1Q-4Q	1Q-4Q					
DAMA-C			2Q-4Q					

Exhibit R-2, RDT&E Budget Item Justification	Date: May 2009
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07	R-1 ITEM NOMENCLATURE Long Haul Communications - DCS/PE 0303126K

Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Program Element	16.591	8.485	9.406					
Defense Information System Network (DISN) Systems Engineering Support/T82	1.506	5.514	7.458					
National Emergency Action Decision Network (NEADN)/PC01	15.085	2.971	1.948					

A. Mission Description and Budget Item Justification:
Funds finance the systems engineering, development, test, and integration of equipment and products into the DISN or other networks to optimize system performance.

DISN Systems Engineering Support: Funding will result in the following capabilities: 1) Improved information access for customers in terms of ordering, status, and health of DISN services; and increased operational efficiencies of integrating and sharing information about the DISN; 2) improvements to the Secure Voice over Internet Protocol (VoSIP),the development of critical features for Secure Voice over IP Real Time Services (RTS) that are beyond the features of commercial VoIP offerings; 3) implement technologies into the National Command and Control System (NCCS) as part of the Distributed Ground Network supporting the United States Strategic Command; and, 4) refreshment of the SDS-1 switches which are at end-of-life and must be replaced by modifying the current DSS-2A Secure Voice switch which is vital to the Defense Red Switch Network.

NEADN/PNVC: Funding focuses upon delivering a near toll-quality voice conferencing capability for the President, Secretary of Defense, Chairman, Joint Chiefs of Staff, and other national/military leaders using the Advanced Extremely High Frequency (AEHF) satellite in synchronization with compatible AEHF terminal fielding schedules.

This Program Element is under Budget Activity 07 because it involves efforts supporting operational systems development.

Exhibit R-2, RDT&E Budget Item Justification	Date: May 2009
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07	R-1 ITEM NOMENCLATURE Long Haul Communications - DCS/PE 0303126K

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President's Budget	16.382	8.508	7.568
FY 2010 Budget Estimate	16.591	8.485	9.406
Total Adjustments	0.209	-0.023	1.838

Change Summary Explanation:

The FY 2008 adjustments reflect a below threshold reprogramming action to support the DISN program. FY 2009 reflects Congressional reductions of -$0.023 million due to Section 8101 Economic Assumptions, as cited in the FY 2009 Conference Report. FY 2010 adjustments are due to increased efforts and expansion of Systems Engineering for Defense Red Switch Network integration secure voice system components and peripherals.

Exhibit R-2a, RDT&E Project Justification		Date: May 2009						
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		PROGRAM NAME AND NUMBER Defense Information Systems Network (DISN)Systems Engineering Support/T82						
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Defense Information Systems Network (DISN)Systems Engineering Support/T82	1.506	5.514	7.458					

A. Mission Description and Budget Item Justification:
Funds Systems Engineering for Operations Support Systems (OSS) which are comprised of the service, network, and element management; service support systems and network operations of the DISN and other entities. Specifically, provides system engineering for a Single Sign-on solution and Web-Based Mediation Administration.

Provides systems engineering for Secure Voice over Internet Protocol (VoIP) Real Time Services (RTS) for the DISN-wide network element management of day-to-day operations of the DoD and serves as the core DoD wartime communications for the President and Secretary of Defense, the Joint Chiefs of Staff (JCS), the Combatant Commanders, and other critical users. Provides the engineering to consolidate operational communications networks into DISN and supports the convergence of Service and Agency network services (i.e. telephony, video, etc) into the Global Information Grid (GIG). Also funds system engineering evaluations and development of critical features for Secure VoIP RTS that is beyond the features of commercial VoIP offerings.

Funds are for software development and system integration and testing for modifying the current technology DSS-2A Secure Voice switch with improvements to increase the capacity of the switch so that it can be used to replace the large SDS-1 model switches in the DRSN which are at end-of-life and must be replaced. This funding provides incremental multiyear effort to scale up the existing DSS-2A switch capacity so that the Services and Agencies can purchase and install the modified switch to replace their obsolete SDS-1 switches. Secure voice switches must meet a number of military unique requirements for multilevel security, extensive conferencing and conference management capabilities and features, and gateway functions that are not available in commercial products. Starting in FY 2010, System Engineering for DRSN shifts to funding and executing Engineering Change Proposals to update switch components and peripherals to replace obsolete parts and ensure continued logistics supportability.

B. Accomplishments/Planned Program:

	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.903	0.922	1.490

Exhibit R-2a, RDT&E Project Justification		Date: May 2009						
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		PROGRAM NAME AND NUMBER Defense Information Systems Network (DISN)Systems Engineering Support/T82						
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Defense Information Systems Network (DISN)Systems Engineering Support/T82	1.506	5.514	7.458					

Single Sign-On - FY 2008 project continued into FY 2009. FY 2009 - Provides systems research, evaluation, test and development of a centralized DISN OSS web-based content application aimed at integrating functionality, data, searching, and maintenance of several key DISN OSS applications. The objective of the OSS Central is to provide a single user interface for DISN service orders, service reports, network alarms, trouble tickets, network inventory, network performance information, and a central search capability to internal and external DISN user groups. It will provide a Single Sign-on solution which will enable consumers of the DISN OSS information to access all authorized information from a single account.

Web Based Mediation Admin - FY 2008 project continued into FY 2009. FY 2009 - Provides systems research, evaluation, test, and development of a web-based mediation/administration utility. This utility will provide functionality to move the data mapping and configuration activities from software development to application configuration, allowing Tier III sustainment personnel to make faster changes to the data mediation system in support of changing requirements.

Network Management Solutions for new DISN Element Technologies – FY 2010 - Provides network management solutions for new DISN technology elements yet to be defined during technology refresh efforts and future DISN catalog services. Includes systems engineering to develop and insert new communications technologies into the DISN by performing assessments and proof of concept implementations. Engineers the insertion of technology into the DISN Secure VoIP, IP Class of Service/Quality of Service (CoS/QoS), Multi-Level Security for Voice Real Time Services. New efforts involved developing overarching design for next generation routing/QoS/CoS, and IP enabled Services such as Telephony.

	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.603	0.615	0.000

Systems Engineering for Secure Voice over Internet Protocol (VoIP) – FY 2008 - Provided systems engineering to develop and insert new communications technologies into the DISN by performing assessments and proof of concept implementations. In FY 2008 initiated project for development and implementation of Active Directory services for the Voice over Secure IP (VoSIP) service. In FY 2009 will implement the Voice Over Secure IP Active Directory service and initiate engineering study for possible solutions to requirement for Multi-Level Security for Voice Real Time Services. FY 2010

Exhibit R-2a, RDT&E Project Justification		Date: May 2009						
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		PROGRAM NAME AND NUMBER Defense Information Systems Network (DISN)Systems Engineering Support/T82						
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Defense Information Systems Network (DISN)Systems Engineering Support/T82	1.506	5.514	7.458					

will continue to fund research into solutions for Multi-Level Security for eventual insertion of the technology into the DISN Secure VoIP, as well as IP Class of Service/Quality of Service (CoS/QoS), new efforts involved in developing overarching design for next generation routing/QoS/CoS, and IP enabled Services such as Telephony.

	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.000	3.977	3.978

Systems Engineering for DSS-2A Secure Voice Switch Replacement - In FY 2009 supports system integration, software modification, system testing and information assurance validation and accreditation of a modified version of the existing DSS-2A secure voice switch, with delivery of phase II prototype system for government testing and accreditation, while continuing development toward the Phase III final configuration system. This modification is required because the legacy switch is at end-of-life and is not expected to be logistically supportable past FY 2010. In addition, this modified version will support up to three times the capacity of the current DSS-2A model, with all the same military unique features and capabilities. FY 2010 will see the delivery of the initial Phase III system for testing and accreditation, 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 currently in use in the DRSN and the White House Communications Agency controlled secure voice network. Once developed and accredited, the services and agencies will procure and install the switches.

	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.000	0.000	1.990

Systems Engineering for DRSN Components and Peripherals – FY 2010 will fund a regular process to re-engineer and redesign DRSN switch components and peripherals to address electronic component obsolete parts, issues and maintain the viability of the DRSN switch system. Several Engineering Change Proposals (ECP) per year will be funded for development and testing of redesigned and replacement parts in order to maintain the logistics supportability of the entire system.

Exhibit R-2a, RDT&E Project Justification		Date: May 2009						
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/07		PROGRAM NAME AND NUMBER Defense Information Systems Network (DISN)Systems Engineering Support/T82						
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Defense Information Systems Network (DISN)Systems Engineering Support/T82	1.506	5.514	7.458					

C. Other Program Funding Summary: N/A

D. Acquisition Strategy: Procure Operations Support Systems service and tools from under the DISN Global Services (DGS) contract and a variety of commercial off-the-shelf vendors. For Secure VoIP Real Time Services (RTS), MIPR funds to NSA to contract with their security technology firms for studies and specification development for Multi-Level Security implementations for Secure Voice RTS. Use existing DISA contracts to study and develop specifications for Internet Protocol (IP) Class of Service/Quality of Service and Assured Service. The DSS-2A Large switch modification will use an existing Air Force contract with the DSS-2A manufacturer to perform the development and modification work, system integration and testing support.

E. Performance Metrics:

1. Planned versus actual schedule (difference in days) for major milestones/deliverables.
2. Number of planned versus actual funds spent.
3. Adherence of contractor deliverables to SOW specifications.
4. Compliance with Performance Surveillance Plans contained in contracted efforts.

Specific OSS metrics:	FY 2008	FY 2009 & FY 2010
Evaluation of COTS Network Configuration Management Tools	100% Complete	-
Evaluation of COTS IP Performance Management Tools	100% Complete	-
Development of the OSS Central	-	100% Planned
Data Mediation - Phase 1 (ICATS, DDOE, ADIMSS, WWOLS, TMS)	-	100% Planned
Specific DRSN VoSIP Metrics:		
Delivery and successful award of contract	-	100% Planned

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0303126K	Project Name And Number T82/DISN Systems Engineering Support

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost To Complete ($000)	Total Cost ($000)	Target Value of Contract
Single Sign-on	DGS & Time and Materials	SAIC - DISA	0.653	0.394	03/08	0.350	03/09	N/A	N/A			0.744	1.665	N/A
Web-Based Mediation	DGS & Time and Materials	Apptis - DISA	0.831	0.509	3/08	0.432	03/09	0.460	03/10			1.810	3.176	N/A
Network Management Solutions for New DISN Element Technologies	DGS & Time and Materials	SAIC - DISA	N/A	N/A	N/A	0.140	12/08	0.777	03/10			Cont'g	4.502	N/A
Systems Engineering for VoIP	Various CPFF	Various performers	N/A	0.603	09/08	0.615	05/09	N/A	N/A			Cont'g	9.343	N/A
Systems Engineering for DRSN Components & Peripherals	AF CCSS Contract Time & Materials	Raytheon, FL	N/A	N/A	N/A	N/A	N/A	1.990	11/09			Cont'g	Cont'g	N/A
Systems Engineering for DSS-2A Secure Voice Switch Replacement	AF CCSS Contract, Time & Materials	Raytheon, FL	7.591	N/A	N/A	3.977	11/08	3.978	11/09			Cont'g	Cont'g	N/A
		TOTAL	9.075	1.506		5.514		7.458						

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009

Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name PE 0303126K, Long Haul Communications – DCS	Project Number and Name T82, Defense Information System Network (DISN) Systems Engineering Support

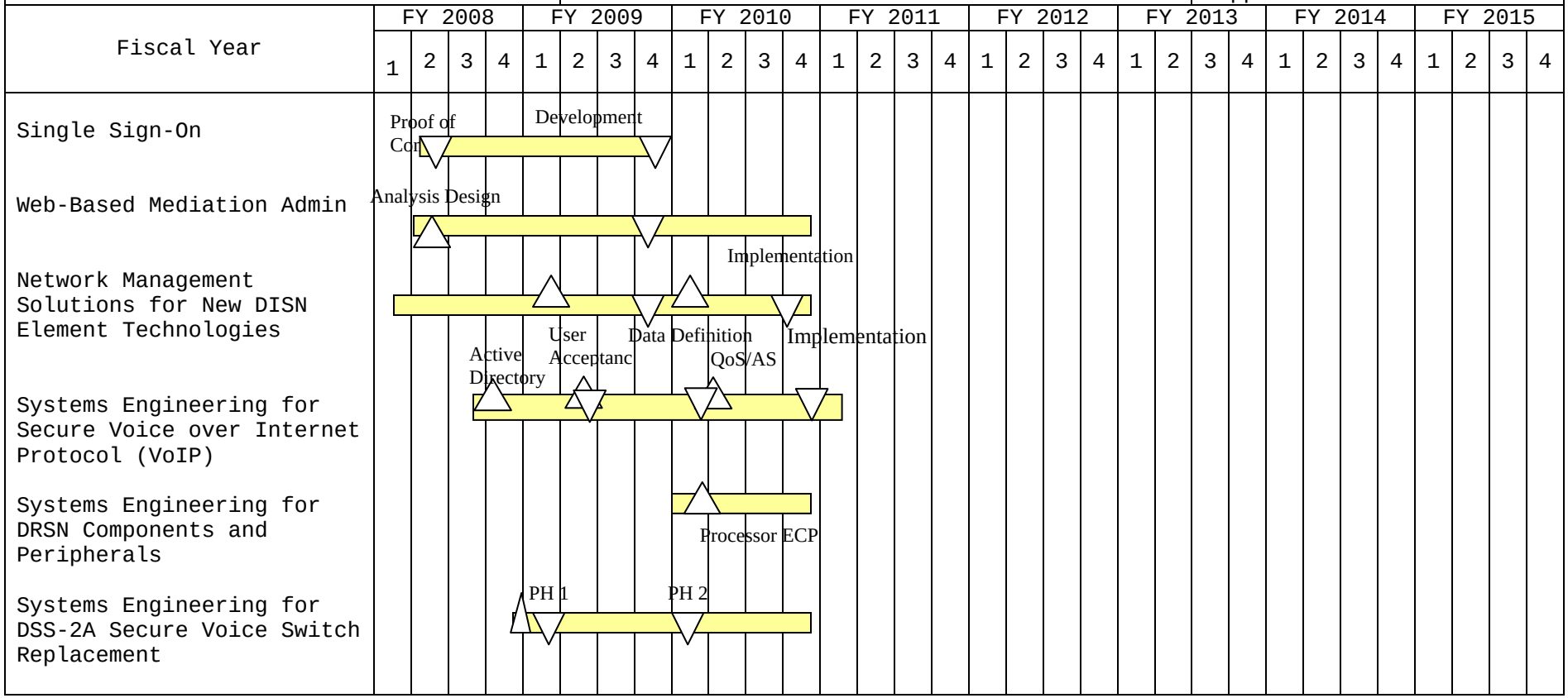

Exhibit R-4a Schedule Detail		DATE: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number And Name PE 0303126K/Long Haul Communications-DCS	Project Number And Name T82/DISN Systems Engineering Support

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Single Sign-On:								
Analyze Requirements	1Q							
Design	2Q-4Q	1Q-4Q						
Implementation		1Q						
Test and Rework		2Q						
Amend Authority to Operate		3Q						
Deployment		2Q-4Q						
		3Q-4Q						
Web-Based Mediation Admin:								
Analyze Requirements	1Q		1Q					
Design	2Q-4Q	1Q	2Q-4Q					
Implementation		2Q						
Test and Rework		3Q						
Amend Authority to Operate		2Q-4Q						
Deployment		3Q-4Q						
Network Management Solutions for New DISN Element Technologies		2Q-4Q	1Q-4Q					
Systems Engineering for Secure Voice over Internet Protocol (VoIP)	4Q	2Q-3Q	1Q-4Q					
Systems Engineering for DRSN Components and Peripherals			1Q-4Q					

Exhibit R-4a Schedule Detail		DATE: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number And Name PE 0303126K/Long Haul Communications-DCS	Project Number And Name T82/DISN Systems Engineering Support

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Systems Engineering for DSS-2A Secure Voice Switch Replacement		1Q-4Q	1Q-4Q					

Exhibit R-2a, RDT&E Project Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Project Name And Number National Emergency Action Decision Network (NEADN)/PC01							
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
National Emergency Action Decision Network (NEADN)/PC01	15.085	2.971	1.948					

A. Mission Description and Budget Item Justification:

As the National Emergency Action Decision Network (NEADN) project lead and system engineer, this PE funds the system engineering, planning, development, and testing of conferencing equipment for senior leaders. Specifically, this funding supports the acquisition activities necessary to identify equipment of the Presidential and National Voice Conferencing (PNVC) baseband (cryptographic and voice encoder/vocoder) equipment needed to provide survivable, near toll-quality voice conferencing capability for the President, Secretary of Defense, Chairman, Joint Chiefs of Staff, and other national/military leaders. This project includes the critical and essential engineering required to develop new vocoder and cryptographic equipment. These baseband devices implement new technology capabilities such as multi-stream cryptography/vocoding and information technology capabilities such as baseband Ethernet interfaces supporting baseband Internet Protocol (IP) addressing. This project supports development of DOD requirements for voice conferencing using the Advanced Extremely High Frequency (AEHF) satellite in synchronization with AEHF terminal fielding schedules.

B. Accomplishments/Planned Program:

	FY 2008	FY 2009	FY 2010
Subtotal Cost	15.085	2.971	1.948

NEADN/PNVC Systems Engineering - Conduct analyses for continuity of NEADN voice conferencing for national/military leaders through the PNVC deployment. Continue engineering, technical analysis, development and coordination to ensure terminal, baseband, and satellite synchronization for voice conferencing amongst senior leaders. Research alternative terminal implementations for special users participation in PNVC. Update the PNVC Baseband Interface Group (BIG) (crypto/vocoder) technical specifications.

In FY 2008 funding was used to assess the feasibility of alternative terminal implementations to support special users participation in PNVC and supported an update to PNVC Baseband Interface Group (BIG) (crypto/vocoder) technical specifications. In FY 2009 funding will result in the development of a requirements document for special users, a defined Concept of Operations (CONOPS) for PNVC to fully utilize the enhanced capabilities provided by the system, and

Cost ($ in millions)

the development of technical specifications of the Multistream Summing Device III (MSD-III) to manage PNVC conference. In FY 2010 funding will be used to update the PNVC Capabilities Production Document (CPD).

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
O&M, DW	103.378	106.708	104.564					
Procurement, DW	64.237	91.059	90.718					

D. Acquisition Strategy: Engineering support services for the NEADN is provided by existing DOD contracts and FFRDC support.

E. Performance Metrics:
PNVC project metrics track the development of various documents: Project Management Plan (PMP), Concept of Operations (CONOPS), System Engineering Plan (SEP), 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.

	FY 2008	FY 2009 & FY 2010
Adherence of contractor deliverables to SOW specifications	Target Met	Planned

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0303126K	Project Name And Number National Emergency Action Decision Network (NEADN)/PC01

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost To Complete ($000)	Total Cost ($000)	Target Value of Contract
Systems Engineering for NEADN/PNVC	FFRDC	Aerospace Corp, Falls Church, VA	N/A	12.978	11/07	0.390	11/08	0.400	11/09			Cont'g	1.665	N/A
Systems Engineering for NEADN/PNVC	CPFF	Booz Allen Hamilton, McLean, VA	N/A	1.596	8/08	0.480	11/08	0.500	3/10			Cont'g	3.176	N/A
Systems Engineering for NEADN/PNVC	Various	Various	N/A	0.511	N/A	2.101	N/A	1.048	N/A			Cont'g	4.502	N/A
TOTAL				15.085		2.971		1.948				Cont'g	9.343	N/A

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide, 07	Program Element Number and Name PE 0303126K, Long Haul Communications - DCS	Project Number and Name PC01, National Emergency Action Decision Network (NEADN)

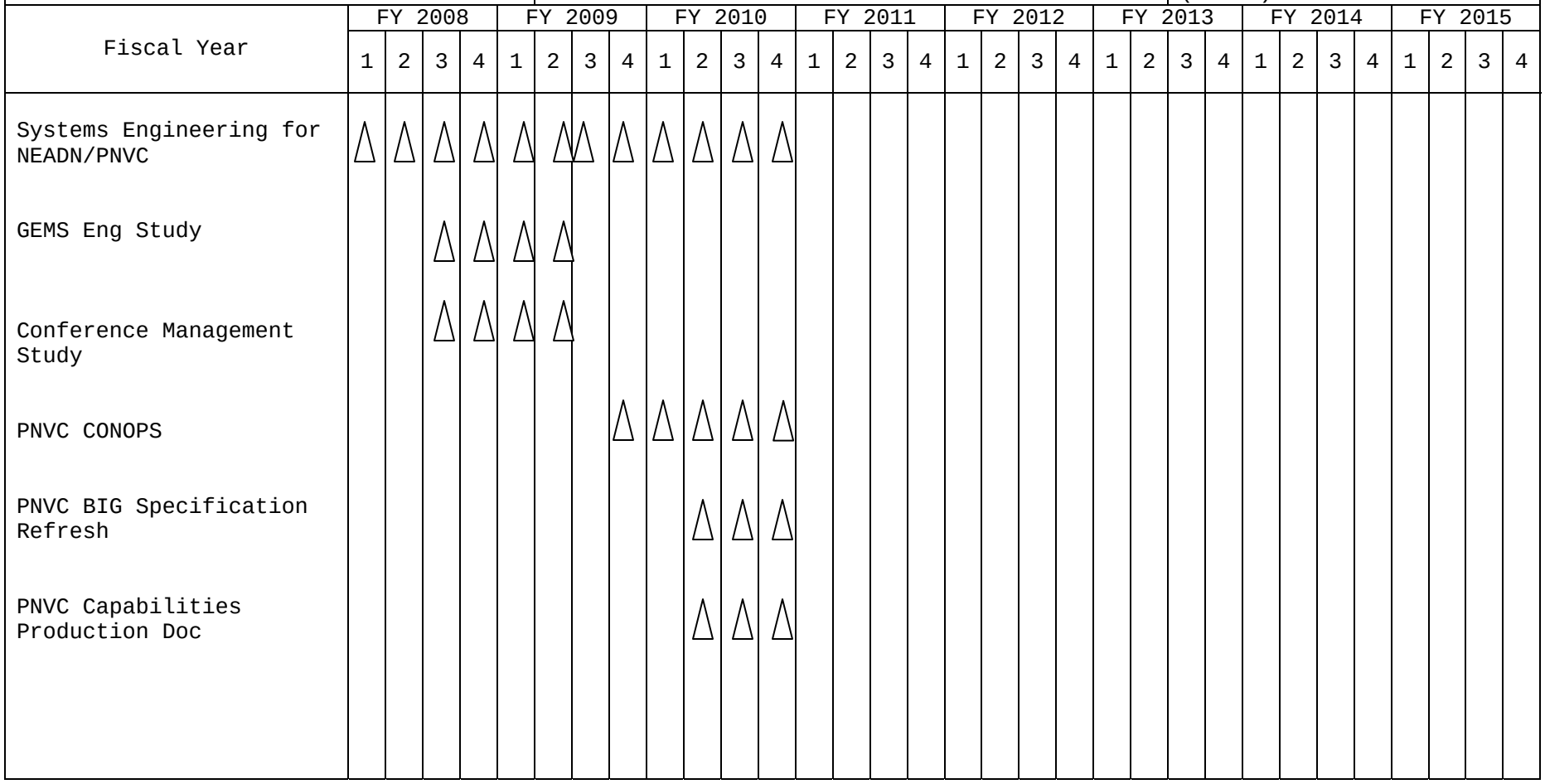

Exhibit R-4a, RDT&E Program Schedule Detail		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number And Name PE 0303126K/Long Haul Communications – DCS	Project Number And Name PC01/National Emergency Action Decision Network (NEADN)

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Systems Engineering for NEADN/PNVC	1Q-4Q	1Q-4Q	1Q-4Q					
GEMS Eng Study	3Q-4Q	1Q-2Q						
Conference Management Study	3Q-4Q	1Q-2Q						
PNVC CONOPS		4Q	1Q-4Q					
PNVC BIG Specification Refresh			2Q-4Q					
PNVC Capabilities Production Doc			2Q-4Q					
PNVC/DISN Interface Development								

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Exhibit R-2, RDT&E Budget Item Justification								Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	R-1 Item Nomenclature Program Element Name and Number Minimum Essential Emergency Communications Network (MEECN)/PE 0303131K							
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Program Element	9.306	9.659	9.830					
Special Projects / T64	4.899	4.936	4.945					
Strategic C3 Support / T70	4.407	4.723	4.885					

A. Mission Description and Budget Item Justification:

This program element (PE) supports DISA's role as the Nuclear Command, Control, and Communications (NC3) system engineer in five major areas: (1) Plans and Procedures; (2) Systems Analysis; (3) Operational Assessments; (4) Systems Engineering; and (5) Development of Concepts of Operation and Architectures. The NC3 System is composed of C3 assets that provide connectivity from the President and the Secretary of Defense through the National Military Command System (NMCS) to nuclear execution forces integral to fighting a "homeland-to-homeland," as well as theater, nuclear war. This MEECN includes the Emergency Action Message (EAM) dissemination systems and those systems used for integrated Tactical Warning/Attack Assessment (TW/AA), Presidential decision making conferencing, force report back, re-targeting, force management, and requests for permission to use nuclear weapons. Supporting efforts assure positive control of nuclear forces and connectivity between the Secretary of Defense and strategic and theater forces. Efforts assure an informed decision making linkage between the President, the Secretary of Defense, and the Commanders of the Unified and Specified Commands. Additionally, DISA provides direct and specialized support to Assistant Secretary of Defense for Networks & Information Integration (ASD(NII))and the Joint Staff (JS) and recommends support or non-support for NC3 programs as well as fail-safe procedures and risk reduction actions. This program element is under Budget Activity 07 because it involves efforts supporting operational systems development.

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President's Budget	9.421	9.685	10.017
FY 2010 Budget Estimate	9.306	9.659	9.830
Total Adjustments	-0.115	-0.026	-0.187

Change Summary Explanation: Fiscal years (FY) 2008 adjustments are due to a below threshold reprogramming to support mission critical requirements within the Agency. FY 2009 reflects reductions of -$0.026 million for Economic Assumptions. FY 2010 adjustments reflect a realignment of funding due to emerging mission critical requirements within the Agency.

Exhibit R-2a, RDT&E Project Justification					Date: May 2009			
Appropriation/Budget Activity RDT&E, Defense-Wide/07		Project Name and Number Special Projects/T64						
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Project Cost	4.899	4.936	4.945					

A. Mission Description & Budget Item Justification: The mission is performing classified work. All aspects of this project are classified and require special access. Detailed information on this project is not contained in this document, but is available to individuals having special access to program details.

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0303131K	Project Name and Number Special Projects/T64

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost To Complete ($000)	Total Cost ($000)	Target Value of Contract
Systems Engineering and Integration	SS/C CPAF MIPR	Multiple Performing Activities	25.137	4.899	Var.	4.936	Var.	4.945	Var.			Cont'g	Cont'g	Cont'g
Total			25.137	4.899		4.936		4.945						

Exhibit R-4, RDT&E Program Schedule Profile									Date: May 2009																							
Appropriation/Budget Activity RDT&E, Defense-Wide, 07					Program Element Number and Name PE 0303131K, Minimum Essential Emergency Communications Network (MEECN)												Project Number and Name T64, Special Projects															
Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
All aspects of this project are classified and require special access.																																

Exhibit R-4a, RDT&E Program Schedule Detail	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element and Name PE 0303131K/Minimum Essential Emergency Communications Network (MEECN)	Project Number and Name T64/Special Projects

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015

All aspects of this project are classified

Exhibit R-2a, RDT&E Project Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Project Name and Number Strategic C3 Support/T70							
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Strategic C3 Support/T70	4.407	4.723	4.885					

A. Mission Description and Budget Item Justification: This project has four elements: (1) Systems Analysis; (2) Operational Assessments; (3) Plans and Procedures; and (4) Systems Engineering. Together, these elements perform the mission of the Nuclear Command Control and Communications (C3) Systems Engineer to the Joint Staff and provide Executive Leadership and Nuclear C3 support for the Office of the Assistant Secretary of Defense (OASD), Networks and Information Integration (NII). Systems Analysis supports long range planning and vulnerability assessments to ensure the Nuclear C3 System is adequate under all conditions of stress or war. This element analyzes the DOD elements of the Nuclear Command and Control System (NCCS) (i.e., strengths and weaknesses) and recommends investment strategies to evolve the NCCS to achieve desired capabilities. Nuclear threats to include terrorist activities, both regional and global, are analyzed in special reports for ASD(NII) and the Joint Staff. Operational Assessments of fielded systems and weapon platforms are the sole means for positive verification of nuclear C3 systems' performance in support of plans and procedures, operation orders, training, equipment, and end-to-end system configuration. Assessments include strategic and theater and national level C3 interfaces into the Nuclear C3 System. DISA conducts assessments in an operational setting with the Joint Staff, Combatant Commanders, and nuclear forces worldwide. Plans and procedures support the Chairman, Joint Chiefs of Staff and the nuclear C3 warfighting community during times of stress and national emergency, up to and including nuclear war. The Nuclear C3 System is composed of C3 assets that provide connectivity from the President and the Secretary of Defense through the National Military Command System (NMCS) to nuclear execution forces integral to fighting a "homeland-to-homeland," as well as theater, nuclear war. It includes Emergency Action Message (EAM) dissemination systems and those systems used for Integrated Tactical Warning/Attack Assessment (TW/AA), Presidential decision making conferencing, force report back, re-targeting, force management, and requests for permission to use nuclear weapons. Supporting efforts assure positive control of nuclear forces and connectivity between the Secretary of Defense and strategic and theater forces. Systems engineering provides the Senior Leadership C3 Communications System with technical and management advice, planning and engineering support, and Test & Evaluation (T&E). Leading Edge C4I technology is assessed for all communication platforms supporting Executive Travelers and Senior Leaders to include the interoperability of hardware and operational procedures. These elements support the President's and other DoD command centers and aircraft, e.g., Air Force One and the National Airborne Operations Center (NAOC). Increase in funding for FY 2010 reflects a reallocation of funds from T64 to T70, to support development of an overarching architecture and enhancement of portfolio management capabilities for the Senior Leadership C3 System.

Exhibit R-2a, RDT&E Project Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Project Name and Number Strategic C3 Support/T70							
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Strategic C3 Support/T70	4.407	4.723	4.885					

B. Accomplishments/Planned Program:

	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.617	0.639	0.658

Provide NC3 Review Report and Systems Analysis Documents. Update Emergency Conferencing and Action Plans and Procedures.

FY 2008 funding provided contract support to complete the annual update to the Nuclear C3 System Program Tracking Report; the periodic update to the Nuclear C3 System Description Document, Volume 1 and the Nuclear C3 Scenarios document; and annual updates to the EAP-CJCS, Volumes VI and VII.

FY 2009 – FY 2010 funding will provide contracts for updates to other volumes of the Nuclear C3 System Description Document and similar annually required activities that support: a) developing and revising Joint Staff emergency action plans and procedures; and b) engineering, documenting, and assessing the nuclear and senior leadership C3 system architectures and vulnerabilities.

	FY 2008	FY 2009	FY 2010
Subtotal Cost	2.124	2.249	2.317

Plan and Conduct Strategic and Theater Operational Assessments. Plan Staff Assessment Visits at NMCS and nuclear-certified Combatant Command nodes for Joint Staff/J3. Participate in military exercises.

FY 2008 funding provided contracts to plan and conduct recurring Strategic and Theater Operational Assessments, to plan Staff Assessment Visits at NMCS and nuclear-certified Combatant Command nodes for Joint Staff/J3, and to participate in military exercises, as requested.

FY 2009 – FY 2010 funding is required to fund contract support for annual operational reports and assessment plans associated with: a) planning, executing, analyzing and reporting on worldwide operational assessments of the nuclear C3

Exhibit R-2a, RDT&E Project Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Project Name and Number Strategic C3 Support/T70							
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Strategic C3 Support/T70	4.407	4.723	4.885					

system; and b) planning, executing and analyzing staff assessment and command assistance visits conducted by the Joint Staff on National Military Command System (NMCS) battle staffs.

	FY 2008	FY 2009	FY 2010
Subtotal Cost	1.666	1.835	1.910

Provide Aircraft and Command Center Engineering.

FY 2008 funding was for contract support to expand the development of an architecture decision support tool to assist OSD/NII, and to provide overarching systems engineering support to the Air Force for the National Airborne Operations Center and other aircraft. The decision support tool and systems engineering support will be continued in FY 2009- FY 2010.

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M, DW	5.629	7.963	5.575						Cont'g	Cont'g

D. Acquisition Strategy:

Full and open competition resulted in contract vehicles with Raytheon, Arlington, VA; Science Applications International Corporation (SAIC), McLean, VA; SRA International, Fairfax, VA; and Booz Allen & Hamilton (BAH), Falls Church, VA.

E. Performance Metrics:

Performance is measured by compliance with contract deliverables schedules for specifically included products, such as: operational assessment plans, operational reports; revisions to the EAP-CJCS Volumes VI and VII; Nuclear C3 System Description documents, and Nuclear C3 Architecture Diagrams.

Exhibit R-2a, RDT&E Project Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Project Name and Number Strategic C3 Support/T70							
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Strategic C3 Support/T70	4.407	4.723	4.885					

Technical performance of Nuclear C3 systems is measured by the operational assessments funded by this program element. These periodic assessments evaluate the connectivity used for the five functions of NC2: Situation Monitoring, Planning, Decision Making, Force Execution, and Force Management. Assessment results are used by the Joint Staff to direct changes in system engineering and integration, programmatic execution, and training.

F. Major Performers:

Raytheon Company, Arlington, VA. Raytheon provides technical assistance expertise, scenario development, and implementation support for the Chairman, Joint Chiefs of Staff (CJCS) Nuclear C4 operational assessment (Polo Hat) program. FY 2010 – 02/10

SRA International, Fairfax, VA. SRA provides technical assistance and architecture development to support DISA’s role as the systems engineer for the Senior Leadership C3 System (SLC3S). FY 2010 – 11/09

Exhibit R-3 RDT&E Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0303131K	Project Name and Number Strategic C3 Support / T70

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost To Complete ($000)	Total Cost ($000)	Target Value of Contract
Systems Engineering	CPAF	Science Applications Int'l. Corporation McLean, VA	2.456	0.617	02/08	0.639	02/09	0.658	02/10			Cont'g	Cont'g	3.732
	CPAF	Raytheon Company Arlington, VA	6.979	2.124	02/08	2.249	02/09	2.317	02/10			Cont'g	Cont'g	10.273
	TBD	TBD	N/A	0.200	08/08	0.200	08/09	0.200	08/10			Cont'g	Cont'g	1.000
	CPFF	Booz Allen & Hamilton Falls Church, VA	2.972	0.266	11/07	0.100	11/08	0.450	11/09			Cont'g	Cont'g	8.506
	T&M	Raytheon Company Arlington, VA	1.003	0.200	02/08	0.535	02/09	0.260	02/10			Cont'g	Cont'g	3.343
	CPFF	SRA Int'l Fairfax, VA	1.500	1.000	11/07	1.000	10/08	1.000	10/09			Cont'g	Cont'g	5.000
Total			14.910	4.407		4.723		4.885						

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009

Appropriation/Budget Activity RDT&E, Defense-Wide, 07	Program Element Number and Name PE 0303131K, Minimum Essential Emergency Communications Network (MEECN)	Project Number and Name T70, Strategic C3 Support

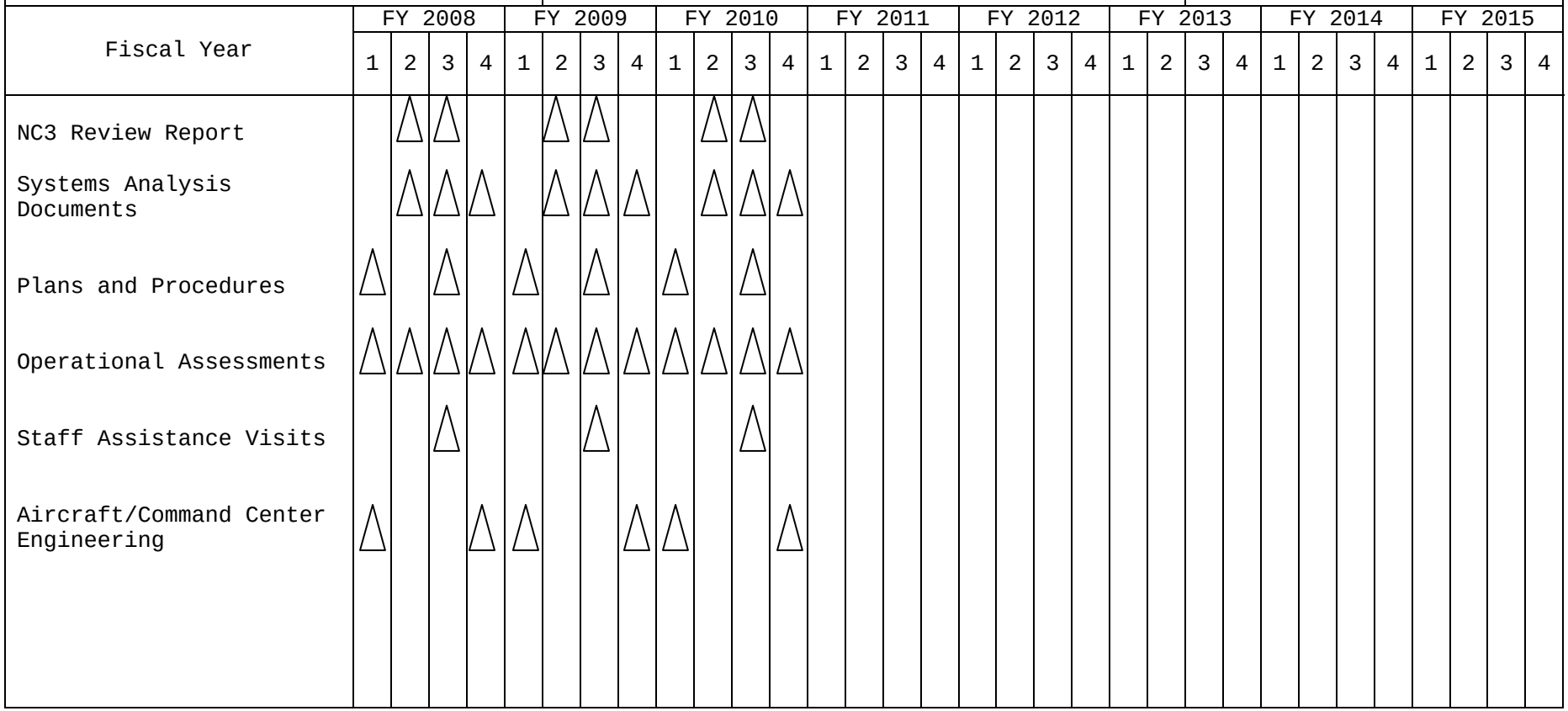

Exhibit R-4a, RDT&E Program Schedule Detail	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element and Name PE 0303131K/Minimum Essential Emergency Communications Network (MEECN)	Project Number and Name T70/Strategic C3 Support

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
NC3 Review Report	2Q-3Q	2Q-3Q	2Q-3Q					
Systems Analysis Documents	2Q-4Q	2Q-4Q	2Q-4Q					
Plans and Procedures	1Q,3Q	1Q,3Q	1Q,3Q					
Operational Assessment	1Q-4Q	1Q-4Q	1Q-4Q					
Staff Assistance Visits	3Q	3Q	3Q					
Aircraft/Command Center Engineering	1Q,4Q	1Q,4Q	1Q,4Q					

Exhibit R-2, RDT&E Project Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature Information Systems Security Program (ISSP)/PE 0303140K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Information Systems Security Program/IA01	5.225	0.000	0.000					

A. Mission Description and Budget Item Justification: The Defense Information System Agency (DISA) Information Systems Security Program (ISSP) is focused on designing and deploying proactive protections, deploying attack detection, and performing Information Assurance (IA) operations to ensure that adequate security is provided for information collected, processed, transmitted, stored, or disseminated on the Global Information Grid (GIG). These efforts include tasks associated with affording protection to telecommunications, information systems, and information technology that process sensitive and classified data as well as efforts to ensure the confidentiality, authenticity, integrity, and availability of the information and the systems. The information provided here demonstrates how DISA supports the DoD IA Strategic Plan.

DISA defends systems and networks to ensure that no access is uncontrolled and all systems and networks are capable of self-defense. This is accomplished by “building in” technologies that recognize, react, and respond to threats, vulnerabilities, and deficiencies. The RDT&E portion of DISA’s ISSP budget develops detailed architectures and technology insertion strategies for securing the perimeter of our networks, and plans and develops solutions to provide enhanced critical mission capabilities. These efforts fall under Budget Activity 7 due to development efforts to upgrade operational systems that have been fielded and planned for production funding in the current or subsequent fiscal year. Beginning in FY 2008, funds were appropriated to ISSP for Demilitarized Zones (DMZ) and Internet Protocol Router Network Gateway.

Accomplishments/Planned Program:

Systems Engineering & Integration	FY 2008	FY 2009	FY 2010
Subtotal Cost	5.225	0.000	0.000

RDT&E dollars supported basic Systems Engineering activities such as developing architecture documents that evaluate the integration of new technologies to address the IA ICD Operational and Architecture gaps at the NIPRNet and Internet Gateways and DMZs. DISA worked closely with the Joint Staff, Services, Agencies, and COCOMs as well as with industry, to ensure implementability of these architectures and technologies and proper implementation of these enterprise wide acquisitions through leveraging emerging commercial capabilities.

Exhibit R-2, RDT&E Project Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature Information Systems Security Program (ISSP)/PE 0303140K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Information Systems Security Program/IA01	5.225	0.000	0.000					

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President's Budget	2.285	0.000	0.000
FY 2010 President's Budget	5.225	0.000	0.000
Total Adjustments	2.940	0.000	0.000

Change Summary Explanation: The FY 2008 adjustments reflect a below threshold reprogramming in support of Information Assurance operation and enhance critical mission capabilities. The FY 2008 program funded systems engineering activities that identified candidate solutions to address operational and architectural gaps that were identified in the IA Initial Capabilities Document (ICD) and the NIPRNet and Internet Gateways and DMZs. Implementation will be funded in FY 2009 for the same project in the Operation and Maintenance (O&M) and Procurement appropriations.

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M, DW	175.086	256.059	273.449						Cont'g	Cont'g
Procurement, DW	29.196	48.590	13.449						Cont'g	Cont'g

D. Acquisition Strategy:

IT integration companies with IA as a core competency will assist DoD in addressing the challenge of securing the perimeter of DoD's networks while keeping in step with COTS evolution. The overall Perimeter Defense strategy is based upon the fundamental premise that COTS products will continue their evolution through the constant refresh of commercial technology. All contracts will be competitively awarded and provide support in the following areas: identifying IA architecture gaps, technology evaluations, technology insertion strategies, program planning and control; analytic services/system integration; tactical deployment; operations; and configuration management.

E. Performance Metrics:

Assist in making operational assessments of the Gateways/DMZs security strategies to improve operational readiness.

Exhibit R-3 RDT&E Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Information Systems Security Program (ISSP) / PE 0303140K	Project Name and Number Information Systems Security Program /IA01

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Support Costs														
De-Militarized Zones (DMZs)	MIPR/ T&M/SS	NSA/ Booz, Allen & Hamilton, McLean, VA	0.000	2.938	N/A	N/A	N/A	N/A	N/A			N/A	1.285	2.938
CND Enterprise Sensors	MIPR/ IATAC/ T&M/C	NSA/Netcents / Booz, Allen & Hamilton, McLean, VA	0.000	2.287	N/A	N/A	N/A	N/A	N/A			N/A	N/A	2.287
Total Cost			0.000	5.225		N/A		N/A				N/A	5.225	5.225

Exhibit R-4, RDT&E Program Schedule Profile																																	
Date: May 2009																																	
Appropriation/Budget Activity RDT&E, Defense-Wide, 07									Program Element Number and Name PE 0303140K, Information Systems Security Program (ISSP)																Project Number and Name IA01, Information Systems Security Program Engineering											
Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
De-Militarize Zones engineering and testing		△	△	△																												
Sensors			△	△																												

Exhibit R-4a, RDT&E Program Schedule Detail		DATE: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Information System Security Program (ISSP) PE 0303140K	Project Name and Number Information System Security Program / IA01

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
De-Militarized Zones engineering and testing	2Q – 4Q							
Sensors	3Q – 4Q							

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Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature DISA Mission Support Operations/PE 0303148K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
DISA Standard Finance and Accounting System/DE01	0.000	2.175	1.205					

A. Mission Description and Budget Item Justification:

The Chief Financial Executive/Comptroller (CFE) Directorate's mission is to ensure that decision makers have accurate, timely, reliable, and useful financial information needed to make sound business decisions. This information must be provided in a cost–effective manner that supports the planning, engineering, acquisition, and implementation of global net-centric solutions as well as support the Global Information Grid. The directorate serves as the principal financial advisor to the Agency's Director; develops financial strategies; develops and controls the formulation budget submission process; ensures financial controls are in place and operating effectively; conducts economic analysis, cost estimating, and program and organizational assessments; and provides financial services support to DISA’s various lines of business. CFE also provides financial management guidance and oversight for the efficient and effective use of DISA resources as well as composes the annual Agency-wide financial statements.

CFE oversees the DISA portion of the Defense Agencies Initiative (DAI). The DISA instantiation of DAI is referred to as the DISA Standard Finance and Accounting System (DSFAS). DAI is an approved Defense Business Systems Management Council (DBSMC) initiative to transform Department of Defense Civilian Agency financial management systems in an effort to achieve auditable financial data. This effort seeks not to update existing legacy systems, but to provide an implementation of integrated financial management capabilities that will subsume many systems and standardize business processes. It will transform the budget, finance, and accounting operations of the Defense Agencies to achieve accurate and reliable financial information in support of financial accountability and effective and efficient decision making. The system, once implemented will provide a real time web-based system of integrated business processes that can be used by Defense Agency financial managers, auditors, and the Defense Finance and Accounting Service (DFAS) to make sound business decisions to support the warfighter. The system will also address and correct various financial management material weaknesses and deficiencies noted within DISA. DAI will serve as a single accounting system that supports both the Defense Working Capital Fund (DWCF) and General Fund (GF) operations of DISA.

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature DISA Mission Support Operations/PE 0303148K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
DISA Standard Finance and Accounting System/DE01	0.000	2.175	1.205					

Accomplishments/Planned Program:

Accounting System	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.000	2.175	1.205

RDT&E dollars are required to conduct testing, certification, interface development, and system upgrades of the DISA Standard Finance and Accounting System (DSFAS). DSFAS is a Commercial-Off-the-Shelf (COTS) software that will replace DISA's existing accounting systems: Washington Headquarters Services Allotment Accounting System (WAAS), Financial Accounting Management Information System – Computing Services (FAMIS-CS); Financial Accounting Management Information System – Telecommunication Services and Enterprise Acquisition Services (FAMIS-TSEAS). DSFAS will comply with the DoD Enterprise Architecture and will be Joint Financial Management Improvement Plan (JFMIP) certified.

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President's Budget	0.000	2.181	1.219
FY 2010 Budget Estimate Submission	0.000	2.175	1.205
Total Adjustments	0.000	-0.006	-0.014

Change Summary Explanation: The FY 2009 adjustments reflect Congressional reductions of -$0.006 million due to Section 8101, Economic Assumptions, as cited in the FY 2009 Appropriations Conference Report. The FY 2010 reductions of -$0.014 million are due to revised non-pay purchases inflation rates.

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M, DW	43.418	18.825	34.204						Cont'g	Cont'g

Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature DISA Mission Support Operations/PE 0303148K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
DISA Standard Finance and Accounting System/DE01	0.000	2.175	1.205					

D. Acquisition Strategy: The overall strategy is based upon the fundamental premise that COTS products will continue their evolution through the constant refresh of commercial technology. To maintain an interoperable system, DSFAS will use a single contractor as an overall integrator. Additionally, DSFAS will utilize other contract vehicles within DISA to acquire additional equipment and services to support the implementation of DSFAS.

E. Performance Metrics: DSFAS will be measured by how successfully it reduces the number of financial audit findings with the end result of obtaining a clean audit opinion. DSFAS will also be measured by how well it supports the DISA Balanced Scorecard Strategy to provide greater transparency, quality and timeliness of financial information.

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0303148K	Project Name and Number DISA Standard Finance and Accounting System/DE01

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Interface Development	FOC	DITCO	0.040	N/A	N/A	2.175	06/09	1.205	06/10			3.380	3.380	3.380
TOTAL			0.040	N/A		2.175		1.205				3.380	3.380	3.380

DISA is currently collaborating with the DoD Business Transformation Agency as they have control of the schedule for the Defense Agency Initiative (DAI).

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009

Appropriation/Budget Activity RDT&E, Defense-Wide, 07	Program Element Number and Name PE 0303148K, DISA Mission Support Operations	Project Number and Name DE01, DISA Standard Finance and Accounting System

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Interface Development																																

DISA is currently collaborating with the DoD Business Transformation Agency as they have control of the schedule.

Exhibit R-4a, RDT&E Program Schedule Detail	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name PE 0303148K/DISA Mission Support Operations	Project Number and Name DE01/DISA Standard Finance and Accounting System

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Interface Development		3Q, 4Q	1Q-4Q					

Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/08			R-1 Item Nomenclature Global Command and Control System (GCCS)/PE 0303150K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Total Program Element	50.504	35.917	26.511					
Global Command and Control System-Joint (GCCS-J)/CC01	41.634	27.915	15.947					
*Overseas Contingency Operations (OCO)-GCCS-J Integrated Imagery and Intelligence (I3)/CC01			2.750					
Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02	8.870	8.002	7.814					

A. Mission Description and Budget Item Justification: The Global Command and Control System-Joint (GCCS-J) is the Department of Defense joint Command and Control (C2) system of record for achieving full spectrum dominance. GCCS-J is the principal foundation for dominant battlespace awareness, providing an integrated, near real-time picture of the battlespace necessary to conduct joint and multinational operations. It enhances information superiority and supports the operational concepts of full-dimensional protection and precision engagement. GCCS-J provides a robust and seamless C2 capability to the Commander-in-Chief, Secretary of Defense, National Military Command Center, Combatant Commanders, Joint Force Commanders, and Service Component Commanders. Employing the Defense Information Systems Network, GCCS-J offers vital connectivity to the systems the joint warfighter uses to plan, execute, and manage military operations. GCCS-J is a major Information Technology investment and is designated an Acquisition Category IAM Major Automated Information System (MAIS) program. GCCS-J is being implemented in an evolutionary manner through distinct blocks, using spiral development. Each block is self-contained, targets a specific set of validated, prioritized user requirements, and delivers multiple releases of GCCS-J functional capabilities. GCCS-J employs a predominantly open system client/server architecture, which is evolving to a web-based architecture that allows a diverse group of commercial-off-the-shelf (COTS) and government-off-the-shelf (GOTS) software packages to operate at any GCCS-J location. Web based architecture is a key transition step as the system is readied for the migration of capabilities to the Service Oriented Architecture (SOA) framework. GCCS-J integrates C2 mission applications/capabilities, database, web technology, and office automation tools. It fuses select C2 capabilities into a comprehensive, interoperable system by exchanging imagery, intelligence, status of forces, and planning information. GCCS-J Block V version releases will continue to address high priority requirements, and implement enhancements to fielded capabilities in support of the following mission areas: Intelligence; Situational Awareness; Readiness; and Force Planning, Employment, Protection, and Deployment. The program will continue to develop and refine enhancements to the core planning and assessment tools required by combatant commanders and their subordinate joint task force commanders. In support of DoD transformation

efforts in the area of Strategic and Operational Command and Control, the GCCS-J program provides capability products that are critical to military, intelligence, and other National Security Systems. The requested RDT&E funding is critical as GCCS-J infrastructure and functional capabilities will continue to be maintained until they are available in the Net Enabled Command Capability (NECC) Program.

Overseas Contingency Operations - GCCS-J Integrated Imagery and Intelligence (I3)* provide for software modifications to the Global Command and Control System – Joint (GCCS-J) I3/COP baseline in direct support of USCENTCOM War funding requirements. These software modifications require extensive coding and testing in order to effect their implementation. Specifically: (a) Improve Visualization client interface for both Analyst Workshop (AWS) and AWS Web ($1.500 million); (b) Process and display additional Unmanned Aerial Video (UAV) formats ($0.500 million); and (c) Provide access and display of additional Open Source Intelligence data ($0.750 million).

Adaptive Planning (AP) is the DoD's methodology for constructing timely and agile war plans that achieve national security objectives. The Collaborative Force Analysis, Sustainment, and Transportation System (CFAST) is a suite of software tools that provides AP capabilities to include: campaign planning, forecast predictions, information management and rapid execution. As an operational prototype, CFAST will continue to evolve as required to support the Joint Planning and Execution Community (JPEC) and is aimed to reduce the deliberate planning timeline from two years to six months. CFAST facilitates the dynamic preparation of campaign plans for rapid expeditionary environments to meet DoD planning doctrine requirements of ongoing operations such as the Global Overseas Contingency Operations (OCO) and future contingencies. The U.S. Pacific Command (USPACOM), U.S. European Command (USEUCOM), Joint Staff and other Combatant Commands currently utilize CFAST. OSD and Joint Staff use CFAST to model how DoD will respond to current and future conflicts using a variety of forces from all Services as part of their Operational Analysis missions.

CFAST has been identified for migration into the NECC Program. In preparation for the transition, CFAST must evolve to the SOA while continuing to provide functional enhancements to meet Joint Staff validated and prioritized requirements. These enhancements include user-intuitive capabilities for rapidly determining transportation requirements, performing course of action analyses, and projecting delivery profiles of troops and equipment by air, land, and sea. The improved system will be tailored for use by the Combatant Commanders, Component Services, Regional Commanders, Joint Task Forces (JTFs), and the Service staffs as a planning, forecasting, analysis, and execution tool for both deliberate and crisis action planning. The goal end-state is for rapidly produced, near-execution ready campaign plans that provide multiple courses of action. CFAST will provide "living plans" in a net-centric, collaborative, virtual environment, updated

Cost ($ in millions)

routinely to reflect changes in guidance/strategic environment with automated triggers, linked to real time authoritative sources, that alert planners to key assumptions or planning parameters.

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President's Budget	46.795	36.374	27.633
FY 2010 President's Budget	50.504	35.917	26.511
Total Adjustments	3.709	-0.457	-1.122

Change Summary Explanation: The FY 2008 adjustments reflect a below threshold reprogramming action Development and Strategic Planning and Integration and Test of the GCCS-J program.

In FY 2009, there were reductions due to Section 8026 FFRDCs -$0.359 million and -$0.098 million due to Section 8101 Economic Assumptions, as cited in the FY 2009 Appropriations Conference Report.

In FY 2010, there was an increase of $2.750 million in support of the OCO for the GCCS-J Integrated Imagery and Intelligence (I3); a -$1.372 million reduction due to revised fiscal guidance and revised inflation rates; and additional -$2.500 million reduction due to internal realignment of funding to support the transition from GCCS-J to NECC.

* The FY 2010 Overseas Contingency Operations (OCO) request of $2.750 is included in the FY 2010 annual base funding request for the GCCS-J program.

Exhibit R-2a, RDT&E Project Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name and Number Global Command and Control System - Joint/CC01					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Global Command and Control System - Joint/CC01	41.634	27.915	18.697					

A. Mission Description & Budget Item Justification: The Global Command and Control System-Joint (GCCS-J) is the Department of Defense joint Command and Control (C2) system of record for achieving full spectrum dominance. GCCS-J is the principal foundation for dominant battlespace awareness, providing an integrated, near real-time picture of the battlespace necessary to conduct joint and multinational operations. It enhances information superiority and supports the operational concepts of full-dimensional protection and precision engagement. GCCS-J provides a robust and seamless C2 capability to the Commander-in-Chief, Secretary of Defense, National Military Command Center, Combatant Commanders, Joint Force Commanders, and Service Component Commanders. Employing the Defense Information Systems Network, GCCS-J offers vital connectivity to the systems the joint warfighter uses to plan, execute, and manage military operations. GCCS-J is a major Information Technology investment and is designated an Acquisition Category IAM Major Automated Information System (MAIS) program. GCCS-J is being implemented in an evolutionary manner through distinct blocks, using spiral development. Each block is self-contained, targets a specific set of Joint Staff validated, prioritized user requirements, and delivers multiple releases of GCCS-J functional capabilities. GCCS-J employs a predominantly open system client/server architecture, which is evolving to a web-based architecture that allows a diverse group of commercial-off-the-shelf (COTS) and government-off-the-shelf (GOTS) software packages to operate at any GCCS-J location. GCCS-J integrates C2 mission applications/capabilities, database, web technology, and office automation tools. It fuses select C2 capabilities into a comprehensive, interoperable system by exchanging imagery, intelligence, status of forces, and planning information. GCCS-J Block V version releases will continue to address high priority requirements, and implement enhancements to fielded capabilities in support of the following mission areas: Intelligence; Situational Awareness; Readiness; and Force Planning, Employment, Protection, and Deployment. The program will continue to develop and refine enhancements to the core planning and assessment tools required by combatant commanders and their subordinate joint task force commanders. Because the GCCS-J program provides capability products that are critical to the direct fulfillment of military, intelligence, and other National Security Systems, the management of the GCCS-J program is an inherently governmental function. The requested RDT&E funding is critical to support DoD Transformation efforts in the area of Strategic and Operational Command and Control.

Exhibit R-2a, RDT&E Project Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name and Number Global Command and Control System - Joint/CC01					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Global Command and Control System - Joint/CC01	41.634	27.915	18.697					

B. Accomplishments/Planned Program:

	FY 2008	FY 2009	FY 2010
Subtotal Cost	34.878	21.712	12.432

Development and Strategic Planning: GCCS-J is currently executing Block V (FY 2004 through August 2009). GCCS-J Block V will incorporate new and enhanced capabilities to the v4.0 baseline. By partnering with Global Information Grid (GIG) enterprise services initiatives, GCCS-J will evolve the initial web-based architecture and maximize the use of emerging net-centric/web services. Block V releases of GCCS-J will deliver a secure, collaborative, web-enabled, and tailorable C2 architecture that provides decision superiority and vertical/horizontal interoperability. Major Block V capabilities include:

FY 2008: In FY 2008 GCCS-J focused on the development and testing of GCCS-J 4.2 Spiral Releases (Global 4.2, SORTS 4.2, JOPES 4.2) addressing operational requirements and net-centric architecture implementation. Included core infrastructure upgrades to operating system, database, and security capabilities, completing the implementation of unified account management via PKI and single sign on. New functionality included web based access to Force Planning and Force Readiness data, ability to aggregate readiness data, implementation of dynamic and deployment Force Modules, web enablement of the JOPES Rapid Query Tool (RQT), common operational picture track management capability increase (100K Tracks),Cross Domain Services (CDS), time critical targeting, the ability to process and display Combat Survivor Evader Locator (CSEL) events, and target coordinate production from ISR sensor images. Architectural enhancements included the migration of Adaptive Course of Action (ACOA) from a local to an enterprise level capability and eliminating the need for local replication of readiness data. GCCS-J also completed testing and fielding activities for JOPES 4.1, the last release in the v4.1 baseline.

FY 2009: GCCS-J is in the final development, testing and fielding for the final Block V releases (Global, JOPES, and SORTS). GCCS-J is currently targeting completion of Block V on or around August 2009, at which point the program will

Exhibit R-2a, RDT&E Project Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name and Number Global Command and Control System - Joint/CC01					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Global Command and Control System - Joint/CC01	41.634	27.915	18.697					

enter into full sustainment. The Block V threshold schedule date was March 2009; however, due to operational imperatives and the need for critical warfighter requirements, the PMO is in the process of extending the Block V Acquisition Program Baseline (APB) to August 2009. The PMO has encountered a number of issues that resulted in this fact of life change, not uncommon in software development programs. These include technical challenges with the use of COTS products and integration issues with the use of multiple developers providing various product lines, plus the impact of the loss of experienced contractor and government personnel in anticipation of movement to sustainment and ramp-up of the Net-Enabled Command Capabilities (NECC) program. GCCS-J is currently targeting providing minimal sustainment of the baselines and associated hardware and software (FY 2009 – FY 2010) until functional capabilities transition to the NECC program.

Starting at the end of FY 2009 through FY 2010, GCCS-J will also address a limited number of deferred GCCS-J GRiD requirements through a small number of Pre-Planned Product Improvement (P3I) releases. The focus of the P3I effort will be to provide Commanders and their battle staffs automated collateral level access to intelligence in support of operational functions, phases, and tools to visualize and use intelligence within the Common Operational Picture (COP). This effort will specifically provide intelligence on hostile/threat ground forces and a robust set of ground warfare analysis and Joint Intelligence Preparation of the Battlespace (JIPB) tools and products accessible from and displayable within the COP. It will also provide the ability to display the detection of a threat intrusion to the data or network disseminating the COP as well as provide the ability to accept, parse, and compose standard reports (e.g., SITREPS, OPREPS, etc) from the COP. These requirements will be prioritized by the operational sponsor (JFCOM) and developed in accordance with NECC to allow functional transfer once NECC is available.

FY 2010: GCCS-J will continue to use its RDT&E to develop minimal capability enhancements for release via P3I releases. GCCS-J will also continue the design and testing of technical changes/software patches to the operational system to address high-priority GSPRs and Information Assurance Vulnerabilities (Alerts, Bulletins, and Technical Advisories). Beginning in FY 2010, GCCS-J RDT&E funding will begin to ramp down as the program begins transitioning functionality to the Net-Enabled Command Capabilities (NECC) program. The PMO will also transition from using RDT&E on certain activities to O&M. This transition to sustainment for the GCCS-J program continues through FY 2015.

Exhibit R-2a, RDT&E Project Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name and Number Global Command and Control System - Joint/CC01					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Global Command and Control System - Joint/CC01	41.634	27.915	18.697					

	FY 2008	FY 2009	FY 2010
Subtotal Cost	6.756	6.203	3.515

Integration and Test (I&T): GCCS-J's incremental, spiral I&T approach permits an earlier start of integration testing since all new segments will not be available at the beginning of integration testing. This risk reduction strategy allows testing in smaller, more manageable increments, while still enforcing a level of Block V testing commensurate to the operational and technical complexity of each release. In accordance with DOT&E guidelines, and determined through an initial risk assessment conducted by the GCCS-J Program Management Office (PMO), Block V spiral releases will be relatively low risk, with minimal potential to (1) impact other system applications and (2) disrupt the basic system's ability to support the mission.

	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.000	0.000	2.750

Overseas Contingency Operations (OCO) - GCCS-J Integrated Imagery and Intelligence (I3): Provide for software modifications to the Global Command and Control System – Joint (GCCS-J) I3/COP baseline in direct support of USCENTCOM War funding requirements. These software modifications require extensive coding and testing in order to effect their implementation. Specifically: (a) Improve Visualization client interface for both Analyst Workshop (AWS) and AWS Web ($1.500 million); (b) Process and display additional Unmanned Aerial Video (UAV) formats ($0.500 million); and (c) Provide access and display of additional Open Source Intelligence data ($0.750 million).

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M, DW*	80.915	88.570	66.670						Cont'g	Cont'g
Procurement, DW*	10.244	10.941	8.553						Cont'g	Cont'g

*Includes ramp-up for CFAST

Exhibit R-2a, RDT&E Project Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			Project Name and Number Global Command and Control System - Joint/CC01					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Global Command and Control System - Joint/CC01	41.634	27.915	18.697					

D. Acquisition Strategy: GCCS-J development, integration, and migration efforts are primarily supported through Cost Reimbursable Task Orders (TO) issued under competitively awarded contracts. Use of performance-based contract awards is maximized while use of Time and Material (T&M) contracts is minimized to those providing programmatic support vs. software development, integration, or testing. The GCCS-J Acquisition Strategy is structured to retain contractors capable of satisfying cost, schedule, and performance objectives. PMO contract awards incorporate provisions requiring contractors to establish and manage specific earned value data. The PMO's strategy mitigates risk by requiring monthly Contract Performance Reviews (CPR) and utilizes Award Fee contracts where appropriate to incentivize performance.

E. Performance Metrics:
Capabilities Provided: In August 2005 Joint Staff published the GCCS-J Block V Requirements Identification Document (RID) as the requirements baseline for Block V. Each Block V version release addresses outstanding high priority requirements, while continuing to implement enhancements to fielded capabilities. These enhancements may take the form of modifications to existing GCCS-J mission applications, new candidate solutions provided by executive agents, technical refresh actions to minimize COTS end-of-life issues, and/or interfacing with additional high value data sources.

Cost & Schedule Management: The GCCS-J program does employ a tailored subset of earned value concepts that fit within ANSI/EIA Standard 748. Contractors are required to plan, budget, and schedule resources in time-phased “planned value” increments constituting a cost and schedule measurement baseline. This approach encourages contractors to use effective internal cost and schedule management control systems. The PMO evaluates performance by conducting thorough Post-award Contract Reviews (PCRs) and monthly Contract Performance Reviews (CPRs). The GCCS-J Program Manager (PM) also conducts weekly critical path reviews of the GCCS-J release schedules to ensure tasks are on track and to mitigate risk across the entire program.

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0303150K	Project Name and Number Global Command and Control System-Joint/CC01

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Product Development	CPAF	NGMS Reston, VA	51.500	4.755	03/07	4.752	03/09	3.334	03/10			Cont'g	Cont'g	64.339
Product Development	CPAF	NGMS Reston, VA	32.402	10.180	04/08	5.584	04/08	3.780	04/10			Cont'g	Cont'g	51.946
Product Development	CPAF	AB Floyd Alexandria, VA	12.477	N/A	N/A	N/A	N/A	N/A	N/A			N/A	12.477	12.477
Produce Development	CPAF	Femme Comp Inc., Chantilly, VA	3.424	2.843	09/08	0.929	09/09	0.611	09/10			Cont'g	Cont'g	7.807
Product Development	CPFF	SAIC Falls Church, VA	5.876	N/A	N/A	N/A	N/A	N/A	N/A			N/A	5.876	5.876
Product Development	CPFF	SAIC Falls Church, VA	5.291	2.066	04/08	1.338	04/09	0.881	04/10			Cont'g	Cont'g	9.576
Product Development	FFP	Dynamic Systems Los Angeles, CA	2.394	0.425	02/08	0.350	02/09	0.230	02/10			Cont'g	Cont'g	3.399
Product Development	CPFF	Pragmatics McLean, VA	19.965	4.987	05/08	1.486	05/09	0.978	05/10			Cont'g	Cont'g	27.416
Product Development	MIPR	Booz Allen Hamilton McLean, VA	3.394	N/A	N/A	N/A	N/A	N/A	N/A			N/A	3.394	3.394
Product Development	MIPR	JDISS Suitland, MD	6.039	N/A	N/A	N/A	N/A	N/A	N/A			N/A	6.039	6.039
Product Development	FFP	NGMS Reston, VA	4.790	N/A	N/A	N/A	N/A	N/A	N/A			N/A	4.790	4.790

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0303150K	Project Name and Number Global Command and Control System-Joint/CC01

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Product Development	CPAF	NGMS Reston, VA	4.664	6.019	08/08	5.251	08/09	3.401	08/10			Cont'g	Cont'g	19.335
Product Development	MIPR	SPAWAR, Charleston, SC	4.092	1.178	N/A	N/A	N/A	N/A	N/A			Cont'g	Cont'g	5.270
Product Development	FFRDC	MITRE, McLean, VA	4.840	0.551	03/08	0.590	03/09	0.389	03/10			Cont'g	Cont'g	6.370
Product Development	MIPRs	Dept of Energy, Army Research Lab, PD Intelligence Fusion, GSA/FAS, NSMA	3.387	0.699	N/A	1.536	N/A	1.012	N/A			Cont'g	Cont'g	6.634
Product Development	CPAF	Tactical 3-D COP (T3DCOP)	3.200	N/A	N/A	N/A	N/A	N/A	N/A			N/A	3.200	3.200
Product Development	FFP	Joint Info Technology Center Initiative	20.400	N/A	N/A	N/A	N/A	N/A	N/A			N/A	20.400	20.400
Product Development	MIPR	DIA	2.804	1.271	03/08	0.606	03/09	0.400	03/10			Cont'g	Cont'g	4.681
Test and Evaluation	CPAF	SAIC Falls Church, VA	18.447	2.603	05/08	1.970	05/09	1.363	05/10			Cont'g	Cont'g	24.383
Test & Evaluation	MIPR	JITC, Ft Huachuca, AZ	10.482	2.601	10/08	2.511	10/09	1.653	10/10			Cont'g	Cont'g	17.247
N/A	MIPR	Slidell	0.436	N/A	N/A	N/A	N/A	N/A	N/A			N/A	0.436	0.436

Exhibit R-3 RDT&E Project Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0303150K	Project Name and Number Global Command and Control System-Joint/CC01

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Test & Evaluation	MIPR	SSC, San Diego, CA	5.455	1.456	10/08	1.012	10/09	0.665	10/10			Cont'g	Cont'g	8.588
Total			225.759	41.634		27.915		18.697						313.333

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide, 07	Program Element Number and Name PE 0303150K, Global Command and Control System (GCCS)	Project Number and Name CC01/Global Command and Control System-Joint

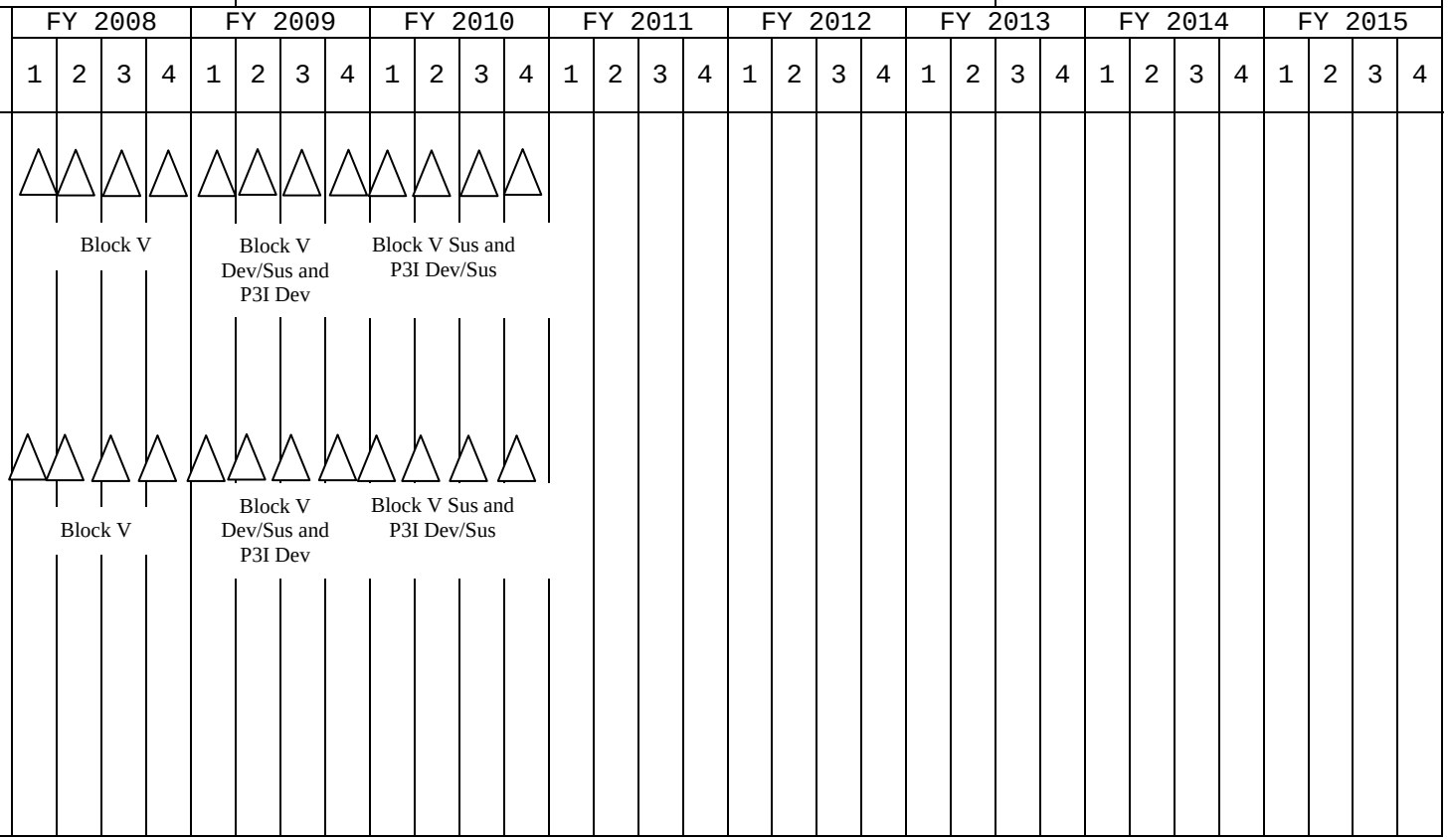

Exhibit R-4a, RDT&E Program Schedule Detail	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name PE 0303150K/Global Command and Control System (GCCS)	Project Number and Name CC01/Global Command and Control System-Joint

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Development and Strategic Planning	1Q-4Q	1Q-4Q	1Q-4Q					
Integration and Test	1Q-4Q	1Q-4Q	1Q-4Q					
Development and Strategic Planning – P3I	N/A	N/A	3Q-4Q					
Integration and Test – P3I	N/A	N/A	N/A					

During Block V, GCCS-J will enhance the GCCS-J infrastructure and functional capabilities to support the Department's net-centric vision. GCCS-J will migrate to a more sophisticated "n-tier" architecture supporting dynamic infrastructure resources, thin browser-based clients, and net-centric, enterprise services. High priority services for early inclusion are identity management via Public Key Infrastructure (PKI), directory services, portal framework, and publish/subscribe capability. To achieve this GCCS-J will fully implement a new interface capability using XML to provide the flexibility to support independent version changes and improved availability to enterprise data.

GCCS-J is currently targeting completion of Block V on or around August 2009, at which point the program will enter into full sustainment of the fielded GCCS-J 4.2 Spiral Releases (Global 4.2, SORTS 4.2, and JOPES 4.2). GCCS-J will remain in sustainment (FY 2009 – FY 2010) until functional capabilities transition to the Net-Enabled Command Capabilities (NECC) program. August 2009 through 4th quarter FY 2010, GCCS-J will address a limited number of existing and emerging warfighter requirements that will be addressed in Pre-Planned Product Improvement (P3I) releases while awaiting NECC availability. The focus of the P3I effort will be to provide Commanders and their battle staffs automated collateral level access to intelligence in support of operational functions and phases and tools to visualize and use intelligence within the Common Operational Picture (COP), including intelligence on hostile/threat ground forces and a robust set of ground warfare analysis and Joint Intelligence Preparation of the Battlespace (JIPB) tools and products accessible from and displayble within the COP.

Exhibit R-2a, RDT&E Project Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				Project Name and Number Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02	8.870	8.002	7.814					

A. Mission Description and Budget Item Justification:

Adaptive Planning (AP) is the DoD's methodology for constructing timely and agile war plans that achieve national security objectives. The Collaborative Force Analysis, Sustainment, and Transportation System (CFAST) is a suite of software tools that provides AP capabilities to include: campaign planning, forecast predictions, information management and rapid execution. As an operational prototype, CFAST will continue to evolve as required to support the Joint Planning and Execution Community (JPEC) and is aimed to reduce the deliberate planning timeline from two years to six months. CFAST facilitates the dynamic preparation of campaign plans for rapid expeditionary environments to meet DoD planning doctrine requirements of ongoing operations such as the Overseas Contingency Operations (OCO) and future contingencies. The U.S. Pacific Command (USPACOM), U.S. European Command (USEUCOM), Joint Staff and other Combatant Commands currently utilize CFAST. OSD and Joint Staff use CFAST to model how DoD will respond to current and future conflicts using a variety of forces from all Services as part of their Operational Analysis missions.

CFAST has been identified for migration into the Net Enabled Command Capability (NECC) Program. In preparation for the transition, CFAST must evolve to the Service Oriented Architecture (SOA) while continuing to provide functional enhancements to meet Joint Staff validated and prioritized requirements. These enhancements include user-intuitive capabilities for rapidly determining transportation requirements, performing course of action analyses, and projecting delivery profiles of troops and equipment by air, land, and sea. The improved system will be tailored for use by the Combatant Commanders, Component Services, Regional Commanders, Joint Task Forces (JTFs), and the Service staffs as a planning, forecasting, analysis, and execution tool for both deliberate and crisis action planning. The goal end-state is for rapidly produced, near-execution ready campaign plans that provide multiple courses of action. CFAST will provide "living plans" in a net-centric, collaborative, virtual environment, updated routinely to reflect changes in guidance/strategic environment with automated triggers, linked to real time authoritative sources, that alert planners to key assumptions or planning parameters.

CFAST RDT&E funding continues development of AP capabilities against Joint Staff requirements and to support the synchronization with NECC.

Exhibit R-2a, RDT&E Project Justification								Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07								Project Name and Number Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02	8.870	8.002	7.814					

B. Accomplishments/Planned Program:

	FY 2008	FY 2009	FY 2010
Subtotal Cost	8.336	7.520	7.321

Development and Strategic Planning: CFAST continues to produce capabilities via spiral development, allowing for the rapid introduction of more sophisticated planning capabilities to include execution planning/re-planning during crisis and execution. In FY 2006, CFAST received 167 validated and prioritized requirements. In addition, the Secretary of Defense approved the AP Roadmap on 13 December 2005. CFAST will meet this AP guidance, preserving the best characteristics of present day deliberate (contingency) and crisis planning, while establishing common joint processes and systems to support the development and execution of plans. Furthermore, CFAST has been identified as a technical solution to address the NECC Force Projection Mission Capability Package as articulated in the draft NECC Capability Development Document (CDD). Within the FY 2008 to FY 2010 timeframe, CFAST will sustain existing capabilities, continue to development emergent AP capabilities to satisfy the 167 requirements as well as meet the intent of the AP Roadmap and alignment with the NECC CDD. CFAST is funded to provide four operational versions annually.

In FY 2008 – FY 2010, RDT&E will finance the following:

Capability and Force Requirements Manipulation: improving the Force Builder force generation tool to include Task Organization and Mass/Selective Edits for units within the Time Phased Force And Deployment Data (TPFDD) files. The improvements enable the scheduled movement of forces and supplies into an area of operations. Force Builder allows the planner to build a draft list of forces, group them into force modules and place them into a priority of movement that is honored by scheduling applications. Improvements will include a refined level of detail which provides a higher quality estimate for logistics and transportation needs and reduces the time required to build a plan. The following tools will receive modifications:

Exhibit R-2a, RDT&E Project Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				Project Name and Number Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02	8.870	8.002	7.814					

- Force Packager - An application used to quickly build TPFDD requirements including “below the line” Combat Support and Combat Service Support (CS/CSS) capability based on rules of allocation for each Service. Will provide a “one click” process for building large force requirements in support of the published Concept of Operations (CONOPS).
- Plan Builder - Generate decision logs and reports for a specific Operation Plan (OPLAN).
- Plan Viewer - Option to show force flow data across modules by date range.

Plan Evaluation and Quality Assurance: providing a feedback loop from models which simulate warfare and transportation needs from initial US entry into theater through mission completion. The feedback allows planners to alter the force composition and size according to the mission needs. The improvements include modifications to the Lift Allocator and the Joint Force Analysis, Sustainment, and Transportation (JFAST) tools, a pair of collaborative tools sponsored by United States Transportation Command (USTRANSCOM) and the other Combatant Commands that rapidly calculates an average daily throughput tonnage by day.

Logistics Analysis Capabilities: CFAST will provide improved capabilities which estimate logistics requirements for an operation. This includes all classes of supply daily. Improvements will include Transportation estimate improvements by improving the Sealift estimation algorithm, increasing the level of detail for sustainment planning, and increasing the data for individual ports. The increased detail provides better information and makes the initial estimate more accurate and reduces the planning cycle. Improvements will be made to:

- AmmoGen Tool - Generate ammo sustainment requirements during the building of a plan.
- PerGen Tool - Personnel Generator will allow modifications of scenarios by service for inclusion in dynamic plans/adaptive situations.
- SusGen Tool - Sustainment Generator allows for merging of scenarios by service. Imports scenarios created in standalone Joint Flow and Analysis System for Transportation (JFAST), the robust TRANSCOM used for scheduling movement.
- Execution management tool – A CFAST tool used to absorb and manage USTRANSCOM analysis and scheduling system data. It allows the user to create tools that validate movement requirements, assign requirements to carriers, report movement, and track strategic and theater lift assets and requirement movement through the Defense Transportation System globally.

Theater log CONOPS management tool – A CFAST tool that enables logistics planners to develop theater-wide concept of operations. It provides automated planning, and enables planning for theater distribution of supplies and equipment.

Exhibit R-2a, RDT&E Project Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				Project Name and Number Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02	8.870	8.002	7.814					

Include support available, where applicable, from the host nation.

Log Force adequacy tool – The Log Force Adequacy tool will enable logistics planners, via automation, to evaluate the force list (Time Phased Force Deployment Data - TPFDD) and develop estimates of supportability/concept of operations for providing adequate and timely support.

Planning Workflow: New capability will allow authorized users to track the status of each OPLAN and the approval process for the plan. The planning capability will receive modifications which provide redeployment planning capabilities from theater back to home station. Modifications are required for the following tools:

Plan Development and Execution Process Workflow Manager - Provide capability similar to Microsoft Project for management and graphical layout of the campaign and war planning process.

Planning Application Integration - Develop a collaborative working environment that provides the capability to absorb, manipulate, model, display and provide updated data containing critical plan elements to/from DLA, the intelligence community, the Standing Joint Force HQ, special operations forces and the Joint medical community.

Interoperability: CFAST contains unique software capabilities but relies upon data feeds from external systems. Data requirements and improvements will include Readiness data; fine grain unit information; migration to new data standards; and importing/exporting into new formats.

Course of Action Development – Provide an initial capability that allows planners to simulate the scheduled TPFDD flow of forces into the area of operations and the actions required to fulfill the mission. The simulation shall include effects based operations as well as attrition warfare. The course of action will allow feedback into the planning applications in order to refine the forces required for an operation.

Net Enabled Command Capabilities (NECC) – In order for CFAST to provide Adaptive Planning capabilities for the NECC program, CFAST must move to the SOA technical specifications in order to reduce cost by providing reuse of code and enterprise level capabilities through FY 2010.

Exhibit R-2a, RDT&E Project Justification								Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07								Project Name and Number Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02	8.870	8.002	7.814					

	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.534	0.482	0.493

Integration and Test (I&T): CFAST employs an incremental spiral I&T methodology in accordance with testing and information assurance regulations, as applicable. This risk reduction strategy allows testing in smaller, more manageable versions, while still enforcing a level of testing commensurate to the operational and technical complexity of each release. This approach permits an earlier start of integration testing as well as on making capability available to users for evaluation during actual planning events. CFAST also finances independent security evaluations of CFAST versions in order to maintain the ATO status. This approach ensures the operational suitability and effectiveness, interoperability, and security of CFAST for warfighter use.

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
Procurement, DW	5.482	1.467	1.462							
O&M, DW	8.152	8.700	8.572							

D. Acquisition Strategy:
Joint Requirements Oversight Council (JROC) memorandum (JROCM) 102-04, Subject: Collaborative Force Analysis, Sustainment and Transportation System (CFAST) Future Development, designated U.S. Joint Forces Command (USJFCOM) as the Functional Proponent for CFAST and the Defense Information Systems Agency (DISA) as the Material Solution Provider, effective July 2004. The CFAST Acquisition Strategy is structured to retain contractors capable of satisfying cost,

Exhibit R-2a, RDT&E Project Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				Project Name and Number Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02	8.870	8.002	7.814					

schedule, and performance objectives. CFAST utilizes Cost Reimbursable Task Orders (TO) issued under competitively awarded contracts. CFAST maximizes the use of competitively awarded IDIQ contracts and requires contractors to establish and manage specific earned value data. The CFAST strategy mitigates risk by requiring Contract Performance Reviews (CPR) and utilizes Award Fee contracts where appropriate to incentivize performance.

E. Performance Metrics:

Cost & Schedule Management – CFAST utilizes earned value management to manage technical cost and schedule requirements. Contractors are required to plan, budget, and schedule resources in time-phased “planned value” increments constituting a cost and schedule measurement baseline. This approach encourages contractors to use effective internal cost and schedule management control systems. Performance is evaluated by conducting contractor performance reviews as well as weekly critical path reviews of the CFAST release schedules to ensure tasks are on track and to mitigate risk across the entire lifecycle.

Exhibit R-3 RDT&E Program Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0303150K	Project Name and Number Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)/CC02

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Product Development	MIPR	SPAWAR, San Diego, CA	6.250	8.336	02/08	7.520	02/09	7.321	02/10			Cont'g	Cont'g	29.427
Test and Evaluation	MIPR	SPAWAR, San Diego, CA	0.750	0.534	02/08	0.482	02/09	0.493	02/10			Cont'g	Cont'g	2.259
Total			7.000	8.870		8.002		7.814						31.686

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009

Appropriation/Budget Activity RDT&E, Defense-Wide, 07	Program Element Number and Name PE 0303150K, Global Command and Control System (GCCS)	Project Number and Name CC02/Collaborative Force Analysis, Sustainment, and Transportation System

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Development and Strategic Planning	△	△	△	△	△	△	△	△	△	△	△	△																				
Integration and Test	△	△	△	△	△	△	△	△	△	△	△	△																				

Exhibit R-4a, RDT&E Program Schedule Detail	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element and Name PE 0303150K/Global Command and Control System (GCCS)	Project Number and Name CC02/Collaborative Force Analysis, Sustainment, and Transportation System

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Development and Strategic Planning	1Q-4Q	1Q-4Q	1Q-4Q					
Integration and Test	1Q-4Q	1Q-4Q	1Q-4Q					

Within the FY 2008 to FY 2010 timeframe, CFAST will sustain existing capabilities, continue to development emergent AP capabilities to satisfy the 167 requirements as well as meet the intent of the AP Roadmap and alignment with the NECC CDD. CFAST will provide “living plans” in a net-centric, collaborative, virtual environment, updated routinely to reflect changes in guidance/ strategic environment with automated triggers, linked to real time authoritative sources, that alert planners to key assumptions or planning parameters. CFAST is funded to provide four operational versions annually.

Exhibit R-2, RDT&E Budget Item Justification				DATE: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Joint Spectrum Center /PE 0303153K				
Cost (in Millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Joint Spectrum Center /JS1	18.303	19.267	18.944					

A. Mission Description and Budget Item Justification:

The Defense Spectrum Organization (DSO) is responsible for developing comprehensive and integrated spectrum planning and long-term strategies to address current and future needs for DoD electromagnetic (EM) spectrum access. The DSO supports DoD on national and international spectrum issues, spectrum coordination, and in the pursuit of emerging spectrum-efficient technologies in DoD acquisitions. The DSO serves as the DoD center of excellence for EM spectrum management, planning, policy implementation, and operational matters, and provides direct support to the ASD (NII)/DoD CIO, the Chairman of the Joint Chiefs of Staff, Combatant Commanders (COCOMs), Secretaries of Military Departments (MILDEPs), and Directors of Defense Agencies. The DSO was established by merging and realigning the spectrum assets and resources of DISA's Defense Spectrum Office, hereafter referred to as the Strategic Planning Office (SPO), and the Joint Spectrum Center (JSC). On 1 October 2008 the Global Electromagnetic Spectrum Information System (GEMSIS) Program Office was transferred to the DSO, thus consolidating all DISA EM spectrum activities in one organization.

The Joint Spectrum Center's (JSC) mission is to enable DoD's effective use of the EM spectrum in support of national security and military objectives. The JSC is responsible for developing and maintaining DoD standard information systems that support DoD spectrum related activities and processes. Specifically, JSC designs, develops, and maintains DoD automated spectrum management systems, evaluation tools, and databases employed by DoD. The JSC databases are the prime sources of information for DoD use of the EM spectrum. The JSC provides technical measurement and analysis in support of spectrum policy decisions and ensuring the development, acquisition, and operational deployment of systems that are compatible with other spectrum dependent systems operating within the same EM environment. Additional focus is centered on improving future warfighter EM spectrum utilization through technological innovation accomplished by researching, studying, and steering the direction of research and development (R&D) emerging technology efforts from a spectrum perspective. The JSC is the DoD focal point for Electromagnetic Environmental Effects (E^3), and EM interference resolution assistance to operational units including deployable support to COCOM Joint Task Forces. The JSC mission is integral to other vital activities such as Information Operations (IO), Electronic Warfare (EW) and other special projects as directed by the Joint Staff. This program element is under Budget Activity 07 because it supports operational systems development.

The Global Electromagnetic Spectrum Information System (GEMSIS) is envisioned as a net centric emerging capability providing commanders with an increased common picture of spectrum situational awareness of friendly and hostile forces while transparently deconflicting competing mission requirements for spectrum use. This capability will enable the

Exhibit R-2, RDT&E Budget Item Justification				DATE: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Joint Spectrum Center /PE 0303153K				
Cost (in Millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Joint Spectrum Center /JS1	18.303	19.267	18.944					

transformation from the current preplanned and static assignment strategy into autonomous and adaptive spectrum operations. GEMSIS will provide a long-term solution for spectrum management as a family of spectrum capabilities and a joint enabling concept. As a family of spectrum capabilities, GEMSIS will support all levels of warfare (strategic, operational, and tactical) and National Strategy through the fielding of supportable and adaptive radio frequency (RF) spectrum-dependent capabilities. Military readiness, mobilization, strategic operations, logistics, and space-based capabilities depend on the availability of the electromagnetic spectrum to plan and execute missions. Global communications, the sustaining infrastructure; and interagency, local government, and coalition operations similarly depend on spectrum planning and execution. The GEMSIS architecture will provide GIG-based capabilities enabling the seamless exchange of spectrum access resources, equipment supportability assessments, mission planning and rehearsal guidance, and acquisition decision support inputs DoD wide.

The Strategic Planning Office (SPO) mission is to provide integrated strategies, policies, processes, and practices to achieve global spectrum access for national security obligations. The SPO provides comprehensive and integrated spectrum planning strategies for DoD by improving EM spectrum management and electromagnetic environmental effects (E3) business processes; updating spectrum supportability roles and responsibilities throughout the spectrum management community; and enhancing acquisition and requirements processes to assure spectrum access. SPO also in responsible for promoting EM spectrum and E3 awareness and education through outreach programs; advocating and defending DoD’s EM spectrum needs in national and international EM spectrum forums by developing and executing realistic allocation/reallocation strategies; proactive DoD preparation for the World Radiocommunication Conference (WRC); and integrating spectrum-related technology issues in national and international policy development and execution. The SPO is leading efforts to transform spectrum management to support current and future net-centric operations and warfare. SPO activities are funded in the Defense-wide Operations and Maintenance appropriation.

Accomplishments/Planned Program:

Spectrum Knowledge Resources	FY 2008	FY 2009	FY 2010
Subtotal Cost	7.151	8.773	7.907

This function includes development and updates of DoD systems such as net-centric spectrum tools and the Spectrum Requirements System (SRS) which provide critical frequency assignment and equipment data that is necessary in predicting and avoiding spectrum conflicts. This area also includes software updates of SPECTRUM XXI, the joint standard DoD

Exhibit R-2, RDT&E Budget Item Justification				DATE: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Joint Spectrum Center /PE 0303153K				
Cost (in Millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Joint Spectrum Center /JS1	18.303	19.267	18.944					

spectrum management system. SPECTRUM XXI ensures DoD has adequate spectrum access to accomplish its missions by addressing the regulatory requirements of host nation spectrum administrations and by enabling a common operating picture of the spectrum use for the warfighter. FY 2008 efforts resulted in a new eXtensible Markup Language (XML) based structure for spectrum related information. This structure, which is defined as Standard Spectrum Reference Format (SSRF) delineated in Military Communications Electronics Board Publication 8, is also defined by the NATO Spectrum Management Allied Data Exchange Format (SMADEF) within NATO and is being adopted by the Combined Communications Electronics Board (CCEB) nations, provides a unique opportunity for fluid exchange of essential spectrum management information to support domestic and international operations. FY 2008 also resulted in a new release of the Joint Data Maintenance Center (JDMC) enabling more efficient Joint Equipment Tactical and Space (JETS) Database record entry, eliminating elaborate work-arounds required by data analysts, and improving the record cloning feature to reduce analyst data entry. Also completed were the development, testing and release of SPECTRUM XXI version 4.2.3 server and client software, and performance of an Oracle database version and hardware upgrade to the SPECTRUM XXI central server and all four regional servers. Other software capabilities delivered include Host Nation Spectrum Worldwide Database Online (HNSWDO) v3.0 and the Spectrum Certification System (SCS) data migration to the Equipment Location Certification Information Database (EL-CID). FY2009 efforts will result in the release of HNSWDO V3.1 that will include workflow enhancements for improving the efficiency of the Host Nation spectrum coordination process. FY 2010 efforts will produce a net-centric spectrum tool prototype that will provide the functionality of the legacy Joint E3 Evaluation Tool (JEET) in a web-based Service Oriented Architecture (SOA). FY 2010 efforts will also result in the initial operational capability (IOC) of the Net-Centric JSC Data Repository (JDR) which includes interfaces that permit users and trusted spectrum management applications/tools to export data in the SSRF, thereby supporting improved spectrum efficiency, better coordination for operations and improved spectrum situational awareness. FY 2009 – FY 2010 efforts will include continued SPECTRUM XXI server and client software development, and continued Data Transformation efforts, specifying, advising, testing and implementing rewrites of existing software to accommodate migration of the JSC data repository to Pub 8 compliance. This will include data maintenance tools, tactical data maps, space satellite data maps, data metrics tools, and the Business Objects Joint Data Access Web Browser replacement for the legacy Joint Data Access Web Server (JDAWS).

Exhibit R-2, RDT&E Budget Item Justification				DATE: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Joint Spectrum Center /PE 0303153K				
Cost (in Millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Joint Spectrum Center /JS1	18.303	19.267	18.944					

Electromagnetic Environmental Effects (E3)	FY 2008	FY 2009	FY 2010
Subtotal Cost	2.889	2.979	3.068

The E3 Program supports the DoD requirements generation system, the DoD acquisition process, operational test and evaluation, and EM compatibility standardization. Algorithms and E3 analytical tools are developed for functions such as Hazards of Electromagnetic Radiation to Ordnance (HERO) risk assessments in support of the COCOMS and the Joint Task Force (JTF). Assessments are conducted to determine system and equipment limitations in the operational EM environment. Efforts also include the development and maintenance of the JSC Ordnance E3 Risk Assessment Database (JOERAD), a decision support system that helps the warfighter make critical decisions about the hazards associated with the use of introduced ordnance within complex EM environments. FY 2008 funding resulted in development of JOERAD v9.4.1. This tool gives the warfighter the ability to compare the maximum allowable environment (MAE) to which an ordnance item can be exposed (without creating a safety or operational reliability problem) with the output from the radio frequency (RF) emitter suites found on various operational land, sea, and air platforms. This tool automates the analysis process and assists in mission planning and impact assessments. In FY 2009 DSO will continue to perform HERO Impact Assessments, forward deployed surveys and continued deployment of JOERAD. FY 2010 resources will result in continued performance of electromagnetic environmental (EME) ship surveys, forward deployed surveys, and HERO impact assessments. FY 2010 efforts will result in the conversion of JOERAD to a network connected capability, JOERAD 10.0.

Emerging Spectrum Technology (EST)	FY 2008	FY 2009	FY 2010
Subtotal Cost	3.819	4.140	3.719

The DSO has the responsibility to investigate emerging spectrum related technologies and evaluate their applicability to improve future warfighter EM spectrum utilization through technological innovation. This is accomplished by researching, studying, and steering the direction of research and development (R&D) emerging technology efforts from a spectrum perspective. This effort provides development of EST roadmaps; and detailed survey and review of emerging technologies to identify trends and analyze their implications on DoD spectrum management and supportability processes and procedures. A key focus of the EST efforts in on dynamic spectrum access (DSA) technologies.

Exhibit R-2, RDT&E Budget Item Justification				DATE: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Joint Spectrum Center /PE 0303153K				
Cost (in Millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Joint Spectrum Center /JS1	18.303	19.267	18.944					

The DSO has been actively supporting DoD efforts in support of the National Telecommunications and Information Administration (NTIA)'s execution of the President's Spectrum Policy Initiative (PSPI). The principle technical and regulatory efforts take place in Working Level Groups (WLGs). The JSC is the lead DoD representative to WLG-E – Enhance Spectrum Engineering and Analytical Tools, the primary technical working level group. In FY 2008, the JSC provided programmatic recommendations NTIA on execution of PSPI testbed activities. FY 2008 also resulted in completion of a Radar Metrics Development Research Report, defining a set of metrics (such as bandwidth, repetition rate, beam width, etc.) for existing categories of radars, and showing how each of the chosen metric values serves to support mission requirements. Also in FY 2008, DSO hosted the Dynamic Spectrum Access (DSA) EST Workshop and developed DSA Capabilities Roadmap v1.0. DSA technology has the potentially to revolutionize spectrum management. DSA is realized through wireless networking architectures and technologies that enable wireless devices to dynamically adapt their spectrum access according to criteria such as policy constraints, spectrum availability, propagation environment, and application performance requirements. FY 2009 - FY 2010 will include preparing recommended technology enhancements to the Defense Spectrum Management Architecture (DSMA) (future edition); further investigation of the impact of DSA systems on the electromagnetic environment (EME); and performance of various technical assessments, including establishing the technical foundation for protecting legacy systems as DSA is implemented; and continued development of the DSA Roadmap.

Global Electromagnetic Spectrum Information System (GEMSIS)	FY 2008	FY 2009	FY 2010
Subtotal Cost	4.444	3.375	4.250

GEMSIS is envisioned as a net centric emerging capability providing commanders with an increased common picture of spectrum situational awareness of friendly and hostile forces while transparently deconflicting competing mission requirements for spectrum use. This capability will enable the transformation from the current preplanned and static assignment strategy into autonomous and adaptive spectrum operations. In FY08, GEMSIS initiated transition planning activities for the Coalition Joint Spectrum Management Planning Tool (CJSMPT) Joint Capabilities Technology Demonstration (JCTD) capabilities and responsibilities from the U.S. Army to support GEMSIS Increment One efforts. The PMO also initiated GEMSIS Increment One test planning process with Joint Interoperability Test Command and began efforts to reduce risk in terms of data usability, accuracy, and information assurance. The GEMSIS Analysis of Alternatives (AoA) for Increment 2 was also initiated to analytically compare the operational effectiveness, suitability, and Life-Cycle cost of alternatives that satisfy established spectrum capability Joint Requirements Oversight Council approved

Exhibit R-2, RDT&E Budget Item Justification				DATE: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Joint Spectrum Center /PE 0303153K				
Cost (in Millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Joint Spectrum Center /JS1	18.303	19.267	18.944					

Initial Capabilities Document requirements.

In FY 2009, the PMO will document a standard GEMSIS architecture framework for Increment 1 (Host Nation Spectrum Worldwide Database Online (HNSWDO) & CJSMPT). GEMSIS will complete the transition of CJSMPT JCTD approved capabilities, identify CJSMPT data quality and interoperability improvements and recommendations, and transition CJSMPT data into the Joint Spectrum Center Data Repository. The PMO will complete analysis and assessment of Certification and Accreditation areas with appropriate mitigation and corrective action for identified risks. Additional accomplishments will include transitioning HNSWDO V3.1 into GEMSIS Increment One, initiate development of HNSWDO upgrade based on customer identified requirements and begin a HNSWDO Business Process Management Pilot Program. Additionally the PMO will initiate efforts to improve net-centricity and spectrum data standardization for Increment One and begin the federation and catalogue of services for spectrum management tools.

In FY 2010, the PMO will design and develop training program improvements for GEMSIS Increment 1. GEMSIS will also continue to develop, test, and deliver GEMSIS Increment One approved enhancements and update the standard architecture framework accordingly. Other efforts will include continuing: the transition of CJSMPT data into the Joint Spectrum Center Data Repository; the federation and catalogue of services spectrum management tools; and continuing efforts to improve net-centricity and spectrum data standardization for Increment One. Lastly, the PMO will complete the HNSWDO Business Process Management Pilot Program.

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President’s Budget	18.534	19.319	19.962
FY 2010 President's Budget	18.303	19.267	18.944
Total Adjustments	-0.231	-0.052	-1.018

Change Summary Explanation: Funding changes in FY 2008 reflect a below threshold reprogramming to mission critical requirements within the Agency. The FY 2009 reflects reductions of -$0.052 million for Economic Assumptions. FY 2010 reductions of -$1.018 million are due to the HNSWDO and CJSMPT transition from development to sustainment and

Exhibit R-2, RDT&E Budget Item Justification				DATE: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Joint Spectrum Center /PE 0303153K				
Cost (in Millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Joint Spectrum Center /JS1	18.303	19.267	18.944					

operations; and in economic assumptions.

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M, DW	24.721	30.163	31.859						Cont'g	Cont'g
Procurement, DW	0.000	0.000	0.492						Cont'g	Cont'g

D. Acquisition Strategy: Engineering support services for DSO are provided via contract. No in-house government capability exists, nor is it practical to develop one that can provide the expertise necessary to fulfill the mission and responsibilities of DSO. Full and open competition was used for the acquisition of the current contracts with ITT Industries, Inc. GEMSIS's acquisition approach is to adopt proven best practices through a variety of acquisition mechanisms.

E. Performance Metrics:

1. Initial deployment of the Net-Centric JSC Data Repository (JDR) which will enable spectrum managers and E3 analysts to exchange spectrum information in a format consistent across NATO and CCEB counterparts for full coordination of spectrum operations and situational awareness.
2. Publish three emerging spectrum technology analyses per year
3. Implement DSA Roadmap actions/recommendations.
4. Continued incorporation of JOERAD into Navy ship software inventory.
5. Continued presentation of E3 technical courses.
6. Conduct 7 -10 HERO/ EME Analyses per year.
7. Support through analyses, planning, and policy recommendations, emerging spectrum-dependent technologies to enhance DoD operational capabilities by:
   a. Identifying beneficial and potentially threatening spectrum technologies with respect to DoD spectrum access and operations (percent of
   b. spectrum-dependent technologies assessed).

Exhibit R-2, RDT&E Budget Item Justification				DATE: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Joint Spectrum Center /PE 0303153K				
Cost (in Millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Joint Spectrum Center /JS1	18.303	19.267	18.944					

c. Forming strategic alliances with government, industry and academia to advocate, influence, and promote spectrum dependent emerging technologies (percent of partnerships formed after outreach and engagement).

8. Expand GEMSIS integration, development and deployment by:

a. Initiate implementation of the Service Oriented Architecture (SOA) for GEMSIS Increment One.
b. Continue to develop, test and deliver GEMSIS Increment One approved enhancements.
c. Update the standard architecture framework for GEMSIS Increment One.
d. Continued transition of CJSMPT data into the JSC Date Repository (JDR).
e. Continued federation and catalogue of services spectrum management tools.
f. Complete HNSWDO Business Process Management Pilot Program.
g. Continued improvement in net-centricity and spectrum data standardization for Increment One.
h. Design and development of training program improvements for Increment One.

Exhibit R-3 Cost Analysis		**DATE:** May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Joint Spectrum Center / PE 0303153K	Project Name and Number Joint Spectrum Center / JS1

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Engineering/ Technical Support	MIPR	Various	0.423	0.974	10/07	1.743	10/08	1.800	10/09			Cont'g	Cont'g	Cont'g
Contractor Engineering Technical/Spt	C/CPIF/ FFP	ITT Industries, Inc.	11.978	12.885	10/07	13.053	10/08	12.894	10/09			Cont'g	Cont'g	Cont'g
Engineering/Technical Support	MIPR	Various	N/A	3.727	Var.	N/A	N/A	0.000	N/A			Cont'g	Cont'g	Cont'g
Contractor Engineering Technical/Spt	TBD	TBD	N/A	N/A	N/A	4.471	08/09	4.250	10/09			Cont'g	Cont'g	Cont'g
Test Support/ Gov't Test and Eval Support	MIPR	JITC, Ft. Hauchuca	N/A	0.717	6/08	N/A	N/A	0.000	N/A			Cont'g	Cont'g	Cont'g
Total			12.401	18.303		19.267		18.944						

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E, Defense-Wide, 07	PE 0303153K /Joint Spectrum Center	JS1/Joint Spectrum Center

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Spectrum XXI Enhancements Development				▲				△				△																				
Host Nation Spectrum Worldwide Database Online (HNSWDO) Testing	▲	▲																														
JOERAD Netcentric Services Integration			▲			△																										
JOERAD NCS 3.0 IV&V Test Plan, Documentation, Software Release, and IV&V Report								△																								
Perform Forward Deployed and EME Ship Surveys and conduct HERO Impact Assessments				▲				△				△																				
Complete Test Plan and Testing of Integrated Intersite Model (IIM) Version 0.4		▲				△																										

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E, Defense-Wide, 07	PE 0303153K /Joint Spectrum Center	JS1/Joint Spectrum Center

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
IIM IOC for stand-alone version to access the JDR / IOC Release.								△			△																					
EST Adaptive Networks Assessments				▲				△				△																				
Continued Development of Spectrum Scorecard	▲	▲	▲	▲																												
Dynamic Spectrum Access (DSA)Technical Framework	▲	▲	▲	▲																												
Continued DSA Research					△	△	△	△	△	△	△	△																				
GEMSIS Systems Engineering Support and Development (Incr. 1)				▲				△		△																						
GEMSIS Systems Engineering Support and Development (Incr. 2)										△																						

Exhibit R-4a Schedule Detail		**DATE:** May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Joint Spectrum Center / PE 0303153K	Project Name and Number Joint Spectrum Center / JS1

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Spectrum XXI Enhancements Development	4Q	4Q	4Q					
Host Nation Spectrum Worldwide Database Online (HNSWDO) Testing	1Q, 2Q							
JOERAD Netcentric Services Integration	3Q	2Q						
JOERAD NCS 3.0 IV&V Test Plan, Documentation, Software Release, and IV&V Report		4Q						
Perform Forward Deployed and EME Ship Surveys and conduct HERO Impact Assessments	4Q	4Q	4Q					
Complete Test Plan and Testing of Integrated Intersite Model (IIM) Version 0.4	2Q	2Q						
IIM IOC for stand-alone version to access the JDR to import MCEB Publication 8 XML data. IOC Release.		4Q	3Q					
Emerging Spectrum Technologies Adaptive Networks Assessments	4Q	4Q	4Q					
Continued Development of Spectrum Scorecard	1Q-4Q							
Development of Dynamic Spectrum Access (DSA) Technical Framework	1Q-4Q							
DSA Research (electromagnetic environment (EME), sensing methods, spectrum densities)		1Q-4Q	1Q-4Q					
GEMSIS Systems Engineering Support and Development (Increment 1)	4Q	4Q	2Q					
GEMSIS Systems Engineering Support and Development (Increment 2)			2Q					

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Net-Centric Enterprise Services (NCES)/PE 0303170K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Net-Centric Enterprise Services (NCES)/T57	37.692	0.428	1.782					

A. Mission Description and Budget Item Justification:

The Department of Defense (DoD) is transforming the way it conducts warfare, business operations, and enterprise management. As part of this transformation, the Department has embraced the Net-Centricity concept, a robust, globally interconnected, network environment (infrastructure, systems, processes, and people). Data is shared in a timely and seamless way among users, applications, and platforms during all phases of warfighting. Net-Centricity enables vastly improved situational awareness, significantly shortened decision-making cycles, and better asset protection. Net-Centric Enterprise Services (NCES) is the foundation and one transforming catalyst of the current DoD environment.

NCES is the DoD wide initiative to develop shared underpinning capabilities for future joint warfighting through a capabilities-based joint force, NCES supports a transformed, fully integrated, networked, decentralized, adaptable, capable of decision superiority, and lethal joint force. NCES enables DoD’s transition to an environment where data is tagged and rapidly searchable by authorized users and applications.

Although NCES must support an expanding number of programs of record, enterprise capabilities will initially be made available to DoD, Federal, and authorized Coalition users serviced by the Defense Information Systems Network (DISN) Secret Internet Protocol Router Network (SIPRNet) and those users supported by the Non-Classified Internet Protocol Router Network (NIPRNet). Though initial capabilities will not support all operational and tactical users beyond the DISN, NCES will provide services users can access, commensurate with available transport, doctrine, and the Commander’s Intent for bandwidth usage and information policy. NCES will continue to expand and refine services that support a larger segment of operational and tactical users in bandwidth restricted, intermittent, and disconnected environments.

NCES will lay the foundation to begin closing capability gaps identified in the Joint Vision 2020. Five documents identified capability gaps in supporting timely, secure, and agile information exchanges: (1)the NCES Warfighter Concept of Operations, (2) the GIG Mission Area Initial Capabilities Document (ICD), (3) the Global Information Grid (GIG) Engineering Services ICD, (4) the 13 April 2007 Net-Enabled Command Capability Development Document (CDD), and (5) the Joint Capabilities Document (JCD) for Net-Centric Operational Environment. Analysis of the gaps can be grouped in six high-level categories: system interoperability, collaboration, information access, cross-domain security, information exchange, and system responsiveness.

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Net-Centric Enterprise Services (NCES)/PE 0303170K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Net-Centric Enterprise Services (NCES)/T57	37.692	0.428	1.782					

Core enterprise services provide a common information infrastructure to maximize sharing, reuse, and interoperability of services. Each service is critical and required for net-centricity and cannot otherwise be provided by existing stove-pipe systems in a timely, scalable, or reusable manner. These services are organized as four (4) product lines:

1. Service Oriented Architecture Foundation (SOAF)
2. Content Discovery and Delivery (CD&D)
3. Collaboration
4. User Access (Portal)

(1) SOAF represents the core set of system components providing the essential elements of interoperability, access, security, and performance. SOAF empowers service users and producers to rapidly construct and deploy interoperable service-based applications. SOAF capabilities provide the critical NCES foundation that enable Community of Interest (COI) users to securely discover, share, and process information and services from a multitude of sources. The SOAF also provides the engineering flexibility necessary to respond to changing business processes and requirements.

(2) CD&D provides search and discovery functionality across the GIG Enterprise. CD&D provides the methodology, specifications, user interfaces, and services to support advertising, discovery, and efficient delivery of information. Content Delivery provides computing infrastructure services for dynamic caching, forward staging and information storage within the network.

(3) Collaboration meets the warfighter’s operational requirements with a tool suite of collaboration capabilities (e.g., IM/chat, web conferencing, application sharing, whiteboarding including annotations, and application broadcasting). The web-accessible services enable information sharing and processing anywhere, anytime by any user with privileges on the DoD network.

(4) User Access to NCES Services capability provides the user with secure web-based access to NCES and provides a single launch point to access NCES services, but will not be the only method used to access NCES services. The User

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
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Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Net-Centric Enterprise Services (NCES)/T57	37.692	0.428	1.782					

Access to NCES Services capability also provides a flexible profiling and customization capability for capturing, managing, and acting on a full array of user preferences.

NCES product services support information sharing and shared situational awareness, link decision makers and system users with current, essential data to achieve increased speed of command. The infrastructures to research, develop, and test these four (4) product lines, prior to initial operating capability, will be funded until FY 2009. NCES will conduct an independent initial operational test and evaluation (IOT&E) prior to full release of services and products to the enterprise. The IOT&E will assess the operational effectiveness, suitability and survivability of all the services acting together as NCES Increment 1. Following this final testing event and upon successful completion of a Full Deployment Decision Review (FDDR), NCES will move to an operational state, transitioning its funding profile to primarily investment (procurement exhibits) and operational (O&M exhibits) dollars, with remaining developmental (RDT&E) dollars allocated to testing new enterprise services that Managed Service Providers (MSPs) will deliver. MSPs will support enterprise services throughout the full life cycle via services offered from a qualified GIG Computing Node. This program element is under Budget Activity 7 because it supports operational systems development.

Accomplishments/Planned Program:

	FY 2008	FY 2009	FY 2010
Service Oriented Architecture Foundation (SOAF)			
Subtotal Cost	17.350	0.000	0.000

In FY 2008, funds were used to develop and deliver enterprise SOAF services, to include Enterprise Service Management (ESM), Machine-to-Machine (M2M) Messaging, Service Discovery, and Mediation to the DoD Enterprise. Specifically, the SOAF MSP services include enterprise service management, which monitored the NCES performance and availability within the enterprise; machine-to-machine messaging which allowed DoD software applications to interoperate in order to perform synchronous and asynchronous messaging via Web Services; services discovery, a searchable repository of services within the DoD that provided asset management capabilities, which allowed the enterprise discovery for publishing, finding, and invoking GIG Web Services/applications registered and categorized in an enterprise information store; and mediation capabilities to expose mediation capabilities offered by other programs of reference. FY 2008

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
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Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Net-Centric Enterprise Services (NCES)/T57	37.692	0.428	1.782					

funds also supported hosting of SOAF Legacy programs and the SOAF MSP services. The SOAF MSP contract is funded to IOC (Jan 09), and will have no FY 2009 or out-year RDT&E costs, when NCES migrates to an operational state utilizing only operational and acquisition funds.

Content Discovery and Delivery (CD&D)	FY 2008	FY 2009	FY 2010
Subtotal Cost	9.504	0.000	0.000

In FY 2008, funds were used to deliver a set of integrated enterprise CD&D services to include technical, engineering and integration support to the NCES PMO; definition, evolution, software enhancements, and deployment of enhancements related Electronic File Delivery. Funds also supported the development and build out of Centralized and Federated Search, and Enterprise Catalog capabilities on the NIPRNet, the deployment of File Delivery Replication, Publishing, and Subscription through the GIG Content Delivery Service and hosting of legacy programs. CD&D Services are funded until NCES receives a successful FDDR and will transition its costing profile to only operational and acquisition funds in FY 2009 throughout the life-cycle of the program.

Collaboration	FY 2008	FY 2009	FY 2010
Subtotal Cost	1.264	0.000	0.000

FY 2008 funds provided incremental enhancements to the E-CollabCenter (Button 1) instant messaging and web conferencing capabilities and provided support for enclave solutions to migrate users from legacy collaborative programs. Funds also supported the hosting of both E-Collab and Defense Connect Online (Button 2) and the implementation of redundant SIPRNet connections. Collaboration Services are funded until NCES receives a successful FDDR and will transition its costing profile to only operational and acquisition funds in FY 2009 throughout the life-cycle of the program.

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Net-Centric Enterprise Services (NCES)/PE 0303170K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Net-Centric Enterprise Services (NCES)/T57	37.692	0.428	1.782					

User Access (Portal)	FY 2008	FY 2009	FY 2010
Subtotal Cost	1.142	0.000	0.000

In FY 2008, funds supported the hosting costs for Defense Online Portal (DOL), DOL-S and Defense Knowledge Online (DKO) DKO-S (HF/MARS) until they were sunset, and the migration of content from these legacy portals to DKO, via the Army Knowledge Online (AKO) MSP.

Test and Evaluation	FY 2008	FY 2009	FY 2010
Subtotal Cost	7.960	0.428	1.782

Test and Evaluation (T&E) includes early and continuous involvement of the test community starting with contractor demonstrations prior to contract award; development of a stable and robust user group to support all levels of testing; and a series of early user tests (EUT) that integrate developmental and operational events to confirm individual services and products, or groups of services and products that meet performance specifications and enable user defined capabilities. T&E also includes independent certifications for required items, such as interoperability and security. An independent Operational Test will be conducted prior to full release of services and products to the Enterprise to support the Full Deployment Decision Review (FDDR). In FY 2008, funds supported EUT 4, testing of new CD&D and SOAF capabilities, and operational assessments of overall NCES capabilities. Funds also supported security certification, accreditation testing, developmental and interoperability testing, and validation of all MSP Services. FY 2009 funds support final IOT&E testing events for the SOAF MSP, testing assessments for the FY 2009 FDDR, and Operational Test Agency support. FY 2010 funds will support two key areas: Collaboration and SOAF. The Collaboration recompete (award in FY 2010) will require funding for testing and modeling, and simulation during source selection activities and following contract award.

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Net-Centric Enterprise Services (NCES)/PE 0303170K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Net-Centric Enterprise Services (NCES)/T57	37.692	0.428	1.782					

PMO Engineering and Support	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.472	0.000	0.000

PMO Engineering and Support – PMO Engineering and Support consists of engineering analysis, user outreach, and management support (including technical specifications, performance requirements, interface definitions, PWS, MOAs, Service Level Agreements (SLAs), services framework, requirements management, baseline configuration management (CM), technology trend analysis, operations performance monitoring, services consumer modeling). Services also include, but are not limited to management oversight, contract management, program support, and strategic operations. NCES will also conduct certification and accreditation for each government and commercial MSP using funding appropriated for information assurance support for NCES enterprise services. In FY 2008, funds were used to support functionary reporting of program documentation for Milestone C review, market research to support technical solutions for NCES enterprise services, and program branding efforts for external communications. FY 2008 funds were used for program control activities to ensure consistent and updated document control, the initiation and continuation of all statutory and regulatory documentation.

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 President's Budget	38.180	0.429	9.673
FY 2010 Budget Estimate	37.692	0.428	1.782
Total Adjustments	-0.488	-0.001	-7.891

Change Summary Explanation: The FY 2008 program adjustments reflect a below threshold reprogramming action to emerging mission critical requirements within the Agency. The FY 2009 funding reflects Congressional reductions of $0.001 million for Economic Assumptions. NCES submitted change profiles for FY 2010 – out and accounts for realigning RDT&E funds to operational (O&M) funds to support the sustainment of its operational enterprise services. The remaining developmental funds in FY 2010, support the testing of new services and upgrades that the MSP services will deliver. Testing is required and mandatory before the capabilities can be released at the enterprise level. These changes also

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Net-Centric Enterprise Services (NCES)/PE 0303170K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Net-Centric Enterprise Services (NCES)/T57	37.692	0.428	1.782					

support innovations initiatives, Vice-Chairman's initiatives, and sustainment of enhancements required to support USCENTCOM, deployable nodes, EMF, and storage repositories/streaming video capabilities.

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M, DW	27.947	89.247	117.025						Cont'g	Cont'g
Procurement, DW	10.536	36.657	3.051						Cont'g	Cont'g

D. Acquisition Strategy:

The NCES acquisition approach is to adopt proven specifications, best practices, and interface definitions to buy new commercial managed services through a variety of acquisition mechanisms. The NCES managed services will be network-based services or applications delivered, hosted and managed by a service provider in accordance with Service Level Agreements (SLAs) established between the NCES Program Management Office (PMO) and the service providers. The NCES SLAs describe the particular services in terms of a specific, agreed-upon quality and quantity for a specific duration. The SLAs also constrain the demands users may place upon the service to the limits defined by the contract.

The acquisition approach also enables rapid fielding of low to moderate risk capabilities to meet operational need and provide value to the end-user. To achieve rapid deployment of the NCES portfolio, the NCES acquisition approach is based on the following principles:

- The program will use performance-based services acquisition (PBSA) practices and incorporate commercial standards, performance specifications, and interface definitions to acquire NCES capabilities through selected commercial managed enterprise.
- Each managed service provider will manage, operate, maintain, and administer the enterprise services in accordance with an SLA.

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Net-Centric Enterprise Services (NCES)/PE 0303170K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Net-Centric Enterprise Services (NCES)/T57	37.692	0.428	1.782					

- Service Providers are responsible for full life cycle support including infrastructure investment, re-sourcing, integration, operational support (e.g., hosting, user assistance, performance reporting, and maintenance), technology refresh, training and training materials (as needed), pre-production testing service, and operational management (e.g., trouble ticketing, performance reporting, and Tier 2 and Tier 3 Help Desk support).

The benefits of the NCES acquisition approach include:

- Delivering full operational NCES Increment 1 capabilities faster than the traditional acquisition approach.
- Shifting investment risk to service providers in an evolving technology market.
- Enabling accountability and service delivery through SLAs and PBSA procedures.
- Enabling agility in selecting service capabilities.

The NCES Program’s business strategy seeks to strike a balance between ensuring accountability, through SLAs and performance based contracts, and recognizing the government’s responsibility and accountability for the acquisition and management of MSPs. To achieve the DoD net-centricity vision, programs accessing NCES services from enterprise, maritime, airborne, and land-based GIG computing nodes must be motivated to share their information and services. Using NCES shared core services, mission applications and capabilities can be developed and made available across the GIG faster and at lower cost. As programs consume NCES and make their own services available, the Department gains unprecedented information sharing. Throughout Increment 1, the NCES Program will work with the user community to understand how to plan for and consume NCES services by providing software toolkits and guidelines to assist users in their efforts. Government and industry participation is key to executing this acquisition strategy. Partnering with the DoD Components, NCES will rapidly deliver Increment 1 functionality and capability at the lowest possible risk.

E. Performance Metrics:

The NCES Capability Production Document (CPD), 25 March 2008, defines the NCES capabilities and their performance attributes. These performance attributes form the Performance Baseline for NCES. The NCES Modeling and Simulation effort will utilize, among other sources, performance data collected from test and evaluation activities in the pilot

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Net-Centric Enterprise Services (NCES)/PE 0303170K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Net-Centric Enterprise Services (NCES)/T57	37.692	0.428	1.782					

and test environments to demonstrate that the NCES capabilities can achieve the NCES Performance Goals.

For each capability there are three (3) general performance categories of metrics: Availability, Response Time, and Maximum Load. Availability is the amount of time that the service is available to provide services. Response Time is a capability-specific measure of service responsiveness or latency. Maximum Load is a composite measure of how many users, throughput, or data a service can handle and still be effective. This measure applies to each capability that is used to describe the predicted loading for Increment I.

To improve mission performance, NCES has developed five (5) key performance management metrics. These metrics are designed to rapidly identify and fix problems associated with NCES Program Management Office (PMO) activities, thereby providing maximum support to the warfighter. The NCES program performance metrics are independent and provide the NCES PMO with the insight needed to transform the program as necessary. The NCES program performance metrics are:

1. Customer Perspective - measures how NCES Services provide capabilities to the customer. The major factors of performance related to customer satisfaction include: service delivery/availability and customer assistance/help desk services. Customers will evaluate overall usefulness, responsiveness, supportability, and derived benefits.
2. Financial Perspective - measures how well program investments are managed. This metric evaluates NCES Program, Planning, Budgeting and Execution (PPBE); and economic measures such as Internal Rate of Return (IRR), Payback Period, Net Present Value (NPV), and Return on Investment (ROI) in accordance with the Clinger-Cohen Act of 1996.
3. Requirements Satisfaction - assesses how NCES is meeting requirements listed in its Capabilities Development Document (CDD). The NCES PMO will assess scaling of required capabilities, identify baselines, and lay the foundation for the integration of requirements as part of an acquisition plan through the NCES life cycle.
4. Contractor Performance - measures how effectively NCES service providers are meeting service level agreements. The NCES PMO will require recurring performance reporting by the MSPs, and will designate an Enterprise Service Management (ESM) service provider to provide independent verification and validation of service performance. Where practical, NCES program management support and managed service contracts will use Earned Value Management (EVM) or tailored EVM-like methods. These methods will monitor relevant cost, schedule, and performance aspects of contracted services and include periodic In-Process Reviews (IPRs).
5. Internal Process Perspective - measures effectiveness of the PMO at performing program control and execution.

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Net-Centric Enterprise Services (NCES)/PE 0303170K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
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Metric focuses on program management, ensuring NCES mission objectives are met in a timely and effective fashion. Metric utilizes the continuous improvement process incorporating results from strategic goals such as the Balanced Scorecard.

Finally, a Program Management metric measures the effectiveness of the PMO in performing its program control and execution functions. The metric focus on process analysis to determine if the correct processes are in place and personnel are following these processes, thereby ensuring NCES will meet its mission objectives. The primary sources for the Program Management metric are the NCES Balanced Scorecard (BSC) and the Integrated Master Schedule (IMS).

Exhibit R-3, RDT&E Project Cost Analysis		DATE: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0303170K	Project Name and Number Net-Centric Enterprise Services (NCES)/T57

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Service Oriented Architecture Foundation Service	MIPR/FP	JEDS	2.566	N/A	N/A	N/A	N/A	N/A	N/A			2.566	2.566	2.566
	C/Option	BAH	3.084	N/A	N/A	N/A	N/A	N/A	N/A			Cont'g	Cont'g	3.084
	C/FPI	CSC	N/A	13.023	10/07	N/A	N/A	N/A	N/A			Cont'g	Cont'g	30.235
	C/FP	Various	1.571	4.327	10/07	N/A	N/A	N/A	N/A			Cont'g	Cont'g	5.938
	C/Option	FGM	8.299	N/A	N/A	N/A	N/A	N/A	N/A			8.299	8.299	8.299
Content Discovery and Delivery Service	C/Option	SOLERS	3.023	1.120	06/08	N/A	N/A	N/A	N/A			Cont'g	Cont'g	5.143
	MIPR/CPIF	CSD	2.563	5.649	10/07	N/A	N/A	N/A	N/A			Cont'g	Cont'g	8.212
	C/FPI	ICES	1.582	2.489	10/08	N/A	N/A	N/A	N/A			Cont'g	Cont'g	5.457
	C/FP	Various	0.095	0.246	Various	N/A	N/A	N/A	N/A			Cont'g	Cont'g	0.950
Collaboration Service	C/FPI	IBM	3.968	0.371	02/08	N/A	N/A	N/A	N/A			Cont'g	Cont'g	5.248
	C/FPI	Carahsoft	5.634	N/A	N/A	N/A	N/A	N/A	N/A			Cont'g	Cont'g	10.934
	C/FPI	Various	0.608	0.893	N/A	N/A	N/A	N/A	N/A			Cont'g	Cont'g	0.608
User Access (Portal)	MIPR/FP	Army	8.614	1.142	10/07	N/A	N/A	N/A	N/A			Cont'g	Cont'g	11.110
	MIPR/FP	Northrup Grumman	3.167	N/A	N/A	N/A	N/A	N/A	N/A			3.167	3.167	3.167
Test and Evaluation	MIPR/FP	JITC	19.979	6.371	10/07	0.428	10/08	1.782	10/09			Cont'g	Cont'g	30.401
	MIPR/FP	SPAWAR	17.664	0.406	10/07	N/A	N/A	N/A	N/A			Cont'g	Cont'g	18.070
	MIPR/FP	JFCOM	0.122	0.088	10/07	N/A	N/A	N/A	N/A			Cont'g	Cont'g	0.232
	C/Option	SAIC	10.627	0.914	03/08	N/A	N/A	N/A	N/A			Cont'g	Cont'g	11.541
	MIPR/FP	TE	0.331	0.181	10/07	N/A	N/A	N/A	N/A			Cont'g	Cont'g	0.512
PMO Engineering and Support	C/Option	DSA	12.351	N/A	N/A	N/A	N/A	N/A	N/A			12.351	12.351	12.351
	C/Option	MITRE	15.072	N/A	N/A	N/A	N/A	N/A	N/A			15.072	15.072	15.072
	MIPR/FP	CSD	23.056	N/A	N/A	N/A	N/A	N/A	N/A			Cont'g	Cont'g	23.056
	C/CPFF	SRA	1.478	N/A	N/A	N/A	N/A	N/A	N/A			1.478	1.478	1.478
	C/Option	BAH	10.224	N/A	N/A	N/A	N/A	N/A	N/A			10.224	10.224	10.224
	C/Option	SOLERS	4.853	N/A	N/A	N/A	N/A	N/A	N/A			4.853	4.853	4.853
	C/CPFF	Pragmatics	1.735	N/A	N/A	N/A	N/A	N/A	N/A			1.735	1.735	1.735
	C/CPFF	MMI	2.689	N/A	N/A	N/A	N/A	N/A	N/A			2.689	2.689	2.689

Exhibit R-3, RDT&E Project Cost Analysis		DATE: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0303170K	Project Name and Number Net-Centric Enterprise Services (NCES)/T57

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
	C/FP	Various	24.284	0.472	Various	N/A	N/A	N/A	N/A			Cont'g	Cont'g	24.756
Total			189.239	37.692		0.428		1.782						

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name PE 0303170K, Net-Centric Enterprise Services (NCES)	Project Number and Name T57, Net-Centric Enterprise Services (NCES)

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Acquisition Milestones		MS C	▲			FDDR	△ IOC																									
Service Oriented Architecture (SOA) Service	▲	▲	▲																													
Content Discovery & Delivery (CD&D) Service	▲	▲	▲																													
Collaboration Service	▲	▲	▲																													
Portal Service	▲	▲	▲																													
Service Integration and Testing	▲	▲	▲	△	△	△	△	△	△	△	△	△																				

Exhibit R-4a, RDT&E Program Schedule Detail		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name PE 0303170K/Net-Centric Enterprise Services (NCES)	Project Number and Name T57/Net-Centric Enterprise Services (NCES)

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
MS C Decision	3Q							
Full Deployment Decision Review		2Q						
Initial Operating Capability		3Q						
Service Oriented Architecture (SOA) Foundation Services								
Contract Award	1Q							
Limited Operational Availability (LOA)	3Q							
EUT 4 Part Spiral 2.0								
Content Discovery & Delivery (CD&D) Services								
LOA EUT 4 Spiral 2.0	3Q							
Enterprise Collaboration								
Button 1 Option 1	2Q							
Button 2 Contract Award	1Q							
LOA EUT 4 Button 1 & 2	3Q							
User Access (Portal)								
LOA EUT 4 Spiral 2.0	3Q							
Testing								
EUT 4 Spiral 2.0	2Q							
IOT&E	1Q – 4Q	1Q – 2Q						
Systems Integrated Lab Testing	1Q – 4Q	1Q – 4Q	1Q – 4Q					

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Teleport Program/PE 0303610K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Teleport Program /NS01	5.633	2.054	5.239					

A. Mission Description and Budget Item Justification:

DoD Teleport is a collaborative investment within the Department and among the Services that provides deployed warfighters with seamless worldwide multi-band Satellite Communication (SATCOM) reach-back capabilities to the Defense Information System Network (DISN). Each Teleport investment increases the warfighters' ability to communicate with a worldwide interconnected set of information capabilities, which is vital for the DoD to maintain a persistent presence among its adversaries.

Teleport is being deployed incrementally in a multi-generational program. Teleport upgrades selected sites from the Standardized Tactical Entry Point (STEP) program. The first generations of Teleport add communications support and commercial SATCOM frequency bands that represent a ten-fold increase to the throughput and functional capabilities of these STEP sites. Generation One fields capabilities in four Initial Operation Capability (IOC) increments. Generation Two provides additional military Ka band capability and adds legacy to capability to increase capacity.

The Generation Three program (FY 2010) integrates the Advanced Extremely High Frequency (AEHF) and integrates the Mobile User Objective System (MUOS) satellite systems' capabilities into the DoD gateway architecture. This will provide increased and less expensive satellite connectivity through technology refresh of older communication equipment suites, and adds a Teleport site in Pacific Command (PACOM) to expand the DoD gateway's capacity, throughput, and functional capabilities in support of worldwide tactical and deployed warfighters.

Generation Three is composed of four essential areas of warfighter capabilities. Acquisition and integration planning has begun for these efforts. The program is executable immediately upon receipt of appropriations, and contract vehicles are already in place to obligate funds starting in the 2nd quarter of FY 2010.

A. AEHF Interoperability. This enhancement provides the President, Secretary of Defense, and Combatant Commanders with survivable, anti-jam communications through all peacetime and combat operations, including strategic missions. AEHF will deliver more than ten times the capability of the Milstar satellites it replaces (that supply only Low Data Rate (LDR) and Medium Data Rate (MDR) speeds). This enhancement delivers 18 Navy Multi-band Terminals (NMT) to enable more than 275 megabits per second of Extended Data Rate (XDR) protected communications by the AEHF constellation starting with the first spacecraft's launch projected by 2010.

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Teleport Program/PE 0303610K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Teleport Program /NS01	5.633	2.054	5.239					

Without this enhancement, Teleport gateways and the DISN services provided to SATCOM users will be inaccessible to the warfighter using AEHF's greatly improved capability, preventing them from using the most high-speed, secure, and interoperable voice, data, and video networks.

B. Increased Capability. This enhancement provides deployed commanders with sufficient bandwidth to rapidly transmit the largest video and data products to the battlefield warfighter, including Unmanned Aerial Vehicle (UAV) streaming video, digital imagery intelligence, and mapping and weather products and services. This enhancement delivers 14 Modernization of Enterprise Terminals (MET) to enable more than 18 gigabits per second of high speed X- and Ka-band communications across the Wideband Global SATCOM (WGS) constellation of six spacecraft, replacing outdated and expensive to maintain Defense Satellite Communications System (DSCS) terminals approaching end of useful life. Includes supplementing planned Army capabilities in Australia to establish an additional Teleport site, providing PACOM with a redundant ability to downlink vital communications from WGS spacecraft over its areas of responsibility.

Without this enhancement, Teleport and other gateways will have insufficient capacity to fully utilize the advanced wideband satellite capabilities currently being placed into orbit, and communications will continue to be a constraining factor on the safest and most cost effective solution of 21st century combat operations. In addition, the current compliment of enterprise terminals are approaching end of life and without a replacement program, warfighters will be forced to conduct operations with limited assets resulting in possible mission failure.

C. Improved Tactical Support. This enhancement provides tactical users (aerial and marine platforms, ground vehicles, and dismounted troops with smaller, lower-power communications equipment) in "disadvantaged" environments (e.g., heavily forested and urban regions) with greatly improved access to DoD's voice and data networks. This enhancement delivers ground infrastructure equipment to enable the MUOS to fully access DISN services through DoD Teleports, providing bandwidth limited tactical users the ability to quickly transmit and receive information across DoD's voice, data, and video networks starting with the first spacecraft's launch projected by 2010.

Without this enhancement, tactical users will be denied access to classified and unclassified Internet-like data networks and voice communications, and current capabilities will continue to degrade as legacy satellite systems providing less robust services reach end of life.

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Teleport Program/PE 0303610K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Teleport Program /NS01	5.633	2.054	5.239					

D. MUOS Interoperability. This enhancement allows tactical warfighters using the most capable and cost effective narrowband capabilities to communicate with users possessing outdated technology until those legacy systems are replaced. This enhancement delivers ground infrastructure equipment to enable MUOS operators to be interoperable with thousands of legacy Ultra-High Frequency (UHF) SATCOM users, effectively extending the life of those legacy capabilities and smoothing the transition to MUOS.

Without this enhancement, MUOS will not be interoperable with existing UHF SATCOM equipment. Tactical users deployed in harm's way will be unable to efficiently communicate with one another and their commanders through existing legacy systems.

Accomplishments/Planned Program:

	FY 2008	FY 2009	FY 2010
Subtotal Cost	4.815	1.954	4.715

Systems Engineering & Program Management (SEPM): In FY 2008, Generation Two funding provided SEPM support for continued development and maintenance of program documents, support to the Working-level Integrated Product Teams (WIPTs), technical analyses and reporting, and logistics planning and reporting. Generation Two adds additional Ka band Satellite Earth Terminals, associated baseband equipment, and net-centric communications to six sites. FY 2008 funding also addressed Director, Operational Test and Evaluation (DOT&E) follow-on recommendations for improving Initial Operational Capability (IOC) IOC 2 and IOC 3 maintainability, fielded Teleport Management and Control System (TMCS) Build 4, beginning development of TMCS Build 4.1, and implemented UHF to DISN access.

The SEPM in FY 2009 through FY 2010 will support Teleport technology refreshment to include Joint IP Modems (JIPM), upgrades to net-centric baseband and IP modem software and firmware, deployment of TMCS Build 4.1 to enhance security, DISN service enhancements, and UHF integrated waveform upgrades. In FY 2010, SEPM efforts will also begin to define and design the Generation Three enhancements for increased warfighter capabilities by providing users of the current UHF system an improved service and complete interoperability with the MUOS legacy payload to ensure a smooth transition to the next generation of mobile user equipment.

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Teleport Program/PE 0303610K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Teleport Program /NS01	5.633	2.054	5.239					

	FY 2008	FY 2009	FY 2010
Subtotal Cost	0.818	0.100	0.524

Testing: In FY 2008 funding was used to support Generation Two testing for system integration and interoperability, as well as testing of TMCS Build 4 and UHF access to DISN services. Funding in FY 2009 through FY 2010 will be used to test TMCS Build 4.1 and continue technology refresh test events to maintain viability of DoD Teleport system.

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
FY 2009 Previous President's Budget	5.761	2.060	2.147
FY 2010 Budget Estimate's Submission	5.633	2.054	5.239
Total Adjustments	-0.128	-0.006	3.092

Change Summary Explanation:

The FY 2008 adjustments reflect a realignment of funding due to emerging mission critical requirements within the Agency. The FY 2009 was reduced by -$0.006 million for Economic Assumptions. In FY 2009, the program will achieve Gen 2 Full Operational Capability (FOC) and transition into sustainment; systems engineering efforts ramp down commensurately. The FY 2010 adjustments of $3.200 million, reflect additional SEPM support to design and baseline the addition of Advanced Extremely High Frequency (AEHF) and integration of the Mobile User Objective System (MUOS) satellite systems' capabilities into the DoD gateway architecture. Without these enhancements, the Teleport gateways and DISN services it provides to SATCOM users will be inaccessible to the warfighter. The Teleport and other gateways will have insufficient capacity to fully utilize the advanced wideband satellite capabilities, and MUOS will not be backwards compatible with existing UHF SATCOM equipment. The FY 2010 reductions of -$0.108 million, reflects a realignment of funding due to emerging mission critical requirements within the Agency.

Exhibit R-2, RDT&E Budget Item Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Teleport Program/PE 0303610K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Teleport Program /NS01	5.633	2.054	5.239					

C. Other Program Funding Summary:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M *	18.612	18.790	27.004						Cont'g	Cont'g
Procurement, DW **	39.010	15.018	75.448						Cont'g	Cont'g

* Includes STEP O&M funding.
** Includes sum of STEP & TPO procurement funding as identified on the P-40.

D. Acquisition Strategy:

The TPO utilizes the DoD preferred evolutionary acquisition approach to acquire Commercial off-the-shelf (COTS) and modified COTS equipment when possible. The two TPO procuring agencies, Program Manager Defense Communications and Army Transmission Systems (PM DCATS), and the Space and Naval Warfare Systems Command (SPAWAR) provide direct contracting support. Required assistance from other Departments including Army, Navy, and Air Force is acquired via Military Interdepartmental Purchase Request (MIPR) for both organic and contracted support.

E. Performance Metrics: Teleport manages and tracks its cost and schedule performance parameters using a tailored Earned Value Management System (EVMS) process, integrating the program plan, the program schedule, Work Breakdown Structure (WBS), and financial data. Progress is monitored/documented monthly showing percentages complete for schedule and cost. Formal updates with changes to the schedule are documented against the program baseline.

Exhibit R-3 RDT&E Cost Analysis			Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0303610K		Project Name and Number Teleport Program/NS01

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Technical Services Support Costs														
Contracted Systems Engineering and Program Management (SE/PM) Support	AF Netcents	Booz Allen & Hamilton Fairfax, VA	24.274	1.681	03/08	1.419	03/09	3.144	03/10			Cont'g	33.721	33.721
Contracted Systems Integration and Program Management Support	MIPR	STF-SPAWAR	1.914	0.835	07/08	N/A	N/A	N/A	N/A			N/A	2.749	2.749
Contracted SE/PM Support	GSA Sched	SAIC	N/A	N/A	03/08	0.450	03/09	1.048	03/10			Cont'g	2.565	2.565
Government Systems Engineering/Program Management Support	MIPR	US Navy-SPAWAR San Diego, CA	1.240	1.791	Var.	0.035	Var.	0.209	N/A			Cont'g	3.489	3.489
Government Systems Engineering/Program Management Support	MIPR	US Army PM DCATS Fort Monmouth, NJ	0.000	0.508	Var.	0.050	Var.	0.314	N/A			Cont'g	1.320	1.320
Test Support														
Government Test and Evaluation Support	MIPR	JITC, Ft. Huachuca	5.133	0.818	Var.	0.100	Var.	0.524	N/A			Cont'g	7.109	7.109
Total			32.561	5.633		2.054		5.239					50.953	50.953

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E, Defense-Wide, 07	PE 0303610K, Teleport Program	NS01, Teleport

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
Generation One IOC4 Testing					△	△																										
IOC4 (Ka Integration)						△																										
Generation Two Generation Two (Net-Centric Capability) DT/OT&E	▲	▲	▲																													
Generation Two (Ka & Net Centric Capability) DT&E & FOT&E					△	△																										
Generation Two FOC						△																										
Technology Refreshment (DoD Teleport System)																																
Tech. Refresh Eng. And Test						△				△																						
Generation Three Milestone B/C Decision									△																							

Exhibit R-4a, RDT&E Program Schedule Detail		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name PE 0303610K, Teleport Program	Project Number and Name NS01, Teleport

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Generation One								
IOC4 Testing		1Q, 2Q						
IOC4 (Ka Integration)		2Q						
Generation Two								
Generation Two (Net-centric Capability) DT/OT&E	1Q-3Q							
Generation Two (Ka & Net-centric Capability) DT&E & FOT&E		1Q, 2Q						
Generation Two FOC		2Q						
Technology Refreshment (DoD Teleport System) Tech Refresh Eng. and Test		2Q	2Q					
Generation Three								
Milestone B/C Decision			1Q					

Exhibit R-2, RDT&E Project Justification				Date: May 2009				
Appropriation/Budget Activity RDT&E, Defense-Wide/07				R-1 Item Nomenclature Cyber Security Initiative(CI)/PE 0305103K				
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Cyber Security Initiative (CI)	0.000	12.765	10.080					

A. Mission Description & Budget Item Justification: This is a classified program. Details will be provided upon request.

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Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature Distributed Common Ground/Surface Systems/PE 0305208K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Distributed Common Ground/Surface Systems (DCGS)/NF1	15.689	3.218	3.158					

A. Mission Description and Budget Item Justification: As the sole joint interoperability certification agent, The Joint Interoperability Test Command (JITC) established and maintains a Distributed Development and Test Enterprise (DDTE) for the Department of Defense (DoD) Distributed Common Ground/Surface System (DCGS) Program. DCGS is an integral and critical component of the overall DoD Intelligence, Surveillance, and Reconnaissance (ISR) interoperability and data integration strategy. The DCGS provides world-wide ground/surface capabilities to receive, process, exploit, and disseminate data from airborne and national reconnaissance sensors/platforms and commercial sources. The ability for any user to discover, access, and understand the data are key tenets of network-centric operations which is the future of DCGS operations.

JITC will implement the DDTE providing DCGS an operationally relevant environment by establishing and maintaining connectivity between National Agency and Service facilities at unclassified, collateral, Sensitive Compartmented Information (SCI), and coalition levels. JITC will coordinate with the Services and Agencies on integrating modeling and simulation capabilities, and performing Joint/DCGS event coordination, configuration, and integration functions on the DDTE. This will enable improved systems engineering and test and evaluation throughout all phases of the DCGS life-cycle.

DCGS will use the DDTE to integrate architecture, standards, and capabilities for implementation of the DCGS Integration Backbone and support the migration to net-centricity, including convergence with Net-Centric Enterprise Services (NCES), for the following DCGS programs: DCGS-Army (DCGS-A), DCGS-Navy (DCGS-N), Air Force DCGS (AF DCGS), and DCGS-Marine Corps (DCGS-MC). National Agency capabilities supporting DCGS including Imagery Intelligence (IMINT), Signals Intelligence (SIGINT), Measurement and Signature Intelligence (MASINT) and Human Intelligence (HUMINT), which will also be integrated and tested in the DDTE. The DCGS programs will use the DDTE to improve/validate interoperability with the reconnaissance platforms and sensors, and to integrate into the Joint Command and Control environment.

JITC will develop a formal interoperability testing program and provide interoperability testing service to the DCGS program managers and the Office of the Under Secretary Defense for Intelligence (OUSD(I)) to document interoperability test requirements, to provide standards conformance and interoperability test capabilities, to develop standards conformance and interoperability test planning documents, to conduct standards conformance and interoperability test events, develop DCGS program reporting documents, and to conduct joint interoperability certification. Standards addressed for DDTE will include those defined in coordination with DISA for Net-Enabled Command Capability (NECC),

Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature Distributed Common Ground/Surface Systems/PE 0305208K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Distributed Common Ground/Surface Systems (DCGS)/NF1	15.689	3.218	3.158					

NCES, Common Data Link (CDL), Intelligence Broadcast System (IBS), National Imagery Text Format (NITF), LINK 11/11B/16, United States Message Text Format (USMTF), Extensible Markup Language (XML), and Information Assurance (IA).

As all of the DCGS missions assigned to JITC by the OUSD(I) are essential to the overall DCGS mission, reduction in outyear funding will result in reduced support to all of the following: DDTE support, maintenance, and operation; DCGS systems testing and evaluation; responsibilities associated with the Chair of the DCGS Test and Evaluation Focus Team; DCGS Enterprise test strategy development; and Exercise support.

B. Program Change Summary:

	FY 2008	FY 2009	FY 2010
Previous President's Budget	17.289	3.227	3.321
Current Submission	15.689	3.218	3.158
Total Adjustments	-1.600	-0.009	-0.163

Change Summary Explanation:

Fiscal year (FY) 2008 adjustments reflect a realignment of funding due to emerging mission critical requirements within the Agency. FY 2009 reflects Congressional reductions of -$0.009 million for Economic Assumptions. FY 2010 and 2011 adjustments reflect a realignment of funding due to emerging mission critical requirements within the Agency and revised inflation rates.

C. Other Program Funding:

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	To Complete	Total Cost
O&M, DW	1.748	0.428	0.456						Cont'g	Cont'g

D. Acquisition Strategy: DCGS uses an evolutionary acquisition approach. JITC will support the effort by leveraging its existing three prime contracts, with multiple sub-contracts, to support this project. These competitively awarded, performance-based, non-personal-services contracts provide maximum flexibility for JITC supporting its numerous customers for cost and technical effectiveness, and allows for expansion and contraction of staff years as workload expands and contracts. The current prime contractors that will support this effort are Northrop Grumman Mission

Exhibit R-2, RDT&E Budget Item Justification			Date: May 2009					
Appropriation/Budget Activity RDT&E, Defense-Wide/07			R-1 Item Nomenclature Distributed Common Ground/Surface Systems/PE 0305208K					
Cost ($ in millions)	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Distributed Common Ground/Surface Systems (DCGS)/NF1	15.689	3.218	3.158					

Systems, Northrop Grumman Information Technology, and INTEROP Joint Venture.

E. Performance Metrics:

Number of operational DDTE nodes that enable the Services/agencies to participate in joint/enterprise level test and evaluation (IOC)= 14

Number of additional DDTE nodes planned for installation in FY 2009 = 3

Exhibit R-3 RDT&E Cost Analysis		Date: May 2009
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element PE 0305208K	Project Name and Number Distributed Common Ground/Surface Systems/NF1

Cost Category	Contract Method & Type	Performing Activity & Location	Total PY Cost ($000)	FY08 Cost ($000)	FY08 Award Date	FY09 Cost ($000)	FY09 Award Date	FY10 Cost ($000)	FY10 Award Date	FY11 Cost ($000)	FY11 Award Date	Cost to Complete ($000)	Total Cost ($000)	Target Value of Contract
Test and Evaluation														
Engineering/ Technical Services	FFP/LOE	Interop Ft. Hua, AZ	0.852	0.302	10/07	0.371	10/08	0.383	10/09			Cont'g	Cont'g	Cont'g
	FFP/LOE	NGMS Ft. Hua, AZ	1.819	3.663	10/07	0.800	10/08	0.798	10/09			Cont'g	Cont'g	Cont'g
	FFP/LOE	NGIT Ft. Hua, AZ	0.556	0.494	10/07	0.256	10/08	0.256	10/09			Cont'g	Cont'g	Cont'g
		TBD	N/A	N/A	N/A	N/A	N/A	N/A	N/A			Cont'g	Cont'g	Cont'g
Subtotal Contracts			3.227	4.459		1.427		1.437						
In-House			4.149	11.230		1.791		1.721						
Total Project			7.376	15.689		3.218		3.158						

Exhibit R-4, RDT&E Program Schedule Profile	Date: May 2009

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E, Defense-Wide, 07	PE 0305208K, Distributed Common Ground/Surface Systems	NF1, Distributed Common Ground/Surface Systems

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015			
	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	1	2	3	4
DCGS T&E IPT																																
Establishment of Infrastructure																																
Connectivity to Other Testbeds & Test Event Conduct																																
O&M																																

Exhibit R-4a, RDT&E Program Schedule Detail	Date: May 2009	
Appropriation/Budget Activity RDT&E, Defense-Wide/07	Program Element Number and Name PE 0305208K/Distributed Common Ground/Surface Systems	Project Number and Name NF1/Distributed Common Ground/Surface Systems

Schedule Profile	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
DCGS T&E IPT	1Q-4Q	1Q-4Q	1Q-4Q					
Establishment of Infrastructure	1Q-4Q	1Q-4Q						
Connectivity to Other Testbeds & Test Event Conduct	1Q-4Q	1Q-4Q	1Q-4Q					
O&M		1Q-4Q	1Q-4Q					