Exhibit R-2, RDT&E Budget Item Justification				**DATE:** February 2006			
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05				**R-1 ITEM NOMENCLATURE** Advanced Information Technology Services Joint Program Office (AITS-JPO) / PE 0604764K			
COST (in Millions)	FY05	FY06	FY07	FY08	FY09	FY10	FY11
Leading Edge Pilot Information Technology / T26	17.980	9.192	9.392	10.285	14.344	15.696	16.287

A. Mission Description and Budget Item Justification: The mission of the Advanced Information Technology Services Joint Program Office (AITS-JPO) is to expedite the transition of new Information Technology into those operational information systems that support the Combatant Commands and our nation's warfighters. The AITS-JPO works with many sources, including private industry, the Military Service labs, and the Defense Advanced Research Projects Agency (DARPA) to identify maturing technology to meet warfighter needs.

The AITS-JPO was created primarily to help transition emergent mature technologies into operational systems. The key mechanism for the transition of the technology is the Advanced Concept Technology Demonstration (ACTD). ACTDs were initiated to allow for the early and inexpensive evaluation of mature or maturing advanced technology to solve important military problems. ACTDs are "pre-acquisition" activities and are designed to provide the warfighting community with prototype capabilities and support them in the evaluation and maturation of the capabilities. The warfighter evaluates the technology to determine its military utility before commitments are made for formal acquisition. If an ACTD is successful and proves its military utility, the capability may then transition to a full-blown acquisition program, or be given to a DoD Agency, Military Service, or Combatant Command (COCOM). ACTDs benefit their customers by providing technology to joint warfighters that responds to a critical military need with the hardware/software requirements, operational concepts, and the organizational structure required to meet that need. For example, ACTD efforts support improved visualization of the battle space, streamlining logistics, and responding to enemy actions in a faster cycle than the enemy can respond.

ACTD-related work makes up the bulk of the AITS-JPO efforts. In addition, the AITS-JPO: a) engineers and reinforces Components for leave behind ((US only) after Military Utility Assessment (MUA) proves that a particular capability is useful and needs to be fielded) and integration into the Global Information Grid (GIG), including the Global Command and Control System – Joint (GCCS-J) and the Global Combat Support System (GCSS); b) augments transitioning products with improved security, scalability, and Net-Centric Enterprise Services (NCES) compliance; and c) provides advanced, hardened capabilities--Leading Edge Services (LES). LES is a network infrastructure, pilot capability until system of record can provide and deploy the capability, and value added services that include information processing, storage and retrieval; communications (voice, data, video, and multimedia); security technology and application in command and control, intelligence, and combat support for the worldwide DoD communities; and information sharing between the US and its coalition partners. The LES provides the network and computing infrastructure that supports ACTD demonstrations

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and evaluations. As components mature in an ACTD, some of its outputs will be network services. These services will transition into the NCES system of record.

Within an ACTD, the Operational Manager arranges for MUAs of the various products of the ACTD, toward the end of the development period. ACTD capabilities will be built upon and contribute to NCES as it evolves. Technology solutions to many of the GCCS-J priority requirements are needed.

Included in the requirements is the need for mission-dependent information in the Common Operational Picture (COP) to support time-critical tactical decision making, for advanced visualization of the COP, and for enhanced imagery products and processing technology. The Joint Blue Force Situational Awareness (JBFSA) ACTD supports these requirements. In order to support the full spectrum of crisis action planning and execution, GCCS-J requires new functionality for courses of action development and assessment, automated assistance in plan generation, predictive monitoring of planned vs. actual plan execution, and support for the less structured but operationally important areas of humanitarian operations and counter-terrorist/force protection coordination. Joint Decision Support Tools and data fusion/visualization techniques are needed to transform raw data from multiple sources into decision-relevant information in a rapidly understandable format. Methods are needed to couple combat support planning and execution to the operations planning and execution of GCCS-J. Predictive techniques are required for detecting and assessing shortfalls before they occur. In addition, methods for coordinating logistics support across security domains in a coalition or host-nation-based operation are needed. AITS-JPO, through several ACTDs, is developing, prototyping, and implementing a network centric IT architecture for the Global Information Grid (GIG). Collaboration products as well as portal-based products are being prototyped under this project.

Products from this effort should transition to the GIG and Information Dissemination Management (IDM) with the goal of better matching dynamic services of the Defense Information Systems Network and other networks with the mission-critical applications and information flows of the Joint Task Force. IDM applies to the GIG in that it is the standard for information dissemination management processes and services to all new or upgraded C4I systems. As a part of both Network Operations and the host of applications systems of the GIG, the warfighter requires protection, detection, and reaction to attempted penetrations of the C4 enterprise. Toward that end the DoD has established a Joint Task Force for Computer Network Defense (JTF-CND), and any techniques that can provide an integrated Information Assurance Situation Assessment and response capability for individual commands, Joint Task Forces/Combatant Commanders, and to the JTF-CND,

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will help provide tools for defense-in-depth protection of the military cyberspace.

FY 2005 Net Centric Capabilities Pilot (NCCP) activities added robustness to the Global Strike and Situational Awareness Evaluation Capability Modules (ECMs). New FY 2005 candidate NCCP capabilities included Intelligence/Targeting Support services (e.g., joint targeting/Air Tasking Order service; Intelligence, Surveillance and Reconnaissance (ISR) management; strategic/tactical Unmanned Autonomous Vehicle (UAV) video services), and Force Projection services (e.g., force, course of action, and transportation planning; combat support; and movement planning and execution services). NCCP includes periodic demonstration events to showcase selected mission threads, which describe how capabilities will enable a key joint warfighting capability or mission area and identify mission needs for those capabilities, to COCOMs, DoD senior leadership, and others such as coalition partners. FY 2005 activities supported JC2 concept exploration and technical risk reduction plus assisted in refining JC2 Analysis of Alternatives (AoA) options. NCCP activities also helped validate the NCES Technology Development Strategy (TDS) and Test and Evaluation Strategy (TES), the JC2 TDS and TES, and helped baseline GIG Bandwidth Expansion (GIG-BE) performance. In accordance with Departmental guidance, NCCP funding was transferred to PE 0303158K/Joint Command and Control in FY 2006 and beyond.

Accomplishments/Planned Program:

	FY 05	FY 06	FY 07
Subtotal Cost	3.468	0.772	1.059

Battlespace Awareness (BA)- Leading Edge Services: - Battlespace Awareness is one of the key technology areas for Leading Edge Services. The Battlespace Awareness efforts include improving the Common Operational Picture at the Combatant Commander and Joint Task Force levels to provide enhanced situational awareness.

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COST (in Millions)	FY05	FY06	FY07	FY08	FY09	FY10	FY11
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	FY 05	FY 06	FY 07
Subtotal Cost	0.893	0.733	1.000

Global Command and Control System (GCCS-J) - Leading Edge Services: Requirements include the technology insertion and transition engineering for the Agile Transportation for 21st Century ACTD. Output includes complete architecture, technical strategy, systems engineering, and full life cycle development. Benefits include a more robust development of products, with transition strategies, and actual transitioning into C2 Systems and the Joint Command and Control (JC2) areas. The benefits include working with the technical managers and operations managers at the Defense Transportation Systems to ensure technology transition within the architecture and framework of the C2 systems as well as coordination and socialization with TRANSCOM and other COCOMS and the DoD community.

	FY 05	FY 06	FY 07
Subtotal Cost	0.460	0.390	0.000

Global Combat Support System (GCSS) - Leading Edge Services: Provide tools to plan and execute coalition strategic deployment/redeployment, coalition sustainment and field services. Also provide Coalition Theater Logistics (CTL) and infrastructure information.

	FY 05	FY 06	FY 07
Subtotal Cost	2.095	1.620	1.550

Global Information Grid (GIG) Infrastructure: The Homeland Security (HLS)C2 ACTD provides the systems and operations to do the command and control mission to protect our installations throughout the world and in CONUS from terrorist attack. The use of different systems working together provides alerting, visualization, and collaboration capability. Technology focuses on rapid secure information sharing, sensor/IT integration and command, control and coordination to multiple homeland security participants. More critically, the HLS/D C2 ACTD works with the Joint Staff Anti-terrorism/Force Protection community to develop concepts of operation. The ACTD is scheduled for transition in FY 2006 and will be completed by the end of FY 2007. The Commander in Chief 21 (CINC 21) ACTD continues the task of transitioning capabilities that will assist Combatant Commanders in employing a decision support environment that will

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COST (in Millions)	FY05	FY06	FY07	FY08	FY09	FY10	FY11
Leading Edge Pilot Information Technology / T26	17.980	9.192	9.392	10.285	14.344	15.696	16.287

provide a tailored rendering of relevant information to the Commanders, their staff, Joint Task Forces, non-government organizations, and coalition forces. This dynamic decision support environment will leverage Net-Centric Enterprise Services (NCES), the next generation Global Command and Control Services, and web services provided by the GIG. The data/information will be dynamically updated yielding better situational awareness and more efficient collaboration and mission execution.

	FY 05	FY 06	FY 07
Subtotal Cost	1.960	0.000	0.000

Advanced Information Assurance (IA) Services: Includes Active Network Intrusion Defense (ANID) and Coalition Information Assurance Common Operational Picture (C-IA COP) requirements. ANID capabilities provide for better sensor methods for detecting network and host intrusions (e.g., anomaly detections, reduced false-alarm rates, and improved data reduction), fusion of information from multiple sensors and sites to create a means of detecting sophisticated and coordinated attacks, spontaneous response methods to provide first level “defense-in-depth” while isolating the attack paths, and technologies for improving boundary control between security enclaves as we increase interaction with coalition forces. Lessons learned from the ANID ACTD and resulting CONOPS establishes the focus for the next IA focused ACTD, to speed IA protection solutions across the DoD community.

	FY 05	FY 06	FY 07
Subtotal Cost	0.320	0.730	0.742

Coalition Services: Under this effort, AITS-JPO coordinates research and development experiments using the Coalition Federated Battle Laboratories Network (CFBLNet) and prototypes and develops capabilities across the CFBLNet, which can be transitioned into strategic and operational coalition networks. This requirement provides for the coordination and conduct of coalition advanced technology experiments in conjunction with the Joint Battle Center, Services and Allies via the CFBLNet. Includes the support to complete and deploy the capability to coordinate an Air Tasking Order electronically between the U.S. and Allies and to prototype and do collaborative planning among the US and selected Allies. The need for an ubiquitous capability throughout the net-centric environment drives FY 2005 through FY 2007 funding to develop and integrate standard capability with other systems of record, and provide enterprise collaboration services that support warfighters in all security domains. The tactical environment demands state-of-the-art

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COST (in Millions)	FY05	FY06	FY07	FY08	FY09	FY10	FY11
Leading Edge Pilot Information Technology / T26	17.980	9.192	9.392	10.285	14.344	15.696	16.287

technology when deployed in theater and interfacing with the Intelligence Community and Coalition Partners. Our objective is to meet all potential threats from a global perspective in real time.

	FY 05	FY 06	FY 07
Subtotal Cost	6.034	0.000	0.000

Net Centric Capabilities Pilot (NCCP): Provides net-centric, services oriented architecture-based mission capabilities for the C2 Community of Interest (COI) based on Combatant Commander approved mission threads, which describe how capabilities will enable a key joint warfighting capability or mission area and identify mission needs for those capabilities. In accordance with Departmental guidance, NCCP transfers to PE 0303158K/Joint Command and Control.

	FY 05	FY 06	FY 07
Subtotal Cost	1.300	2.567	1.913

Joint/Coalition Task Force Operations Tools: Develop C2 tools for Joint and Coalition Task Force operations, including adaptive near-real-time situation assessment and decision support, targeting, mission management, and interoperability with allies via the operational Griffin network (formerly Coalition Wide Area Network). Demonstrate these capabilities in the Combined Federated Battle Laboratories and in the Coalition Warfare Interoperability Demonstration (CWID). Provide situation assessment displays, which support automatically tailored decision support to warfighters. Provide enhanced, collaborative situation awareness for unexpected situations. Improve targeting-related positional accuracy for platforms sensed by image and video means. Improve capabilities of U.S. and Allies to exchange situational awareness, IA, tasking and targeting, logistics support information, and decision support information via the Griffin network. Provide a cross-function planning/execution service to support the shared data and cross-mission effects synchronization during planning, execution, & assessment via the CWAN and classified networks.

	FY 05	FY 06	FY 07
Subtotal Cost	1.450	2.380	3.128

Crisis Action Planning Tools: Develop advanced collaborative and iterative crisis action planning and execution tools

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COST (in Millions)	FY05	FY06	FY07	FY08	FY09	FY10	FY11
Leading Edge Pilot Information Technology / T26	17.980	9.192	9.392	10.285	14.344	15.696	16.287

to support C2 for rapid, continuous, end-to-end deployment and sustainment of joint forces from Garrison to the battlefield. Accelerate the transformation of advanced Joint C4 to web-based, network-centric capabilities. Provide visualization; semi-automated force generation; and command center decision support. Develop portal-based capability to plan deployment and sustainment pipeline from end-to-end in a collaborative, incremental manner as planned refinement and operations execution progresses.

B. Program Change Summary:

	FY 05	FY 06	FY 07
Previous President's Budget	16.605	9.325	9.264
Current Submission	17.980	9.192	9.392
Total Adjustments	1.375	-0.133	0.128

Change Summary Explanation:
FY 2005 changes are due to below threshold reprogramming.
FY 2006 changes are due to undistributed Congressional reductions to the Defense-Wide RDT&E appropriation.
FY 2007 changes are due to revised fiscal guidance.

C. Other Program Funding Summary:

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

	FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	To Complete	Total Cost
O&M PE0604764K	6.809	5.741	6.501	6.665	7.571	7.650	7.647	Contg	Contg

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COST (in Millions)	FY05	FY06	FY07	FY08	FY09	FY10	FY11
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D. Acquisition Strategy: AITS-JPO efforts are accomplished through a combination of strategies focused on operations, technical integration, program management, and financial tracking. Market research performed during the acquisition process includes 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. All contractors available from DISA sources were evaluated for their ability to deliver the products required specifically for the unique AITS-JPO efforts. Additionally, many of the DISA contracts were awarded with multiple options and cost factors are already defined for several years. Prior success in these areas was considered in the investigations. Several sources are contacted for cost estimates. The AITS-JPO works collaboratively 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 also provided additional sources of information. Quotes from multiple sources helps to provide an average for a more realistic price.

E. Performance Metrics: The bulk of AITS-JPO efforts are structured as Advanced Concept Technology Demonstrations (ACTDs). An ACTD proposal is developed through a collaborative effort between the JPO and one of the Combatant Commands. This proposal is then formalized, and undergoes a vetting process involving leadership in DISA, OSD, the Joint Staff, and the Combatant Commands. The ACTD is then proposed to senior leadership within the OSD R&D ACTD community where it is subjected to additional requirements scrutiny by Joint Requirements Oversight Council (JROC). Those approved by senior leadership become formal ACTDs. The next step for an ACTD is to develop an Implementation Directive and a Management Plan. These guidance documents involve a general/flag officer commitment between OSD, DISA, and the Combatant Command. These lay out the basic objectives, schedule, and funding, for the ACTD. The detailed objectives, against which the Operational Sponsor (one of the Combatant Commands) will assess military utility, and the detailed mechanisms by which military utility will be assessed and results measured are developed and documented during the first year of the ACTD. Each ACTD has its own schedule and detailed objectives. ACTDs are usually developed using a spiral methodology, with incremental demonstrations, limited utility assessments of the demonstrated capabilities, and refinement of future capabilities based on feedback. Additionally, the AITS-JPO has implemented an internal Earned Value Management System where project managers exercise oversight of contractor performance relative to established

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project milestones and provide managers notification of the status of projects in terms of schedule and cost. The AITS-JPO also incorporates internal processes to enhance financial reporting and track contractor spending. Monthly reports provide timely information on contractor expenditures. The AITS-JPO utilizes several web-based financial management tools to obtain budget and execution information. The Earned Value Management System (EVMS) provides a tool for AITS-JPO project managers to see how well they are meeting their plan. Commanders use the Military Utility Assessment as a tool to evaluate products. Other internal measures, such as, timeliness of equipment purchases, travel, lab and demo support are also evaluated to assess if each requirement is effectively meeting the overall requirements of the AITS-JPO’s mission.

Exhibit R-3 Cost Analysis		**DATE:** February 2006
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05	**PROGRAM ELEMENT** Advanced Information Technology Services Joint Program Office (AITS-JPO)/ PE 0604764K	**PROJECT NAME AND NUMBER** Leading Edge Pilot Information Technology/T26

Cost Category	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT Development & Tech Services	MIPR	SSC, Charleston, SC	8.566	0.400	02/06	0.300	02/07	Contg	Contg	9.266
	T&M	NGMS, McLean, VA	13.950	1.288	02/06	1.478	02/07	Contg	Contg	16.716
		Various(To include Encore, GEMS, and NEXGEN)	10.566	0.563	Var.	0.662	Var.	Contg	Contg	N/A
SUPPORT COSTS Engineering/Technical Support	T&M	HAI, Arlington, VA	14.714	0.533	03/06	0.861	03/07	Contg	Contg	16.108
Systems Integration	CPFF	SAIC Arlington, VA	16.869	3.349	04/06	2.896	04/07	Contg	Contg	23.114
System Engineering	FFRDC	MITRE, Arlington, VA	14.757	1.983	02/06	1.911	02/07	Contg	Contg	18.651
		Various(To include Encore, GEMS and NEXGEN)	11.105	0.559	Var.	0.484	Var.	Contg	Contg	N/A
TEST & EVALUATION		Various(To include Encore, GEMS and NEXGEN)	8.964	0.517	Var.	0.800	Var.	Contg	Contg	N/A
Total			99.491	9.192		9.392				

Exhibit R-4 Schedule Profile | **Date: February 2006**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NAME AND NUMBER
RDT&E, Defense-Wide/05	Advanced Information Technology Services Joint Program Office (AITS-JPO)/PE 0604764K	Leading Edge Pilot Info Technology /T26

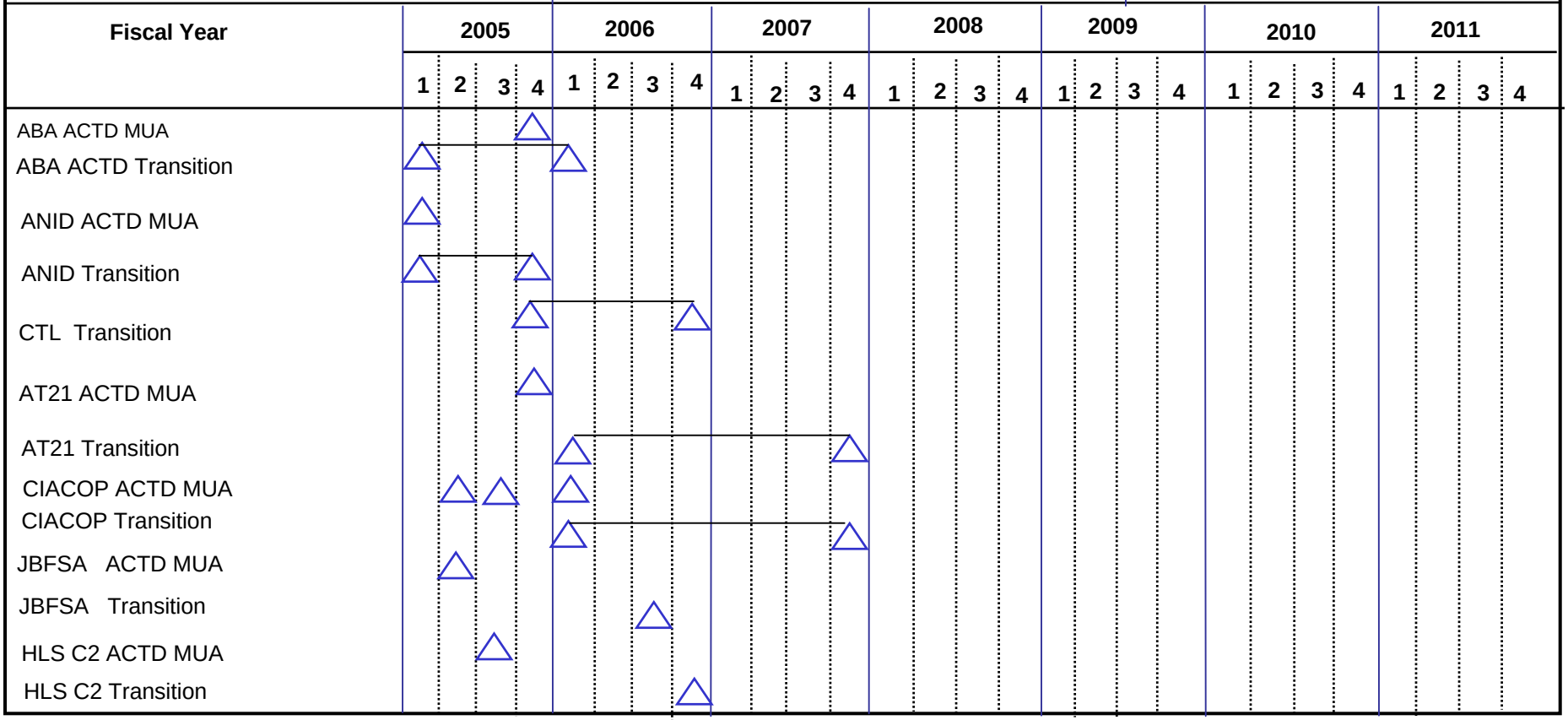

Exhibit R-4 Schedule Profile | **Date: February 2006**

APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT	PROJECT NAME AND NUMBER
RDT&E, Defense-Wide/05	Advanced Information Technology Services Joint Program Office (AITS-JPO)/PE 0604764K	Leading Edge Pilot Info Technology /T26

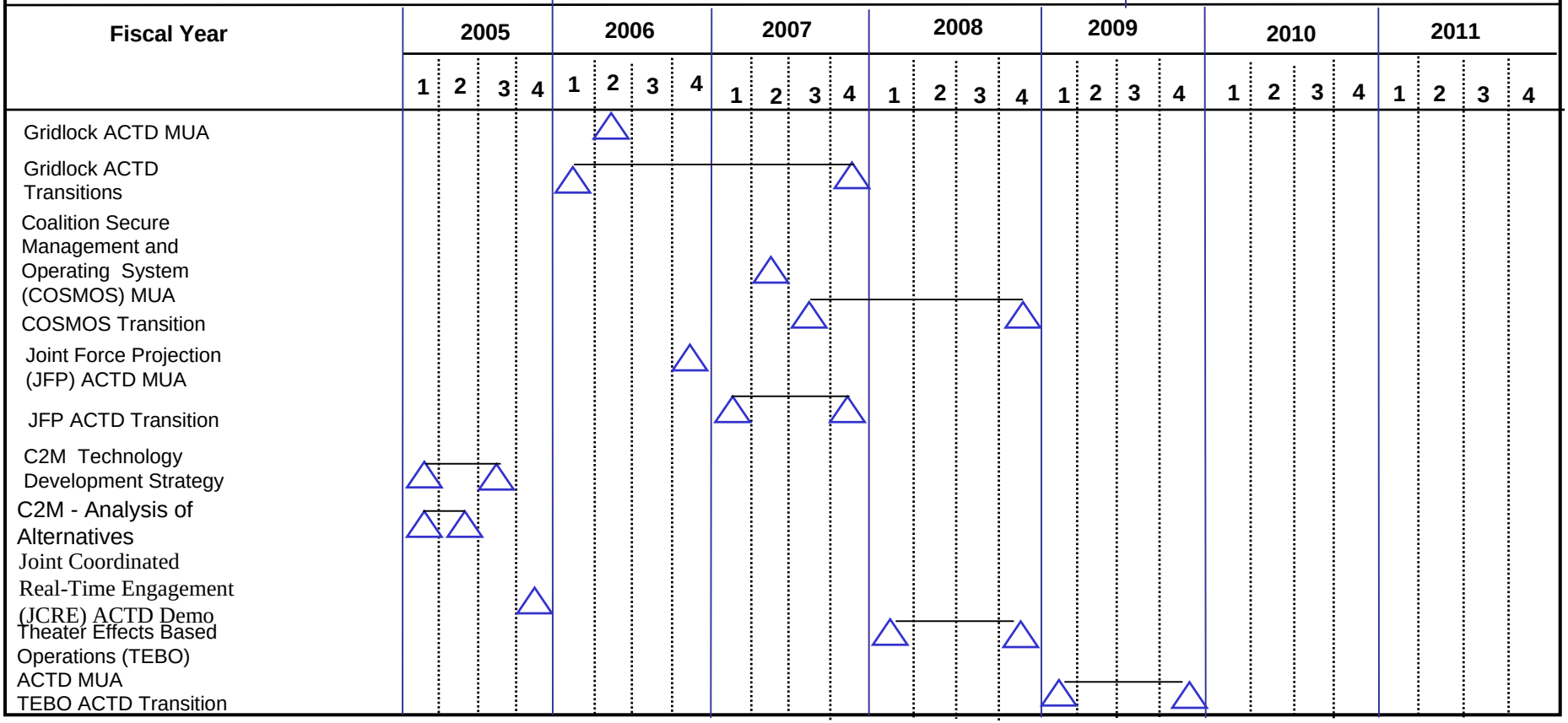

Exhibit R-4a Schedule Detail		DATE: February 2006
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense-Wide/05	**PROGRAM ELEMENT** Advanced Information Technology Services Joint Program Office / PE 0604764K	**PROJECT NAME AND NUMBER** Leading Edge Pilot Information Technology / T26

Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
ABA ACTD Military Utilization Assessment	4Q						
ABA Transition	1Q-4Q	1Q					
Active Network Intrusion Detection (ANID) ACTD MUA	1Q						
ANID Transition	1Q-4Q						
CTL Transition	4Q	1Q-4Q					
Agile Transportation 21st Century ACTD MUA	4Q						
AT21 Transition		1Q-4Q	1Q-4Q				
Coalition Information Assurance Common Operational Picture (C-IA COP) ACTD MUA	2Q, 3Q	1Q					
CIA COP Transition		1Q-4Q	1Q-4Q				
Joint Battlefield Situation Awareness (JBFSA) ACTD MUA	2Q						
JBFSA Transition		3Q					
Homeland Security C2 ACTD MUA	3Q						

Exhibit R-4a Schedule Detail		**DATE:** February 2006
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Schedule Profile	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
HLS C2 Transition		4Q					
Gridlock ACTD MUA		2Q					
Gridlock Transition		1Q-4Q	3Q-4Q				
Coalition Secure Management and Operating System (COSMOS) MUA			2Q				
COSMOS Transition			3Q-4Q	1Q-4Q			
Joint Force Projection (JFP) MUA		4Q					
JFP Transition			1Q-4Q				
C2M Technology Development Strategy	1Q-3Q						
C2M Analysis of Alternatives	1Q-2Q						