OSD RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2008

APPROPRIATION/ BUDGET ACTIVITY	PE NUMBER AND TITLE
RDTE, Defense Wide BA 04	**0604648D8Z - Joint Capability Technology Demonstration (JCTD)**

COST ($ in Millions)		FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
P649	Joint Capability Technology Demonstration (JCTD)	3.029	2.934	14.962	18.911	18.886	19.917	19.959

A. Mission Description and Budget Item Justification: In FY 2006, the Deputy Undersecretary of Defense for Advanced Systems and Concepts (DUSD(AS&C)) initiated a new business process, building on the successful ACTD program, to support the Department's transformational reform of addressing future threats from a capabilities focus versus the classical threat based viewpoint. The revised ACTD approach is called the Joint Capability Technology Demonstration (JCTD) program, and is based on proven, positive aspects of the ACTD program with new modifications. The JCTD model specifically addresses congressional concerns and recommendations made by the General Accountability Office (GAO) regarding rapid development and transitioning of Combatant Commander (CoCom) relevant capabilities to the joint warfighter in a more cost effective, timely and efficient model. Aligning closely with the thrust of with the Joint Staff's Joint Integration and Development System (JCIDS), JCTDs take a more balanced project candidate identification approach, shifting the overall program's focus to identifying specific warfighter capabilities needs up front (requirements pull), and then finding technology or concepts to address these needs, while maintaining the historical ACTD approach, where new technology is introduced to the warfighter to solve existing operational shortfalls (technology push). The JCTD business process includes a new funding line outside the Science & Technology (S&T) arena. The Budget Activity 4/RDT&E budget line is termed "JCTD Transition". It is designed to continue the development/maturity of the most successful JCTDs that have proven military utility and are deemed critical by the CoCom for joint warfighting capabilities. This "transition arm" ensures the most successful demonstrations and capabilities rapidly find a transition path into a program of record. The JCTD Transition BA4 funds as part of the new JCTD model supports fast paced technology transfer and enables an agile program to more smoothly tie into the deliberate, traditional programming and budgeting process. This funding can propel a successful JCTD into acquisition just prior to the Milestone B phase and can result in a Capability Demonstration Document (CDD) linking to the JCIDS process. It will better support the rapid transition of joint, CoCom/coalition operational capabilities. While not all JCTDs require transition funding, these resources provide a "transition bridge" to enable sustainment for innovative, "joint-unique" CoCom/coalition capabilities until traditional programming and budgeting can provide a permanent solution.

The appropriation, Program Element (PE) and Budget Activity (BA) structure for the JCTD model include the following:

- JCTD PE 0603648D8Z (RDT&E/DW BA-3)
- JCTD Transition Funding PE 0604648D8Z (RDT&E/DW BA-4)

JCTDs are initiated in Budget Activity three (BA-3) for development and are pre-acquisition demonstrations, characterized by Technology Readiness Levels 4, 5 or 6. Although not developed for production, new JCTDs can provide a path for transition of Science and Technology to acquisition and are low-to-moderate risk vehicles for pursuing those objectives. The JCTD Transition resources help provide transition path and will pioneer a new model for Department of Defense acquisition that enhances the ability to rapidly bridge successful agile development efforts into fielded capabilities. Specifically, the JCTD Transition BA4 will provide a path for the rapid fielding of successful, transformational capabilities that may require additional transition resources to "bridge" to a program of record. The Defense Wide RDT&E funding managed by DUSD(AS&C) will support demonstration of military utility and deployment of interim capability including a transition period to a program of record, providing the Combatant Commanders, Services, Agencies, and operators with adequate time to address transition issues of supportability, maintainability and training identified by the JCTD. The JCTD model will facilitate the transition of successful technologies past the initial development/demonstration phase and into early acquisition.

FY 2008/2009 General JCTD Transition Program criteria and plans:

- DUSD (AS&C) will maintain oversight of the JCTD program.
- JCTDs selected for JCTD Transition funding must successfully complete a military utility assessment; have strong CoCom support; and require no more than two years of funding until the traditional Planning, Programming Budgeting & Execution (PPBE) process provides a permanent acquisition/transition solution.
- The ACTDs selected to use the BA4 funds in FY 2007 are Joint Distance Support and Response (JDSR), which provides a joint, common and interoperable tele-maintenance/training environment and Language and Speech Exploitation Resources (LASER) which provides capability to reduce foreign language barriers across the full spectrum of DoD operations.
- FY08 AC/JCTD candidates are under consideration for the JCTD transition funds are Joint Forces Projection (JFP) single integrated force projection picture, the Active Denial System (ADS) non-lethal weapon, and the Joint Modular Intermodal Distribution System (JMIDS) for efficient and seamless movement of supplies.
- In FY 2009, the Hyperspectral Collection and Analysis (HyCAS) ACTD has been selected to receive transition funding to advance Airborne Hyperspectral capabilities. Sensors associated with the HyCAS ACTD have proven effective in operational demonstrations supporting Operation Enduring Freedom (OEF). In addition to HyCAS, other FY09 candidates not yet selected are Champion, COSMOS and Large Data. A transfer of $10 million from the JCTD BA3 developmental PE into the JCTD Transition BA4 PE will enable a wider selection of potential successful candidates for transition funds while waiting for funding in a program of record.

B. Program Change Summary	FY 2007	FY 2008	FY 2009
Previous President's Budget (FY 2008)	3.029	2.960	4.970
Current BES/President's Budget (FY 2009)	3.029	2.934	14.962
Total Adjustments		-0.026	9.992
Congressional Program Reductions			
Congressional Rescissions		-0.026	
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer			
Other			9.992

In FY 2007 there were no congressional increases or decreases to the JCTD Transition program element. The SBIR/STTR transfer totaled $147 thousand. Congressional rescissions and other taxes such as Section 8023 for FFRDC totaled $22.

For FY 2008 there were no Congressional adjustments in this PE, there were congressional recissions (Sections 8025, 8097 and 8104) of $26 thousand.

In FY09 there is a $10 million transfer from JCTD BA3 Program Element (PE) 0603648D8Z in to the JCTD BA4 Transition PE. Also there was a small reduction for economic assumptions for inflation and fuel.

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C. Other Program Funding Summary	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
ACTD PE 0603750D8Z (RDT&E/DW BA-3/Line #44)	158.313	1.589					
JCTD PE 0603648D8Z (RDT&E/DW BA-3/Line #36)	35.594	202.484	206.337	201.975	195.537	198.276	201.211

Comment: In FY08 all ACTD funding transfers to the JCTD program. This will complete the transition to the JCTD model that began in the FY06 President's Budget. The new JCTD Program provides a "cradle to grave" path for transformational joint capabilities. The initial funding lines (program elements (PE)) are outlined in the table below. The PEs in the table (with the exception of the ACTD BA3 PE which will fully transfer to the JCTD BA3 PE in FY08) represents the JCTD model. The model contains a BA3 development arm as well as BA4 transition arm. Under the new JCTD process, the pace of development will be accelerated to two to three years. Only the JCTDs that demonstrate the highest military utility will be considered for the transition funding in the JCTD BA4 Transition PE. Not all JCTDs require transition funding, many projects have a very clear transition path, however, some projects that demonstrate significant military utility require transition funds to "bridge" them to a program of record. Any promising remaining ACTD may receive transition funding during the transition period to the JCTD program. Beginning in FY07 all new starts will be JCTD only. Refer to the specific Budget Exhibit for more details on each funding line.

D. Acquisition Strategy Not applicable for this item.

E. Performance Metrics:

FY	Strategic Goals Supported	Existing Baseline	Planned Performance Improvement / Requirement Goal	Actual Performance Improvement	Planned Performance Metric / Methods of Measurement	Actual Performance Metric / Methods of Measurement
08	Project Selection Focus					
	Spiral Technologies					
	Time to Final Demonstration					
	Adequately Shared Funding and Visibility					
	Independent Assessment Capability					
	Successful Military Utility Assessment (MUA)					

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February 2008

APPROPRIATION/ BUDGET ACTIVITY	PE NUMBER AND TITLE
RDTE, Defense Wide BA 04	**0604648D8Z - Joint Capability Technology Demonstration (JCTD)**

Comment: The majority of funding from this Program Element is forwarded to the Services/Defense Agencies that execute the individual JCTD projects. DUSD(AS&C) maintains and provides overall programmatic oversight for the JCTD program, to include the individual JCTD projects. The JCTD performance metrics center on how fast relevant joint and/or transformational technologies can be demonstrated and provided to the joint warfighter. The JCTD BA4 funding, unlike the JCTD BA3 developmental funding, is specifically targeted at increasing the rate of transition for critical CoCom/Coalition capabilities. The JCTD model has developed a set of metrics, two of which are centered around spiraling products and transitioning capability. The JCTD Transition funds are specifically targeted to towards these two in particular. These metrics are driven by the overall business process which includes six parts: (1) selection focus; (2) ability to spin-off spiral technologies; (3) time necessary to complete a final demonstration; (4) adequately resourced projects with appropriate oversight; (5) capability to complete an independent assessment of the technology; and (6) the number of successful capabilities that are actually transitioned to the warfighter. The table below defines the metrics of the new JCTD business process model.

1) Project Selection Focus: Capability Based: Greater CoCom influence looking at nearer term joint/coalition needs.

2) Sprial Technologies: 25% of JCTDs will provide an operationally relevant product demonstration within 24 months of ID signature.

3) Final Demonstation Completed: 75% of JCTD projects complete final demonstration within three years of ID signature.

4) Shared Funding and Viability of resources: OSD provides significantly more funding than the former ACTD program, greater than 30% in some cases a majority of projected funding, especially in the first two years.

5) Complete independent assessment.

6) Number of capabilities transitioned to the warfighter.

OSD RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

February 2008

APPROPRIATION/ BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDTE, Defense Wide BA 04	**0604648D8Z - Joint Capability Technology Demonstration (JCTD)**	**P649**

	COST ($ in Millions)	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate
P649	Joint Capability Technology Demonstration (JCTD)	3.029	2.934	14.962	18.911	18.886	19.917	19.959

A. Mission Description and Budget Item Justification: In FY 2006, the Deputy Undersecretary of Defense for Advanced Systems and Concepts (DUSD(AS&C)) initiated a new business process, building on the successful ACTD program, to support the Department's transformational reform of addressing future threats from a capabilities focus versus the classical threat based viewpoint. The revised ACTD approach is called the Joint Capability Technology Demonstration (JCTD) program, and is based on proven, positive aspects of the ACTD program with new modifications. The JCTD model specifically addresses congressional concerns and recommendations made by the General Accountability Office (GAO) regarding rapid development and transitioning of Combatant Commander (CoCom) relevant capabilities to the joint warfighter in a more cost effective, timely and efficient model. Aligning closely with the thrust of with the Joint Staff's Joint Integration and Development System (JCIDS), JCTDs take a more balanced project candidate identification approach, shifting the overall program's focus to identifying specific warfighter capabilities needs up front (requirements pull), and then finding technology or concepts to address these needs, while maintaining the historical ACTD approach, where new technology is introduced to the warfighter to solve existing operational shortfalls (technology push). FY 2006 was the first year of a three to five year transition period from the current ACTD to the improved JCTD program. However, in FY08 all ACTD funding is being transferred to the JCTD program to complete this transition more quickly than originally anticipated. Beginning in FY07 all new starts will be JCTDs. This will implement a process that will more rapidly provide demonstrated solutions to joint warfighter needs, and unique transformational capabilities through the application of new operational concepts or technology from the Science and Technology (S&T) domain. The resources are aimed at carrying successful projects through the difficult transition stage ("S&T valley of death"). The remaining ongoing ACTDs that were started in previous years but not yet complete will be funded to completion in the JCTD program element and will complete in two to three years. It is anticipated that all ongoing ACTDs will be complete by FY09. In FY 2007, 11 JCTD new start projects were initiated. In FY 2008, eight projects have been selected as new starts and five projects as potential "rolling starts". To better support the rapid transition of joint, CoCom/coalition operational capabilities, the JCTD business model includes a JCTD Transition program element. While not all ACTDs and JCTDs require transition funding, these resources provide a "transition bridge" to enable sustainment for innovative, "joint-unique" and CoCom/coalition capabilities until traditional programming and budgeting can provide a permanent solution.

The appropriation, Program Element (PE) and Budget Activity (BA) structure for the new JCTD process includes the following:

- JCTD PE 0603648D8Z (RDT&E/DW BA-3)
- JCTD Transition Funding PE 0604648D8Z (RDT&E/DW BA-4)

In FY 2006, DUSD(AS&C) shifted an initial allocation of resources ($40 million) from the ACTD PE 0603750D8Z to populate three JCTD program element (PE)s. In FY08 all remaining ACTD resources will shift into the JCTD BA 3 PE 0603648D8Z. This will initially establish a funding stream to support approximately five to ten new JCTDs each year. The BA-3 JCTD PE will replace the current ACTD BA-3 PE in FY08; The JCTD and remaining ACTD projects used the combined resources of both the JCTD and ACTD PEs in FY07. In FY08 and out any remaining ACTDs will be supported with funding from the JCTD PE until completion in the next two or three years. JCTDs are initiated in Budget Activity three (BA-3) and are pre-acquisition demonstrations, characterized by Technology Readiness Levels 4, 5 or 6. Although not fully developed for production, the new JCTD model can provide a path for transition of Science and Technology to acquisition and are low-to-moderate risk vehicles for pursuing those objectives. The Defense Wide RDT&E funding managed by DUSD(AS&C) will support demonstration of military utility and deployment of interim capability including a transition period to a program

of record, providing the Combatant Commanders, Services, Agencies, and operators with adequate time to address the transition issues of supportability, maintainability and training identified by the JCTD/ACTD. As described, the JCTD Program has established a new model that enhances successful demonstrations with the addition of a transition arm through funding in the JCTD Transition BA4 program element (PE). The JCTD transition PE provides a path for rapid fielding of successful, transformational capabilities that may require additional transition resources to "bridge" to a program of record. To ensure successful capabilities transition to the CoCom this budget requests a shift of $10 million in FY09 from the JCTD BA3 PE into the JCTD Transition BA4 PE. This shift will better balance the JCTD model and enhance the ability to fully transition the most compelling capabilities to the CoComs.

FY 2008/2009 General Program Plan: DUSD (AS&C) will maintain oversight of the JCTD program. The FY 2008 review and validation process began in March 2007, with JROC validation in June of 2007. Congressional notification of the eight candidate new starts and five candidate "rolling starts" occurred on November 28, 2007. Rolling start projects represent important warfighter concerns and potential capabilities that are not fully developed for initiation. However, to remain agile, because of the compelling capability a plan to start is derived if the development for starting is completed. Four of the five rolling starts were initiated in FY 2007. These projects address issues with emerging technologies that could be significant "game changers". While these projects have been successfully vetted through the JCTD selection process, some additional proposal development must be addressed with the stakeholders (i.e., Services, Agencies, Coalition and Inter-agency partners), prior to project initiation. This year, five candidate rolling starts emerged that were particularly compelling; however, due to technology or resource related issues, they are still in a developmental stage. For FY 2009, the new start selection process will be repeated beginning in March 2008. It is anticipated that new start initiatives will range from 5 to 7 JCTDs. In FY09 all JCTD funding is anticipated to be approximately $50 million will be available for JCTD new start/rolling start initiatives. Due to the accelerated pace of JCTD development over ACTDs (JCTDs demonstrate in 2 to 3 years), the turnover rate is faster, thus funding for new starts each year has increased to approximately $50 million per year.

B. Accomplishments/Planned Program:

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
Joint Distance Support and Response (JDSR)	1.100		

The JROC approved the capability need for JDSR as an FY-02 new start. The outcome of JDSR will demonstrate and transition joint, common, interoperable, tele-maintenance environment using a collaborative knowledge center and tool suite, with reach-back capability. The JDSR ACTD focuses on timely employment of information, both automated and live, to the different service maintainers. Outputs and efficiencies include operational bandwidth in a common collaborative environment, access to multiple subject matter experts, technical information at point of maintenance, interoperable tool suites and maintainer productivity. The User Sponsor is U. S. Joint Forces Command (JFCOM), the lead service is the Navy.

- Transition accomplishments to date: JDSR capabilities and products have transitioned to Navys Distance Support Program for joint management and configuration control; the Navy and Marine Corps are procuring and fielding capability onto ships and Light Armored Vehicles (LAV) platforms. JDSR capability is fielded in the Air Force ATCALS system, Army CH-47, Marine Corps Third Echelon Test Sets (TETS).

- FY 2007 Transition Outcome - was Distance Support (DS), Joint Aviation Technical Data Integration (JATDI), Integrated Maintenance Data System (IMDS), Third Echelon Test Set (TETS) and Technical Data Distribution (TEDD) programs.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009

Language and Speech Exploitation Resources (LASER)	1.000		

Demonstrate technologies, concepts, and architecture paths providing language translation capabilities with improved interoperability, accuracy, deployability and timeliness of translation for speech and document exploitation. Assessments include users within the sponsoring Pacific Command, as well as warfighters in other combatant commands and INSCOM with immediate and critical language translation needs in the Global War On Terrorism. Products from LASER have been deployed for operational use in OEF and OIF. The user sponsor is U.S. Pacific Command. LASER ACTD accomplishments - Conducted limited utility assessments on more language translation tools and a final capstone military utility assessment report. Provided machine language translation tool residuals in combatant command areas other than the sponsor's area of operations. Continued fielding interim products for demonstration and extended user evaluations in coalition and intelligence operations. Finalize concepts of operations and tactics, techniques and procedures for user adoption. Facilitated establishment of a machine language translation program and centralized management office. Begin implementation of transition plan and joint transition program.
- FY 2007 Outcome - LASER ACTD yielded the SEQUOYAH Transition Management Office and a Interim Capability Document toward establishment of a SEQUOYAH Program office within the Army. BA4 funding for LASER transition supported the development of a Capability Development Document, which when approved will support the full establishment of the SEQUOYAH POR. This BA4 funding also established a test bed for analysis of machine foreign language translation systems. This test bed has completed analysis of both text and speech translation systems.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
Personnel Recovery Mission Software (PRMS)	0.400		

Personnel Recovery Mission Software (PRMS) began as an Advanced Concept Technology Development (ACTD) to develop and assess the military utility of a new personnel recovery application for use with USPACOM and USCENTCOM. The PMRS ACTD provided the Warfighter an early evaluation of this advanced technology that was sufficiently mature to permit field-testing and to secure a leave-behind operational capability. The PRMS ACTD resulted in the current PRMS software, which is currently mandated by the Joint Staff and Combatant Commands as the accepted mean of collecting, tracking, and accessing Isolated Personnel Reports (ISOPREPs) and Evasive Plans of Action (EPAs). The current PRMS effort is now a sustained Program of Record and includes the design, development, testing, evaluation, modification, installation, training, support, and deployment of PRMS to the Warfighter at various CONUS and OCONUS locations. Transition funding was provided to complete the final spiral development of Personnel Recovery Mission Software (PRMS). The funding completed the web-enabling and hierarchy development to meet a March fielding to CENTCOM. The formal transition to ESC was on 1 October 2007.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
Advanced Tactical Laser (ATL)	0.400		

ATL is an ACTD that was initiated in 2001, it completed in 2007. The system currently is in transition and required transition funding to allow the system to attain the specifications for a program of record. The current ATL system is configured to support ~40 seconds of laser firing before the aircraft has to return to base and to refuel the laser. This is sufficient to complete the Special Operation Forces design reference mission demonstrations against a moving target (ground vehicle) and communications node. Funding constraints will limit the number of flights the Air Force will be able to accomplish during the FY08 extended user evaluation. With the increase in the number of seconds of laser firing, the Air Force will be able to execute more shots and evaluate a broader array of employment scenarios within the same EUE budget. This will afford them the opportunity to demonstrate the ATL's unique attributes to provide ultra precise, clandestine target attack in scenarios of interest to SOUTHCOM, including attack of go-fast boats, buildings, and unmanned aerial vehicles (UAVs). (The interest in buildings includes forcing evacuation or destroying them by setting fires.) The major activities include: (3QFY07) Conduct engineering analyses to assess the impact potential changes will have on the overall system performance and to insure flightworthiness requirements are satisfied. Conduct trade analyses to determine the optimum set of changes to maximize the increase in shot capability within the budget constraints. (4QFY07) Procure hardware needed to accommodate the additional shot capacity. Execute system mods on a non interference basis with the ACTD demonstrations. (1QFY08) Conduct ground and test flights to validate the system mods provide the expected increase in shot capability without adverse impacts on overall system performance and sustainability.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009

COSMOS Shared Operational Picture Exchange Service (SOPES)	0.129		

To provide transition funding for COSMOS Shared Operational Picture Exchange Service (SOPES) to increase the capapbilities for better program of record transition. Develop a submission package in response to the Object Management Group (OMG) Shared Operational Picture Exchange Service (SOPES) Information Exchange Data Model (IEDM) request for proposals (RFP) based on reuse of the Multilateral Interoperability Programme (MIP) Joint Consultation, Command & Control Information Exchange Data Model (JC3IEDM). Conduct close technical and process coordination with the ongoing MIP and OMG Consultation, Command, Control, Communications, and Intelligence (C4I) Domain Task Force (DTF) communities.

Ensure that C2-core information exchange requirements represented support a wide variety of communities of interest (COI), e.g. operations involving first responders (police, fire, emergency medical personnel), non-governmental organizations, and military command and control.

Model driven architecture techniques and tools will be used in as much as is practical to create the required SOPES Universal Modeling Language (UML) and Object Constraint Language (OCL) representations

Broaden the international and industry engineering/standards impact of the JC3IEDM, a foundational building block of the COSMOS ACTD. Support the migration to Service Oriented Architecture (SOA) processes and information exchange standards embraced by DoD.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
Mapping the Human Terrain (MAP-HT)		0.900	

The MAP-HT JCTD demonstrate technologies, concepts, and architecture paths to integrate a multimodal human computer interface (entity navigators, timeline, link charts) Allows link chart web clients to view entities in correlated data base. Adds Human Terrain reporting formats and C/JMTK compliant geospatial visualization tool. Integrates to an entity extraction tool, possibly as a spin-off from the CHAMPION JCTD. Adds export utilities to support interoperability between HDWS and HTS. Products from MAP-HT have been requested for operational use in OIF. The user sponsor is U.S. Central Command. The MAP-HT JCTD is targeting the DCGS-A Human Domain Workstation as the Program of Record. There are currently 50+ HDWS currently fielded in support of OIF. This accelerated fielding to a Program of Record is based on the pre-JCTD foundation, built using CTTF, JIEDDO, and AS&C funds and currently deployed with six Human terrain teams under the Human Terrain System (HTS) project.

FY 2008 Planned Output - The MAP-HT JCTD will integrate capabilities into the Human Domain Workstation (HDWS) and field capability in support of OIF within the year. Funds would initiate the collapsing of the two systems: HTS and HDWS. Human Terrain Teams (HTT) will be able to generate structured reports using the HDWS Reporting Tool. Additionally, integration of a multi-modal analytical interface from the HTS into the HDWS will be accomplished. The combination of structured reporting from HTTs and a significantly improved analytical interface will improve the analytical capabilities of both the Human Terrain System and intelligence analysts. Human Domain Users within the theater will benefit from this early transition and implementation within OIF.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
Active Denial System (ADS)		0.150	

The Active Denial System (ADS) ACTD requires transition funding. This is a long range, directed energy technology that provides is safe and effective non-lethal capability. Being treaty and legal compliant, ADS provides the Combatant Commander a non-lethal means to engage adversaries in complex situations where lethal force is restricted or inappropriate. Investment in this transformational capability will not only provide the battlefield commander an important new option between the use of lethal force or taking no action, it will also demonstrate U.S. commitment to preventing unnecessary loss of life. Requests from the CENTCOM AOR for this capability for OIF/OEF forces have been received. Funding will be used to transition from the ADS ACTD to an

ADS Program of Record.

FY 2008 Planned Output - conduct a technology assessment and a system requirements review for the next generation active denial system; Milestone B documentation development for future acquisitions; and preparation of a request for proposals, including holding one or more industry days to encourage competition.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
Joint Force Projection (JFP)		0.650	1.000

The Joint Requirements Oversight Council (JROC) validated the capability need for Joint Force Projection (JFP) as a Fiscal Year (FY) 2005 new start. The outcome of JFP is to provide the joint warfighter the capability to identify, source, schedule, move, maintain visibility of and close force capabilities across the entire Force Projection process. This capability will support joint deployment planning and execution, and provide emerging adaptive planning and Net-Enabled Command Capability capabilities. The primary outputs and efficiencies to be demonstrated are (1) 100% net-centric access to core deployment planning and execution systems; (2) develop, test, and demonstrate model-based decision support tools to give the Joint Force Commander the ability to be able to conduct rapid, dynamic course of action analysis and predictive assessment of the deployment flow on current operations; (3) develop, test, and demonstrate a common, joint toolset for Joint Reception, Staging, Onward Movement, and Integration (JRSOI) activities to coordinate the flow of forces and sustainment into a theater during execution; (4) ability to create, manage, and track capability-based force packages and link them to an operational plan (100%); (5) Crisis Action Planning and Execution (after release of deployment order) support development and maintenance cycle for Operations Order (OPORD) and associated products. Cycle time reduction from 2 weeks to less than 96 hours. (6) Go from less than 5% of a capability in the current systems to 80% ability with the Joint Capabilities Requirements Tool and JFP to create, manage, and track capability-based force packages and link them to an operational plan. (7) Increase the end-to-end visibility of forces as capabilities from zero in the current process to 80% with JFP. (8) Potential of reducing the primary thread of deployment systems from 193 to 34, with an industry standard Return on Investment of 30%. Planned JFP transition: Improved capabilities will be provided to programs of record for the next generation of command and control and network services. JFP is planning a two- phase transition. Phase 1 will be to the Global Combat Support System followed by Phase 2 transition to the Net-Enabled Command Capability when it achieves Milestone B. The user sponsor is US Joint Forces Command (USJFCOM), and the lead Service (Agency) is Defense Information Systems Agency (DISA).

- FY 2007 Output - Finalize demonstration activities to complete the end-to-end Force Projection visibility capability.; conduct two Joint Military Utility Assessments (JMUA) and an Extended User Evaluation; and begin to transition and deliver the new Force Projection capability into program of record, Global Combat Support System. The Final JMUA is scheduled for 14 - 31 March, 2007. Complete the last two spirals of JFP ACTD deployment to include capabilities tracking throughout the deployment process and Joint Reception, Staging, Onward Movement, and Integration activities.

- FY 2008/2009 Planned Transition Output - After successful completion of the JMUA and subsequent recommendation of acceptance, DISA, as Transition Manager, will follow a two phase approach to transition. Phase one will be loosely coupled with the Global Combat Support System (GCSS) until Net-Enabled Command Capability (NECC) achieves its Milestone B at which time JFP will transition.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
Joint Modular Intermodal Distribution System (JMIDS)		1.000	0.690

The Joint Requirements Oversight Council (JROC) validated the capability need for JMIDS as an FY06 new start. The outcome of JMIDS is to demonstrate, analyze and transition joint service, all-mode containers and platforms that are equipped with Automatic Identification Technology (AIT). JMIDS will permit efficient, seamless, and visible movement of supplies through the distribution system from CONUS-based depots and vendor locations to tactical end users. This includes movement through the Seabase to support forward operating expeditionary and task force units. JMIDS technologies will enhance the ability to source load supplies that can move from origin to destination without the current intensive and inefficient handling and re-packing caused by: incompatible

air and ground cargo systems; and, sorting, storing, and/or reconfiguring cargo. The goal of this JCTD is to improve the agility, flexibility, efficiency, effectiveness, responsiveness, and interoperability of the Joint Distribution System. JCTD transition funding will enable this critical warfighter capability to continue its development while transitioning to selected Program of Records. The primary outputs and efficiencies to be demonstrated in the JCTD Limited and Capstone Military Utility Assessments are: (1) Timeliness of JMIDS technologies to deliver supplies to operating forces as compared to present distribution system; (2) Capability to support transportability across different modes by reducing re-handling/ packing time; (3) Improved supply flow through the available technologies-- Tonnage processed per hour, Time per load-out of platform, Wait times per load-out; and, (4) Capability to support Command Level Situational Awareness-Accuracy of AIT tracking technology (contents, position), percent of JMICs tracked correctly, and overall improvement of situational awareness with use of AIT.

- FY 2008/2009 Planned Transition Output - Complete final MUA Report. Commence transition to formal acquisition program(s). Complete Final CDD document and submit to JROC; Execute Milestone B Decision; Transition to Identified PM; Conduct Residual evaluations and follow-on engineering development. JMIDS JCTD scheduled completion date is December 2008. Identify three spiral technologies that enhance JMIDS output. Exploit JMIDS success through a Coalition Warfare Demonstration of the JMIDS hardware with the United Kingdom that determines the value of JMIDS to coalition warfare logistics.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
Hyperspectral Collection and Analysis System (HyCAS)			2.000

The Hyperspectral Collection and Analysis System (HyCAS) was validated by the JROC as an FY02 start. Funding is needed to enhance the Spectral Airborne Reachback Cell (SPARC) hyperspectral imaging (HSI) exploitation and processing system. This SPARC enhancement will deliver a 2nd/3rd phase HIS exploitation cell by leveraging and expanding the National Air and Space Intelligence Center (NASIC) infrastructure to support 20 HAS analyst workstations, data archive, and tasking, processing, exploitation and dissemination software. This funding will also provide in-depth material identification and spectral anomaly detection analysis that is so crucial to the global war on terror. This funding also leverages Air Force sensors and UAVs.

The ACTD which leverages Air Force funding of sensors represents a quantum leap forward in the management of hyperspectral data. The airborne hyperspectral concept is an integration effort which will deliver four Air Force COMPact Airborne Spectral Sensors (AF COMPASS), four real-time processors and four ground station processing software packages to the Predator Unmanned Aerial Vehicle (UAV) program of record. AF COMPASS is a tactical asset designed to operate at an altitude of 15-20K feet with area coverage of approximately 600-900 sq km/hour. AF COMPASS provides a wide area search capability and can cross-cue the onboard the Predator Multispectral Targeting System (MTS). The airborne hyperspectral capability will enhance the effectiveness of the Predator weapon system by finding targets and queuing the MTS ball to fix an object for tracking, targeting and engagement. The AF COMPASS sensor can also detect, locate and identify materials associated with Combat Search and Rescue (CSAR) operations and can distinguish between targets and decoys. AF COMPASS ground station processing software will allow an operator to view high resolution imagery (HRI) chips created based on either signature or anomaly detections. Chips are painted on a display which shows the path of the aircraft and the signature / anomaly hits obtained by the real-time processor. Funding was specifically earmarked in PDM III.

FY 2009 Planned Transition Output - Enhanced Spectral Airborne Reachback Cell (SPARC) hyperspectral imaging (HSI) exploitation and processing system. The SPARC enhancement will deliver a 2nd/3rd phase HSI exploitation cell. The SPARC funding will also cover 20 dedicated airborne HSI analysts allowing for two analysts per operational sensor. This cell is essential to provide in-depth material identification and spectral anomaly detection analysis as a reachback to the 1st phase analyst and to satisfy 2nd/3rd phase intelligence requirements that non-HSI sensors currently cannot satisfy. Integrated and refined system for full operational production capability. The AF COMPASS sensors and exploitation infrastructure from this initiative will be leveraged to learn and further refine operational HSI capabilities. The knowledge gained will in turn be used to refine full production models for future operational use.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
Counterintelligence, Human-intelligence Advanced Modernization Program - Intelligence Operations NOW (CHAMPION)		0.234	0.300

The Joint Requirements Oversight Council (JROC) validated the capability need for CHAMPION as a FY06 new start. The outcome will provide improved capabilities for the counter-intelligence, human-intelligence and special operations forces communities of interests an accessible and actionable information system for management of the CI/HUMINT/SOF collection, mission planning and

asset management information. The capabilities include technologies for integration of biometrics and geospatial information. The primary outputs to be demonstrated to the users and evaluated in the Military Utility Assessment (MUA) are: 1) joint data standard for human domain; 2) CHAMPION information collection tool and associated CONOPs, and TTPs; 3) CI-HUMINT/SOF source management tools with federated search capability and data replication/access across multiple networks; and 4) integrated language translation collection, CI/HUMINT source vetting tool and data access tools for multi-intelligence discipline fusion. The efficiencies to be gained are; 1) improved effectiveness of HUMINT operations; 2) elimination of Human domain data stovepipes; 3) joint human domain data standard; 4) improved web enabled data access across multiple networks and security levels; 5) Joint CONOPs/ TTPs; 6) Biometric and geo-spatially enabled mission and asst management tools. The transition strategy is to incorporate CHAMPION capabilities into the Distributed Common Ground Station program of record (POR). The sponsoring Combatant Command (CoCom) is the U. S. Central Command (CENTCOM). Other organizations involved as participants, users of capabilities, and/or observers include USSOCOM, USJFCOM, Counter-Intelligence Field Activity, Defense Intelligence Agency, National Geospatial Agency, and the National Security Agency. The lead service is the Army.

- FY 2007 Output - Complete Spiral 1 limited assessment report and Spiral 2 assessment plan. Execute the Spiral 2 demonstration and assessment of Spiral 2 deliverables. Prepare final assessment plan. Complete approval of transition plan. Secure funding for fielding of spiral deliverables found to have military utility by operational sponsor.

- FY 2008 Planned Output - Execute final military utility assessment and finalize CONOPs and TTPs. Complete the Unified Army Metadata Model Database (UAMMDB) and the Discretionary Access Layer (DAL) which is required by the target POR _ DCGS-A HDWS.

- FY 2009 Planned Transition Output - Planned project transition to Program of Record and project completion.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
CORSOM			1.000

The Joint Requirements Oversight Council (JROC) validated the capability need for CORSOM as an FY04 new start. The outcome of CORSOM is to demonstrate a set of technologies, provide modeling and simulation support, and establish procedures to provide Joint Force Commanders with an enhanced Reception, Staging and Onward-Movement (RSOM) Planning and Execution Monitoring capability for coalition deployment operations. The primary outputs and efficiencies to be realized by CORSOM ACTD deliverables are: 1) 10% percent decrease in delays of convoy movements caused by congestion, and as a result decreases in number of units that do not meet Required Delivery Dates 2)5% percent decrease in numbers of movement control personnel needed to manage RSOI efficiently; 3) 5% decrease in average time to offload strategic movement assets, move assets through marshalling areas, and on to staging areas; 4) comparison of total cost of RSOI when using CORSOM deliverables compared to current costs; 5) identification of reductions in logistics response times, i.e., reduced sustainability requirements, and reductions in losses in supply chain.

- FY 2007 Output - Completed transition to NATO Logistics Functional Area Services to include provision of required system documentation such as Data Dictionaries, Architecture Descriptions, User Documentation and Training Packages. CORSOM was used successfully in Exercises STEADFAST MOVE 07 and STEADFAST JACKPOT 07 to plan the RSOM portion of a NATO Response Force Deployment. CORSOM ACTD scheduled completion date is December 2007.

FY 2009 Planned Transition: CORSOM products will transition into NATO's Logistics Functional Area Services (LOGFAS) with NATO Communications and Systems Operating and Support Agency providing operations and maintenance. Additional transition into Global Combat Control Systems (GCCS) through Defense Information Systems Agency (DISA) support is also planned. This is a four-year project under the sponsorship of six NATO nations, NATO Strategic Commands and Supreme Headquarters Allied Powers, Europe, are User Sponsors and the lead agency is the NATO C3 Agency.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009

Multi-Sensor Aerospace-ground Joint ISR IC (MAJIIC)			1.000

The JROC approved the capability need for MAJIIC as an FY04 new start. The outcome of MAJIIC is to develop, test and transition a set of standards, eXtensible Markup Language (XML) formats, and information services to promote intelligence, surveillance and reconnaissance (ISR) interoperability between U.S. and Coalition ground stations and systems. MAJIIC will demonstrate near-real-time interoperability of data from electro-optical, infrared, motion video, moving target indicators, synthetic aperture radar, and other sensors; enhance collaborative targeting operations; improve ISR data accessibility and sense making to support U.S. Joint ISR operations. Outputs and efficiencies include: 1) Near real-time MAJIIC ISR mission and sensor data is available for discovery and smart pull within the Collateral Space in near real time (i.e. Post in Parallel); 2) MAJIIC services and data are readily discoverable via portals, C2 Visualization and other applications, and other Global Information Grid (GIG) service providers; 3) MAJIIC data pedigree is trustable by users; 4) MAJIIC service access is assured for authorized users and denied for unauthorized users; 5) MAJIIC data access is provided based on user clearance, country affiliation, and role and protected from those not meeting the minimum policy requirements. Transition is planned for FY 2008/2009 by the U.S. Army Training and Doctrine Command (TRADOC) System Manager to the Service Distributed Command Ground Station (DCGS) programs, to satisfy their requirements for coalition ISR interoperability and Network Centric Enterprise Services compatibility. Transition already Accomplished: The MAJIIC Full-Motion Video ISR Information Services (ISRIS) capability deployed as part of JIOC-I to OIF, and is transitioning to the Army Distributed Common Ground System (DCGS-A). NATO is deploying the MAJIIC coalition shared database (CSD) as part of the NATO Intelligence Management and Reporting Tool (IMART) to OEF. Remaining transition: NATO, Supreme Headquarters Allied Power_Europe (SHAPE), and the U.S. will adopt demonstrated capabilities and concepts of operation into existing national and coalition systems. MAJIIC technology and lessons learned will transition to the Service DCGS programs to satisfy their requirements for Coalition ISR interoperability and Network Centric Enterprise Services compatibility. U.S. Joint Forces Command is the operational sponsor and the Air Force is lead service.
- FY 2008 Planned Output - Participate in the annual MAJIIC coalition exercise with possible NATO Allied Command transformation with NATO Air Group IV ISR capability. Validate CONOPs and conduct MUA. Complete the ACTD.
- FY 2009 Transition Output - Transition capability into the DCGS Integration Backbone spiral baseline.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
Joint Enable Theater Access (JETA-SPOD)			3.000

The Joint Requirements Oversight Council (JROC) validated the need for JETA-SPOD capabilities as a FY06 new start. The outcome of JETA-SPOD is to develop and demonstrate: a Lightweight Modular Causeway System (LMCS) transportable by and employable from intra-theater sealift vessels such as the JHSV or other current Army/Navy watercraft; and an austere port Decision Support Tool for selection of optimal sites from multiple austere SPOD options. The capabilities proposed for development in this ACTD will optimize the use of the Joint High Speed Vessel (JHSV), current Army/Naval watercraft, and Lines of Communication (LOC) bridging requirements by providing increased and more rapid flow of combat power and sustainment through multiple theater austere seaport locations. This provides to Joint/Combined Force (J/CFC) commanders a means to mitigate threat anti-access activities and increases flexibility to conduct operational maneuver from strategic distances. JETA-SPOD ACTD is a three-year project under sponsorship of U.S. Pacific Command, with completion of development and demonstration by end of FY2008; and transition to U.S. logistics systems as early as FY2009. The lead service is Army. The primary outputs and efficiencies to be demonstrated in the ACTD Military Utility Assessment (MUA) are: 1) the LMCS will reduce weight, volume, and deployment time compared to existing military causeway and bridging systems; 2) the operational parameters for evaluating the military utility of the LMCS are based on a quantitative and qualitative comparison to the capability provided by the existing Modular Causeway System (MCS); 3) LMCS will result in a reduction in weight and volume by 50% over the MCS; a reduction in deployment time by 50% over the MCS; and elimination of in-water connections; 4) the Decision Support Tool capability equates to an increase in availability of throughput prediction information for 50-80% of worldwide small ports; and 5) the combination of LMCS and the Decision Support Tool includes a five-fold increase in the number of JHSV-compatible ports and doubling of the port throughput rate. LMCS Output includes incorporation of state-of-the-art connector and tensioning technology; innovative emplacement and recovery system applicable to multiple military/civilian platforms; innovative self-locking and strap tensioning technologies; high strength fabrics for robust, lightweight floatation technology that quickly inflates/deflates for rapid LMCS emplacement and recovery; puncture/abrasion resistant floatation components; lightweight decking materials; and common 8x20 rapid transport footprint design. The efficiency is that the transport (land/sea) cost of moving causeway capabilities into austere SPODs will be significantly reduced; and causeway capabilities will arrive in theater more rapidly with a smaller logistics footprint. Austere Port Decision Support Tool Output includes query-able austere world port data; a port characterization model; rapid port enhancement tool; austere port throughput simulation; a comprehensive set of environmental and physical factors affecting ingress/egress throughput rates; and parametric algorithms for throughput rates in small ports and rates for planning and execution of vessel offload operations; developed with an open source tool; user friendly Graphical User Interfaces (GUI); and runs on a laptop computer. The efficiency is that the

warfighter will possess flexibility and a broader range of options to establish austere seaports as strategic or operational maneuver entry points with a greater assurance of success. The transition strategy for LMCS and the Decision Support Tool is to establish Programs of Record under the guidance of two Transition Managers: Product Director, Army Watercraft Systems (PD AWS) and USTRANSCOM, respectively.

- FY 2007 Output - Refer to the ACTD R2a.

- FY 2008 Accomplishments _ Develop final LMCS and Decision Support Tool CONOPS; finalize extended user evaluation and Interim Transition Planning; conduct LMCS full-scale functional system demonstrations conduct CONUS LMCS testing; complete system integration and incorporate lessons learned; complete LMCS fabrication; conduct Decision Support Tool Limited User Evaluations (LUE); deliver final version of Decision Support Tool; complete Training Plan; conduct user training in preparation for MUA; complete MUA/Final Demonstration in Sep 2008; develop final MUA and ACTD report; and plan transition of LMCS and Decision Support Tool to Programs of Record in FY 2011.

- FY 2009 Planned Output _ Deliver pre-transition and interim capability/residuals to the user (includes LMCS system and Decision Support Tool with Final Data Set); plan the use of LMCS and Decision Support Tool in exercises for continued refinement and continued socialization for transition; JETA-SPOD ACTD scheduled completion date is September 2009.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
OVERWATCH			1.032

The Joint Requirements Oversight Council (JROC) validated the capability need for Overwatch as an FY-03 start. The need to rapidly detect and locate hostile weapons fire was addressed by the Overwatch ACTD. The outcome is to demonstrate a sensor/targeting system that can detect, classify, and locate weapons fire in real time while stationary or on the move. This capability provides ground forces the ability to immediately direct precision fire support during land and urban warfare, peacekeeping, and peace enforcement missions. The primary ACTD outputs are to deploy two residual on-the-move capable sensor/targeting systems that will enhance both force protection and force application for the warfighter. Efficiencies and outputs include: percent of firing signatures detected; percent of firing signatures located; overall percent of successful detections resulting in accurate messages; false target rate; and percent of messages garbled or not received. The user sponsor is U.S. Pacific Command. The lead service is US Army and the Transition Manager is the Program Manager for Night Vision/Reconnaissance, Surveillance, and Target Acquisition (PM NV/RSTA). A major demonstration of stationary and on-the-move capability to locate hostile fire with a HMMWV was completed in June 2006. While the stationary capability was effective, there was degraded performance on-the-move. The ACTD completes in FY 2007. Using FY 2006 funds, the ACTD will: Demonstrate improved on-the-move performance; Prepare to deploy residuals in theater to support military police operations; Complete Military Utility Assessment and interim support phase.

- FY 2009 Transition Planned Output: Conduct the operational demonstration of Overwatch on-the-move capability that was not preformed during the ACTD period due to late resolution of technical difficulties. This demonstration will mature the capability and enable transition. Transition Sustainment: Stryker Platform, response to CDD requirement for multi-modal identification and tracking of multiple hostile fires. Transition decision dependent upon demonstration of multi-modal capability (integration of PDCue Four Corners acoustic system with Overwatch) and assessment of current Overwatch during in-theater OIF deployment of Full Spectrum Effects Platform Stryker

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
Chemical Unmanned Ground Reconnaissance (CUGR)			0.500

The Joint Requirements Oversight Council (JROC) validated the capability need for CUGR as an FY05 new start. The outcome of CUGR is to provide manned nuclear, biological and chemical (NBC) reconnaissance units with two new technology applications to be demonstrated in the Joint Service Light NBC Reconnaissance System's (JSLNBCRS) High Mobility Multipurpose Wheeled Vehicle (HMMWV) variant providing an unmanned capability. The first of these new systems (Thrust One) will replace the Double Wheel Sampling System (DWSS), currently in use, with a mobile Mass Spectrometer, using RAMAN technology. Since the DWSS can only be used when the vehicle is moving at a fast walk, replacing it with the RAMAN detector, which is producing reliable results at maximum vehicle speed, greatly increases mobility and flexibility for these units. The second technology (Thrust Two) is the incorporation of a small, remote controlled, sensor-equipped robot to be the recon crew's "point man" in high risk contamination reconnaissance. The efficiency of CUGR will be to utilize a machine rather than put a soldier at risk. CUGR addresses the capability gaps identified in the CBRN Baseline Capability Assessment, the JRO-CBRN Defense Mobilization Plan, and the supporting JCIDS Functional Area Analysis. Thrust One will transition as part of the Reconnaissance and Platform integration sensor block upgrade program and replace DWSS on Stryker, HMMWV and LAV vehicles. Thrust Two will become part of the Joint CBRN Dismountable Reconnaissance System (JCDRS). DTRA provides overarching program management. The Technical Manager is the U.S. Army Research, Development and Engineering Command's Edgewood Chemical and Biological Center. The Joint Program Executive Office for CBD assigned the Joint Product Manager for NBC Reconnaissance as the Transition Manager. The U.S. Pacific Command is the ACTD sponsor with Operational Manager responsibility with the U.S. Army Pacific who is providing the 95th Chemical Company as the ACTD demonstration unit. ACTD will complete in FY 07. Outputs will be: to increase maneuver speed to 45 kph vice 11-22 kph: allow detection/identification of various classes of substances simultaneously vice one at a time; reduce mission consumables; enable reconnaissance into areas that otherwise would be inaccessible by manned vehicles; can be deployed into hazardous environments; offer a point detection capability; and provide the ability to collect liquid, solid and aerosol samples.

- FY 2007 Output - Refer to the ACTD R2a.
- FY 2008 Planned Output - Provide two JCSD equipped CBRN Reconnaissance platforms and 2 CUGR's for residual phase support to the 95th Chemical Company (CMLCO) and initiate Extended User Evaluation. Complete mounted CUGV system design and integration on the third JSLNBCRS. Conduct mounted CUGV early user assessment. Complete CUGV test methodology development as well as the technical manual and user training plan. Conduct mounted CUGV technical and operational demonstrations. Receive integrated system and complete the ACTD. Develop documentation and planning for Thrust One installation and transition to Stryker vehicle (new request from U.S. Army).

FY 2009 Transition Planned Output: Move to Stryker requested by Army; Testing on maturity to accept new CBRN sensor suite; additional environmental and reliability testing on Stryker to bridge to transition.

Transition Sustainment: for CUGV: Joint NBC Reconnaissance System Increment 2 Program. For JCSD: Stryker NBCRV.

Accomplishments/Planned Program Title:	FY 2007	FY 2008	FY 2009
Comprehensive Maritime Awareness (CMA)			4.440

The Joint Requirements Oversight Council validated the capability need for CMA as an FY06 new start. The outcome of CMA is demonstration and transition of technologies and operations concepts showing the value of information sharing and effective information management for improving global Maritime Domain Awareness. CMA will demonstrate the value of both interagency and international (Republic of Singapore) information sharing. CMA will demonstrate data management techniques such as automated anomaly detection and threat evaluation, and application of the Department of Defense Net-Centric Data Strategy. CMA is a 4-year project sponsored by U.S. Pacific Command, U.S. Northern Command, and U.S. European Command. Initial capabilities will be demonstrated and operated in CY-06, with advanced capability spirals in FY07 and FY08, and transition support in FY09. The lead Service is U.S. Navy. The primary outputs and efficiencies to be demonstrated in CMA Military Utility Assessments are (1) percent increase in the number of maritime tracks and identified tracks in U.S. military, interagency, and coalition maritime operational pictures; (2) percent increase in numbers of maritime contacts with amplifying information (such as crew list, cargo manifest, port-of-call history, etc.); (3) percent increase in numbers of vessels of interest monitored by maritime intelligence analysts; (4) number of automated anomaly detections and threat alerts provided to maritime intelligence analysts; (5) increase in number of agencies (U.S. and international) engaged in information sharing across a common service oriented architecture.

- FY 2007 Output - Continue operating FY 2006 spiral capability. Integrate capabilities of the U.S. Coast Guard Vessel Tracking Program, and automated anomaly and threat assessment, at key regional sites determined by architecture decisions. Conduct interim military utility assessment.

- FY 2008 Planned Output - Complete planning for network services and architecture implementation.
- FY 2009 Planned Transition Output - Transition Funds needed to maintain existing operational sites until Navy and Coast Guard Programs of Record funding in FY10. The transition funds will sustain existing capabilities, and allow establishment, maturity and spread of capability in FY10 and beyond. FY09 transition funds will also be used to maintain efforts to document authorities to operate on classified nets. Selection as core to Secretary of the Navy Maritime Domain Awareness Initiative Service Oriented Architecture enables widespread use for focusing Navy/Coast Guard maritime security efforts.

C. Other Program Funding Summary	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Advanced Concept Technology Development (ACTD) RDT&E BA 3 line # 44	158.313	1.589					
Joint Capability Technology Demonstration (JCTD) RDT&E BA3 Line#36	35.594	202.484	206.337	201.975	195.537	198.276	201.211

Comment: In FY08 all ACTD funding transfers to the JCTD program. This will complete the transition to the JCTD model that began in the FY06 President's Budget. The new JCTD Program provides a "cradle to grave" path for transformational joint capabilities. The initial funding lines (program elements (PE)) are outlined in the table below. The PEs in the table (with the exception of the ACTD BA3 PE which will fully transfer to the JCTD BA3 PE in FY08) represents the JCTD model. The model contains a BA3 development arm as well as BA4 transition arm. Under the new JCTD process, the pace of development will be accelerated to two to three years. Only the JCTDs that demonstrate the highest military utility will be considered for the transition funding in the JCTD BA4 Transition PE. Not all JCTDs require transition funding, many projects have a very clear transition path, however, some projects that demonstrate significant military utility require transition funds to "bridge" them to a program of record. Any promising remaining ACTD may receive transition funding during the transition period to the JCTD program. Beginning in FY07 all new starts will be JCTD only. Refer to the specific Budget Exhibit for more details on each funding line.

D. Acquisition Strategy Only the ACTD/JCTDs that demonstrate the highest military utility will be considered for the transition funding in this program element. The primary focus of the BA4 transition funding is to develop and refine the documentation needed to ensure a successful transition of the developed products either into existing programs of record (POR) or to develop the package necessary to establish a new POR. In very select, compelling cases, this funding may be used to correct discrepancies in products, identified during the MUA, to help ensure a smooth transition to production or operations.

In FY 2007-2010 there are several candidates for the transition bridge funds. The candidates are: Joint Distance Support and Response (JDSR); Joint Force Projection (JFP); Active Denial System (ADS); CI-HUMINT Advanced Modernization Program/Intelligence Operations (Champion); Language and Speech Exploitation Resources (LASER); Joint Modular Intermodal Distribution System (JMIDS); Hyperspectral Collection and Analysis System (HyCAS); Coalition Secure Management and Operations System (COSMOS); Mapping the Human Terrain (MAP-HT); Theater Effects Based Operations (TEBO) and Large Data.

The Joint Distance Support and Response (JDSR) ACTD has completed its demonstration phase and is entering into the transition phase of development. JDSR technology is demonstrating an extremely high military utility and is, therefore, the likely candidate for the use of the FY 2007 JCTD Transition funding. This funding will ensure JDSR transitions and fulfills a vital capability gap required by the CoCom. JDSR provides a joint, common and interoperable tele-maintenance/training environment providing end-to-end, low bandwidth reach back connectivity, customer relationship management, interoperable mobile computing devices, and case-based reasoning tools. JDSR is under the Configuration Management of the Navy.

Also in FY 07, the Language and Speech Exploitation Resources (LASER) requires funds to bridge a gap. This successful ACTD has products deployed in OIF and OEF. LASER provides the Combatant Commanders the capability to rapidly reduce the foreign language barrier across a full spectrum of DoD operations. Funds are needed to speed the transition into the SEQUOYAH program.

In FY08 there are several FY 2008 AC/JCTD candidates are under consideration for the JCTD transition funds. The candidates are the Active Denial System (ADS) which provides a long range, directed energy technology that provides is safe and effective non-lethal capability; and the Joint Modular Intermodal Distribution System (JMIDS) JCTD addresses technologies to overcome origin-to-destination cargo delivery challenges in the Defense Transportation System (DTS) and for all Services. Funds are needed for early transition to DCGS-A and fielding to OIF of the MAP-HT JCTD. The Champion ACTD requires funds for interfaces to the target POR DCGS-A.

In FY09 the Hyperspectral Collection and Analysis (HyCAS) ACTD has been selected to receive transition funding to advance Airborne Hyperspectral capabilities. Sensors associated with the HyCAS ACTD have proven effective in operational demonstrations supporting Operation Enduring Freedom (OEF). Also the Coalition Secure Management and Operations System (COSMOS) ACTD which will deliver and demonstrate information - based, information aware data sharing capability for use with Global War on Terror (GWOT) allies in coalition networks. Other probable successful candidates are: Large Data, Champion, CORSOM, JPADS, MAJIIC, TEBO, ASAP, CMA, and CJSMPT.

E. Major Performers Not applicable for this item.

OSD RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY
4 - Advanced Component Development and Prototypes (ACDP)

PE NUMBER AND TITLE
0604648D8Z - Joint Capability Technology Demonstration (JCTD)

PROJECT
P649

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
JDSR				1100							1100	
LASER				1000							1000	
PRMS				400							400	
ATL				400							400	
COSMOS				129							129	
MAP-HT					2-4Q	900					900	
JFP					2-4Q	650	2-4Q	1000	2-4Q		1650	
ADS					2-4Q	150					150	
JMIDS					2-4Q	1000		690	2-4Q		1690	
HyCAS								2000	2-4Q		2000	
Champion					2-4Q	234		300	2-4Q		534	
CORSOM								1000	2-4Q		1000	
MAJIIC								1000	2-4Q		1000	
JETA-SPOD								3000	2-4Q		3000	
OVERWATCH								1032	2-4Q		1032	
CUGR								500	2-4Q		500	
CMA								4440	2-4Q		4440	
Subtotal:				3029		2934		14962			20925	

Remarks: Only the ACTD/JCTDs that demonstrate the highest military utility will be considered for the transition funding in this program element. The primary focus of the BA4 transition funding is to develop and refine the documentation needed to ensure a successful transition of the developed products either into existing programs of record (POR) or to develop the package necessary to establish a new POR. In very select, compelling cases, this funding may be used to correct discrepancies in products, identified during the MUA, to help ensure a smooth transition to production or operations.

In FY06, the National Geospatial-Intelligence (NGA) Urban Recon (UR) ACTD was the first successful example of utilizing the BA-4 funds to migrate capabilities to a program of record (POR). Urban Recon had completed a series of demonstrations and was entering into transition. The demonstrations indicated that the data products developed had significant military utility; however, the collection systems needed refinement. As similar collection systems are currently used in operations and would benefit from these refinements, Urban Recon was selected to be the first recipient of

this transition funding, primarily due to the transformational nature of the data it provides. This funding will ensure Urban Recon concepts and products will transition and fill a vital capability gap required by the CoCom. Urban Recon is under the Program Management of USSOCOM.

In FY 2007-2010, there are several candidates for the transition bridge funds. The candidates are: Joint Distance Support and Response (JDSR); Joint Force Projection (JFP); Active Denial System (ADS); CI-HUMINT Advanced Modernization Program/Intelligence Operations (Champion); Language and Speech Exploitation Resources (LASER); Joint Modular Intermodal Distribution System (JMIDS); Hyperspectral Collection and Analysis System (HyCAS); Coalition Secure Management and Operations System (COSMOS); and Large Data.

The Joint Distance Support and Response (JDSR) ACTD is currently completing its demonstration phase and is entering into the transition phase of development. JDSR technology is demonstrating an extremely high military utility and is, therefore, the likely candidate for the use of the FY 2007 JCTD Transition funding. This funding will ensure JDSR transitions and fulfills a vital capability gap required by the CoCom. JDSR provides a joint, common and interoperable tele-maintenance/training environment providing end-to-end, low bandwidth reach back connectivity, customer relationship management, interoperable mobile computing devices, and case-based reasoning tools. JDSR is under the Configuration Management of the Navy.

Also in FY 07, the Language and Speech Exploitation Resources (LASER) requires funds to bridge a gap. This successful ACTD has products deployed in OIF and OEF. LASER provides the Combatant Commanders the capability to rapidly reduce the foreign language barrier across a full spectrum of DoD operations. Funds are needed to speed the transition into the SEQUOYAH program.

In FY08 there currently are two FY 2008 AC/JCTD candidates are under consideration for the JCTD transition funds. The candidates are the Active Denial System (ADS) which provides a long range, directed energy technology that provides is safe and effective non-lethal capability; and the Joint Modular Intermodal Distribution System (JMIDS) JCTD addresses technologies to overcome origin-to-destination cargo delivery challenges in the Defense Transportation System (DTS) and for all Services.

In FY09 the Hyperspectral Collection and Analysis (HyCAS) ACTD has been selected to receive transition funding to advance Airborne Hyperspectral capabilities. Sensors associated with the HyCAS ACTD have proven effective in operational demonstrations supporting Operation Enduring Freedom (OEF). Also the Coalition Secure Management and Operations System (COSMOS) ACTD which will deliver and demonstrate information - based, information aware data sharing capability for use with Global War on Terror (GWOT) allies in coalition networks.

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												

OSD RDT&E COST ANALYSIS (R3)

February 2008

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
4 - Advanced Component Development and Prototypes (ACDP)	**0604648D8Z - Joint Capability Technology Demonstration (JCTD)**	**P649**

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:												
Project Total Cost:				**3029**		**2934**		**14962**			**20925**	