FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: Feb 2006
Exhibit R-2

BUDGET ACTIVITY: 03
PROGRAM ELEMENT: 0603727N
PROGRAM ELEMENT TITLE: NAVY TECHNICAL INFORMATION PRESENTATION SYSTEM

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
Total PE	168,195	180,106	0	0	0	0	0
2497 JOINT EXPERIMENTATION VISUALIZATION	163,845	98,170	0	0	0	0	0
3145 JOINT COMBINED TRAINING CENTER (JCTC)	0	4,925	0	0	0	0	0
3149 JOINT TRAINING	0	23,221	0	0	0	0	0
3153 JOINT NATIONAL TRAINING CAPABILITY (JNTC)	0	46,190	0	0	0	0	0
9999 CONGRESSIONAL PLUS-UPS	4,350	7,600	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Combatant Commander (COCOM), U.S. Joint Forces Command (USJFCOM) was chartered “as the Executive Agent for conducting joint warfighting concept development and experimentation within the Department of Defense.” The Secretary of Defense signed USJFCOM’s Joint Warfighting Experimentation Charter on 15 May 1998. H8150, 22 September 1998, Sec 922, directed the establishment of Joint Warfighting Experimentation.

The globalization of technology and commerce, driven in part by the information revolution, is changing the nature and conduct of conflict by offering new means and capabilities to our adversaries. The continuing proliferation of ballistic missiles, cruise missiles, Weapons of Mass Destruction (WMD) and other technologies is providing even relatively small nations and organizations the ability to challenge the US directly and to threaten their neighbors and then attempt to deny access to US forces. Requirements associated with defense of the US are now different and there is a premium on the ability of US forces to respond more rapidly and

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decisively to emerging crises and conflicts. In an era of uncertainty, U.S. forces must be capabilities-based rather than threat-based.

The terrorist attacks on the US homeland in September 2001, and the US and allied response in Afghanistan and Iraq have underscored the new challenges that US forces will face in the coming decades in coping with the threat of terrorism and consequence of failed states. Coordinated Joint Concept Development and Experimentation (JCDE) effort is an indispensable tool to support transformational objectives and to improve US capabilities. These capabilities will ensure the nation’s ability to conduct a war on terrorism through the use of all instruments of power. This war cannot be won solely with legacy means. Development of advanced techniques, tools, and organizations to defeat terrorism and meet other new challenges of the 21st century requires new thinking and aggressive experimentation to develop alternatives and ensure the effectiveness of the future joint force.

The work of JCDE is imperative because emerging changes in the threat will not await the wholesale recapitalization of today’s force structure and because new equipment alone will not provide the capabilities needed for future forces.

COCOMs have input to the priorities for experimentation through USJFCOM's Combatant Commander Engagement program. The future of joint warfighting is the USJFCOM area of responsibility. Joint Experimentation’s purpose is to lay the foundation for national security transformation. Development of a coherent joint force starts with aggressive concept development and robust joint experimentation. USJFCOM establishes a common joint context for DOD which has already proven to be a powerful tool fostering coherence, improved stewardship and early interoperability materiel solutions that are “born joint.” Concept development, both Joint and Service, happens through intellectual exploration, focus, and partnerships.

DOD priorities supported by Joint Experimentation: a) Successfully pursue the Global War on Terrorism (GWOT); b) Strengthen joint warfighting capabilities; c) New concepts of global engagement; d) Transform the joint force; e) Homeland Security; f) Optimize intelligence capabilities; and g) Improve Department of Defense processes.

We ensure this transformation by exploring, testing, and then establishing new combinations of concepts, capabilities, people, and organizations. Through the process of discovering new capabilities, we can exploit our nation’s strengths and advantages while protecting ourselves from asymmetric forces that threaten our strategic superiority. Joint Experimentation implements this transformation mission through a process of

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discovery, innovation, concept development, and experimentation to provide for optimal joint future force capability.

The Joint Experimentation campaign focuses on developing two distinct products as the result of a two-path strategy on which we base our approach to innovation. The first path is called the Joint Prototype Pathway. This conceptual/prototypical system or doctrine evolves from concept experimentation in concert with our partners. These systems are inserted into real world situations (e.g., U.S. Forces Korea) so that we can expand the experimental ground and refine the concept/prototype at the user level to ensure the solutions work as envisioned. This path is designed to help the Department improve near-term warfighting capabilities now by taking new ideas or concepts that originate on the joint concept development pathway and converting them into physical form, as developmental prototypes. From there, these prototypes are put into the hands of joint warfighters as quickly as possible to validate the capability at the user level. While Commanders feel that a number of new concepts offer greater promise than current capabilities, they use them with the understanding that they are part of the continuing refinement process. Some aspects of these concepts were utilized in Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF).

The second path is called the Joint Concept Development Pathway. This path and its products consist of actionable recommendations that result from collaborative experimentation with new concepts and capabilities that focus on the next decade. Based on how these concepts perform at the user level, we make recommendations to senior leaders that help them decide how to invest military resources in the next decade. Work performed on the joint concept development path is dedicated to making long-term improvements to military capability, focusing on making next decade improvements to joint warfighting. Part of the campaign strategy is continuous experimentation using Combatant Commanders' exercises and operations (engagement and combat) across a Distributed Continuous Experimentation Environment (DCEE). USJFCOM designed DCEE to be a world-class resource designed to support continuous experimentation; a sophisticated network of high-tech model and simulations with a global reach, both virtual and physical. This laboratory is capable of conducting various experiments, either locally or globally and, because of this, our partners, the Services, COCOMs, allied nations, or various agencies, may participate in experiments at levels specific to their needs and interests.

For joint concept experimentation to be effective, we use four common scenarios that reflect current and future threats based on the geopolitical and military realities we see emerging between now and 2015: 1) Major Combat operations against an inaccessible adversary who presents a global WMD threat; 2) Joint operations in urban environments; 3) Operations against a non-state actor with significant regional combat capability, weapons of mass effect, and ties to global terrorist operations; and 4) Operations against a

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faltering or failing state that has regional WMD of mass effect capability. These scenarios are the basis for evaluating the major military challenges that were derived from strategic guidance and input from the Services and COCOMs. USJFCOM's efforts over the next several years will focus in particular on the following concepts: Achieving decision superiority: shared-situation understanding so that we can make decisions and take action faster than any adversary; Creating coherent effects: Harmonizing military, interagency, and multinational activities at the strategic, operational, and tactical levels against any type of adversary; Conducting and supporting distributed operations: Planning, preparing, and executing simultaneously in multiple theaters and widely distributed points of action within each theater while denying sanctuaries and protecting ourselves from Homeland to point of action.

The Management Initiative Decision (dated 12 Jan 2003) for Advanced Training Technology established the Joint National Training Capability (JNTC). The mission is to develop the capabilities that integrate live, virtual and constructive elements into a seamless joint training environment. JNTC creates joint warfighting conditions through a networked collection of interoperable training sites and nodes that synthesize personnel, doctrine and technology to achieve COCOM and service training requirements.

The Secretary of Defense Program Decision Memorandum (PDM) (dated 12 Dec 2003) tasked USJFCOM with the responsibility for maintaining Joint Simulation System (JSIMS) software and establishing a Software Support Facility (SSF) at the Joint Warfighting Center, pending the results of an Analysis of Alternatives (AoA). As a result of the AoA findings, the SSF will further develop additional enhancements to constructive simulations designed to eliminate COCOM training gaps. The center provides the joint training environment with the ability to insert emerging technology or reuse existing systems in the constructive training architecture.

PDM II of 22 December 2004 signed by the Deputy Secretary of Defense conveyed the budget decision to support Training Capability Analysis of Alternatives Joint National Training Capability (TCAoA/JNTC) for FY 2006-2011. In order to meet the current and forecast gaps in Joint and Service training, this decision incorporated: (1) enhancements to the existing and programmed constructive simulations, (2) selected alternative training methodologies, (3)an innovative acquisition prototype, (4) a comprehensive study to re-engineer joint training, and (5) a clear management and oversight structure to meet future Joint training requirements with a selection of robust training tools.

At the July 2004 Australia/US Ministerial Consultations (AUSMIN), the Secretary of Defense (SECDEF) signed an Australian – United States Joint Statement of Principles of Interoperability and affirmed the development of a Joint/Combined Training Center (Capability) (JCTC). The end-state for the JCTC is to enhance high-end

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training and enable forces to be exercised in Joint/Combined mission essential tasks in order to increase and measure operational capability and preparedness, improve interoperability, facilitate capability development by identifying specific deficiencies that occur in the gaps and seams and develop recommended solutions, and lastly enhance regional security. The JCTC will be linked to DoD's JNTC as part of the Global Joint Training Infrastructure (GJTI) via USPACOM's Gaming and Simulation Facility (GSF) and eventually USPACOM's Pacific Warfighting Center as a cooperative collection of training sites, nodes, simulations, and events.

Due to the number of efforts in this PE, the programs described herein are representative of the work included in this PE.

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B. PROGRAM CHANGE SUMMARY:

	FY 2005	FY 2006	FY 2007
FY 2006 President's Budget Submission	167,107	187,943	186,681
Congressional Action	3,000	-4,900	0
Congressional Undistributed Reductions/Rescissions	-158	-2,937	0
Congressionally Directed Transfer of JFCOM to Defe	0	0	-187,510
Execution Adjustments	2,084	0	0
FY 2005 SBIR	-3,838	0	0
Rate Adjustments	0	0	829
FY 2007 President's Budget Submission	168,195	180,106	0

PROGRAM CHANGE SUMMARY EXPLANATION:
Technical: PBD 719 move entire RDT&E funds for FY07 - FY11 to Defense-Wide.

Schedule: Not applicable.

C. OTHER PROGRAM FUNDING SUMMARY:
Not applicable.

D. ACQUISITION STRATEGY:
Not applicable.

E. PERFORMANCE METRICS:
USJFCOM Joint Concept Development and Experimentation (JCDE) transformation efforts and Campaign Plan focus on high priority tasks identified by the COCOMs and other priorities assigned to USJFCOM through the Transformation Planning Guidance (TPG) and the Chairman of the Joint Chiefs of Staff (CJCS).

Unified Command Plan 2004 (UCP04) directed USJFCOM TO “lead and coordinate the department’s experimentation activities.” Using persistent, continuous experimentation in smaller events that pull together national assets, USJFCOM is agile enough to address current and future issues. USJFCOM Modeling and Simulation Toolbox

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supplies joint and coalition tools including complex urban modeling and simulation, providing highly capable and thinking adversaries, and building stronger links with other U.S. agencies and coalition partners.

FY 2006 Priorities
- Joint Experimental Deployment and Support (JxDS): Develop a concept of operations for a logistics element that can synchronize logistics to satisfy operational taskings.
- Joint Information Superiority (JxI): Improve our ability to effectively use Information Operations (IO) and Information Dominance(ID) for the Joint Force Commander.
- Multinational Experimentation and Engagement: Improve our ability for the unified action efforts of our coalition partners.
- Security and Stability Operations: Provide the JFC the ability to expand situational security and create conditions from which stability can grow.
- Joint Urban Operations: Develop the ability for the JFC to deliver information-based precision operations and effects in the complex environment of urban terrain, including denying sanctuary in the urban setting.
- Other areas in concept development include Major Combat Operations, Strategic Deterrence, Homeland Security and Joint Forcible Entry Operations for Full Spectrum Operations.

For Joint Training Modeling and Simulations Development, the overall program goal is to develop capabilities in joint simulations to eliminate COCOM identified training gaps and to provide the joint training environment with the ability to insert emerging technology or enhance existing systems to support joint training requirements. Examples of capabilities to be developed/enhanced are common database format, terrain simulation, After Action Review process for simulation, Run Time Infrastructure component for distributed simulation, and C4I interfaces.

The JNTC will establish a robust research, development, and demonstration program to ensure that the latest S&T are incorporated quickly into Defense knowledge and superiority capabilities, as well as into globally distributed mission rehearsal and joint training systems. S&T improvements will stimulate spiral development processes in the areas of Global Joint Training Infrastructure and Advanced Training Technologies. Using database tracking and knowledge management to keep abreast of ongoing S&T programs and demonstrations, the JNTC will conduct an advanced training technology program to develop new joint training capabilities that address defined operational training requirements and known technology shortfalls.

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1. Joint Experimental Deployment and Support (JxDS)
- (JxDS) Operational Assessment Plan
- (JxDS) Training Plan for United States Forces, Korea (USFK)
- JxDS Plan for Demonstration for Reception, Staging, Onward movement and Integration (RSOI) ’06
- Finalized JxDS Concept of Operation
- JxDS for USFK (Initial Operational Capability (IOC))
- Start Transition Plan

2. Security, Stability, Transition and Reconstruction Operations
- Improve capability to plan, coordinate, and execute security, stability, transition, and reconstruction within an area of responsibility

3. Joint Urban Operations (JUO)
- Identify means and potential capabilities to deny sanctuary for irregular warfare in urban environments

4. Multinational Engagement and Experimentation
- Conduct Multi-National Experiment 4
- Improve the Multi-National information Sharing (MNIS) capability to fuse and share mission related information with multi-national (MN) and Interagency (IA) partners through policy and technology
- Improve capability to include MN and IA organizations in a coordination and collaboration process

5. Joint Mission Modeling Tools (JMMT)
- Enhance the virtual, live and constructive environment for JCD&E by adding modules to the federation that are applicable to irregular warfare and the urban terrain including political, military, economic, social, information and infrastructure (PMESII)

6. Joint Experimental Information (JxI)
- Improve integration of the elements of IO and ID

7. JNTC
- Establish collaborative agreements with external scientific and technical organizations to integrate and leverage their initiatives with ongoing JNTC efforts.
- Evaluate new and emerging industry and government technologies in the JNTC Advanced Training Technologies laboratory for transition into JNTC training architectures.

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- Perform system certification testing of training applications in support of the JNTC Accreditation Certification Programs.
- Perform RDT&E in new and emerging technologies, such as, immerse virtual technologies, story driven training, light simulation/federations, massive-multiplayer online games, training objective driven simulations, embedded training, and joint community unique simulations.

8. JCTC
- Complete the JCTC enabling study.
- Publish a JCTC CONOPS for establishing and maintaining through spiral development an integrating architecture that links Australian/US training management systems, training areas, constructive simulations, virtual simulators, headquarters, and units.
- Design the C4I architecture to connect JNTC persistent and nonpersistent sites to the future Australian JCTC Management Centre and outlying Australian training areas.

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PROGRAM ELEMENT: 0603727N PROGRAM ELEMENT TITLE: NAVY TECHNICAL INFORMATION PRESENTATION SYSTEM
PROJECT NUMBER: 2497 PROJECT TITLE: JOINT EXPERIMENTATION VISUALIZATION

COST: (Dollars in Thousands)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
2497 JOINT EXPERIMENTATION VISUALIZATION	163,845	98,170	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Joint Experimentation Campaign Plan focuses on high priority tasks assigned to USJFCOM through the DPG and the Chairman of the Joint Chiefs of Staff (CJCS) instructions on Joint Concept Development and Experimentation. Additionally the top priorities are designed to enable joint support to unified action by experimenting with concepts and prototypes that assist the department in:

1. Deter, detect, engage, and defeat asymmetric global threats.
2. Win Information Superiority fight.
3. Integrate MN capabilities to support Combined Operations.
4. Support interagency planning and execution to accomplish stability, reconstruction and transition operations.
5. Deny sanctuary to threats in complex environments.
6. Rapidly deploy, project and sustain joint capabilities on a global scale.
7. Improve methods and means to integrate and execute Joint Operations.

USJFCOM synchronized Joint and Service efforts in a “battle rhythm” that balances concept development with experimentation and smaller events that are more agile and adaptable. Unified Command Plan 2004 (UCP 2004) strengthened the JCD&E role by directing USJFCOM to “lead and coordinate the department’s experimentation activities.” Additionally, USJFCOM continues to strengthen these tools for conducting joint concept development and experimentation, including scalable parallel processing for modeling and simulation, providing highly capable and thinking adversaries through more effective red teaming initiatives, and building stronger links with other U.S. agencies and potential coalition partners.

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B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007
JOINT CONCEPT DEVELOPMENT PATHWAY	48,701	45,079	0

FY 2005 Accomplishments:

-Joint Concept Development and Experimentation emphasis for FY 2005 was developing solutions for capability gaps and providing emergent solutions for process shortcomings and operational shortfalls. Future concepts were refined, and discovered capabilities that made a difference for the Joint Task Force Commanders were rushed to the field. Emphasis was on Joint Operations Concepts; Joint Operating Concepts which includes the family of Major Combat Operations, Stability Operations, Strategic Deterrence and Homeland Security; Joint Forcible Entry Operations, Joint Urban Operations, Joint Force Projection and Sustainment for Full Spectrum Operations. These concepts focused on: a) Major Combat Operations against an adversary with a global WMD threat and robust regional anti-access capability; b) joint operations in an urban environment; c) operations against a non-state factor with significant regional combat capability, access to weapons of mass effect, and ties to global terrorist organizations; and d) operations in a faltering or failing state that has regional WMD/effects capability.

FY 2006 Plans:

-Joint Information Superiority (JxI). JFC ability to effectively use information in supporting operations is frequently challenged by existing informational means and approaches to create knowledge across the joint force.
-Multinational Interagency Coordination Group which provides JFC the ability to integrate Multinational and Coalition agencies efforts through collaborative efforts.
-Stability Operations – provide the JFC the ability to expand situational security and create conditions from which stability can grow.
-Joint Urban Operations develop the ability for the JFC to deliver information-based precision operations and effects in the complex environment of urban terrain. Includes denying sanctuary in the urban setting.
-Other areas in concept development include Major Combat Operations, Strategic Deterrence, Homeland Security and Joint Forcible Entry Operations, for Full Spectrum Operations.

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FY 2007 Plans:

-Funds transfer from NAVY to Defense-Wide beginning in FY07.

	FY 2005	FY 2006	FY 2007
JOINT NATIONAL TRAINING CENTER (JNTC) ADVANCED TRAINING TECHNOLOGIES (ATT)	44,873	0	0

FY 2005 Accomplishments:

-Performed research and development within a Live, Virtual, Constructive (LVC) distributed testbed to support the advancement of training technologies in the context of a joint integrated battlespace. The testbed operated as a Continuous Training Research and Development (R&D) Environment and provided the foundation for a distributed & deployable Mission Rehearsal System, which integrated live Intelligence, Surveillance & Reconnaissance (ISR) feeds into the Common Operational Picture (COP). The LVC testbed supported advancement of training technologies, R&D test events, experimentation and interoperability certification assessments. The testbed enabled new training CONOPS to drive efficiency into the planning and conducting of complex joint training events. It also provided capability to identify, evaluate, and solve training system shortfalls. This testbed has been established as a laboratory at USJFCOM and will draw on other facilities through distributed communication links.
-Performed development of Joint Rapid Distributed Database Development System (JRD3S) Initial Capabilities Document (ICD) in support of JCIDS process. Designed, developed, tested and evaluated JRD3S proof of concept.
-Prototyped a knowledge management framework that provides access to digital libraries and distributed learning centers in the centers of excellence to support Standing Joint Force Headquarters training and mission rehearsal.
-Developed a real world database and distribution system for geospatial intelligence data and force data sharing to facilitate training and mission rehearsal capability.
-Developed Opposing Forces (OPFOR) Threat systems to include Service instrumentation, interoperability standards, weapons models, simulated terrain, and virtual training capabilities.
-Developed a joint training Collaborative Information Environment (CIE) Initial Operating Capability (IOC).
-The increase in budget from FY04 to FY05 enabled JNTC to stand up the Joint Advanced Training Technologies Laboratory (JATTL) and the initial contractor support services necessary to establish, operate and maintain the robust RDT&E environment to support the JNTC certification program, “to be” standards and architecture identification and development, and support multiple R&D projects in technical focus areas such as;

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networking, joint command & control, instrumentation, data collection, after action review, opposing forces technologies, LVC technologies, knowledge management, information management, and training systems operations research.

FY 2006 Plans:

Funding realigned to Project 3153.

FY 2007 Plans:

Funds transfer from Navy to Defense-Wide beginning in FY07.

	FY 2005	FY 2006	FY 2007
JOINT EXECUTABLE CONCEPT REFINEMENT	29,018	32,132	0

Previously known as Standing Joint Force Headquarters (SJFHQ) Enabling Concept in the FY 2005 President's Budget. The title was changed to eliminate confusion with work being done by the Joint Battle Center to support the Standing Joint Forces HQ Interoperability Technical Demonstration Center (ITDC).

FY 2005 Accomplishments:

-During FY 2005 USJFCOM coordinated the Department’s concept development and experimentation refinement efforts.
-USJFCOM worked with national and multinational partners to develop integrate, interoperable, and interdependent military forces that are capable of supporting the GWOT. This included moving the Collaborative Information Environment, Operational Net Assessment and Joint Interagency Control Group, Joint Fires Initiative Block 1 and Logistics Common Relevant Operational Picture to Programs of Record for fielding and lifecycle management.
-New efforts for executable concept refinement experimentation consisted of: Knowledge Advantage, Multinational Information Sharing, Multinational Interagency Group, and Multinational Experiment 4.

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FY 2006 Plans:

-Continue concept refinement activities and identify capabilities mature enough for insertion into COCOM's infrastructure to evaluate capabilities in real world operational environments. USJFCOM goal is to identify maturing applications through experimentation spirals and move them forward into real world situations to provide an increased capability for joint warfighting.
-Knowledge Advantage: Ability to synthesize information into a construct that provides the JFC a strategic and operational edge.
-Multinational and Coalition Information Sharing: Synthesis and multi level stratified information sharing applications through portal technology.
-Multinational Forces: Iraq Portal deployed and utilized in Iraq.
-Multinational Interagency Group: Current methodologies for interagency coordination and information sharing will not support Joint Force operations across the full spectrum of engagement and leveraging to include non governmental and multinational agencies for Diplomatic, Information, Military and Economic (DIME) applications.
-Expand and continue multinational experimentation for multinational and coalition integration and operations coherently across the JFC operational needs.
-Multinational Experiment 5: Expand and continue multinational and coalition integration and operations coherently across the JFC's operational needs.

FY 2007 Plans:

-Funds transfer from NAVY to Defense-Wide beginning in FY07.

	FY 2005	FY 2006	FY 2007
JOINT SIMULATION SYSTEM (JSIMS)	13,790	0	0

* Funds realigned from PE 0603757N in FY 2005 and out.
* Funds realigned to Project 3149 in FY 2006.

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FY 2005 Accomplishments:

-Based upon findings from the recent Training Capabilities AoA, JWC developed additional enhancements to constructive simulations designed to eliminate training gaps identified in the needs analysis. Additionally, funds development and integration efforts were developed to close COCOM training gaps in the constructive modeling and simulation environment. The focus of these enhancements was on high priority needs such as: mission rehearsal support by improving rapid database development, replication of non-kinetic processes, building adaptable constructive training systems, enhancing strategic context, support for multi-echelon training, and emerging concepts and missions. This increased capabilities to support Joint training requirements quickly by providing JFCOM the ability to insert an emerging technology or reuse existing systems in the constructive training architecture. These enhancements reduced long-term life cycle costs; increase scalability, composability, and reliability by focusing development efforts. Joint training requirements drove capabilities development within the joint training federations. The training simulations included representations and products from the intelligence community that will incorporate intelligence as part of the warfighting/training audience. Funding for the limited simulation enhancement begins to close training gaps in the training environment by eliminating unnecessary redundancy, incorporating automated tools, and increasing commonality in the Joint training simulation toolkit. The JWC Joint Development and Integration and Software Support Facilities performed software Configuration Management (CM) which ensures users are operating the most current versions of simulation software in Joint Exercises. The CM team documented upgrades/fixes to the software and publish those changes to the user community at large. Real-time technical support to Joint Exercise and other training or testing events were provided to insure the Joint training federations operate as delivered, taking steps to correct real-time problems that arise. Specific training (technical and operational) was provided to users prior to conducting a Joint Federation-driven Joint Exercise. Periodic upgrade training was provided to user sites, and training was provided for periodic model testing events, as required. The facilities maintained and controlled all Joint models and federation software and documentation in a central location (resource repository) and served as an archive for historical documentation. Perfunctory Software administrative support (considered specialized and technical) was provided to the above functions, to include organic security and engineering expertise.

FY 2006 Plans:

Funding realigned to Project 3149.

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FY 2007 Plans:

Funding transfer from Navy to Defense-Wide beginning in FY07.

	FY 2005	FY 2006	FY 2007
JOINT DEPLOYMENT, EMPLOYMENT AND SUSTAINMENT (JDES)	8,290	8,604	0

FY 2005 Accomplishments:

-Continued JDES initiatives focused on next near term ready applications and next decade capabilities. Joint Force Projection and Sustainment allowed the deployment, employment and sustainment of joint forces conducting distributed and non-contiguous operations, in an anti-access or area denial environment.
-Developed Joint Basing Alternatives: Provided a mix of alternative solutions to the JFCs that increased options for supporting distributed operations under various conditions. Currently the JFC does not have adequate force projection and sustainment alternatives in anti-access conditions. Distributed operations requires capabilities that include extended operational reach, overseas basing, and joint sea basing to provide alternative approaches to force projection and sustainment of the joint force.

FY 2006 Plans:

-Begin design work on a “blank sheet of paper” next generation logistics system. Construct is to work a new process, procedure and system that is not bogged down by the non-integrated multiple logistics systems currently in place.
-Continue efforts to meet Basing Alternatives, Force Projection, and Sustainment.
-Provide focused logistics concept development for operating in an adaptive, elastic and ubiquitous distribution-based sustainment system along with the required information architecture to provide and receive time-definite support measured in hours, not days and weeks. Establish a joint sustainment force that is rapidly deployable, fully capable, immediately employable, and responsive to supported forces.
-Joint Experimental Deployment and Sustainment: Develop a construct for joint force asset visibility allowing adaptive planning and application of the joint force as well as ensure sustainment operations occur logically and timely.
-Joint Deployment Systems Business Process Reengineered Prototype Implementation: Process workflow portal to manage the deployment and sustainment of forces for 1) increased effectiveness to deploy and sustain forces in execution of joint operations; 2) enterprise application integration platform to share data and tools and 3)

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established functional and technical development “battle rhythm” to delivery rapid operational spirals providing enhanced transformation change solution sets to the warfighter every 9-12 months.
-Joint Deployment Data Transparency: Develop the start point for joint deployment common data model/data standards, and Extensible Machine Language (XML) data schema for shared data and increased system to system interoperability, and provide the strategic framework to plan, influence acquisition, and sustain Joint Deployment Capability for the development and management execution of an Integrated Master Plan and Integrated Master Schedule.

FY 2007 Plans:

-Funds transfer from NAVY to Defense-Wide beginning in FY07.

	FY 2005	FY 2006	FY 2007
INTEGRATION WITH OTHER REGIONAL COMBATANT COMMANDERS, MILITARY SERVICES AND AGENCIES	7,254	7,971	0

FY 2005 Accomplishments:

-Applied joint context to assist in developing and defining joint operation concepts used by Joint, Interagency and Multinational warfighting community. Key venues for incorporating these integration activities include Pinnacle Impact, Unified Quest, Unified Course, Thor’s Hammer, Unified Engagement, Joint Urban Warrior, Multinational Experiment 4, and Sea Viking. This approach ensured common, consistent and transparent joint data, tools, services, joint analysis and metrics. Areas under consideration and evaluation include Interagency Incident Management Teams, Global Architecture Intelligence, and incorporation of Department of State support to operations.

FY 2006 Plans:

-Continue all efforts of FY 2005.
-Ensure all joint warfighting capability needs of combatant commanders are addressed in experimentation efforts.
-Identify emerging capability gaps identified by ongoing operations.

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PROJECT NUMBER: 2497 PROJECT TITLE: JOINT EXPERIMENTATION VISUALIZATION

FY 2007 Plans:

-Funds transfer from NAVY to Defense-Wide beginning in FY07.

	FY 2005	FY 2006	FY 2007
INNOVATION AND EXPLORATION	6,737	7,766	0

FY 2005 Accomplishments:

-Expanded efforts to tie department joint science and technical efforts to identified joint warfighting capabilities gaps.
-Continued using the analytical model to rapidly assess new ideas. Innovation and exploration efforts continued for 2025-2040 timeframe. Investigation continued in areas of application of nano-biotechnology, knowledge workers, unmanned effects, and multinational information sharing, among others.

FY 2006 Plans:

-Continue to expand efforts to tie Department Joint science and technical efforts to identified joint warfighting capabilities gaps.
-Investigate in areas of application, such as swarming entities, use of compressive receivers in detecting and locating “hard-to-get” threat emitters, medical operations transformation, and pattern recognition for time-critical targeting, near space applications, special weapons and effects assessment.

FY 2007 Plans:

-Funds transfer from NAVY to Defense-Wide beginning in FY07.

BUDGET ACTIVITY: 03
PROGRAM ELEMENT: 0603727N PROGRAM ELEMENT TITLE: NAVY TECHNICAL INFORMATION PRESENTATION SYSTEM
PROJECT NUMBER: 2497 PROJECT TITLE: JOINT EXPERIMENTATION VISUALIZATION

	FY 2005	FY 2006	FY 2007
MULTI-NATIONAL AND COALITION CONCEPT DEVELOPMENT	5,182	5,351	0

FY 2005 Accomplishments:

-Developed experimental concept integration with operational partners.
-Continued exploring the MN concept of operations, engagement, education and collaboration with our MN partners. USJFCOM continued to increase the visibility of our MN partners needing access to vital information and emphasizing system technology improvements in MLS. USJFCOM will be expanding the current experiment audience beyond the MN Interoperability Council members (current members include: Australia, Canada, France, Germany, United Kingdom and North Atlantic Treaty Organization). Potential additional countries include Finland, Sweden, and Japan among others.

FY 2006 Plans:

-Build upon lessons learned from real world and experimental coalition experimentation. Work on Content-Based Information Security and other options to fully engage our partners in the ways and means of joint/coalition warfighting. MN experimentation efforts will include work with other nations to identify and support coalition operations with leading technology or innovations from their national capabilities to export across the coalition collaborative needs.

FY 2007 Plans:

-Funds transfer from NAVY to Defense-Wide beginning in FY07.

C. OTHER PROGRAM FUNDING SUMMARY:
Not applicable.

D. ACQUISITION STRATEGY:
Not applicable.

FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: Feb 2006
Exhibit R-2a

BUDGET ACTIVITY: 03
PROGRAM ELEMENT: 0603727N PROGRAM ELEMENT TITLE: NAVY TECHNICAL INFORMATION PRESENTATION SYSTEM
PROJECT NUMBER: 3145 PROJECT TITLE: JOINT COMBINED TRAINING CENTER (JCTC)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
3145 JOINT COMBINED TRAINING CENTER (JCTC)	0	4,925	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: At the July 2004 Australia/U.S. Ministerial Consultations (AUSMIN), the SECDEF signed an Australian – United States Joint Statement of Principles of Interoperability and affirmed the development of a Joint/Combined Training Center (Capability) (JCTC). The end-state for the JCTC is to enhance high-end training and enable forces to be exercised in Joint/Combined mission essential tasks in order to increase and measure operational capability and preparedness, improve interoperability, facilitate capability development by identifying specific deficiencies that occur in the gaps and seams and develop recommended solutions, and lastly enhance regional security. The JCTC will be linked to DoD's Joint National Training Capability (JNTC) as part of the Global Joint Training Infrastructure (GJTI) via USPACOM's Gaming and Simulation Facility (GSF) and eventually USPACOM's Pacific Warfighting Center as a cooperative collection of training sites, nodes, simulations, and events.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007
JOINT COMBINED TRAINING CENTER (JCTC)	0	2,090	0

FY 2006 Plans:

-Program Study and/or a series of Planning and Design studies of desired capabilities as described in JCTC Scoping Study.
-Connectivity between USPACOM and Australia JCTC Management Center (ADFWC).
-Prepare ranges as described in JCTC Scoping Study to support Proof of Concept during Talisman Saber 07.
-Lease, borrow, and transport architecture elements of a deployable and/or permanent Live and Constructive environments to support Proof of Concept during Talisman Saber 07.

BUDGET ACTIVITY: 03
PROGRAM ELEMENT: 0603727N PROGRAM ELEMENT TITLE: NAVY TECHNICAL INFORMATION PRESENTATION SYSTEM
PROJECT NUMBER: 3145 PROJECT TITLE: JOINT COMBINED TRAINING CENTER (JCTC)

FY 2007 Plans:

-Funds transfer from NAVY to Defense-Wide beginning in FY07.

C. OTHER PROGRAM FUNDING SUMMARY:
Not applicable.

D. ACQUISITION STRATEGY:
Not applicable.

FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: Feb 2006
Exhibit R-2a

BUDGET ACTIVITY: 03
PROGRAM ELEMENT: 0603727N PROGRAM ELEMENT TITLE: NAVY TECHNICAL INFORMATION PRESENTATION SYSTEM
PROJECT NUMBER: 3149 PROJECT TITLE: JOINT TRAINING

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
3149 JOINT TRAINING	0	23,221	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Secretary of Defense PDM (dated 12 Dec 2003) tasked USJFCOM with the responsibility for maintaining JSIMS software and establishing a SSF at the JWFC, pending the results of an AoA. As a result of the AoA findings, JWFC will fund development capabilities in joint simulations to eliminate COCOM identified training gaps. The center provides the joint training environment with the ability to insert emerging technology or enhance existing systems in the constructive training architecture. In accordance with UCP 04, JWFC-JFCOM leads the development and operation of systems and architectures that directly support distributed joint training requirements of other COCOMs, Joint Task Forces (JTFs) and Defense Agencies.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007
JOINT SIMULATION SYSTEM (JSIMS)	0	12,821	0

* FY 2005 was funded under Project 2497.
* Funding was realigned from PE 0603757N in FY 2005 and out.

FY 2006 Plans:

-Continue all efforts of FY 2005 (Project 2497) to develop and enhance capabilities in constructive simulations to support Joint training.

FY 2007 Plans:

-Funds transfer from NAVY to Defense-Wide beginning in FY07.

BUDGET ACTIVITY: 03
PROGRAM ELEMENT: 0603727N PROGRAM ELEMENT TITLE: NAVY TECHNICAL INFORMATION PRESENTATION SYSTEM
PROJECT NUMBER: 3149 PROJECT TITLE: JOINT TRAINING

	FY 2005	FY 2006	FY 2007
TRAINING CAPABILITY ANALYSIS OF ALTERNATIVES JOINT NATIONAL TRAINING CAPABILITY (TCAOA/JNTC)	0	4,502	0

FY 2006 Plans:

-Initiate and conduct a proof of principle test, initially deliver this capability to two COCOMs. This effort will provide organic Observer/Trainers and training support tools to the COCOMs in order to execute their statutory requirement to conduct individual and staff training for assigned forces. Current Joint training is centered on exercises supported by federations of Joint and Services constructive simulations. Additionally, COCOMs require resources to plan, execute, and assess training for the individuals and staffs of Joint Force Commands, Standing Joint Force Headquarters, and Joint Task Forces.
-Initiate and conduct a limited three-year prototype to explore innovative acquisition strategies, which can provide a model for more cost effective acquisition of training tools and contractor support services.

FY 2007 Plans:

-Funds transfer from NAVY to Defense-Wide beginning in FY07.

C. OTHER PROGRAM FUNDING SUMMARY:
Not applicable.

D. ACQUISITION STRATEGY:
Not applicable.

FY 2007 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: Feb 2006
Exhibit R-2a

BUDGET ACTIVITY: 03
PROGRAM ELEMENT: 0603727N PROGRAM ELEMENT TITLE: NAVY TECHNICAL INFORMATION PRESENTATION SYSTEM
PROJECT NUMBER: 3153 PROJECT TITLE: JOINT NATIONAL TRAINING CAPABILITY (JNTC)

Project Number & Title	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate
3153 JOINT NATIONAL TRAINING CAPABILITY (JNTC)	0	46,190	0	0	0	0	0

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Management Initiative Decision 906 (dated 12 Jan 2003) directed US Joint Forces Command (USJFCOM) to establish the Advanced Training Technologies (ATT) group to support JNTC operations. The mission is to develop the robust RDT&E capabilities that integrate Live, Virtual and Constructive (LVC) elements into a seamless joint training environment. JNTC creates joint warfighting conditions through a networked collection of interoperable training sites, ranges and nodes that synthesize personnel, doctrine and technology to deliver and achieve “Joint Context” to COCOM and Service training requirements.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2005	FY 2006	FY 2007
JOINT NATIONAL TRAINING CENTER (JNTC) ADVANCED TRAINING TECHNOLOGIES (ATT)	0	46,190	0

* FY 2005 was funded under Project 2497.

FY 2006 Plans:

-Continue all efforts of FY 2005 (Project 2497) except work on CIE.
-Develop Joint After Action Review tool set.
-Integrate AF/Navy P5 instrumentation capability into joint training environment.
-Enhance and integrate space domain representations into joint training environment.
-Develop and integrate CBRNE capability into joint training environment.
-Perform RDT&E in new and emerging technologies, such as, immerse virtual technologies, story driven training, light simulation/federations, massive-multiplayer online games, training objective driven simulations, embedded training, and joint community unique simulations.
-Perform migration testing of training applications to Global Information Grid infrastructure.

BUDGET ACTIVITY: 03
PROGRAM ELEMENT: 0603727N PROGRAM ELEMENT TITLE: NAVY TECHNICAL INFORMATION PRESENTATION SYSTEM
PROJECT NUMBER: 3153 PROJECT TITLE: JOINT NATIONAL TRAINING CAPABILITY (JNTC)

FY 2007 Plans:

-Funds transfer from NAVY to Defense-Wide beginning in FY07.

C. OTHER PROGRAM FUNDING SUMMARY:
Not applicable.

D. ACQUISITION STRATEGY:
Not applicable.

BUDGET ACTIVITY: 03
PROGRAM ELEMENT: 0603727N PROGRAM ELEMENT TITLE: NAVY TECHNICAL INFORMATION PRESENTATION SYSTEM
PROJECT NUMBER: 9999 PROJECT TITLE: Congressional Plus-Ups

CONGRESSIONAL PLUS-UPS:

	FY 2005	FY 2006
JOINT EXPERIMENTATION VISUALIZATION	0	2,000

Funds in support of Joint Experimentation Visulaization resources.

	FY 2005	FY 2006
LOCATION SPECIFIC DIGITAL FINGERPRINTING (LSDF)	1,446	0

The Location Specific Digital Fingerprint (LSDF) was a digital authentication tool that destroyed the capabilities of hacker tools by introducing physics into the computer security equation and offered true security for both wired and wireless networks. In addition to providing unpredictable random numbers that cannot be tracked by hackers, the LSDF also yielded specific information about the environment around a computer which allowed the identification of the space around it. The LSDF system allowed the introduction of the strongest security and access control required by the government for use in National Security Systems and has significant positive impacts in protecting U. S. critical infrastructure.

	FY 2005	FY 2006
MODELING AND SIMULATION FOR URBAN OPERATIONS	0	5,600

Funds in support of Modeling and Simulation for Urban Operations resources.

	FY 2005	FY 2006
PLAYAS TECHNICAL INSTRUMENTATION NETWORK DESIGN AND DEVELOPMENT	2,904	0

The New Mexico Institute of Mining and Technology (NM Tech) Director, Energetic Materials Research and Testing Center (EMRTC) worked with JNTC on the “Playas Instrumentation Network Design and Development.” This related to the town of Playas, NM, recently acquired by NM Tech. The town is being converted into a training and RDT&E complex, initially supporting training by the Department of Homeland Security, and also supporting urban operations training for an Army Stryker brigade (172nd Infantry Brigade) preparing for deployment to Iraq.

BUDGET ACTIVITY: 03
PROGRAM ELEMENT: 0603727N PROGRAM ELEMENT TITLE: NAVY TECHNICAL INFORMATION PRESENTATION SYSTEM
PROJECT NUMBER: 9999 PROJECT TITLE: Congressional Plus-Ups

JNTC equity in this project was focused on the requirement for interoperability of distributed instrumentation systems. Interoperability requirements can and will be folded into the development of the Instrumentation Network Master Plan. This addressed instrumentation in the Urban Environment and interagency efforts within the scope of training transformation. JFCOM worked with the project execution organizations to ensure that products and activities were integrated into the overall JNTC effort and are compatible with JNTC standards in support of interoperability.