FY 2005 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: Feb 2004
Exhibit R-2

BA: 03 PROGRAM ELEMENT: 0603727N
PROGRAM ELEMENT TITLE: JOINT EXPERIMENTATION

COST: (Dollars in Thousands)

Project Number & Title	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate
R2497 Joint Experimentation	101,816	137,315	167,626	173,292	171,693	161,539	161,451
Totals	101,816	137,315	167,626	173,292	171,693	161,539	161,451

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Combatant Commander, U.S. Joint Forces Command (C/C 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 the U.S. Joint Forces Command's Joint Warfighting Experimentation Charter on 15 May 1998. H8150, 22 September 1998, Sec 922, directed the establishment of Joint Warfighting Experimentation.

Each Combatant Commander (C/C) has input to the priorities for experimentation through the U.S. Joint Forces Command Combatant Commander Engagement program. The future of joint warfighting is the U.S. Joint Forces Command's 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. U.S. Joint Forces Command establishes a common joint context for the Department of Defense, which has already proven to be a powerful tool that fosters coherence, improved stewardship and early interoperability materiel solutions "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; 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 discovery, innovation, concept development, and experimentation to provide for optimal joint future force capability.

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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 and Operation Iraqi Freedom.

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. U.S. Joint Forces Command designed the Distributed Continuous Experimentation Environment 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, Combatant Commanders, 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 weapon of mass destruction 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 faltering or failing state that has regional weapons of mass destruction 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 combatant commands.

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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.

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

PROGRAM CHANGE SUMMARY:

	FY 2003	FY 2004	FY 2005
FY 2004-2005 President's Budget Submission	95,512	151,058	162,105
Cong. Rescissions/Adjustments/Undist.Reductions	0	-1,741	0
Congressional Actions	0	-12,000	0
JNTC Operations	8,800	0	0
Inflation Savings	0	0	-544
JFCOM PE Realignment	0	0	766
Rate Adjustments	0	-2	-1
SBIR Assessment	-2,496	0	0
Training Transformation	0	0	5,300
FY 2005 President's Budget Submission	101,816	137,315	167,626

PROGRAM CHANGE SUMMARY EXPLANATION:
Technical: Not applicable.

Schedule: Not applicable.

FY 2005 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: Feb 2004

Exhibit R-2a

BA: 03 PROGRAM ELEMENT: 0603727N PROGRAM ELEMENT TITLE: JOINT EXPERIMENTATION

PROJECT NUMBER: R2497 PROJECT TITLE: Joint Experimentation

COST: (Dollars in Thousands)

Project Number & Title	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate
R2497 Joint Experimentation	101,816	137,315	167,626	173,292	171,693	161,539	161,451

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Joint Experimentation Campaign Plan focuses on high priority tasks assigned to U.S. Joint Forces Command (USJFCOM) through the Defense Planning Guidance (DPG) and the Chairman of the Joint Chiefs of Staff (CJCS) Instructions on Joint Concept Development and Experimentation which direct USJFCOM to continue development and refinement of, and experimentation with, Rapid Decisive Operations (RDO) as an integrating concept supported by eight functional concepts that provide critical capabilities for Rapid Decisive Operations. These functional concepts are: Knowledge Centric Command and Control (K/C2) comprised of: Common Relevant Operational Picture (CROP), Adaptive Joint Command and Control (AJC2), and Joint Interactive Planning (JIP); Focused Logistics (FL); Information Operations (IO); Assured Access (AA); Strategic Deployment (SD); Operational Net Assessment (ONA); Joint Intelligence, Surveillance and Reconnaissance (JISR); and Effects-Based Operations (EBO).

In FY 2003, USJFCOM moved to a continuous experimentation environment. USJFCOM accelerated the Impact/Vision Experiments as a continuous experimentation pathway in addition to the Joint Prototype Pathway for Standing Joint Force Headquarters (SJFHQ) enabling concepts. A series of experiments addressed the challenges of Rapid Decisive Operations -- Next Decade, Joint Operations Concept (JOpsC), and subordinate Joint Operating Concepts (JOC) to integrate concepts in FY 2015 and beyond. The Impact/Vision experiments provide the joint context for exploring how well these future concepts work together to transform joint military capabilities at the operational level of war. In the Campaign Plan 2003, the Combatant Commander of USJFCOM directed that concepts relating to Joint Command and Control meet the Chairman’s goal of having a Standing Joint Force Headquarters capability for the Combatant Commanders by 2005. 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. 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.

USJFCOM efforts over the next several years will focus in particular on two paths: the Joint Prototype Pathway, which is aimed at improving warfighting capabilities now, maturing capabilities through developmental prototyping activities by putting concepts at the user level for refinement efforts; and the Joint Concept Development Pathway, which is aimed at developing future warfighting capabilities. Developing the enabling concepts for Standing Joint Force Headquarters (SJFHQ) on the Joint Prototype Pathway addresses the first two of four transformation pillars identified in the Quadrennial Defense Review, and meets specific guidance from the Secretary of Defense and the Chairman Joint Chiefs of Staff.

B. ACCOMPLISHMENTS/PLANNED PROGRAM:

	FY 2003	FY 2004	FY 2005
Joint Concept Development Pathway	54,606	47,775	51,191

This includes Joint Capstone Concept (JCC), Impact and Vision Experiment Series, Knowledge Centric Command & Control (K/C2), Limited Objective Experiments (LOE), Concept Development, and Multi-national and Coalition Concept Development previously in the FY 2004 President's Budget.

FY 2003 Accomplishments:

During FY 2003 USJFCOM initiated work on future concepts in the FY 2015 timeframe and out. Efforts for the year included Pinnacle Impact 2003, which focused on addressing the 18 issues identified by Regional Combatant Commanders.

Achieving Decision Superiority	**Creating Coherent Effects**	**Conducting & Supporting Distributed Operations**
1. Achieving info superiority (anticipatory understanding)	1. Info operations and info assurance	1. Force projection: Deployment, Employment and Sustainability
2. Decision making in a Collaborative Information Environment	2. Joint maneuver and strike: a. Global b. Operational c. Tactical	2. Force protection and base protection
3. Coalition and interagency info sharing	3. Interagency operations	3. Counter anti-access and area-denial (includes Forcible Entry Ops)
4. Global integration	4. Multinational operations	4. Low density high demand assets

5. JISR	5. Precise effects	5. Proper decentralization
	6. Urban operations	
	7. Deny sanctuary	
	8. Transition operations	

FY 2004 Plans:

- Joint Operations Concepts (JOpsC): Describes how the Joint Force intends to operate within the next 15 to 20 years. We link strategic guidance with the conceptual framework to guide future joint operations and joint, Service, combatant command and combat support defense agency concept development and experimentation, and the foundation for the development and acquisition of new capabilities.
- Major Combat Operations (MCO): Communicates a more specific vision of how a Joint Force Commander will integrate multiple functional concepts within a coherent warfighting strategy that addresses conflicts ranging between nuclear war and peacekeeping.
- Stability Operations: Addresses activities that precede and follow conflict. This concept will directly affect future doctrine development, the aforementioned functional concepts, and support the further development of recommendations.
- Joint Urban Operations (JUO): Developing operational capabilities for warfighting in urban terrain impacting maneuver, engagement and force protection.
- Strategic Deterrence (SD): Strategy that addresses activities designed to deter aggression or coercion, including counter-proliferation efforts, defense against weapons of mass destruction, overseas presence, peacetime military engagement, and both nuclear and non-nuclear strikes.
- Joint Concept Development: Strengthens joint warfighting capabilities and transforms the joint force and wins the global war on terrorism with JOpsC and subordinate Joint Operating Concepts (JOC), development and implementation of the CJCS directed Standing Joint Force Headquarters (SJFHQ) and its enabling concepts, and development and implementation of the DPG 04-09 directed Joint National Training Capability (JNTC). Development of the JOpsC and subordinate JOCs are critical to transformation of the Department. The TPG states the transformation of how we fight "hinges on the development of future joint warfighting concepts" and the ongoing reform in the acquisition process will allocate resources based on these joint operating concepts.

FY 2005 Plans:

USJFCOM Joint Concept Development Pathway continues to refine future concepts in the 2015 timeframe and out.

	FY 2003	FY 2004	FY 2005
JNTC Advanced Training Technologies (ATT)	8,800	27,100	46,747

FY 2003 Accomplishments:

The Joint National Training Capability began RDT&E efforts in FY 03 to move towards the goal of an Initial Operating Capability by October 04 as is articulated in DPG 04 and the DEPSECDEF approved Training Transformation Plan. Three major focus areas were undertaken, Modeling and Simulation Improvements, Range Integration, and Development of Virtual Capabilities for future use in the Joint National Training Capability. The development of a "Federated Object Model" enables future joint training that can join the current service specific models for their warfare areas. Range integration allows the fusion of live, virtual and constructive (LVC) capabilities to increase the complexity of joint training problems to emulate real world capabilities. Finally significant investments were made with each of the Services to enable various platform virtual simulators to be used in joint training exercises. These successful activities are a precursor to expanding joint training to the tactical level and enabling JFCOM to train like it fights as was directed by the SECDEF.

FY 2004 Plans:

- Establish an architecturally based systems engineering process to systematically progress from requirements analysis, through architecture development, system design, capability development and integration, testing, certification and deployment. This function includes the definition of required standards and interfaces for operation of JNTC infrastructure/capabilities and the implementation of a Collaborative Information Environment.
- Define, develop and model the JNTC Operational, System and Technical Architectures for a distributed training capability designed to execute Joint Tactical Task-based joint training events. The architecture development will form the technical framework from which JNTC infrastructure and its interfacing systems will be designed/integrated. The Operational Architecture will organize and model system requirements. The System Architecture will translate Logical Nodes and packages of requirements to JNTC Physical Nodes and system Configuration Items (CIs) (i.e. sites, products and applications). The Technical Architecture will furnish the standards and technical interfaces for integration of JNTC systems.
- Establish a prototype Collaborative Information Environment (CIE) designed to support; 1) an Operational Collaborative Environment in which USJFCOM, Combatant Commands, Services, and Components can participate in the development of coordinated training plans, event planning and cooperative execution of the Joint Event Life Cycle; 2) a Technical Collaborative Environment for the concurrent development of JNTC software and

hardware; and 3) an Event Execution Collaborative Environment for the conduct of distributed joint training events.
- Develop an operational information management/knowledge management plan that serves the needs of JNTC.

FY 2005 Plans:

- Perform experimental testing with a LVC distributed testbed to support the conduct of distributed training events in the context of the joint integrated battlespace. The testbed will operate as a Continuous Training Environment and provide the foundation to a deployable Mission Rehearsal System. The LVC testbed will support joint training events, Research and Development (R&D) test events and interoperability certification assessments. The testbed will enable new training CONOPS to drive efficiency into the planning and conduct of complex joint training events. It will also provide capability to identify, evaluate and solve training system shortfalls.
- Prototype 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.
- Develop a real world database for geography and forces to facilitate mission rehearsal capability.
- Develop OPFOR Threat systems to include Service instrumentation, interoperability standards, weapons models and simulated terrain, and virtual training capabilities.

	FY 2003	FY 2004	FY 2005
Standing Joint Force Headquarters Enabling Concepts	28,810	31,288	33,524

FY 2003 Accomplishments:

Prototype concepts were inserted into Regional Combatant Commands (RCCs) to refine the concepts at the user level in real world environments. These enabling concepts are as follows:
- Collaborative Information Environment (CIE): Facilitates information and knowledge exchange among members of the joint force and its supporting organizations, thereby providing warfighters with the ability to share information and ideas, to reduce planning times and to enhance operational effectiveness. CIE permits joint force commanders and their staffs to plan interactively in an information-rich, shared environment, enabling them to collaborate with supporting organizations wherever they are located. Decision-makers and planners will overcome geographic separation to access relevant information sources and decision support systems.
- Operational Net Assessment (ONA): A continuous, dynamic, system of systems analysis of the enemy’s total war-making capability providing the joint force a comprehensive analysis of the extended battlespace. Conducted through reach-back to a national network of centers of excellence giving the combatant commander

access to the full capabilities of US interagency community, non-governmental and possibly, to allied and coalition partners. It identifies those capabilities, assets, connections, loyalties, networks, and other assets (both physical and non-physical) that are important and most valuable to the adversary and ONA. The ONA capabilities are available to the entire national force, including all of the elements of national power that can be leveraged. The ONA provides the commander with a set of effects-based courses of action from which to choose for implementation.
– Effects-Based Operations (EBO): Views the adversary and battlespace "holistically" as an integrated "system-of-systems." It leverages networked knowledge and understanding of the adversary and battlespace environment to translate policy into actions to create a desired end state, and seeks to match, coordinate, and synchronize the best combination of military actions to support the interagency actions required to generate the effects necessary to achieve our national aims.
- Joint Interagency Coordination Group (JIACG): A multi-functional advisory element on the Combatant Commander's staff that facilitates information sharing across the interagency community through habitual collaboration to integrate campaign-planning efforts between the strategic and operational levels across all U.S. government agencies.
- Joint Fires Initiative (JFI): Encompasses products that describe a jointly integrated/interoperable fires and fire support prosecution capability. JFI coordinates the efforts of various DoD fires and fire support efforts towards a single jointly interoperable set of functionalities and processes from operational to tactical levels with a common set of automated functionalities and processes.
- Joint Intelligence, Surveillance, and Reconnaissance (JISR): A network-centric approach that transforms inter-agency, all source intelligence, surveillance, and reconnaissance to support the knowledge demands emerging from joint, component, service, and multinational needs.

FY 2004 Plans:

USJFCOM Joint Prototype Path continues to refine the enabling concepts to support the Chairman Joint Chief of Staff's (CJCS) direction to establish an operable Standing Joint Force Headquarters (SJFHQ) by 2005 for each of our Combatant Commanders and to develop next decade warfighting capabilities.

FY 2005 Plans:

USJFCOM Joint Prototype Path continues to refine forthcoming enabling concepts from the Joint Concept Development Pathway in order to ensure U.S. military superiority into the 21st century.

	FY 2003	FY 2004	FY 2005
Standing Joint Force Headquarters (SJFHQ) Interoperability Technology Demonstration Center (ITDC)	0	10,000	13,500

FY 2003 Accomplishments:

Not applicable.

FY 2004 Plans:

Interoperability Technology Demonstration Center (ITDC) will demonstrate the five categories of operational, system of systems, technical, software, and procedural interoperability of selected new programs or systems prior to further progress within the acquisition system. ITDC is an initiative supporting USJFCOM's responsibilities for Joint Command & Control (JC2) capabilities. ITDC will execute interoperability demonstrations for selected new programs or systems. The purpose of demonstrations is to ensure interoperability within the Joint Command and Control environment (JC2E). The added advantage of demonstrations is the provision of high quality cost and schedule estimates of low cost support options for a program office. For example, the ITDC, in conjunction with the Deployable Joint Command and Control (DJC2) program office, could demonstrate interoperability of prototype capabilities, in support of Standing Joint Force Headquarters (SJFHQ), at lesser cost than contract supported prototype. The ITDC will provide interoperability demonstrations leveraging vehicles such as the Joint National Training Capability.

The successful fielding of interoperable JC2 systems is equally dependent on the ITDC as well as the successful completion of the operational assessment process. Both processes support the acquisition process, as it should be implemented in support of SJFHQ standup and other DOD transformation programs. The operational assessment process supports the assessment of operational prototypes in operational environments. These operational prototypes are developed as enablers to approved needs created out of concept experiments and lead to identification for fielding interim capabilities. The ITDC provides interoperability demonstrations of selected (configuration controlled) pilot capability implementations in coordination with a joint program office, such as DJC2. Successful performance of a candidate capability to be fielded in an interoperability demonstration will support the need for capabilities to be "born joint."

FY 2005 Plans:

ITDC will continue demonstrating the five categories of operational, system of systems, technical, software, and procedural interoperability of selected new programs or systems prior to further progress within the acquisition system. ITDC will continue to provide interoperability demonstrations of selected (configuration controlled) pilot capability implementations in coordination with a joint program office. Demonstrations of pilot implementations will lead to early identification of interoperability issues and allow for earlier fielding of interoperable joint capabilities.

	FY 2003	FY 2004	FY 2005
Joint Deployment, Employment and Sustainment (JDES)	1,000	7,475	8,009

FY 2003 Accomplishments:

- Logistics Quick Wins: Identified and instituted doctrinal and training changes for existing logistic systems to streamline deployments. Changes were worked with TRANSCOM and Services.
– Logistics Common Relevant Operational Picture (Log CROP): A tool used to manage volumes of logistical information and to develop a shared understanding of the battlespace among commands. This virtual warehouse is integrated, customizable, and tailored to be relevant to the user and assists all echelons to achieve situational logistical awareness. It includes: top to bottom information access, decision support tools used to transform information knowledge, and situational awareness in a shared environment.
- Joint Deployment Process Owner (JDPO): Transformed deployment, employment, and sustainment of the joint force into a simple seamless, knowledge-based joint deployment process supported by distributed, concurrent, collaborative planning processes and tools, using real-time, accurate and reliable information, enabling supported and supporting commanders to execute effective and efficient joint deployment operations. It addresses the continuum of deployment, employment, and sustainment for a coherently joint and multinational force that is capabilities based, fully networked and knowledge centric.

FY 2004 Plans:

Joint Deployment, Employment, and Sustainment (JDES) is focused on near term improvement and next decade capabilities in DES (Logistics and Transportation), to support or solve issues related to Force projection; how we deploy, employ, and sustain the force. JDES directs the development of a collaborative information environment that facilitates the fusion of logistics information and visibility that enhances a Combatant Commander’s ability to deploy and sustain forces.

FY 2005 Plans:

JDES will continue to be focused on near term improvement and next decade capabilities in DES (Logistics and Transportation) by identifying joint concepts and capabilities that support or solve issues related to Force projection; how do we deploy forces; employ forces in the combat areas such as multi-service force packages (e.g., special forces, seals) in hostile zones; and sustain the forces.

	FY 2003	FY 2004	FY 2005
Integration with Other Regional Combatant Commanders, Military Services and Agencies	4,570	6,927	7,422

FY 2003 Accomplishments:

Continued communication efforts to fully coordinate planned concept development and experimentation with Combatant Commanders and the Services. Adequately captured and assessed current joint warfighting needs and directions for experimentation. This is done through a continued leveraging of Service and Title X wargames such as Pinnacle Impat 2003, Navy Global, Air Force Global Engagement, Army Transformation Wargame, SPACECOM Schriever, SOCOM Vision Series, and USMC Expeditionary Warrior.

FY 2004 Plans:

Continuing communication efforts to fully coordinate planned concept development with our partners. This is done through a continued leveraging of Service and Title X wargames. The key activities will be PACOM Cobra Gold, EUCOM Agile Response, SOUTHCOM Blue Advance, Army Unified Quest, Navy Unified Course, and Terminal Fury.

FY 2005 Plans:

Continuing communication efforts to fully coordinate planned concept development and experimentation with our partners. Adequately capture and assess current joint warfighting needs and directions for experimentation. This is done through a continued leveraging of Service and Title X wargames. The key activities will be Internal Look, Navy Unified Course, OSD Transformation Wargame, USMC Expeditionary Warrior, SPACECOM Schriever, Army Unified Quest, Air Force Global Engagement VII, DARPA Technology Wargames, and other future wargames not yet identified.

	FY 2003	FY 2004	FY 2005
Innovation and Exploration/Project Alpha	4,030	6,750	7,233

FY 2003 Accomplishments:

USJFCOM initiated a quick turn around, analytical modeling capability to rapidly assess new ideas without investing large amounts of resources until viability is proven. Initiatives include Swarming Unmanned Aerial Vehicles concept using robotic entities—centrally commanded, but autonomously controlled—dispersed in swarms to assist the future Joint Force against an adversary. With the assistance of Defense Advanced Research Project Agency (DARPA), experiments are on-going to determine how the Swarming Unmanned Aerial Vehicles (UAVs) mitigate the risks of Surface to Air Missiles (SAMs) defending enemy Transporter Erector Launchers (TELs) in a Joint Area of Responsibility (JOAR).

FY 2004 Plans:

USJFCOM continues using the analytical model to rapidly assess new ideas. Innovation and exploration efforts continue for impacting 2025-2040 timeframe. Investigation continues in areas of Hard-to-Get Signals, sensor development, complexity, crisis and instability forecasting, and others.

FY 2005 Plans:

As in 2004, USJFCOM continues using the analytical model to rapidly assess new ideas. Innovation and exploration efforts continue for impacting 2025-2040 timeframe. Investigation continues in areas of application of nano-biotechnology, knowledge workers, unmanned effects, multinational information sharing, among others.

C. OTHER PROGRAM FUNDING SUMMARY:

RELATED RDT&E:

PE 0601152N In-house Laboratory Independent Research
PE 0601153N Defense Research Sciences
PE 0602114N Power Projection Applied Research
PE 0602123N Force Protection Applied Research
PE 0602131M Marine Corps Landing Forces Technology
PE 0602235N Common Picture Applied Research
PE 0602236N Warfighter Sustainment Applied Research
PE 0602271N RF Systems Applied Research

PE 0602435N Ocean Warfighting Environment Applied Research
PE 0602747N Undersea Warfare Applied Research
PE 0602782N Mine and Expeditionary Warfare Applied Research
PE 0603114N Power Projection Advanced Technology
PE 0603123N Force Protection Advanced Technology
PE 0603235N Common Picture Advanced Technology
PE 0603236N Warfighter Sustainment Advanced Technology
PE 0603271N RF Systems Advanced Technology
PE 0603640M USMC Advanced Technology Demonstration (ATD)
PE 0603729N Warfighter Protection Advanced Technology
PE 0603747N Undersea Warfare Advanced Technology
PE 0603757N Joint Warfare Experiments
PE 0603758N Navy Warfighting Experiments and Demonstrations
PE 0603782N Mine and Expeditionary Warfare Advanced Technology

NON-NAVY RELATED RDT&E:
PE 0603750D Advanced Concept Technology Demonstration

D. ACQUISITION STRATEGY:

Not applicable.