FY 2004/2005 RDT&E,N BUDGET ITEM JUSTIFICATION SHEET DATE: February 2003
Exhibit R-2

BUDGET ACTIVITY: 3 PROGRAM ELEMENT: 0603727N

PROGRAM ELEMENT TITLE: Joint Experimentation

COST: (Dollars in Thousands)

PROJECT FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 NUMBER/ ACTUAL. ESTIMATE ESTIMATE ESTIMATE ESTIMATE ESTIMATE ESTIMATE ESTIMATE TTTLE R2497 Joint Experimentation 95,512 151,058 162,105 169,350 166,838 157,040 99,996 158,192 Total

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Combatant Commander, U.S. Joint Forces Command (C/C USJFCOM) is chartered "as the Executive Agent for conducting joint warfighting concept development and experimentation within the Department of Defense. This effort enables C/C JFCOM to explore new joint warfighting concepts and capabilities and determine Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, (DOTMLPF) implications for change." The Secretary of Defense signed the U.S. Joint Forces Command's Joint Warfighting Experimentation Charter on 15 May 1998. Joint Experimentation implements this transformation mission through a process of discovery, innovation, concept development, and experimentation to provide for optimal joint future force capability. Our goal is to develop the joint context in which joint and service concept development and experimentation can prosper. The Services determine the specific Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, (DOTMLPF) requirements for their core competencies supporting the joint context. Each Combatant Commander (C/C) has input to the priorities for experimentation through the U.S. Joint Forces Command Combatant Commander Engagement program.

U.S. Joint Forces Command's (USJFCOM) efforts over the next several years will focus in particular on two overarching concepts: improving joint Knowledge/Command and Control (K/C2) through such initiatives as exporting the Standing Joint Force Headquarters (SJFHQ) concept to the regional Combatant Commanders, and conducting more effective joint operations through refining Rapid Decisive Operations-Next Decade and Joint Capstone Concept. USJFCOM concept that the Standing Joint Force Headquarters (SJFHQ) be embedded in the various Combatant Commander's (C/C) staffs under the direction of a flag or general officer is generally accepted. When a contingency requires the establishment of a Joint Task Force (JTF), the Combatant Commander's Standing Joint Force Headquarters (SJFHQ) can immediately become the collaborative core of the Joint Task Force (JTF). USJFCOM developed the Standing Joint Force Headquarters (SJFHQ) concept around approximately fifty-five personnel. This experimental SJFHQ explores the concept and alternative organizational arrangements, to provide a test bed for innovation with new technologies and operational approaches for joint Command and Control. U.S. Joint Forces Command's (USJFCOM) Experimental Standing Joint Command and Control Element (ESJC2E) works closely with designated Joint Task Force (JTF) headquarters established by regional Unified Commands under direction of the Secretary of Defense (SECDEF). Services will develop interoperable command and control capabilities for functional components based on joint context. Developing new approaches for the Standing Joint Force Headquarters (SJFHO) addresses the first two of four transformation pillars identified in the Quadrennial Defense Review (noted below), and meets specific quidance from the Secretary of Defense and the Chairman Joint Chiefs of Staff.

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BUDGET ACTIVITY: 3 PROGRAM ELEMENT: 0603727N

PROGRAM ELEMENT TITLE: Joint Experimentation

The four Transformation Pillars from the Quadrennial Defense Review are as follows: (1) Strengthen joint operations through standing joint task force headquarters, improved joint command and control, joint training and an expanded joint forces presence policy; (2) Experimenting with new approaches to warfare, operational concepts and capabilities, and organizational constructs such as standing joint forces through wargaming, simulations and field exercises focused on emerging challenges and opportunities; (3) Exploiting U.S. intelligence advantages through multiple intelligence collection assets, global surveillance and reconnaissance, and enhanced exploitation and dissemination; and (4) Developing transformational capabilities through increased and wide-ranging science and technology, selective increases in procurement, and innovations in DoD processes. Developing new concepts for establishing and operating the Standing Joint Force Headquarters (SJFHQ) was central to the improvement of future joint operations, and will be a continued central focus of Joint Concept Development & Experimentation for at least the next several years.

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

B. PROGRAM CHANGE SUMMARY:

| | FY 2002 | FY 2003 | FY 2004 | FY 2005 |
|--|---------|-----------------|------------------|---------|
| FY 2003 President's Budget Submission: | 102,868 | 97 , 872 | 106,500 | 66,029 |
| Adjustments from FY 2003 President's Budget: | | | | |
| SBIR | -2,366 | | | |
| S&T Reductions | | | -7, 255 | -4,629 |
| Cong. Rescissions/Adjustments/Undist. Reductions | -506 | -1,118 | | |
| FY03 FFRDC Reduction | | -206 | | |
| Joint Program Increases | | | +28,200 | +63,000 |
| Training Transformation | | | +27,100 | +41,200 |
| Pay Raise/Inflation Adjustments | | -1,036 | -3,487 | -3,495 |
| FY 2004/2005 President's Budget Submission: | 99,996 | 95,512 | 151 , 058 | 162,105 |

PROGRAM CHANGE SUMMARY EXPLANATION:

Schedule: Not applicable Technical: Not applicable

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BUDGET ACTIVITY: 3 PROGRAM ELEMENT: 0603727N Project Number: R2497

PROGRAM ELEMENT TITLE: Joint Experimentation Project Title: Joint

Experimentation

COST: (Dollars in Thousands)

PROJECT FY 2002 FY 2003 FY 2004 FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 NUMBER/ ACTUAL ESTIMATE ESTIMATE ESTIMATE ESTIMATE ESTIMATE ESTIMATE ESTIMATE

TITLE

R2497 Joint Experimentation

Total 99,996 95,512 151,058 162,105 169,350 166,838 157,040 158,192

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: Combatant Commander, U.S. Joint Forces Command (C/C USJFCOM) is chartered "as the Executive Agent for conducting joint warfighting concept development and experimentation within the Department of Defense. This effort enables C/C JFCOM to explore new joint warfighting concepts and capabilities and determine Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, (DOTMLPF) implications for change." The Secretary of Defense signed the U.S. Joint Forces Command's Joint Warfighting Experimentation Charter on 15 May 1998. Joint Experimentation implements this transformation mission through a process of discovery, innovation, concept development, and experimentation to provide for optimal joint future force capability. Our goal is to develop the joint context in which joint and service concept development and experimentation can prosper. The Services determine the specific Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities, (DOTMLPF) requirements for their core competencies supporting the joint context. 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. Within that area of responsibility, we examine ways to enhance the current force, to actualize the Joint Vision 2020, and to dominate the revolution in military affairs. 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. This common joint context has not historically existed, but it has already proven to be a powerful tool that fosters coherence, improved stewardship and early interoperability material solutions "born joint." Concept development, both Joint and Service, happens through intellectual exploration, focus, and partnerships.

Recommended changes resulting from experimentation are forwarded to the Chairman, Joint Chiefs of Staff and the Joint Requirements Oversight Council (JROC) for implementation. Individual Military Services and United States Special Operations Command (USSOCOM) retain primary responsibility to develop concepts and conduct experimentation within their core competencies, to include their land, air and space, sea, expeditionary and special operations roles. U.S. Joint Forces Command (USJFCOM) serves as the joint force integrator. The Assistant Secretary of Defense for Strategy and Threat Reduction (ASD (S&TR)) monitors U.S. Joint Forces Command's (USJFCOM) joint concept experimentation activities on behalf of the Secretary of Defense. Having an oversight role in the Revolution in Military Affairs (RMA), Assistant Secretary of Defense Strategy and Threat Reduction ASD (S&TR) conducts reviews of C/C JFCOM experimentation activities.

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BUDGET ACTIVITY: 3 PROGRAM ELEMENT: 0603727N Project Number: R2497 PROGRAM ELEMENT TITLE: Joint Experimentation Project Title: Joint

Experimentation

U.S. Joint Forces Command serves two major roles in advancing joint warfighting capabilities. These are documented in the following:

- DODI 5000.2-R, June 2001, Mandatory Procedures for Major Defense Acquisition Programs, C7.3.1. "United States Joint Forces Command shall be available to comment on interoperability and integration issues that the JROC [sic. Joint Requirements Oversight Council] forwards to the DAB [sic. Defense Acquisition Board]."
- CJCSI 3170.01B, 15 April 2001, Requirements Generation System, B2.d.7.b. "C/CJFCOM will serve as the Chairman's advocate for joint warfighting interoperability. USJFCOM [sic. U.S. Joint Forces Command] will provide the warfighter perspective during the development of joint operational concepts to ensure that joint forces have interoperable systems."

The Joint Experimentation Campaign Plans focus on high priority tasks assigned to U.S. Joint Forces Command 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 U.S. Joint Forces Command 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). Two proposals entering concept refinement are Joint Operations Warfighting (JOW) and Time Sensitive Targeting (TST). Refinement of these concepts and other emerging concepts are based on lessons learned from completed FY 2001 and FY 2002 joint experimentation activities.

In FY 2002 and 2003, U.S. Joint Forces Command continues a series of risk mitigation experiments and Limited Objective Experiments (LOEs) while conducting our first major joint field experiment Millennium Challenge 2002. Planning was accelerated for the Impact/Vision Experiments as a continuous experimentation pathway in addition to the prototype pathway for Standing Joint Force Headquarters (SJFHQ) enabling concepts. A series of experiments address the challenges of Rapid Decisive Operations -- Next Decade and Joint Capstone Concept (JCC) to integrate concepts in FY 2015 and beyond. Millennium Challenge 2002 (MCO2) explored a coherent joint force capable of conducting a rapid, decisive joint strike operation in the 2004-2009 timeframe. Impact/Vision Experiment series will explore Rapid Decisive Operations (RDO) - Next Decade in the 2015-2020 timeframe. The Impact and Vision series of joint 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. U.S. Joint Forces Command continuously coordinates with all the Combatant Commander's, the Joint Staff, and Services in the concept development and experimentation on the Vision and Impact series and the execution of concepts including the integration of our multinational coalition partners and other U.S. agencies referred to as Inter-Agency (IA) information sharing.

In the Campaign Plan 2003, the Combatant Commander of Joint Forces Command 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. U.S. Joint Forces Command synchronized Joint and Service efforts in a "battle rhythm" that balances

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BUDGET ACTIVITY: 3 PROGRAM ELEMENT: 0603727N Project Number: R2497
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concept development with experimentation, and field events requiring advanced preparation with smaller events that are more agile and adaptable. U.S. Joint Forces Command (USJFCOM) continues to strengthen these tools for conducting joint concept development and experimentation, including scalable parallel modeling and simulation, providing highly capable and thinking adversaries through more effective red teaming initiatives, and stronger building links with other U.S. agencies and potential coalition partners.

U.S. Joint Forces Command (USJFCOM) conducted a series of experimental efforts to evaluate and analyze concepts against a realistic or live scenario. These efforts consist of major joint field experiments, major joint simulated experiments, Limited Objective Experiments (LOEs), wargames and seminars. Millennium Challenge 2002 was the major experimental focus of FY 2002. Other efforts are continuing on a second track separate from Millennium Challenge 2002 to accelerate or continue the development of concepts such as Forcible Entry Operations (FEO), Effects Based Operations (EBO), Assured Access (AA), Joint Intelligence Surveillance and Reconnaissance (JISR), Joint Urban Operations (JUO), Low Collateral Damage Weapons (LCDW), and Time Sensitive Targets (TSTs), Focused Logistics (FL), Strategic Deployment (SD), Joint Operational Warfighting (JOW), and Information Operations (IO) among others.

The terrorist attacks on the U.S. homeland in September 2001 and the U.S. and allied response in Afghanistan underscored the new challenges that U.S. forces will face in coping with the threat of terrorism. U.S. Joint Forces Command's (USJFCOM) Joint Concept Development and Experimentation (JCD&E) effort is an indispensable component to improving U.S. capabilities to conduct war as well as a war on terrorism. These wars cannot be won solely with legacy systems or thinking. Development of advanced techniques, tools, and organizations to defeat an asymmetrical enemy terrorist and meet other new challenges of the 21st century, requires new thinking and aggressive experimentation to ensure the effectiveness of the future joint force.

U.S. Joint Forces Command's (USJFCOM) efforts over the next several years will focus in particular on two overarching concepts: improving joint Knowledge/Command and Control (K/C2) through such initiatives as exporting the Standing Joint Force Headquarters (SJFHQ) concept to the regional Combatant Commanders, and conducting more effective joint operations through refining Rapid Decisive Operations-Next Decade and Joint Capstone Concept. USJFCOM concept that the Standing Joint Force Headquarters (SJFHO) be embedded in the various Combatant Commander's (C/C) staffs under the direction of a flag or general officer is generally accepted. When a contingency requires the establishment of a Joint Task Force (JTF), the Combatant Commander's Standing Joint Force Headquarters (SJFHQ) can immediately become the collaborative core of the Joint Task Force (JTF). USJFCOM developed the Standing Joint Force Headquarters (SJFHQ) concept around approximately fifty-five personnel. This experimental SJFHQ explores the concept and alternative organizational arrangements, to provide a test bed for innovation with new technologies and operational approaches for joint Command and Control. U.S. Joint Forces Command's (USJFCOM) Experimental Standing Joint Command and Control Element (ESJC2E) works closely with designated Joint Task Force (JTF) headquarters established by regional Unified Commands under direction of the Secretary of Defense (SECDEF). Services will develop interoperable command and control capabilities for functional components based on joint context. Developing new approaches for the Standing Joint Force Headquarters (SJFHQ) addresses the first two of four transformation pillars identified in the Quadrennial Defense Review (noted below), and meets specific guidance from the Secretary of Defense and the Chairman Joint Chiefs of Staff.

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BUDGET ACTIVITY: 3 PROGRAM ELEMENT: 0603727N Project Number: R2497

PROGRAM ELEMENT TITLE: Joint Experimentation Project Title: Joint

Experimentation

DATE: February 2003

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B. ACCOMPLISHMENTS/PLANNED PROGRAM:

| | FY 02 | FY 03 | FY 04 | FY 05 |
|----------------------------------|-------|-------|-------|-------|
| Rapid Decisive Operations - Next | 7,036 | 9,782 | 0 | 0 |
| Decade | | | | |

FY 2002 ACCOMPLISHMENTS:

- Continued exploration and refinement of the Rapid Decisive Operations concept through the execution of various Limited Objective Experiments (Operational Net Assessment, Focused Logistics, Multi-National, and Effects Tasking Order-to-Action), and the Millennium Challenge 2002 (MC02) experiment in July-August 2002.
- The Limited Objective Experiments (LOE) and the Millennium Challenge 2002 experiment assessed the "how" of the concept. These LOEs included:
- Effects Tasking Orders (ETO)-to-Action. Experimented on how these orders are issued and prepared in a collaborative environment with the Common Relevant Operational Picture (CROP).
- Operational Net Assessment (ONA) addressed how we accurately do Operational Net Assessment a continuously updated system-of-systems analysis of the adversary's total war-making capabilities. Its purpose was to identify key links and nodes within the adversary's systems, propose methods that will influence, neutralize or destroy them and achieve a desired effect or outcome. Operational Net Assessment clearly identified the need for a more integrated approach relying on all national agency assets (e.g. State Department, Federal Emergency Management Agency, National Security Agency, etc.) to operationalize knowledge in response to threats and targets.
- Peer-to-Peer explored information sharing between computers and wireless equipment for military application.

FY 2003 PLANS:

• U.S. Joint Forces Command continues to refine the Rapid Decisive Operations—-Next Decade concept through the execution of various Impact and Vision Experiments. Vision/Impact experiments will examine the capabilities of

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Experimentation

DATE: February 2003

the joint force in the 2010-2020 timeframe against a projected capable regional threat, in a small-scale contingency, to determine how the joint force will execute Rapid Decisive Operations in the next decade. The continuous experimentation program at Joint Forces Command prepares the way for emerging concepts and Technologies to enter and progress through the experimentation cycle rapidly in response to Joint Warfighter needs.

• USJFCOM continues the Chairman Joint Chief of Staff's (CJCS) direction to achieve an operable Standing Joint Force Headquarters (SJFHQ) by 2005 for each of our Combatant Commanders. "Our objectives are clear: to ensure U.S. military superiority into the 21st century; reduce the risk of adversarial surprise; better inform current decision-makers concerning future forces; and achieve wartime levels of learning through experimentation in peacetime, with no cost to life, limb or the national interest. Synchronizing the concept development and experimentation efforts of the joint community and the Services, it provides the joint context and structure necessary for complex field events while also providing the flexibility necessary to adapt quickly to new challenges and opportunities."

FY 2004 PLANS:

• Not applicable

FY 2005 PLANS:

• Not applicable

| | FY 02 | FY 03 | FY 04 | FY 05 |
|----------------------|-----------------|-------|-------|-------|
| Millennium Challenge | 55 , 868 | 0 | 0 | 0 |

FY 2002 ACCOMPLISHMENTS:

- Millennium Challenge 2002 experiment executed July through August 2002. It was a major joint integrating experiment that was the culminating point for assessing how we performed a Rapid, Decisive Operation in this decade and determined the extent to which the joint force is able to implement the principles of Joint Vision 2020. The experiment encompassed both live and virtual forces, including elements from all military services and special operations. Given the capabilities of the joint force and a major regional threat in the 2009 period, the Millennium Challenge 2002 experiment determined the extent to which we can set the following operational conditions for Rapid Decisive Operations such as establishing a knowledge network.
- Established Joint Knowledge/Command and Control (K/C2) functions including: Joint Intelligence, Surveillance and Reconnaissance (JISR) capabilities; access and sustainment to a distributed, non-contiguous operation without relying on fixed bases adjacent to the objective area; full-dimensional/time-definite superiority for selected forces and actions with the battlespace; and conducting simultaneous, joint tactical actions throughout the battlespace based on a shared understanding of both the tactical and operational situation.

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• Assured Access. USJFCOM continued the exploration of the Assured Access Concept through the execution of the Millennium Challenge 2002 experiment and Limited Objective Experiments. The concept explored how a Joint Force Commander can gain the requisite level of physical, spectral and cyber access to an adversary's domain.

• Standing Joint Force Headquarters (SJFHQ). Tasking initiated by the Secretary of Defenses to further develop the organizational establishment of a joint command and control aspect for a rapid decisive operation. When fully operational, this emerging command and control structure will transform the preemptive and follow-on options for a unified Combatant Commander. This will provide the Combatant Commanders with an increased range of options for crisis response within their area of responsibility. In February 2002, we moved the Standing Joint Force Headquarters from the conceptual stage to the experimental design stage. A notional Standing Joint Force Headquarters was "test driven" during the Millennium Challenge 2002. Joint experimenters observed and assessed the viability of the Standing Joint Force Headquarters and made recommendations to keep it flexible enough to support tomorrow's fighting force.

FY 2003 PLANS:

• Not Applicable

FY 2004 PLANS:

• Not Applicable

FY 2005 PLANS:

• Not Applicable

| | FY 02 | FY 03 | FY 04 | FY 05 |
|--------------------------------|-------|-------|--------|--------|
| Joint National Training Center | 3,000 | 0 | 27,100 | 41,200 |

FY 2002 ACCOMPLISHMENTS:

- The Deputy Secretary of Defense (DEPSECDEF) approved the establishment of a Joint National Training Center (JNTC) as defined in the Defense Planning Guidance (DPG 04-09) to collect, merge, and validate Joint training requirements in the form of a Joint Management Office. US Joint Forces Command (JFCOM) established the Joint Management Office (JMO) to perform implementation planning and establish the JNTC for stand-up by 1 October 04.
- In conjunction with Under Secretary of Defense, JFCOM established a transition to what is now the Joint National Training Center initiative, and began building a top-level organization requiring management, operational and technological assessment strategy.
- The JNTC concept improves Defense-wide training programs to ensure that Service, agency and Joint training programs prepare warfighters to train the way they fight. The JNTC coordinates all activities required to meet Combatant Commander's requirements for Joint capable forces. It provides for full spectrum Joint training at the strategic, operational, and tactical levels of war, and coordinates the optimal mix of live, virtual and

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constructive training enablers in order to ensure a seamless and realistic Joint training environment

worldwide.

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BUDGET ACTIVITY: 3 PROGRAM ELEMENT: 0603727N Project Number: R2497 PROGRAM ELEMENT TITLE: Joint Experimentation

Project Title: Joint

Experimentation

FY 2003 PLANS:

• Not applicable

FY 2004 PLANS:

- The Joint National Training Center (JNTC) continues in the establishment of the Joint Management Office that merges and validates requirements, including certification and accreditation. JNTC begins to implement a capabilities improvement process based on the Joint Training System; implements a standing Joint Command and Control (JC2) headquarters capability for training; creates a realistic standing opposition force (OPFOR); provide a global Joint training infrastructure (GJTI); and develops, assesses, and deploys advanced training technologies (ATT).
- The JNTC ensures that training ranges and devices are modernized and sustainable; interoperability training is measured and reported; networked training capabilities are designed into operational systems and requirements; and distributed learning technologies are used to reengineer training and job performance. The plan for near-term Training/Transformation actions is the development of "a common operational architecture that provides interoperability of live, virtual, and constructive training systems across the Department, leading to the creation of a Joint national training capability that meets service, interoperability, and CINC training needs." (Office of the Under Secretary of Defense).

FY 2005 PLANS:

- The Joint National Training Center (JNTC) continues to advance and implement the following programs:
- Joint Training System Application (JTSA) implements a Capability Improvement Process to develop warfighter Joint Tactical Tasks (JTT) and incorporates JTTs into training events and complete training assessments. These tasks directly support operational requirement analysis and operational support of specific events.
- Joint Command and Control (JC2) uses the latest C4ISR equipment and Joint tactics, techniques, and procedures to enable the continuing development of transformational concepts for export to Service training ranges and events. These tasks will be in direct support of operational planning and implementation of JC2
- Joint Opposing Force (OPFOR) is a coherent robust adversary capability participating in Joint events. Additionally, procurements of OPFOR systems/assets support JNTC training sites and events, leveraging service and commercial capabilities. The JNTC develops and procures assets where necessary to enhance capabilities for Joint context. The opposing force includes an element to address requirements and business activities as well as a targeted headquarters and red cell for Joint training exercise execution. These tasks directly support operational planning and implementation of OPFOR functions for JNTC events.
- Global Joint Training Infrastructure (GJTI) develops, identifies, and implements architecture and standards required to enable distributed Joint training across DoD sites, simulation centers, training locations, and ranges. The GJTI function will include integration and testing of systems in preparation for specific events and capabilities and leveraging national capabilities (i.e. GIG), augmenting where necessary to ensure connectivity and capabilities required by JNTC. These tasks directly support operational planning and

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Experimentation

DATE: February 2003

Joint

Project Number: R2497

Project Title:

implementation of JNTC infrastructure requirements. Research and Development tasks will support the analysis and development of specific JNTC infrastructure capabilities, including advances in communications, interoperability, data transfer, and range instrumentation. Procurement of Command and Control, communications, audio, visual, simulation systems, knowledge management systems, range instrumentation, etc. is essential to achieve the infrastructure objectives.

• Advanced Training Technologies (ATT) manages the incorporation of new technologies and techniques into training scenarios; it creates a test and integration test bed to validate live, virtual, and constructive training events across a distributed network. Under this function the validated technologies and systems operates in direct support of exercises. Advanced Training Technologies maintains support to JNTC sites and events. Research and development tasks provide technological improvements needed to make Joint national training more efficient and effective. Procurement for specific systems supports research and development tasks. The GJTI function procures operational systems. JNTC determines requirements and funding to Service instrumentation programs ensuring Joint functionality, interconnectivity, and interoperability of future instrumentation systems. JNTC continues to develop Joint OPFOR capabilities, leveraging Service programs, and commercial sources.

| | FY 02 | FY 03 | FY 04 | FY 05 |
|--|-------|-------|-----------------|-----------------|
| Joint Capstone Concept (JCC) formaly known | 0 | 0 | 15 , 818 | 15 , 900 |
| as Joint Warfighting Concept (JWC) | | | | |

FY 2002 ACCOMPLISHMENTS:

• Not applicable

FY 2003 PLANS:

• Not applicable

FY 2004 PLANS:

• Joint Capstone Concept is the next integrating/overarching Concept used while refining and executing Rapid Decisive Operations and the Standing Joint Force Headquarters. U.S. Joint Forces Command will develop, experiment and refine the Joint Capstone Concept through the execution of various Impact and Vision Experiments affecting the 2010-2020 timeframe. Experiments focus against a projected capable regional threat, in a small-scale contingency, to determine how the joint force will execute Rapid Decisive Operations--Next Decade. The continuous experimentation program at Joint Forces Command prepares the way for emerging concepts and technologies to enter and progress through the experimentation cycle rapidly in response to Joint Warfighter needs. Joint Capstone Concept spawns multiple supporting concepts for refinement topics which may include Forward Basing, Strategic Lift, Robotics, etc.

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FY 2005 PLANS:

- USJFCOM continues to develop and refine the Joint Capstone Concept through the execution of various Impact and Vision Experiments affecting the 2015-2030 timeframe. The continuous experimentation program at Joint Forces Command prepares the way for emerging concepts and leading technologies. The experimentation cycle is responsive to the Joint Warfighter needs in an effort to gain Full Spectrum Dominance over the adversary.
- Full Spectrum Dominance. In the Joint Vision 2020, the overarching focus is full spectrum dominance achieved through the interdependent application of dominant maneuver, precision engagement, strategic deployment, and full dimensional protection. Attaining full spectrum dominance requires the steady infusion of new technology and modernization and replacement of equipment to transform the military.
 - Dominant Maneuver. Dominant Maneuver is the ability of joint forces to gain positional advantage with decisive speed and overwhelming operational tempo in the achievement of assigned military tasks. Widely dispersed joint air, land, sea, amphibious, special operations and space forces, capable of scaling and massing force or forces and the effects of fires as required for either combat or non-combat operations, will secure advantage across the range of military operations through the application of information, deception, engagement, mobility and counter-mobility capabilities.
 - Precision Engagement. Precision Engagement is the ability of joint forces to locate, surveil, discern, and track objectives or targets; select, organize, and use the correct systems; generate desired effects; assess results; and reengage with decisive speed and overwhelming operational tempo as required, throughout the full range of military operations.
 - Strategic Deployment. Strategic Deployment is the ability to provide the joint force the right personnel, equipment, and supplies in the right place, at the right time, and in the right quantity, across the full range of military operations. This will be made possible through a real-time, web-based information system providing total asset visibility as part of a common relevant operational picture, effectively linking the operator and logistician across Services and support agencies. Through transformational innovations to organizations and processes, strategic deployment will provide the joint warfighter with support for all functions.
 - Full Dimensional Protection. Full Dimensional Protection is the ability of the joint force to protect its personnel and other assets required to decisively execute assigned tasks. Full dimensional protection is achieved through the tailored selection and application of multi-layered active and passive measures, within the domains of air, land, sea, space, and information across the range of military operations with an acceptable level of risk.

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PROGRAM ELEMENT TITLE: Joint Experimentation Project Title: Joint

Experimentation

| | FY 02 | FY 03 | FY 04 | FY 05 |
|---------------------------------------|-------|--------|----------|-----------------|
| Impact and Vision Experiment Series - | 7,690 | 41,580 | 41,625 | 35 , 800 |
| formerly known as Olympic Challenge | | | <u> </u> | |

FY 2002 ACCOMPLISHMENTS:

• These planning efforts explored and refined the early concepts of the joint field experiment and review post-experiment analysis of Millennium Challenge 2002 to prepare for the 2003/2004 experiments and beyond in support of the Rapid Decisive Operations-Next Decade concept. This series of experiments is about continuous development and examination of how a rapid decisive operation could be executed in the next decade during an operation that is at the high-end, small-scale contingency area on the range of operations. The Rapid Decisive Operations (RDO) -- Next Decade concept will integrate Knowledge/Command and Control (K/C2) and Effects-Based Operations (EBO) to achieve the desired political/military effect.

FY 2003 PLANS:

• This series continues to explore and refine the findings of the joint field experiment Millennium Challenge 2002, as the basis of the 2003/2004 experiments and the Rapid Decisive Operations-Next Decade concept. Prepare and execute Pinnacle Impact 2003 to begin foundational concepts and plans for Pinnacle Vision 2004 (Joint Global Wargame) while developing core elements of Joint Capstone Concepts and other Service concepts.

FY 2004 PLANS:

• This series explores and refines the findings of previous experimentation efforts, and the continuous follow-on series of experiments for both the Rapid Decisive Operations-Next Decade and Joint Capstone Concepts (JCC). Pinnacle Vision 2004 will be the Combatant Commander's Joint Global Wargame, and will execute: Rapid Decisive Operations (RDO)-Next Decade concept while using the Standing Joint Force Headquarters and integrating Knowledge/Command and Control (K/C2), Multi-national Coalitions and interoperable service involvement achieving the desired political/military effect. Joint Capstone Concept integrates a number of Concepts along with Strategic Deployment (SD), Joint Operational Warfighting (JOW), Operational Net Assessment (ONA) and others.

FY 2005 PLANS:

• USJFCOM will perform post-experiment analysis on Joint Global Wargame and will refine the findings of previous experimentation efforts and the continuous follow-on series of experiments for Joint Capstone Concepts and other Service concepts. Fielding of the Standing Joint Force Headquarters (SJFHQ) with each Combatant Commander examining the "how" of a rapid decisive operation using Effects Based Operations (EBO).

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Exhibit R-2a

BUDGET ACTIVITY: 3 PROGRAM ELEMENT: 0603727N Project Number: R2497

PROGRAM ELEMENT TITLE: Joint Experimentation Project Title: Joint

Experimentation

DATE: February 2003

| | FY 02 | FY 03 | FY 04 | FY 05 |
|--|----------------|-------|----------------|----------------|
| Knowledge Centric Command & Control (K/C2) | 4 , 296 | 6,040 | 7 , 650 | 8 , 355 |
| - formerly Information Superiority | | | | |

FY 2002 ACCOMPLISHMENTS:

• Continued exploration and enhancement of the four functional warfighting concepts: Common Relevant Operational Picture (CROP), Joint Interactive Planning (JIP), Adaptive Joint Command and Control (AJC2), and Information Operations (IO), through the planning and execution of Limited Objective Experiments.

FY 2003 PLANS:

• Continue exploration and enhancement of functional warfighting concepts becoming interoperable. Plan and execute workshops to refine the multi-service Distributed Common Ground Station (DCGS). This will enable the complete exploration of the concept during an LOE. This is a key component to enable the comprehensive connectivity and shared understanding to support Joint Capstone Concept. This connectivity is critical to pass DCGS information from the sensors to the shooter.

FY 2004 PLANS:

• Continue refining the functional warfighting concepts and integrated, interoperable Command and Control. Develop knowledge ties with previous Joint Intelligence Surveillance and Reconnaissance work to evaluate intercommunity sensor cross cueing for optimum utilization of assets and provide sensor to shooter connectivity. Through LOEs and Impact/Vision experiments, USJFCOM will develop the Joint Force Commander's ability to see a singular battlespace environment thus reducing the decision cycle so that he can realize the full potential of Effects Based Operations (EBO) and Dominant Maneuver operations. These improvements in K/C2 also refine the capabilities of the Standing Joint Force Headquarters. When adopting the knowledge with the command and control efforts for interoperability, these functional concepts become the baseline for Joint Operational Warfighting (JOW) approach within the Joint Capstone Concept (JCC).

FY 2005 PLANS:

• Discover new capabilities and systems of systems modifications to provide innovation and planning for future enhancements by using emerging technologies to improve the integration and interoperability of warfighting command and control and information superiority. Continue exploration, development and refinement of the knowledge/information supporting the Joint Capstone Concept and Service Concepts.

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Exhibit R-2a

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| | FY 02 | FY 03 | FY 04 | FY 05 |
|---|-------|-------|--------|--------|
| Standing Joint Force Headquarters (SJFHQ) | 0 | 0 | 10,000 | 13,500 |
| Interoperability Technology Demonstration | | | | |

FY 2002 ACCOMPLISHMENTS:

• Not Applicable.

FY 2003 PLANS:

• Not Applicable.

FY 2004 PLANS:

- Interoperability Technology Demonstration (ITDC) is a new initiative supporting JFCOM's responsibilities for Joint Command & Control capabilities. The technologies being assessed in interoperability demonstrations are controlled software processes of pilot implementations under consideration for acquisition, the purpose of which is to ensure interoperability within the joint Command and Control environment (JC2E) with the added advantage of enabling high quality cost and schedule estimates of low-support-cost-implementations for a program office. The ITDC, in conjunction with the Deployable Joint Command and Control (DJC2) program office, supports the fielding of prototype capabilities, in support of Standing Joint Force Headquarters (SJFHQ) standup. In later years, it will provide interoperability demonstrations venues for all systems or programs in a common Joint Command & Control environment.
- The successful fielding of interoperable Joint Command & Control is equally dependent on the ITDC as well as the successful completion of the traditional operational assessment process. Both processes support the acquisition process, as it needs to be implemented in support of SJFHQ standup and other DOD transformation programs. The traditional operational assessment process supports the assessment of (rapid) operational prototypes in operational prototype experiments. These operational prototypes are developed as enablers to approved concepts created out of concept experiments and lead to identification of interim capabilities and requirements for fielding. The ITDC provides interoperability demonstrations of (controlled) pilot capability implementations in coordination with and under consideration for fielding by a joint program office, such as DJC2. Successful assessment of a candidate capability to be fielded in an interoperability demonstration will ensure the capability is "born joint", and support a fully interoperable JC2E on the battlefield.

FY 2005 PLANS:

• Continue refining the prototypes as enablers to approved concepts created out of concept experiments and lead to identification of interim capabilities and requirements for fielding. The ITDC provides interoperability demonstrations of (controlled) pilot capability implementations in coordination with and under consideration for fielding by a joint program office, such as DJC2. Discover new capabilities and systems of

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systems modifications to provide innovation and planning for future enhancements by using emerging technologies

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| | FY02 | FY03 | FY04 | FY05 |
|-------------------------------------|-------|--------|--------|--------|
| Limited Objective Experiments (LOE) | 4,885 | 10,800 | 11,950 | 11,000 |

FY 2002 ACCOMPLISHMENTS:

• Peer-to-Peer LOE explored the contributions of peer-to-peer collaboration in support of Rapid Decisive Operations by examining the ease of setup, mobility, redundancy/survivability, functionality, and security of peer-to peer collaboration systems.

to improve the integration and interoperability of warfighting command and control and information superiority.

- Operational Net Assessment (ONA) LOE, Phase I, focused on the Operational Net Assessment product and process, but included an assessment of the Contingency Operations (CONOPS) for Information Operations, Interagency Community, and Effects Based Planning.
- Focused Logistics (FL) LOE explored the integration of advanced technologies with logistics management to effectively support early force deployment, continued force employment and improve strategic deployment of forces capable of projecting joint forces by sea, land and air. The LOE concentrated on specific aspects relating to force deployment refining the logistics organization, functional relationships, planning, coordinating and executing distributed missions between the Combatant Commander's Joint Theater Logistics Management Center (JTLMC), and the Joint Task Force (JTF).
- Multi-National (MN) LOE focused on collaborative planning with multi-national partners who are executing Rapid Decisive Operations when the period is short. It compared the plan developed using a more traditional process with a plan using an integrated planning process.
- Effects Tasking Order (ETO) -to-Action LOE focused on effects based planning, execution and assessment, but also included a review of the Standing Joint Command and Control Element (SJC2E) Contingency Operations (CONOPS) as it relates to collaboration with functional components.

FY 2003 PLANS:

- Focused Logistics (FL). There is an integration of advanced technologies with logistics management supporting early force deployment and continued force employment through a series of Focused Logistics Limited Objective Experiments. Emphasis this year is on developing Sea-based logistics sustainment and a web-based logistics process and system to support Joint Operational Warfighting using strategic in-theater systems as an essential element of Joint Deployment.
- Assured Access. Refinement of the Assured Access Concept happens through the execution of Limited Objective Experiments and the preliminary planning and coordination for the Impact/Vision experiments. The concept explores how a Joint Force Commander gains the requisite level of physical, spectral and cyber access to an adversary's domain.

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Project Title:

• Interagency (IA) LOE. Develop the ability to apply all National Agency assets (e.g. Department of State, Federal Emergency Management Agency (FEMA), National Security Agency (NSA), and others) to any asymmetrical threat in order to break the will of the adversary. Limited Objective Experiments concentrate on establishing necessary links, protocols and procedures for interagency Common Relevant Operational Picture (CROP) and participation.

- Multi-National (MN) Information Sharing LOE. Continue the series of experiments with multi-national partners to define and refine coalition participation in the Impact 2003 and Vision 2004 experiments. The LOE will explore information sharing, Coalition Common Relevant Operational Picture (CCROP) and collaboration during Rapid Decisive Operations—Next Decade with coalition partners.
- Standing Joint Force Headquarters (SJFHQ) Prototype LOE. Tasking initiated by the Secretary of Defense to further develop the organization and doctrine for a joint command and control aspect for a rapid decisive operation. When fully operational, this emerging command and control structure will transform the preemptive and follow-on options for a unified Combatant Commander's (C/C). This will provide the Combatant Commander with an increased range of options for crisis response within his area of responsibility.

FY 2004 PLANS:

- Low Collateral Damage Weapons (LCDW). These are weapons systems used at the operational level to minimize civilian lives lost, infrastructure damage to the area around the target, and damage to the structure of the target itself in many cases. (Low Collateral Damage Weapons are not to be confused with non-lethal weapons, although they share some technologies and applications.) These weapons can enable the joint force commander to engage critical targets within the constraints of restrictive rules of engagement.
- Effects-Based Operations (EBO). A process for obtaining a desired strategic outcome or "Effect" on the enemy through synergistic and cumulative application of the full range of military/non-military capabilities at all levels of conflict.
- Joint Intelligence, Surveillance and Reconnaissance (JISR). A network-centric approach to the management of Intelligence Surveillance Reconnaissance platforms and sensors to better support the quick paced demands of Effects Based Operations.
- Focused Logistics (FL). Focused Logistics is the fusion of logistics information and transportation technologies for rapid response, deployment and sustainment; the ability to track and shift units, equipment, and supplies even while enroute, and delivery of tailored logistics packages. It also calls on the need to accelerate the deployment process by compressing the time required for Reception, Staging, Onward-movement, and Integration (RSO&I). This concept advocates the exploration of new, emerging, and notional lift platforms and technologies such as High Speed Sealift (HSS) and Theater Support Vessels (TSVs). Joint Forces Command will examine the utility of establishing a Joint Logistics Command concept.
- Time Sensitive Targeting (TST). Time Sensitive Targeting is a requirement to find and destroy mobile theater missile infrastructure nodes and some selected asymmetrical threats. This became Joint Theater Air and Missile Defense Attack Operations. Low collateral damage weapons and "other methods" incorporate into the concept.

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PROGRAM ELEMENT TITLE: Joint Experimentation Project Title: Joint

Experimentation

Execution of Time Sensitive Targeting remains at the functional component level (and lower) for the near future. The purpose is to: shorten engagement timelines for high priority emerging targets; to exploit and harmonize ongoing service efforts into a joint concept of operations; to fully support the precision engagement vision in Joint Vision 2020; to support service experimentation efforts; and to realize near-/mid-term doctrine payoffs.

- Information Operations (IO). Information Operations use the information medium to apply various capabilities to produce or create effects that influence decision-making, behavior, and will. The ultimate targets of information operations are adversary decision makers, their decision-making processes, and their decision support systems. Operations that are effects-based set the conditions for the enemy to fail. Information Operations are critical to Effects-Based Operations because they create anticipation/belief by the enemy of their impending failure.
- Assured Access. One of the key enablers of the Rapid Decisive Operations concept is joint operations that assure friendly force access to the battle space. Assured access enables the joint force command to set and sustain the battle space conditions necessary to allow the joint force to reach the adversary's center of gravity. It is a critical pre-condition to achieving the effects prescribed by the joint force commander is part of every Combatant Commander's (C/C) Theater Engagement Plan.

FY 2005 PLANS:

- Low Collateral Damage Weapons (LCDW). Continue working on weapons systems used at the operational level to minimize civilian lives lost, infrastructure damage to the area around the target, and damage to the structure of the target itself in many cases.
- Effects Based Operations (EBO). Continue discovery, expansion and refinement of the process for obtaining a desired strategic outcome or "Effect" on the enemy through synergistic and cumulative application of the full range of military/non-military capabilities at all levels of conflict.
- Joint Intelligence, Surveillance and Reconnaissance (JISR). A network-centric approach to the management of Intelligence Surveillance Reconnaissance platforms and sensors to better support Effects Based Operations.
- Focused Logistics (FL). Continue to accelerate the deployment process by compressing the time required for Reception, Staging, Onward-movement, and Integration (RSO&I). Continue exploration of new, emerging, and notional lift platforms and technologies such as High Speed Sealift (HSS) and Theater Support Vessels (TSVs). Continue examining the establishment of a Joint Logistics Command concept.
- Joint Urban Operations (JUO). USJFCOM is the executive agent for the coordination of the overarching joint concept development and experimentation and requirements generation studies for joint urban operations, while integrating Service and U.S. Special Operations Command Title X. JFCOM provides support to Joint Warfighting Science and Technology planning and recommending sponsors for joint urban operations-related Advanced Concepts Technology Demonstrations to the Secretary of Defense via CJCS. As required, Joint Experimentation will review requirement documents for joint urban operations mission needs.

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Experimentation

Joint

Project Number: R2497

Project Title:

• Time Sensitive Targeting (TST). Continuing requirement to find and destroy mobile theater missile infrastructure nodes and some selected asymmetrical threats. This became Joint Theater Air and Missile Defense Attack Operations. Low collateral damage weapons and "other methods" incorporate into the concept. Execution of Time Sensitive Targeting remains at the functional component level (and lower) for the near future. The purpose is to continue efforts on: shortening engagement timelines for high priority emerging targets; exploiting and harmonizing ongoing service efforts into a joint concept of operations; to fully support the precision engagement vision in Joint Vision 2020; to support service experimentation efforts; and to realize near-/mid-term doctrine payoffs.

• Information Operations (IO). Information Operations use the information medium to apply various capabilities to produce or create effects that influence decision-making, behavior, and will. The ultimate targets of information operations are adversary decision makers, their decision-making processes, and their decision support systems. Operations that are effects-based set the conditions for the enemy to fail. Information Operations are critical to Effects-Based Operations because they create anticipation/belief by the enemy of their impending failure.

| | FY02 | FY03 | FY04 | FY05 |
|---------------------|--------|--------|--------|--------|
| Concept Development | 10,383 | 15,210 | 21,132 | 20,000 |

FY 2002 ACCOMPLISHMENTS:

• Future experimentation efforts continued to be dependent on an aggressive, continuous effort to develop concepts relating to transformation. A robust and aggressive concept development program that aligned with the Joint Experimentation Campaign Plan and focused on high priority tasks required concept development workshops and seminars, analytical wargames, and limited objective experiments supported by virtual and constructive simulation. Joint Experimentation was focused nearly exclusively on the Rapid Decisive Operations concept, and only five of its supporting concepts. Joint Experimentation targeted additional work on at least 24 emerging concepts including the next integrating concept after Rapid Decisive Operations over the 2003-2007 timeframe, and critical concepts such as: Assured Access, Multi-national operations, interagency operations, focused logistics, Joint Intelligence, Surveillance and Reconnaissance (JISR), and Joint Operational Warfighting (JOW).

FY 2003 PLANS:

• Experimentation efforts after the conclusion of Millennium Challenge 2002 experiment will continue to be dependent upon an aggressive, continuous effort to develop concepts relating to transformation. The Rapid Decisive Operations (RDO)—Next Decade concept will integrate Knowledge/Command and Control (K/C2), and Effects—Based Operations to achieve the desired political/military effort. This will continue to require a robust and aggressive level of effort of concept development that aligns with the Joint Experimentation Campaign Plan and focuses on high priority tasks assigned. Activities continue looking at emerging technologies in the 2020-2030 timeframe that may lead to far-term changes in the joint force.

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• Begin development of the next integrating concepts, Joint Capstone Concept (JCC), that evaluates "how" to fight and overcome the will of the adversary.

FY 2004 PLANS:

• Experimentation efforts continue to be dependent upon an aggressive, continuous effort to develop concepts relating to transformation. The integrating concepts of Rapid Decisive Operations (RDO) -Next Decade and Joint Capstone Concepts (JCC) integrate Knowledge/Command and Control (K/C2), Operational Net Assessment (ONA) and Effects-Based Operations to achieve the desired political/military effort. Activities continue looking at emerging technologies in the 2020-2030 timeframe that may lead to far-term changes in the joint force. The concept development operations plan will support development of recommendations for the FY05 Quadrennial Defense Review and JFCOM's primary transformation mission.

FY 2005 PLANS:

• Experimentation efforts depend upon an aggressive, continuous effort to develop concepts relating to transformation, requiring a robust and aggressive level of effort of concept development that aligns with the Joint Experimentation Campaign Plan, the FY05 Quadrennial Defense Review, and high priority tasks assigned. Concept development will include: Projecting the force; Protecting the joint force; Supporting the Joint Force; non-contiguous Joint Suppression of Enemy Air Defense (JSEAD), and more concepts currently under-worked or not worked. Additionally, the Defense Planning Guidance notes more capabilities need developing: Stealth vs. non-stealth, Manned vs. unmanned, new competitive opportunities in sensors, and Intelligence Surveillance Reconnaissance, and Strategic Lift.

| | FY02 | FY03 | FY04 | FY05 |
|------------------------------------|----------------|-------|----------------|----------------|
| Innovation and Exploration Futures | 2 , 735 | 4,030 | 5 , 470 | 5 , 560 |
| Alliance/Project Alpha | | | | |

FY 2002 ACCOMPLISHMENTS:

• Activities continued to look at emerging technologies that could lead to near-/mid-/far-term changes in the joint force. This was done through a series of seminars, workshops, and the leveraging of the Service wargames. Project Alpha Team formed a partnership with the Science Engineering Research Affiliate (SERA) in an effort to extend the reach of JFCOM through collaborative relationships with Service, Defense Advanced Research Project Agency (DARPA), University Affiliated Research Centers, and Department of Energy Labs. The objective was to include representatives of these organizations as partners in transformation.

FY 2003 PLANS:

ullet USJFCOM is initiating a quick turn around analytical modeling capability to rapidly assess new ideas and their feasibility for full concept development and experimentation. Analytical modeling allows us to assess

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the "pay back" potential on ideas without investing large amounts of resources until viability is proven.

Project Alpha initiatives include Swarming Unmanned Aerial Vehicles (UAVs). Swarming Unmanned Aerial Vehicles concept uses 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 refining the analytical model to rapidly assess new ideas and their feasibility for full concept development and experimentation. With the assistance of Defense Advanced Research Project Agency (DARPA), other Department of Defense agencies, Multi-National, and Inter-Agency collaboration, experiments are continuously on going and partnered or leveraged to examine emerging technologies. Innovation and exploration efforts continue for impacting 2025-2040 timeframe. Investigation continues in areas of Hard-to-Get Signals, sensor development, Low Collateral Damage Weapons (LCDW) and Non-Lethal Weapons among others.

FY 2005 PLANS:

• As in 2004, USJFCOM continues refining the analytical model to rapidly assess new ideas and their feasibility for full concept development and experimentation. With the assistance of Defense Advanced Research Project Agency (DARPA), other Department of Defense agencies, Multi-National, and Inter-Agency collaboration, experiments are continuously on going and partnered or leveraged to examine emerging technologies. Innovation and exploration efforts continue for impacting 2025-2040 timeframe. Investigation continues in areas of Hardto-Get Signals, sensor development, Low Collateral Damage Weapons (LCDW) and Non-Lethal Weapons among others.

| | FY02 | FY03 | FY04 | FY05 |
|---|-------|-------|-------|-------|
| Integration with other regional Combatant | 2,149 | 4,570 | 5,663 | 6,040 |
| Commanders, Military Services and Agencies. | | | | |

FY 2002 ACCOMPLISHMENTS:

- Continued communication efforts coordinating concept development and experimentation through a series of meetings, workshops and seminars were critical to thorough planning of Millennium Challenge experiment. These workshops were designed to adequately capture and assess Combatant Commander's (C/C) current joint warfighting needs and directions for experimentation. The key activities (workshops) were as follows:
 - Army Transformation Wargame
 - Air Force Futures

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FY 2003 PLANS:

• Continued communication efforts to fully coordinate planned concept development and experimentation through a series of meetings, workshops and seminars. Adequately capture and assess current joint warfighting needs and directions for experimentation. This is done through a continued series of seminars and workshops, and the leveraging of the Service and Title X wargames. The key activities (workshops and seminars) are as follows:

- JFCOM's Pinnacle Impact 2003
- Navy Wargame Series (Four) Sea Basing, Sea Strike, Force Net & Sea Shield
- Air Force Global Engagement VI
- Army Transformation Wargame
- OSD Transformation Wargame Series
- SPACECOM Schriever
- SOCOM Vision Series (Three)
- USMC Expeditionary Warrior

FY 2004 PLANS:

- Continued communication efforts to fully coordinate planned concept development and experimentation through a series of meetings, workshops and seminars. Adequately capture and assess current joint warfighting needs and directions for experimentation. This is done through a continued series of seminars and workshops, and the leveraging of the Service and Title X wargames. The key activities (workshops and seminars) are as follows:
 - JFCOM's 2004 Joint Global Wargame
 - Terminal Fury (PACOM SJFHQ Refinement)
 - Air Force Futures
 - Army Transformation Wargame
 - SOCOM Vision Series (One)
 - OSD Transformation Wargame Series
 - USMC Expeditionary Warrior
 - Other Wargames To Be Determined

FY 2005 PLANS:

- Continued communication efforts to fully coordinate planned concept development and experimentation through a series of meetings, workshops and seminars. Adequately capture and assess current joint warfighting needs and directions for experimentation. This is done through a continued series of seminars and workshops, and the leveraging of the Service and Title X wargames. The key activities (workshops and seminars) are as follows:
 - JFCOM executing Impact (2005) and planning Vision (2006) Experiments
 - Internal Look (CENTCOM SJFHO Refinement)

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• Navy Global Wargame

• OSD Transformation Wargame Series

• USMC Expeditionary Warrior

• SPACECOM Schriever

• Army Transformation Wargame

• SOCOM Vision Series (Two)

• Air Force Global Engagement VII

• DARPA Technology Wargames

• Other Wargames To Be Determined

| | FY02 | FY03 | FY04 | FY05 |
|--------------------------------------|-------|----------------|-------|----------------|
| Multi-national and Coalition Concept | 1,954 | 3 , 500 | 4,650 | 4 , 750 |
| Development | | | | |

FY 2002 ACCOMPLISHMENTS:

• USJFCOM continued the exploration of the multi-national concept of operations, engagement, education and collaboration with our multi-national partners through a series of Limited Objective Experiments that explored information sharing and collaboration during Rapid Decisive Operations. The multi-national experimentation efforts were embedded in our experimentation efforts.

FY 2003 PLANS:

• Continued exploration of the Multi-National (MN) collaboration, multi-level security and knowledge building issues - all J9 concept issues. JFCOM will address the Chairman Joint Chief of Staff's task to explore Coalition Information Sharing. Major emphasis will be on Operational Net Assessment (ONA) collaboration, dynamic updating and how other nation's Joint Force Headquarters integrate with ours requiring a new ONA scenario free of political and security sensitivities. We are building the ONA "backbone" to support Multi-National products from our coalition partners.

FY 2004 PLANS:

• JFCOM will continue exploring the Multi-National (MN) concept of operations, engagement, education and collaboration with our MN partners. This is through a series of Limited Objective Experiments that explores information sharing, Multi-Level Security (MLS), and Coalition Common Relevant Operating Picture (CCROP) during Rapid Decisive Operations (RDO)-Next Decade and Joint Warfighting Concept (JWC). The multi-national experimentation efforts continue to be embedded in all our other experimentation efforts.

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Experimentation

FY 2005 PLANS:

• JFCOM will continue exploring the Multi-National (MN) concept of operations, engagement, education and collaboration with our MN partners. JFCOM continues to increase the visibility of our MN partners needing access to vital information and emphasizing system technology improvements in Multi-Level Security (MLS).

C. OTHER PROGRAM FUNDING SUMMARY:

NAVY RELATED RDT&E:

- 0601152N In-house Lab Independent Research
- 0601153N Defense Research Sciences
- 0602114N Power Projection Applied Research
- 0602123N Force Protection Applied Research
- 0602131M MC Landing Forces Tech
- 0602235N Common Picture Applied Research
- 0602236N Warfighter Sustainment Applied Research
- 0602271N RF Systems Applied Research
- 0602435N Ocean Warfighting Environment Applied Research
- 0602747N Undersea Warfare Applied Research
- 0602782N Mine & Expeditionary Warfare Applied Research
- 0603114N Power Projection Advanced Technology
- 0603123N Force Protection Advanced Technology
- 0603235N Common Picture Advanced Technology
- 0603236N Warfighter Sustainment Advanced Technology
- 0603271N RF Systems Advanced Technology
- 0603640M Marine Corps Advanced Technology
- 0603729N Warfighter Protection Advanced Technology
- 0603747N Undersea Warfare Advanced Technology
- 0603757N Joint Warfare Experiments
- 0603758N Naval Warfighting Experiments and Demo
- 0603782N Mine & Expeditionary Warfare Advanced Technology
- 0603750D Advanced Concept Technology Demonstration
- 0603727D Joint Warfighting Program

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D. ACQUISITION STRATEGY: Not Applicable