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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Office of Secretary Of Defense **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	R-1 ITEM NOMENCLATURE PE 0603828D8Z: <i>Joint Experimentation</i>
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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	100.253	105.936	111.946	0.000	111.946	113.999	115.297	117.153	119.245	Continuing	Continuing
P808: <i>Joint Experimentation</i>	100.253	105.936	111.946	0.000	111.946	113.999	115.297	117.153	119.245	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Joint Experimentation (JE) Program Element is the lynchpin resource underwriting a diverse portfolio of experiments addressing the needs of joint combatants. Projects typically confirm critical joint mission capability gaps; identify potential remedies; explore a range of Doctrine, Organizational, Training, Leadership, Personnel, Facilities, and Policy (DOTLPF-P) solutions; and establish the best path to solving security challenges. Experiments span a spectrum from early efforts to develop new joint operational concepts, to refinement of joint doctrine, to scenario-based examination of potential technology-based solutions. By exposing potential shortfalls and exploring opportunities, JE is essentially an early risk mitigation tool preceding force capability investments. Joint Combatant Commanders (COCOMs) are the primary customers of projects funded by the JE Program, but these projects provide collateral benefits to a wider Defense Experimentation Enterprise including Military Services, Agencies and the Office of the Secretary of Defense (OSD) as well as intra-government, international and Non-Government Organization (NGO) partners. The experiments funded by this program establish the path to correct current joint warfighting deficiencies and lay the foundation for effective future joint forces. Director, Defense Research & Engineering (DDR&E) within the Office of the Secretary of Defense (OSD) provides oversight to ensure alignment with strategic guidance and emphasizes disciplined design and cost control of individual projects with meaningful results that can be assessed with metrics based on incremental force improvements.

The JE Program endows the Joint Concept Development & Experimentation (JCD&E) efforts led by US Joint Forces Command (USJFCOM), DOD lead for joint experimentation. The JCD&E Enterprise includes the COCOMs, the Military Services, the National Guard, the Joint Staff, several directorates from the Office of the Secretary of Defense (OSD), and several Defense Agencies. Partners from intra-government agencies and coalition partners often participate in JCDE processes and projects. JCD&E primarily services the COCOMs, but important collateral benefits accrue to other members and partners in the extended experimentation community. For example, much of the joint content in Military "Title 10" wargames can be traced to coordination in the JCD&E fora. JCD&E experiments originate from an annual call for nominations, and closely align to the Integrated Priority List (IPL) representing the critical needs submitted by COCOMs to the Chairman of the Joint Chiefs of Staff (CJCS). JCD&E nominations undergo preliminary analysis by the USJFCOM executive agent. This analysis aims to confirm topic suitability for experimentation and aims to associate similar requests for economy of effort. The resultant list is termed "Joint Warfighter Challenges (JWC) and constitutes the list of experimentation efforts eligible for design and execution. The JCD&E enterprise ranks JWCs in priority order before USJFCOM expends resources to develop preliminary experimentation plans. In consultation with JCD&E partners, USJFCOM formulates an annual program of experimentation aiming to include a wide customer base, while addressing the highest priorities and yielding meaningful outcomes that maximize return on investment. USJFCOM-led JCD&E experiments

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APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE
0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 3: <i>Advanced Technology Development (ATD)</i>	PE 0603828D8Z: <i>Joint Experimentation</i>

represent the gold standard for employment of analytical rigor and insightful scenario employment. A modest JCD&E management reserve is retained to address emergent critical issues referred for experimentation and to exploit unanticipated opportunities for further investigation from on-going projects

JCD&E experiments examine potential solutions for COCOM operational needs through targeted Doctrine, Organizational, Training, Leadership, Personnel, Facilities, and Policy (DOTLPF-P) improvements. In general, JCD&E experiments tackle overarching joint capability issues demanding sophisticated analysis, innovative design and complex execution. JCD&E addresses topics that would prove difficult for individual COCOMs and Services to effectively capture in the context of their immediate operational and force generation responsibilities. JCD&E experiments produce a range of outcomes inclusive of fundamental joint doctrine, inputs to major policy documents such as Guidance for Development of the Force (GDF) and Guidance for Employment of the Force (GEF), and validated concepts conduct of current operational campaigns. In partnership with the Military Services, JCD&E mitigates operational risk by establishing procedural models to conduct emergent concepts like Irregular Warfare that are not yet instantiated in conventional force generation.

The JE Program also enfranchises small experimentation cells at the COCOMs to undertake projects addressing issues unique to their geographic or functional areas of responsibility. Termed "Limited Objective Experiments (LOEs)", these tend to be short in duration and reduced in scale compared to USJFCOM JCD&E projects. COCOM experiments range from identification of joint capability gaps to early employment of prototype remedies in field conditions. COCOMs can draw upon the expertise of the core JCD&E technical staff at USJFCOM to formulate their LOEs and facilitate execution. To stretch resources, COCOMs often design their experiments as extensions of previously planned component command exercises. In partnership with DDR&E, the COCOMs host scenario-based experiments as an opportunity to inform scientists and engineers about current or anticipated mission capability gaps, and solicit recommendations for innovative technology-based solutions. This element of experimentation is especially useful in generating rapid-response demonstrations that springboard into enduring force enhancements and frequently provide gap-filling interim capabilities. LOEs complement more formal JCD&E efforts undertaken by USJFCOM to address overarching issues of employing Service-generated forces in joint roles. COCOMs report all LOEs in the JCD&E process to avoid duplication, to solicit partners, and to ensure synchronization of effort across the Defense Experimentation community.

DDR&E participates in the JCD&E process and works closely with COCOMs conducting LOEs. Experiments are monitored to ensure sound fiscal management; to provide technology expertise in pursuit of joint capability enhancements; to promote synchronization of efforts within the experimentation domain; and to pursue productive integration with technology development and demonstration efforts.

A biennial report captures activities across the Defense Experimentation domain to inform Congress of program execution and project accomplishments.

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BA 3: <i>Advanced Technology Development (ATD)</i>	

B. Program Change Summary (\$ in Millions)

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>
Previous President's Budget	114.947	124.480	0.000	0.000	0.000
Current President's Budget	100.253	105.936	111.946	0.000	111.946
Total Adjustments	-14.694	-18.544	111.946	0.000	111.946
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-5.436	0.000			
• SBIR/STTR Transfer	-2.620	0.000			
• Other Program Adjustments	-6.638	-18.544	111.946	0.000	111.946

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: P808: *Joint Experimentation*

Congressional Add: *Collaboration Gateway*

	<u>FY 2009</u>	<u>FY 2010</u>
Congressional Add Subtotals for Project: P808	1.200	0.000
Congressional Add Totals for all Projects	1.200	0.000

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A. Mission Description and Budget Item Justification

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The JE Program endows the Joint Concept Development & Experimentation (JCD&E) efforts led by US Joint Forces Command (USJFCOM), DOD lead for joint experimentation. The JCD&E Enterprise includes the COCOMs, the Military Services, the National Guard, the Joint Staff, several directorates from the Office of the Secretary of Defense (OSD), and several Defense Agencies. Partners from intra-government agencies and coalition partners often participate in JCDE processes and projects. JCD&E primarily services the COCOMs, but important collateral benefits accrue to other members and partners in the extended experimentation community. For example, much of the joint content in Military "Title 10" wargames can be traced to coordination in the JCD&E fora. JCD&E experiments originate from an annual call for nominations, and closely align to the Integrated Priority List (IPL) representing the critical needs submitted by COCOMs to the Chairman of the Joint Chiefs of Staff (CJCS). JCD&E nominations undergo preliminary analysis by the USJFCOM executive agent. This analysis aims to confirm topic suitability for experimentation and aims to associate similar requests for economy of effort. The resultant list is termed "Joint Warfighter Challenges (JWC) and constitutes the list of experimentation efforts eligible for design and execution. The JCD&E enterprise ranks JWCs in priority order before USJFCOM expends resources to develop preliminary experimentation plans. In consultation with JCD&E partners, USJFCOM formulates an annual program of experimentation aiming to include a wide customer base, while addressing the highest priorities and yielding meaningful outcomes that maximize return on investment. USJFCOM-led JCD&E experiments represent the gold standard for employment of analytical rigor and insightful scenario employment. A modest JCD&E management reserve is retained to address emergent critical issues referred for experimentation and to exploit unanticipated opportunities for further investigation from on-going projects

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<p>JCD&E experiments examine potential solutions for COCOM operational needs through targeted Doctrine, Organizational, Training, Leadership, Personnel, Facilities, and Policy (DOTLPF-P) improvements. In general, JCD&E experiments tackle overarching joint capability issues demanding sophisticated analysis, innovative design and complex execution. JCD&E addresses topics that would prove difficult for individual COCOMs and Services to effectively capture in the context of their immediate operational and force generation responsibilities. JCD&E experiments produce a range of outcomes inclusive of fundamental joint doctrine, inputs to major policy documents such as Guidance for Development of the Force (GDF) and Guidance for Employment of the Force (GEF), and validated concepts conduct of current operational campaigns. In partnership with the Military Services, JCD&E mitigates operational risk by establishing procedural models to conduct emergent concepts like Irregular Warfare that are not yet instantiated in conventional force generation.</p> <p>The JE Program also enfranchises small experimentation cells at the COCOMs to undertake projects addressing issues unique to their geographic or functional areas of responsibility. Termed "Limited Objective Experiments (LOEs)", these tend to be short in duration and reduced in scale compared to USJFCOM JCD&E projects. COCOM experiments range from identification of joint capability gaps to early employment of prototype remedies in field conditions. COCOMs can draw upon the expertise of the core JCD&E technical staff at USJFCOM to formulate their LOEs and facilitate execution. To stretch resources, COCOMs often design their experiments as extensions of previously planned component command exercises. In partnership with DDR&E, the COCOMs host scenario-based experiments as an opportunity to inform scientists and engineers about current or anticipated mission capability gaps, and solicit recommendations for innovative technology-based solutions. This element of experimentation is especially useful in generating rapid-response demonstrations that springboard into enduring force enhancements and frequently provide gap-filling interim capabilities. LOEs complement more formal JCD&E efforts undertaken by USJFCOM to address overarching issues of employing Service-generated forces in joint roles. COCOMs report all LOEs in the JCD&E process to avoid duplication, to solicit partners, and to ensure synchronization of effort across the Defense Experimentation community.</p> <p>DDR&E participates in the JCD&E process and works closely with COCOMs conducting LOEs. Experiments are monitored to ensure sound fiscal management; to provide technology expertise in pursuit of joint capability enhancements; to promote synchronization of efforts within the experimentation domain; and to pursue productive integration with technology development and demonstration efforts.</p> <p>Joint Experimentation Program investment aims to align 80% of annual funding to JCD&E elements and 20% to COCOM LOE efforts.</p> <p>A biennial report captures activities across the Defense Experimentation domain, inclusive of USJFCOM, the combatant commands and the military services to inform Congress of program execution and project accomplishments.</p> <p>Details of execution:</p> <ol style="list-style-type: none">1. JCD&E Experimentation.		

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<p>JE examines joint concepts and develops exploratory concepts in an effort to describe how the Joint Force Commander will operate to meet current and future security challenges, and examines the joint capabilities required to execute the concepts. To support the continued transformation of the joint force even while it is engaged in operations around the world, joint concept development applies historical precedents, lessons learned from current operations, and studies the projected joint operational environment to advance the conceptual foundation for the future force. A relatively stable investment projection for the JE Program drives aggressive efforts to derive greater return on investment for the DoD in the face of increasing demand for projects from joint COCOMs and experimentation partners.. From the perspective of OSD engagement and oversight, emphasis will be focused on the following refinements to the influence JE business model.</p> <p>Refinements to the JCD&E business model. Aiming to constantly improve return on investment, USJFCOM and OSD partners engage partners throughout the Department of Defense to join the experimentation process and to incorporate results in policy, doctrine, tactics, training and operational procedures. In pragmatic terms, this effort to distill ever greater benefit includes:</p> <ul style="list-style-type: none"> - Tracing JE efforts to discriminate changes to joint capabilities. - Tying JE closer to Department operational analysis & Defense Planning Scenarios. - Periodically and deliberately redressing balances between near-term critical capability adjustments and long-term capability conceptualization. - Positioning joint experimentation in a larger scheme of overarching capability development that begins with lessons learned and critical analysis, enjoins experimentation, and progresses through demonstration, acquisition, and training. - Designing experiments for more responsive deliverables through quicker starts, event-driven "go/no go" reviews, and incremental designs permitting faster "do-learn-decide" cycles for continued investment. <p>Analytical Rigor.</p> <p>Since 2008, increased emphasis has been placed on adherence to standards of analytical rigor in design, conduct, and exploitation of experiments. A significant part of this rigor is aligning the JCD&E to warfare areas common to wider areas of Defense analyses. FY 09 and 10 experimentation efforts are organized into Lines of Joint Experimentation (LOJX) which group prioritized war fighter challenges into areas of related or complementary work. This organizational construct facilitates DoD-wide understanding and tracking of planned joint experimentation activities and resulting products and outcomes by matching the Tier 1 Joint Capability Areas. JCD&E work follows seven LOJXs, including: Battlespace Awareness (BA), Building Partnerships (BP), Command & Control (C2), Force Application (FA), Logistics (LOG), Net – Centric (NC) and Protection (P). In addition, in FY 08, USJFCOM employed Community Management and Support to establish the DoD-wide JCD&E Enterprise. In FY 09 and beyond, the Enterprise will continue to contribute to overall DoD JCD&E results.</p> <p>Cost-Saving Initiatives.</p> <ul style="list-style-type: none"> - Contract Vehicle Initiative. USJFCOM completed an ambitious multi-year effort to redesign their contracted support vehicle for JCD&E. Departing from the model of a single large contractor, USJFCOM awarding of a new contract structure including three prime vendors. This postures the command to compete bids for individual experiment support. Early results in Fiscal Year 2009 show noteworthy decline in experimentation costs, raising the prospect of addressing backlogged requests from joint COCOM customers. 		

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<p>- Networked Coordination. Introduction of a Virtual Operations Center (VOC) to allow Enterprise-wide transparency and holds the potential for decreasing travel associated with customer service and enterprise-wide coordination. Increasing use of distributed experimentation design will allow geographically separated groups to join experiment projects from their home bases, again saving travel funds and increasing potential partner base.</p> <p>- Spin-Off Organization Divestment. Over the years, successful lines of experimentation spawned special function teams aligned with the JCD&E process. First, a Joint Futures Group (JFG) formed to conduct experimentation in long-lead developmental military capabilities. This group focused in the long term, and in Fiscal Year 2008, it was aligned with the USJFCOM J5 directorate while retaining dependency on JE Program funding for development of their future operations scenario projection, the "Joint Operating Environment". Next, the Joint Urban Operations Office (JUO) evolved to address emergent shortfalls in military capacity to conduct urban warfare as learned during Operation Iraqi Freedom. More recently, the JUO expanded into the Joint Irregular Warfare Center (JIWC) to address this wider area of warfare engendered by continuing engagement with unconventional aspects of peacekeeping and counter terrorism. In FY 09, USJFCOM established an Irregular Warfare Center (IWC), to serve as the USJFCOM Commander's advisor and proponent concerning Irregular Warfare, leveraging current DoD executive agent for Joint Urban Operations responsibilities to achieve increased synergy. The IWC leads and directs the integrated USJFCOM approach with DoD, Multinational and Interagency partners for Joint Force Irregular Warfare (IW) concept development, training. As with the JFG, the JUO and JIWC continue to draw on JE Program funding, albeit in areas closely aligned with JCD&E goals. In FY12, USJFCOM will emplace fiscal changes to align funding of their J9 directorate staff functions to conform to a normalized fiscal model for combatant command support. A significant portion of JE Program funding continued to underwrite standing facility and staff costs as a legacy of an independent Joint Futures Laboratory representing the seminal institution for joint experimentation. At the turn of the decade, the Joint Futures Laboratory was incorporated into USJFCOM as the J9 directorate, but JE Program RDT&E funding remained the primary underpinning of this command element. This arrangement significantly diminished resources available to undertake experiment projects. OSD and USJFCOM are pursuing comptroller actions to ensure that reliance on JE Program funding for organizations "spun-off" from JCD&E are limited to short intervals necessary to verify effectiveness, establish credibility, and identify appropriate resources for enduring missions.</p> <p>- Funding efficiencies were realized by transition of an independent computer network to the USJFCOM computer network, and a reduction in Information Technology costs, Modeling & Simulation costs and facilities overhead.</p> <p>JCD&E Accomplishments Concept development in FY-09 delivered the Capstone Concept for Joint Operations (CCJO), and completed Cooperative Security Experimentation. The CCJO is the Chairman's vision for how the joint force will operate in a complex and uncertain environment. The CCJO will be used to inform force development and employment by providing a broad description of how the future joint force will operate; establish a common intellectual framework for military professionals; provide a compelling joint narrative; provide a joint operations primer for policy makers; and establish a conceptual foundation for subordinate Joint and Service concept development. In FY09 the broad ideas laid out in the CCJO were tested through joint experimentation and provided investment-grade insights on required capabilities for the future force. The CCJO Experimentation also identified the need for additional concepts that will focus on specific shortfalls and gaps in current doctrine. In FY 09, a number of important capabilities were transitioned to combatant commands, Service and agency force developers, and acquisition authorities for delivery to the joint force. These capabilities include: Cyber Operations Crisis Action Planning template and a Guide to the Development of Computer Network Attack (CNA) Measures of Performance (MOP) and Measures of Effectiveness (MOE) to JFCC-NW, an analytical approach to understanding offensive cyberspace manpower requirements to USSTRATCOM</p>		

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<p>and the Force Support (FS) Functional Capabilities Board (FCB); Military Support to Economic Normalization handbook to Joint Doctrine; doctrinal definitions of persistent surveillance, tipping, surveillance forensic analysis and collections analysis; and a Deployable Assessment and Assistance Team (DAAT) Concept that provides the Joint Force Commander (JFC) with a means to improve the effectiveness and sustainability of defense-related security assistance programs, more effectively nest regional and bilateral programs into larger U.S. government strategy for a comprehensive approach to Security Sector Reform (SSR), and is consistent with U.S. policy on SSR. The JCD&E Program enabled logistics information interoperability between the Services, national partners (USTRANSCOM and DLA) and Coalition Partners through development of discrete descriptions of logistics resources. A DOTMLPF-P Change Recommendation, backed by objective research and metrics, provided Joint Logistics tools and processes that, when implemented by the Joint Force Commander, reduce the likelihood of operational pauses due to the need for scarce resources. The JCD&E Program also supported development of standardized multinational logistics user guidance and the Logistics Functional Area Services System (LOGFAS) staff officer guide to facilitate logistics information system interoperability among multinational partner nations.</p> <p>Experimentation in the joint context tests operational concepts and develops exploratory concepts in an effort to describe how the Joint Force Commander will operate to meet current and future security challenges, and examines the joint capabilities required to execute the concepts. To support the continued transformation of the joint force even while it is engaged in operations around the world, joint concept development applies historical precedents, lessons learned from current operations, and studies the projected joint operational environment to advance the conceptual foundation for the future force. Concept development in FY-09 delivered the Capstone Concept for Joint Operations (CCJO), and completed Cooperative Security Experimentation. The CCJO is the Chairman's vision for how the joint force will operate in a complex and uncertain environment. The CCJO will be used to inform force development and employment by providing a broad description of how the future joint force will operate; establish a common intellectual framework for military professionals; provide a compelling joint narrative; provide a joint operations primer for policy makers; and establish a conceptual foundation for subordinate Joint and Service concept development. In FY09 the broad ideas laid out in the CCJO were tested through joint experimentation and provided investment-grade insights on required capabilities for the future force. The CCJO Experimentation also identified the need for additional concepts that will focus on specific shortfalls and gaps in current doctrine.</p> <p>In FY 09, a number of important capabilities were transitioned to combatant commands, Service and agency force developers, and acquisition authorities for delivery to the joint force. These capabilities include: Cyber Operations Crisis Action Planning template and a Guide to the Development of Computer Network Attack (CNA) Measures of Performance (MOP) and Measures of Effectiveness (MOE) to JFCC-NW, an analytical approach to understanding offensive cyberspace manpower requirements to USSTRATCOM and the Force Support (FS) Functional Capabilities Board (FCB); Military Support to Economic Normalization handbook to Joint Doctrine; doctrinal definitions of persistent surveillance, tipping, surveillance forensic analysis and collections analysis; and a Deployable Assessment and Assistance Team (DAAT) Concept that provides the Joint Force Commander (JFC) with a means to improve the effectiveness and sustainability of defense-related security assistance programs, more effectively nest regional and bilateral programs into larger U.S. government strategy for a comprehensive approach to Security Sector Reform (SSR), and is consistent with U.S. policy on SSR. The JCD&E Program enabled logistics information interoperability between the Services, national partners (USTRANSCOM and DLA) and Coalition Partners through development of discrete descriptions of logistics resources. A DOTMLPF-P Change Recommendation, backed by objective research and metrics, provided Joint Logistics tools and processes that, when implemented by the Joint Force Commander, reduce the likelihood of operational pauses due to the need for scarce resources. The JCD&E Program also supported development of standardized multinational logistics user guidance</p>		

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and the Logistics Functional Area Services System (LOGFAS) staff officer guide to facilitate logistics information system interoperability among multinational partner nations.

2. COCOM Limited Objective Experiments (LOEs).

Complementing the experimentation efforts undertaken by USJFCOM, the other Combatant Commands conduct LOEs to address operational capability gaps and identify potential solutions for specific theater and functional joint warfighter needs. As with the JCD&E process executed by USJFCOM, COCOM LOEs address the gamut of DOTMLPF options that could offer remedies to joint mission capability gaps. All experimentation activities undertaken by the COCOMs are coordinated within the JCD&E enterprise to cover gaps and avoid unnecessary duplication, and the results are reported to the Defense Experimentation community. The results of these experimental efforts are captured in annual JCD&E reports. The collaborative planning efforts of the JCD&E enterprise ensures joint context, concepts, and anticipated capabilities are effectively integrated into Service experimentation as appropriate.

Initiatives and Accomplishments.

US Pacific Command (USPACOM), US Southern Command (USSOUTHCOM), US Special Operations Command (USSOCOM), US Northern Command (USNORTHCOM), US Strategic Command (USSTRATCOM) and US European Command (USEUCOM) incorporated experimentation cells with the assistance of USJFCOM and DDR&E. USSOUTHCOM has the longest legacy of experiments with pathfinding experiments in cross-domain automated information sharing and introduction of foliage penetrating technologies to establish effective tactic, techniques and procedures. USPACOM has the most mature and aggressive experimentation cell. USPACOM experimentation with protecting operational information networks, wide area surveillance, and countering weapons of mass destruction yielded lessons and enhanced capabilities across the Department of Defense. Their cadre of COCOM-hosted experimenters shares their experience with other commands, notably helping USEUCOM to establish their hallmark experiment on inter-/intra-theater heavy strategic logistics concepts. USNORTHCOM's first efforts with LOEs emphasized ground-breaking adherence to scientific operational analysis principles in exploring implications for military operations in Arctic regions and the homeland. USSTRATCOM, and USSOCOM drew on USNORTHCOM experience to initiate new lines of limited objective experiments representing their first trial of this exploration discipline.

B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Building Partnerships (BP) Building Partnerships: BP JCA projects will provide the Joint Force Commander the ability to set the conditions for interaction with partner, competitor or adversary leaders, military forces, or	22.764	21.414	24.048	0.000	24.048

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B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>Workshop outputs were synthesized into impediments and proposed solutions (with associated implementing actions) for the six workshop problem areas: Interagency Collaboration, Countering Violent Extremism, the Indirect Approach, Assessing the Effectiveness of Irregular Warfare Operations, Sovereign Partner Collaboration, and Special Operations Forces (SOF) - General Purpose Forces (GPF) Synchronization.</p> <p><i>FY 2010 Plans:</i></p> <p>Joint Integrated Persistent Surveillance Network (JIPS)</p> <ul style="list-style-type: none"> • Improve joint surveillance asset integration, management, effectiveness and optimization through development and refinement of persistent surveillance capabilities to include doctrine, organization, training, processes, and procedures which will improve ISR operations from the national to the tactical level. Recommended transition agents for these products are OSD, Joint Staff, services and USJFCOM J7. • Improve joint persistent surveillance asset integration by developing CONOPS, TTPs and architecture recommendations that maximize employment of near term capabilities for streamlining the tipping, cueing and communication process among collection assets. Recommended transition agents for these products are OSD, Joint Staff, and services. • Provide the ability to more efficiently and effectively combine and apportion sensors to achieve optimum persistence in restricted and denied areas through developed and refined CONOPS, TTPs, and employment recommendations. Recommended transition agents for these products are OSD, Joint Staff, and services. • Develop and refine a process to assess and visualized the execution of persistent surveillance through the development of processes, procedures, architecture recommendations, as well as the development of tools. Recommended transition agents for these products are OSD, Joint Staff, and services 								

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B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>data and findings to "QDR Cyber Tiger Team" and informed Operation Gladiator Phoenix planning and EXORD.</p> <p>Planning, Assessment and Decision Support Systems (PADSS)</p> <ul style="list-style-type: none"> • Joint Military Utility Assessment (JMUA) demonstrated enhanced decision-aiding technologies and software applications that facilitate rapid and effective operational planning, decision-making, execution, and dynamic assessment of combined and joint operations. Capability is expected to transition to NECC in FY12. Army and DISA are planning to fund in FY10 and FY11, respectively. <p>Joint Targeting Proof of Concept</p> <ul style="list-style-type: none"> • Evaluated and improved the effectiveness of targeting support to the Joint Force Commander by determining the range of DOTMLPF-P capabilities required, including education, training, automation systems interoperability and proposed organizational realignment in support of a new concept of employment for a targeting support management organization. • Delivered a concept of operations (CONOPS) for a Joint Targeting Support Command to manage the targeting enterprise; CONOPS experimentally vetted and validated. <p><i>FY 2010 Plans:</i></p> <p>Irregular Warfare: Countering Irregular Threats Joint Operating Concept (IW JOC)</p> <ul style="list-style-type: none"> • Establish a common framework for military professionals to think about future joint operations to counter irregular threats and support complex operations. • Identifies the joint force military capabilities required to successfully conduct the IW core mission area. • Informs government agencies and partner nations of joint force capabilities and support to whole of government efforts. <p>Cyberspace Operations (CYBEROPS)</p>					

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<ul style="list-style-type: none"> • Refine the processes and procedures for MAAWS coordinated actions through information sharing across friendly forces, organizations and agencies. • Provide the information and knowledge necessary to defeat the insurgent's financial network. <p><i>FY 2011 Base Plans:</i></p> <ul style="list-style-type: none"> • FY 11 projects will be developed based on Enterprise Warfighter Challenges (Collected in Late FY09 and Early FY10) and include efforts to make Irregular Warfare a core competency among our Joint Forces, improve the Joint Force Commander's ability to conduct Distributed Operations, improve integration among the Joint Forces and further the Joint Force Commander's to plan and respond to Non-Domestic Consequence Management. 						
<p>Logistics (Log)</p> <p>LOG JCA projects will enable the Joint Force Commander to project a sustained joint force throughout the many phases of operations within the full spectrum of warfare described by the Capstone Concept of Joint Operations (CCJO). This is done through a series of joint logistics rules, tools and processes and the sharing of discrete data describing national and multinational resources available for warfighter use. This creates a synergistic effect of logistics support to distributed operations.</p> <p><i>FY 2009 Accomplishments:</i></p> <p>U.S. Korea Command (KORCOM) Transition</p> <ul style="list-style-type: none"> • Wrote new concepts of operation for use by the KORCOM J-4: the Combined Logistics Coordination Center (CLCC) and the Multinational Logistics Coordination Center (MNCC). • Created documentation for new organizational structures which will allow the U.S. Forces in Korea to transition to a ROK operationally led defense of the Korean Peninsula. • Conducted assessments of Korean Theater of Operations logistics capability during sub unified command exercises. • Provided subject matter expertise of joint logistics doctrine and policy during quarterly Joint Logistics Transformation Team workshops. 		17.985	16.518	19.351	0.000	19.351

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B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>Analysis #2 associated gaps, as identified through the Joint Seabasing Analysis and Wargaming (JSAW) Phase II campaign modeling of the approved MCO 2024 scenario.</p> <p><i>FY 2010 Plans:</i></p> <p>Seabasing Functional Solutions Analysis (FSA)</p> <ul style="list-style-type: none"> • Produce Functional Solutions Analysis (FSA) for overcoming or mitigating identified gaps to enable effective Joint Seabasing capabilities. <p>Logistics Sustainment for Joint Distributed Operations</p> <ul style="list-style-type: none"> • Identify and evaluate existing logistics concepts of operation to support future joint forces that may require tailored sustainment provided with increased speed in order to support multiple units operating independently or in concert. Identify and assess mobility capability requirements to support operations conducted in these conditions. • Improve processes and methods to effectively project and logistically sustain the force during distributed operations. • Improve understanding of lift requirements associated with supporting distributed joint operations. <p>Adaptive Logistics Network</p> <ul style="list-style-type: none"> • Identify, examine, and evaluate concepts of operation, planning frameworks, tools and mechanisms involved to plan and execute an interagency, multinational and private sector logistics response in support of Africa Command. • Increase visibility of logistics support capabilities provided by interagency, international sovereign partners, and independent organizations to reduce redundancy. • Improve processes and procedures that will allow synchronization of logistics support with interagency, international sovereign partners, and independent organizations. 								

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B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>DOTMLPF solutions that enable decentralized C2, accelerated employment of joint capabilities (campaign planning, ISR, fires, maneuver, and information to improve joint force effectiveness during distributed operations against hybrid threats.</p> <p><i>FY 2010 Plans:</i> Objectives (due to the dynamic nature of the Joint Urban Operations Environment and Irregular Warfare specific projects and focus areas are subject to fringe changes):</p> <ul style="list-style-type: none"> • In concert with the Joint Urban Operations and Irregular Warfare community, continued development, articulation and refinement of DOD Joint Urban Operations Roadmap, as a comprehensive document describing DoD’s approach to lead, coordinate, and integrate urban operations doctrine, organization, training, and equipment that improve and transform the capabilities of Joint Forces for conducting urban operations. Outcome: DoD Master Plan for Joint Urban Operations • Advancement of S&T integration focuses on specific efforts to eliminate or mitigate shortfalls by identification, assessment, transition and fielding of appropriate solutions or through direct integration of associated requirements into existing Service or agency programs. Outcomes: Improved integration, coordination and synchronization of sensor, command and control and fires capabilities needed for effective operations. Improved testing and experimentation capabilities to assess urban operations concepts, technologies and TTPs. • Leveraging a partnership with the Joint Unmanned Aerial System Center of Excellence (JUAS COE), Assessment of current and planned efforts to employ DoD unmanned aircraft systems (UAS) capabilities for Foreign Internal Defense and Influence Operations, that enhances the overall capability of the DoD in execution of operations in the Urban Environment. Outcomes: UAS FID and Influence Operations Assessments and Execution Strategies • Improve the DoD Test and Evaluation Strategic Plan for the urban environment. Work across the DoD to ensure that we effectively represent the nuanced challenges realized in the Urban Environment across the Test and Evaluation community. Outcomes: Improved replication of the 					

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B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>The joint force commander requires clarity on the trends, contexts, challenges and opportunities in the complex joint operating environment that are likely to be encountered in the next several decades. Specifically for JFCOM, JFG provides a dedicated group outside the mainstream command effort to search for and identify big challenges or opportunities that are not being addressed elsewhere in DOD. Furthermore, this group should integrate this futures research into other more mainstream evolutionary command processes.</p> <p>Provides research on the futures environments to Joint Experimentation and the Joint Irregular Warfare Center for concept development and to provide the basis for experiment scenarios.</p> <p>The mandate of the Joint Futures Group is to provide a vision of the future as it pertains to implications for the joint force by collecting, synthesizing and disseminating the world's strategic and international relations futures efforts. It accomplishes this through the Joint Operating Environment (JOE) project and the by continually enriching the DOD analytical agenda. The JOE effort is the written future problem statement for the Capstone Concept for Joint Operations (CCJO) as directed by the Joint Chief of Staff Chairman and is intended to inform the JOC and Joint Integrating Concepts and functional concepts as well as to provide a framework to experiment with those concepts through its vision of the future. Our support to the analytical agenda consists of improving and refining the Defense Planning Scenarios (DPS) and ensuring that the DPSs reflect a more balanced set of irregular and hybrid warfare challenges.</p> <p><i>FY 2009 Accomplishments:</i></p> <ul style="list-style-type: none"> • Supported the Chairman's CCJO, completed 2008 JOE and 2009 JOE White Paper Update. Produced research papers with emphasis on the future trends, conditions, challenges, and opportunities faced by future joint warfighting. • Monitored, modified, and refined analysis of future trends and context to improve the JOE. 								

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B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<ul style="list-style-type: none"> • A joint futures narrative that integrates plausible alternative futures, develops military implications of those futures, and guides future operational concepts and requirements. • Host 2-4 conferences per year to concentrate on a subject worthy of deep analysis (e.g. Hybrid Warfare, disruptive technologies such as EMP, urban warfare) • A collaborative web presence that allows for wide participation in the development of research and to communicate the Joint Narrative. • A “feed” to DoD Joint Concept Development and Experimentation of the next big challenges facing the joint force that warrant concept development and experimentation focus. <p><i>FY 2011 Base Plans:</i></p> <ul style="list-style-type: none"> • Conduct research and support continued refinement of articulation of the Joint Operating Environment (White Paper for 2011). The JOE is intended to be a continuously evolving document, that based on dynamic global change provides clarity on potential alternative futures and the challenges, which are used to identify future implications to the Joint Force could face. • Lead the strategic engagement activities of the Command in “rolling-out” the 2010 JOE. Develop products and briefs as required. • Synthesize and promote a vision of the future that includes critical analysis of future perspectives, battlefield innovation, disruptive technologies, and operational lessons learned. • With other USJFCOM entities, develop solutions to mitigate/overcome future challenges and support identification of means to exploit future opportunities. • Inform and develop future scenarios to influence joint wargames and experiments • Provide input to support the development of a multiple products, papers and classified studies that support the DOD Analytical Agenda. Support would include review and input of OSD DPS scenarios and participation in the DPS process; provide input to the Comprehensive Joint Assessment and other policy and strategy “future focused” documents. • Facilitate continued expansion of virtual collaborative network with internal and external partners. • Specific and measurable outcomes include: <ul style="list-style-type: none"> - Collect and synthesize dispersed information and insights in the future 					

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B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<ul style="list-style-type: none"> - Craft a set of alternative futures scenarios to guide focused scenario development for joint exercises and experiments • Integrate USJFCOM activities to inform and influence DOD's future force planning efforts (e.g. the DOD Analytic Agenda) • A joint futures narrative that integrates plausible alternative futures, develops military implications of those futures, and guides future operational concepts and requirements. • Host 2-4 conferences per year to concentrate on a subject worthy of deep analysis (e.g. 2030 Economics, Migration, Review of JOE Contexts, Nuclear War of the Future) • A collaborative web presence that allows for wide participation in the development of research and to communicate the Joint Narrative. • A "feed" to DoD Joint Concept Development and Experimentation of the next big challenges facing the joint force that warrant concept development and experimentation focus. 								
<p>Irregular Warfare (IW)</p> <p>The National Program for Small Unit Excellence will integrate, and leverage Joint, Service, Interagency (IA) and academic initiatives for improving ground combat performance of small unit individuals, leaders, and units in the Joint Operating Environment – focusing on the hybrid threat. The institutionalization of Irregular Warfare (IW) as core competency of the U.S. Armed Forces is of critical importance. NPSUE will ensure IW dominance at the small unit level; furthermore, this specialized capability will support the development of ground combat simulation and training capabilities for small unit leader development, that supports building combat capability comparable to the preparation provided to those serving in the aviation and maritime communities.</p> <p>Primary OUTCOME (Objectives) for NPSUE is to Coordinate, integrate, and leverage initiatives (across the Services, DoD, and Government) for improving ground combat performance of small unit individuals, leaders, and teams in the Joint Operating Environment, across the full spectrum of conflict, but focused on the hybrid threat. NPSUE will also achieve greater standardization and interoperability</p>				0.000	8.430	0.000	0.000	0.000

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B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>leads to collaborative development, participation and support that inform the warfighter challenges and joint concepts. It provides joint context to Service experimentation through collaborative design, analysis, planning and execution.</p> <p><i>FY 2009 Accomplishments:</i> COCOM Experimentation</p> <ul style="list-style-type: none"> • Supported USNORTHCOM with joint analysis and consequence management subject matter expertise for two limited objective experiments to revise, inform, and publish the Homeland Defense and Civil Support Joint Operating Concept version 3.0. The subjects of the two limited objective experiments were Scoping Homeland Defense, and Private Sector Contributions and Partnership with DOD. <p>Joint Service Experimentation</p> <ul style="list-style-type: none"> • Army – Unified Quest 09: Supported the Army’s Training and Doctrine Command with joint analysis and joint logistics subject matter expertise for five major experimentation efforts within the Unified Quest 09 campaign of learning. The five experimentation events included: the Commanders’ Appreciation and Campaign Design Conference, the Space and Cyber Operations Limited Objective Experiment, the Generating Force Conference, the Staff Exercise, and the Army Future Game. • Army – Earth, Wind, and Fire 09: Supported the Army’s Training and Doctrine Command with joint analysis to inform the Joint Air Ground Integration Cell to provide solutions to airspace de-confliction and integration. JFCOM J9 also provided resources to implement a network architecture to link the Army’s Battle Lab Simulation Collaboration Environment (BLCSE) and the Air Force’s Distributed Mission Operations Network (DMON) for the purpose of executing recurring annual joint experiments such as Earth, Wind, and Fire. • Navy – Global 09: Supported the Navy War College with joint analysis for the purpose of informing a Joint Maritime Fires warfighting challenge. 								

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B. Accomplishments/Planned Program (\$ in Millions)								
				FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<ul style="list-style-type: none"> • Air Force – Unified Engagement 10: Provide joint analysis and planning resources to provide solutions to warfighter challenges and Chief of Staff, Air Force objectives. • Marines – Expeditionary Warrior 10: Support the Marine Corps Warfighting Laboratory with joint analysis and subject matter expertise to inform the Seabasing concept. <p><i>FY 2011 Base Plans:</i></p> <ul style="list-style-type: none"> • FY 11 projects will be developed based on Enterprise Warfighter Challenges (Collected in Late FY09 and Early FY10) with continued support to perennial and new Joint Service Experimentation efforts. 								
Accomplishments/Planned Programs Subtotals				99.053	105.936	111.946	0.000	111.946
				FY 2009	FY 2010			
Congressional Add: Collaboration Gateway				1.200	0.000			
<p><i>FY 2009 Accomplishments:</i></p> <p>Gateway to allow on-going discussions with all the Combatant Commands, Military Services and Defense Agencies on experimentation needs, priorities and work plans.</p>								
Congressional Adds Subtotals				1.200	0.000			
C. Other Program Funding Summary (\$ in Millions)								
N/A								
D. Acquisition Strategy								
N/A								

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E. Performance Metrics

Performance of Joint Experimentation efforts is measured by successful development of:

- (1) objective validation of enhanced capabilities enabling the joint force commander to perform joint missions.
- (2) delivery of relevant, intellectually rigorous joint concepts to enhance or change Joint Doctrine.
- (3) confirmed transition of capability/products from experimentation to force implementation through the DOTMLPF-P Change Recommendations (DCR) process.
- (4) identification of innovative integrated solutions and joint interoperability standards for Service and Agency capability developers to pursue.
- (5) resolution of specific joint concept and capability shortfalls delineated through the JCD&E experimentation campaign plan development process.

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