Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Office of Secretary Of Defense

R-1 ITEM NOMENCLATURE

0400: Research, Development, Test & Evaluation, Defense-Wide

PE 0603828D8Z: Joint Experimentation

BA 3: Advanced Technology Development (ATD)

APPROPRIATION/BUDGET ACTIVITY

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	87.800	38.112	-	-	-	-	-	-	-	Continuing	Continuing
P808: Joint Experimentation	87.800	38.112	-	-	-	-	-	-	-	Continuing	Continuing

Note

In FY 2013, funds will be transferred to Joint Staff Accounts dependant on the Secretary of Defense approval of the governance plan. The governance plan is still under review in the Department. Once the governance plan is approved, this document will be updated with any changes to the Joint Experimentation Program plan for FY 2013, and beyond. The department will make the appropriate notifications.

A. Mission Description and Budget Item Justification

Consistent with strategic guidance, the Joint Experimentation (JE) Program Element targets DoD's highest priority experimental needs, defined by combatant commands and Services, and synchronizes development of relevant and actionable Doctrine, Organizational, Training, Materiel, Leadership, Personnel, Facilities, and Policy (DOTMLPF-P) solutions to enable trained, ready and adaptable joint and coalition forces and improve capabilities of current and future Joint Force Commanders. The program is governed through the JCD&E Executive Council, which is composed of generals, admirals, and members of the Senior Executive Service representing the combatant commands and Services. The JE program is the key synchronizing program for a diverse portfolio of concept development and solution evaluation and validation focused on combatant command and Service problems defined in Integrated Priority Lists (IPL), Joint Urgent Operational Needs (JUON), and Warfighter Challenges (WFC). In addition to defining the problems, the combatant commands and Services prioritize the JE program of work and are active partners in the execution, oversight, and governance of the efforts. Partners also include a broad range of civilian agency, multinational, academic, and private sector partners. When appropriate, state and local governments participate in the development of solutions. Projects typically confirm critical joint mission capability gaps; identify potential remedies; explore a range of DOTMLPF-P solutions; and establish the best path to solving security challenges. The JE program is the Department's primary program to explore the connecting ideas and processes that cannot be solved by buying a new tool or creating a new acquisition program. Experiments span a spectrum from early efforts to develop new joint operational concepts, to refinement of joint doctrine, to scenario-based examination of science and technology-based solutions, to validation of non-material solutions such as organization structure, new processes, improved training and education, and recommended policy changes. By defining emergent shortfalls and exploring force enhancement options. JE serves as an early risk mitigation tool that precedes implementation of doctrine changes, capability demonstrations, acquisition investment decisions, and policy changes. JE supports the development of projected mission critical capabilities through rigorous, objective assessment of enabling processes and technologies, identification of capability/system requirements and innovative employment of existing capabilities in the context of scenarios depicting current and projected Defense operations. Combatant commanders and Services are the primary customers of projects funded by the JE Program, but through a whole of government approach, projects also provide collateral benefits to a wider Defense Experimentation Enterprise including Agencies and the Office of the Secretary of Defense (OSD), intra-government, international and Non-Government Organization (NGO) partners. The experiments funded by this program establish the path to resolve current joint warfighting deficiencies and lay the foundation for trained, ready and adaptive joint and coalition forces. The Assistant Secretary of Defense, Research & Engineering (ASD(R&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 experimentation efforts in this program align directly to the Key Mission Areas (KMA) outlined in the February 2010 Quadrennial Defense Review (QDR), the National Military Strategy, and the Secretary of Defense's Efficiency Initiatives. Flexibility will be maintained in the JE Program to address

PE 0603828D8Z: *Joint Experimentation* Office of Secretary Of Defense

DATE: February 2012

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APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

0400: Research, Development, Test & Evaluation, Defense-Wide

BA 3: Advanced Technology Development (ATD)

PE 0603828D8Z: Joint Experimentation

DATE: February 2012

emergent requirements identified by combatant commanders and Services and will be prioritized by the JCD&E Executive Council. The Joint Staff J7 executes the JE program and leads the JCD&E Enterprise. The Joint Staff J7 works with the Assistant Secretary of Defense, Research & Engineering (ASD(R&E)) to provide responsive support to customers and partners.

The JE Program Element provides funding for the Department's Joint Experimentation (JE) effort, carried out by the JCD&E Enterprise, governed by an Executive Board composed of admirals, generals and Senior Executive Service members, and led by a JCD&E Executive Agent. The JCD&E Enterprise includes the combatant commands, the military services, the National Guard Bureau, the Joint Staff, the Office of the Secretary of Defense (OSD), and several Defense agencies. Intragovernment agencies and coalition partners often participate in JCD&E processes and projects. The JE program element focuses on producing validated concepts and solutions to combatant command and Service defined problems. Important collateral benefits accrue to other members and partners in the extended experimentation community; much of the joint content in military "Title 10" wargames can be traced to coordination within the JCD&E Enterprise. To ensure the program focuses on needs of the warfighters, joint experiments originate from an annual call for nominations from combatant commands and Services, and from assessment of combatant command identified critical warfighting capability gaps articulated in combatant command Integrated Priority Lists and Joint Urgent Needs documents submitted, to the Chairman of the Joint Chiefs of Staff (CJCS). JE nominations undergo preliminary analysis by the JCD&E Enterprise to confirm suitability for experimentation, alignment to strategic guidance and, where feasible, to associate closely related subjects for economy of effort. The resultant list is termed Warfighter Challenges (WFCs), and constitutes experimentation efforts eligible for design and execution. These efforts are prioritized and approved by the combatant command and Service members of the Executive Council. Experimentation plans are developed in consultation with JE partners, and consolidated into an annual program of joint experimentation, known as the JCD&E Campaign Plan. The Executive Council meets regularly to review and approve the progress of

JE experiments and activities examine potential solutions for combatant command operational needs through targeted DOTMLPF-P improvements. JE tackles joint concept and capability issues demanding sophisticated analysis, innovative design and complex execution. JE addresses topics that would prove difficult for individual combatant commands and Services to capture in the context of their immediate operational and force generation responsibilities. Experiments and efforts produce a range of outcomes inclusive of fundamental joint doctrine, inputs to major policy documents such as the Quadrennial Defense Review and the Defense Planning and Programming Guidance (DPPG). In partnership with the combatant commands and Services, JE mitigates operational risk by establishing procedural models to conduct emergent concepts like Irregular Warfare, Integrated Financial Operations and Joint Operational Access that are not yet instantiated in conventional force generation. The results are briefed to Functional Capability Boards who integrate solutions into their functional investment plans.

JE examines joint concepts and develops exploratory concepts to describe how the Joint Force Commander will meet current and future security challenges, and explores joint capabilities required to execute those 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 Defense planning scenarios, then studies the projected joint operational environment to lay the conceptual foundation for the future force. After the current adjustment, 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 combatant commands and joint experimentation partners.

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APPROPRIATION/BUDGET ACTIVITY R-1 ITE

0400: Research, Development, Test & Evaluation, Defense-Wide

BA 3: Advanced Technology Development (ATD)

R-1 ITEM NOMENCLATURE

PE 0603828D8Z: Joint Experimentation

Joint and Service experimentation are complementary efforts and require a unified approach. Joint experimentation focuses on the needs of the Joint Force Commander, while Service experimentation enables the components the Joint Force Commander will employ. Complementing the efforts undertaken by the JCD&E Executive Agent (USJFCOM and/or successor organization), other combatant commands conduct Limited Objective Experiments (LOEs) to address operational capability gaps and support identification of potential solutions for theater specific and functional joint warfighter needs, as part of the overall JCD&E campaign. Within the process, the JCD&E enterprise leverages Service wargame/experimentation to address joint challenges. Experimentation activities are coordinated within the JCD&E enterprise to cover gaps and pursue efficiency, and the results are shared throughout the enterprise. The collaborative planning effort of the JCD&E enterprise is intended to ensure coherent and transparent application of JE funds, joint context, and concepts capabilities are integrated into Service experimentation as appropriate.

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

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	111.946	58.130	52.045	-	52.045
Current President's Budget	87.800	38.112	-	-	-
Total Adjustments	-24.146	-20.018	-52.045	-	-52.045
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-	-			
SBIR/STTR Transfer	-1.653	-0.757			
 Other Program Adjustments 	-1.735	-	-52.045	-	-52.045
• FFRDC	-0.336	-0.261	-	-	-
Economic Assumptions	-0.467	-	-	-	-
 Congressional Adjustments 	-19.955	-19.000	-	-	-

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Exhibit R-2A, RDT&E Project Jus	tification: PE	3 2013 Office	e of Secreta	ry Of Defens	e				DATE: Feb	ruary 2012	
APPROPRIATION/BUDGET ACTIV 0400: Research, Development, Tes BA 3: Advanced Technology Develo	t & Evaluation		Vide		IOMENCLA 8D8Z: <i>Joint</i>	TURE Experimenta	tion	PROJECT P808: Joint	Experiment	ation	
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
P808: Joint Experimentation	87.800	38.112	-	-	_	-	-	_	-	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secreta	ry Of Defense	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
0400: Research, Development, Test & Evaluation, Defense-Wide	PE 0603828D8Z: Joint Experimentation	P808: Joint Experimentation
BA 3: Advanced Technology Development (ATD)		

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BA 3: Advanced Technology Development (ATD)			

Joint and Service experimentation are complementary efforts and require a unified approach. Joint experimentation focuses on the needs of the Joint Force Commander, while Service experimentation enables the components the Joint Force Commander will employ. Complementing the efforts undertaken by the JCD&E Executive Agent (USJFCOM and/or successor organization), other combatant commands conduct Limited Objective Experiments (LOEs) to address operational capability gaps and support identification of potential solutions for theater specific and functional joint warfighter needs, as part of the overall JCD&E campaign. Within the process, the JCD&E enterprise leverages Service wargame/experimentation to address joint challenges. Experimentation activities are coordinated within the JCD&E enterprise to cover gaps and pursue efficiency, and the results are shared throughout the enterprise. The collaborative planning effort of the JCD&E enterprise is intended to ensure coherent and transparent application of JE funds, joint context, and concepts capabilities are integrated into Service experimentation as appropriate.

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

Description (JE Program): The JE Program delivers relevant, sufficient, and necessary DOTMLPF-P comprehensive solutions responding to specific needs of Joint Force Commander articulated Warfighter Challenges. Warfighter Challenges are DOD's most important security challenges now and in the future; inform and are informed by strategic guidance; and address issues from the tactical to strategic levels of war. From the perspective of OSD engagement and oversight, emphasis will be focused on the following refinements to influence the JE business model.

Refinements to the JE Business Model.

The JE program is executed through a global business model that is governed by a 2-Star Executive Council, operates on a 1 year cycle, supported by integrating technologies to close geographic gaps, standardized through systems engineering discipline, and progresses through formal enterprise decision making. Lean principals are applied to enterprise, technical, and supporting processes to maximize program efficiency. The JE program continues to evolve with solution spirals included in experimentation efforts to drive affordable speed to capability.

The JCD&E Enterprise strives to:

- Trace JE efforts to discriminate changes to joint capabilities.
- Tie JE closer to DoD operational analysis & Defense Planning Scenarios.
- Provide specific input to joint training and joint capability development to ensure adaptable joint forces.
- Position joint experimentation in a larger scheme of overarching capability development that begins with lessons learned and critical analysis, enjoins experimentation tools, and progresses through demonstration, acquisition, and training.
- Design 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.

Analytical Rigor.

Increased emphasis has been placed on adherence to standards of analytical rigor in design, conduct, and exploitation of experiments. Typical of this rigor is aligning the experimentation concepts to the Key Mission Areas specified in the Quadrennial Defense Review. FY 2011-2012 experimentation efforts seek to provide innovative joint solutions and joint interoperability standards to address capability shortfalls identified by Warfighter Challenges conforming to the DoD Joint Capability Areas

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(JCAs) employed by the Department to validate joint needs. The FY 2012 Warfighter Challenges mapped to six JCAs: Building Partnerships, Battlespace Awareness, Command and Control, Force Application, Logistics, and Net-Centric. No FY 2012 WFCs were submitted by the COCOMs or Services in the JCAs. The JE enterprise is capable and prepared to accept Warfighter Challenges from all nine JCA's and accepts emergent requirements throughout the year.

Initiatives.

- Solution spin offs (spirals), are included in experiment design to identify affordable capability deliveries and increase speed to capability.
- Lean six sigma principals have been implemented for metrics based efficiency assessments. Achieved 46 percent improvement in contracting process, 26 percent cycle time or 17 percent cost reduction in enterprise process, and 31 percent reduction in experimentation conduct. Integrated framework for Joint Experimentation. Transparent decision-making, systems engineering thinking, and application of Lean management principles have been integrated into a technical framework for lifecycle management of the joint experimentation program. JCD&E Enterprise members now submit WFCs with supporting technical information that promotes accelerated starts, spiral development and reduced costs and schedules for experimentation and concept development.
- Improvements to Networked Coordination. Upgrade of the Virtual Operations Center (VOC) has enhanced Enterprise-wide participation during project planning and execution, decreasing travel associated with customer service and enterprise-wide coordination. Increasing use of distributed experimentation design will allow geographically separated groups to join experimental projects from their home bases, again saving travel funds and increasing the potential partner base.
- Increased integration with the S&T community to address the science and technology element COCOM S&T Integrated Priority Lists in JE, and to both include Joint Capability Technology Demonstrations (JCTD) in, and inform JCTD efforts through, experimentation to Increase speed to capability.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013
Title: Building Partnerships (BP)	9.029	5.223	-
Description: The evolving nature of joint operations creates a corresponding need to integrate operations with international, governmental and non-governmental partners to address a wide variety of security challenges using a comprehensive approach.			
 FY 2011 Accomplishments: Delivered a prototype system to allow real-time information sharing and collaboration with interagency and multi-national partners in support of a whole of government approach to steady-state operations. The prototype technical architecture and capability was validated through experimentation in USAFRICOM and USEUCOM with multiple mission partners and provided a residual capability to allow the continued development of habitual relations. Partners included a broad range of DOD, applicable non-DOD/ USG agency, multi-national, multi-lateral, and private sector mission partners. Additionally, enhanced information sharing capability between partner states will contribute to increased cooperation in counter-insurgency, stability and counter-terrorism operations. Created a Service force generation model/architecture that will improve national capability to synchronize integrated General Purpose Forces and Special Operations Forces (GPF/SOF) Security Force Assistance (SFA) activities. Effort will improve geographic combatant commands and US embassy country teams to satisfy SFA demand signals. Project improved understanding of Service force generation models and resource application/prioritization. Experimentation was used to compare solutions for identification of specific roles and responsibilities, prioritization and integration of planning and execution of SFA 			

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B. Accomplishments/Planned Programs (\$ in Millions) activity. Products are: SFA Operating Concept/Framework, organize	ational construct, decision support and planning to	ools	FY 2011	FY 2012	FY 2013
recommendations for SFA lead roles and responsibilities.	and containing to	,			
 The FY 2012 JCD&E program of work in the Building Partnerships areas identified in the Quadrennial Defense Review and highlighted if FY 2012 campaign will address projected mission critical capabilities states. The scope of the work will include: security and engagement (CCJO) and experimentation to identify and evaluate enabling technologacity of partner states. The specific focus areas identified for FY Strengthen and institutionalize General Purpose Force capabilities Increase socio-cultural/ human terrain awareness of the force. Increase information sharing capacity between US and partner sta Develop collaborative planning and assessment tools to support of Improve effective and efficient methods to provision logistical supp Five Warfighter Challenges (14 percent of total submissions) were the BP JCA to be addressed through joint experimentation. 	in the Defense Planning and Programming Guidals and concepts required to build security capacity of activities per the Capstone Concepts for Joint Opologies to increase US capability to increase the security include: in conducting security force assistance missions. Ites and within partner states. If security force operations. Fort to partner states.	nce. The of partner perations ecurity			
Title: Battlespace Awareness (BA)			5.203	4.888	-
Description: The evolving nature of joint operations creates a corresenvironments through collection, synchronization and visualization of and multinational partners.					
FY 2011 Accomplishments: • Delivered an experimentally validated assessment prototype for De Prototype capability will enable the Joint Force Commander to assess deterrence actions before and after actions are taken. Products are: (DST) Evaluation & Recommendations, Process map, Operational at Capability Technology Demonstration (JCTD) input, and Prototype capability.	ss results and implications of whole of government DO Assessment Guide, Preliminary Decision Suprchitecture, DST(s) Evaluation and Recommendate	pre-crisis			
FY 2012 Plans: • The FY 2012 JCD&E program of work in the Battlespace Awarene Quadrennial Defense Review and highlighted in the Defense Plannir will address projected mission critical capabilities and concepts requirements of mass destruction.	ng and Programming Guidance. The FY 2012 car	npaign			

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
 The scope of the work may include experimentation to identify and ranges and strengthen Intelligence, Surveillance, and Reconnaissar general purpose forces. Five Warfighter Challenges (14 percent of total submissions) were the BA JCA to be addressed through joint experimentation. 	nce (ISR) and communications ties between speci	al and			
Title: Command and Control (C2)			9.738	11.550	-
 Description: Joint Force Commander requires secure, robust and rein complex, chaotic and degraded information environments to integer FY 2011 Accomplishments: In collaboration with interagency and multi-national partners, delived prevent and respond to a disruption or a denial of access to Global rejoint and multi-national experimentation. This effort will mitigate risk air, space and cyber space domains by state and non-state actors. to conduct commercial and military operations. Developed C2 architectures that support readiness reporting, such degraded environments. These architectures were validated through to assess, respond to, and incrementally restore C2 in a denied and JFC C2 continuity processes and technologies, C2 templates and a Procedures (TTPs), Concept of Operations (CONOPS), and Commercementalions. 	ered complementary concepts and capabilities to Commons. Concepts and capabilities were validated of disruption and denial of access to and use of the Denial of access would limit United States and containment of forces, and operations in C2 denied at the point experimentation and will support the JFC's degraded communications environment. Productions of the production	deter, ited through he maritime, valition ability ability ts are:			
 FY 2012 Plans: The FY 2012 JCD&E program of work in the Command and Control Quadrennial Defense Review and highlighted in the Defense Planniaddress projected mission critical capabilities and concepts required. The scope of work may include experimentation to identify and excontrol for battle management in cyberspace. Nine Warfighter Challenges (26 percent of total submissions) were in the C2 JCA to be addressed through joint experimentation. 	ng and Programming Guidance. The FY 2012 ca I to succeed in operating effectively in cyberspace aluate enabling technologies that support comma	mpaign will e. nd and			

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
Description: Joint Force Commander requires improved kinetic or no from political, strategic, operational, and tactical perspectives.	on-kinetic capabilities to maneuver and engage adv	ersaries			
 PY 2011 Accomplishments: Developed network attack/exploit concept of operations, organization strengthen ability to attack and exploit adversary critical infrastructure and tools through experimentation and M&S. Products will include C concept of operations and decision support tool/methodology that product and systems). Developed a concept that describes how the Joint Force Command capabilities in the hands of state and non-state actors, in order to product (SSG), Army-Marine Staff Talks, and Air Force-Navy Air Sea Battle C Forcible Entry Operations(JFEO) Study) to explore and develop a joint concept and validate the experimentation results. Products include a CJCS Red Team report, input to the Status & Recommendations Reports. 	e. This effort will validate concept of operations, pro- ritical Infrastructure Computer Network Attack/Explo- ovides visibility of adversary critical infrastructure (ne- der will gain and maintain access by defeating anti- ject power and influence. This effort will integrate jobs and studies (for example: Navy Senior Steering Goncept, Training and Doctrine Command (TRADOC int concept. Aggressive red teaming was used to exa a summary of vulnerabilities and recommended cap	access bitation etworks access bint roup C) Joint plore the abilities,			
 FY 2012 Plans: The FY 2012 JCD&E program of work in the Force Application JCA Quadrennial Defense Review and highlighted in the Defense Plannin will address projected mission critical capabilities and concepts requienvironment. The scope of work may include experimentation to identify and evalong range strike, and undersea superiority. Seven Warfighter Challenges (20 percent of total submissions) werein the FA JCA to be addressed through joint experimentation. 	g and Programming Guidance. The FY 2012 camp red to deter and defeat aggression in an anti-accessible that focus on electronic	aign s warfare,			
Title: Logistics (Log)			5.389	4.933	-
Description: Joint Force Commander requires responsive, agile logi freedom of action wherever the force engages and in whatever form		d ensure			
FY 2011 Accomplishments: • Assessed sufficiency of the Joint Logistics Concept (JLC) to integrate to support joint operations in a wide variety of anticipated challenges		е			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Second	retary Of Defense		DATE: Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 3: Advanced Technology Development (ATD)	R-1 ITEM NOMENCLATURE PE 0603828D8Z: Joint Experimentation	PROJEC P808: <i>Joi</i>	T nt Experimer	tation	
B. Accomplishments/Planned Programs (\$ in Millions) experimentation, the following aspects of the JLC were assessed: in processes; delivering, positioning and sustaining joint forces to and frenterprise in a real-time global information system. Results of this exinvestment decisions. Products include: Capability Gap Analysis Results of the control o	rom any location; and networking of the joint logis xperimentation will be used by the Joint Staff to in	tics form	FY 2011	FY 2012	FY 2013
Recommendations. FY 2012 Plans: The FY 2012 JCD&E program of work in the Logistics JCA will add Defense Review and highlighted in the Defense Planning and Progra projected mission critical capabilities and concepts required to build to The scope of work may include experimentation to identify and evaluation facilitate more rapid transfer of critical materiel. Five Warfighter Challenges (14 percent of total submissions) were the Log JCA to be addressed through joint experimentation. Title: Protection (P)	amming Guidance. The FY 2012 campaign will ac the security capacity of partner states. aluate enabling technologies that create mechanis	dress ms to	16.263		
Description: Joint Force Commander lacks sufficient ability to detect personnel (combatant/non-combatant) and physical assets of the Un		on	16.263	-	-
 FY 2011 Accomplishments: Developed a Ballistic Missile Defense (BMD) C2 architecture and partner through experimentation, M&S and real world exercise events. Productive architecture/structure and DOTMLPF-P recommendations. Developed an implementation guide and decision/planning tools that to ballistic missile defense (PAA BMD) in defense against threats to a line coordination with the Missile Defense Agency and Joint Integrated experimentation contrasted current and programmed PAA BMD caparorder to determine and validate allocation, prioritization, deployment, addition, this effort identified PAA force development and operational planning tools (risk assumption, burden-sharing, force allocation, prioritical DOTMLPF-P recommendations. 	ters. The C2 architecture and prototype was be evaluated are: Global C2 BMD Integration Guide, protocolor at support implementation of a phased adaptive at the homeland, allies, partners and US forces abroble in Air and Missile Defense Organization (JIAMDO), abilities using M&S to conduct an analytical wargat, employment, risk and burden-sharing recommental implications to mitigate future risks. Products are	valuated type C2 approach ad. ame in dations. In re: decision/			

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secr	etary Of Defense		DATE: Fel	oruary 2012	
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 3: Advanced Technology Development (ATD)	R-1 ITEM NOMENCLATURE PE 0603828D8Z: Joint Experimentation	PROJECT P808: Join	OJECT 08: Joint Experimentation		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
 Developed and provided an experimentally validated Countering Properation. This effort will improve joint force ability to plan, execute, adversaries with access to significant numbers of precision guided meaning the provided meaning and provided and provided an experimentally validated Countering Properties. 	and employ friendly capabilities in operations agair				
FY 2012 Plans: • Based on work accomplished in FY 2010 and FY 2011, and absence requirements from COCOMs, it is expected that FY 2012 accomplish in other areas.					
Title: Net Centric (NC)			8.937	3.279	-
Description: Joint Force Commander requires the ability to provide a interoperability that allows all DOD users and mission partners to und from those who should not have it. FY 2011 Accomplishments: • Developed Computer Network Defense (CND) concept of operation authorities/policies to strengthen the defense of critical infrastructure. procedures through experimentation and Modeling and Simulation. For operations and CND decision support tool/methodology focused on supports and systems).	derstand and act on with confidence, and protects in a construct, procedures, and enabed This effort validated the concept of operation and products include Critical Infrastructure CND concept	nformation ling			
 FY 2012 Plans: The FY 2012 JCD&E program of work in the Force Application JCA Quadrennial Defense Review and highlighted in the Defense Plannin address projected mission critical capabilities and concepts required. The scope of work may include experimentation to identify and evaluate space and use of space-based assets. Four Warfighter Challenges (12 percent of total submissions) were in the BP JCA to be addressed through joint experimentation. 	g and Programming Guidance. The FY 2012 came to deter and defeat aggression in anti-access envirolate luate enabling technologies that focus assuring ac	paign will ronments.			
Title: Combatant Command, Service Experimentation Support (CCS)	ES)		19.038	-	-
Description: Combatant command, Service Experimentation Support experimentation within the joint context in order to build enterprise cate to collaborative development, participation and support that inform the context to Service experimentation through collaborative design, analysis.	pacity and to integrate solutions across DOD. This e warfighter challenges and joint concepts. It prov	s leads			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secr	retary Of Defense		DATE : Fe	bruary 2012			
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 3: Advanced Technology Development (ATD)	Research, Development, Test & Evaluation, Defense-Wide PE 0603828D8Z: Joint Experimentation P808:			CT loint Experimentation			
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013		
Combatant Command Experimentation Supported USSOCOM with joint analysis to complete the Final Rep Supported USPACOM with laboratory capacity to conduct Cyber E. Supported USEUCOM with joint analytical capacity to conduct Soci Provided program and analytical support to USEUCOM to transition Enabled distributed, combatant command-led experimentation in th Cyberspace Joint Operational Concept Experimentation (USSTRA Building Partnership Capacity – Mexico Experimentation (USNORT Cyber Warfare Experimentation (USPACOM) Electronic Warfare Experimentation (USPACOM) Joint Anti-Submarine Warfare Experimentation (USPACOM) Countering Anti-Access Technologies Experimentation (USPACOM) Countering Anti-Access Technologies Experimentation (USPACOM) Marine Compaign of learning. Navy – Global 11: Supported the Army's Training and Doctr campaign of learning. Navy – Global 11: Supported the U.S. Naval War College with joint game. Air Force – Unified Engagement 11: Supported the Air Force with jounified Engagement 11. Marine Corps – Expeditionary Warrior 11: Provided joint context an Laboratory in development of the final report on Expeditionary Warrior	xperimentation. io-Cultural Analysis. n Point-Of-Need Delivery (POND). ne following areas: TCOM) THCOM) It as funding and priorities permit. In the Command with joint analysis for the Unified Quantum analysis to prepare the final report on Navy's Globolint analysis perspective in development of the final analysis support to the Marine Corps Warfighting or 11.	oal 11 war					
Title: Joint Urban Operation (JUO) / Joint Irregular Warfare Center (J Description: Joint Urban Operations (JUO) – To ensure DOD is prepadversaries in urban areas, the Secretary of Defense assigned Comp DOD Executive Agent (EA) for Joint Urban Operations (JUO). JUO Li	pared to dominate future threats and deny sanctual mander, U.S. Joint Forces Command (USJFCOM) ines of Joint Experimentation (LOJX) projects will p	as the provide	5.100	-			
the Joint Force Commander with the ability to lead, coordinate, and ir and equipment activities of the DOD Components and improve and tr operations over the full range of urban contingencies. To execute the	ransform the capabilities of joint forces in conductir	ng urban					

Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secre	etary Of Defense		DATE: Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 3: Advanced Technology Development (ATD)	R-1 ITEM NOMENCLATURE PE 0603828D8Z: Joint Experimentation	PROJECT P808: Joint Experimentation			
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2011	FY 2012	FY 2013
In 2008, the JUO program and the DOD EA for JUO mission were sul (JIWC), led by the JIWC Director who was assigned to execute JUO I					
 FY 2011 Accomplishments: Continued development, articulation and refinement of DOD Joint L document describing DOD's approach to lead, coordinate, and integrated equipment that transform the capability to conduct urban operations. Conducted analysis of emerging urban materiel solutions to addrest technology assessment of relevant efforts within battlespace awarene. Assessed the urban environment test solutions of the Joint Urban T mitigating gaps identified in the Urban Environment Test Capability (Lemulate the urban environment for test and evaluation (T&E). Led and coordinated efforts to identify and expand M&S capabilities environment to optimize service programs and ensure immersive train within Close Combat Infantry Immersive Training. Led and coordinated efforts to identify gaps/shortfalls, assess poter ensure integration of IW and JUO capability development activities and Defense Acquisition System, and the Planning, Programming, and Butonium Continued established discovery seminar wargames to build on worth environments. Extended network of multi-national, interagency, and appositively influence relevant populations, when required, defeat adversity influence relevant populations, when required, defeat adversity in the population of the concepts carrying into FY 2011 and US-Israel Heads Planned and conducted the Joint Urban Wargame 2011 in order to assess the critical functions, processes, and structures of an urban systematical functions, processes, and structures of an urban systematical functions, processes and structures of an urban systematical functions of military and non-military and non-military and non-military endingers. Partnered with NATO to wargame the "Military Support to Countering Committee's endorsement of the concept and tasking to accomplish f	ate urban operations doctrine, organization, training a prioritized urban gaps areas to include capabilities, force application or protection. Test Capability (JUTC) Program to determine program to determine program to determine program to the small unit training simulations and ning capabilities/technologies are provided for growth and solutions, and make prioritized recommendate to the Joint Capability Integration Development addet Execution and other DOTMLPF-P process. The optimizing joint and coalition force activities in the capability and capacity to system a system and its embedded adversaries. This includes the mand its embedded adversaries that must be a ry actions in an urban operational environment, and Hybrid Threats" concept in order to gain the North and the system and the actions and the programment of	ng, and y review/ gress in late and urban bund units ions to t System, complex by to s. (Joint tically es understood nd identify			
Title: Joint Futures Group			1.112	-	-
Description: The Joint Futures Group (JFG) is a unique DoD team sor opportunities for the joint force and Combatant Commanders that a entity within DoD that utilize analytic and research processes integrated.	are not being addressed elsewhere in DoD. It is a	unique			

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secr	etary Of Defense		DATE: Fe	bruary 2012	
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 3: Advanced Technology Development (ATD)	R-1 ITEM NOMENCLATURE PE 0603828D8Z: Joint Experimentation	PROJECT P808: Joint Experimentation			
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 3: Advanced Technology Development (ATD) B. Accomplishments/Planned Programs (\$ in Millions) operational environments within which innovative ideas about challen are generated. The JFG integrates the results of its "futures" researce experimentation scenarios, capabilities definition, doctrine, and incluse Their unclassified professionally developed products are globally diss and all of our multinational partners. "We must focus concept develo Operating Environment or on identified gaps in doctrine" – General The objective of the JFG is to provide a vision of the future and support through collection, analysis, synthesis, dissemination of the world's st means of articulation is the Joint Operating Environment (JOE) report documents the unclassified JOE provides the foundational problem so Operations (CCJO), and is intended to inform the development of Joi well as to provide a framework for Combatant Command and Service The JOE has been downloaded globally well over two million times in Service and CJCS reference document on future challenges and oppimproving and refining the classified Integrated Security Contexts (IS reflect a balanced and plausible set of future warfare challenges. FY 2011 Accomplishments: • Supported the Chairman's Capstone Concept for Joint Operations doctrine development, Limited Objective Experiments (LOEs) and exof the 2011 JOE. Based on doctoral level Subject Matter Expertise (Sproduce detailed research papers with emphasis on the future trends future joint warfighters. Set the "context" for the future fight. • Provided detailed input to support the development of products, pa Agenda as it transitions to Support to Strategic Analysis. Senior analysis.	R-1 ITEM NOMENCLATURE PE 0603828D8Z: Joint Experimentation ages and military implications for the Department of the into downstream processes for concept and deversion in the majority of professional military education seminated and inform every Service, Combatant Compens on the specific problems identified in the Join Mattis art identification and articulation of joint force implication and international relations futures. The curbicated and international relations futures. The curbicated and international relations futures focused tatement for the CJCS's Capstone Concept for Join ont Operating Concepts and Joint Integrating Concept LOEs and experiments through its vision of the future of the past two years and is a key Combatant Commontantities. Support to the DoD analytical agenda on CS). This dedicated analytical support ensures that (CCJO) review and all Combatant Command concepts for the program through research and public SME) future focused input, JFG will research, review, conditions, challenges, and opportunities to be factored and classified studies that support the DoD Arrest reviewed and refined OSD's Integrated Security	Defense elopment, in (PME). Immand int eations, rent ent elopment ent ent ent elopment ent elopment ent elopment elopmen		FY 2012	FY 2013
Contexts (ISCs) and Foundational Activities (FA) scenarios and partic provided input to the Comprehensive Joint Assessment (CJA) and ot Researched, analyze, synthesized and promoted a vision of the fut of disruptive technologies through partnership with Defense Intelligent information dominance and national defense intelligence agencies. Toconferences focused as follows and provided DoD, JCS, Combatant white papers on: • Ideological Conflict over Global Networks "Winning the Global War	her policy and strategy "future focused" documents ure that includes critical analysis of battlefield innovace Agency (DIA), command and service intelligence of this end, planned, coordinated, and executed intercommand, Service and Multinational attendee action	ration e, ernational			
The state of the s		ļ			l

Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secreta	ry Of Defense		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
0400: Research, Development, Test & Evaluation, Defense-Wide	PE 0603828D8Z: Joint Experimentation	P808: Joint	Experimentation
BA 3: Advanced Technology Development (ATD)			

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013
The Rise and Fragmentation of Great Powers: China			
The Rise and Fragmentation of Great Powers: India			
Specific and measurable outcomes include:			
• A clear statement of the future challenges and implications for the joint force that allows concepts to be developed to prepare for			
these challenges.			
• A set of alternative futures scenarios to guide focused scenario development for joint exercises and Combatant Command and Service LOEs and experiments.			
Title: Transferred to Joint Staff Accounts	-	-	-
Description: In FY 2013, funds will be transferred to Joint Staff Accounts dependant on the Secretary of Defense approval of the governance plan. The governance plan is still under review in the Department. Once the governance plan is approved, this document will be updated with any changes to the Joint Experimentation Program plan for FY 2013, and beyond. The department will make the appropriate notifications.			
FY 2013 Plans:			
In FY 2013, funds will be transferred to Joint Staff Accounts dependant on the Secretary of Defense approval of the governance plan. The governance plan is still under review in the Department. Once the governance plan is approved, this document will be			
updated with any changes to the Joint Experimentation Program plan for FY 2013, and beyond. The department will make the appropriate notifications.			
Accomplishments/Planned Programs Subtotals	87.800	38.112	_

C. Other Program Funding Summary (\$ in Millions)

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

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

- (1) objective assessment and 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 through demonstration, acquisition and/or employment.

PE 0603828D8Z: *Joint Experimentation* Office of Secretary Of Defense

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APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 3: Advanced Technology Development (ATD) (5) resolution of specific joint concept and capability shortfalls delineated through the JCD&E experimentation campaign plan development process.
0400: Research, Development, Test & Evaluation, Defense-Wide BA 3: Advanced Technology Development (ATD) PE 0603828D8Z: Joint Experimentation P808: Joint Experimentation
BA 3: Advanced Technology Development (ATD)
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