Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Operational Test and Evaluation, Defense	DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0460: *Operational Test and Evaluation, Defense* BA 6: *RDT&E Management Support*	R-1 ITEM NOMENCLATURE PE 0605814OTE: *Operational Test Activities and Analyses*

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	120.135	115.467	63.566	-	63.566	63.382	64.771	64.637	64.377	Continuing	Continuing
0605814OTE: *OT&A*	120.135	115.467	63.566	-	63.566	63.382	64.771	64.637	64.377	Continuing	Continuing

Note

Starting in FY 2013 the decreases in funding are the result of the realignment of the JASP and JTCG/ME programs from the Operational Test Activities and Analyses program (0605814OTE) to the Live Fire Test and Evaluation program (0605131OTE) and a reduction to the Joint Live Fire Program as part of the overall DoD budget reduction effort.

A. Mission Description and Budget Item Justification

The Test and Evaluation programs are continuing efforts that provide management and oversight of test and evaluation functions and expertise to the Department of Defense (DoD). The T&E programs consist of five activities: Joint Test and Evaluation (JT&E); Threat Systems (TS); Center for Countermeasures (CCM); Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME); and Joint Aircraft Survivability Program (JASP). Starting in FY 2013 the JTCG/ME and JASP programs are realigned from the Operational Test Activities and Analyses program element (0605814OTE) to the Live Fire Test and Evaluation program element (0605131OTE). Since the JTCG/ME and JASP programs focus on the survivability of currently fielded systems the two programs are more appropriately funded within the Live Fire Test and Evaluation program element.

Joint Test and Evaluation projects are test and evaluation activities conducted in a joint military environment that develop process improvements. These multi-Service projects, chartered by the Office of the Secretary of Defense and coordinated with the Joint Staff, appropriate combatant commanders, and the Services, provide non-materiel solutions that improve: joint interoperability of Service systems, technical and operational concepts, joint operational issues, development and validation of joint test methodologies, and test data for validating models, simulations, and test beds. The JT&E projects address relevant joint war fighting issues in a joint test and evaluation environment by developing and providing new tactics, techniques, and procedures to improve joint test capabilities and methodologies.

Threat Systems, based on a memorandum of agreement between the Director, Operational Test and Evaluation (DOT&E) and the Defense Intelligence Agency, provides DOT&E support in the areas of threat resource analysis, intelligence support and threat systems investments. Threat Systems provides threat resource analyses on the availability, capabilities and limitations of threat representations (threat simulators, targets, models, U.S. surrogates and foreign materiel) and analysis of test resources used for operational testing to support DOT&E's assessment of the adequacy of testing for those programs designated for oversight by DOT&E and the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics (OUSD(AT&L)). Threat Systems provides DOT&E assessment officers and other DOT&E activities with program specific threat intelligence support. Threat Systems also funds management, oversight, and development of common-use threat specifications for threat simulators, threat representative targets, and digital threat models used for test and evaluation.

The Center, a Joint Service Countermeasure (CM) Test and Evaluation Center, serves as DoD's independent evaluator for electro-optical systems with emphasis on rotary wing survivability, precision guided weapons (PGWs), CMs/ counter-countermeasures (CCMs) employment, and warning devices. The Center conducts tests, analyzes test results and provides CM expertise that benefits the Services, Joint activities, T&E Agencies, DoD Acquisition Community, the Intelligence Community,

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Homeland Defense and Overseas Contingency Operations (OCO). Data collected during Center test activities provides valuable information to OSD assessment officers for select oversight programs. The Center assesses current and developing systems, using carefully developed test and evaluation methodologies to provide the basis for understanding how CMs might affect systems used in current and future battlefields. Additionally, the Center develops CM specific test equipment that can be used for both Title 10 programs and OCO urgent operational needs.

The Joint Logistics Commanders Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME) was chartered more than 40 years ago to serve as DoD's focal point for munitions effectiveness information. This has taken the form of widely used Joint Munitions Effectiveness Manuals (JMEMs) which address all major non-nuclear U.S. weapons. JTCG/ME authenticates weapons effectiveness data for use in training, systems acquisition, weapon procurement, and combat modeling and simulation. JMEMs are used by the Armed Forces of the U.S., NATO, and other allies to plan operational missions, support training and tactics development, and support force-level analyses. JTCG/ME also develops and standardizes methodologies for evaluation of munitions effectiveness and maintains databases for target vulnerability, munitions lethality, and weapon system accuracy. The JMEM requirements and development processes continues to be driven by operational lessons learned (Enduring Freedom, Iraqi Freedom, and Odyssey Dawn) and the needs of Combatant Commands, Services, Military Targeting Committee, and Operational Users Working Groups input for specific weapon-target pairings and methodologies.

The Joint Aircraft Survivability Program is the DoD's focal point for joint service enhancement of military aircraft non-nuclear survivability. The JASP is chartered by the commanders of the USN Naval Air Systems Command, USA Aviation and Missile Command and USAF Aeronautical Systems Center to coordinate and conduct RDT&E to improve military aircraft survivability, develop and standardize aircraft survivability modeling and simulation (M&S), facilitate information exchange on aircraft survivability and support aircraft survivability education for the DoD and U.S. aircraft community. Each chartering command provides a senior aircraft survivability expert for the JASP Principal Members Steering Group (PMSG), which guides the program and approves projects for funding. The JASP assesses and reports on combat damage incidents through the Joint Combat Assessment Team (JCAT), is the Executive Agent for the Joint Live Fire Aircraft Systems Program managed by the Live Fire Test office of DOT&E and is also an Executive Agent for the Survivability Vulnerability Information Analysis Center (SURVIAC), the repository for aircraft survivability information.

This Program Element was reduced in FY 2013 and the outyears as part of the overall DoD budget reduction effort.

This Program Element is budgeted in Budget Activity 6, RDT&E Management Support, to support management activities for the DOTE oversight responsbilities of test and evaluation functions.

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B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	122.581	118.722	121.012	-	121.012
Current President's Budget	120.135	115.467	63.566	-	63.566
Total Adjustments	-2.446	-3.255	-57.446	-	-57.446
• Congressional General Reductions	-	-3.255			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Congressional General Reductions	-2.446	-	-	-	-
• Revised Economic Assumptions	-	-	2.000	-	2.000
• Program Reductions	-	-	-20.489	-	-20.489
• Other Program Realignments	-	-	-38.957	-	-38.957

Change Summary Explanation

Starting in FY 2013 the decreases in funding are the result of the realignment of the JASP and JTCG/ME programs from the Operational Test Activities and Analyses program (0605814OTE) to the Live Fire Test and Evaluation program (0605131OTE) and a reduction to the Joint Live Fire Program as part of the overall DoD budget reduction effort.

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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
0605814OTE: *OT&A*	120.135	115.467	63.566	-	63.566	63.382	64.771	64.637	64.377	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Test and Evaluation programs are continuing efforts that provide management and oversight of test and evaluation functions and expertise to the Department of Defense (DoD). The T&E programs consist of five activities: Joint Test and Evaluation (JT&E); Threat Systems (TS); Center for Countermeasures (CCM); Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME); and Joint Aircraft Survivability Program (JASP). Starting in FY 2013 the JTCG/ME and JASP programs are realigned from the Operational Test Activities and Analyses program element (0605814OTE) to the Live Fire Test and Evaluation program element (0605131OTE). Since the JTCG/ME and JASP programs focus on the survivability of currently fielded systems the two programs are more appropriately funded within the Live Fire Test and Evaluation program element.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: Operational Test Activities and Analyses	120.135	115.467	63.566

FY 2011 Accomplishments:

Joint Test and Evaluation (JT&E)

In FY 2011, JT&E had three projects close and four projects ongoing from FYs 2009 and 2010. The Joint Civil Information Management Joint Test, closed June 2011, developed joint tactics, techniques, and procedures to collect, consolidate, and share civil information at the tactical and operational levels so that the joint task force commander will have better information to plan operations. Another project that closed in FY 2011 was Joint Data Integration. This project researched, tested, and evaluated the tactics, techniques, and procedures for use in standardizing the common tactical picture by addressing the quality of: duplicate tracks, time latency, common operational picture synchronization, channel disruptions, position/location discrepancies, and naming schema discrepancies. On a continual basis, JT&E reviews nominations for new projects, manages ongoing projects, and ensures that closing projects transition products to their customers are debriefed, and that their final reports are distributed to the appropriate Service organizations. Two projects were initiated in FY 2011.

Threat Systems

During FY 2011, Threat Systems completed development of standard, DIA-validated airborne jammer models for use throughout the Department to evaluate effects on U.S. aircraft; evaluated proposals to develop and implement a more robust open-air threat environment to make operational testing more realistic; continued to address testing against advanced threats that may be

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013

encountered from adversarial nations; and initiated a project to obtain data to support fielding of upgraded hostile fire indicator systems for use in Iraq and Afghanistan.

Threat Systems continued test planning working group participation to identify threat shortfalls; conducted special studies and provided current intelligence support tailored to specific U.S. weapon systems acquisition; and demonstrated test facility connectivity for enhanced weapons systems testing and improving end-to-end testing of U.S. threat warning and countermeasures systems. These efforts continued to develop threat test assets used for testing in a joint test environment; continued with the third year of a four-year project to integrate current intelligence community-based missile models into all DoD Hardware-In-The-Loop countermeasure test facilities; successfully demonstrated the ability of recently developed standards for target control interfaces to control sub-scale aerial targets; completed the design and analysis phase to develop a set of prototype designs for a cost effective full-scale aerial target that embodies the critical attributes of future 5th generation threat fighter aircraft; and performed a comprehensive requirements analysis for a new full-scale rotary wing target.

These activities help DOT&E carry out its Title 10 responsibilities to assess test adequacy and determine whether testing is realistic and suitable and promotes common solutions to Service threat representation needs.

Center for Countermeasures (the Center)

The Center tested, analyzed, and reported on more than 40 electro-optical systems with special emphasis on rotary wing survivability, countermeasures (CM)/ counter-countermeasures (CCMs) employment, warning and targeting systems and precision guided weapons (PGWs). Each program supported received an independent assessment of our findings and test support for CM/ CCM evaluations. Approximately 66% of the Center efforts were spent on Aircraft Survivability Equipment (ASE) testing; the majority of these efforts in support of rotary wing aircraft and Hostile Fire Indication (HFI) capabilities. Approximately 18% of the Center effort was dedicated to overseas contingency operations (OCO) support with emphasis on CM based pre-deployment training for rotary wing units. About 4% of Center effort was spent on PGW testing. Thirteen percent of the Center efforts were spent on internal programs to improve test capabilities and to develop test methodologies for new types of T&E activities. The Center continued development of the Central Test and Evaluation Investment Program sponsored, Joint IRCM Threat System, Towed Aerial Plume Simulator and Multi-Spectral Sea and Land Target Simulator that will be used in support of testing for both Title 10 programs and OCO aircraft survivability equipment urgent operational needs. Our support was distributed across all the Services as well as intelligence agencies and research and development activities.

The Center provided expertise to many organizations and was actively involved in the following panels: Joint Expendable Countermeasures (JECM) Integrated Product Team, Joint , Infrared Countermeasures Multi Sensing Symposia Working Group (MSS IRCM WG), Joint Aircraft Survivability Program (JASP), Foreign Material Exploitation Working Group, Foreign Material

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Program Test and Evaluation (T&E) Subcommittee, Joint Project Mallari Working Group, Joint Countermeasures T&E Working Group (JCMT&E WG), and JCMT&E WG Hostile Fire Indicator (HFI) subgroup lead. Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME) JWS v2.0.1 and the JTCG/ME generated Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3160.01 Collateral Effects Radii (CER) tables were used for operational weaponeering and collateral damage estimation calls in direct support of Operation Odyssey Dawn Tomahawk Land Attack Missile (TLAM) and Joint Direct Attack Munition (JDAM) strikes. In continued support of operational commanders, DoD targeteers, weaponeers, and planners, the JTCG/ME developed and released JMEM Weaponeering System (JWS) v2.1 beta version in June 2011. In addition, development of JWS v2.1 continued throughout FY 2011. Joint-Antiair Combat Effectiveness System (J-ACE) Air Superiority (AS) v4.1 was released in October 2010. J-ACE v5.0 was released in September 2011. JWS v2.1 beta version contained the Fast Integrated Structural Tool (FIST). FIST is the future JMEM operational-level tool that incorporates the integral modules from Building Analysis Module (BAM) and Hardened Target Module (HTM) to create a merged tool that generates weapon effectiveness and damage assessments against infrastructure targets to include buildings, bunkers, and tunnels. In addition, JWS v2.1 release will contain approximately 180 new/updated targets, 15 new/updated munitions, new Explosive Equivalent Weights based on blast testing and an improved 3-D viewer. J-ACE v4.1 contained additional threat Surface-to-Air (SAM) Flyout Models (FOMs), additional threat Air-to-Air missile FOMs and improved Blue Air-to-Air missile FOMs. J-ACE 4.1 was released in October 2010. Weapon Engagement Zone (WEZ) software, consistent with Operational Flight Programs in the currently fielded fighter fleet was provided for U.S. missiles; NASIC “FrankenWEZ” software was used for threat aircraft missile engagement zone determination. New or updated air-to-air missile simulations were added for the US AIM-7, AIM-9, and AIM-120 and NASIC threat AA-12, Magic 2, and PL-12. Sixteen new or improved MSIC threat surface-to-air missiles (SAM) were also added. Software changes continued to better support operational user requirements; and, interface with other models, simulations, training range telemetry and mission planning system software. J-ACE v5.0 provided the initial release of the Suite of Antiair Killchain Models and Data (SAK-MD). SAK-MD software and data is a significant increase in J-ACE capability. The faster than real time calculations address missile fly out, target evasive maneuver, miss distance, effects of countermeasures, fuze performance, missile lethality and target vulnerability. These key “kill chain” elements are provided for RED and BLUE weapons. To more effectively support operational mission planning, particularly at USSTRATCOM, the JAAM 5.0 release also provides a direct interface to force level simulations. This initial SAK-MD capability expansion was provided only to specific users for extended testing, while JAAM v5.0 without the SAK-MD capabilities is available to all users.			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
In support of the Combatant Commands and the CJCSI 3160.01, JTCG/ME provided updates for CER values for newly fielded systems. In addition, the JTCG/ME accredited the Digital Precision Strike Suite (DPSS) Collateral Damage Estimation (DCiDE) tool version 1.0.0 in July 2011 for operational use. This tool displays accredited Collateral Damage Estimate Level 1-5 A-C series effective radii reference tables. Additionally, JTCG/ME trained nearly 150 users at 10 different Commands. FY 2011 continued development and refinement of the Joint Blast Analysis Model (JBAM). Additional damage modules were implemented in JBAM software, the user interface and documentation. Additionally, JTCG/ME developed a strategy for implementation of the Operational Requirement-based Casualty Assessment (ORCA) methodology in evaluating the capability of weapon systems to inflict varying levels of personnel incapacitation to include complete and immediate loss of function. The JTCG/ME assessed fielded and emerging Information Operations (IO), Directed Energy (DE) and Non-lethal (NL) systems as part of early efforts to create an Effects Based Operations (EBO) evaluation capability set. The scope includes weapon characterization, coordinating test data development and providing operational tools for the IO elements of Computer Network Attack and Electronic Warfare; Laser and Radio Frequency DE; and, NL systems against materiel and personnel targets. This weapon effectiveness and associated confidence level data are critical enablers for application of these weapons as it will provide senior leaders and warfighters with information to develop policy and concepts of operations for their use. Joint Aircraft Survivability Program (JASP) In FY 2011 the JASP continued work on 28 multi-year RDT&E projects and initiated 28 new projects approved by the JASP Principal Members Steering Group and OSD/DOT&E. In the area of susceptibility reduction, the JASP addressed improving directed energy infrared countermeasures, electronic countermeasures technology and techniques, aircrew situational awareness and immediate operator needs. In the area of vulnerability reduction, the JASP continued to address requirements for lighter and more effective armor, fuel containment, fire suppression; and aircrew and passenger protection. In aircraft survivability Modeling and Simulation (M&S), the JASP continued to improve survivability M&S credibility, address operator requirements for survivability data, integrate DIA threat missile models into threat engagement codes, improve the assessment of aircrew and passenger injuries, and address M&S requirements identified by the joint aircraft survivability community. The JASP published 43 reports documenting projects completed in FY 2011. The JCAT continued to support the Air Force, Army, Marine Corps and Navy by assessing combat damage incidents, training operators on threat effects and combat damage assessment, and reporting their findings to combatant commanders and the DoD science and technology and acquisition communities. The JASP continued supporting aircraft survivability education and			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013

information exchange through internet sites (restricted access and classified), by publishing the Aircraft Survivability Journal, developing educational materials and conducting training for the DoD and their contractors.

FY 2012 Plans:

Joint Test and Evaluation (JT&E)

In FY 2012 JT&E has two projects slated for closing and an estimated four projects ongoing from FY 2010 and FY 2011. The Joint Integration of Maritime Domain Awareness Joint Test, expected to close in FY 2012, is looking to develop joint tactics, techniques, and procedures to synchronize maritime domain information for key decision markers across operations centers for homeland defense. The other project closing in FY 2012 is Joint Jamming Assessment and Mitigation Joint Test. This project will develop joint tactics, techniques, and procedures to sustain operations in the presence of purposeful interference on the ultra- and super-high frequencies of the satellite communication bands. This will allow commanders and operators to execute operations when satellite communications are degraded. On a continual basis, JT&E reviews nominations for new projects, manages ongoing projects, and ensures that closing projects transition products to their customers are debriefed, and that their final reports are distributed to the appropriate Service organizations.

Threat Systems

As part of the Secretary of Defense FY 2012 efficiency initiatives, the Target Management Initiative (TMI) was eliminated and funding for investments in advanced threat surrogate developments was reduced. TMI elimination will make the Services solely responsible for the development and acquisition of new threat representative targets and target control systems. Reducing threat surrogate investments will slow but not eliminate development of advanced threat surrogates used in operational test and evaluation.

Threat Systems will complete the four-year project to integrate current intelligence community-based missile models into all DoD Hardware-In-The-Loop countermeasure test facilities, continue test planning working group participation to identify threat shortfalls; conduct special studies and provide current intelligence support tailored to specific U.S. weapon systems acquisition. In addition, Threat Systems will develop an unmanned aerial vehicle Global Positioning Satellite jamming capability using micro jammers to increase threat realism at test ranges, and use existing live fire data to verify and compare MANPAD laboratory and hardware-in-the-loop facility testing capabilities to increase confidence in using other than open air live fire events for operational testing. Initiatives for FY 2012 include development of a modeling and simulation (M&S) roadmap to identify projects that support effective testing of US and Allied countermeasure systems; integration of authoritative, DIA-approved models into simulations used for testing advanced systems in an integrated air defense network; data collection to support the development of a hostile fire signature model for use in testing new hostile fire indicator technologies being developed by the Army and Navy;

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
investigations into digital radio frequency memory use against threat air defense systems; assessments of next generation GPS jammers and their potential impact of US weapon systems; and translation of all source technical intelligence on a battle management and command, control, communications and computer system into a model to support test and evaluation. These activities help DOT&E carry out its Title 10 responsibilities to assess test adequacy and determine whether testing is realistic and suitable and promotes common solutions to Service threat representation needs. Center for Countermeasures (the Center) The Center will test, analyze, and report on more than 30 systems with emphasis on rotary wing survivability, Counter measures (CM)/counter-countermeasures (CCMs) employment, warning and targeting systems and precision guided weapons (PGWs). Each program supported will receive an independent assessment of our findings and test support for CM/CCM evaluations. The Center will continue to emphasize support of the DOT&E enterprise with a clear focus on Title 10 weapons systems, aircraft survivability and hostile fire initiatives. Additionally, a large percentage of on-going efforts will focus on aircraft survivability testing in support of current OCO. Furthermore, the Center will continue providing CM expertise in pre-deployment events and training, as well as CM/CCM focused tactics and procedures development. The Center will continue to develop, the Central Test and Evaluation Investment Program sponsored, Towed Aerial Plume Simulator and Multi-Spectral Sea and Land Target Simulator that will be used in support of testing for both Title 10 programs and OCO aircraft survivability equipment urgent operational needs. The Center will be developing the Threat Simulator Working Group sponsored Hostile Fire Signature model. The Center's support will be distributed across all the Services as well as intelligence agencies and research and development activities. The Center provided expertise to many organizations and was actively involved in the following panels: Joint Expendable Countermeasures (JECM) Integrated Product Team, Joint , Infrared Countermeasures Multi Sensing Symposia Working Group (MSS IRCM WG), Joint Aircraft Survivability Program (JASP), Foreign Material Exploitation Working Group, Foreign Material Program Test and Evaluation (T & E) Subcommittee, Joint Project Mallari Working Group, Joint Countermeasures T&E Working Group (JCMT&E WG), and JCMT&E WG Hostile Fire Indicator (HFI) subgroup lead. Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME) In support of operational commanders, DoD targeteers, weaponeers, and planners, the JTCG/ME will release JMEM Weaponeering System (JWS) v2.1 in December 2011, JWS v2.1.1 in September 2012 and the Joint-Antiair Combat Effectiveness System (J-ACE) Air Superiority (AS) v5.1 in September 2012.			

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
JWS v2.1 will provide a major capability increase to include Fast Integrated Structural Tool (FIST), Enhanced Penetration Cratering Effeects (PCEffects), Precision Munitions Planning Tool (PMPT), Joint Smart Weapons Model (JSWM), Improved Ship Weaponeering and Estimation Tool, Mine methodology, and Hellfire weaponeering data. JWS v2.1.1 will provide additional Combatant Command targets, other critical data and methodology fixes to warfighters. In addition, the JTCG/ME will plan to develop releasable versions of JWS v2.1 in support of combined warfare with allies. J-ACE v5.1 will contain Joint Antiair Model (JAAM) v5.1 and additional Blue and Red effectiveness data (e.g., B-2, A-10, C-130H, F-18 C/E, MiG-29 Fulcrum, Su-27 Flanker, Rafale, Jian-10/F-10, MiG-19 Farmer, and F-1 Mirage) and architectural/modularity/ GUI improvements. J-ACE v5.1 will also include distribution of the SAK-MD capability introduced in J-ACE v5.0. In support of Combatant Commands and the CJCSI 3160.01, JTCG/ME will continue to provide updates for CER values for newly fielded systems. JTCG/ME will continue to monitor the DCiDE tool version 1.0.0 configuration management process to ensure that subsequent versions of DCiDE accurately reflect the latest JTCG/ME accredited tables; Combatant Command specified population density factors and associated user input. The DCiDE tool will evolve to be the foundation for collateral damage estimation on JWS. Advanced Joint Effectiveness Model (AJEM) updates will focus on supporting JTCG/ME and acquisition offices by continuing to respond to shortfalls within existing methodology and expanding to support the ongoing paradigm shift from overmatching weapons to more precise weapons. The precision of these new weapons requires a better understanding of target response. Specific methodology tasks will be to (i) add partial impact to prevent under-prediction of JWS lethality; (ii) develop understating of ORCA for use in JTCG/ME studies with AJEM; (iii) expand the suite of penetration methodology modules as standalone analysis tools and as plug-in for higher level codes; and (iv) improve blast data for JWS. JTCG/ME will continue to: (i) develop JMEM data for most critical Combatant Commander identified systems; (ii) reduce CD-ROM update cycles through incremental updates; (iii) accredit tri-Service JMEM operational tools; (iv) expand existing databases to incorporate newly fielded weapons (i.e., Air-to-Surface, Surface-to-Surface Direct/Indirect Fire, and Antiair); (v) enhance collateral damage and hardened target structure methodology; and, (vi) provide connectivity to real time planning systems assessing time sensitive targets. ***FY 2013 Plans:*** Joint Test and Evaluation (JT&E) In FY 2013 JT&E has two projects slated for closing and an estimated four projects ongoing from FY 2011 and FY 2012. The Joint Cyber Operations Joint Test, anticipated to close in January 2013, looks to develop, test, and evaluate tactics, techniques,			

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APPROPRIATION/BUDGET ACTIVITY 0460: *Operational Test and Evaluation, Defense* BA 6: *RDT&E Management Support*	R-1 ITEM NOMENCLATURE PE 0605814OTE: *Operational Test Activities and Analyses*	PROJECT 0605814OTE: *OT&A*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
and procedures to enable the joint task force commander to employ a virtual secure enclave strategy to improve defense of critical command and control services from cyber threats across the DoD Global Information Grid. The Joint UAS Digital Information Exchange Joint Test is scheduled to close in September 2013. In FY 2013, the JT&E Program will begin to experience the impact of its significant budget cuts. The program will significantly digress from its business model of funding three Joint Feasibility Studies (JFS), two Joint Tests, and three Quick Reaction Tests (QRTs) annually. FY 2013 will have no new JFS and one additional QRT funded for the year. With no new JFS, there will not be any Joint Tests chartered in FY 2013. As part of the Secretary of Defense FY 2012 efficiency initiatives, JT&E Program's business model was reengineered to meet the requirements of its stakeholders with the reduction in budget. The new model reduces the life span of a project while maintaining rigorous Test and Evaluation methods to produce effective solutions to joint military operational problems. The new business model will be implemented and refined starting in FY 2013. Threat Systems Threat Systems will continue integration of current intelligence community-based models into test and evaluation facilities, continue test planning working group participation to identify threat shortfalls; conduct special studies and provide current intelligence support tailored to specific U.S. weapon systems acquisition; develop Global Positioning Satellite jamming capability to increase threat realism at our test ranges, and complete the development of an ammunition and rocket propelled grenade signature model for use in hostile fire indicator systems. Threat Systems will propose candidate threat systems from the various intelligence agencies and develop models for use in test and evaluation. Threat Systems will investigate the integration of digital radio frequency memory technology to develop modern threat jammers. New initiatives for FY 2013 include implementation of M&S roadmap projects to ensure threats to US and Allied infrared countermeasure systems are available for testing, development of next generation threat GPS jammers and their potential impact on US weapon systems, providing representative cyber warfare threats for testing, and identify and provide alternative test resources that represent land and sea threats. These activities help DOT&E carry out its Title 10 responsibilities to assess test adequacy and determine whether testing is realistic and suitable, and promotes common solutions to Service threat representation needs. Center for Countermeasures (CCM)			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Operational Test and Evaluation, Defense		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
The Center will test, analyze, and report on more than 30 electro-optical systems with special emphasis on rotary wing survivability, counter measures (CM)/counter-countermeasures (CCMs) employment, warning and targeting systems and precision guided weapons. Each program supported will receive an independent assessment of our findings and test support for CM/CCM evaluations. We will continue to emphasize support of the DOT&E enterprise with a clear focus on Title 10 weapons systems, aircraft survivability and hostile fire initiatives. Additionally, a large percentage of on-going efforts will focus on aircraft survivability testing in support of current OCO. Furthermore, the Center will continue providing CM expertise in pre-deployment events and training, as well as CM/CCM focused tactics and procedures development. The Center will continue to develop, the Central Test and Evaluation Investment Program sponsored Multi-Spectral Sea and Land Target Simulator that will be used in support of testing for both Title 10 programs and OCO aircraft survivability equipment urgent operational needs. The Center will continue to develop the Threat Simulator Working Group sponsored Hostile Fire Signature model. Our support will be distributed across all the Services as well as intelligence agencies and research and development activities. The Center will continue to be actively engaged, to include attending various conferences, with a number of organizations providing advice on CM/CMS. Joint Technical Coordinating Group for Munitions Effectiveness (JTCG/ME) (Starting in FY 2013 JTCG/ME is funded under program element 6050113OTE -- Live Fire Test and Evaluation.) Joint Aircraft Survivability Program (JASP) (Starting in FY 2013 JASP is funded under program element 6050113OTE -- Live Fire Test and Evaluation.)			
Accomplishments/Planned Programs Subtotals	120.135	115.467	63.566

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Not Applicable

E. Performance Metrics

(U) PERFORMANCE METRICS:

Performance Measure: Percentage of required products, such as test planning documents, munitions effectiveness manuals, tactics, techniques, procedures, threat characteristics, assessments, and reports that are developed and delivered to program managers and customers on time.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Operational Test and Evaluation, Defense		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0460: *Operational Test and Evaluation, Defense* BA 6: *RDT&E Management Support*	R-1 ITEM NOMENCLATURE PE 0605814OTE: *Operational Test Activities and Analyses*	PROJECT 0605814OTE: *OT&A*

Actual Performance and Goals:

Operational Test Activities and Analyses	FY 2011 (Actual)	FY 2012 (Goal)	FY 2013 (Goal)
On-Time Completion Rate	94%	95%	96%

The on-time completion rate was computed on the basis of the number of required products that were submitted within established time standards relative to the total number of such products that fell due during the fiscal year. DOT&E plans to maintain its on-time completion rates for FY 2012 and FY 2013 through increased management emphasis on timely delivery of required products to customer activities.

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