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Exhibit R-2, RDT&E Project Justification							February 2008
OPERATIONAL TEST AND EVALUATION, DEFENSE (0460) BUDGET ACTIVITY 6 (RDT&E MANAGEMENT SUPPORT)				LIVE FIRE TEST AND EVALUATION (LFT&E) PROGRAM ELEMENT (PE) 0605131OTE			
Cost (\$ In Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
PE 0605131OTE	11.203	11.062	11.572	11.921	12.210	12.460	12.645

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION

This Program Element (PE) directly supports the statutory requirements in Title 10, United States Code, for oversight of Live Fire Test and Evaluation (LFT&E). The primary objective of LFT&E is to assure that the vulnerabilities and survivability of Department of Defense (DoD) crew-carrying platforms and the lethality of our conventional munitions are known and acceptable before entering full-rate production. Live Fire Test and Evaluation encompasses realistic tests involving actual United States and foreign threat hardware or, if such hardware is not available, acceptable surrogate threat hardware to identify and correct design deficiencies early in the development process. A completed LFT&E program and test report is required before programs proceed beyond low-rate initial production (BLRIP). Live Fire Test and Evaluation also includes realistic modeling and simulation (M&S) to examine survivability and lethality attributes not assessed during testing. The LFT&E program is essential, especially in view of the escalating costs of technologically sophisticated weapons systems.

The LFT&E program element also supports the DoD Joint Live Fire (JLF) Program. Joint Live Fire began in 1984 under an Office of the Secretary of Defense charter to test fielded front-line combat aircraft and armor systems for vulnerabilities, as well as test fielded weapons, both United States and foreign, for lethality against their respective targets.

This program element includes funds to obtain Federally Funded Research and Development Center (FFRDC) expertise to perform analyses in support of described tasks, as well as travel funds to carry out the LFT&E program.

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This program element is budgeted in Budget Activity 6, RDT&E Management Support, to support LFT&E management activities for the oversight of RDT&E of new systems, as well as RDT&E of fielded systems.

Accomplishments/Planned Programs:

FY 2007 Accomplishments:

Major Test and Evaluation Programs:

Provided Live Fire Test and Evaluation input for Test and Evaluation Master Plans, Test Plans, System Acquisition Reports, Defense Acquisition Executive Summary reports, and BLRIP reports for those programs designated for oversight by the Director of Operational Test and Evaluation (DOT&E) and the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics (OUSD(AT&L)). The oversight list is developed and approved annually.

Joint Live Fire Programs:

Conducted tests of fielded systems not previously tested under Air, Land, or Sea Joint Live Fire programs to support DOT&E and warfighter needs. These test requirements resulted from systems being exposed to new threats, used in unanticipated tactics, or being operated in new combat environments, and the subsequent need for a performance assessment. Projects included:

- CH-53 Drive Train
- CF-6 Engine Vulnerability to MANPADS
- Kiowa Warrior Cockpit-Aircrew Ballistic Vulnerability
- Kiowa Warrior Fuel System Ballistic Vulnerability
- Kiowa Warrior Rotor Control Subsystem Vulnerability
- Foreign Unguided Rocket Lethality
- AH-64 Fire Extinguishing Technology Evaluation
- Fragment Restraint Solution for HH-60A/L Medevac OBOGGS
- C-130 Flare Bucket
- Personnel Incapacitation Assessments of V-shaped hull vehicles
- Improvised Explosive Device (IED) Blast/Fragment Arena test and characterization
- Military Operations in Urban Terrain Weapons Effects Secondary Debris test

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Joint Live Fire Programs (Continued):

- Blast data & Validation for JTCG/ME Database
- Penetration Data Collection for Large Fragments
- U. S. Small Arms Effectiveness vs. Threat Body Armor
- 30mm Ammunition vs. Threat ERA Characterization
- Penetration Characterization for Titanium Fragments
- Test Alternatives to Explosive UNDEX
- Submarine Susceptibility to Mines
- Hydraulic Equipment Fragility
- Survivability of Ships Built to Commercial Standards
- Ship Shock Trial Alternatives
- Shipboard Space Fire Testing
- Recoverability in Network Fire Simulation
- Fiber Optic Network Fire Test Facility
- Legacy helmet testing

FY 2008 Plans:

Major Test and Evaluation Programs:

Provide Live Fire Test and Evaluation input for Test and Evaluation Master Plans, Test Plans, System Acquisition Reports, Defense Acquisition Executive Summary reports, and BLRIP reports for those programs designated for oversight by DOT&E and OUSD(AT&L). The oversight list is developed and approved annually.

Joint Live Fire Programs:

Conduct tests of fielded systems not previously tested under Air, Land, or Sea Joint Live Fire programs to support DOT&E and warfighter needs. These test requirements will result from systems being exposed to new threats, used in new unanticipated tactics, or being operated in new combat environments, and the subsequent need for a performance assessment. Planned projects include:

- AH-64 Fire Extinguishing Technology Evaluation

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Joint Live Fire Programs (Continued):

- CH-46 Fuel Line Protection
- H-60 Main Rotor Mast and Mast Extension Evaluation
- H-60 Main Dry Bay Fire Protection and Vulnerability
- Rocket Motor Vulnerability to High Energy Incendiary
- MANPADS Miss Distance Assessment
- Validation of Fire Predictions
- Ballistic Testing of BMI Composite
- Fuel Ingestion Characterization
- IED Characterization for Blast & Fragment (bundled/buried)
- External Blast/Full Vehicle Blast and Validation
- Standardized Testing of Advanced Combat Helmet
- IED versus Tactical Wheeled Vehicle Fuel Tanks
- MOUT Weapons Effects Secondary Debris Test
- Penetration Data Collection for Large Fragments
- Dual Use Manufactured Mannequin with instrumentation
- Penetration Characteristics Tire Test (MRAP)
- Diesel Submarine Underwater Explosions
- Submarine Survivability versus Mines
- Ship Shock Trial Alternatives
- Test Alternatives to Explosive Underwater Events
- Well Deck/Vehicle Stowage Fire Protection
- Damage Control Response Metrics
- Network Fire Model Enhancements
- Mine Exploitation
- Ship Survivability and Equipment Fragility
- Survivability of Ships Built to Commercial Standards

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FY 2009 Plans:

Major Test and Evaluation Programs:

Provide Live Fire Test and Evaluation input for Test and Evaluation Master Plans, Test Plans, System Acquisition Reports, Defense Acquisition Executive Summary reports, and BLRIP reports for those programs designated for oversight by DOT&E and OUSD(AT&L). The oversight list is developed and approved annually.

Joint Live Fire Programs:

Conduct tests of fielded systems not previously tested under Air, Land, or Sea Joint Live Fire programs to support DOT&E and warfighter needs. These test requirements will result from systems being exposed to new threats, used in new unanticipated tactics, or being operated in new combat environments, and the subsequent need for a performance assessment.

B. (U) PROGRAM CHANGE SUMMARY

(\$ in Millions)	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
FY 2008 President's Budget	11.203	11.133	11.572
Current Budget Submit	11.203	11.062	11.572
Total Adjustments		-.071	
Congressional general reductions		(-.071)	

C. (U) OTHER PROGRAM FUNDING: NA

D. (U) ACQUISITION STRATEGY: NA

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E. (U) PERFORMANCE METRICS:

Performance Measure: Percentage of required live fire test planning documents, assessments, and reports applicable to acquisition programs on the OSD Test and Evaluation Oversight List and other special interest programs/legacy systems that are completed and delivered to the appropriate decision makers on time. Percentage of required live fire test planning documents, assessments, and reports applicable to acquisition programs on the OSD Test and Evaluation Oversight List and other special interest programs/legacy systems that are completed and delivered to the appropriate decision makers on time.

Actual Performance and Goals:

Live Fire Testing	FY 2007 Actual	FY 2008 Goal	FY 2009 Goal
Actual On-Time Completion Rate	88%	91%	91%

The on-time completion rate was computed on the basis of the number of beyond low-rate initial production live fire test and evaluation reports, Joint Live Fire Quick Look Reports, and Joint Live Fire Test reports 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 achieve its goals for FY 2008 and FY 2009 through continued management emphasis on timely delivery of required reports to customer activities.