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RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2)					February 2000				
OPERATIONAL TEST AND EVALUATION, DEFENSE (0460) BUDGET ACTIVITY SIX			OPERATIONAL TEST AND EVALUATION PE 0605118D8Z						
\$'s in Millions	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	COST TO COMPLETE	TOTAL COST
PE 0604940D	28.211	14.602	17.172	17.379	17.542	17.791	18.097	Continuing	Continuing

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION

The Director of Operational Test and Evaluation (DOT&E) is responsible for policy and procedures for all aspects of operational test and evaluation within the Department of Defense (DoD), with particular focus on OT&E that supports major weapon system production decisions. Currently there are approximately 200 Major Defense Acquisition Programs (MDAPs) on the DOT&E oversight list. These MDAPs may not proceed beyond low-rate initial production (LRIP) until operational test and evaluation of the program is completed. This requires early involvement by DOT&E in the planning phase of each program to ensure adequate testing and satisfactory progress through the acquisition milestones toward operational effectiveness, suitability goals and full-scale production. Key elements of the DOT&E's authority for MDAPs include: the approval of Service Test and Evaluation Master Plans (TEMPs) and Service operational test and evaluation (OT&E) plans; assessment of the adequacy of OT&E and the operational effectiveness and suitability of the weapon system; and participation in DoD-wide planning, programming and budgeting activities to highlight test and evaluation capabilities, needs and priorities.

DOT&E also has statutory responsibility for oversight of the Live Fire Test and Evaluation Program within DoD which is budgeted for under Program Element 0605131D8Z. The funding shown in this exhibit, as management support of research and development, is budgeted for in Program Element Research Category 6.5.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

FY 1999 Accomplishments:

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•Reviewed Service TEMPs and test plans and provided appropriate guidance to ensure test adequacy; observed preparation for, and conduct of, field operational tests; evaluated OT results and reported evaluations to Congress and DoD senior management; and conducted assessments on programs to include evaluation of projected resource requirements and funding levels for OT&E. Programs that benefited from this oversight service included: (Amounts funded shown.)

Land Warfare Programs (\$3.214M)

Abrams Tank (M1A2) System Enhancement Program (SEP)
Army Tactical Missile System Brilliant Anti-Armor Submunition (ATACMS/BAT)
ATACMS-BAT/Pre-Planned Product Improvement (P3I)
Biological-Chemical Programs (Detection/Protection/Decontamination/C41)
Bradley Fighting Vehicle System (BFVS) -A3/M2A3 and M3A3 Program
Chinook (CH-47) Improved Cargo Helicopter (ICH)
Close Combat Tactical Trainer (CCTT)
Comanche RAH-66
CRUSADER Howitzer & Resupply Vehicle
Enhanced Fiber Optic Guided Missile (EFOG-M)
Family of Medium Tactical Vehicles (FMTV)
Follow-on-TOW Missile System (FOTT)
High Mobility Multi-Purpose Light Tactical Vehicle (HMMLTV)
Improved Target Acquisition System (ITAS)
Javelin Advanced Anti-Tank Weapon System
Joint Distribution System (JDS)
Joint Modular Lighting System
Joint Surveillance Target Attack Radar System
(JSTARS) Common Ground Station (CGS)
Kiowa Warrior (OH-58D)
Land Warrior
Line of Sight Anti-Tank (LOSAT) Weapon System
Longbow Hellfire Missile System
Multiple Launched Rocket System Upgrade (MLRS Upgrade)
Sense and Destroy Armor (SADARM)
Stinger Reprogrammable Microprocessor II (RMP II)
Tactical Unmanned Aerial Vehicle (UAV) --Outrider

Naval Warfare Programs (\$2.063M)

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Advanced Amphibious Assault Vehicle (AAAV)
Advanced Combat Direction System (ACDS) Block I
Advanced Integrated Electronic Warfare System (AIEWS)
Aegis SPY Radar (AN/SPY-1B/D/D(V))
AN/SQQ-89 Antisubmarine Warfare Combat System
Auxiliary Dry Cargo Carrier (T-ADC(X))
CH-60S Fleet Combat Support Helicopter
Cooperative Engagement Capability (CEC)
DD21 Land Attack Destroyer
DDG-51 Arleigh Burke Class Destroyer
Evolved Sea Sparrow Missile (ESSM)
Fixed Distributive System (FDS) and
 Advanced Deployable System (ADS)
Future Sea-Based Tactical Aviation Platform (CV/X)
LPD-17 Amphibious Assault Ship
MK-48 Advanced Capability (ADCAP) Torpedo
MHC51 Coastal Mine Hunter
Virginia (SSN 774) Class Submarine
Rolling Airframe Missile (RAM)
Seawolf Class Nuclear Attack Submarine/Combat System (SSN-21/BSY-2)
SH-60R Multi-Mission Helicopter Program
Ship Self-Defense System (SSDS)
Standard Missile-2 Blocks IIIB, IV, and IVA
Strategic Sealift Ship (SSP)
Submarine External Communications System (SubECS)
TAGOS/SURTASS Surveillance Ship/Low Frequency Active (LFA) Sonar

Air Warfare Programs (\$2.755M)

Advanced Medium Range Air-to Air (AMRAAM)
AH-1 and UH-1 Helicopter Upgrades (4BN/4BW Upgrade)
AIM-9X Missile
C-130 Aircraft Modernization Program (AMP)
C-130J All Variants (KC-130J, EC-130J, WC-130J, C-130J-30, and C-130J)
C-17 Airlift Aircraft
F/A-18 C/D Hornet

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F/A-18 E/F Hornet
F-22 Air Superiority Fighter
Global Hawk High Altitude Endurance UAV
Joint Air-to-Surface Strike Missile (JASSM)
Joint Direct Attack Munition (JDAM)
Joint Primary Aircraft Training System (JPATS)
Joint Standoff Weapon (JSOW)
Joint Strike Fighter (JSF)
Joint Surveillance and Target Attack Radar System (JSTARS) E-8
Predator Medium Altitude Endurance UAV
Sensor Fused Weapon (SFW)
Standoff Land Attack Missile---Expanded Response (SLAM-ER)
T-45 Training System
Tactical Aviation Mission Planning System (TAMPS)
V-22 Osprey (Joint Vertical Airlift)

Electronic Warfare Programs (\$1.014M)

AAR-47 Upgrade
AN/ALR-56 (all versions) Radar Warning Receiver (RWR) -- all upgrades
AN/ALR-67 (all versions - includes AN/ALR-67[V]
3 Advanced Special Receiver)RWR -- all upgrades
AN/ALR-67E (V)2 RWR upgrade
AN/ALR-69 (all versions) RWR -- all upgrades
AN/APR-39 (all versions) RWR -- all upgrades
B-1B Bomber Defensive System Upgrade Program (DSUP)
"EA-6B ""Prowler"" (includes AN/ALQ-99 Tactical Jamming
System and AN/USQ-113 Communications Jammer) -- all upgrades"
EA-6B Prowler:
Band 7/8 Jammer
Band 9/10 Jammer
Improved Capability (ICAP) III
Low Band Transmitter
Multi-mission Advanced Tactical Terminal/Integrated Data Modem (MATT/IDM)
USQ-113 Connectivity Suite
F-15 Tactical Electronic Warfare System (TEWS)

R-1 Shopping List – Item No 2- 4 of 19

Exhibit R-2, RDT&E Budget Item Justification

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including AN/ALQ-135 self-protection jammer -- all upgrades
Integrated Defensive Electronic Countermeasures (IDECM)
Integrated Defensive Electronic Countermeasures (IDECM) Block I Interim Suite (Airborne Self- Protection Jammer/ALE-50)
Suite of Integrated Infrared Countermeasures / Common
Missile Warning System (SIIRCM/CMWS)
Suite of Integrated Radio Frequency Countermeasures (SIRFC)
Surface-to-Air Missile (SAM)/Mobile Missile Launcher

Command, Control, Communications, and Intelligence Programs (\$3.792M)

All Source Analysis System (ASAS)
Army Global Command and Control System (AGCCS)
Army Tactical Command and Control System (ATCCS) Capstone
Battlefield Digitization
C2 Vehicle
Cheyenne Mountain Upgrade
Combat ID
Combat Survivor Evader Location (CSEL) System
Composite Health Care System (CHCS II)
Defense Civilian Personnel Data System (DCPDS)
Defense Medical Logistics Standard Support (DMLSS)
Defense Message System (DMS)
Distribution Standard System (DSS)
E-2C Hawkeye Airborne Early Warning
E-3A Airborne Warning and Control System
(AWACS) Radar System Improvement Program (RSIP)
E-6A TACAMO (multiple subprograms)
F-15 Fighter Data Link
Forward Area Air Defense System (FAADS) C3I
Global Transportation Network (GTN)
High Performance Computing Modification Plan (HPCMP)
Integrated Maintenance Data System (IMDS)
Joint Computer Aided Acquisition and Logistic Support (JCALS)
Joint Receiving Information Support System
Joint Service Imagery Processing System (JSIPS)
Joint Tactical Information Distribution System (JTIDS)

R-1 Shopping List – Item No 2- 5 of 19

Exhibit R-2, RDT&E Budget Item Justification

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Maneuver Control System (MCS)
MILSTAR Satellite Communications System
Multifunctional Information Distribution System (MIDS)
NAVASTAR GPS User Equipment (UE)
Navy Standard Integrated Personnel System (NSIPS)
Non-Tactical Command Support System (NTCSS)
Reserve Component Automation System (RCAS)
Standard Installation/Division Personnel System 3 (SIDPERS3)
Standard Procurement System (SPS)
Strategic War Planning System (SWPS)
Theater Medical Information Program (TMIP)

Strategic Warfare and Space Systems Programs (\$2.156M)

B1-B Lancer
B2 Advanced Technology Bomber
Evolved Expendable Launch Vehicle (EELV)
Medium Extended Air Defense System (MEADS)
National Airspace System (NAS)
National Missile Defense (NMD) System
Navy Theater Ballistic Missile Defense (TMBD)
Patriot P3I
Patriot Upgrade
Theater High Altitude Area Defense (THAAD)
TITAN IV Space Booster
Tomahawk Block IV / Theater Mission Planning Center (TMPC)

Other Systems

Chemical Demilitarization

Efforts Performed With Y2K Funding (\$12.9M)

Because of DOT&E's expertise in test planning and analysis, in September, 1998, the Deputy Secretary of Defense asked DOT&E to help the ten warfighting commanders-in-chief (CINCs) in conducting their year 2000 (Y2K) operational evaluations (OPEVALs). In conducting this task, DOT&E sought and received assistance from the four Military Service Operational Test Agencies (OTAs), the Joint Interoperability Test Center (JITC) of the Defense Information Systems Agency (DISA) as well as the Institute for Defense Analyses and Science Applications and International Corp (SAIC).

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Approximately 60 people from OTAs, JITC, IDA, and SAIC assisted all ten commands. DOT&E support brought rigor to the OPEVAL process. Most OPEVALs were very thorough and the DOT&E effort included support in test planning, training, rehearsals, execution, analysis, and reporting. The Joint Staff was very pleased with DOT&E's assistance to the CINCs.

Y2K OPEVALs have resulted in the decommissioning of several obsolete Command, Control, Communications, Computers, and Intelligence Surveillance and Reconnaissance (C4ISR) systems and on focusing on the mission critical systems. DOT&E is recommending that DoD consider institutionalizing the periodic conduct of C4ISR infrastructure OPEVALs, possibly once every three years. Such periodic OPEVALs would update CINCs' assessments of their ability to meet mission requirements, allow CINCs to verify interoperability for critical programs, and identify systems that could be eliminated.

Implementing the Quadrennial Defense Review (QDR) in Test and Evaluation: This program element was increased by \$2.5 million in FY 1999 by the DoD Program Decision Memorandum (PDM) issued in November, 1997, following the annual DoD Program Review. These funds will be needed by DOT&E for implementing the QDR in test and evaluation. The funding will be for additional technical and analytical support for evaluation of operational testing of (1) U.S. capabilities to deploy National Missile Defense (NMD), (2) new initiatives in Battlefield Digitization (BD), and (3) Chemical and Biological Warfare (CBW) defenses.

The Quadrennial Defense Review (QDR) declared that development of U.S. capabilities to deploy a National Missile Defense (NMD) is a national priority. The NMD program encompasses a new and critical mission area where the most advanced technology will need to function near-flawlessly. The non-traditional development and acquisition approach for NMD significantly increases the evaluation and analysis workload for DOT&E. This non-traditional approach and the number of new component systems to be developed for NMD will require a quantum increase in DOT&E evaluation and oversight responsibilities. That increased activity is needed to assure that each NMD component system satisfies its test objectives while delivering on schedule a capability to counter the anticipated threat. The new initiatives that comprise the Battlefield Digitization (BD) program support the Chairman of the Joint Chiefs of Staff's "Joint Vision 2010". BD is a massive multi-billion dollar command, control, communications and intelligence (C3I) program that directly impacts and affects how the entire Army fights. It will have extraordinary impact on every major dismounted, ground, and airborne platform in the Army's inventory. Using computer systems, BD is designed to integrate digital communications and information management technologies into all such platforms and systems. This will be accomplished using both existing and developmental computers and communications systems that will be expected to fully inter-operate and interface with each other across both tactical and strategic echelons and formations - all highly critical functions for the reliable and timely extension of command-and-control down to the lowest possible echelon. Consequently, the expected improvement via BD in situational awareness and the use of its communications-electronics to transmit and receive orders, plans, reports, and graphic overlay is expected to greatly increase the Army warfighter's abilities in the areas of force effectiveness, lethality, survivability, and operating tempo (OPTEMPO). Also, BD is an exceptionally complex and all-encompassing C3I program that the Army plans to incorporate in its First Digitized Division (FDD) in the year 2000 and, subsequently, field to all of its major formations soon after its fielding to the FDD. This makes it imperative that DOT&E be provided the resources required to ensure that necessary and adequate operational test and evaluation (OT&E) will be accomplished to support BD's very ambitious and complex acquisition strategy.

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The QDR identified Chemical and Biological Warfare (CBW) by potential adversaries, using unconventional approaches, as one of the key areas of future threat to U.S. military forces. U.S. forces must be properly equipped and trained to operate effectively and decisively in the face of CBW attacks. In pursuit of these goals, DoD has increased planned spending on CBW defense activities by approximately \$1 billion over the program period. To ensure that the systems developed by these programs are ready for use by our servicemen and servicewomen when they are fielded, DOT&E must play a key role in assuring that these systems are operationally effective and suitable. DOT&E's monitoring and assessment of the test and evaluation programs of each of these systems, as they are developed, will require extensive research into the current state of chemical and biological warfare agent detection and identification, with special emphasis on operational testing of this equipment by troops in the field---including tactics, techniques and procedures used by soldiers to operate, maintain and report the results of use of this equipment.

- Perform official travel to carry out oversight of DoD operational testing and evaluation. (\$.327M)

FY 2000 Accomplishments:

•Review Service TEMPs and test plans and provide appropriate guidance to ensure test adequacy; observe preparation for, and conduct of, field operational tests; evaluate OT results and report evaluations to Congress and DoD senior management; and conduct assessments on programs to include evaluation of projected resource requirements and funding levels for OT&E. Programs benefiting from this oversight service will include:

Land Warfare Programs (\$2.916M)

Abrams Tank (M1A2) System Enhancement Program (SEP)
Army Tactical Missile System Brilliant Anti-Armor Submunition (ATACMS/BAT)
ATACMS-BAT/Pre-Planned Product Improvement (P3I)
Biological-Chemical Programs (Detection/Protection/Decontamination/C41)
Bradley Fighting Vehicle System (BFVS) -A3/M2A3 and M3A3 Program
Chinook (CH-47) Improved Cargo Helicopter (ICH)
Close Combat Tactical Trainer (CCTT)
Comanche RAH-66
CRUSADER Howitzer & Resupply Vehicle
Family of Medium Tactical Vehicles (FMTV)
High Mobility Multi-Purpose Light Tactical Vehicle (HMMLTV)
Javelin Advanced Anti-Tank Weapon System
Joint Distribution System (JDS)
Joint Modular Lighting System
Joint Surveillance Target Attack Radar System

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(JSTARS) Common Ground Station (CGS)
Kiowa Warrior (OH-58D)
Land Warrior
Line of Sight Anti-Tank (LOSAT) Weapon System
Longbow Hellfire Missile System
Multiple Launched Rocket System (MLRS) Upgrade
Sense and Destroy Armor (SADARM)
Stinger Reprogrammable Microprocessor II (RMP II)
Tactical Unmanned Aerial Vehicle (UAV) --Outrider
UH-60 Black Hawk Service Life Extension Program (SLEP)

Naval Warfare Programs (\$1.541M)

Advanced Amphibious Assault Vehicle (AAAV)
Advanced Combat Direction System (ACDS) Block I
Advanced Integrated Electronic Warfare System (AIEWS)
Aegis SPY Radar (AN/SPY-1B/D/D(V))
Auxiliary Dry Cargo Carrier (T-ADC(X))
CH-60S Fleet Combat Support Helicopter
Cooperative Engagement Capability (CEC)
DD21 Land Attack Destroyer
DDG-51 Arleigh Burke Class Destroyer
Evolved Sea Sparrow Missile (ESSM)
Fixed Distributive System (FDS) and
Advanced Deployable System (ADS)
Future Sea-Based Tactical Aviation Platform (CV/X)
LPD-17 Amphibious Assault Ship
MK-48 Advanced Capability (ADCAP) Torpedo
Virginia (SSN 774) Class Submarine
Rolling Airframe Missile (RAM)
Seawolf Class Nuclear Attack Submarine/Combat System (SSN-21/BSY-2)
SH-60R Multi-Mission Helicopter Program
Ship Self-Defense System (SSDS)
Standard Missile (SM-2) Block IIIB and Block IV/IVA
Strategic Sealift Ship (SSP)
Submarine External Communications System (SubECS)

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TAGOS/SURTASS Surveillance Ship/Low Frequency Active (LFA) Sonar

Air Warfare Programs (\$2.268M)

Advanced Medium Range Air-to Air (AMRAAM)
AH-1 and UH-1 Helicopter Upgrades (4BN/4BW Upgrade)
AIM-9X Missile
AN/SQQ-89 Antisubmarine Warfare Combat System
C-130 Aircraft Modernization Program (AMP)
C-130J All Variants (KC-130J, EC-130J, WC-130J, C-130J-30, and C-130J)
C-17 Airlift Aircraft
F/A-18 C/D Hornet
F/A-18 E/F Hornet
F-22 Air Superiority Fighter
Global Hawk High Altitude Endurance UAV
Joint Air-to-Surface Strike Missile (JASSM)
Joint Direct Attack Munition (JDAM)
Joint Primary Aircraft Training System (JPATS)
Joint Standoff Weapon (JSOW)
Joint Strike Fighter (JSF)
Joint Surveillance and Target Attack Radar System (JSTARS) E-8
Predator Medium Altitude Endurance UAV
Sensor Fused Weapon (SFW)
Standoff Land Attack Missile---Expanded Response (SLAM-ER)
T-45 Training System
Tactical Aviation Mission Planning System (TAMPS)
V-22 Osprey (Joint Vertical Airlift)

Electronic Warfare Programs (\$1.210M)

AAR-47 Upgrade
AN/ALR-56 (all versions) RWR -- all upgrades
AN/ALR-67 (all versions - includes AN/ALR-67[V]
3 Advanced Special Receiver) RWR -- all upgrades
AN/ALR-67E (V)2 RWR upgrade
AN/ALR-69 (all versions) RWR -- all upgrades
AN/APR-39 (all versions) Radar Warning Receiver (RWR) -- all upgrades

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B-1B Bomber Defensive System Upgrade Program (DSUP)

EA-6B Analysis of Alternatives (AoA) Follow-on

"EA-6B ""Prowler"" (includes AN/ALQ-99 Tactical Jamming System and AN/USQ-113 Communications Jammer) -- all upgrades"

EA-6B:

- Band 7/8 Jammer

- Band 9/10 Jammer

- Improved Capability (ICAP) III

- Low Band Transmitter

- Multi-mission Advanced Tactical Terminal/Integrated Data Modem (MATT/IDM)

- USQ-113 Connectivity Suite

F-15 Tactical Electronic Warfare System (TEWS) including

- AN/ALQ-135 self-protection jammer -- all upgrades

Integrated Defensive Electronic Countermeasures (IDECM)

Integrated Defensive Electronic Countermeasures (IDECM) Block I Interim Suite (Airborne Self- Protection Jammer/ALE-50)

Suite of Integrated Infrared Countermeasures / Common Missile Warning System (SIIRCM/CMWS)

Suite of Integrated Radio Frequency Countermeasures (SIRFC)

Command, Control, Communications, and Intelligence Programs (\$4.095M)

- All Source Analysis System (ASAS)

- Army Global Command and Control System (AGCCS)

- Army Tactical Command and Control System (ATCCS) Capstone

- Battlefield Digitization

- C2 Vehicle

- Cheyenne Mountain Upgrade

- Combat ID

- Combat Survivor Evader Location (CSEL) System

- Composite Health Care System (CHCS II)

- Defense Civilian Personnel Data System (DCPDS)

- Defense Medical Logistics Standard Support (DMLSS)

- Defense Message System (DMS)

- Distribution Standard System (DSS)

- E-2C Hawkeye Airborne Early Warning

- E-3A Airborne Warning and Control System (AWACS)

 - Radar System Improvement Program (RSIP)

- E-6A TACAMO (multiple subprograms)

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F-15 Fighter Data Link
Forward Area Air Defense System (FAADS) C3I
Global Transportation Network (GTN)
High Performance Computing Modification Plan (HPCMP)
Integrated Maintenance Data System (IMDS)
Joint Computer Aided Acquisition and Logistics Support (JCALS)
Joint Receiving Information Support System
Joint Service Imagery Processing System (JSIPS)
Joint Tactical Information Distribution System (JTIDS)
Maneuver Control System (MCS)
MILSTAR Satellite Communications System
Multifunctional Information Distribution System (MIDS)
NAVASTAR GPS User Equipment (UE)
Navy Standard Integrated Personnel System (NSIPS)
Non-Tactical Command Support System (NTCSS)
Reserve Component Automation System (RCAS)
Standard Installation/Division Personnel System 3 (SIDPERS3)
Standard Procurement System (SPS)
Strategic War Planning System (SWPS)
Theater Medical Information Program (TMIP)

Strategic Warfare and Space Systems Programs (\$2.192M)

B1-B Lancer
B2 Advanced Technology Bomber
Evolved Expendable Launch Vehicle (EELV)
Medium Extended Air Defense System (MEADS)
National Airspace System (NAS)
National Missile Defense (NMD) System
Navy Theater Ballistic Missile Defense (TMBD)
Patriot P3I
Patriot Upgrade
Theater High Altitude Area Defense (THAAD)
TITAN IV Space Booster
Tomahawk Block IV / Theater Mission Planning Center (TMPC)

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Other Systems

Chemical Demilitarization

- Perform official travel to carry out oversight of DoD operational testing and evaluation. (\$.380M)

FY 2001 Plans:

• Review Service TEMPs and test plans and provide appropriate guidance to ensure test adequacy; observe preparation for, and conduct of, field operational tests; evaluate OT results and report evaluations to Congress and DoD senior management; and conduct assessments on programs to include evaluation of projected resource requirements and funding levels for OT&E. Programs benefiting from this oversight service will include:

Land Warfare Programs (\$2.941M)

Abrams Tank (M1A2) System Enhancement Program (SEP)
Army Tactical Missile System Brilliant Anti-Armor Submunition (ATACMS/BAT)
ATACMS-BAT/Pre-Planned Product Improvement (P3I)
Biological-Chemical Programs (Detection/Protection/Decontamination/C41)
Bradley Fighting Vehicle System (BFVS) -A3/M2A3 and M3A3 Program
Chinook (CH-47) Improved Cargo Helicopter (ICH)
Close Combat Tactical Trainer (CCTT)
Comanche RAH-66
CRUSADER Howitzer & Resupply Vehicle
High Mobility Multi-Purpose Light Tactical Vehicle (HMMLTV)
Javelin Advanced Anti-Tank Weapon System
Joint Distribution System (JDS)
Joint Modular Lighting System
Joint Surveillance Target Attack Radar System (JSTARS) Common Ground Station (CGS)
Kiowa Warrior (OH-58D)
Land Warrior
Line of Sight Anti-Tank (LOSAT) Weapon System
Longbow Hellfire Missile System
Multiple Launched Rocket System (MLRS) Upgrade
Nuclear-Biological-Chemical Reconnaissance System
(NBCRS) Reconnaissance Vehicle
Sense and Destroy Armor (SADARM)
Stinger Reprogrammable Microprocessor II (RMP II)

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Tactical Unmanned Aerial Vehicle (UAV) --Outrider
UH-60 Black Hawk Service Life Extension Program (SLEP)

Naval Warfare Programs (\$1.554M)

Advanced Amphibious Assault Vehicle (AAAV)
Advanced Integrated Electronic Warfare System (AIEWS)
Aegis SPY Radar (AN/SPY-1B/D/D(V))
AN/SQQ-89 Antisubmarine Warfare Combat System
Auxiliary Dry Cargo Carrier (T-ADC(X))
CH-60S Fleet Combat Support Helicopter
Cooperative Engagement Capability (CEC)
DD21 Land Attack Destroyer
DDG-51 Arleigh Burke Class Destroyer
Evolved Sea Sparrow Missile (ESSM)
Fixed Distributive System (FDS) and Advanced Deployable System (ADS)
Future Sea-Based Tactical Aviation Platform (CV/X)
LPD-17 Amphibious Assault Ship
MK-48 Advanced Capability (ADCAP) Torpedo
Virginia (SSN 774) Class Submarine
Rolling Airframe Missile (RAM)
Seawolf Class Nuclear Attack Submarine/Combat System (SSN-21/BSY-2)
SH-60R Multi-Mission Helicopter Program
Ship Self-Defense System (SSDS)
Standard Missile (SM-2) Block IIIB and Block IV/IVA
Strategic Sealift Ship (SSP)
Submarine External Communications System (SubECS)
TAGOS/SURTASS Surveillance Ship/Low Frequency Active (LFA) Sonar

Air Warfare Programs (\$2.297M)

Advanced Medium Range Air-to Air (AMRAAM)
AH-1 and UH-1 Helicopter Upgrades (4BN/4BW Upgrade)
AIM-9X Missile
C-130 Aircraft Modernization Program (AMP)
C-130J All Variants (KC-130J, EC-130J, WC-130J, C-130J-30, and C-130J)
C-17 Airlift Aircraft

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F/A-18 C/D Hornet
F/A-18 E/F Hornet
F-22 Air Superiority Fighter
Global Hawk High Altitude Endurance UAV
Joint Air-to-Surface Strike Missile (JASSM)
Joint Direct Attack Munition (JDAM)
Joint Primary Aircraft Training System (JPATS)
Joint Standoff Weapon (JSOW)
Joint Strike Fighter (JSF)
Joint Surveillance and Target Attack Radar System (JSTARS) E-8
Sensor Fused Weapon (SFW)
Standoff Land Attack Missile---Expanded Response (SLAM-ER)
T-45 Training System
Tactical Aviation Mission Planning System (TAMPS)
V-22 Osprey (Joint Vertical Airlift)

Electronic Warfare Programs (\$1.211M)

AAR-47 Upgrade
AN/ALR-56 (all versions) RWR -- all upgrades
AN/ALR-67 (all versions - includes AN/ALR-67[V]
3 Advanced Special Receiver) RWR -- all upgrades
AN/ALR-67E (V)2 RWR Upgrade
AN/ALR-69 (all versions) RWR -- all upgrades
AN/APR-39 (all versions) Radar Warning Receiver (RWR) -- all upgrades
B-1B Bomber Defensive System Upgrade Program (DSUP)
"EA-6B ""Prowler"" (includes AN/ALQ-99 Tactical Jamming System
and AN/USQ-113 Communications Jammer) -- all upgrades"
EA-6B Analysis of Alternatives Follow-on
EA-6B:
Band 7/8 Jammer
Improved Capability (ICAP) III
Low Band Transmitter
USQ-113 Connectivity Suite
F-15 Tactical Electronic Warfare System (TEWS) including
AN/ALQ-135 self-protection jammer -- all upgrades

R-1 Shopping List – Item No 2- 15 of 19

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Integrated Defensive Electronic Countermeasures (IDECM)
Integrated Defensive Electronic Countermeasures (IDECM) Block II Interim Suite (RFCM/ALE-50)
Suite of Integrated Infrared Countermeasures / Common Missile
Warning System (SIIRCM/CMWS)
Suite of Integrated Radio Frequency Countermeasures (SIRFC)

Command, Control, Communications, and Intelligence Programs (\$3.757M)

All Source Analysis System (ASAS)
Army Global Command and Control System (AGCCS)
Army Tactical Command and Control System (ATCCS) Capstone
Battlefield Digitization
C2 Vehicle
Cheyenne Mountain Upgrade
Combat ID
Combat Survivor Evader Location (CSEL) System
Composite Health Care System (CHCS)
Defense Civilian Personnel Data System (DCPDS)
Defense Medical Logistics Standard Support (MLSS)
Defense Message System (DMS)
Distribution Standard System (DSS)
E-2C Hawkeye Airborne Early Warning
E-3A Airborne Warning and Control System (AWACS)
Radar System Improvement Program (RSIP)
E-6A TACAMO (multiple subprograms)
F-15 Fighter Data Link
Forward Area Air Defense System (FAADS) C3I
Global Transportation Network (GTN)
High Performance Computing Modification Plan (HPCMP)
Integrated Maintenance Data System (IMDS)
Joint Computer Aided Acquisition and Logistics Support (JCALS)
Joint Receiving Information Support System
Joint Service Imagery Processing System (JSIPS)
Joint Tactical Information Distribution System (JTIDS)
Maneuver Control System (MCS)
MILSTAR Satellite Communications System

R-1 Shopping List – Item No 2- 16 of 19

Exhibit R-2, RDT&E Budget Item Justification

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Multifunctional Information Distribution System (MIDS)
NAVASTAR GPS User Equipment (UE)
Navy Standard Integrated Personnel System (NSIPS)
Non-Tactical Command Support System (NTCSS)
Reserve Component Automation System (RCAS)
Standard Installation/Division Personnel System 3 (SIDPERS3)
Standard Procurement System (SPS)
Strategic War Planning System (SWPS)
Theater Medical Information Program (TMIP)

Strategic Warfare and Space Systems Programs (\$2.012M)

B1-B Lancer
B2 Advanced Technology Bomber
Evolved Expendable Launch Vehicle (EELV)
Medium Extended Air Defense System (MEADS)
National Airspace System (NAS)
National Missile Defense Upgrade (NMDS)
Navy Theater Ballistic Missile Defense (TMBD)
Patriot P3I
Patriot Upgrade
Theater High Altitude Area Defense (THAAD)
TITAN IV Space Booster
Tomahawk Block IV / Theater Mission Planning Center (TMPC)

Additional DOT&E Oversight of Priority Areas. (\$3.000M) The August, DoD 1999 Program Decision Memorandum (PDM) provided \$3.0M to DOT&E to support additional DOT&E oversight of OUSD(AT&L) priority areas to include National Missile Defense (NMD) and Support to the Acquisition Community.

NMD: In January 1999, the Secretary of Defense announced a decision to budget substantial additional funding for the NMD program. Program Budget Decision 224C added an additional \$6.1B to the budget between FY01 and FY05 for the overall NMD program. The NMD program is unlike other programs in that it is comprised of multiple individual major systems to include: a weapon system, two radar systems, a communications system, and a command-and-control system. The testing of each of these systems equates in size and complexity to the testing of a standard Major Defense Acquisition Program (MDAP) and requires a minimum of three additional DOT&E action officers plus added Federally Funded Research and Development Center (FFRDC) contract support. Activity on the program has increased significantly in preparation for testing and assessing the technological potential of an NMD capability prior to the year 2000 Deployment Readiness Review. DOT&E has not had the resources to keep up with the pace of NMD activity. Furthermore, demands for analytical support are projected to continue to rise throughout the next six years as the system

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design matures and testing increases through to eventual deployment. This increased funding beginning in FY2001 will purchase vital additional oversight and analytic capability in the area of NMD. Without the additional funding for NMD test analysis, we would run the risk of an inadequate analysis of testing of the NMD program, which could result in a national investment in an extremely expensive strategic missile defense system that would be ineffective.

Support to the Acquisition Community: The Secretary of Defense has directed operational testers to become involved earlier in the acquisition process. As a result, DOT&E is experiencing a substantial workload increase. In order to adequately support this workload, additional resources have been provided beginning in FY2001.

One of the specific areas of increased workload is the Advanced Concept Technology Demonstration program. As of the start of FY2000, there were 45 ACTDs ongoing and another 12 under active consideration, with the number expected to continue to increase. In the past, DOT&E's participation in ACTDs was very limited. However, the Defense Science Board (DSB) has recommended that DOT&E support all ACTDs. The additional funding \$1.0M for FY2001 will provide the FFRDC analytic support to make this possible.

These funds will also provide, beginning in FY2001, for increased DOT&E support to C4I interoperability assessments. A major priority of the Under Secretary of Defense (Acquisition, Technology and Logistics) to counter emerging threats to future battlefield dominance is the interoperability of DoD C4I systems. As part of this effort, DOT&E has a new unplanned and unbudgeted requirement to partner with the U.S. Atlantic Command's (USACOM) Joint Experimentation Directorate. Through this partnership, T&E initiatives will be evaluated and subsequently transitioned into the acquisition system by participation in, and analyzing data from, joint experiments. An on-site DOT&E team will have first-hand knowledge of the CINC's joint experimentation requirements and can offer immediate access and support from across-the-board T&E community. As OT&E programs increasingly become mission-level (vice systems-level) testing oriented to include interoperability among Service and allied systems, additional contract support resources will be required.

Lastly, beginning in FY2001, DOT&E will become involved in the Logistics and Sustainment testing arena. The OUSD(AT&L) has stated his strong support for early operational test insights in logistics and sustainability. Additionally, the Department is placing strong emphasis on reducing total ownership costs of weapons systems. As a result, there is a strong need for detailed assessments of logistics, training, and contractor support of these weapons systems. While DOT&E has focused on combat effectiveness and suitability of weapons throughout the development process, we have not addressed many of the factors affecting life-cycle costs. Since DOT&E is involved early, the opportunity exists to develop early insights to the various cost drivers for a program and provide acquisition decision makers with the assessments that can be used to reduce those costs. The new funding will provide the contractual support to allow DOT&E to continue providing the much needed and directed early involvement and early support to the acquisition community.

Plans - Other Systems

Chemical Demilitarization

- Perform official travel to carry out oversight of DoD operational testing and evaluation. (\$.400M)

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B. (U) PROGRAM CHANGE SUMMARY

(\$ in Millions)	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>
FY 2000 President's Budget	15.311	14.206	14.249
Appropriated Value	15.311	14.602	
Reprogramming Action: Funds Available for Y2K Conversion Efforts	12.900		
Adjustments to Appropriated Value			
Additional Budget for National Missile Defense (NMD) T&E Support			3.000
Nonpay Purchase Inflation Adjustment			(0.077)
Current Budget Submit	28.211	14.602	17.172

C. (U) OTHER PROGRAM FUNDING NA

D. (U) ACQUISITION STRATEGY: NA

E. (U) SCHEDULE PROFILE:

Fiscal Year actual and planned events by quarter

<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>			
1	2	3	4	1	2	3	4	1	2	3	4

Contract Milestones: (See activities under Part A above.)