PE NUMBER: 0605712F
PE TITLE: Initial Operational Test & Evaluation

Exhibit R-2, RDT&E Budget Item Justification							DATE February 2004		

BUDGET ACTIVITY
06 RDT&E Management Support

PE NUMBER AND TITLE
0605712F Initial Operational Test & Evaluation

Cost ($ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	36.320	34.343	28.839	32.776	33.331	33.641	34.069	Continuing	TBD
0191 Initial Operational Test & Eval	36.320	34.343	28.839	32.776	33.331	33.641	34.069	Continuing	TBD

(U) **A. Mission Description and Budget Item Justification**

Initial Operational Test and Evaluation (IOT&E) is conducted to determine the operational effectiveness and suitability of systems undergoing research and development (R&D) efforts. It is an evaluation of a system's performance when the complete system is tested and evaluated against operational criteria by personnel with the same qualifications as those who will operate, maintain and support the system when deployed. In general, IOT&E is performed on new systems in development, major modifications, and other systems as directed. This PE funds Congressionally mandated IOT&E to support major weapon system acquisition decisions beyond Low-Rate Initial Production (LRIP), Milestone C, full rate production, fielding, and declaration of Initial Operational Capability (IOC). For major systems designated for use in combat, the law requires IOT&E be completed under realistic field conditions before proceeding beyond LRIP. IOT&E will be planned to completely and unambiguously answer all critical operational issues (COI) as thoroughly as possible. This PE funds the OT participation in Combined Developmental/Operational Test (DT)/OT, the Air Force participation in Multiservice Operational Test and Evaluation (MOT&E), and Follow-on Operational Test and Evaluation (FOT&E) when it is the continuation of IOT&E activities past the full rate production decision. FOT&E answers specific questions about unresolved COIs and test issues, or completes areas not finished during the IOT&E. This PE also funds related operational test and evaluation (OT&E) activities such as, Operational Utility Evaluations (OUE), Early Operational Assessments (EOA) and Operational Assessments (OA), and independent IOT&E which support major milestones and decision points prior to Milestone C, full rate production, fielding, or declaration of IOC. IOT&E programs are identified in several system categories: Air; Space; Weapons; Command, Control, Communications, Computers, and Intelligence (C4I); Combat Support; and Test Support. Air Force Operational Test and Evaluation Center (AFOTEC) obtains general support services from contracts awarded after employing full and open competition contracting strategies.

This program element is in Budget Activity 6, RDT&E Management Support, because it funds weapon system IOT&E tests conducted to evaluate a system's operational effectiveness and suitability and to identify any operational deficiencies or need for modifications in support of the acquisition process.

Exhibit R-2, RDT&E Budget Item Justification	DATE
	February 2004

BUDGET ACTIVITY	PE NUMBER AND TITLE
06 RDT&E Management Support	**0605712F Initial Operational Test & Evaluation**

(U) **B. Program Change Summary ($ in Millions)**

	FY 2003	FY 2004	FY 2005
(U) Previous President's Budget	26.483	34.646	26.896
(U) Current PBR/President's Budget	36.320	34.343	28.839
(U) Total Adjustments	9.837	-0.303	
(U) Congressional Program Reductions		-0.303	
Congressional Rescissions			
Congressional Increases			
Reprogrammings	9.837		
SBIR/STTR Transfer			

(U) <u>Significant Program Changes:</u>

FY03 $9.837 BTR to meet IOT&E requirement shortfalls

FY04 Decrease due to funding of other AF priorities

Exhibit R-2 (PE 0605712F)

	DATE
Exhibit R-2a, RDT&E Project Justification	**February 2004**

BUDGET ACTIVITY **06 RDT&E Management Support**	PE NUMBER AND TITLE **0605712F Initial Operational Test & Evaluation**	PROJECT NUMBER AND TITLE **0191 Initial Operational Test & Eval**

Cost ($ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
0191 Initial Operational Test & Eval	36.320	34.343	28.839	32.776	33.331	33.641	34.069	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

Initial Operational Test and Evaluation (IOT&E) is conducted to determine the operational effectiveness and suitability of systems undergoing research and development (R&D) efforts. It is an evaluation of a system's performance when the complete system is tested and evaluated against operational criteria by personnel with the same qualifications as those who will operate, maintain and support the system when deployed. In general, IOT&E is performed on new systems in development, major modifications, and other systems as directed. This PE funds Congressionally mandated IOT&E to support major weapon system acquisition decisions beyond Low-Rate Initial Production (LRIP), Milestone C, full rate production, fielding, and declaration of Initial Operational Capability (IOC). For major systems designated for use in combat, the law requires IOT&E be completed under realistic field conditions before proceeding beyond LRIP. IOT&E will be planned to completely and unambiguously answer all critical operational issues (COI) as thoroughly as possible. This PE funds the OT participation in Combined Developmental/Operational Test (DT)/OT, the Air Force participation in Multiservice Operational Test and Evaluation (MOT&E), and Follow-on Operational Test and Evaluation (FOT&E) when it is the continuation of IOT&E activities past the full rate production decision. FOT&E answers specific questions about unresolved COIs and test issues, or completes areas not finished during the IOT&E. This PE also funds related operational test and evaluation (OT&E) activities such as, Operational Utility Evaluations (OUE), Early Operational Assessments (EOA) and Operational Assessments (OA), and independent IOT&E which support major milestones and decision points prior to Milestone C, full rate production, fielding, or declaration of IOC. IOT&E programs are identified in several system categories: Air; Space; Weapons; Command, Control, Communications, Computers, and Intelligence (C4I); Combat Support; and Test Support. Air Force Operational Test and Evaluation Center (AFOTEC) obtains general support services from contracts awarded after employing full and open competition contracting strategies.

This program element is in Budget Activity 6, RDT&E Management Support, because it funds weapon system IOT&E tests conducted to evaluate a system's operational effectiveness and suitability and to identify any operational deficiencies or need for modifications in support of the acquisition process.

(U) B. Accomplishments/Planned Program ($ in Millions)	FY 2003	FY 2004	FY 2005
(U) (U) CATEGORY: AIR SYSTEMS. Plan, execute, and report IOT&E activities, to include:	19.063	27.697	18.759

FY03
- F/A-22: Conduct IOT&E
- Airborne Laser (ABL): Write OA plan; continue advance planning IOT&E.
- ALR-69 Radar Warning Receiver (RWR) Capability Improvement (ALR-69 RWR CI): Conduct IOT&E.
- B-1B Conventional Mission Upgrade Program (CMUP) BLK E: Complete final test report.
- B-1B CMUP Block F: Detailed planning for IOT&E.
- B-52 Avionics Mid-Life Improvement (AMI): Plan and conduct IOT&E.
- C-17 Global Air Traffic Management (GATM): Conduct Block 14 IOT&E.

Exhibit R-2a, RDT&E Project Justification	DATE February 2004

BUDGET ACTIVITY 06 RDT&E Management Support	PE NUMBER AND TITLE 0605712F Initial Operational Test & Evaluation	PROJECT NUMBER AND TITLE 0191 Initial Operational Test & Eval

- Compass Call: Advance planning for Blk 35 IOT&E.
- CV-22: Plan for and conduct CV-22 IOT&E.
- F-15 Fiber Optic Towed Decoy (F-15 FOTD): Brief OA Results; advanced planning for IOT&E.
- F-16 Common Configuration Improvement Program (CCIP): Conduct IOT&E.
- Global Hawk High Altitude Vehicle (HAV) Unmanned Aerial Vehicle (UAV): Participation in real-world events;
detailed planning for IOT&E.
- Joint Strike Fighter (JSF): Advanced planning for IOT&E.
- Large Aircraft InfraRed Counter Measure (LAIRCM): Plan and conduct IOT&E.
- Mobile Approach Control System (MACS): Plan and conduct IOT&E.

FY04
- Airborne Electronic Attack (AEA): Early involvement.
- ALR-69 RWR Capability Improvement (ALR-69 RWR CI): Conduct IOT&E.
- Advanced Strategic and Tactical Infrared Expendable (ASTE): Complete Transport Phase IOT&E and final report.
- B-1B CMUP BLK F: Complete IOT&E and write test report.
- B-52 AMI: Plan and conduct IOT&E.
- C-130X Aircraft Modernization Program (AMP): Conduct test planning.
- C-17 GATM: Conduct Block 14 IOT&E
- Compass Call: Conduct DT/OT on Block 35.
- CV-22: Continue DT/OT and OA. Complete advanced planning for OAs, DT/OT and IOT&E.
- F-15 FOTD: Conduct advanced planning.
- F-16 CCIP: Conduct and report IOT&E.
- F/A-22: Conduct IOT&E.
- Global Hawk HAE UAV: Conduct OA and planning for IOT&E.
- Joint Strike Fighter (JSF): Advanced planning for IOT&E.
- LAIRCM: Conduct and report IOT&E.
- MACS: Complete OA and IOT&E and wrtie final report.
- MQ-9: Participate in seamless verification of Pathfinder program.
- Panoramic Night Vision Goggles (PNVG): Conduct and report IOT&E.
- Unmanned Combat Aerial Vehicle (UCAV): Participate in seamless verification of Pathfinder program.

FY05
- AOA-10A Precision Engagement (AOA-10A PE): Early Involvement.
- AEA: Early involvement.

Exhibit R-2a, RDT&E Project Justification	DATE February 2004

BUDGET ACTIVITY 06 RDT&E Management Support	PE NUMBER AND TITLE 0605712F Initial Operational Test & Evaluation	PROJECT NUMBER AND TITLE 0191 Initial Operational Test & Eval

- ALR-69 RWR CI: Conduct C-130 IOT&E.
- B-2 Radar Modernization Program (RMP): Early Involvement.
- B-52 AMI: Conduct IOT&E phase 2.
- C-130X AMP: Early Involvement.
- CV-22: Continue DT/OT.
- F-15 FOTD: Early Involvement.
- F-22: Conduct FOT&E.
- Global Hawk HAE UAV: Conduct DT/OT and planning for IOT&E.
- JSF: Conduct OT 2B and 2C. Planning for IOT&E.
- Advanced AFSOC Air Mobility Program (M-X): Early Involvement.
- MQ-9: Conduct OA.
- AC-130U Gunship Replacement (SOF A-X): Early Involvement.
- Other systems.

(U)

		1.760	1.499	2.272

(U) (U) CATEGORY: SPACE SYSTEMS. Plan, execute, and report IOT&E activities, to include:

FY03
- Advanced EHF Satellite Communications (Advanced EHF): Advance planning for IOT&E.
- Global Broadcast System (GBS): Plan and conduct FOT&E.
- Global Positioning Satellite (GPS): Plan and conduct OA2.
- MILSTAR II: Complete MOT&E; write Final Report.
- National Polar-Orbit Ops Environment Satellite System (NPOESS): Planning for OA2 and IOT&E.
- Space Based InfraRed System (SBIRS): Perform Operational Utility Evaluations (OUE) to support Increment 2
ground system upgrades; participate in MP3 MOT&E.
- Wideband Gap Filler System (WGS): Participate in combined DT/OT.

FY04
- Advanced EHF: Advanced planning for IOT&E.
- GBS: Plan and conduct DT/OT. Plan for FOT&E.
- GPS: Plan and conduct OA2 and OA3.
- NPOESS: Conduct and report OA1. Plan for OA2 and IOT&E.
- SBIRS: Plan for Increment 2 OUE and IOT&E.
- WGS: Conduct DT/OT and plan for MOT&E.

Exhibit R-2a, RDT&E Project Justification		DATE February 2004
BUDGET ACTIVITY 06 RDT&E Management Support	PE NUMBER AND TITLE 0605712F Initial Operational Test & Evaluation	PROJECT NUMBER AND TITLE 0191 Initial Operational Test & Eval

FY05
- Advanced EHF: Conduct OA.
- Combat Commanders Integrated Command & Control System (CCIC2S) Missile Warning Release (MWR): Publish
final report.
- GBS: Conduct MOT&E.
- GPS: Conduct OA.
- NPOESS: Early Involvement.
- SBIRS: Conduct OUE.
- Space Based Radar (SBR): Early Involvement.
- Space Based Space Surveillance (SBSS): Early Involvement.
- Transformational Communications MILSATCOM (TCM): Early Involvement.
- WGS: Conduct MOT&E.
- Other systems

(U)

(U)	(U) CATEGORY: WEAPONS. Plan, execute, and report IOT&E activities, to include:	13.199	2.269	3.092

FY03
- AIM-9X Air-to-Air Missile : Complete MOT&E and write final report.
- Joint Air-to-Surface Standoff Missile (JASSM): Complete MOT&E and write final report.
- Joint Direct Attack Munition (JDAM) MK 82: Conduct combined DT/OT; advanced planning for IOT&E.
- Joint Stand-Off Weapon (JSOW BLU-108): Complete MOT&E and FOT&E.

FY04
- AIM-9X Air-to-Air Missile: Conduct FOT&E
- Minuteman (MM) III Safety Enhanced Reentry Vehicle (ICBM-SERV): Test Planning.
- Joint Air-to-Surface Standoff Missile JASSM: Conduct test planning for JASSM-ER.
- JDAM MK 82: Test Planning.
- Joint Direct Attack Munition MK 83(JDAM MK 83): Publish final report.

FY05
- MM III ICBM-SERV: Conduct IOT&E.
- JASSM: Conduct test planning for JASSM-ER.
- Small Diameter Bomb (SDB): Conduct OA-2.
- Wind Corrected Munitions Dispenser Extended Range (WCMD-ER): Conduct OA-2.

Exhibit R-2a, RDT&E Project Justification	DATE February 2004

BUDGET ACTIVITY 06 RDT&E Management Support	PE NUMBER AND TITLE 0605712F Initial Operational Test & Evaluation	PROJECT NUMBER AND TITLE 0191 Initial Operational Test & Eval

- Other systems
(U)

(U) (U) CATEGORY: COMMMAND, CONTROL, COMMUNICATIONS, COMPUTERS, AND INTELLIGENCE (C   1.420   1.725   3.191

Plan, execute, and report IOT&E activities, to include:

FY03
- Deliberate Crisis Action Planning and Execution System (DCAPES): Complete Increment 2 IOT&E
- Integrated Broadcast System (IBS): Complete OA and participate in CTF activities.
- Joint STARS Blk 30: Conduct OA and continue Test Planning.
- Joint Tactical Terminal (JTT): Complete IOT&E
- NORAD_USSPACECOM Warning Surveillance System   (N_UWSS): Planning for OA and IOT&E.
- Theater Battle Management - Core Systems (TBM-CS):   Complete MOT&E of version 2.0

FY04
- Air Operations Center as a Weapons System (AOC): Test planning and Execution throughout spiral development.
(Includes TBMCS and TCT)
- Combined Air Operations Center Experimental (CAOC-X): Support CTF
- DCAPES: Conduct IOT&E and publish report.
- Family of Advanced Beyond Line Of Sight Terminals (FAB T): Participate in combined DT/OT. Conduct OA and
publish report. Test Planning.
- Global Combat Support System Air Force (GCSS AF): Conduct IOT&E and publish report.
- Ground Multi-band Terminal (GMT): Conduct IOT&E and publish final report.
- Global Transportation Network 21 (GTN 21): Participate in combined DT/OT. Test planning.
- Integrated Broadcast System (IBS): Participate in combined DT/OT. Conduct MOT&E and publish report.
- Joint STARS Blk 30: Plan and participate in CTF OUE and write report.
- N_UWSS: Early Involvement. Planning in support of additional mission capabilities.

FY05
- AOC: Conduct OUE.
- Advanced Point Mensuration Tool (APMT): Early Involvement
- Airborne Signals Intelligence Payload (ASIP): Early Involvement.
- FAB T: Conduct OA2.
- GCSS AF: Conduct DT/OT.
- Ground Element Minimum Essential Emergency Communications Network System (GEMS): Early Involvement.

Exhibit R-2a, RDT&E Project Justification	DATE February 2004

BUDGET ACTIVITY 06 RDT&E Management Support	PE NUMBER AND TITLE 0605712F Initial Operational Test & Evaluation	PROJECT NUMBER AND TITLE 0191 Initial Operational Test & Eval

- IBS: Planning for FOT&E.
- Joint Command and Control Capability (JC2): Early Involvement.
- Joint Tactical Radio System (JTRS): Conduct DT/OT.
- Multi-Platform Common Data Link (MP CDL): Conduct DT/OT and OA.
- Other systems

(U)

(U) (U) CATEGORY: COMBAT SUPPORT. Plan, execute, and report IOT&E activities, to include: 0.878   1.153   1.525

FY03
- Common Low Observable Verification System (CLOVeRS): Conduct IOT&E.
- Combat Survivor Evader Locator (CSEL): Plan and conduct FOT&E.
- Integrated Logistics System - Supply (ILS-S): Conduct CTF events. Advance Planning for IOT&E.
- Joint Computer Aided Acquisition and Logistics Support (JCALS): Conduct SWP 3.3 OT.
- Joint Mission Planning System (JMPS): Conduct IOT&E on release 1.0.
- Joint Precision Approach & Landing system (JPALS): Participate in Combined DT/OT events; detailed planning for
MOT&E.
- Joint Tactical Combat Training System (JTCTS): Detailed Planning for MOT&E.

FY04
- CLOVeRS: Conduct planning for IOT&E
- CSEL: Plan and conduct FOT&E.
- ILS-S: Conduct CTF events. Planning for IOT&E.
- JCALS: Plan and conduct FOT&E.
- JMPS: Conduct IOT&E on release 1.0.
- JPALS: Participate in Combined DT/OT events; detailed planning for MOT&E.
- JTCTS: Detailed Planning for MOT&E.

FY05
- CLOVeRS: Conduct planning for IOT&E
- ILS-S: Conduct DT/OT.
- JMPS: Conduct F-15 mission planning environment IOT&E.
- Laser Warning and Detection (Laser WARDET): Early Involvement.
- Miniture Air Launched Decoy (MALD): Conduct OA1.
- Mark XIIA Mode 5 IFF (MODE 5): Early Involvement.

Exhibit R-2a, RDT&E Project Justification	DATE
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BUDGET ACTIVITY **06 RDT&E Management Support**	PE NUMBER AND TITLE **0605712F Initial Operational Test & Evaluation**	PROJECT NUMBER AND TITLE **0191 Initial Operational Test & Eval**

    - Other systems.

(U) B. Budget Activity Justification

This program element is in Budget Activity 6, RDT&E Management Support, because it funds weapon system IOT&E
tests conducted to evaluate a system's operational effectiveness and suitability and to identify any operational
deficiencies or need for modifications in support of the acquisition process.

(U) Total Cost   36.320   34.343   28.839

(U) **C. Other Program Funding Summary ($ in Millions)**

	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost

(U) N/A

(U) **D. Acquisition Strategy**

    N/A