

UNCLASSIFIED

PE NUMBER: 0605712F

PE TITLE: Initial Operational Test & Evaluation

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2006

BUDGET ACTIVITY

06 RDT&E Management Support

PE NUMBER AND TITLE

0605712F Initial Operational Test & Evaluation

Cost (\$ in Millions)	FY 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	27.392	34.122	34.802	29.880	29.386	29.605	29.557	Continuing	TBD
0191 Initial Operational Test & Eval	27.392	34.122	34.802	29.880	29.386	29.605	29.557	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 Test/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

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0605712F Initial Operational Test & Evaluation

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

	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	28.839	34.615	33.739
(U) Current PBR/President's Budget	27.392	34.122	34.802
(U) Total Adjustments	-1.447	-0.493	
(U) Congressional Program Reductions	-0.295		
Congressional Rescissions		-0.493	
Congressional Increases	2.000		
Reprogrammings	-2.414		
SBIR/STTR Transfer	-0.738		
(U) <u>Significant Program Changes:</u>			

Exhibit R-2a, RDT&E Project Justification								DATE February 2006	
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 2005 Actual	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
0191 Initial Operational Test & Eval	27.392	34.122	34.802	29.880	29.386	29.605	29.557	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 Test/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) <u>B. Accomplishments/Planned Program (\$ in Millions)</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) (U) CATEGORY: AIR SYSTEMS. Plan, execute, and report IOT&E activities, to include: FY05 - ALR-69A Radar Warning Receiver Capability Improvement (ALR-69A RWR CI): Early Involvement. - AOA-10A Precision Engagement (AOA-10A PE): Early Involvement. - B-2 Radar Modernization Program (RMP): Early Involvement. - B-52 Avionics Mid-Life Improvement (AMI): Conduct IOT&E phase 2. - C-130X Aircraft Modernization Program (AMP): Early Involvement. - CV-22: Continue DT/OT. - E-10A: Early Involvement. - F-16 Common Configuration Improvement Program Multi Function Info Distro System Low Volume Terminal	16.242	21.987	17.394

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Exhibit R-2a, RDT&E Project Justification		DATE February 2006
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

(U) <u>B. Accomplishments/Planned Program (\$ in Millions)</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
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(CCIP MIDS LVT): Conduct IOT&E and publish Final Report.

- F/A-22: Conduct FOT&E Spiral 1.
- Global Hawk High Altitude Endurance Unmanned Aerial Vehicle (HAE UAV): Conduct OA.
- Miniature Air Launched Decoy (MALD): Early involvement.
- MQ-9: Planning for OA.
- Other systems.

FY06

- ALR-69A Radar Warning Receiver Capability Improvement (ALR-69A RWR CI): Conduct OA.
- AOA-10A Precision Engagement (AOA-10A PE): Conduct DT/OT.
- B-2 Radar Modernization Program (RMP): Conduct OA and DT/OT.
- B-52 Avionics Mid-Life Improvement (AMI): Conduct IOT&E phase 2.
- C-130X Aircraft Modernization Program (AMP): Conduct OA.
- Combat Search and Rescue Vehicle (CSAR-X): Early Involvement.
- CV-22: Conduct OUE.
- E-10A: Early Involvement.
- F/A-22: Plan FOT&E Spiral 2.
- Global Hawk High Altitude Endurance Unmanned Aerial Vehicle (HAE UAV): Conduct OA.
- Miniature Air Launched Decoy (MALD): Planning for OA.
- MQ-9: Planning IOT&E and conduct OA.
- Other systems.

FY07

- ALR-69A Radar Warning Receiver Capability Improvement (ALR-69A RWR CI): Conduct IOT&E.
- AOA-10A Precision Engagement (AOA-10A PE): Conduct OUE.
- B-2 Radar Modernization Program (RMP): Conduct OA and DT/OT.
- C-130X Aircraft Modernization Program (AMP): Conduct DT/OT.
- Combat Search and Rescue Vehicle (CSAR-X): Early Involvement.
- CV-22: Planning for IOT&E.
- E-10A: Early Involvement.
- F/A-22: Conduct FOT&E Spiral 2.
- Global Hawk High Altitude Endurance Unmanned Aerial Vehicle (HAE UAV): Conduct OUE.

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Exhibit R-2a, RDT&E Project Justification			DATE February 2006		
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		
(U)	<u>B. Accomplishments/Planned Program (\$ in Millions)</u>		<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
	- Miniature Air Launched Decoy (MALD): Conduct OA, planning for IOT&E.				
	- MQ-9: Planning for IOT&E.				
	- Other systems.				
(U)					
(U)	(U) CATEGORY: SPACE SYSTEMS. Plan, execute, and report IOT&E activities, to include:		2.336	1.557	2.251
	FY05				
	- Advanced EHF Satellite Communications (Advanced EHF): Conduct OA-1.				
	- Combat Commanders Integrated Command & Control System-Increment 2 (CCIC2S Increment 2): Early Involvement.				
	- Global Broadcast System (GBS): Conduct DT/OT.				
	- Global Positioning System/GPS III (GPS-III): Early Involvement.				
	- National Polar-Orbit Ops Environment Satellite System (NPOESS): Conduct OA-1.				
	- Space Based Infrared Systems (SBIRS): Conduct DT/OT.				
	- Space Radar (SR): Early Involvement.				
	- Transformational Satellite Communications System (TSAT): Early Involvement.				
	- Upgraded Early Warning Radar (UEWR): Early Involvement.				
	- Wideband Gapfiller Satellite (WGS): Early Involvement.				
	- Other systems.				
	FY06				
	- Advanced EHF Satellite Communications (Advanced EHF): DT/OT.				
	- Combat Commanders Integrated Command & Control System-Increment 2 (CCIC2S Increment 2): DT/OT.				
	- Global Broadcast System (GBS): Conduct DT/OT and MOT&E.				
	- Global Positioning System/GPS III (GPS-III): Conduct OUE.				
	- National Polar-Orbit Ops Environment Satellite System (NPOESS): Planning OA2.				
	- Space Based Infrared System (SBIRS): Conduct OUE.				
	- Space Radar (SR): Early Involvement.				
	- Transformational Satellite Communications System (TSAT): Early Involvement.				
	- Upgraded Early Warning Radar (UEWR): Conduct IOT&E.				
	- Wideband Gapfiller Satellite (WGS): Early Involvement.				
	- Other systems				

Project 0191

R-1 Shopping List - Item No. 109-5 of 109-10

Exhibit R-2a (PE 0605712F)

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Exhibit R-2a, RDT&E Project Justification			DATE February 2006		
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		
(U) <u>B. Accomplishments/Planned Program (\$ in Millions)</u>			<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
FY07					
<ul style="list-style-type: none"> - Advanced EHF Satellite Communications (Advanced EHF): Conduct DT/OT. - Combat Commanders Integrated Command & Control System-Increment 2 (CCIC2S Increment 2): Conduct IOT&E. - Global Positioning System/GPS-III (GPS-III): Conduct OUE. - National Polar-Orbit Ops Environment Satellite System (NPOESS): Planning OA2. - Operationally Responsive Spacelift (ORS): Early Involvement. - Space Based Infrared System (SBIRS): Complete OUE and DT/OT. - Space Radar (SR): Early Involvement. - Transformational Satellite Communications System (TSAT): Early Involvement. - Upgraded Early Warning Radar (UEWR): Publish Final Report. - Wideband Gapfiller Satellite (WGS): Planning for MOT&E. - Other systems. 					
(U) (U) CATEGORY: WEAPONS. Plan, execute, and report IOT&E activities, to include:			3.883	4.110	4.887
FY05					
<ul style="list-style-type: none"> - Minuteman III Safety Enhanced Reentry Vehicle (ICBM-SERV): Conduct IOT&E. - Joint Air-to-Surface Standoff Missile (JASSM): Conduct FOT&E. - Joint Air-to-Surface Standoff Missile Extended Range (JASSM-ER): Test planning. - Joint Direct Attack Munition (JDAM MK 82): Publish final report. - Small Diameter Bomb (SDB): Conduct OA2. - Wind Corrected Munitions Dispenser Extended Range (WCMD-ER): Planning for OUE. - Other systems. 					
FY06					
<ul style="list-style-type: none"> - Common Aero Vehicle (CAV): Early Involvement. - Minuteman III Safety Enhanced Reentry Vehicle (ICBM-SERV): Conduct IOT&E and publish final report. - Joint Air-to-Surface Standoff Missile (JASSM): Publish final report. - Joint Air-to-Surface Standoff Missile Extended Range (JASSM-ER): Planning for DT/OT. - Land Based Strategic Deterrent (LBSD): Early Involvement. - Small Diameter Bomb (SDB): Conduct IOT&E. 					

Project 0191

R-1 Shopping List - Item No. 109-6 of 109-10

Exhibit R-2a (PE 0605712F)

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Exhibit R-2a, RDT&E Project Justification			DATE February 2006		
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		
(U) <u>B. Accomplishments/Planned Program (\$ in Millions)</u>			<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
<ul style="list-style-type: none"> - Wind Corrected Munitions Dispenser Extended Range (WCMD-ER): Conduct OUE. - Other systems. 					
FY07					
<ul style="list-style-type: none"> - Common Aero Vehicle (CAV): Early Involvement. - Joint Air-to-Surface Standoff Missile Extended Range (JASSM-ER): Conduct DT/OT. - Land Based Strategic Deterrent (LBSD): Early Involvement. - Small Diameter Bomb (SDB): Publish final report. - Other systems. 					
(U) (U) CATEGORY: COMMMAND, CONTROL, COMMUNICATIONS, COMPUTERS, AND INTELLIGENCE (C4I). Plan, execute, and report IOT&E activities, to include:			3.458	4.373	5.641
FY05					
<ul style="list-style-type: none"> - Air Operations Center as a Weapons System (AOC): Conduct OUE. - Advanced Remote Ground Unattended System (ARGUS): Early Involvement. - Airborne Signals Intelligence Payload (ASIP): Early Involvement. - Cobra Judy Replacement (CJR): EOA planning. - Distributed Common Ground Station (DCGS): Early Involvement. - Expeditionary Combat Support System (ECSS): Early Involvement. - Family of Advanced Beyond Line Of Sight Terminals (FAB T): Early Involvement. - Global Transportation Network 21 (GTN 21): Conduct DT/OT. - Integrated Broadcast System (IBS): Conduct DT/OT. - Joint Command and Control Capability (JC2): Early Involvement. - Joint Precision Approach and Landing System (JPALS): Early Involvement. - Joint Interface Control Officer (JICO) Support System (JSS): Test planning. - Joint Tactical Radio System (JTRS): Conduct Cluster 1 EOA. - Mobile Approach Control System (MACS): Conduct DT/OT. - Multi-Platform Common Data Link (MP CDL): Early involvement. - Rapid Attack Identification, Detection, and Reporting System (RAIDRS): OA planning. - Other systems. 					

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Exhibit R-2a, RDT&E Project Justification		DATE February 2006
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

(U) <u>B. Accomplishments/Planned Program (\$ in Millions)</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
<p>FY06</p> <ul style="list-style-type: none"> - Air Force Tactical Data Links (AF TDL): Early Involvement. - Air Operations Center as a Weapons System (AOC): Planning and Execution throughout spiral development. - Airborne Signals Intelligence Payload (ASIP): Planning for DT/OT. - Battle Control Systems-Mobile (BCS-M): Early Involvement. - Cobra Judy Replacement (CJR): Conduct EOA. - Distributed Common Ground System (DCGS): Early Involvement. - Expeditionary Combat Support System (ECSS): Early involvement. - Family of Advanced Beyond Line Of Sight Terminals (FAB T): Plan and conduct OA. - Integrated Broadcast System (IBS): Conduct OA. - Joint Command and Control Capability (JC2): Early Involvement. - Joint Interface Control Officer (JICO) Support System (JSS): Conduct OA. - Mobile Approach Control System (MACS): Conduct DT/OT. - Multi-Mission Payload (MMP): Early Involvement. - Mark XIIA MODE 5 IFF (MODE 5): Early involvement. - Multi-Platform Common Data Link (MP CDL): Early Involvement. - Rapid Attack Identification, Detection and Reporting System (RAIDRS): Conduct OA and publish OA final report. - Other systems. <p>FY07</p> <ul style="list-style-type: none"> - Air Force Tactical Data Links (AF TDL): Early Involvement. - Air Operations Center as a Weapons System (AOC): Planning and Execution throughout spiral development. - Airborne Signals Intelligence Payload (ASIP): Conduct DT/OT. - Battle Control Systems-Mobile (BCS-M): Conduct IOT&E. - Cobra Judy Replacement (CJR): Conduct Hull OA. - Deliberate and Crisis Action Planning and Execution Segments Increment 2b (DCAPES 2b): Early Involvement. - Distributed Common Ground System (DCGS): Plan and conduct OUE. - Expeditionary Combat Support System (ECSS): Early involvement. - Family of Advanced Beyond Line Of Sight Terminals (FAB T): Conduct OA and publish OA Final Report. - Integrated Broadcast System (IBS): Conduct MOT&E and publish Final Report. - Joint Command and Control Capability (JC2): Plan and conduct IOT&E. 			

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Exhibit R-2a, RDT&E Project Justification		DATE February 2006
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
(U) <u>B. Accomplishments/Planned Program (\$ in Millions)</u>	<u>FY 2005</u>	<u>FY 2006</u> <u>FY 2007</u>
<ul style="list-style-type: none"> - Joint Interface Control Officer (JICO) Support System (JSS): Conduct MOT&E. - Multi-Mission Payload (MMP): Early Involvement - Mark XIIA MODE 5 IFF (MODE 5): Early involvement. - Mobile Approach Control System (MACS): Conduct IOT&E and publish Final Report. - Multi-Platform Common Data Link (MP CDL): Early Involvement. - Rapid Attack Identification Detection and Reporting System (RAIDRS): Conduct IOT&E and publish Final Report. - Other systems. 		
(U) (U) CATEGORY: COMBAT SUPPORT. Plan, execute, and report IOT&E activities, to include: FY05	1.473	2.095 4.629
<ul style="list-style-type: none"> - Common Low Observable Verification System (CLOVerS): Planning for OA. - Combat Survivor Evader Locator (CSEL): Plan for MOT&E. - Joint Mission Planning System (JMPS): Conduct IOT&E. - Laser Warning and Detection (Laser WARDET): Early Involvement. - Other systems. 		
FY06		
<ul style="list-style-type: none"> - Common Low Observable Verification System (CLOVerS): Planning for OA. - Combat Survivor Evader Locator (CSEL): Plan for MOT&E. - Joint Mission Planning System (JMPS): Conduct IOT&E. - Laser Warning Detection (LASER WARDET): Early Involvement. - Other systems. 		
FY07		
<ul style="list-style-type: none"> - Common Low Observable Verification System (CLOVerS): Conduct OA and publish OA Final Report. - Combat Survivor Evader Locator (CSEL): Plan and Conduct MOT&E. - Joint Mission Planning System (JMPS): Conduct IOT&E. - Laser Warning Detection (LASER WARDET): Early Involvement. - Other systems. 		
(U) B. Budget Activity Justification		
This program element is in Budget Activity 6, RDT&E Management Support, because it funds weapon system		
Project 0191	R-1 Shopping List - Item No. 109-9 of 109-10	Exhibit R-2a (PE 0605712F)

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Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY

06 RDT&E Management Support

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PROJECT NUMBER AND TITLE

0191 Initial Operational Test & Eval

(U) **B. Accomplishments/Planned Program (\$ in Millions)**FY 2005FY 2006FY 2007

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

27.392

34.122

34.802

(U) **C. Other Program Funding Summary (\$ in Millions)**FY 2005FY 2006FY 2007FY 2008FY 2009FY 2010FY 2011Cost toTotal CostActualEstimateEstimateEstimateEstimateEstimateEstimateComplete

(U) N/A

(U) **D. Acquisition Strategy**

N/A