

**UNCLASSIFIED**

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

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>								<b>DATE</b> <b>February 2008</b>	
<b>BUDGET ACTIVITY</b> <b>06 RDT&amp;E Management Support</b>				<b>PE NUMBER AND TITLE</b> <b>0605712F Initial Operational Test &amp; Evaluation</b>					
Cost (\$ in Millions)	FY 2007 Actual	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	34.554	30.011	29.537	29.770	29.673	30.252	30.871	Continuing	TBD
0191 Initial Operational Test & Eval	34.554	30.011	29.537	29.770	29.673	30.252	30.871	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

DATE

February 2008

BUDGET ACTIVITY

06 RDT&E Management Support

PE NUMBER AND TITLE

0605712F Initial Operational Test & Evaluation

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	34.670	30.203	29.783
(U) Current PBR/President's Budget	34.554	30.011	29.537
(U) Total Adjustments	-0.116	-0.192	
(U) Congressional Program Reductions			
Congressional Rescissions	-0.116	-0.192	
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer			
(U) <u>Significant Program Changes:</u>			

## Exhibit R-2a, RDT&amp;E Project Justification

DATE

February 2008

BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE			
<b>06 RDT&amp;E Management Support</b>				<b>0605712F Initial Operational Test &amp; Evaluation</b>			<b>0191 Initial Operational Test &amp; Eval</b>			
Cost (\$ in Millions)	FY 2007 Actual	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total	
0191 Initial Operational Test & Eval	34.554	30.011	29.537	29.770	29.673	30.252	30.871	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) B. Accomplishments/Planned Program (\$ in Millions)**

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) CATEGORY: AIR SYSTEMS. Plan, execute, and report IOT&E activities, to include:	27.453	19.431	17.596

FY07

- ALR-69A Radar Warning Receiver Capability Improvement (ALR-69A RWR CI): Plan for OA.
- AOA-10A Precision Engagement (AOA-10A PE): Conduct OUE.
- B-2 Radar Modernization Program (RMP): Plan OA and IOT&E.
- C-130 Aircraft Modernization Program (AMP): Plan for OA.
- Combat Search and Rescue Vehicle (CSAR-X): Plan for OA.
- CV-22: Plan for IOT&E.
- F-22: Conduct FOT&E Incr 2.

R-1 Line Item No. 98

Page-3 of 9

Project 0191

Exhibit R-2a (PE 0605712F)

1107

## Exhibit R-2a, RDT&amp;E Project Justification

DATE

February 2008

BUDGET ACTIVITY

06 RDT&amp;E Management Support

PE NUMBER AND TITLE

0605712F Initial Operational Test &amp; Evaluation

PROJECT NUMBER AND TITLE

0191 Initial Operational Test &amp; Eval

(U) **B. Accomplishments/Planned Program (\$ in Millions)**FY 2007FY 2008FY 2009

- Large Aircraft Infrared Countermeasures (LAIRCM) Phase II: Plan for IOT&E.
- Miniature Air Launched Decoy (MALD): Conduct OA.
- MQ-9: Plan for OT.
- RQ-4 Global Hawk: Conduct OA.
- Special Operations Forces Integrated Air Refueling System (SOF IARS): Plan for OUE.
- Other systems.

FY08

- ALR-69A Radar Warning Receiver Capability Improvement (ALR-69A RWR CI): Conduct OA.
- AOA-10A Precision Engagement (AOA-10A PE): Conduct IOT&E.
- B-2 Radar Modernization Program (RMP): Conduct OA and IOT&E.
- B-52 COmbat NETwork Communications Technology (CONNECT): Conduct OA.
- C-130 Aircraft Modernization Program (AMP): Conduct OA.
- Combat Search and Rescue Vehicle (CSAR-X): Conduct OA.
- CV-22: Conduct IOT&E.
- F-22: Plan for FOT&E Incr 3.1.
- KC-135 Replacement Tanker (KC-X): Plan for OA.
- Large Aircraft Infrared Countermeasures (LAIRCM) Phase II: Plan for IOT&E.
- Miniature Air Launched Decoy (MALD): Complete OA.
- MQ-9: Conduct OT.
- RQ-4 Global Hawk: Complete OA.
- Special Operations Forces Integrated Air Refueling System (SOF IARS): Conduct OUE.
- Other systems.

FY09

- ALR-69A Radar Warning Receiver Capability Improvement (ALR-69A RWR CI): Plan for IOT&E.
- B-2 Radar Modernization Program (RMP): Conduct FOT&E.
- B-52 COmbat NETwork Communications Technology (CONNECT): Conduct OT.
- C-130 Aircraft Modernization Program (AMP): Plan for IOT&E.
- Combat Search and Rescue Vehicle (CSAR-X): Conduct OA.
- F-22: Plan for FOT&E Incr 3.1.

<b>Exhibit R-2a, RDT&amp;E Project Justification</b>	DATE <b>February 2008</b>
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<b>BUDGET ACTIVITY</b> <b>06 RDT&amp;E Management Support</b>	<b>PE NUMBER AND TITLE</b> <b>0605712F Initial Operational Test &amp; Evaluation</b>	<b>PROJECT NUMBER AND TITLE</b> <b>0191 Initial Operational Test &amp; Eval</b>
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<b>(U) <u>B. Accomplishments/Planned Program (\$ in Millions)</u></b>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
<ul style="list-style-type: none"> <li>- KC-135 Replacement Tanker (KC-X): Plan for OA.</li> <li>- Large Aircraft Infrared Countermeasures (LAIRCM) Phase II: Conduct IOT&amp;E.</li> <li>- Miniature Air Launched Decoy (MALD): Conduct IOT&amp;E.</li> <li>- RQ-4 Global Hawk: Conduct IOT&amp;E.</li> <li>- Other systems.</li> </ul>			
<p><b>(U) CATEGORY: SPACE SYSTEMS. Plan, execute, and report IOT&amp;E activities, to include:</b></p> <p><b>FY07</b></p> <ul style="list-style-type: none"> <li>- Advanced EHF Satellite Communications (Advanced EHF): Conduct DT/OT.</li> <li>- Combat Commanders Integrated Command &amp; Control System-Increment 2 (CCIC2S Increment 2): Publish final report.</li> <li>- Global Broadcast Service (GBS): Conduct MOT&amp;E2.</li> <li>- Global Positioning System/GPS-III (GPS-III): Conduct OUE.</li> <li>- Space Based Infrared System (SBIRS): Plan for OUE.</li> <li>- Space Based Space Surveillance (SBSS): Conduct OA.</li> <li>- Wideband Global SATCOM (WGS): Plan for MOT&amp;E.</li> <li>- Other systems.</li> </ul> <p><b>FY08</b></p> <ul style="list-style-type: none"> <li>- Advanced EHF Satellite Communications (Advanced EHF): Conduct OUE.</li> <li>- Global Positioning System/GPS-III (GPS-III): Conduct OA.</li> <li>- Space Based Infrared System (SBIRS): Conduct OUE.</li> <li>- Space Based Space Surveillance (SBSS): Plan for IOT&amp;E.</li> <li>- Satellite Control Network (SCN): Early Influence.</li> <li>- Space Radar (SR): Plan for IOT&amp;E.</li> <li>- Transformational Satellite Communications System (TSAT): Plan for MOT&amp;E.</li> <li>- Wideband Global SATCOM (WGS): Conduct MOT&amp;E.</li> <li>- Other systems.</li> </ul> <p><b>FY09</b></p>	3.036	2.792	1.834

<b>Exhibit R-2a, RDT&amp;E Project Justification</b>	DATE <b>February 2008</b>
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<b>BUDGET ACTIVITY</b> <b>06 RDT&amp;E Management Support</b>	<b>PE NUMBER AND TITLE</b> <b>0605712F Initial Operational Test &amp; Evaluation</b>	<b>PROJECT NUMBER AND TITLE</b> <b>0191 Initial Operational Test &amp; Eval</b>
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<b>(U) B. Accomplishments/Planned Program (\$ in Millions)</b>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
<ul style="list-style-type: none"> <li>- Advanced EHF Satellite Communications (Advanced EHF): Plan for MOT&amp;E.</li> <li>- Global Positioning System/GPS-III (GPS-III): Publish OA report.</li> <li>- National Polar-Orbit Ops Environment Satellite System (NPOESS): Plan for OA.</li> <li>- Operationally Responsive Space (ORS) Near Space: Early Influence.</li> <li>- Operationally Responsive Space (ORS) Responsive Satellites: Early Influence.</li> <li>- Space Based Infrared System (SBIRS): Plan for OUE.</li> <li>- Space Based Space Surveillance (SBSS): Conduct IOT&amp;E.</li> <li>- Satellite Control Network (SCN): Plan for IOT&amp;E.</li> <li>- Space Fence: Plan for OA.</li> <li>- Space Radar (SR): Conduct IOT&amp;E.</li> <li>- Transformational Satellite Communications System (TSAT): Conduct MOT&amp;E.</li> <li>- Wideband Global SATCOM (WGS): Publish final report.</li> <li>- Other systems.</li> </ul>			
<p><b>(U) CATEGORY: WEAPONS. Plan, execute, and report IOT&amp;E activities, to include:</b></p> <p><b>FY07</b></p> <ul style="list-style-type: none"> <li>- AIM-9X Block II: Early Influence.</li> <li>- Joint Air-to-Surface Standoff Missile Extended Range (JASSM-ER): Plan for IOT&amp;E.</li> <li>- Small Diameter Bomb (SDB): Publish final report.</li> <li>- Other systems.</li> </ul> <p><b>FY08</b></p> <ul style="list-style-type: none"> <li>- AIM-9X Block II: Plan for IOT&amp;E.</li> <li>- Joint Air-to-Surface Standoff Missile Extended Range (JASSM-ER): Plan for IOT&amp;E.</li> <li>- Other systems.</li> </ul> <p><b>FY09</b></p> <ul style="list-style-type: none"> <li>- AIM-9X Block II: Conduct IOT&amp;E.</li> <li>- Joint Air-to-Surface Standoff Missile Extended Range (JASSM-ER): Plan for IOT&amp;E.</li> <li>- Small Diameter Bomb Increment II (SDB II): Conduct EOA.</li> </ul>	1.274	1.166	2.010

## Exhibit R-2a, RDT&amp;E Project Justification

DATE

February 2008

BUDGET ACTIVITY

06 RDT&amp;E Management Support

PE NUMBER AND TITLE

0605712F Initial Operational Test &amp; Evaluation

PROJECT NUMBER AND TITLE

0191 Initial Operational Test &amp; Eval

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

FY 2007

FY 2008

FY 2009

- Other systems.

## (U) CATEGORY: COMMAND, CONTROL, COMMUNICATIONS, COMPUTER, AND INTELLIGENCE (C4I).

1.801

5.275

7.217

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

FY07

- Air Operations Center as a Weapons System (AOC): Planning and execution throughout spiral development.
- Airborne Signals Intelligence Payload (ASIP): Conduct OA.
- B-1 Fully Integrated Data Link (B-1 FIDL): Plan for OA.
- Distributed Common Ground System (DCGS): Plan for OUE.
- DoD National Airspace System (DoD NAS): Plan for FOT&E.
- F-15 Mark 12A (F-15 Mode 5): Plan for QOT&E
- Global Hawk 4 Multiple Platform-Radar Technology Insertion Program (GH 4 MP-RTIP): Plan for OA.
- Integrated Broadcast Service (IBS): Conduct DT/OT.
- Joint Interface Control Officer (JICO) Support System (JSS): Conduct OA1.
- Rapid Attack Identification Detection and Reporting System (RAIDRS): Conduct OA
- Other systems.

FY08

- Air Operations Center as a Weapon System (AOC): Planning and execution throughout spiral development.
- Airborne Signals Intelligence Payload (ASIP): Conduct IOT&E.
- B-1 Fully Integrated Data Link (B-1 FIDL): Conduct OA.
- B-2 Extremely High Frequency Satellite Communications and Computer Upgrade Program (B-2 EHF SATCOM): Early Influence.
- Battle Control System - Fixed (BCS-F): Plan for OA and IOT&E.
- Battle Control System - Mobile Increment 1 (BCS-M Increment 1): Early Influence.
- Distributed Common Ground System (DCGS): Conduct OUE.
- DoD National Airspace System (DoD NAS): Plan for FOT&E.
- F-15 Mark 12A (F-15 Mode 5): Conduct QOT&E.
- Family of Advanced Beyond Line-of-Sight Terminals (FAB-T): Plan for OA.
- Global Hawk 4 Multiple Platform-Radar Technology Insertion Program (GH 4 MP-RTIP): Conduct OA.
- Integrated Broadcast Service (IBS): Plan for OUE.

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DATE

February 2008

BUDGET ACTIVITY

06 RDT&amp;E Management Support

PE NUMBER AND TITLE

0605712F Initial Operational Test &amp; Evaluation

PROJECT NUMBER AND TITLE

0191 Initial Operational Test &amp; Eval

(U) **B. Accomplishments/Planned Program (\$ in Millions)**FY 2007FY 2008FY 2009

- Joint Interface Control Officer (JICO) Support System (JSS): Conduct OA2.
- Network-Enabled Command and Control Capability (NECC): Conduct IOT&E.
- Rapid Attack Identification Detection and Reporting System (RAIDRS): Conduct IOT&E.
- Other systems.

FY09

- Air Operations Center as a Weapon System (AOC): Planning and execution throughout spiral development.
- Airborne Signals Intelligence Payload (ASIP): Complete IOT&E.
- B-1 Fully Integrated Data Link (B-1 FIDL): Conduct IOT&E.
- B-2 Extremely High Frequency Satellite Communications and Computer Upgrade Program (B-2 EHF SATCOM): Plan for OA.
- Battle Control System - Fixed (BCS-F): Conduct OA and IOT&E.
- Battle Control System - Mobile Increment 1 (BCS-M Increment 1): Plan for OA and IOT&E.
- Distributed Common Ground System (DCGS): Conduct IOT&E.
- DoD National Airspace System (DoD NAS): Conduct FOT&E.
- Expeditionary Combat Support System (ECSS): Plan for OA.
- Family of Advanced Beyond Line-of-Sight Terminals (FAB-T): Conduct OA.
- Global Hawk 4 Multiple Platform-Radar Technology Insertion Program (GH 4 MP-RTIP): Conduct DT/OT and Plan for IOT&E.
- Integrated Broadcast Service (IBS): Conduct OUE.
- Joint Interface Control Officer (JICO) Support System (JSS): Conduct MOT&E.
- Joint Tactical Radio System - Airborne Maritime Fixed (JTRS-AMF): Conduct OA.
- Network-Enabled Command and Control Capability (NECC): Conduct IOT&E.
- Rapid Attack Identification Detection and Reporting System (RAIDRS): Conduct IOT&E
- VC-25A Airborne Information Management System (AIMS): Plan for IOT&E.
- Other systems

(U) CATEGORY: COMBAT SUPPORT. Plan, execute, and report IOT&amp;E activities, to include:

0.990

1.347

0.880

FY07

- Common Low Observable Verification System (CLOVerS): Conduct OA and publish OA Final Report.
- Combat Survivor Evader Locator (CSEL): Plan and Conduct MOT&E.

<b>Exhibit R-2a, RDT&amp;E Project Justification</b>	DATE <b>February 2008</b>
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(U) **B. Accomplishments/Planned Program (\$ in Millions)** FY 2007      FY 2008      FY 2009

- Joint Mission Planning System (JMPS): Conduct IOT&E.
- Large Aircraft Infrared Countermeasures Phase II (LAIRCM PHASE II): Conduct DT/OT.
- Other systems.

FY08

- Joint Mission Planning System (JMPS): Conduct IOT&E & Reporting.
- Joint Integrative Analysis & Planning Capability (JIAPC): Early Involvement.
- Large Aircraft Infrared Countermeasures Phase II (LAIRCM PHASE II): Conduct IOT&E.
- Other systems.

FY09

- Joint Mission Planning System (JMPS): Conduct IOT&E & Reporting.
- Joint Integrative Analysis & Planning Capability (JIAPC): 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 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	34.554	30.011	29.537
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(U) **C. Other Program Funding Summary (\$ in Millions)**

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	

(U) N/A

(U) **D. Acquisition Strategy**  
N/A