

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>	DATE <b>February 2007</b>
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<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0305207F Manned Reconnaissance System</b>
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Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	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	18.074	16.669	12.672	12.926	13.256	13.447	13.703	13.976	Continuing	TBD
4754 COBRA BALL	18.074	16.669	12.672	12.926	13.256	13.447	13.703	13.976	Continuing	TBD

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

The RC-135 Operational Systems Development and enhancement activities project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the integration and modification of the RC-135 and its mission systems - both air and ground. Extensive utilization of commercial-off the-shelf (COTS) based solutions allows rapid fielding of needed capabilities through continuous technology refresh cycles and vanishing-vendor logistics mitigation efforts.

The results of these efforts provide for preliminary assessments of technical feasibility, operability, or military utility as well as specific engineering implementations for integration into the various systems baseline configurations.

These activities are managed by the Air Force through the 645th Aeronautical System Group (AESG, a.k.a. BIG SAFARI), Reconnaissance System Wing, Aeronautical Systems Center, Air Force Materiel Command. BIG SAFARI manages engineering, ground and support system modifications, integration, flight testing, product assurance, acceptance testing, logistics, and training activities. Aircraft, aircraft sensor systems, and associated ground support system modifications planned for FY08-FY13 include support for three distinct RIVET JOINT configurations [Baselines 8, 9 & 10], two distinct COMBAT SENT configurations [Baselines 3 & 4] and three distinct COBRA BALL configurations [ Baselines 2, 3 & 4]. SEE CLASSIFIED Congressional budget exhibits.

The world-wide challenge of keeping pace against technologically agile targets used by both nation and non-nation-state adversaries and the rapid evolution of COTS technologies demands a responsive and adaptive acquisition strategy for fielding 'baseline capabilities' that are logistically supportable at all locations. The BIG SAFARI program office uses an incremental 'baseline' strategy to mitigate risk, find affordable solutions and field needed capabilities.

This program will participate in the development, testing, and implementation of international standards (to include NATO standardization agreements) to pursue joint, allied, and coalition interoperability.

This program effort is equivalent to RDT&E budget activity 7, Operational Systems Development, because it involves Air Force R&D necessary to field essential operational capabilities.

**Exhibit R-2, RDT&E Budget Item Justification**

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**February 2007**

BUDGET ACTIVITY

**07 Operational System Development**

PE NUMBER AND TITLE

**0305207F Manned Reconnaissance System**

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	18.074	10.132	12.864	13.100
(U) Current PBR/President's Budget	18.074	16.669	12.672	12.926
(U) Total Adjustments	0.000	6.537		
(U) Congressional Program Reductions				
Congressional Rescissions		0.063		
Congressional Increases		6.537		
Reprogrammings				
SBIR/STTR Transfer				

(U) **Significant Program Changes:**

FY07 Congressional Adds include: \$3.0M for a COMBAT SENT Tactical ELINT System Modernization study; \$3.6M for Advanced IR Technologies for COBRA BALL.

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

DATE

February 2007

BUDGET ACTIVITY <b>07 Operational System Development</b>					PE NUMBER AND TITLE <b>0305207F Manned Reconnaissance System</b>			PROJECT NUMBER AND TITLE <b>4754 COBRA BALL</b>		
Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
4754 COBRA BALL	18.074	16.669	12.672	12.926	13.256	13.447	13.703	13.976	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

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

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The world-wide challenge of keeping pace against technologically agile targets used by both nation and non-nation-state adversaries and the rapid evolution of COTS technologies demands a responsive and adaptive acquisition strategy for fielding 'baseline capabilities' that are logistically supportable at all locations. The BIG SAFARI program office uses an incremental 'baseline' strategy to mitigate risk, find affordable solutions and field needed capabilities.

This program will participate in the development, testing, and implementation of international standards (to include NATO standardization agreements) to pursue joint, allied, and coalition interoperability.

This program effort is equivalent to RDT&E budget activity 7, Operational Systems Development, because it involves Air Force R&D necessary to field essential operational capabilities.

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Continues Non-Recurring Engineering (NRE) for the development and installation of improved mission capabilities - see classified submission.	7.774	10.069	12.672	12.926
(U) Congressional Add: COMBAT SENT Tactical ELINT System modernization study	1.700	3.000		
(U) Congressional Add: RIVET JOINT Reachback	3.000			
(U) Congressional Add: Apertures for Modern Threat Environments	3.100			

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

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BUDGET ACTIVITY <b>07 Operational System Development</b>	PE NUMBER AND TITLE <b>0305207F Manned Reconnaissance System</b>	PROJECT NUMBER AND TITLE <b>4754 COBRA BALL</b>
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(U) <b><u>B. Accomplishments/Planned Program (\$ in Millions)</u></b>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Congressional Add: RC-135 Processing Forward Network	2.500			
(U) Congressional Add: Advanced IR technologies for COBRA BALL		3.600		
(U) Total Cost	18.074	16.669	12.672	12.926

(U) <b><u>C. Other Program Funding Summary (\$ in Millions)</u></b>										
	<u>FY 2006</u>	<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>Complete</u>							
(U) PE 0305207F, APAF	108.624	123.169	138.170	154.320	157.950	160.911	225.263	229.745	Continuing	TBD
(U) PE 0305207F, OPAF	21.219	23.597	22.532	23.078	23.658	24.041	24.570	25.110	Continuing	TBD
(U) PE 0305207F, O&M	234.157	251.097	274.297	274.021	278.991	287.831	296.258	304.026	Continuing	TBD

(U) **D. Acquisition Strategy**

The RC-135 RIVET JOINT, COBRA BALL, and COMBAT SENT aircraft are maintained and upgraded by the 645 AESG (BIG SAFARI Program Office) through an evolutionary acquisition strategy.

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**Exhibit R-3, RDT&E Project Cost Analysis**

DATE  
**February 2007**

BUDGET ACTIVITY <b>07 Operational System Development</b>	PE NUMBER AND TITLE <b>0305207F Manned Reconnaissance System</b>	PROJECT NUMBER AND TITLE <b>4754 COBRA BALL</b>
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(U) <u>Cost Categories</u>	<u>Contract</u>	<u>Performing</u>	<u>Total</u>	<u>FY 2006</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2009</u>	<u>Cost to</u>	<u>Total Cost</u>	<u>Target</u>
(Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Method &amp; Type</u>	<u>Activity &amp; Location</u>	<u>Prior to FY 2006 Cost</u>	<u>Cost</u>	<u>Award</u>	<u>Cost</u>	<u>Award</u>	<u>Cost</u>	<u>Award</u>	<u>Cost</u>	<u>Award</u>	<u>Complete</u>	<u>Total Cost</u>	<u>Value of Contract</u>
(U) <u>Product Development</u>														
L-3 Communications	CPFF/CPI F/FFP	L-3 Com, Greenville TX		18.074	Nov-05	16.669	Nov-06	12.672	Nov-07	12.926	Nov-08	Continuing	TBD	TBD
Subtotal Product Development			0.000	18.074		16.669		12.672		12.926		Continuing	TBD	TBD
Remarks:	All activity is based around the Programmed Depot Maintenance (PDM) airframe schedule which includes multiple contracts and organizations with overlapping and continuous periods of performance.													
(U) Total Cost			0.000	18.074		16.669		12.672		12.926		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

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BUDGET ACTIVITY  
07 Operational System Development

PE NUMBER AND TITLE  
0305207F Manned Reconnaissance System

PROJECT NUMBER AND TITLE  
4754 COBRA BALL

# Manned Reconnaissance Program

FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
 <ul style="list-style-type: none"> <li>Combat Sent Tactical * ELINT System Modernization Study</li> <li>* Rivet Joint Reachback</li> <li>Apertures * for Modern Threats</li> <li>RC-135 * Processing Forward Network</li> </ul>	<ul style="list-style-type: none"> <li>Combat Sent Tactical * ELINT System Modernization Study</li> <li>* Advanced IR Technologies for COBRA BALL</li> </ul>						<p><b>OUTYEARS</b> <i>As of: PB08</i></p> 
<p>** Mission Support Systems</p>							
\$18.074M	\$16.669M	\$12.672M	\$12.926M	\$13.256M	\$13.447M	\$13.703M	\$13.976M

\*Congressional Adds

\*\* See CLASSIFIED Submission for detailed breakout

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<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2007</b>
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<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0305207F Manned Reconnaissance System</b>	<b>PROJECT NUMBER AND TITLE</b> <b>4754 COBRA BALL</b>
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<b>(U) <u>Schedule Profile</u></b>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Initiate mission support systems efforts		1Q		
(U) * Classified Mission Systems Development	1-4Q	1-4Q	1-4Q	1-4Q
* See Classified Budget Submission for further breakout				