

UNCLASSIFIED

PE NUMBER: 0207253F
 PE TITLE: Compass Call

Exhibit R-2, RDT&E Budget Item Justification								DATE February 2008	
BUDGET ACTIVITY 07 Operational System Development				PE NUMBER AND TITLE 0207253F Compass Call					
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	9.586	8.549	4.670	13.242	21.216	19.163	12.540	Continuing	TBD
4804 Compass Call	9.586	8.549	4.670	13.242	21.216	19.163	12.540	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

The EC-130H COMPASS CALL is the USAF's wide-area, airborne Command and Control Warfare (C2W) / Information Operations (IO) weapon system. It interdicts adversary use of the electronic battlespace and is a key active component in the information battlespace and global war on terror. COMPASS CALL's sophisticated electronic combat system is capable of surgical denial or disruption of adversary radio frequency (RF) communications systems and sensors. The system was fielded in 1983 and to date has evolved through the Block 35/Baseline 0 configuration.

Due to the rapid advances in electronic technology, COMPASS CALL was designed to be easily modified and must continue to modernize and evolve to keep pace with adversary tactics and technology. Continuous development is required to maintain battlespace superiority. COMPASS CALL employs a spiral development and fielding strategy IAW AFD 63-1 that puts capability into the warfighters hands as soon as practical and ensures each iteration of the weapon system is effective against the highest priority threats. That process requires a steady stream of development funds.

Development funds are required to accomplish subsystem additions and improvements such as the digital signal analysis and exciter subsystem (AXE), the special purpose emitter array (SPEAR), the IED Defeat subsystem (NOVA), the human machine interface (HMI), network centric operations, phased array transmit and receive apertures and other classified hardware and software developments necessary to counter military and commercial communications, C2 and sensor developments.

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 is categorized as Budget Activity 7 because it provides for development of technologies and capabilities in support of operational system development.

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	9.931	4.603	4.709
(U) Current PBR/President's Budget	9.586	8.549	4.670
(U) Total Adjustments	-0.345	3.946	
(U) Congressional Program Reductions			
Congressional Rescissions		-0.054	
Congressional Increases		4.000	
Reprogrammings	-0.066		
SBIR/STTR Transfer	-0.279		

(U) **Significant Program Changes:**

(U) FY07 Congressional Adds totaling \$5.5M includes \$1.0M for continuation of the RSAT system concept demonstration and \$4.5M for additional operational system development.

(U) FY08 Congressional Add totaling \$4.0M for capabilities enhancements and baseline developments.

Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY 07 Operational System Development				PE NUMBER AND TITLE 0207253F Compass Call			PROJECT NUMBER AND TITLE 4804 Compass Call		
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
4804 Compass Call	9.586	8.549	4.670	13.242	21.216	19.163	12.540	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

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

	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Development, integration, and test of classified techniques and electronic attack infrastructure (Special Purpose Emitter Array)	0.324	0.643	1.013
(U) Development, integration, and test of Digital Signal Acquisition and Analysis Subsystem	2.125	2.346	1.148
(U) Integration and test of Block 35 Human Machine Interface (HMI)	1.675	1.560	1.109
(U) Congressional Add: Radar Situational Awareness and Targeting (RSAT) demonstration concept	1.000	0.000	1.400
(U) Congressional Add: Network centric information operations improvements	0.000	4.000	0.000
(U) Congressional Add: Operational system development	4.462	0.000	0.000
(U) Total Cost	9.586	8.549	4.670

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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) PE 0207253F, Aircraft Modification (3010)	70.330	44.987	24.605	19.856	54.484	26.158	30.020	Continuing	TBD
(U) PE 0207253F, Aircraft Initial Spares (3010)	11.327	14.243	12.441	16.210	16.412	16.737	17.068	Continuing	TBD

(U) **D. Acquisition Strategy**

COMPASS CALL baseline upgrades and quick reaction capabilities (QRC) developments are acquired through the 645th Aeronautical Systems Group (BIG SAFARI Program Office).

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Exhibit R-3, RDT&E Project Cost Analysis

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(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2007 Cost</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>	
(U) <u>Product Development</u> Compass Call RDT&E	SS/FFP&C PFF	BAE Systems, Nashua NH		4.462	Jan-07	4.000	Jan-08	1.400	Jan-09	Continuing	TBD	TBD	
Subtotal Product Development			0.000	4.462		4.000		1.400		Continuing	TBD	TBD	
Remarks:													
(U) <u>Test & Evaluation</u>													
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000	0.000	0.000	
Remarks:													
(U) <u>Primary Mission Equipment</u> Compass Call RDT&E	CPFF	BAE Systems, Nashua NH		5.124	Jan-07	4.549	Jan-08	3.270	Jan-09	Continuing	TBD	TBD	
Subtotal Primary Mission Equipment			0.000	5.124		4.549		3.270		Continuing	TBD	TBD	
Remarks:													
(U) Total Cost			0.000	9.586		8.549		4.670		Continuing	TBD	TBD	

Exhibit R-4, RDT&E Schedule Profile

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Compass Call Development

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Task	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
MB Phased Array		████████████████████						
Analysis/Exciter (AXE)		████████████████████						
Radar CM	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████
Advanced Comms Denial		████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████
Transmit/Receive Apertures			████████████████████	████████████████████	████████████████████			
Transmitter Interoperability			████████████████████	████████████████████	████████████████████			
Automated Voice Recognition (ACVOP)				████████████████████	████████████████████			
Radar Situational Awareness and Targeting (RSAT)	████████████████████	████████████████████						
Network Centric Operations	████████████████████	████████████████████	████████████████████	████████████████████				
Counter Nav Techniques	████████████████████	████████████████████	████████████████████	████████████████████				
Counter Comms Techniques	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████
Open Architecture Infrastructure Design	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	████████████████████	

Exhibit R-4a, RDT&E Schedule Detail

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(U) <u>Schedule Profile</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Midband (MB) Phased Array Integration	1-4Q	1-3Q	
(U) Low-latency Analysis-Exciter (AXE) Integration	1-4Q	1-3Q	
(U) Radar Counter-measures (CM) Development	1-4Q	1-4Q	1-4Q
(U) Advanced Communications Denial Development	1-4Q	1-4Q	1-4Q
(U) Transmit and Receive Aperture Development		1-4Q	1-4Q
(U) EA Transmitter Interoperability Development		1-4Q	1-4Q
(U) Auto Voice Recognition (ACVOP) Integration			1-4Q
(U) Radar Situational Awareness and Targeting (RSAT) Study	1-4Q		
(U) Network Centric Operations Development	1-4Q	1-4Q	1-4Q
(U) Counter Nav Techniques Development	1-4Q	1-4Q	1-3Q
(U) Counter Comms Techniques Development	1-4Q	1-4Q	1-4Q
(U) Open Architecture Infrastructure Development	1-4Q	1-4Q	1-4Q