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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0207253F I Compass Call							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	10.733	10.745	14.411	-	14.411	14.344	13.970	14.249	14.522	Continuing	Continuing
674804: Compass Call	-	10.733	10.745	14.411	-	14.411	14.344	13.970	14.249	14.522	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

# The FY 2015 OCO Request will be submitted at a later date.

## **A. Mission Description and Budget Item Justification**

The EC-130H COMPASS CALL is the USAF's wide-area, airborne Command and Control Warfare/Information Operations (C2W /IO) weapon system. The employment of this system interdicts our adversary's use of the electronic battlespace and is a key active component in the information battlespace and prosecution of Overseas Contingency Operations (OCO). EC-130H 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 Baseline 2 configuration. Due to the rapid advances in electronic attack technology, the EC-130H COMPASS CALL was designed to be easily modified and must continue to modernize and evolve to keep pace with adversary tactics and emerging technologies. Continuous system development is required to maintain battlespace superiority.

The EC-130H COMPASS CALL program employs an incremental development and fielding strategy that puts capability into the warfighter's hands as soon as practical and ensures each iteration of the weapon system is effective against the highest priority threats. To sustain that process requires a steady stream of system 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), new modern communications receiver technologies, new IR and counter radar technologies, the Human-to-Machine Interface (HMI), digital cockpit avionics with multi-function displays (glass cockpits), network centric operations, phased array transmit and receive apertures and other classified hardware and software developments necessary to counter military and commercial communications evolutions, command and control operations enhancements, and new/emerging sensor developments. Funding in FY 2015 is required to support RDT&E efforts for Baseline 3 (BL3) upgrades to the EC-130H COMPASS CALL fleet and ground systems/simulators. The BL2 and BL3 programmed requirements have advanced significantly over the two previously fielded baselines. BL2 and BL3 upgrades will help cover the electronic attack shortfall in the coming years. Obsolescence and diminishing manufacturing sources (DMS) are addressed with each baseline upgrade as well as annually as part of the sustainment responsibilities. The two COMPASS CALL Mission Crew Simulators (CCMCS) are upgraded per the Baseline schedule to ensure training capacity keeps pace and matches the operational and technological upgrades delivered in the fielded aircraft. The Weapons System Trainer (WST), scheduled to deliver in 2nd Quarter FY 2014, will mirror the capabilities of the fielded aircraft as well.

Activities also include studies and analysis to support both current and future program planning and execution.

Due to the rapidly changing threat environment encountered during our prolonged commitment to OCO, the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging requirements.

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This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget		12.094	10.782	13.263	-	13.263
Current President's Budget		10.733	10.745	14.411	-	14.411
Total Adjustments		-1.361	-0.037	1.148	-	1.148
• Congressional General Reductions		-0.016	-0.037			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-0.351	-			
• Other Adjustments		-0.994	-	1.148	-	1.148
Change Summary Explanation						
FY13 Reductions in Other Adjustments was due to Sequestration.						
FY15 addition due to AF supporting full fleet for EC-130H.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2013	FY 2014	FY 2015
Title: Baseline Upgrade Development				10.733	10.745	14.411
Description: Supports Baseline development, integration and test, plus Special Purpose Emitter Array (SPEAR) Generation 3 for Baseline 2, and Baseline 3 non-recurring engineering (NRE).						
FY 2013 Accomplishments: Continued Baseline 2 integration, and test of SPEAR classified techniques and electronic attack infrastructure, Network Centric Operations and Reachback Connectivity Capability, Digital Signal Acquisition and Analysis Subsystem, Digital Exciter Subsystem and production of a second COMPASS CALL Mission Crew Simulator (CCMCS). Continued Baseline 3 development of Modern communications receiver technologies, Human Machine Interface, Commercial Band Phased Array New Target Development, Advanced Commercial and Military Communications, Counter Radar and Counter Satellite Navigation Techniques, and Target Development.						
FY 2014 Plans:						

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>											
Continue Baseline 3 development of new IR counter-measures and counter-radar technologies, new receiver technologies, Human-Machine Interface, New Array, New Target Development, Advanced Commercial and Military Communications, Counter Radar and Counter Satellite Navigation Techniques, and Target Development.								<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	
<b>FY 2015 Plans:</b> Will continue Baseline 3 development of new counter-radar technologies, new receiver technologies, Human Machine Interface, New Array, New Target Development, Advanced Commercial and Military Communications, Counter Radar and Counter Satellite Navigation Techniques, Target Development, and Digital Avionics (glass cockpit) enhancements.											
<b>Accomplishments/Planned Programs Subtotals</b>								10.733	10.745	14.411	
<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015 Base</b>	<b>FY 2015 OCO</b>	<b>FY 2015 Total</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• APAF: BA05: Line item# CALL00: <i>Compass Call Mods</i>	63.958	29.494	57.828	-	57.828	41.779	35.690	36.616	37.298	Continuing	Continuing
• APAF: BA06: Line item# CALL00: <i>Compass Call Mod Spares</i>	26.663	10.222	12.458	-	12.458	11.662	10.508	10.706	10.902	Continuing	Continuing
<b>Remarks</b>											
<b>E. Acquisition Strategy</b> EC-130H COMPASS CALL capability is maintained with incremental upgrades per the baseline acquisition strategy plus Quick Reaction Capability (QRC) developments acquired through the 645th Aeronautical Systems Group (BIG SAFARI Program Office) in accordance with the BIG SAFARI Program Management Directive (PMD) and the BIG SAFARI Class Justification and Approval (J&A) document for acquisition of supplies and services using other than full and open competition criteria. The procured supplies and services are supported by the BIG SAFARI Life Cycle Management Plan (LCMP) across the full spectrum of system life cycle management from developmental engineering to system retirement ("cradle to grave" support). Due to the rapidly changing threat environment encountered during our prolonged commitment to Overseas Contingency Operations (OCO), the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Commander requirements.											
<b>F. Performance Metrics</b> Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force

Date: March 2014

Appropriation/Budget Activity  
3600 / 7

R-1 Program Element (Number/Name)  
PE 0207253F / Compass Call

Project (Number/Name)  
674804 / Compass Call



U.S. AIR FORCE

# EC-130H COMPASS CALL Schedule

