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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207253F: Compass Call							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	4.526	13.019	20.652	0.000	20.652	18.571	12.095	12.279	12.460	Continuing	Continuing
674804: Compass Call	4.526	13.019	20.652	0.000	20.652	18.571	12.095	12.279	12.460	Continuing	Continuing
A. Mission Description and Budget Item Justification											
<p>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. 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 Block 35/Baseline 1 configuration.</p> <p>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 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. To sustain that process requires a steady stream of system development funds.</p> <p>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-to-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 evolutions, command and control operations enhancements, and new/emerging sensor developments.</p> <p>Funding in FY10-15 is required to support RDT&E efforts for Baseline 2 (BL2) and Baseline 3 (BL3) upgrades to the EC-130H COMPASS CALL fleet. The BL2 and BL3 programmed requirements have advanced significantly over the two previously fielded baselines. The "Initial Perspectives" report from the House Armed Services Committee's Panel on Roles and Missions (Jan 08) stated, "The Air Force must also address emerging shortfalls and readiness concerns in the COMPASS CALL program . . . it is important that the Air Force dedicate necessary funding to sustain the airframe and upgrade its mission and operating systems." 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. Activities also include studies and analysis to support both current and future program planning and execution.</p>											

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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, Operational Systems Development, because it provides for development of technologies necessary to field essential and operational capabilities.					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	4.526	13.019	0.000	0.000	0.000
Current President's Budget	4.526	13.019	20.652	0.000	20.652
Total Adjustments	0.000	0.000	20.652	0.000	20.652
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	20.652	0.000	20.652
Change Summary Explanation					
FY 2010 and FY 2011 RDT&E increases are the result of Baseline 2 non-recurring engineeering efforts and enhanced critical mission systems development responding to emerging and evolving requirements with regards to the COMPASS CALL weapons system capabilities					

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0207253F: Compass Call				PROJECT 674804: Compass Call			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
674804: Compass Call	4.526	13.019	20.652	0.000	20.652	18.571	12.095	12.279	12.460	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

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. 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 Block 35/Baseline 1 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 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. 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), the IED Defeat subsystem (NOVA), the Human-to-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 evolutions, command and control operations enhancements, and new/emerging sensor developments.

Funding in FY10-15 is required to support RDT&E efforts for Baseline 2 (BL2) and Baseline 3 (BL3) upgrades to the EC-130H COMPASS CALL fleet. The BL2 and BL3 programmed requirements have advanced significantly over the two previously fielded baselines. The "Initial Perspectives" report from the House Armed Services Committee's Panel on Roles and Missions (Jan 08) stated, "The Air Force must also address emerging shortfalls and readiness concerns in the COMPASS CALL program . . . it is important that the Air Force dedicate necessary funding to sustain the airframe and upgrade its mission and operating systems." 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. Activities also include studies and analysis to support both current and future program planning and execution.

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This program is categorized as Budget Activity 7, Operational Systems Development, because it provides for development of technologies necessary to field essential and operational capabilities.						
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Baseline 1 development, integration and test, and Baseline 2 non recurring engineering (NRE) and development		4.526	13.019	20.652	0.000	20.652
FY 2009 Accomplishments: In FY 2009: Development, integration and test of Special Purpose Emitter Array (SPEAR) targeting techniques, Digital Signal Acquisition and Analysis Subsystem, Human Machine Interface (HMI), and Network Centric Operations and Reachback Connectivity. Integration and test of Baseline 1 capabilities.						
FY 2010 Plans: In FY 2010: Development, integration and test of SPEAR classified techniques and electronic attack infrastructure, Network Centric Operations and Reachback Connectivity Capability, Digital Signal Acquisition and Analysis Subsystem and Digital Exciter Subsystem, 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 2011 Base Plans: In FY 2011: Continue development, integration, and test of SPEAR classified techniques and electronic attack infrastructure, Network Centric Operations and Reachback Connectivity Capability, Digital Signal Acquisition and Analysis Subsystem and Digital Exciter Subsystem, Human Machine Interface, Commercial Band Phased Array New Target Development, Advanced Commercial and						

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force										DATE: February 2010	
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B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
Military Communications, Counter Radar and Counter Satellite Navigation Techniques, and Target Development <i>FY 2011 OCO Plans:</i> In FY 2011 OCO: N/A											
Accomplishments/Planned Programs Subtotals						4.526	13.019	20.652	0.000	20.652	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• PE 0207253F: <i>COMPASS CALL, (APAF)</i>	36.966	44.965	230.357	10.000	240.357	186.807	93.642	74.812	77.207	0.000	0.000
• PE 0207253F (1): <i>COMPASS CALL, (O&M)</i>	188.861	84.401	98.285	0.000	98.285	110.738	110.953	124.131	133.352	0.000	0.000
D. Acquisition Strategy EC-130H COMPASS CALL capability is maintained and baseline / incremental upgrades plus any quick reaction capabilities (QRC) developments are 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 supplies and services procured by 645th AESG under their J&A to satisfy National Security (FAR 6.302-6) or Unusual and Compelling Urgency (FAR 6.302-2) requirements 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.											
E. Performance Metrics 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-3, RDT&E Project Cost Analysis: PB 2011 Air Force											DATE: February 2010		
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Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
COMPASS CALL RDT&E	SS/Various	Systems development and integration BAE Systems Nashua NH	0.000	6.343	Dec 2009	12.194	Dec 2010	0.000		12.194	Continuing	Continuing	Continuing
Primary Mission Equipment	SS/CPFF	Primary Mission Equipment Development BAE Systems Nashua NH	4.526	6.676	Dec 2009	8.458	Dec 2010	0.000		8.458	Continuing	Continuing	Continuing
Subtotal			4.526	13.019		20.652		0.000		20.652			
Remarks													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			4.526	13.019		20.652		0.000		20.652			
Remarks Total Prior Years Cost may include only FY 2009 data.													

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

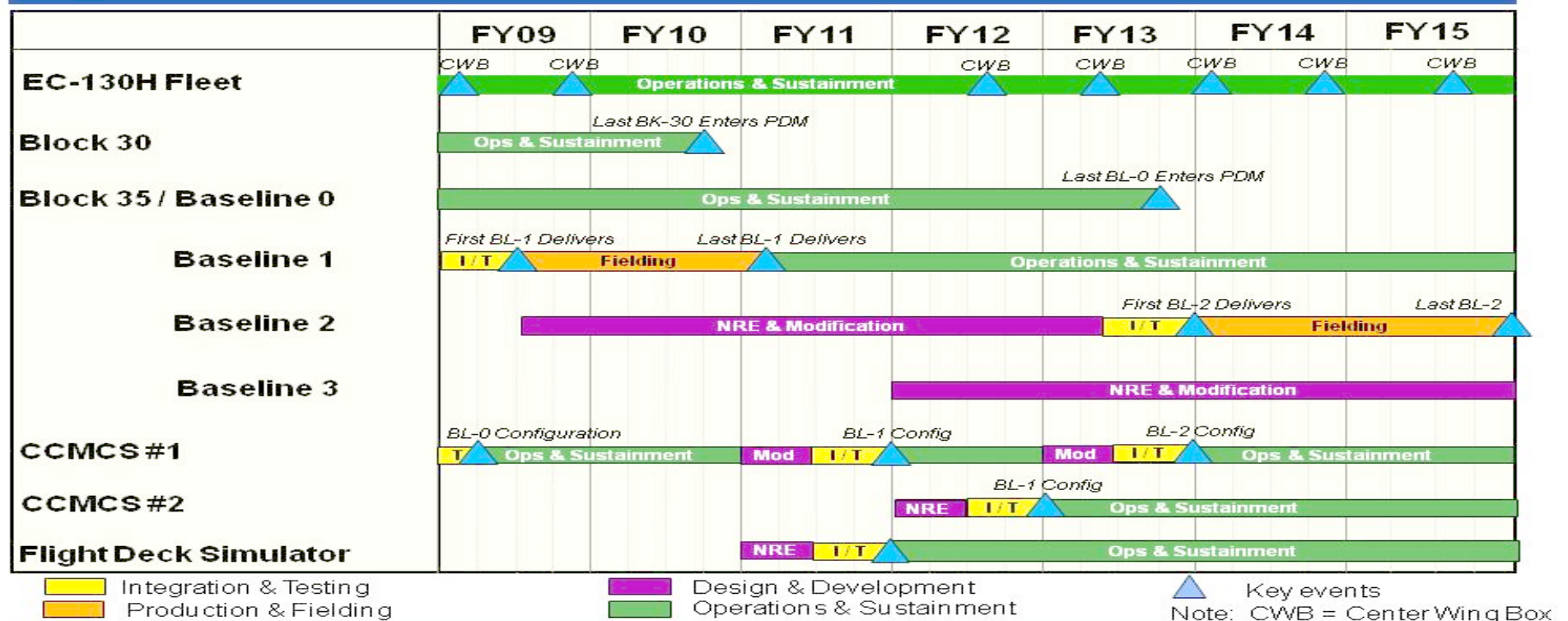
PE 0207253F: Compass Call

PROJECT

674804: Compass Call



EC-130H COMPASS CALL Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Baseline 1 Sub-System Additions and Emerging Technologies Enhanced Targeting Techniques Development / Integration	1	2009	2	2009
Baseline 2 Sub-System Additions and Emerging Technologies Enhanced Targeting Techniques Development / Integration	3	2009	4	2011
Compass Call Mission Crew Simulator (CCMCS) #1 Baseline Operating System and Sub-Systems Modification / Upgrade	1	2009	2	2009
Compass Call Flight Deck Simulator Operating System and Sub-System Development	1	2011	4	2011

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