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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0308699F: Shared Early Warning System							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	2.858	1.663	1.175	-	1.175	1.167	1.182	1.219	1.252	Continuing	Continuing
674838: Shared Early Warning System	2.858	1.663	1.175	-	1.175	1.167	1.182	1.219	1.252	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Shared Early Warning System (SEWS) is the result of Presidential foreign policy initiatives beginning in 1996. The SEWS continues to provide Theater Combatant Commanders and foreign nation customers direct operational benefit by improving the architectural design and equipment thereby providing enhanced mission capabilities (i.e., expanding coverage, integration with active defense systems, and radar integration). Foreign customer arrangements are negotiated with individual countries on a bilateral basis to provide selected region-specific missile warning information. To enhance mission capability the SEWS program tests: the Integrated Broadcast Service (IBS) migration to Common Interactive Broadcast (CIB), mandatory crypto upgrades, SEWS integration with various radar systems, and the transition to "coalition-based" warning. SEWS utilizes Federally Funded Research and Development Centers (FFRDC), Engineering and Technology Acquisition Support Services (ETASS), and Advisory and Assistance Services (A&AS) contractors to support design, development, and acquisition of a common SEWS architecture to enhance mission capability of existing and future partners.

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

This program is in Budget Activity 7, Operational System Development, these budget activities includes development efforts to upgrade systems currently fielded or has received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	2.952	1.663	1.188	-	1.188
Current President's Budget	2.858	1.663	1.175	-	1.175
Total Adjustments	-0.094	-	-0.013	-	-0.013
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.069	-			
• Other Adjustments	-0.025	-	-0.013	-	-0.013

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Change Summary Explanation FY11 Congressional General Reduction of 0.025M in Other Adjustment row.				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2011	FY 2012	FY 2013
Title: Shared Early Warning System		2.858	1.663	1.175
Description: Development of SEWS common architecture and SEWS initiatives as identified by theater commanders.				
FY 2011 Accomplishments: <ul style="list-style-type: none">Continued to investigate and integrate a number of significant external system upgrades, to include changes from the IBS broadcast to CIB, tactical radio replacement using Universal Serial Bus (USB) Embedded National Tactical Radio (ENTR) radios, and transition to the CIB Common Message Format.Completed the development and demonstration of the previously prototyped remote data monitoring (RDM) and Process ID (PID) monitoring capabilities for GCCS 4.1.1.2. Began a study of how to integrate SEW Space (SEW-S) and SEW Radar (SEW-R) data.Continued development of Force Protection Tiered Notification System (FPTNS), formerly known as Secondary Notification Capability.Investigated alternative covariance matrix solutions.Developed a Deployable SEW Suite (DSS) prototype.Evaluated alternatives to the aging Bisynchronous Serial Tunneling (BSTUN) protocol currently used by SEWS.Continued to develop enhancements to the Radiant Mercury Cross Domain Solution (CDS) software.Continued to develop an alternative secondary notification capability solution for Combatant Command (COCOM) use.Continued to support all phases of the test process and increase ISC2 systems engineering support and GCCS R&D support to SEW system development.Prepared for implementation of SEW capability with Russia.				
FY 2012 Plans:				

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2011	FY 2012	FY 2013
<ul style="list-style-type: none"> • Continue to investigate and integrate COCOM validated requirements and external system enhancements; evaluate alternative solutions and approaches for integrated infrared/radar architectures. Tasks include but not limited to: continue development of SEW-R Integration, begin development and testing of the Air Defense System Integrator (ADSI) data Global Command and Control System-Joint (GCCS-J) Integration, and integration and test of redesign to improve and increase performance capabilities. • Support all phases of the test and systems engineering processes including requirements management and change control. • Continue development of FPTNS, formerly known as Secondary Notification Capability. • Test and field the Multi-Tadil Correlation (MTC) segment update for inclusion of the ADSI-to-GCCS architecture. • Specific tasks performed during execution may change to support current validated operational COCOM requirements. • Continue DSS phase II development. • Finish testing and begin fielding RDM in SEWS architecture. FY 2013 Plans: <ul style="list-style-type: none"> • Will continue to investigate and integrate COCOM validated requirements and external system enhancements (e.g. Radiant Mercury). • Will evaluate alternative solutions and approaches for integrated infrared/radar architectures. • Will begin testing and fielding of FPTNS, formerly known as Secondary Notification Capability. • Tasks will include but not be limited to: SEW-R test and fielding; begin studying and testing the Joint Command & Control (JC2) terminal, which will replace GCCS-J; and integration and test of redesign to improve and increase performance capabilities. • Will continue fielding of RDM. • Will begin fielding of ADSI data GCCS-J integration solution. • Will support all phases of the test and systems engineering processes including requirements management and change control. 				

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C. Accomplishments/Planned Programs (\$ in Millions)											
• Will begin development of Common Interactive Broadcast (CIB) system.							FY 2011	FY 2012	FY 2013		
Accomplishments/Planned Programs Subtotals							2.858	1.663	1.175		
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• OPAF, PE 0308699F, Comm Elect Mods: <i>SEWS Acquisition</i>	0.310	0.313	0.322	0.000	0.322	0.328	0.335	0.342	0.347	Continuing	Continuing
E. Acquisition Strategy The acquisition strategy builds on existing capabilities using evolutionary acquisition to modernize and sustain SEWS.											
F. 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-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Remote Data Monitoring (RDM)	1	2011	1	2014
Force Protection Tiered Notification System (FPTNS)	1	2011	1	2016
GCCS-J Evolution	1	2011	4	2017
SEWS-Radar Integration (SEW-R)	1	2011	4	2017
System Accuracy	1	2011	4	2017
CST Architecture Development	1	2011	4	2017
CIB/CMF	1	2013	4	2016