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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				PE 0102325F: JOINT SURVEILLANCE SYSTEM							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	9.521	-	4.485	-	4.485	-	-	-	-	Continuing	Continuing
675371: CRITICAL PARTS REPLACEMENT PROGRAM	9.521	-	4.485	-	4.485	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

The FPS-117 radar supports the NORAD, USNORTHCOM, and PACOM missions. The radars are part of the Atmospheric Early Warning System (AEWS), providing radar data to both USAF and Federal Aviation Administration control systems in Alaska. The radars also provide air surveillance capability as part of a bi-national defense program with Canada. The USAF FPS-117s (versions 1 & 4) are no longer in production, however the latest FPS-117 (version 7, aka Block 3) is in production. The Original Equipment Manufacturer (OEM) has continued to advance this radar system's technology and perform service life upgrades for other developing nations, however, Sixty-five percent of LRUs installed in the North American system are no longer manufactured by the OEM and many subcomponents are obsolete rendering the AEWS unsupportable. Air surveillance is NORAD's number #1 issue as stated by the NORAD Commander to Congress in March 2008. Without the immediate replacement of this equipment NORAD will lose air surveillance capability by 2013 due to failing radars. The AN/FPS-117 Essential Parts Replacement Program restores the radar system capability to its original availability rates by eliminating parts obsolescence and replacing high failure rate components.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	9.521	-	-	-	-
Current President's Budget	9.521	-	4.485	-	4.485
Total Adjustments	-	-	4.485	-	4.485
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	4.485	-	4.485

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0102325F: <i>JOINT SURVEILLANCE SYSTEM</i>	PROJECT 675371: <i>CRITICAL PARTS REPLACEMENT PROGRAM</i>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675371: <i>CRITICAL PARTS REPLACEMENT PROGRAM</i>	9.521	-	4.485	-	4.485	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The FPS-117 radar supports the NORAD, USNORTHCOM, and PACOM missions. The radars are part of the Atmospheric Early Warning System (AEWS), providing radar data to both USAF and Federal Aviation Administration control systems in Alaska. The radars also provide air surveillance capability as part of a bi-national defense program with Canada. The USAF FPS-117s (versions 1 & 4) are no longer in production, however the latest FPS-117 (version 7, aka Block 3) is in production. The Original Equipment Manufacturer (OEM) has continued to advance this radar system's technology and perform service life upgrades for other developing nations, however, Sixty-five percent of LRUs installed in the North American system are no longer manufactured by the OEM and many subcomponents are obsolete rendering the AEWS unsupportable. Air surveillance is NORAD's number #1 issue as stated by the NORAD Commander to Congress in March 2008. Without the immediate replacement of this equipment NORAD will lose air surveillance capability by 2013 due to failing radars. The AN/FPS-117 Essential Parts Replacement Program restores the radar system capability to its original availability rates by eliminating parts obsolescence and replacing high failure rate components.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: SYSTEMS INTEGRATION Description: System Integration, Purchase of Government Furnished Equipment, Documentation, Test and Certification Support FY 2010 Accomplishments: Systems Integration FY 2011 Plans: FY 2012 Base Plans: Systems Integration FY 2012 OCO Plans:	8.150	-	3.485	-	3.485
Title: SYSTEMS ENGINEERING Description: System Engineering FY 2010 Accomplishments:	0.939	-	0.500	-	0.500

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>			R-1 ITEM NOMENCLATURE PE 0102325F: <i>JOINT SURVEILLANCE SYSTEM</i>			PROJECT 675371: <i>CRITICAL PARTS REPLACEMENT PROGRAM</i>					
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
System Engineering FY 2011 Plans: FY 2012 Base Plans: Systems Engineering FY 2012 OCO Plans:											
Title: PROGRAM SUPPORT Description: Program Support FY 2010 Accomplishments: Program Support FY 2011 Plans: FY 2012 Base Plans: Program Support FY 2012 OCO Plans:							0.432	-	0.500	-	0.500
Accomplishments/Planned Programs Subtotals							9.521	-	4.485	-	4.485
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• OPAF: BPAC 8330810 Comm Elec Mods BP83	20.000	38.000	32.000	0.000	32.000	26.000	0.000	0.000	0.000	Continuing	Continuing
D. Acquisition Strategy The RDT&E will be used to conduct acquisition activities, integration with equipment not being replaced, documentation and testing. Ogden ALC will be the SPD for this program. They are the best option as they have been the program office/acquisition authority for the radars while it has been in sustainment and have the expertise to conduct the procurement. There will be a full and open competition followed by a Firm Fixed Price contract award.											

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0102325F: <i>JOINT SURVEILLANCE</i> <i>SYSTEM</i>	PROJECT 675371: <i>CRITICAL PARTS REPLACEMENT</i> <i>PROGRAM</i>

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 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0102325F: JOINT SURVEILLANCE SYSTEM				PROJECT 675371: CRITICAL PARTS REPLACEMENT PROGRAM					

Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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
Prototype Integration	C/FFP	TBD:TBD	7.150	-		-		-		-	0.000	7.150	0.000
Subtotal			7.150	-		-		-		-	0.000	7.150	0.000

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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
Program Office Support	Various	OO:ALC,	0.432	-		4.174		-		4.174	0.000	4.606	0.000
Subtotal			0.432	-		4.174		-		4.174	0.000	4.606	0.000

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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
Prototype and Testing	Various	OO:ALC	1.000	-		-		-		-	0.000	1.000	0.000
Subtotal			1.000	-		-		-		-	0.000	1.000	0.000

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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
Management	C/FFP	A&AS Contractor:TBD,	0.939	-		0.311		-		0.311	0.000	1.250	0.000
Subtotal			0.939	-		0.311		-		0.311	0.000	1.250	0.000

			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			9.521	-		4.485		-		4.485	0.000	14.006	0.000

Remarks													
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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0102325F: <i>JOINT SURVEILLANCE</i> <i>SYSTEM</i>	PROJECT 675371: <i>CRITICAL PARTS REPLACEMENT</i> <i>PROGRAM</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0102325F: <i>JOINT SURVEILLANCE</i> <i>SYSTEM</i>	PROJECT 675371: <i>CRITICAL PARTS REPLACEMENT</i> <i>PROGRAM</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
A&AS Contract	2	2010	3	2010
Prototype Inegration Contract	2	2010	3	2010
Engineeirng Design Evaluation	2	2010	3	2010
Prototype Testing	2	2010	3	2010

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