

## UNCLASSIFIED

## RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE

February 2003

## BUDGET ACTIVITY

**04 - Advanced Component Development and Prototypes  
(ACD&P)**

## PE NUMBER AND TITLE

**0604435F Interim Polar**

## PROJECT

**A010**

COST (\$ in Thousands)	FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
A010 Advanced Polar System	0	0	13,740	82,345	225,091	175,805	137,718	135,411	13,600	783,710
Quantity of RDT&E Articles	0	0	0	0	0	0	0	1	1	2

FY04 new start effort: Project A010, Advanced Polar System (APS) within PE 0604435F will provide surviving and enduring SATCOM in the north polar region as an extension of the current Interim Polar, PE 0603432F, system. Note: PE 0604435F will be renamed Advanced Polar System.

(U) **A. Mission Description**

The Advanced Polar System (APS) will provide next generation protected EHF SATCOM capability in the north polar region starting in FY09 based on the Jul 95 Polar MILSATCOM ORD. APS will also support tactical users who require anti-jam and low probability of detection EHF SATCOM. It's need date and requirements for nuclear hardening make it a stand alone requirement rather than just a follow-on to the Interim Polar capability. APS is part of the Air Force's Transformational Communications Architecture. The results of the Transformational Communications Architecture definition in FY03 will affect the APS program content. The current APS program will acquire three satellites (2 funded with RDT&E and one fully funded with missile procurement) and survivable ground gateways.

(U) **FY 2002 (\$ in Thousands)**

(U) \$0 No Activity

(U) \$0 Total

(U) **FY 2003 (\$ in Thousands)**

(U) \$0 No Activity

(U) \$0 Total

(U) **FY 2004 (\$ in Thousands)**

(U) \$11,000 Concept definition and Analysis of alternatives contract

(U) \$2,740 Program Office and other related support activities

(U) \$13,740 Total

(U) **B. Budget Activity Justification**

This program is in Budget Activity 04 - Advanced Component Development and Prototypes (ACD&P), because it supports concept definition of a communication system.

Project A010

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Exhibit R-2 (PE 0604435F)

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(U) C. Program Change Summary (\$ in Thousands)

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Total Cost</u>
(U) Previous President's Budget	0	0	0	0
(U) Appropriated Value				
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions				
b. Small Business Innovative Research				
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram				
e. Rescissions				
(U) Adjustments to Budget Years Since FY 2003 PBR			13,740	783,710
(U) Current Budget Submit/FY 2004 PBR			13,740	783,710

(U) Significant Program Changes:

Air Force FY04 new start program. Protected Polar SATCOM requirements documented in the Jul 95 Polar MILSATCOM ORD, which is currently being updated and will incorporate the results of the Transformational Communications Architecture.

(U) D. Other Program Funding Summary (\$ in Thousands)

	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</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>Estimate</u>	<u>Complete</u>	
(U) Other APPN	0	0	0	0	0	0	0	0	0	0
(U) OPAF, PE 0604435F, Interim Polar	0	0	0	0	0	0	51,927	138,959	2,829	193,715
(U) MPAF, PE 0604435F, Interim Polar	0	0	0	0	0	0	21,744	119,143	81,800	222,687

(U) E. Acquisition Strategy

The Advanced Polar System will be a competitive acquisition. Hosting an EHF package such as was done with Interim Polar was considered, but did not meet requirements. The results of the Transformational Communications Architecture definition in FY03 will affect the APS program content.

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Exhibit R-2 (PE 0604435F)

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<b>RDT&amp;E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)</b>						DATE <b>February 2003</b>																																					
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<div style="display: flex; justify-content: space-between;"> <div style="width: 35%;"> <p>(U) <u>F. Schedule Profile</u></p> </div> <div style="width: 60%; text-align: center;"> <table style="margin: auto;"> <thead> <tr> <th colspan="4"><u>FY 2002</u></th> <th colspan="4"><u>FY 2003</u></th> <th colspan="4"><u>FY 2004</u></th> </tr> <tr> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> <th>1</th><th>2</th><th>3</th><th>4</th> </tr> </thead> <tbody> <tr> <td colspan="8"></td> <td colspan="4">X</td> </tr> </tbody> </table> </div> </div> <p>(U) Concept Definition Contract Award First launch scheduled for 2009</p>								<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>				1	2	3	4	1	2	3	4	1	2	3	4									X			
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2003																																																																																																																													
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		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
		<u>to FY 2002</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Complete</u>
		<u>Program</u>				
<u>Subtotals</u>						
Subtotal Product Development		0	0	0	11,000	705,970
Subtotal Support and Management		0	0	0	2,740	77,740
Subtotal Test and Evaluation						
Total Project		0	0	0	13,740	783,710

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