

UNCLASSIFIED

PE NUMBER: 0603432F
 PE TITLE: Polar MILSATCOM (Space)

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2005
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BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603432F Polar MILSATCOM (Space)
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Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	5.190	0.895	2.185	35.281	119.683	137.432	186.094	126.547	Continuing	TBD
4052 Polar Satellite Communications	5.190	0.895	2.185	35.281	119.683	137.432	186.094	126.547	Continuing	TBD

(U) A. Mission Description and Budget Item Justification

This program element acquires the Polar Military Satellite Communications (MILSATCOM) system that provides protected communications (anti jam, anti scintillation, and low probability of intercept) for users in the north polar region.

Project 4052, Polar Satellite Communications, has previously funded three low data rate (LDR) Milstar packages onto three classified host satellites as an expedited, interim solution to protected connectivity requirements in the north polar region. One package is on-orbit, and the final two LDR packages will be available in FY05 and FY06, respectively. Two satellites with hosted packages are required to provide the necessary 24 hour coverage.

Beginning FY06, the Polar MILSATCOM system will acquire the next generation capability with two more polar packages via the same host program. Both the host and the polar communications packages require design modifications to replace obsolete components and take advantage of the more capable Advanced Extremely High Frequency (AEHF) technology. FY06 funds requirements analyses and design trade studies based on an updated Polar Capability Development Document (CDD). The two enhanced, hosted packages, will be available in FY13 and FY15. They replace previously documented plans to acquire an Advanced Polar System, PE 0604435F.

The Polar MILSATCOM program is in Budget Activity 4, Advanced Component Development and Prototypes, based on the 30 Mar 95 USD(A&T) memorandum to pursue the interim hosted solution.

(U) B. Program Change Summary (\$ in Millions)

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget	5.533	0.960	0.000	0.000
(U) Current PBR/President's Budget	5.190	0.895	2.185	35.281
(U) Total Adjustments	-0.343	-0.065		
(U) Congressional Program Reductions		-0.065		
Congressional Rescissions				
Congressional Increases				
Reprogrammings				
SBIR/STTR Transfer	-0.343			

(U) Significant Program Changes:

FY06/07: Begin funding in FY06 two new enhanced packages on hosted satellites

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BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)							PE NUMBER AND TITLE 0603432F Polar MILSATCOM (Space)		PROJECT NUMBER AND TITLE 4052 Polar Satellite Communications	
Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
4052 Polar Satellite Communications	5.190	0.895	2.185	35.281	119.683	137.432	186.094	126.547	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

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Beginning FY06, the Polar MILSATCOM system will acquire the next generation capability with two more polar packages via the same host program. Both the host and the polar communications packages require design modifications to replace obsolete components and take advantage of the more capable Advanced Extremely High Frequency (AEHF) technology. FY06 funds requirements analyses and design trade studies based on an updated Polar Capability Development Document (CDD). The two enhanced, hosted packages, will be available in FY13 and FY15. They replace previously documented plans to acquire an Advanced Polar System, PE 0604435F.

The Polar MILSATCOM program is in Budget Activity 4, Advanced Component Development and Prototypes, based on the 30 Mar 95 USD(A&T) memorandum to pursue the interim hosted solution.

(U) B. Accomplishments/Planned Program (\$ in Millions)

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Conducted final integration and tests of Polar package 2. Integrated Polar package 3 with host vehicle. (Through the classified host contract)	5.190			
(U) Complete integration and test of Polar package 3 with host vehicle. (Through the classified host contract)		0.895		
(U) Conduct requirements analyses and design trade studies for Enhanced Polar packages. (Through the classified host)			2.185	
(U) Conduct design and development of Enhanced Polar packages (Through a classified host contract)				35.281
(U) Total Cost	5.190	0.895	2.185	35.281

(U) C. Other Program Funding Summary (\$ in Millions)

	<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>FY 2010</u>	<u>FY 2011</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) None.

The Navy has used its own PE(s) to modify control systems and terminals to work with Polar MILSATCOM.

Exhibit R-2a, RDT&E Project Justification

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PROJECT NUMBER AND TITLE

4052 Polar Satellite Communications

(U) **D. Acquisition Strategy**

The Air Force provides funds to the classified host program office to modify the host satellite system contract to include the Polar EHF package. The host program office has total acquisition responsibility for Interim Polar and Enhanced Polar.

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Exhibit R-3, RDT&E Project Cost Analysis

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BUDGET ACTIVITY				PE NUMBER AND TITLE							PROJECT NUMBER AND TITLE			
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(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2004 Cost</u>	<u>FY 2004 Cost</u>	<u>FY 2004 Award Date</u>	<u>FY 2005 Cost</u>	<u>FY 2005 Award Date</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>														
Classified	Classified		293.510	5.190		0.895		2.185		35.281		Continuing	TBD	
N/A													0.000	
Subtotal Product Development			293.510	5.190		0.895		2.185		35.281		Continuing	TBD	0.000
Remarks:														
(U) <u>Support</u>														
N/A													0.000	
N/A													0.000	
Subtotal Support			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) <u>Test & Evaluation</u>														
N/A													0.000	
N/A													0.000	
Subtotal Test & Evaluation			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) <u>Management</u>														
Subtotal Management			0.000	0.000		0.000		0.000		0.000		0.000	0.000	0.000
Remarks:														
(U) Total Cost			293.510	5.190		0.895		2.185		35.281		Continuing	TBD	0.000

Exhibit R-4, RDT&E Schedule Profile

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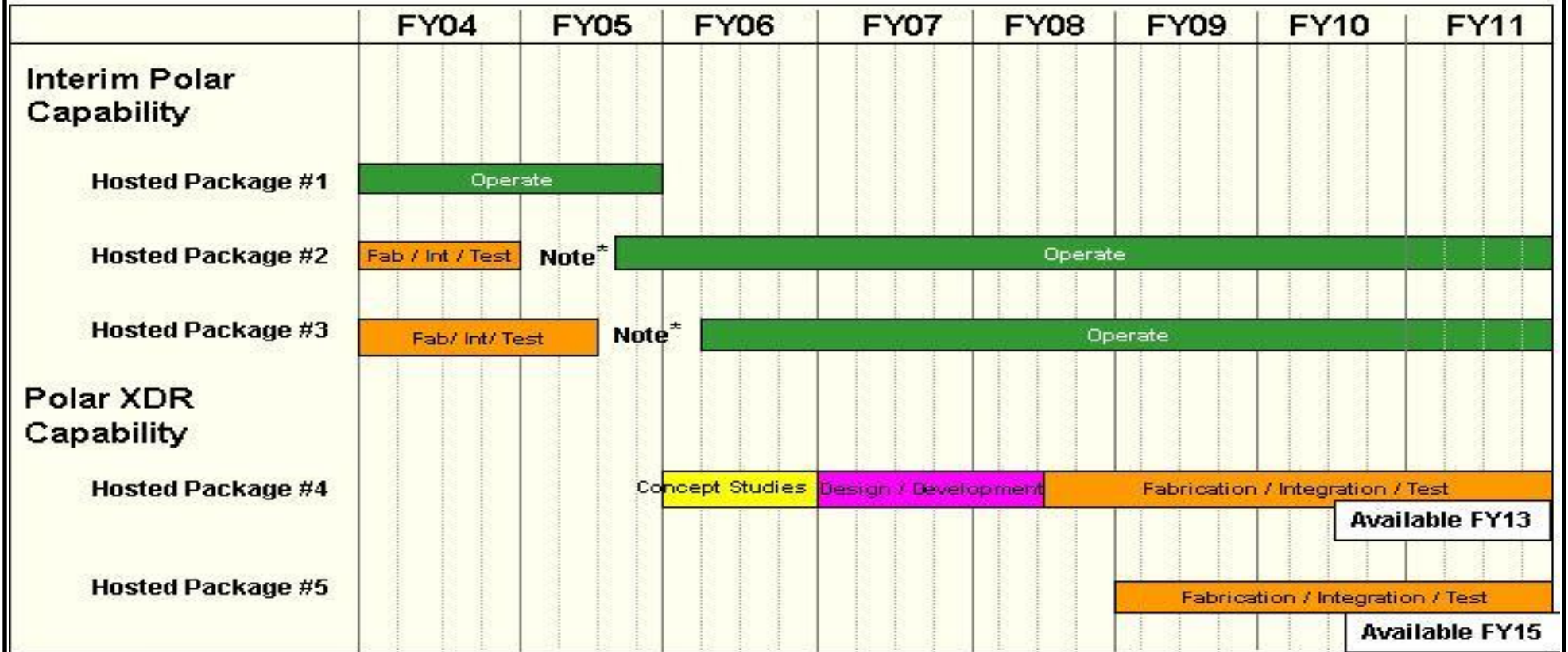
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PROJECT NUMBER AND TITLE

4052 Polar Satellite Communications



Concept Studies
 Design / Development
 Fabrication / Integration / Test
 Operations / sustainment

*** Note: Specific launch and availability dates are classified**

Exhibit R-4a, RDT&E Schedule Detail	DATE February 2005
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BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603432F Polar MILSATCOM (Space)	PROJECT NUMBER AND TITLE 4052 Polar Satellite Communications
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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) <u>Schedule Profile</u>				
(U) Begin requirements analysis for Enhanced Polar packages			1Q	
(U) Begin design and development of Enhanced Polar packages				1Q