

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)									DATE February 1999		
BUDGET ACTIVITY 4 - Demonstration and Validation				PE NUMBER AND TITLE 0603432F Polar MILSATCOM (Space)					PROJECT 4052		
COST (\$ In Thousands)		FY 1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	Cost to Complete	Total Cost
4052	Polar Satellite Communications	14,415	41,367	39,678	26,300	13,033	8,708	3,420	3,416	0	223,794
	Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

(U) A. Mission Description

The program will provide protected communications services to U.S. forces operating in the northern polar region. In 1992, the Milstar program was restructured, and the requirement for Milstar to provide polar coverage was deleted. The Air Force was directed to find a more cost-effective solution to polar requirements. In Oct 94, the DoD identified an immediate need for protected polar communications, and in Jul 95, the Joint Requirements Oversight Council (JROC) validated the Polar MILSATCOM ORD which contained the interim requirements. In July 95, the Defense Acquisition Executive reviewed the Polar program and approved execution of an interim program to place a modified Extremely High Frequency (EHF) payload from the Navy's UHF Follow On (UFO) system onto a host satellite to provide limited requirements satisfaction while pursuing a long term solution. In Aug 96, the Joint Space Management Board (JSMB) addressed that long term solution by approving proposals from the DoD Space Architect to "sustain EHF Polar capability through about 2010 (24 hours)". The first package was launched on a classified host satellite in Nov 97.

(U) FY 1998 (\$ in Thousands):

- (U) \$14,415 Continued Polar package planning and design for the next generation payload, initiate parts procurement for Polar packages 2 and 3, and develop payload. (Through the classified host contract)
- (U) \$14,415 Total

(U) FY 1999 (\$ in Thousands):

- (U) \$41,367 Continue parts buy and payload/integration development with host vehicle for Polar packages 2 and 3. (Through classified host contract)
- (U) \$41,367 Total

(U) FY 2000 (\$ in Thousands):

- (U) \$39,678 Continue parts buy and payload/integration development with host vehicle for Polar packages 2 and 3. (Through classified host contract)
- (U) \$39,678 Total

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<p>(U) <u>FY 2001 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> - (U) \$26,300 Continue payload development and integration development with host vehicle for Polar packages 2 and 3. (Through the classified host contract) - (U) \$26,300 Total <p>(U) <u>B. Budget Activity Justification</u> The Polar Satellite Communications Program is in Budget Activity 4, Demonstration and Validation, based on a 30 Mar 95 USD(A&T) memorandum to pursue the interim hosted solution (Interim Polar).</p> <p>(U) <u>C. Program Change Summary (\$ in Thousands)</u></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="text-align: center;"><u>FY 1998</u></th> <th style="text-align: center;"><u>FY 1999</u></th> <th style="text-align: center;"><u>FY 2000</u></th> <th style="text-align: center;"><u>FY 2001</u></th> <th style="text-align: center;"><u>Total</u></th> </tr> </thead> <tbody> <tr> <td>(U) Previous President's Budget (FY 1999 PB)</td> <td style="text-align: center;">14,511</td> <td style="text-align: center;">41,508</td> <td style="text-align: center;">40,429</td> <td style="text-align: center;">26,771</td> <td style="text-align: center;">223,794</td> </tr> <tr> <td>(U) Appropriated Value</td> <td style="text-align: center;">15,000</td> <td style="text-align: center;">41,508</td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) a. Congressional General Reductions</td> <td style="text-align: center;">-489</td> <td style="text-align: center;">-141</td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) b. SBIR</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) c. Omnibus/Other Above Threshold Reprogramming</td> <td style="text-align: center;">-96</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) d. Below Threshold Reprogramming</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Adjustments to Budget Years Since FY 1999 PB</td> <td></td> <td></td> <td style="text-align: center;">-751</td> <td style="text-align: center;">-471</td> <td></td> </tr> <tr> <td>(U) Current Budget Submit/FY 2000 PB</td> <td style="text-align: center;">14,415</td> <td style="text-align: center;">41,367</td> <td style="text-align: center;">39,678</td> <td style="text-align: center;">26,300</td> <td style="text-align: center;">223,794</td> </tr> </tbody> </table> <p>(U) FY 00 and 01 adjustments made to fund higher priority Air Force programs.</p> <p>(U) <u>D. Other Program Funding Summary (\$ in Thousands)</u> PE 0302109N Navy SATCOM Ship Terminals.</p>				<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>Total</u>	(U) Previous President's Budget (FY 1999 PB)	14,511	41,508	40,429	26,771	223,794	(U) Appropriated Value	15,000	41,508				(U) Adjustments to Appropriated Value						(U) a. Congressional General Reductions	-489	-141				(U) b. SBIR						(U) c. Omnibus/Other Above Threshold Reprogramming	-96					(U) d. Below Threshold Reprogramming						(U) Adjustments to Budget Years Since FY 1999 PB			-751	-471		(U) Current Budget Submit/FY 2000 PB	14,415	41,367	39,678	26,300	223,794
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Project 4052	Page 2 of 4 Pages	Exhibit R-2 (PE 0603432F)																																																												

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BUDGET ACTIVITY 4 - Demonstration and Validation	PE NUMBER AND TITLE 0603432F Polar MILSATCOM (Space)	PROJECT 4052
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(U) **E. Acquisition Strategy:** Provide funds to classified host program office to modify the host satellite system contract to include Polar EHF package.

(U) **F. Schedule Profile**

	<u>FY 1998</u>				<u>FY 1999</u>				<u>FY 2000</u>				<u>FY 2001</u>			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Hosted Interim Payload #1 Launched (Payloads 2 and 3 to launch in FYs 03 and 04)	x															

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE February 1999	
BUDGET ACTIVITY 4 - Demonstration and Validation					PE NUMBER AND TITLE 0603432F Polar MILSATCOM (Space)					PROJECT 4052	
(U) A. <u>Project Cost Breakdown (\$ in Thousands)</u>											
					<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>			
(U) Packages 2 & 3 Planning, Design, and Parts Buy					14,415	0	0	0			
(U) Packages 2 & 3 Payload/Integration Development					0	41,367	39,678	26,300			
(U) Total					14,415	41,367	39,678	26,300			
(U) B. <u>Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
Performing Organizations:											
Contractor or Government Performing Activity	Contract Method/Type or Funding Vehicle	Award or Obligation Date	Performing Activity EAC	Project Office EAC	Total Prior to FY 1998	Budget FY 1998	Budget FY 1999	Budget FY 2000	Budget FY 2001	Budget to Complete	Total Program
<u>Product Development Organizations</u>											
Classified	Classified	June 95	Continuing	Continuing	73,457	14,415	41,367	39,678	26,300	28,577	223,794
<u>Support and Management Organizations</u> N/A											
<u>Test and Evaluation Organizations</u> N/A											
Government Furnished Property:											
Subtotal Product Development					73,457	14,415	41,367	39,678	26,300	28,577	223,794
Subtotal Support and Management					0	0	0	0	0	0	0
Subtotal Test and Evaluation					0	0	0	0	0	0	0
Total Project					73,457	14,415	41,367	39,678	26,300	28,577	223,794