

UNCLASSIFIED

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

DATE

February 2003

BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

07 - Operational System Development

0305160F Defense Meteorological Satellite Program

4758

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
4758 DMSP Program	12,838	3,816	918	0	0	0	0	0	0	897,479
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0	0

(U) **A. Mission Description**

The Defense Meteorological Satellite Program (DMSP) is a fully operational program supporting all military services. Operational commanders require timely, quality weather information to effectively employ weapon systems and protect DoD resources. DMSP is the DoD's most important and often the only source of global weather data to support US military operations. It provides visible and infrared cloud cover imagery (1/3 nautical miles (nm) constant resolution) and other meteorological, oceanographic, land surface, and space environmental data. At least two satellites are required in sun-synchronous, 450nm polar-orbit at all times (sun-synchronous means the satellites cross the equator at the same local sun time on each of their 14 orbits/day). DMSP F-15 was the first Block 5D3 satellite (with legacy sensors) and was launched on a Titan-II booster in Dec 99. DMSP F-16 is the first 'full-up' Block 5D3 (spacecraft bus plus sensors) and will be the last DMSP to launch on a Titan-II booster. The F-16 launch is currently planned for May 03. The remaining DMSP satellites, F-17 through F-20, are all manifested to launch on an Evolved Expendable Launch Vehicle (EELV) booster.

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

(U) \$0 Accomplishments/Planned Program
 (U) \$9,009 Continued system integration and test, studies, and related support activities
 (U) \$2,351 Continued EELV interface design (transition to EELV)
 (U) \$1,478 Continued 5D3 Sensor calibration and validation
 (U) \$12,838 Total

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

(U) \$0 Accomplishments/Planned Program
 (U) \$2,121 Continue system integration and test, studies, and related support activities
 (U) \$335 Complete EELV interface design (transition to EELV)
 (U) \$1,360 Continue 5D3 Sensor calibration and validation
 (U) \$3,816 Total

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(U) **A. Mission Description Continued**(U) FY 2004 (\$ in Thousands)

(U) \$0 Accomplishments/Planned Program

(U) \$511 Complete RDT&E portion of system integration and test

(U) \$307 Complete 5D3 Sensor calibration and validation

(U) \$100 Complete related support activities

(U) \$918 Total

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

This program is in Budget Activity 7, Operational Systems Development, because it supports the current operational DMSP constellation.

(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	12,901	3,875	2,223	897,617
(U) Appropriated Value	12,259	3,875		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-451	-42		-105
b. Small Business Innovative Research				
c. Omnibus or Other Above Threshold Reprogram		-17		
d. Below Threshold Reprogram	1,030			-17
e. Rescissions				
(U) Adjustments to Budget Years Since FY 2003 PBR			-1,305	-16
(U) Current Budget Submit/FY 2004 PBR	12,838	3,816	918	897,479

(U) **Significant Program Changes:**

Funding: \$1.030M required in FY2002 for completion of the design effort to accommodate the change in booster from Titan II to EELV.

\$7.751M of FY04-07 RDT&E funds for system integration, test, and studies Zero Balance Transferred to Missile Procurement (Project 23DMSP) to align the funds in the correct appropriation consistent with the intended use of the funds.

Schedule: Next satellite launch (F-16) planned for May 03 (previously scheduled for 2QFY02). Schedule slip was caused by mutiple technical problems with the

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4758(U) **C. Program Change Summary (\$ in Thousands) Continued**(U) **Significant Program Changes Continued:**

satellite sensors.

Technical: None

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

	<u>FY 2002</u> <u>Actual</u>	<u>FY 2003</u> <u>Estimate</u>	<u>FY 2004</u> <u>Estimate</u>	<u>FY 2005</u> <u>Estimate</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) AF RDT&E										
(U) Other APPN										
(U) Missile Procurement/PE 0305160F (Budget Activity 5, Line Item P-22) Related RDT&E: PE 0603434F, National Polar-orbiting Operational Environmental Satellite System (NPOESS) PE 0305160N, Navy Meteorological and Oceanographic Sensor-Space (METOC) (provides funds for Navy unique studies)	42,649	59,597	68,026	63,805	73,529	68,574	71,413	66,257	150,104	2,701,936

(U) **E. Acquisition Strategy**

Support and services contracts for the spacecraft, sensors, ground systems, and supporting software have been awarded to various contractors. No major milestone decisions remain. Production of DMSP satellites has been completed. Remaining effort is to continue spacecraft and sensor integration and test and successfully launch remaining DMSP satellites.

(U) **F. Schedule Profile**

	<u>FY 2002</u>				<u>FY 2003</u>				<u>FY 2004</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) F-16 Satellite Launch							X					
(U) Completion of EELV interface design							X					
(U) F-17 Satellite Launch											X	
* = Completed event												
X = Planned event												

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2003				
BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT			
07 - Operational System Development				0305160F Defense Meteorological Satellite Program				4758			
(U) <u>A. Project Cost Breakdown (\$ in Thousands)</u>											
						<u>FY 2002</u>			<u>FY 2003</u>	<u>FY 2004</u>	
(U)	Launch Vehicle Transition					3,050			711		
(U)	Spacecraft Integration and Test					2,604			926	511	
(U)	Sensor Suite Calibration/Validation					1,478			1,360	307	
(U)	Systems Engineering Support					3,530			819	100	
(U)	Program Management Support					2,176					
(U)	Total					12,838			3,816	918	
(U) <u>B. Budget Acquisition History and Planning Information (\$ in Thousands)</u>											
(U) <u>Performing Organizations:</u>											
<u>Contractor or</u>		<u>Contract</u>									
<u>Government</u>	<u>Method/Type</u>	<u>Award or</u>	<u>Performing</u>	<u>Project</u>							
<u>Performing</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Activity</u>	<u>Office</u>	<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>	<u>Total</u>	
<u>Activity</u>	<u>Vehicle</u>	<u>Date</u>	<u>EAC</u>	<u>EAC</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>Product Development Organizations</u>											
Lockheed -Martin	SS/CPAF	Apr 92	3,764	3,764	3,764				0	3,764	
Lockheed-Martin	SS/CPAF	May 97	11,261	11,261	8,923	3,914	547	511		13,895	
Northrop-Grumman (CSS&S)	SS/CPAF	May 95	12,906	12,906	11,214	1,041	714			12,969	
Lockheed-Martin	C/CPAF	Oct 88	39,513	39,513	39,513				0	39,513	
Harris (SSMIS/STT SW)	C/CPAF	Jun 94	8,617	8,617	8,617				0	8,617	
Det 11/GSA (Mark IVB P3I)	MIPR	Jan 97	2,986	2,986	2,986				0	2,986	
Lockheed-Martin (Titan II	SS/CPAF	Oct 98	5,268	5,268	5,268	99	93		0	5,460	
Msn Unique Studies)											
Boeing (EELV Msn Unique	SS/CPAF	Jul 00	1,717	1,717	1,017	600	283		0	1,900	
Studies & Services)											
Aerojet	SS/CPAF	May 92	2,530	2,530	2,530				0	2,530	
Aerojet	C/CPAF/FFP	Mar 89	85,979	85,979	85,979				0	85,979	
Aerojet (SSM/TW/IS S&S &	SS/CPAF	May 98	2,183	2,183	2,183				0	2,183	
Model + SSMIS)											
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)							DATE February 2003		
BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT		
07 - Operational System Development				0305160F Defense Meteorological Satellite Program			4758		
(U) <u>Performing Organizations Continued:</u>									
<u>Product Development Organizations</u>									
Raytheon, formerly Hughes	SS/CPFF	May 96	236	236	236			0	236
(SSMI Spt & Svc)									
AFRL	MIPR/PD	Oct 95			5,289			0	5,289
NRL	MIPR/Var	Oct 95			12,821	500	250	0	13,571
APL	MIPR/Var	Oct 95			3,538			0	3,538
SMC (Det 3 SSSG/NPOESS)	FCA/MIPR	Dec 95			2,506			0	2,506
Sandia	MIPR/Var	Oct 96			820			0	820
NOAA					34			0	34
Other	Various				4,609	978	1,110	307	7,004
Historical Satellite Blocks	Various				583,786				583,786
<u>Support and Management Organizations</u>									
FFRDC	AF 277	Dec 00			23,147	2,157	819		26,123
PRC/BD Systems/TASS	C/CPAF	Apr 01			8,142	1,373		0	9,515
Program Mgmt					20,688	2,176		0	22,864
Litigation Support					1,809			0	1,809
Other	Various	Jul 91			1,958			100	2,058
Historical Satellite Blocks	Various				38,530			0	38,530
<u>Test and Evaluation Organizations</u>									
NONE									
(U) <u>Government Furnished Property:</u>									
	<u>Contract</u>								
	<u>Method/Type</u>	<u>Award or</u>							
<u>Item</u>	<u>or Funding</u>	<u>Obligation</u>	<u>Delivery</u>		<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Total</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>		<u>to FY 2002</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>Program</u>
<u>Product Development Property</u>									
NONE									
<u>Support and Management Property</u>									
NONE									
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0305160F Defense Meteorological Satellite Program 4758

(U) Government Furnished Property Continued:Test and Evaluation Property

NONE

	<u>Total Prior</u> <u>to FY 2002</u>	<u>Budget</u> <u>FY 2002</u>	<u>Budget</u> <u>FY 2003</u>	<u>Budget</u> <u>FY 2004</u>	<u>Budget to</u> <u>Complete</u>	<u>Total</u> <u>Program</u>
<u>Subtotals</u>						
Subtotal Product Development	785,633	7,132	2,997	818	0	796,580
Subtotal Support and Management	94,274	5,706	819	100	0	100,899
Subtotal Test and Evaluation						
Total Project	879,907	12,838	3,816	918	0	897,479