

**UNCLASSIFIED**

PE NUMBER: 0305160F

PE TITLE: Defense Meteorological Satellite Program

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>								DATE <b>February 2004</b>	
<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>				<b>PE NUMBER AND TITLE</b> <b>0305160F Defense Meteorological Satellite Program</b>					
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	5.031	0.907	0.000	0.000	0.000	0.000	0.000	0.000	897.918
4758 DMSP Program	5.031	0.907	0.000	0.000	0.000	0.000	0.000	0.000	897.918

**(U) A. Mission Description and Budget Item Justification**

The Defense Meteorological Satellite Program (DMSP) is a fully operational program supporting a broad range of strategic and tactical national security users that require timely and accurate global weather information. DMSP is a critically important tool enabling commanders to effectively employ weapon systems and protect DoD resources in any operational battlespace. DMSP is DoD's only assured source of global weather data providing 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, launched Oct 03, is the first 'full-up' Block 5D3 (spacecraft bus plus sensors) and was the last DMSP to launch on a Titan-II booster. The remaining DMSP satellites, F-17 through F-20, are all manifested to launch on Evolved Expendable Launch Vehicle (EELV) boosters (either Atlas or Delta).

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

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	3.816	0.918	
(U) Current PBR/President's Budget	5.031	0.907	
(U) Total Adjustments	1.215	-0.011	
(U) Congressional Program Reductions		-0.011	
Congressional Rescissions			
Congressional Increases			
Reprogrammings	1.215		
SBIR/STTR Transfer			

**(U) Significant Program Changes:**

Funding: Additional \$1.215M required in FY2003 for F-16 Calibration and Validation and Titan II support as a result of launch delays.

Schedule: F-16 was launched in Oct 03 (previously scheduled for 2QFY02). Schedule slip was caused by multiple technical problems with the booster, satellite, and sensors. F-17 is on track for 3QFY05 launch; F-18 slips to 1QFY08 to maintain 24-month launch centers.

Technical: DMSP F-18 was moved to the Atlas V EELV booster rather than the Delta IV EELV.

**Exhibit R-2a, RDT&E Project Justification**

DATE  
**February 2004**

BUDGET ACTIVITY <b>07 Operational System Development</b>				PE NUMBER AND TITLE <b>0305160F Defense Meteorological Satellite Program</b>			PROJECT NUMBER AND TITLE <b>4758 DMSP Program</b>		
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
4758 DMSP Program	5.031	0.907	0.000	0.000	0.000	0.000	0.000	0.000	897.918
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

**(U) A. Mission Description and Budget Item Justification**

The Defense Meteorological Satellite Program (DMSP) is a fully operational program supporting a broad range of strategic and tactical national security users that require timely and accurate global weather information. DMSP is a critically important tool enabling commanders to effectively employ weapon systems and protect DoD resources in any operational battlespace. DMSP is DoD's only assured source of global weather data providing 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, launched Oct 03, is the first 'full-up' Block 5D3 (spacecraft bus plus sensors) and was the last DMSP to launch on a Titan-II booster. The remaining DMSP satellites, F-17 through F-20, are all manifested to launch on Evolved Expendable Launch Vehicle (EELV) boosters (either Atlas or Delta).

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

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Continue system integration and test, studies, and related support activities	2.886	0.611	
(U) Continue EELV interface design (transition to EELV)	0.335	0.050	
(U) Complete F-16 5D3 sensor calibration and validation	1.810	0.246	
(U) Total Cost	5.031	0.907	0.000

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

	<u>FY 2003</u> <u>Actual</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 Missile Procurement/PE									
(U) 0305160F (Budget Activity 5, Line Item P-33) 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)	69.373	67.469	74.201	66.829	68.967	74.344	70.667	150.104	2,729.869

**(U) D. Acquisition Strategy**

UNCLASSIFIED

Exhibit R-2a, RDT&E Project Justification

DATE

February 2004

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0305160F Defense Meteorological  
Satellite Program

PROJECT NUMBER AND TITLE

4758 DMSP Program

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.

**UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis										DATE <b>February 2004</b>		
BUDGET ACTIVITY <b>07 Operational System Development</b>				PE NUMBER AND TITLE <b>0305160F Defense Meteorological Satellite Program</b>				PROJECT NUMBER AND TITLE <b>4758 DMSP Program</b>				
<u>(U) Cost Categories</u>	<u>Contract Method</u>	<u>Performing Activity &amp;</u>	<u>Total</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>Cost to</u>	<u>Total</u>	<u>Target</u>
(Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>&amp; Type</u>	<u>Location</u>	<u>Prior to FY</u>	<u>2003</u>	<u>2003</u>	<u>2004</u>	<u>2004</u>	<u>2005</u>	<u>2005</u>	<u>Complete</u>	<u>Cost</u>	<u>Value of</u>
			<u>Cost</u>	<u>Cost</u>	<u>Award</u>	<u>Cost</u>	<u>Award</u>	<u>Cost</u>	<u>Award</u>			<u>Contract</u>
					<u>Date</u>		<u>Date</u>		<u>Date</u>			
<u>(U) Product Development</u>												
Lockheed -Martin	SS/CPAF		3.764							0.000	3.764	
Lockheed-Martin	SS/CPAF		10.553	0.573	May-97	0.511	Jun-02				11.637	
Northrop-Grumman (CSS&S)	SS/CPAF		11.884	0.712	May-00						12.596	
Lockheed-Martin	C/CPAF		39.513							0.000	39.513	
Lockheed-Martin	C/CPAF		1.723	0.335	Jun-02	0.050					2.108	
Harris (SSMIS/STT SW)	C/CPAF		8.617							0.000	8.617	
Det 11/GSA (Mark IVB P3I)	MIPR		2.986							0.000	2.986	
Lockheed-Martin (Titan II Msn Unique Studies)	SS/CPAF		5.358	0.700	Oct-02					0.000	6.058	
Boeing (EELV Msn Unique Studies & Services)	SS/CPAF		1.534	0.093	Oct-02					0.000	1.627	
Aerojet	SS/CPAF		2.530							0.000	2.530	
Aerojet	C/CPAF/FFP		85.979							0.000	85.979	
Aerojet (SSM/TW/IS S&S & Model + SSMIS)	SS/CPAF		2.183							0.000	2.183	
Raytheon, formerly Hughes (SSMI Spt & Svc)	SS/CPFF		0.236							0.000	0.236	
AFRL	MIPR/PD		5.289							0.000	5.289	
NRL	MIPR/Var		14.051	0.250	Oct-02					0.000	14.301	
APL	MIPR/Var		3.538							0.000	3.538	
SMC (Det 3 SSSG/NPOESS)	FCA/MIPR		2.506							0.000	2.506	
Sandia	MIPR/Var		0.820							0.000	0.820	
NOAA			0.034							0.000	0.034	
Other	Various		4.811	1.560	Oct-02	0.246				0.000	6.617	
Historical Satellite Blocks	Various		583.786								583.786	
NONE											0.000	
Subtotal Product Development			791.695	4.223		0.807		0.000		0.000	796.725	0.000
Remarks:												

UNCLASSIFIED

**Exhibit R-3, RDT&E Project Cost Analysis**

DATE

**February 2004**

BUDGET ACTIVITY <b>07 Operational System Development</b>	PE NUMBER AND TITLE <b>0305160F Defense Meteorological Satellite Program</b>				PROJECT NUMBER AND TITLE <b>4758 DMSP Program</b>						
(U) <u>Support</u>											
FFRDC	AF 277	25.304	0.319	Oct-02			25.623				
PRC/BD Systems/TASS	C/CPAF	9.515					0.000	9.515			
Program Mgmt		22.720					0.000	22.720			
Litigation Support		1.809					0.000	1.809			
Other	Various	2.407	0.489	Oct-02	0.100	Oct-03			0.000	2.996	
Historical Satellite Blocks	Various	38.530					0.000	38.530			
NONE								0.000			
Subtotal Support		100.285	0.808			0.100	0.000	0.000	101.193	0.000	
Remarks:											
(U) <u>Test &amp; Evaluation</u>											
NONE									0.000		
NONE									0.000		
Subtotal Test & Evaluation		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	
Remarks:											
(U) Total Cost		891.980	5.031			0.907	0.000	0.000	897.918	0.000	

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY  
07 Operational System Development

PE NUMBER AND TITLE  
0305160F Defense Meteorological  
Satellite Program

PROJECT NUMBER AND TITLE  
4758 DMSP Program

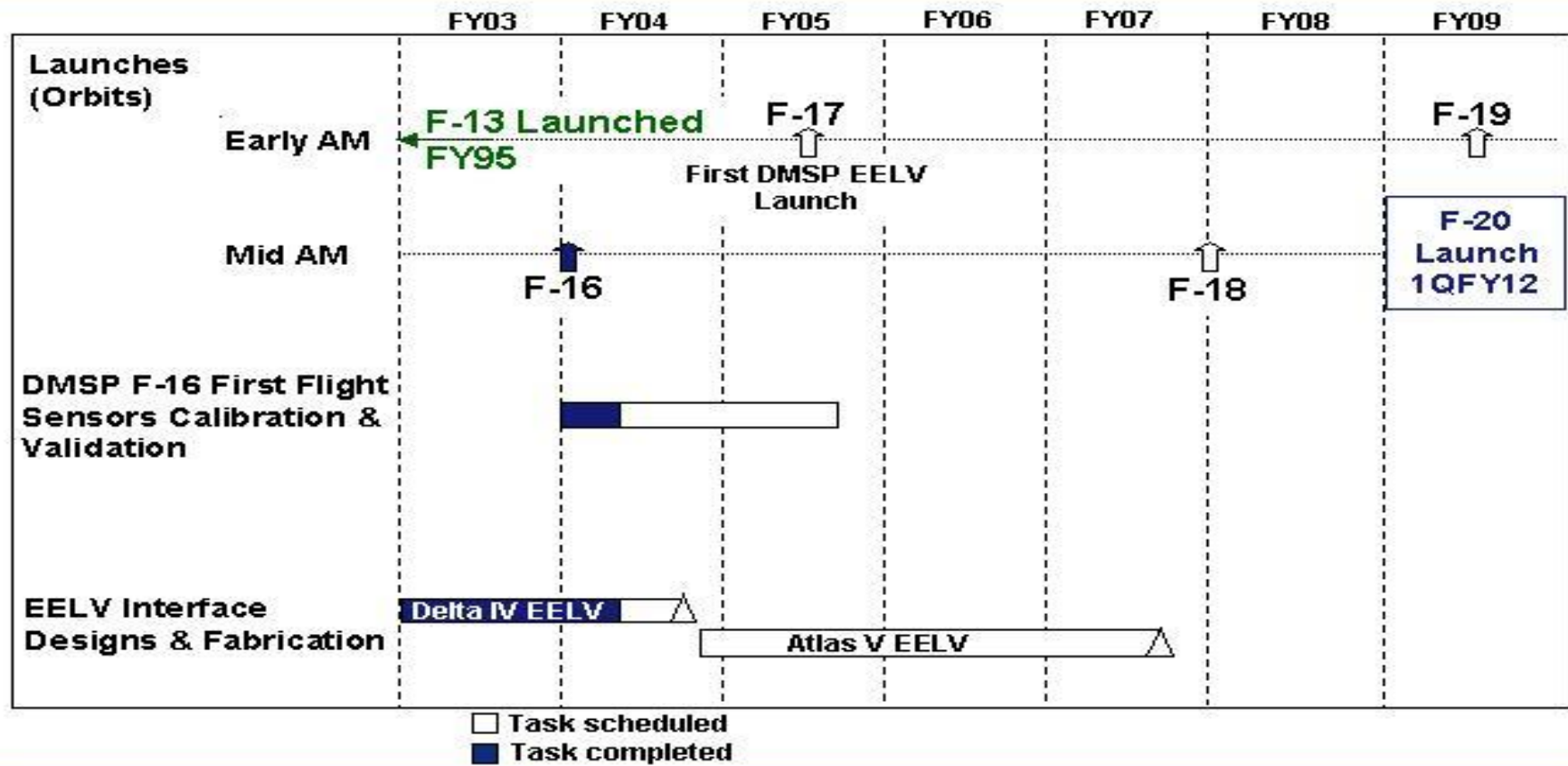


Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2004

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0305160F Defense Meteorological  
Satellite Program

PROJECT NUMBER AND TITLE

4758 DMSP Program

(U) Schedule Profile

FY 2003

FY 2004

FY 2005

(U) F-16 Satellite Launch

1Q

(U) F-17 Satellite Launch

3Q