

UNCLASSIFIED

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)								DATE February 2002	
BUDGET ACTIVITY 07 - Operational System Development				PE NUMBER AND TITLE 0305160F Defense Meteorological Satellite Program				PROJECT 4758	
COST (\$ in Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
4758 DMSP Program	22,129	11,871	3,875	2,223	2,114	2,144	2,204	0	904,338
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0
(U) <u>A. Mission Description</u> 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 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). Presidential Decision Directive PDD/NSTC-2 directed convergence of DMSP with the National Oceanic and Atmospheric Administration's (NOAA) POES polar-orbiting weather satellite system. A key step towards full program convergence was achieved in FY98 when DMSP satellite operations consolidated with NOAA satellite operations at NOAA's Suitland, MD, Satellite Operations Control Center (SOCC). 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 (satellite and sensors) and will be the last DMSP to launch on a Titan-II booster currently scheduled to launch in February of 2002. The remaining DMSP satellites, F-17 through F-20, are all manifested to launch on an Evolved Expendable Launch Vehicle (EELV) booster. The Spacecraft Integration & Test (SIT) contract award for spacecraft support will be issued in 3QFY02. The Independent Varification & Validation contract award for test flight software will be issued in 4QFY02. (U) <u>FY 2001 (\$ in Thousands)</u> (U) \$11,467 Continued system integration and test, and related support activities (U) \$1,191 Completed Titan II integration effort (U) \$3,601 Continued EELV interface design (transition to EELV) (U) \$1,701 Completed integration studies and test analysis to retrofit DMSP satellites with solid state recorders (SSRs) (U) \$4,169 DMSP Block 5D3 Sensor calibration and validation (previously SSMIS Cal/Val and a portion of continue system integration and test, and related support activities) (U) \$22,129 Total									
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(U) **A. Mission Description Continued**(U) FY 2002 (\$ in Thousands)

(U) \$8,064 Continue system integration and test, and related support activities

(U) \$342 Continue EELV interface design (transition to EELV)

(U) \$3,465 Continue 5D3 Sensor calibration and validation (previously SSMIS Cal/Val and a portion of continue system integration and test, and related support activities)

(U) \$11,871 Total

(U) FY 2003 (\$ in Thousands)

(U) \$1,921 Continue system integration and test, studies, and related support activities

(U) \$283 Complete EELV interface design (transition to EELV)

(U) \$1,671 Continue 5D3 Sensor calibration and validation (previously SSMIS Cal/Val and a portion of continue system integration and test, and related support activities)

(U) \$3,875 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 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Total Cost</u>
(U) Previous President's Budget	25,139	12,259	7,892	936,598
(U) Appropriated Value	25,372	12,259		
(U) Adjustments to Appropriated Value				
a. Congressional/General Reductions	-178	-388		
b. Small Business Innovative Research	-786			
c. Omnibus or Other Above Threshold Reprogram				
d. Below Threshold Reprogram	-2,224			
e. Rescissions	-55			
(U) Adjustments to Budget Years Since FY 2002 PBR			-4,017	-32,260
(U) Current Budget Submit/FY 2003 PBR	22,129	11,871	3,875	904,338

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

(U) **Significant Program Changes:**
 Funding: FY03 funds Zero Balance Transferred from RDT&E to Missile Procurement (Project 674758) for DMSP program management support.

Schedule: Next satellite launch (F-16) scheduled TBD.

Technical: None

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

	<u>FY 2001</u>	<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>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>Complete</u>	
(U) AF RDT&E									
(U) Other APPN									
(U) Missile Procurement/PE	70,888	45,668	60,051	61,776	57,442	52,393	53,972	77,201	2,446,485

0305160F (Budget Activity 5,
Line Item P-27)

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)

(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 remaining DMSP satellites to be launched has been completed. The program is focused on successful completion of current contracts, award of follow-on Spacecraft Integration & Test and Independent Verification & Validation contracts, plus contractor support for spacecraft, sensors, and ground systems already procured. Remaining effort is to continue integration of sensors and to successfully launch remaining DMSP satellites.

(U) **F. Schedule Profile**

<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>
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(U) F. Schedule Profile Continued

	<u>FY 2001</u>				<u>FY 2002</u>				<u>FY 2003</u>			
	1	2	3	4	1	2	3	4	1	2	3	4
(U) Tactical Terminal Program funding transferred to AF Weather Agency	*											
(U) F-16 Satellite Launch (Next launch, F-17 planned in Feb 04)						X						
(U) SIT Contract Award							X					
(U) IV&V Contract Award								X				
(U) Completion of EELV interface design										X		
* = Completed event												
X = Planned event												

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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)								DATE February 2002		
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 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>	
(U)	Launch Vehicle Transition				4,792		342		283	
(U)	Spacecraft Integration and Test				6,624		1,790		1,164	
(U)	Sensor Suite Calibration/Validation				4,169		3,465		1,671	
(U)	Algorithm Development				210		0		0	
(U)	Systems Engineering Support*				3,777		3,507		757	
(U)	Program Management Support*				2,557		2,767		0	
(U)	Total				22,129		11,871		3,875	
* Program Management and a portion of Systems Engineering Support transferred to Missile Procurement beginning in FY03.										
(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>Activity</u>		<u>Vehicle</u>		<u>Date</u>		<u>EAC</u>		<u>EAC</u>		<u>to FY 2001</u>
<u>Budget</u>		<u>Budget</u>		<u>Budget</u>		<u>Budget</u>		<u>Budget</u>		<u>Total</u>
<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>		<u>Complete</u>		<u>Program</u>		
<u>Product Development Organizations</u>										
Lockheed -Martin		SS/CPAF		Apr 92		3,764		3,764		3,764
Lockheed-Martin		SS/CPAF		May 97		13,223		13,223		5,015
Northrop-Grummn (CSS&S)		SS/CPAF		May 95		15,772		15,772		5,734
Lockheed-Martin		C/CPAF		Oct 88		39,513		39,513		39,513
Harris (SSMIS/STT SW)		C/CPAF		Jun 94		8,617		8,617		8,617
Det 11/GSA (Mark IVB P3I)		MIPR		Jan 97		2,986		2,986		2,986
Lockheed-Martin (Titan II		SS/CPAF		Oct 98		5,268		5,268		4,077
Msn Unique Studies)										1,191
Boeing (EELV Msn Unique		SS/CPAF		May 00		472		472		472
Studies)										
Boeing (EELV Msn Unique		SS/CPAF		Jul 00		545		545		545
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(U) <u>Performing Organizations Continued:</u>									
<u>Product Development Organizations</u>									
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 & Model + SSMIS)	SS/CPAF	May 98	2,183	2,183	2,183			0	2,183
Raytheon, formerly Hughes (SSMI Spt & Svc)	SS/CPFF	May 96	236	236	236			0	236
AFRL	MIPR/PD	Oct 95			5,214	75	498	0	5,787
NRL	MIPR/Var	Oct 95			9,560	3,261	1,300	1,127	0 15,248
APL	MIPR/Var	Oct 95			3,483	55	270	0	3,808
SMC (Det 3 SSSG/NPOESS)	FCA/MIPR	Dec 95			2,506			0	2,506
Sandia	MIPR/Var	Oct 96			620	200		0	820
NOAA						34		0	34
Other	Various				3,018	1,591	2,165	166	0 6,940
Historical Satellite Blocks	Various				583,786				583,786
<u>Support and Management Organizations</u>									
FFRDC	AF 277	Oct 95			20,500	2,647	1,951	757	3,016 28,871
PRC/BD Systems/TASS	C/CPAF	Aug 95			7,012	1,130	1,556		0 9,698
Program Mgmt					18,131	2,557	2,767		0 23,455
Litigation Support					1,809				0 1,809
Other	Various	Jul 91			1,958				0 1,958
Historical Satellite Blocks	Various				38,530				0 38,530
<u>Test and Evaluation Organizations</u>									
NONE									
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(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>Budget to</u>
<u>Description</u>	<u>Vehicle</u>	<u>Date</u>	<u>Date</u>	<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
<u>Product Development Property</u>								
NONE								
<u>Support and Management Property</u>								
NONE								
<u>Test and Evaluation Property</u>								
NONE								
				<u>Total Prior</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget</u>	<u>Budget to</u>
<u>Subtotals</u>				<u>to FY 2001</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>Complete</u>
Subtotal Product Development				769,838	15,795	5,597	3,118	5,669
Subtotal Support and Management				87,940	6,334	6,274	757	3,016
Subtotal Test and Evaluation								
Total Project				857,778	22,129	11,871	3,875	8,685
								904,338

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