

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE February 1999
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BUDGET ACTIVITY 7 - Operational System Development	PE NUMBER AND TITLE 0305160F Def Meteorological Satellite Prog (Space)	PROJECT 4758
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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
4758 DMSP	12,284	17,397	21,535	25,938	13,960	10,887	11,239	11,519	0	892,798
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 joint-service 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. It provides visible and infrared cloud cover imagery (1/3 nm constant resolution) and other meteorological, oceanographic, and solar-geophysical information. This data is required over the entire earth to support global and theater military operations. 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). Vice President Gore's National Performance Review directed convergence of DMSP with NOAA's weather satellite system. DMSP satellite operations consolidated with NOAA satellite operations at NOAA's Suitland, MD, Satellite Operations Control Center (SOCC) in FY 98.

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

- (U) \$ 10,910 Continued system integration and test, calibration and validation, and related support activities.
- (U) \$ 65 Continued Titan II integration effort (transition from Atlas E due to inventory depletion).
- (U) \$ 265 Small Tactical Terminal (STT-field portable weather terminal) UHF antenna development.
- (U) \$ 1,044 Continued Mark IVB tactical weather terminal software upgrade for the next block of satellites (5D-3)
- (U) \$ 12,284 Total

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

- (U) \$ 13,136 Continue system integration and test, calibration and validation, and related support activities.
- (U) \$ 1,179 Continue Titan II integration effort (transition from Atlas E due to inventory depletion).
- (U) \$ 1,000 Begin EELV interface design (transition to EELV)
- (U) \$ 1,000 Begin Small Tactical Terminal (field portable weather terminal) SSMIS software upgrades.
- (U) \$ 565 Continue Mark IVB tactical weather terminal software upgrade for the next block of satellites (5D-3)
- (U) \$ 517 Identified as a source for SBIR

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<p>– (U) \$ 17,397 Total</p> <p>(U) <u>FY 2000 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> – (U) \$ 13,433 Continue system integration and test, calibration and validation, and related support activities – (U) \$ 1,193 Continue Titan II integration effort (transition from Atlas E due to inventory depletion). – (U) \$ 3,290 Continue EELV interface design (transition to EELV) – (U) \$ 3,036 Continue Small Tactical Terminal (field portable weather terminal) SSMIS software upgrades. – (U) \$ 583 Continue Mark IVB tactical weather terminal software upgrade for the next block of satellites (5D-3) – (U) \$ 21,535 Total <p>(U) <u>FY 2001 (\$ in Thousands):</u></p> <ul style="list-style-type: none"> – (U) \$ 15,402 Continue system integration and test, calibration and validation, and related support activities – (U) \$ 978 Continue Titan II integration effort (transition from Atlas E due to inventory depletion). – (U) \$ 1,060 Continue EELV interface design (transition to EELV) – (U) \$ 7,899 Continue Small Tactical Terminal (field portable weather terminal) SSMIS software upgrades. – (U) \$ 599 Complete Mark IVB tactical weather terminal software upgrade for the next block of satellites (5D-3) – (U) \$ 25,938 Total <p>(U) B. <u>Budget Activity Justification:</u></p> <p>(U) This program is in Budget Activity 7, Operational Systems Development, because it supports the current operational DMSP constellation.</p>		
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BUDGET ACTIVITY 7 - Operational System Development				PE NUMBER AND TITLE 0305160F Def Meteorological Satellite Prog (Space)				PROJECT 4758		
(U) D. <u>Other Program Funding Summary (\$ in Thousands)</u>										
	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>To Compl</u>	<u>Total Cost</u>
(U) Missile Procurement/PE 0305160F (Budget Activity 5, Line Item P-27)	35,183	35,498	38,223	59,203	43,383	53,134	50,559	49,869	54,000	2,030,144
(U) Other Procurement/PE 0305160F (Line Item P-63)	11,945	12,681	1,675	292	195	332	0	393	0	268,308
<u>Related RDT&E:</u>										
(U) PE 0603434F, National Polar Operational Environmental Satellite System (NPOESS)										
(U) PE 0305160N, DMSP (provides funds for Navy unique studies)										
(U) E. <u>Acquisition Strategy</u>										
Support and services contracts for the spacecraft, sensors, ground systems, and supporting software have been awarded to various contractors. Since no major milestone decisions remain, future considerations facing the program center on successful completion of current contracts, and the need for future contractor support of the procured spacecraft, sensors, and ground systems.										
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(U) F. <u>Schedule Profile</u>																
		<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
(U) Small Tactical Terminal Deliveries Complete								X								
(U) 5D-3 Spacecraft Delivery (S16-20)	*	*				X										
(U) 5D-2 Launches (F-15/F-16)								X						X		
(U) Suitland SOC IOC (DMSP Ops)			*													
(U) DMSP SOC (Offutt AFB) Closure				*												
* = Completed event																
X = Planned event																
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE February 1999	
BUDGET ACTIVITY 7 - Operational System Development					PE NUMBER AND TITLE 0305160F Def Meteorological Satellite Prog (Space)					PROJECT 4758	
(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) Launch Vehicle Transition					142	2,578	5,207	3,211			
(U) Spacecraft Integration and Test					2,429	3,345	4,516	4,527			
(U) Calibration/Validation					1,200	84	0	2,000			
(U) Algorithm Development					916	900	752	692			
(U) MARK IVB/STT Enhancements					1,309	2,705	3,619	8,498			
(U) Systems Engineering Support					3,446	4,032	3,559	2,961			
(U) Program Management Support					2,842	3,236	3,882	4,049			
(U) Identified as a source for SBIR					0	517	0	0			
(U) Total					12,284	17,397	21,535	25,938			
(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
Identified as a source for SBIR							517				
<u>Product Development Organization</u>											
Lockheed -Martin	SS/CPAF	Apr 92	3,764	3,764	3,764	0	0	0	0	0	3,764
Lockheed-Martin	SS/CPAF	May 97	11,757	11,757	0	321	1,399	5,014	3,677	1,378	11,789
Northrop-Grummm	SS/CPAF	May 95	2,117	2,117	1,350	265	352	150	0	0	2,117
TBD	TBD	Dec 00			0	0	0		150	600	750
(OLS Sys Eng Spt)											
Lockheed-Martin	C/CPAF	Oct 88	39,513	39,513	39,513	0	0	0	0	0	39,513
Harris	C/CPAF	Jun 94	7,188	7,188	5,286	265	1,140		497	0	7,188
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RDT&E PROGRAM ELEMENT/PROJECT COST BREAKDOWN (R-3)										DATE February 1999	
BUDGET ACTIVITY 7 - Operational System Development					PE NUMBER AND TITLE 0305160F Def Meteorological Satellite Prog (Space)					PROJECT 4758	
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
SSSG/Det II	MIPR	Jan 97	4,168	4,168	1,377	1,044	565	583	599	0	4,168
SMC/CL (Titan)	PO	Oct 94	5,171	5,171	1,756	65	1,179	1,193	978	0	5,171
Aerojet	SS/CPAF	May 92	2,530	2,530	2,530	0	0	0	0	0	2,530
Aerojet	C/CPAF/FFP	Mar 89	85,979	85,979	85,979	0	0	0	0	0	85,979
Aerojet	SS/CPAF	May 98	6,448	6,448	0	786	1,136	1,289	1,121	2,116	6,448
Hughes	SS/CPFF	May 96	371	371	87	70	70	72	72	0	371
Phillips Lab	MIPR/PD	Oct 95			3,621	434	570	316	2,242	Cont	Cont
TBD (STT S/W Upgrades)	TBD	TBD			0	0	1,000	3,036	7,402	1,205	12,643
NRL	MIPR/Various	Oct 95			3,055	2,176	1,306	1,628	1,526	Cont	Cont
APL	MIPR/Various	Oct 95			1,478	376	770	813	664	Cont	Cont
SMC (Det 3 SSSG/NPOESS)	FCA/MIPR	Dec 95			2,506	0	0	0	0	0	2,506
Sandia	MIPR/Various	Oct 96			200	0	0	0	0	Cont	Cont
Other	Various				2,149	194	125	0	0	Cont	Cont
<u>Support and Management Organizations</u>											
FFRDC	MORD*	Oct 95			10,900	2,140	2,762	2,822	2,208	Cont	Cont
PRC/bd Systems	C/CPAF	Aug 95			3,216	1,306	1,270	737	753	Cont	Cont
Program Mgmt					9,721	2,842	3,236	3,882	4,049	Cont	Cont
Litigation Support					1,809	0	0	0	0	0	1,809
Other	Various	Jul 91			1,958	0	0	0	0	0	1,958
*MORD - Miscellaneous Obligation/Reimbursement Document -a vehicle/method for committing and obligating funds. In this case the program office sends a letter to SMC/FM to commit & obligate the funds programmed for Aerospace support.											
<u>Test and Evaluation Organizations</u>											
Not Applicable.											
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BUDGET ACTIVITY		PE NUMBER AND TITLE				PROJECT		
7 - Operational System Development		0305160F Def Meteorological Satellite Prog (Space)				4758		
(U) B. <u>Budget Acquisition History and Planning Information Continued (\$ in Thousands)</u>								
Government Furnished Property: Not Applicable.								
		Total Prior to						
		<u>FY 1998</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	Budget to <u>Complete</u>	Total <u>Program</u>
Identified as a source for SBIR				517				
Subtotal Product Development	154,651	5,996	9,612	14,094	18,928	Cont	Cont	
Subtotal Support and Management	27,604	6,288	7,268	7,441	7,010	Cont	Cont	
Subtotal Test and Evaluation	0	0	0	0	0	0	0	
Project Total	182,255	12,284	17,397	21,535	25,938	Cont	Cont	
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