

UNCLASSIFIED

PE NUMBER: 0604479F
 PE TITLE: MILSTAR LDR/MDR Sat Comm

Exhibit R-2, RDT&E Budget Item Justification								DATE February 2004	
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604479F MILSTAR LDR/MDR Sat Comm					
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	148.291	1.367	1.380	0.000	0.000	0.000	0.000	0.000	9,703.837
5010 Milstar Sat Comm Sys	148.291	1.367	1.380	0.000	0.000	0.000	0.000	0.000	9,703.837

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

Milstar is a joint service program to develop and acquire Extremely High Frequency (EHF) satellites; a satellite mission control segment; and new or modified Army, Navy, and Air Force communication terminals for survivable, jam-resistant, worldwide, secure communications to strategic and tactical war fighters. Milstar I Satellites 1 and 2 have a low data rate (LDR) payload that supports strategic and tactical forces with emphasis on highly survivable, minimum essential communications. Milstar II Satellites 3 through 6 have both LDR and medium data rate (MDR) payloads with increased tactical capabilities, including higher data rates to mobile forces and nulling that will neutralize close-in enemy jammers. Satellite 3 did not reach its proper orbit and the satellite was placed in its final non-interference orbit and shutdown. Milstar satellites 4 and 5 were launched successfully in 2001 and 2002, respectively. The final Milstar satellite was successfully launched on 8 Apr 2003 and was declared operational in Dec 2003. Milstar Terminals are funded under Program Element 0303601F. This program is in Budget Activity 5, System Development and Demonstration since it funds Milstar II development.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	148.795	1.383	1.384
(U) Current PBR/President's Budget	148.291	1.367	1.380
(U) Total Adjustments	-0.504	-0.016	
(U) Congressional Program Reductions		-0.016	
Congressional Rescissions			
Congressional Increases			
Reprogrammings	-0.504		
SBIR/STTR Transfer			
(U) <u>Significant Program Changes:</u>			
None.			

Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604479F MILSTAR LDR/MDR Sat Comm			PROJECT NUMBER AND TITLE 5010 Milstar Sat Comm Sys			
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	
5010 Milstar Sat Comm Sys	148.291	1.367	1.380	0.000	0.000	0.000	0.000	0.000	9,703.837	
Quantity of RDT&E Articles	1	0	0	0	0	0	0			

(U) A. Mission Description and Budget Item Justification

Milstar is a joint service program to develop and acquire Extremely High Frequency (EHF) satellites; a satellite mission control segment; and new or modified Army, Navy, and Air Force communication terminals for survivable, jam-resistant, worldwide, secure communications to strategic and tactical war fighters. Milstar I Satellites 1 and 2 have a low data rate (LDR) payload that supports strategic and tactical forces with emphasis on highly survivable, minimum essential communications. Milstar II Satellites 3 through 6 have both LDR and medium data rate (MDR) payloads with increased tactical capabilities, including higher data rates to mobile forces and nulling that will neutralize close-in enemy jammers. Satellite 3 did not reach its proper orbit and the satellite was placed in its final non-interference orbit and shutdown. Milstar satellites 4 and 5 were launched successfully in 2001 and 2002, respectively. The final Milstar satellite was successfully launched on 8 Apr 2003 and was declared operational in Dec 2003. Milstar Terminals are funded under Program Element 0303601F.

This program is in Budget Activity 5, System Development and Demonstration since it funds Milstar II development.

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Completed Milstar II contract effort includes Satellite 6 launch and on-orbit checkout and testing. Also completed component integration support (including Mission Control System service life extension) and implementation of ECPs as operationally required. Conducted Milstar MOT&E to meet IOC II.	59.443		
(U) Completed Milstar I/II Satellite Engineering contract effort includes launch/ pre-launch technical support for Satellite and maintains constellation availability for Satellites 1, 2, 4, 5 and 6. The constellation's increasing complexities in code and amounts of processors drives the importance of maintaining this line item. Note: This effort transitioned to 3400 in FY04.	60.656		
(U) Completed Communications Planning Element included software development and maintenance. -- Automated Communications Management System (ACMS) development, testing, training and certification -- Mission Communications Planning Tool (MCPT) maintenance	9.531		
(U) Continued Joint Integrated SATCOM Technology (JIST) development	5.392		
(U) Program Office Support	13.269	0.072	0.080
(U) Complete Milstar II contract effort which includes contract close out and the disposal of GFP		1.295	1.300
(U) Total Cost	148.291	1.367	1.380

Exhibit R-2a, RDT&E Project Justification

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BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

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Comm

PROJECT NUMBER AND TITLE

5010 Milstar Sat Comm Sys

(U) C. Other Program Funding Summary (\$ in Millions)(U) D. Acquisition Strategy

Lockheed Martin was awarded a sole source contract to develop 6 Milstar protected communication satellites. The first two LDR satellites were launched in FY94 and FY95. Satellite 3 launch in FY99 was to provide the first LDR/MDR on-orbit capability, but the satellite did not reach its proper orbit due to a Centaur upper stage failure. Satellites 4 and 5 were launched successfully in 2001 and 2002, respectively. The last LDR/MDR Satellite 6 was successfully launched on 8 April 2003.

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Exhibit R-3, RDT&E Project Cost Analysis										DATE February 2004		
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604479F MILSTAR LDR/MDR Sat Comm				PROJECT NUMBER AND TITLE 5010 Milstar Sat Comm Sys				
(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2003 Cost</u>	<u>FY 2003 Cost</u>	<u>FY 2003 Award Date</u>	<u>FY 2004 Cost</u>	<u>FY 2004 Award Date</u>	<u>FY 2005 Cost</u>	<u>FY 2005 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>												
LMSC (Milstar I) Sats 1,2,3L]	C/CPAF		4,727.752							0.000	4,727.752	
LMSC (Milstar II) [Sats 3M, 4, 5, 6]	SS/CPAF		3,812.703	59.443		1.295		1.300		0.000	3,874.741	
LMSC (Satellite Engineering)	SS/CPAF		161.467	60.656						0.000	222.123	
SPAWAR(ACMS)	SS/MIPR		165.406							0.000	165.406	
LINCOM	SS/CPAF		37.160							0.000	37.160	
Lincoln Lab	SS/MIPR		33.235							0.000	33.235	
Miscellaneous	Various		257.982	14.923						0.000	272.905	
Subtotal Product Development			9,195.705	135.022		1.295		1.300		0.000	9,333.322	0.000
Remarks:												
(U) <u>Support</u>												
Aerospace	SS/CPFF/AF		196.269							0.000	196.269	
Miscellaneous	Various		160.825	13.269		0.072		0.080		0.000	174.246	
Subtotal Support			357.094	13.269		0.072		0.080		0.000	370.515	0.000
Remarks:												
(U) <u>Test & Evaluation</u>												
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>												
None.											0.000	
Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
Remarks:												
(U) Total Cost			9,552.799	148.291		1.367		1.380		0.000	9,703.837	0.000

Exhibit R-4, RDT&E Schedule Profile

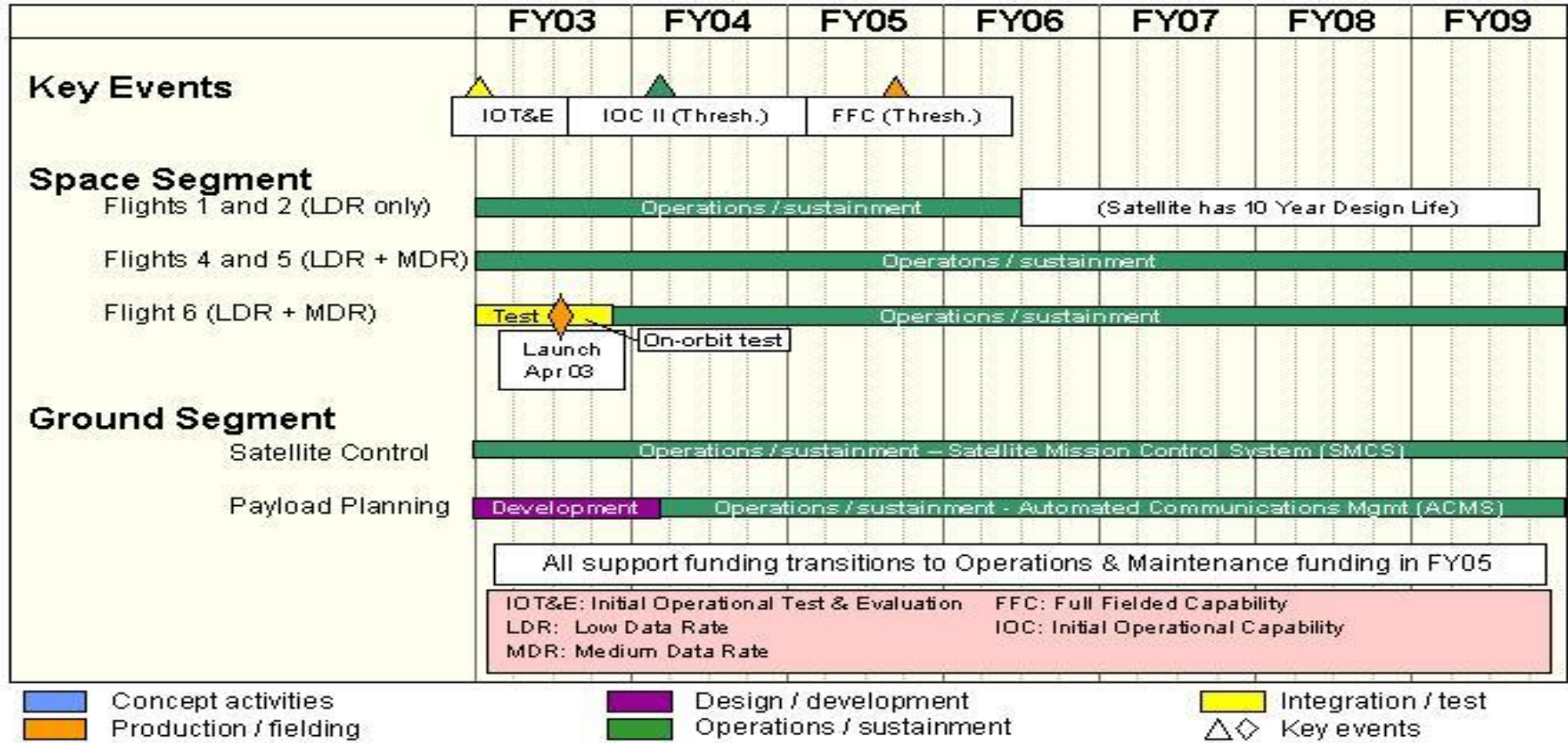
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Exhibit R-4a, RDT&E Schedule Detail		DATE February 2004
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(U) <u>Schedule Profile</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Satellite 6 Launch	3Q		
(U) Initial Operational Capability (IOC) II		1Q	
(U) Full Fielded Capability (replaced Final Operational Capability in current APB)			3Q