

UNCLASSIFIED

PE NUMBER: 0604853F

PE TITLE: Evolved Expendable Launch Vehicle - EMD

Exhibit R-2, RDT&E Budget Item Justification	DATE February 2007
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BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604853F Evolved Expendable Launch Vehicle - EMD
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Cost (\$ in Millions)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	19.050	19.738	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,411.269
0004 Evolved Expendable Launch Vehicle	19.050	19.738	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,411.269

(U) A. Mission Description and Budget Item Justification

The Evolved Expendable Launch Vehicle (EELV) program is a space launch system developed with industry to provide two families of launch vehicles (Delta IV & Atlas V). The program satisfies the government's National Launch Forecast (NLF) requirements and reduces the cost of space launch by at least 25%.

EELV is a launch service, not a weapon system, which is primarily funded with production funds. The program has developmental items including: assured access (RL-10 producibility, etc.); a Global Positioning System (GPS) Metric Tracking capability for obtaining real-time booster position data during flight; special studies, and other related support activities.

The EELV system provides two families of launch vehicles (Delta IV and Atlas V). EELV is responsible for launching government manifested payloads, including those once supported by Titan II, Delta II, Atlas II/III, and Titan IV. Evolved from heritage expendable launch systems and new applications of existing technology, EELV supports military, intelligence, civil, and commercial mission requirements.

This program element is in Budget Activity 5, System Development and Demonstration, because it supports development and demonstration of the EELV concept leading to deployment of a lower cost expendable launch vehicle system.

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Previous President's Budget	25.721	18.513		
(U) Current PBR/President's Budget	19.050	19.738	0.000	0.000
(U) Total Adjustments	-6.671	1.225		
(U) Congressional Program Reductions		-0.075		
Congressional Rescissions				
Congressional Increases		1.300		
Reprogrammings	-5.145			
SBIR/STTR Transfer	-1.526			

(U) Significant Program Changes:

FY06: Reprogrammed for higher AF priorities.

UNCLASSIFIED

Exhibit R-2a, RDT&E Project Justification

DATE
February 2007

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0004 Evolved Expendable Launch Vehicle	19.050	19.738	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,411.269
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) A. Mission Description and Budget Item Justification

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) Continue GPS Metric Tracking Booster Capability Integration	3.142	8.458		
(U) SPO Support	1.908	1.280		
(U) Assured Access initiatives	14.000	10.000		
(U) Total Cost	19.050	19.738	0.000	0.000

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

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>Cost to Complete</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>								
(U) Other APPN										
(U) MPAF (BA 05, PE 0305953F, P-28)*	613.173	852.055	1166.591	1066.874	1012.319	1029.275	1458.348	1286.336	14,175.686	24,222.226

* The Cost To Complete value is an estimate based on 95 AF launches in the current manifest, FY 2002-2020.

In June 2006, the Department of Justice (DOJ) reached a global settlement with Boeing for improprieties regarding NASA contracts for Delta II rockets, Procurement Integrity Act (PIA) violations in the Delta IV program, and hiring misconducts. A portion of the Settlement was credited against the EELV program, freeing up FY06

Exhibit R-2a, RDT&E Project Justification

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February 2007

BUDGET ACTIVITY

05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE

**0604853F Evolved Expendable
Launch Vehicle - EMD**

PROJECT NUMBER AND TITLE

**0004 Evolved Expendable Launch
Vehicle****(U) C. Other Program Funding Summary (\$ in Millions)**

appropriated dollars for other Air Force priorities. Although the budget documents now show a lesser amount due to the PIA adjustments, the EELV FY06 requirement remains at \$613M (post-FY07 rescissions and FY07 Omnibus sourcing).

(U) D. Acquisition Strategy

The EELV concept of families of launch vehicles emphasizes commonality of hardware and infrastructure to enhance production, operations, and support efficiencies. Four initial contracts were awarded for the Low Cost Concept Validation (LCCV) phase in August 1995. The Air Force downselected to two contractors - The Boeing Company (TBC) and Lockheed Martin (LM) - for the Pre-Engineering and Manufacturing Development (Pre-EMD) phase in December 1996. On 16 Oct 1998, two \$500M Other Transaction Agreements (OTA) were awarded to TBC and LM for the development effort. The contractors have contributed additional funds of their own, as necessary, to bring their national launch operational capability on line. It is estimated that each contractor has invested in excess of \$1.5B. At the same time as the award of the development effort, Initial Launch Services (ILS) contracts were awarded to Boeing for \$1.38B (19 missions) and to Lockheed Martin for \$649M (9 missions).

On 18 Sep 2000, a revised acquisition strategy was reviewed by the DEPSECDEF and signed by the Under Secretary of Defense (Acquisition, Technology & Logistics). Under the revised strategy, only TBC would develop a Vandenberg AFB launch facility. LM transferred two West Coast Defense Meteorological Satellite Program (DMSP) missions to TBC and provided the government additional consideration. Furthermore, the program restructure included the procurement of a SECAF-directed heavy lift demonstration launch to increase confidence in the Delta IV Heavy Lift Vehicle (HLV) prior to the first operational government HLV launch.

On 24 Jul 2003, the investigation into Procurement Integrity Act violations by TBC resulted in transferring seven ILS missions from TBC to LM. In addition, TBC's exclusive right to west coast missions was rescinded. LM has developed a Vandenberg AFB launch facility that was completed in CY05.

All of the ILS (Buy 1/awarded) launch services are firm-fixed price contracts. Due to the decrease in the commercial market, the projected costs of the unawarded EELV launches have increased. The new acquisition strategy, implemented in FY06, separates the launch service price from the infrastructure costs. Follow-on (Buy 3) Launch Service procurements will include launch service costs on a fixed-price contract. EELV Launch Capability infrastructure costs, includes launch and range operations, mission integration, mission unique development and integration, subcontract support engineering, factory engineering, etc., are funded on an annual basis. The 2005 Space System Acquisition Strategy (SSAS) for EELV documents this modified approach to provide assured access to space with two viable launch vehicle families.

The acquisition approach supports the 2004 National Space Transportation Policy, caps the government's development costs, and allows partnership with industry, while still reducing the program's overall cost to launch the NLF by at least 25% over legacy systems. The EELV system will launch the majority of the government portion of the NLF through 2020 and the government will continue to work to partner with industry to continuously improve products and processes to enhance reliability and reduce both the contractors' and government's total costs.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2007

BUDGET ACTIVITY			PE NUMBER AND TITLE								PROJECT NUMBER AND TITLE			
05 System Development and Demonstration (SDD)			0604853F Evolved Expendable Launch Vehicle - EMD								0004 Evolved Expendable Launch Vehicle			
(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 2006 Cost</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>														
Prime Contractor Boeing	OTA/ILS		688.412	8.571	Nov-05	9.229	Nov-06						706.212	
Prime Contractor Lockheed Martin	OTA/ILS		561.282	8.571	Nov-05	9.229	Nov-06						579.082	
Subtotal Product Development			1,249.694	17.142		18.458		0.000		0.000		0.000	1,285.294	0.000
Remarks:														
(U) <u>Support</u>														
SPO/CTF Range Mission Spt	Various		40.429	1.908		1.280							43.617	
FFRDC	SS/CPAF		67.214										67.214	
Other Cntr Spt	Various		15.144										15.144	
Subtotal Support			122.787	1.908		1.280		0.000		0.000		0.000	125.975	0.000
Remarks:														
(U) <u>Test & Evaluation</u>														
Subtotal Test & Evaluation			0.000	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	0.000
Remarks:														
(U) Total Cost			1,372.481	19.050		19.738		0.000		0.000		0.000	1,411.269	0.000

Exhibit R-4, RDT&E Schedule Profile

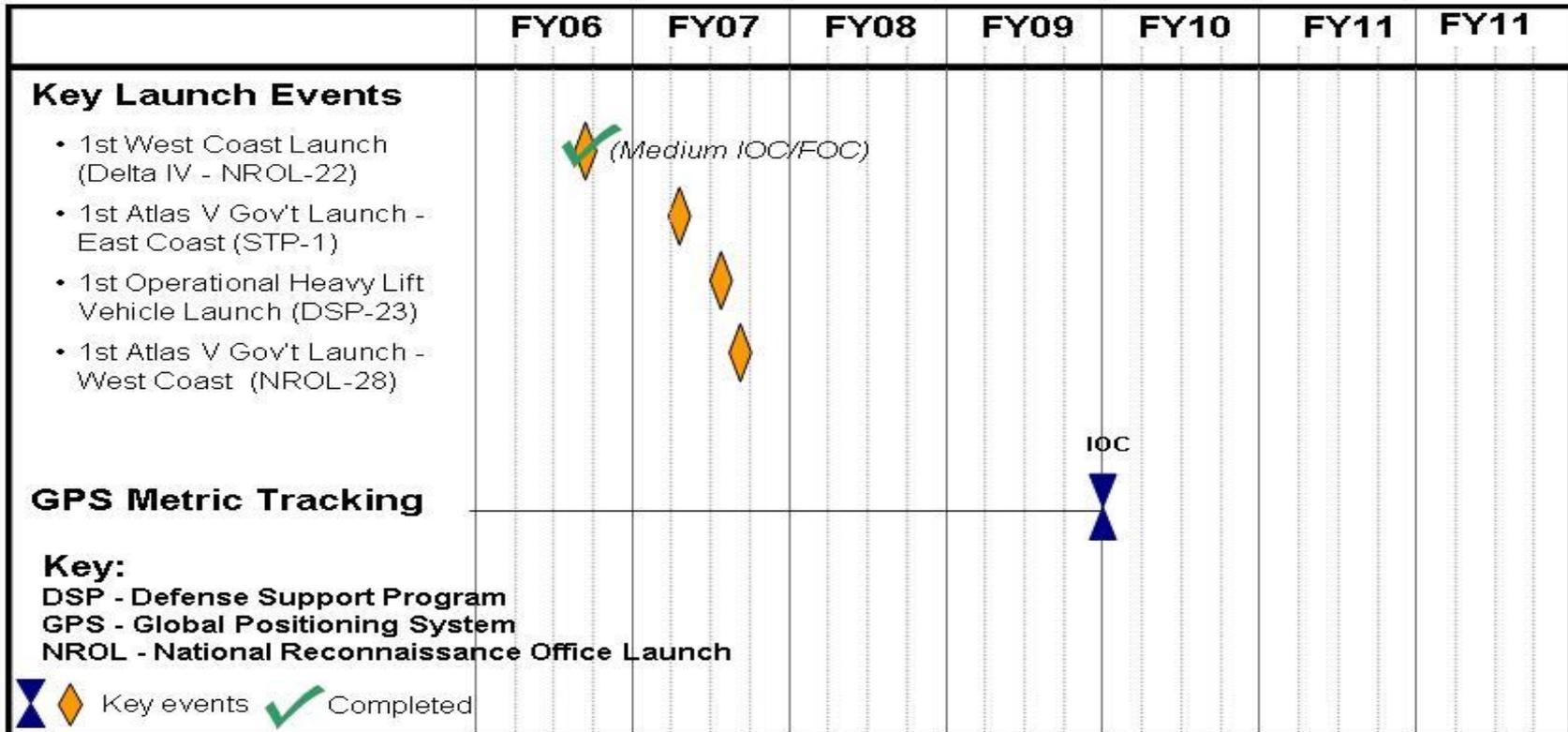
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BUDGET ACTIVITY
05 System Development and Demonstration (SDD)

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PROJECT NUMBER AND TITLE
0004 Evolved Expendable Launch
Vehicle

EELV Program - Key Events



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Exhibit R-4a, RDT&E Schedule Detail	DATE February 2007
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(U) <u>Schedule Profile</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
(U) GPS Metric Tracking Project Planning & Requirements Integration	1-4Q	1-4Q	1-4Q	1-3Q
(U) GPS Metric Tracking Initial Operational Capability				4Q
(U) 1st West Coast Launch of Delta IV (NROL-22)	3Q			
(U) 1st Government East Coast Launch of Atlas V (STP-1)		2Q		
(U) 1st Government Operational HLV Launch (DSP-23)		3Q		
(U) 1st West Coast Launch of Atlas V (NROL-28)		3Q		