

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

February 2002

BUDGET ACTIVITY
5 - Engineering and manufacturing development

PE NUMBER AND TITLE
0604642A - LIGHT TACTICAL WHEELED VEHICLES

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
Total Program Element (PE) Cost	9171	2501	7877	5049	4109	2491	1690	0	39524
E40 LTV PROTOTYPE	6931	2501	7877	5049	4109	0	0	0	32823
E46 HMMWV RECAP	2240	0	0	0	0	0	0	0	2520
E57 LIGHT TACTICAL TRAILER	0	0	0	0	0	2491	1690	0	4181

A. Mission Description and Budget Item Justification: This Program Element supports all Light Tactical Wheeled Vehicles such as the High Mobility Multi-Purpose Wheeled Vehicle (HMMWV), Hybrid Electric HMMWV, and the Light Tactical Vehicle Trailers. In FY 2003, this Program Element funds the RDT&E efforts for a Block Improvement Program through technology integration into the HMMWV and the Hybrid Electric HMMWV. This project supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

<u>B. Program Change Summary</u>	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2002 PB)	9802	2523	5896
Appropriated Value	9893	2523	0
Adjustments to Appropriated Value	0	0	0
a. Congressional General Reductions	0	-22	0
b. SBIR / STTR	-291	0	0
c. Omnibus or Other Above Threshold Reductions	0	0	0
d. Below Threshold Reprogramming	-341	0	0
e. Rescissions	-90	0	0
Adjustments to Budget Years Since FY2002 PB	0	0	1981
Current Budget Submit (FY 2003 PB)	9171	2501	7877

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FY 2003 - Funding added to support HMMWV modernization development.

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BUDGET ACTIVITY 5 - Engineering and manufacturing development	PE NUMBER AND TITLE 0604642A - LIGHT TACTICAL WHEELED VEHICLES	PROJECT E40
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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
E40 LTV PROTOTYPE	6931	2501	7877	5049	4109	0	0	0	32823

A. Mission Description and Budget Item Justification: The HMMWV is a lightweight, high performance, four-wheel drive, air transportable and air droppable, high mobility tactical wheeled vehicle. The HMMWV consists of a basic design with several variants including Cargo/Utility, Armament Carrier, Ambulance, Shelter Carrier and Armored Armament Carrier. FY 2003 funds HMMWV modernization efforts as well as the development of a Hybrid Electric (HE) HMMWV. The modernization effort leverages advancement in commercial and military truck technology for insertion into the HMMWV. This effort will address changes to the Federal Motor Vehicle Safety Standards (FMVSS), including changes to environmental requirements for the engine. New commercial technology, combined with greater achievement of user requirements, will result in an improved HMMWV. Testing for the HMMWV Modernization Program will include improvements to the vehicle's Reliability and Maintainability (RAM), environmental, transportability, and automotive. The Hybrid Electric (HE) HMMWV is an Army initiative to reduce vehicle Operation and Sustainment (O&S) costs, fuel consumption, and the logistical footprint while providing the opportunity for enhanced electric power and silent watch operation. This initiative has a potential savings of 30% in O&S costs alone. Joint Surveillance Target Attack Radar System (JSTARS), STRIKER, Theater High Altitude Area Defense (THAAD), SENTINEL, and Line-Of-Sight Anti-tank (LOSAT) Program Managers (PM) are potential users of the HE HMMWV. The HE HMMWV has been identified as an enabler to support Tactical Operation Center (TOC) transformation. HMMWV supports the Legacy-to-Objective transition path of the Transformation Campaign Plan (TCP).

FY 2001 Accomplishments:

- 6320 HMMWV Modernization Development Contract
- 111 Support Costs (Engineering/Quality/Matrix Support)
- 500 Test Planning - HMMWV Modernization

Total 6931

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PROJECT

E40

FY 2002 Planned Program

- 708 HMMWV Modernization Development Contract
- 450 Develop and begin assembly of up to five prototype vehicles - HMMWV Modernization
- 540 Support Costs (Engineering/Quality/Matrix Support)
- 803 HE HMMWV Development Test

Total 2501

FY 2003 Planned Program

- 800 HMMWV Modernization Development Contract
- 1200 Assemble and test up to ten prototype vehicles - HMMWV Modernization
- 4800 Competitive Contract Award for HE HMMWV
- 500 Test up to eight HE HMMWV's (part of Source Selection)
- 577 Support Costs (Engineering/Quality/Matrix Support)

Total 7877

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B. Other Program Funding Summary	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
OPA1 Hi Mob Multi-Purp Whld Veh (D15400)	134582	148780	196783	204330	201387	291266	506830	Continuing	Continuing

C. Acquisition Strategy: The acquisition strategy for the HMMWV Modernization Program is to award a block improvement engineering change proposal award to the production contract.

Strategy for the Hybrid Electric HMMWV is to award a competitive development contract.

D. Schedule Profile	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Test & Evaluation - HMMWV Modernization			2Q				
Award Production Contract - HMMWV Modernization				1Q			
Award HE HMMWV Competitive Development Contract			3Q				
Competitive Run-off Testing - HE HMMWV for Source Selection			3Q				

ARMY RDT&E COST ANALYSIS(R-3)

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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Development Contract - HMMWV Modernization	SS/CPFF	AM General, Mishawaka, IN	5922	6320	2Q	708	3Q	800	2Q	0	13750	13750
b . Engineering Support - HMMWV Modernization	N/A	AMSAA, APG, MD	67	0		0		0		0	67	67
c . Engineering Support - HMMWV Modernization	N/A	WES, Vicksburg, MS	117	0		0		0		0	117	117
d . In-House Engineering (TACOM)	N/A	TACOM, Warren, MI	0	111	2-4Q	540	2-4Q	577	1-4Q	676	1904	1904
e . Competitive Development Contract - HE HMMWV	C/CPFF	TACOM, Warren, MI	0	0		0		4800	3Q	5500	10300	10300
Subtotal:			6106	6431		1248		6177		6176	26138	26138

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II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		0		0		0	0	0

Remarks: Not applicable

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Developmental Testing - HMMWV Modernization	N/A	ATC, Aberdeen, MD	250	500	4Q	450	4Q	1200	1Q	0	2400	2400
b . Developmental Testing - HE HMMWV	N/A	ATC, Aberdeen, MD	0	0		803	3Q	0		0	803	803
c . Competitive Runoff Testing - HE HMMWV	N/A	ATC, Aberdeen, MD	0	0		0		500	2Q	2982	3482	3482
Subtotal:			250	500		1253		1700		2982	6685	6685

Remarks: Testing will include Reliability and Maintainability (RAM), environmental, transportability, and automotive testing.

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IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
			0	0		0		0		0	0	0
Subtotal:												

Remarks: Not applicable

Project Total Cost:			6356	6931		2501		7877		9158	32823	32823
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