

High Mobility Multipurpose Wheeled Vehicle (HMMWV)
Recapitalization Performance Plan and Agreement
Current as of: March 24, 2003

The purpose of this document is to create a Performance Plan and Agreement (PPA) between the Office of the Project Manager, Light Tactical Vehicles, (PM LTV); U.S. Army Training and Doctrine Command; U.S. Army Forces Command (FORSCOM); U.S. Army Materiel Command (AMC); and the Office of the Assistant Secretary of the Army for Acquisition, Logistics and Technology, (ASA(ALT)); regarding the recapitalization (Recap) effort of the Army HMMWV.

The HMMWV remains the world standard in light military trucks. It is a lightweight, high performance, four-wheel drive, air transportable and droppable, land mobility system. It is employed across the breadth and depth of the battlefield, over terrain demanding maximum off-road mobility. The HMMWV mission is to provide a light tactical wheeled vehicle for command and control, troop transport, light cargo transport, shelter carrier, ambulance, towed weapons prime mover, and weapons platform missions throughout all areas of the battlefield or mission. The Army HMMWV family includes the following variants:

- a. M998/M1038 open-topped cargo/troop carrier
- b. M1025/M1026 armament carrier capable of mounting an M2 .50-caliber heavy machine-gun, an M60 7.62 mm light machine gun, or an Mk-19 40mm grenade launcher.
- c. M966 TOW-2 missile carrier
- d. M996 mini-ambulance, and M997 maxi-ambulance
- e. M1037 shelter carrier
- f. M1097 Heavy HMMWV, which may be armored against small-arms fire
- g. M1113 Expanded Capacity Vehicle (ECV)
- h. M1114 ECV Up-Armored Vehicle

The Army has a requirement to recapitalize its aging HMMWV fleet. High operations tempo, heavy payloads, and cross-country operations have led to excessive wear, and/or corrosion on these vehicles. This requirement will be met through a focused Recap effort.

The approved program will address the oldest vehicles in the HMMWV fleet through an overhaul of the engine and drivetrain and focused component inspect, repair, and replace effort. The result of this focused Recap effort will be a vehicle with an extended service life that is like new in appearance and performance. Recapitalized vehicles will not be as mission capable as new production vehicles since they will not possess the payload, fuel efficiency, and towed load improvements found on current model production vehicles. The primary vehicles targeted to undergo recapitalization are cargo carriers (M998/1038) and armament carriers (M1025/M1026) built between 1985 and 1990. Priority will go to the units in the Counterattack Corps as designated by the Department of the Office of the Deputy Chief of Staff, G-8.

This Recap approach was developed as a result of several General Officer Working Groups, which analyzed and accepted the risks associated with not meeting the Army Recapitalization standard of a "zero time/zero miles" system. The resulting Focused Recap effort will increase readiness and reduce Operation and Sustainment costs thus extending the vehicles useful service life by approximately 10 years. Teardown and overhaul all major assemblies per the scope of work, as well as the application of all open Modification Work Orders will accomplish these objectives. Major assembly overhaul will be in accordance with National Maintenance Work Requirement (NMWR) documents. The NMWRs require mandatory replacement of selected components while providing technical procedures/standards utilized by all Army repairing activities. Vehicles will also be upgraded with radial tires, run-flat inserts, engine electrical starting box, and a 200-amp alternator. Remaining vehicle components/items not covered by NMWRs or included on the mandatory replacement list will be inspected and repaired/replaced if necessary in accordance with existing Technical Manual and Original Equipment Manufacturer (OEM) documentation. Each recapitalized vehicle will undergo a complete annual inspection, oil analysis, and 50-mile road test as part of the government acceptance process. This extensive inspection effort will be sufficient to ensure the quality and safety of the end product. Consequently, the program is not funded to support formal production verification testing, and none is planned.

Performance based measurements will be used to track program success and will form the basis for higher-level tracking. These measurements will allow the Army to gauge benefits of the HMMWV Recapitalization Program. The Army Materiel Systems Analysis Activity (AMSAA) supports the PM HMMWV with data and data analysis using Sample Data Collection (SDC) for tracking replacement data on the top cost and readiness drivers (See approved parts configuration). The AMSAA is also identified as the independent evaluator for recap performance. Contact Maintenance Buttons will be used to facilitate that

effort. These buttons will allow AMSAA data collectors to track the maintenance history of the engine, transmission, transfer, and differentials as if they were serial numbered items. The Business Process Improvement Directorate (BPI) will validate the projected performance of components utilizing SDC data, providing a basis for calculating the total cost savings. The Deputy Assistant Secretary of the Army (Cost and Economics) (DASA (CE)) will review cost and economic analysis of Recap efforts that have been validated and accepted by the Major Command (MACOM) and Major Subordinate Command cost analysis organizations and perform independent evaluations and analysis when applicable.

Baseline Performance Metrics:

The Army leadership will track metrics to measure the effectiveness of the HMMWV Focused Recapitalization Program. The macro level metrics were formulated to be flexible and efficient performance measures. The AMSAA will exercise the process used to collect supporting empirical data at appropriate times to ensure all data elements required for the calculations are available.

Approved Parts Configurations:

The HMMWV Recapitalization Program is focused on the top cost and readiness drivers shown in Table One. These drivers were determined from Operating and Support Management Information System data. The Mean Units Between Replacement (MUBRs) estimates were provided by AMSAA based on the results of five years of SDC Bosnia and Kuwait.

Nomenclature	Stock Number	MUBR (miles)	New	Overhaul	IROAN	RECAP Tracked	IRR*
Operations & Support Cost Drivers:							
Engine	2815-01-406-6675	88,312		X		X	
Tires	2610-01-333-7632	29,709	X				
Differential	2520-01-291-2975	110,663	X	X		X	
Distribution Box (Engine Electric Starter System)	6110-01-463-9260	8,480	X				
Generator-200 Amp	2920-01-430-9968	20,499	X				
Transfer (Model 218)	2520-01-163-4999	134,308		X		X	
Battery	6140-01-446-9498	14,690	X			X	
Fuel Pump	2910-01-326-9221	75,401			X	X	X
Idler Arm	2530-01-249-1577	37,811			X	X	X
Readiness Drivers:							
Engine	0281-50-140-6675	88,312		X			
Starter	2920-01-168-7891	31,371			X		X
Generator	2920-01-420-9968	20,499	X				
Power Steering Pump	2530-01-460-2439	95,508			X		X
Radiator	2930-01-405-9885	157,239			X	X	X
Grooved Pulley	3020-01-198-0633	47,229			X		X
Transfer (Model 218)	2520-01-163-4999	134,308		X			
Wheel Spindle (Front)	2530-01-203-5746	100,731			X		X
Wheel Spindle (Rear)	2530-01-203-5746	100,731			X		X
Fan Shroud	2930-01-317-5358	103,149			X		X
Other Items:							
Transmission	2520-01-161-2136	117,390		X		X	

* Inspect, Repair, or Replace

Table 1 Top Cost and Readiness Drivers

All signatories agree to the following:

- a. This is a living document and is current as of March 24, 2003. Any changes to the PPA will be coordinated with all parties concerned.
- b. The Methods of Performance Measurements outlined above.
- c. Headquarters, Department of the Army (HQDA) BPI in coordination with all parties, will track results of HMMWV Recap performance metrics established in this agreement.
- d. The BPI in coordination with all parties, will supply tracking results to participating organizations via the Acquisition Information Management website and tailored reports.
- e. The BPI will report tracking results to Army Senior Staff.
- f. The PM LTV in coordination with all parties will assist with metric development to be used in tracking execution.
- g. The PM LTV will ensure continued emphasis on accurate data reporting.
- h. The PM LTV will facilitate/authorize HQDA liaison visits when necessary.
- i. The PM LTV will provide updates to induction/distribution schedules, performance standards and baselines as necessary to the BPI.
- j. The HQDA will furnish funding details as requested.
- k. The DASA(CE) will perform substantive review of MACOM validated economic analysis for Recap and perform independent validation when applicable.
- l. The AMC will provide independent evaluations and analyses to be conducted by AMSAA.

AGREEMENT DATE: January 7, 2003

APPROVED BY:

PM LTV Ms. Debra O. Davis/s-September 3, 2002

TSM TWVM Mr. Thomas W. Feick/s-September 3, 2002

PEO CS&CSS BG Roger A. Nadeau/s-March 26, 2003

AMC COL Moses Whitehurst/s-September 23, 2002

FORSCOM Mr. James DeMartini/s-October 15, 2002

DASA (CE) Mr. Joe Gordon/s-December 23, 2002

ASA(ALT)

C. Claude M. Bolton f. 21 MAY 2003