**Humvee**

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*This article is about the military vehicle. For the defunct brand of civilian vehicles, see* [*Hummer*](http://en.wikipedia.org/wiki/Hummer)*.*

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| **Humvee** | |
| [United States Marine Corps](http://en.wikipedia.org/wiki/United_States_Marine_Corps) HMMWV in difficult terrain in [Afghanistan](http://en.wikipedia.org/wiki/Afghanistan) | |
| **Type** | **Unarmored:** [Light Utility Vehicle](http://en.wikipedia.org/wiki/Light_Utility_Vehicle), **Armored:** [Light Armored Car](http://en.wikipedia.org/wiki/Armored_car_(military)) |
| **Place of origin** | [United States](http://en.wikipedia.org/wiki/United_States) |
| **Service history** | |
| **In service** | 1984 – present |
| **Production history** | |
| **Manufacturer** | [AM General](http://en.wikipedia.org/wiki/AM_General) |
| **Unit cost** | Unarmored: $65,000 Armored: $140,000 |
| **Produced** | 1984 – present |
| **Specifications** | |
| **Weight** | 5,200–5,900 lb (2,340–2,680 kg) curb weight |
| **Length** | 15 ft (4.6 m) |
| **Width** | 7.08 ft (2.1 m) |
| **Height** | 6 ft (1.8 m), reducible to 4.5 ft (1.4 m) |
|  | |
| **Main armament** | see text |
| **Engine** | 8 Cyl. Diesel 6.2 L (380 cu in) or 6.5 L (400 cu in)  6.5 L V8 turbo: 190 hp (142 kW) @ 3,400 rpm / 380 lbf/ft (515 N·m) @ 1,700 rpm |
| **Transmission** | 4-speed automatic |
| **Suspension** | Independent 4x4 |
| **Fuel capacity** | 25 U.S. gal (95 L) |
| **Speed** | 55 mph (89 km/h) at max gross weight Over 65 mph (105 km/h) top speed |

The **High Mobility Multipurpose Wheeled Vehicle** (**HMMWV**), better known as the **Humvee**, is a [military](http://en.wikipedia.org/wiki/Military) [4WD](http://en.wikipedia.org/wiki/Four-wheel_drive) motor [vehicle](http://en.wikipedia.org/wiki/Vehicle) created by [AM General](http://en.wikipedia.org/wiki/AM_General). It has largely supplanted the roles formerly served by smaller [Jeeps](http://en.wikipedia.org/wiki/Light_Utility_Vehicle) such as the [M151](http://en.wikipedia.org/wiki/M151) 1⁄4-short-ton (230 kg) MUTT, the [M561 "Gama Goat"](http://en.wikipedia.org/wiki/Gama_Goat), their M718A1 and M792 ambulance versions, the [CUCV](http://en.wikipedia.org/wiki/CUCV), and other light trucks. Primarily used by the [United States Armed Forces](http://en.wikipedia.org/wiki/United_States_Armed_Forces), it is also used by numerous other countries and organizations and even in civilian adaptations. The [Hummer](http://en.wikipedia.org/wiki/Hummer) series was also inspired by the HMMWVs.

**Features**



A member of the [U.S. Air Force](http://en.wikipedia.org/wiki/U.S._Air_Force) stands in the ring mount of a FRAG 6 reinforced HMMWV in [Southwest Asia](http://en.wikipedia.org/wiki/Southwest_Asia).

The Humvee uses [independent suspensions](http://en.wikipedia.org/wiki/Independent_suspension) and portal geared hubs similar to [portal axles](http://en.wikipedia.org/wiki/Portal_axle) to make for a full 16 inches of ground clearance. The vehicle also has [disc brakes](http://en.wikipedia.org/wiki/Disc_brake) on all 4 wheels, and 4-wheel [double-wishbone suspension](http://en.wikipedia.org/wiki/Double-wishbone_suspension). The brake discs are not mounted at the wheels as on conventional automobiles, but are inboard, attached to the outside of each differential. The front and rear differentials are [Torsion](http://en.wikipedia.org/wiki/Torsen) type, and the center differential is a regular, [lockable](http://en.wikipedia.org/wiki/Locking_differential) type. There are at least 17 variants of the HMMWV in service with the [United States Armed Forces](http://en.wikipedia.org/wiki/United_States_Armed_Forces). HMMWVs serve as cargo/troop carriers, automatic weapons platforms, [ambulances](http://en.wikipedia.org/wiki/Ambulance) (four litter patients or eight ambulatory patients), M220 [TOW missile](http://en.wikipedia.org/wiki/BGM-71_TOW) carriers, [M119 howitzer](http://en.wikipedia.org/wiki/M119_howitzer) prime movers, [M1097 Avenger](http://en.wikipedia.org/wiki/AN/TWQ-1_Avenger) Pedestal Mounted Stinger platforms, MRQ-12 direct [air support](http://en.wikipedia.org/wiki/Air_support) vehicles, S250 shelter carriers, and other roles. The HMMWV is capable of [fording](http://en.wiktionary.org/wiki/ford) 2.5 ft (76 cm) normally, or 5 ft (1.5 m) with the deep-water fording kits installed.



A HMMWV firing a [TOW](http://en.wikipedia.org/wiki/BGM-71_TOW) missile.

Optional equipment includes a winch (maximum load capacity 6,000 lb. (2,700 kg)) and supplemental armor. The M1025/M1026 and M1043/M1044 armament carriers provide mounting and firing capabilities for the [M134 Minigun](http://en.wikipedia.org/wiki/M134_Minigun), the [Mk 19 grenade launcher](http://en.wikipedia.org/wiki/Mk_19_grenade_launcher), the [M2 heavy machine gun](http://en.wikipedia.org/wiki/M2_Browning), the [M240G/B](http://en.wikipedia.org/wiki/M240_machine_gun) machine gun and [M249 LMG](http://en.wikipedia.org/wiki/M249_light_machine_gun). The M1114 "up-armored" HMMWV, introduced in 2004, also features a similar weapons mount. In addition, some M1114 and M1116 up-armored and M1117 Armored Security Vehicle models feature a [Common Remotely Operated Weapon Station](http://en.wikipedia.org/wiki/Common_Remotely_Operated_Weapon_Station) (CROWS), which allows the gunner to operate from inside the vehicle, and/or the [Boomerang](http://en.wikipedia.org/wiki/Boomerang_(mobile_shooter_detection_system)) anti-[sniper](http://en.wikipedia.org/wiki/Sniper) detection system. Recent improvements have also led to the development of the M1151 model, which is quickly rendering the previous models obsolete. By replacing the M1114, M1116, and earlier armored HMMWV types with a single model, the U.S. Army hopes to lower maintenance costs.

**History**

In the 1970s, the [United States Army](http://en.wikipedia.org/wiki/United_States_Army) concluded that the militarized civilian [trucks](http://en.wikipedia.org/wiki/Truck) in use no longer satisfied their requirements. In 1977, [Lamborghini](http://en.wikipedia.org/wiki/Lamborghini) developed the [Cheetah](http://en.wikipedia.org/wiki/Lamborghini_Cheetah) model in an attempt to meet the Army contract specifications. In 1979, the Army drafted final specifications for a High Mobility Multipurpose Wheeled Vehicle, or HMMWV. In July of that year, [AM General](http://en.wikipedia.org/wiki/AM_General) (a subsidiary of [American Motors Corporation](http://en.wikipedia.org/wiki/American_Motors_Corporation)) began preliminary design work, and less than a year later, the first prototype, was in testing. In June 1981, the Army awarded AM General a contract for development of several more prototype vehicles to be delivered to the U.S. government for another series of tests, and the company was later awarded the initial production contract for 55,000 HMMWVs to be delivered in 1985. Ft. Lewis Washington and the 9th Infantry Division was the testing unit to employ HMMWV in the new concept of a Motorized Division to counter the Russian Motorized units. Yakima Training Center; Yakima, Washington was the main testing grounds of the HMMWVs from 1985 through December 1991, when the Motorized concept abandoned and the Division Deactivated. HMMWVs first saw combat in [Operation Just Cause](http://en.wikipedia.org/wiki/Operation_Just_Cause), the U.S. invasion of [Panama](http://en.wikipedia.org/wiki/Panama) in 1989.

The HMMWV has become the vehicular backbone of U.S. forces around the world. Over 10,000 were employed by coalition forces during the [Iraq War](http://en.wikipedia.org/wiki/Iraq_War).

**Usage in combat**



[United States Army](http://en.wikipedia.org/wiki/United_States_Army) HMMWV destroyed by a [car bomb](http://en.wikipedia.org/wiki/Car_bomb), [Baghdad](http://en.wikipedia.org/wiki/Baghdad), [Iraq](http://en.wikipedia.org/wiki/Iraq).

The HMMWV was designed primarily for personnel and light cargo transport behind front lines, not as a front line fighting vehicle. Like the previous Jeep, the basic HMMWV has no armor or protection against [nuclear, biological, and chemical threats](http://en.wikipedia.org/wiki/Weapon_of_mass_destruction). Nevertheless, losses were relatively low in [conventional operations](http://en.wikipedia.org/wiki/Conventional_warfare), such as the [Gulf War](http://en.wikipedia.org/wiki/Gulf_War). Vehicles and crews suffered considerable damage and losses during the [Battle of Mogadishu](http://en.wikipedia.org/wiki/Battle_of_Mogadishu_(1993)) due to the nature of the urban engagement; however, the chassis survivability allowed the majority of those crews to return to safety, though the HMMWV was never designed to offer protection against intense small arms fire, much less [machine guns](http://en.wikipedia.org/wiki/Machine_gun) and [rocket-propelled grenades](http://en.wikipedia.org/wiki/Rocket-propelled_grenade). However, with the rise of [asymmetric warfare](http://en.wikipedia.org/wiki/Asymmetric_warfare) and [low intensity conflicts](http://en.wikipedia.org/wiki/Low_intensity_conflict), the HMMWV has been pressed into service in urban combat roles for which it was not originally intended.

After [Somalia](http://en.wikipedia.org/wiki/Somalia), the military recognized a need for a more protected HMMWV and AM General developed the M1114, an armored HMMWV to withstand small arms fire. The M1114 has been in limited production since 1996, seeing limited use in the [Balkans](http://en.wikipedia.org/wiki/Balkans) before deployment to the [Middle East](http://en.wikipedia.org/wiki/Middle_East). This design is superior to the M998 with a larger, more powerful [turbocharged](http://en.wikipedia.org/wiki/Turbocharger) engine, [air conditioning](http://en.wikipedia.org/wiki/Air_conditioning), and a strengthened [suspension](http://en.wikipedia.org/wiki/Suspension_(vehicle)) system. More importantly, it boasts a fully [armored](http://en.wikipedia.org/wiki/Vehicle_armor) passenger area protected by hardened steel and [bullet-resistant glass](http://en.wikipedia.org/wiki/Bulletproof_glass). With the increase in direct attacks and guerrilla warfare in Iraq, [AM General](http://en.wikipedia.org/wiki/AM_General) has diverted the majority of its manufacturing power to producing these vehicles.



Marines pushing an M1114 in a competition.



HMMWV with bolt-on MAK armor kit



A HMMWV with [Mattracks](http://en.wikipedia.org/wiki/Mattracks) snow treads

**Modifications**



Humvee maintenance with engine exposed by [Czech Army](http://en.wikipedia.org/wiki/Czech_Army) in [Afghanistan](http://en.wikipedia.org/wiki/Afghanistan)

In response to the vulnerability of HMMWVs operating in [Iraq](http://en.wikipedia.org/wiki/Iraq), "Up-Armor" kits were designed and installed on M998 HMMWVs. These kits, of which there are several types and iterations, include armored doors with bullet-resistant glass, side and rear armor plates, and a ballistic windshield which offer greater protection from ballistic threats and simple [IEDs](http://en.wikipedia.org/wiki/Improvised_explosive_device).

Although some of these kits were available prior to the [2003 invasion of Iraq](http://en.wikipedia.org/wiki/2003_invasion_of_Iraq), they were not provided in great numbers to American forces in Iraq prior to the invasion. As a result of this, American soldiers and [Marines](http://en.wikipedia.org/wiki/United_States_Marine_Corps) often improvised extra armor with scrap materials, known as "[hillbilly armor](http://en.wikipedia.org/wiki/Hillbilly_armor)" or "farmer armor" to improve the safety of the HMMWV. While this may have made the vehicle somewhat safer from a ballistic attack, it also increased the weight and raised the [center of gravity](http://en.wikipedia.org/wiki/Center_of_gravity) of the vehicle, reducing its acceleration, handling, braking, reliability, and [service life](http://en.wikipedia.org/wiki/Service_life) due to its overstressed suspension and drivetrain. In addition to this, the majority of Humvees and other coalition vehicles used in the invasion of Iraq were fitted with [Combat Identification Panels](http://en.wikipedia.org/wiki/Combat_Identification_Panel) to reduce the possibility of friendly fire during combat. These were fitted to the driver and front passenger doors with cutouts to allow access to the door handles through the panels, and also on the hood between the windshield and top grille.

In December 2004, Secretary of Defense [Donald Rumsfeld](http://en.wikipedia.org/wiki/Donald_Rumsfeld) came under criticism from U.S. soldiers and their families for not providing better-equipped HMMWVs. Rumsfeld pointed out that, prior to the war, armor kits were produced only in small numbers per year. As the role of American forces in Iraq changed from fighting the Iraqi Army to suppressing the [guerrilla](http://en.wikipedia.org/wiki/Guerrilla_warfare) insurgency, more armor kits were being manufactured, though perhaps not as fast as production facilities were capable of bringing them online. Even more advanced kits were also being developed. However, while these kits are much more effective against all types of attacks, they weigh between 1,500 to 2,200 lb. (680 to 1,000 kg) and have some of the same drawbacks as the improvised armor. Unlike similar-size civilian cargo and tow trucks, which typically have dual rear wheels to reduce sway, the HMMWV has single rear wheels due to its independent rear suspension coupled with the body design.

The armor on most up-armored HMMWVs holds up well against lateral attacks, when the blast is distributed in all different directions, but offers little protection from a mine blast below the truck, such as buried [IEDs](http://en.wikipedia.org/wiki/Improvised_explosive_device) and [land mines](http://en.wikipedia.org/wiki/Land_mine). [Explosively formed penetrators](http://en.wikipedia.org/wiki/Explosively_formed_penetrator) (EFPs) can also defeat the armor kits, causing casualties.

The armor kits fielded include the Armor Survivability Kit (ASK), the FRAG 5, [FRAG 6](http://en.wikipedia.org/wiki/Frag_kit_6), as well as upgrade kits to the M1151. The ASK was the first fielded, in October 2003, adding about 1,000 pounds (450 kg) to the weight of the vehicle. [Armor Holdings](http://en.wikipedia.org/wiki/Armor_Holdings) fielded an even lighter kit, adding only 750 pounds (340 kg) to the vehicle's weight. The Marine Armor Kit (MAK), fielded in January 2005, offers more protection than the M1114, but also increases weight. The FRAG 5, the latest fielded armor kit, offers the greatest protection but may still be inadequate to stop EFP attacks. The FRAG 6 kit, designed to do just that, is still in development, however its increased protection comes at a hefty price. Over 1,000 lb. (450 kg) is added to the vehicle over the FRAG 5 kit, and the width of the vehicle is increased by 2 feet (61 cm). In addition, the doors may require a mechanical assist device to open and close.

Another drawback of the up-armored HMMWVs occurs during an accident or attack, when the heavily armored doors tend to jam shut, trapping the troops inside. As a result, HMMWVs are being fitted with hooks on their doors, so that another vehicle can rip the door off, freeing the troops inside. In addition, Vehicle Emergency Escape (VEE) windows, developed by [BAE Systems](http://en.wikipedia.org/wiki/BAE_Systems) are currently being fielded for use on the M1114 up-armored HMMWV, with 1,000 kits ordered.

The soldier manning the exposed crew-served weapon on top of the vehicle is extremely vulnerable. In response, many HMMWVs have been fitted with basic gun shields or [turrets](http://en.wikipedia.org/wiki/Gun_turret), as was the case with [M113](http://en.wikipedia.org/wiki/M113_armored_personnel_carrier) APCs after they were first deployed in Vietnam. The U.S. military is currently evaluating a new form of protection, developed by BAE Systems as well as systems designed by the Army, which are already in theater. The new gunner's seat is protected by 1.5 to 2 feet (46 to 61 cm) high steel plates with bullet-proof glass windows. Additionally, some HMMWVs have been fitted with a remotely operated [CROWS](http://en.wikipedia.org/wiki/Common_Remotely_Operated_Weapon_Station) weapon station, which slaves the machine gun to controls in the back seat so it can be fired without exposing the crew. The [Boomerang](http://en.wikipedia.org/wiki/Boomerang_(mobile_shooter_detection_system)) anti-[sniper](http://en.wikipedia.org/wiki/Sniper) system is also being fielded by some HMMWVs in Iraq to immediately give troops the location of insurgents firing on them.



HMMWV equipped with [Raytheon](http://en.wikipedia.org/wiki/Raytheon) [surface-to-air missiles](http://en.wikipedia.org/wiki/Surface-to-air_missile) in display at [Paris Air Show](http://en.wikipedia.org/wiki/Paris_Air_Show) 2007



A [U.S.](http://en.wikipedia.org/wiki/United_States_Marine_Corps) M997 ambulance emblazoned with the [Red Cross](http://en.wikipedia.org/wiki/Emblems_of_the_Red_Cross)

Another weakness for the HMMWV has proven to be its size, which has limited its deployment in [Afghanistan](http://en.wikipedia.org/wiki/Afghanistan) because it is too large for many forms of air transport. This size also limits the ability for the vehicle to be manhandled out of situations. Additionally, troops in Bosnia found the vehicle's wide track to be a liability, since two HMMWVs could not pass each other on narrow mountain roads.



HMMWV stuck in sand of southern Afghanistan.



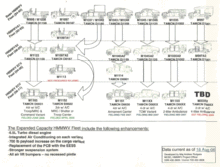
A HMMWV performing a roadblock in Iraq

**Alternatives**

Other countries in Europe and [South Africa](http://en.wikipedia.org/wiki/South_Africa) employ a number of different light armored vehicles, both tracked and wheeled, and some even built in the U.S. by [Cadillac Gage](http://en.wikipedia.org/wiki/Cadillac_Gage_Commando), that are designed more specifically for low intensity combat situations, and are more resistant to small arms; some trucks even have high [v-hull](http://en.wikipedia.org/wiki/V-hull) bottoms to deflect mine blasts.

The Army has purchased a purpose-built armored car, the [M1117 Armored Security Vehicle](http://en.wikipedia.org/wiki/M1117_Armored_Security_Vehicle) in limited numbers for use by the [United States Army Military Police Corps](http://en.wikipedia.org/wiki/United_States_Army_Military_Police_Corps). In 2007, the Marine Corps announced an intention to replace all HMMWVs in [Iraq](http://en.wikipedia.org/wiki/Iraq) with [MRAPs](http://en.wikipedia.org/wiki/MRAP) due to high loss rates, and issued contracts for the purchase of several thousand of these vehicles, which include the International [MaxxPro](http://en.wikipedia.org/wiki/MaxxPro), the [BAE OMC](http://en.wikipedia.org/wiki/Land_Systems_OMC) [RG-31](http://en.wikipedia.org/wiki/RG-31), the BAE [RG-33](http://en.wikipedia.org/wiki/RG-33) and [Caiman](http://en.wikipedia.org/wiki/BAE_Caiman), and the Force Protection [Cougar](http://en.wikipedia.org/wiki/Cougar_(vehicle)), which have been deployed with the [Army](http://en.wikipedia.org/wiki/Army) and Marines primarily for mine clearing duties. Heavier models of [infantry mobility vehicles](http://en.wikipedia.org/wiki/Infantry_mobility_vehicle) (IMV) can also be used for patrol vehicles. Some MRAP vehicles have been known to become stuck or roll over much more readily due to their high center of gravity and overall larger size compared to the HMMWV.

**Versions**



HMMWV upgrade process



HMMWV with a communications dish

**Major HMMWV versions**

* M56 Coyote Smoke Generator Carrier
* M707 HMMWV
* M966 HMMWV TOW Armored
* M996 Mini-Ambulance, Armored
* M997 Maxi-Ambulance, Armored
* M998 Cargo/Troop
* M998 HMMWV Avenger
* M1025 Armament Carrier, Armored
* M1026 Armament Carrier, Armored W/W
* M1035 Soft-Top Ambulance
* M1036 TOW Armored W/W
* M1037 S-250/S-788 Shelter Carrier
* M1038 Cargo/Troop Carrier W/W
* M1042 S-250/S-788 Shelter Carrier W/W
* M1043 Armament Carrier, Up-Armored
* M1044 Armament Carrier, Up-Armored W/W
* M1045 TOW Up-Armored Armor
* M1046 TOW Up-Armored Armor W/W
* M1069 Tractor for M119 105-mm Gun
* M1097 Heavy
* [M1097 Heavy HMMWV Avenger](http://en.wikipedia.org/wiki/AN/TWQ-1_Avenger)
* M1109 Up-Armored Armament Carrier
* [ZEUS-HLONS](http://en.wikipedia.org/wiki/ZEUS-HLONS_(HMMWV_Laser_Ordnance_Neutralization_System))
* [Ground Mobility Vehicle](http://en.wikipedia.org/w/index.php?title=Ground_Mobility_Vehicle&action=edit&redlink=1) (special ops variant)
* [IMETS](http://en.wikipedia.org/wiki/IMETS)

**Expanded capacity**

* M1113 The M1113 has been selected by the Army as its A2 chassis for HMMWV purchases. Currently, the ECV is used for special operations vehicles and communications shelter carriers.

During 1995, production of the M1114 based on the improved ECV chassis began. The M1114 meets Army requirements for a scout, military police, and explosive ordnance disposal vehicle with improved ballistic protection levels. The M1114 provides protection against 7.62 mm armor-piercing projectiles, 155 mm artillery air bursts and 12 lb. (5.4 kg). anti-tank mine blasts. The U.S. Air Force has a number of vehicles under the designation M1116, specifically designed to meet the requirements of the Air Force. The M1116 features an expanded cargo area, armored housing for the turret gunner and increased interior heating and air conditioning system. The M1114 and M1116 receive armor at [O'Gara-Hess & Eisenhardt](http://en.wikipedia.org/wiki/O%27Gara-Hess_%26_Eisenhardt) Armoring Company of [Fairfield, Ohio](http://en.wikipedia.org/wiki/Fairfield,_Ohio).

* M1114 Up-Armored Armament Carrier
* M1116 Up-Armored HMMWV
* M1123 Heavy
* M1121 TOW Armored
* M1145 Up-Armored HMMWV
* [M1151 Up-Armored Capable HMMWV](http://en.wikipedia.org/wiki/M1151)
* [M1152 Up-Armored Capable HMMWV](http://en.wikipedia.org/wiki/M1151)
* Packhorse - Attachment to convert an M1097 to tractor version for semi-trailers.
* Scorpion - Version fitted with [2B9 Vasilek](http://en.wikipedia.org/wiki/2B9_Vasilek) 82 mm automatic [mortar](http://en.wikipedia.org/wiki/Mortar_(weapon)). This is a heavy chassis HMMWV equipped with a 2B9 Vasilyek 82 mm automatic mortar and intended to provide more protection for US troops in combat zones. This was developed in 2004 by engineers at the US Army's [Picatinny Arsenal](http://en.wikipedia.org/wiki/Picatinny_Arsenal). The mortar itself can fire on single shots or on automatic using 4 round clips. Range for direct fire is 1,000m and indirect fire is 4,000m. It is also intended to provide another means of destroying roadside bombs but at a safer standoff range.
* Composite HMMWV - A prototype developed by [TPI Composites](http://en.wikipedia.org/wiki/TPI_Composites) of [Rhode Island](http://en.wikipedia.org/wiki/Rhode_Island) and AM General. The purpose of the concept vehicle is to reduce the vehicle's weight so that it may more easily carry an up armor kit. TPI's all-composite HMMWV saves approximately 900 pounds (410 kg) when compared to a current steel and aluminum HMMWV.

**International versions**



An Eastwind EQ2050 at the [China People's Revolution Military Museum](http://en.wikipedia.org/wiki/China_People%27s_Revolution_Military_Museum) during the "Our troops towards the sky" exhibition.



Greek Army M1114GR HMMWV have the ability to mount the [9M133 Kornet](http://en.wikipedia.org/wiki/9M133_Kornet) on top.

* Bulgaria - Bulgarian HMMWVs have been fitted with [PKS](http://en.wikipedia.org/wiki/PK_machine_gun) general purpose machine guns. Bulgaria usually replaces western machine guns on its vehicles to simplify maintenance, since the country is an active producer of Soviet/Russian-type munitions.
* EQ2050/SQF2040 - [Chinese versions of the HMMWV](http://en.wikipedia.org/wiki/PRC_HMMWVs). There are at least two Chinese automobile manufacturers building HMMWV copies. Both HMMWV copies rely heavily on imported U.S.-made parts including chassis, gear box, and diesel engine. It appears that at least one company, [Dongfeng Motor Corporation](http://en.wikipedia.org/wiki/Dongfeng_Motor_Corporation) (DFM), has the full consent and cooperation of the General Motors Corporation. Both manufacturers claimed that they will be able to gradually increase the percentage of indigenous-made content on the vehicles in the future, since the [PLA](http://en.wikipedia.org/wiki/People%27s_Liberation_Army) is unlikely to accept any equipment that relies largely on foreign made parts.
* Egypt - [AOI](http://en.wikipedia.org/wiki/Arab_Organization_for_Industrialization) has a project of fitting HMMWVs with anti-armor weaponry, options include: TOW, Milan, or HOT missiles.
* Greece - Greek HMMWVs, built entirely by [ELBO](http://en.wikipedia.org/wiki/ELBO) in Greece, equipped to fire the Russian [9M133 Kornet](http://en.wikipedia.org/wiki/9M133_Kornet) [ATGM](http://en.wikipedia.org/wiki/ATGM). It has storage room for 10 missiles. Another version, the M1115GR, is equipped with the [HK GMG 40](http://en.wikipedia.org/wiki/Heckler_%26_Koch_GMG). Israel's [Plasan](http://en.wikipedia.org/wiki/Plasan) has developed armored versions of the HMMWV, assembled by ELBO in Greece as the M1114GR, M1115GR and M1118GR. ELBO also produced the Ambulance version, a SOF version and an repairs version of the HMMWV for the Hellenic Army.
* Israel - Plasan has also designed and supplied an HMMWV Armored Protection Kit for the Portuguese Army, and a different version assembled by [Automotive Industries](http://en.wikipedia.org/wiki/Automotive_Industries) in [Nazareth](http://en.wikipedia.org/wiki/Nazareth_Illit) for the [Israel Defense Forces](http://en.wikipedia.org/wiki/Israel_Defense_Forces).
* [Mexico](http://en.wikipedia.org/wiki/Mexico) - The Dirección General de Industria Militar (DGIM), the Mexican army's prime wholly owned military manufacturer builds the Humvee under license in Mexico after a small amount of American built Humvee’s proved to be reliable within the Mexican army. Mexican HMMWVs are similar to the American built models but are slightly longer and feature a standard selective shift automatic transmission connected to a Mercedes Benz diesel engine and an anti-spalling layer in the passenger cabin. Many also feature bullet proofed windows and an armor layer which the American versions are not equipped with. In 2010 Mexico displayed a wagon variant with a second gun hatch to cover the rear of the vehicle. This version also featured a different more powerful V-12 engine and civilian road wheels to increase the vehicles top speed capabilities in urban areas. The interiors of the Mexican HMMWVs are different as well and have been redesigned to be more aesthetically pleasing and look much like the interiors of civilian SUVs.
* [Poland](http://en.wikipedia.org/wiki/Poland) - Polish Land Forces currently operate 222 HMMWVs (5 unknown variants are operated by special forces). Over 200 are used by the 18th Airborne Battalion which is a part of the 6th Air Assault Brigade. The used variants are designated as follows: Tumak-2 - M1043A2, Tumak-3 - M1025A2, Tumak-4 - M1097A2, Tumak-5 - M1045A2, Tumak-6 - M1097A2 (variant used for transport of special containers), Tumak-7 - M1035A2. All vehicles are modified to meet Polish road regulations and are equipped with Polish communication devices. 140 HMMWVs are equipped with Fonet digital internal communication device. 120 M1025A2s and M1043A2s have a rotatable mount which can be fitted with either the UKM-2000P 7.62 mm general purpose machine gun or the [NSW-B 12.7 mm heavy machine gun](http://en.wikipedia.org/wiki/NSV_machine_gun). M1045A2s are used by anti-tank subunits and are armed with Spike-LR which can be dismounted in field conditions. Additionally Polish forces of [ISAF](http://en.wikipedia.org/wiki/International_Security_Assistance_Force) operate 120 HMMWVs on loan from the US forces.
* The Swiss [MOWAG Eagle](http://en.wikipedia.org/wiki/MOWAG_Eagle) light armored vehicle, designed for reconnaissance surveillance, liaison, escort, border patrol and police missions. Early versions of the Eagle utilize the HMMWV chassis, although the latest uses a [Duro III](http://en.wikipedia.org/wiki/Duro_III) chassis. It is an NBC-tight, air conditioned and armor protected vehicle. Eagle is in service and available in several configurations with varying levels of armor protection. The Eagle can be fitted with a wide assortment of armaments which can be manually or remotely operated turrets.

**Electric vehicle**

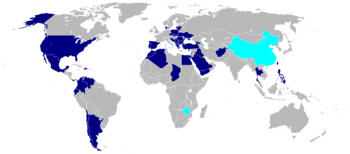
See also: [RDECOM/TARDEC](http://en.wikipedia.org/wiki/RDECOM/TARDEC)



XM1124 Hybrid-Electric Humvee on an M1113 Humvee chassis powered by a diesel-series hybrid

There is a 6 miles (9.7 km) [all-electric range](http://en.wikipedia.org/wiki/All-electric_range) [plug-in hybrid](http://en.wikipedia.org/wiki/Plug-in_hybrid) Humvee.

**Operators**



HMMWV operator map - dark blue shows original HMMWV operators, light blue shows PRC HMMWV operators



Humvees of the United States Armed Forces deliver family food packs donated by local businesses and private organizations to aid communities in the Philippines affected by [Tropical Storm Ketsana](http://en.wikipedia.org/wiki/Tropical_Storm_Ketsana).



A HMMWV firing a [Hellfire](http://en.wikipedia.org/wiki/AGM-114_Hellfire) missile.



Slovenian HMMWV M1114



Ukrainian HMMWV M1114



Iraqi HMMWVs at Camp Echo in Iraq, 2008



The [Mars Institute](http://en.wikipedia.org/wiki/Mars_Institute) Moon-1 HMMWV Rover in [Cambridge Bay](http://en.wikipedia.org/wiki/Cambridge_Bay,_Nunavut) waiting for the [109th Airlift Squadron](http://en.wikipedia.org/wiki/109th_Airlift_Squadron)'s [C-130](http://en.wikipedia.org/wiki/C-130_Hercules) to airlift it to [Resolute Bay Airport](http://en.wikipedia.org/wiki/Resolute_Bay_Airport).



A Saudi Arabian HMMWV with a QCB machine gun mounted on top depart for the seaport of [Mogadishu](http://en.wikipedia.org/wiki/Mogadishu) in [Somalia](http://en.wikipedia.org/wiki/Somalia). The Saudis are providing support for [UNOSOM II](http://en.wikipedia.org/wiki/UNOSOM_II).

The HMMWV is used by the following countries:

* [Afghanistan](http://en.wikipedia.org/wiki/Afghanistan) - 4,150 M1152 and M1151 versions used by the [Afghan National Army](http://en.wikipedia.org/wiki/Afghan_National_Army). Afghanistan has ordered 3,334 more in 2010 and 2011 for its the [National Police](http://en.wikipedia.org/wiki/Afghan_National_Police), National Guard and other military.



* [Albania](http://en.wikipedia.org/wiki/Albania) - 20 vehicles



* [Djibouti](http://en.wikipedia.org/wiki/Djibouti)



* [Algeria](http://en.wikipedia.org/wiki/Algeria) - 200+ vehicles



* [Argentina](http://en.wikipedia.org/wiki/Argentina) - EA: 250 vehicles; FAA: 70; Gendarmeria: approx. 40 vehicles and IMARA: 300 vehicles



* [Bosnia and Herzegovina](http://en.wikipedia.org/wiki/Bosnia_and_Herzegovina) - ordered a small number of vehicles for de-mining units in Iraq.



* [Bolivia](http://en.wikipedia.org/wiki/Bolivia) - approx. 50 vehicles with the "Green Devils" anti-narcotic unit and Rangers.



* [Botswana](http://en.wikipedia.org/wiki/Botswana) - 40 (M1044, M1043, M998 & M997)



* [Bulgaria](http://en.wikipedia.org/wiki/Bulgaria) - 52 vehicles, 50 are the up-armored M1114 variant, and two are ambulances.



* [Chad](http://en.wikipedia.org/wiki/Chad)



* [Canada](http://en.wikipedia.org/wiki/Canada) [Canadian Forces](http://en.wikipedia.org/wiki/Canadian_Forces) - small numbers (M1113 and M1117) in use by [JTF-2](http://en.wikipedia.org/wiki/Joint_Task_Force_2) and [CSOR](http://en.wikipedia.org/wiki/Canadian_Special_Operations_Regiment) in Afghanistan; to be replaced by [Jackal (MWMIK)](http://en.wikipedia.org/wiki/Jackal_(vehicle)).



* [Chile](http://en.wikipedia.org/wiki/Chile) - [Army](http://en.wikipedia.org/wiki/Chilean_Army#Transport) 200+ vehicles, [Marines](http://en.wikipedia.org/wiki/Chilean_Navy) 20+ vehicles



* [Colombia](http://en.wikipedia.org/wiki/Colombia) - 400+ vehicles



* [Croatia](http://en.wikipedia.org/wiki/Croatia) - 85 units, mostly used in Afghanistan [ISAF](http://en.wikipedia.org/wiki/ISAF) mission.



* [Czech Republic](http://en.wikipedia.org/wiki/Czech_Republic) - Mainly [601st Special Forces Group](http://en.wikipedia.org/wiki/601st_Special_Forces_Group).



* [Denmark](http://en.wikipedia.org/wiki/Denmark) - 100+ vehicles.



* [Dominican Republic](http://en.wikipedia.org/wiki/Dominican_Republic) -



* [El Salvador](http://en.wikipedia.org/wiki/El_Salvador) - 20 vehicles



* [Ecuador](http://en.wikipedia.org/wiki/Ecuador) - approx. 130 vehicles in the Ecuadorian Army.



* [Egypt](http://en.wikipedia.org/wiki/Egypt) - 3,890+



* [Georgia](http://en.wikipedia.org/wiki/Georgia_(country)) - 50+



* [Greece](http://en.wikipedia.org/wiki/Greece) - 600+ vehicles built under license by [ELBO](http://en.wikipedia.org/wiki/ELBO).



* [Hungary](http://en.wikipedia.org/wiki/Hungary) - 27 vehicles for units in Afghanistan.



* [Iraq](http://en.wikipedia.org/wiki/Iraq) - Used by the [Iraqi Army](http://en.wikipedia.org/wiki/Iraqi_Army), [Iraqi Security Forces](http://en.wikipedia.org/wiki/Iraqi_Security_Forces) and Kurdish [Peshmerga](http://en.wikipedia.org/wiki/Peshmerga) (from US Armed Forces stockpiles).



* [Israel](http://en.wikipedia.org/wiki/Israel) - 2,000+ vehicles, formerly assembled by [AIL](http://en.wikipedia.org/wiki/Automotive_Industries) from knockdown kits.



* [Kazakhstan](http://en.wikipedia.org/wiki/Kazakhstan) -



* [Jordan](http://en.wikipedia.org/wiki/Jordan) - 130+



* [Kenya](http://en.wikipedia.org/wiki/Kenya) - A number of vehicles are used by the security forces.



* [Latvia](http://en.wikipedia.org/wiki/Latvia) - 60 vehicles



* [Lebanon](http://en.wikipedia.org/wiki/Lebanon) - 756 vehicles



* [Lithuania](http://en.wikipedia.org/wiki/Lithuania) - about 200 vehicles bought from USA.



* [Luxembourg](http://en.wikipedia.org/wiki/Luxembourg) - 43 vehicles



* [Republic of Macedonia](http://en.wikipedia.org/wiki/Republic_of_Macedonia) - 80 vehicles



* [Mexico](http://en.wikipedia.org/wiki/Mexico)



* [Monaco](http://en.wikipedia.org/wiki/Monaco) - [Compagnie des Carabiniers du Prince](http://en.wikipedia.org/wiki/Compagnie_des_Carabiniers_du_Prince) - 6+



* [Mongolia](http://en.wikipedia.org/wiki/Mongolia) - 30 vehicles



* [Montenegro](http://en.wikipedia.org/wiki/Montenegro)



* [Morocco](http://en.wikipedia.org/wiki/Morocco)



* [New Zealand](http://en.wikipedia.org/wiki/New_Zealand) - Small number of M114s used in Afghanistan and at Lake Tekapo training ground.



* [Panama](http://en.wikipedia.org/wiki/Panama) - 7 vehicles



* [Oman](http://en.wikipedia.org/wiki/Oman)



* [Philippines](http://en.wikipedia.org/wiki/Philippines) - 300 vehicles



* [Poland](http://en.wikipedia.org/wiki/Poland) - 217 vehicles



* [Peru](http://en.wikipedia.org/wiki/Peru) - 34 vehicles (12 M-1151A1 deployed in Haiti as part of the UN peacekeeping contingent, 22 M-1165A1 Special Ops operated by the 19th Commando Battalion). Possible upcoming purchase of 100 additional vehicles.



* [Portugal](http://en.wikipedia.org/wiki/Portugal)



* [Republic of China (Taiwan)](http://en.wikipedia.org/wiki/Republic_of_China)



* [Romania](http://en.wikipedia.org/wiki/Romania) - approx. 100 vehicles



* [Russia](http://en.wikipedia.org/wiki/Russia) - (8 vehicles were seized by Russian forces during [2008 South Ossetia War](http://en.wikipedia.org/wiki/2008_South_Ossetia_War)).



* [Saudi Arabia](http://en.wikipedia.org/wiki/Saudi_Arabia)



* [Serbia](http://en.wikipedia.org/wiki/Serbia) - 20 armored vehicles to be delivered.



* [Slovenia](http://en.wikipedia.org/wiki/Slovenia) - 42 vehicles



* [South Korea](http://en.wikipedia.org/wiki/South_Korea)



* [Spain](http://en.wikipedia.org/wiki/Spain) - 150+ vehicles only by the [Infanteria de Marina](http://en.wikipedia.org/wiki/Infanteria_de_Marina) ( the Army uses the [URO VAMTAC](http://en.wikipedia.org/wiki/URO_VAMTAC) in that role).



* [Taliban](http://en.wikipedia.org/wiki/Taliban) - at least two captured and operated by Taliban and [Pakistan militants](http://en.wikipedia.org/wiki/Terrorism_in_Pakistan).



* [Thailand](http://en.wikipedia.org/wiki/Thailand)



* [Tunisia](http://en.wikipedia.org/wiki/Tunisia)



* [Turkey](http://en.wikipedia.org/wiki/Turkey) - built under license by MKEK.



* [Ukraine](http://en.wikipedia.org/wiki/Ukraine) - 10 vehicles, all donated by the United States to the [Polish–Ukrainian Peace Force Battalion](http://en.wikipedia.org/wiki/Polish%E2%80%93Ukrainian_Peace_Force_Battalion) (POLUKRBAT).



* [United Arab Emirates](http://en.wikipedia.org/wiki/United_Arab_Emirates)



* [United States](http://en.wikipedia.org/wiki/United_States) - Army: 260,000, Marine Corps: 44,000



* [Uganda](http://en.wikipedia.org/wiki/Uganda) - approximately 50



* [Venezuela](http://en.wikipedia.org/wiki/Venezuela) - (M1097A1)



* [Yemen](http://en.wikipedia.org/wiki/Yemen) - 13 vehicles



* [Zimbabwe](http://en.wikipedia.org/wiki/Zimbabwe) - ([EQ2050](http://en.wikipedia.org/wiki/PRC_HMMWVs))



**Replacement**

Main article: [Humvee replacement process](http://en.wikipedia.org/wiki/Humvee_replacement_process)

The Humvee replacement process, now being undertaken by the [U.S. Military](http://en.wikipedia.org/wiki/United_States_Armed_Forces), is focused on interim replacement with [MRAPs](http://en.wikipedia.org/wiki/MRAP) and long-term replacement with the [JLTV](http://en.wikipedia.org/wiki/Joint_Light_Tactical_Vehicle). The HMMWV has evolved several times since its introduction, and is now used in tactical roles for which it was never originally intended. The U.S. Military is currently pursuing several initiatives to replace it, both in the short and long terms. The short term replacement efforts utilize [commercial off-the-shelf](http://en.wikipedia.org/wiki/Commercial_off-the-shelf) vehicles as part of the Mine Resistant Ambush Protected (MRAP) program. These vehicles are procured to replace Humvees in combat theaters. The long term replacement for the Humvee is the [Joint Light Tactical Vehicle](http://en.wikipedia.org/wiki/Joint_Light_Tactical_Vehicle) which is designed from the ground up. The [Future Tactical Truck Systems](http://en.wikipedia.org/wiki/Future_Tactical_Truck_Systems) (FTTS) program was initiated to make an analysis of potential requirements for a Humvee replacement. Various prototype vehicles such as the [Millen Works Light Utility Vehicle](http://en.wikipedia.org/wiki/MillenWorks_Light_Utility_Vehicle), and the [ULTRA AP](http://en.wikipedia.org/wiki/ULTRA_AP) have been constructed as part of these efforts.

**Replicas**

Kits have been produced for the general market to build a HMMWV-lookalike. The kits are applied to make a [sedan](http://en.wikipedia.org/wiki/Sedan_(car)) into a Humvee lookalike. An alternative is to buy a preconstructed (or "[turnkey](http://en.wikipedia.org/wiki/Turnkey)") wombat. Various kits exist, but one of the most famous names is the "Wombat" (previously called a *HummBug*). The former vehicle can be purchased for US$18,000; this puts it considerably cheaper than the actual HMMWV ($56,000), or [Hummer](http://en.wikipedia.org/wiki/Hummer). In [Australia](http://en.wikipedia.org/wiki/Australia), a Gold Coast-based company called Rhino Buggies produces replicas of the Hummer H1 based on the [Nissan Patrol](http://en.wikipedia.org/wiki/Nissan_Patrol) 4WD vehicle for around AU$30,000. Rhino Buggies Humvee's have been used in film and TV and in 2009 were used in the movie [X-Men Origins: Wolverine](http://en.wikipedia.org/wiki/X-Men_Origins:_Wolverine).

Some local vehicle assemblers in the [Philippines](http://en.wikipedia.org/wiki/Philippines) even make small and full-sized replicas of the HMMWV. They are usually mounted on chassis intended for [jeeps](http://en.wikipedia.org/wiki/Jeep), [jeepneys](http://en.wikipedia.org/wiki/Jeepneys), or (in case of the full-sized replica) small trucks, and is powered by surplus gasoline or diesel engines. It looks like a real HMMWV, but it is smaller in size, and is priced the same as an ordinary "owner-type" jeep (Php80,000 upwards).

**Similar vehicles**

* [Tiuna](http://en.wikipedia.org/wiki/Tiuna) - Venezuelan military HMMWV.
* [GAZ-2975 "Tigr"](http://en.wikipedia.org/wiki/GAZ-2975) - Russian Military HMMWV currently in service.
* Koukidousya ("High-mobility Car") is military version of the [Toyota Mega Cruiser](http://en.wikipedia.org/wiki/Toyota_Mega_Cruiser) HMMWV design. Koukidousya is in service with the [Japan Self Defense Forces](http://en.wikipedia.org/wiki/Japan_Self_Defense_Forces).
* [Mahindra Axe](http://en.wikipedia.org/wiki/Mahindra_Axe) is an HMMWV type vehicle planned to be manufactured by [Mahindra](http://en.wikipedia.org/wiki/Mahindra) in India.
* [Iveco LMV](http://en.wikipedia.org/wiki/Iveco_LMV)
* [Renault Sherpa 2](http://en.wikipedia.org/wiki/Renault_Sherpa_2) French HMMWV type vehicle.
* LSV (Light Specialist Vehicle) is a new vehicle built by [Tata Motors](http://en.wikipedia.org/wiki/Tata_Motors) and is now undergoing trials for the [Indian Army](http://en.wikipedia.org/wiki/Indian_Army).
* [URO VAMTAC](http://en.wikipedia.org/wiki/URO_VAMTAC) (Vehículo de Alta Movilidad Táctico) is a Spanish four-wheel drive military vehicle manufactured by [UROVESA](http://en.wikipedia.org/wiki/UROVESA).
* [MOWAG Eagle](http://en.wikipedia.org/wiki/MOWAG_Eagle)
* [Marine Multi-Purpose Vehicle](http://en.wikipedia.org/wiki/Marine_Multi-purpose_Vehicle) (MMPV) - Philippines
* [Hummer](http://en.wikipedia.org/wiki/Hummer) [H1](http://en.wikipedia.org/wiki/Hummer_H1), [H2](http://en.wikipedia.org/wiki/Hummer_H2), and [H3](http://en.wikipedia.org/wiki/Hummer_H3). The entire Hummer series are civilian derivatives of the HMMWV.

**See also**

* [List of "M" series military vehicles](http://en.wikipedia.org/wiki/List_of_%22M%22_series_military_vehicles).
* [Dongfeng Motor Corporation](http://en.wikipedia.org/wiki/Dongfeng_Motor_Corporation) [EQ2050](http://en.wikipedia.org/wiki/EQ2050), a Chinese derivative.
* [GAZ-2975](http://en.wikipedia.org/wiki/GAZ-2975), comparable Russian vehicle.
* [Mahindra Axe](http://en.wikipedia.org/wiki/Mahindra_Axe), an Indian equivalent
* [Lamborghini Cheetah](http://en.wikipedia.org/wiki/Lamborghini_Cheetah), an Italian contender for the original HMMWV contract.
* [URO VAMTAC](http://en.wikipedia.org/wiki/URO_VAMTAC), a Spanish derivative.
* [Otokar Cobra](http://en.wikipedia.org/wiki/Otokar_Cobra), a light armoured vehicle utilizing HMMWV parts.
* [Sandstorm](http://en.wikipedia.org/wiki/Sandstorm_(vehicle)), an HMMWV modified into an autonomous vehicle.

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