

BMP1 Variants

BMP1PK4

When the BMP1 was introduced, it was revolutionary. By 1972 it was decided however that in order for commanders to keep pace with their troops and command effectively, a new vehicle was required. As a result a new variant was developed, this was the K variant. Production started in 1973. There were three sub variants depending upon command level (with a 1-3 suffix depending on level). These were supplemented and replaced by the more modern BMP1PK1-3 (again depending on level). By the early 1990s the Soviets realised that the design had its limits. As a result the BMP1PK4 was developed inspired by the US M577.

This removed the turret of the BMP and added a raised superstructure to house the command team. Whilst not as high as the US vehicle it was still higher than the other command versions and allowed soldiers of up to 5'10" to stand upright. No weapons were fitted as standard but a pintel mount was often fitted with a DShK or NSV (occasionally a KPV, AGS17 or PK was seen). The firing ports were plated over. Racking inside allowed the storage of four AK series rifles, an RPK series squad automatic rifle and an SA7/14 missile.

Access was by a roof hatch, a hatch in the left hull side or by one of the two doors in the rear hull (which were taller than those of the standard BMP1). Radio fittings were usually two R326M (5/25km) radios, one R123 or R137 or R145 (50km) and one R130M or R137 or R145 (50km) radio, although some were given secure radios instead. An active IR/white light searchlight was fitted (this is controlled by the driver and is fixed forward). Crew consists of a driver, commander and five other staff (usually two manning the map boards and three manning radios).

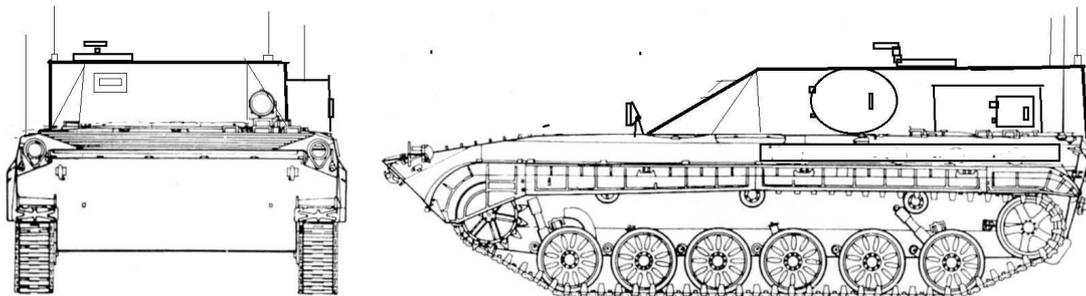


Illustration 1: BMP1K4 note the weapon mount has no weapon fitted here.

Fitted to the left side of the hull was an armoured box containing a AB-1P/30 petrol generator (this must be started from outside the vehicle) which could be used to run the electrical system or charge the batteries of the vehicle (which could also run the electrical systems). The box also contains the parts of the AMU2 Eagle-eye antenna. An NBC overpressure system was fitted (this is inoperative if the hatches or doors are opened).

By 1995 most category I divisions were issued with a BMP1K4 for each motor rifle or tank battalion in addition to its normal compliment of vehicles. Its NATO designation is the BMP M1995.

Vehicle	Price	Fuel Type	Load	Veh Wt	Crew	Mnt	Night Vision	Radiological
BMP1PK4	\$75,000 (-/R)	D, A	1.3 tons	12.5 tons	2+5	8	Passive IR (D, C), Image Intensification (C)	Shielded

Vehicle	Tr Mov	Com Mov	Fuel Cap	Fuel Cons	Config	Susp	Armor
BMP1PK4	125/75	30/20 Swim 2	500	110	Standard	T2	HF6 HS4 HR3*

Vehicle	Fire Control	Stabilization	Armament	Ammunition
BMP1K4	--	--	--	--

*Floor and deck (turret and hull) armour is 3.

BMP1PK4 Variants

BMP1PK4M

This was the upgraded version first seen in 1997. Smoke dischargers were added to the superstructure sides. The side hatch was deleted as it had proved awkward to use this as an emergency exit due to the map boards. The superstructure external sides were given external stowage bins (these were sometimes fitted to BMP1PK4s at base refits, often welded over the escape hatch) increasing external stowage by 150kg. The NATO designation for this was BMP M1997.

BMP1PK4A

This was the air liaison vehicle. One of the R326M radios was replaced by the R809M2 air to ground radio. Other than this it was identical.

PRP5

This variant removed one of the crew members and both the R326M radios and added mortar locating and/or artillery locating radars in an armoured box on the rear of the superstructure roof. Cost is increased by the cost of the radars.

BMP1PKE4 (Czech BVP1PKE4)

This is the export version lacking the NBC overpressure system being treated as enclosed only. Secure radios have never been seen fitted to this version. Czech and Polish built versions usually feature local equivalents of the radios. Cost is reduced to \$70,000.

BMP1 AMB-S

Using the same hull and many internal fittings as the BMP1PK4, this was an ambulance variant. They can be distinguished externally by having only 1 antenna for the single R159 radio, and the slightly differently shaped superstructure. Internally two seats are provided at the front of the superstructure for medical orderlies. On each side there are two fold down platforms to hold stretchers (one above the other). If the top one is folded up the bottom one may be used to seat up to four walking wounded. Above the platforms are compartments for holding medical stores. A small fridge is housed between the two medical staff's seats (this has a storage battery that powers it for up to twelve hours which can be recharged by the generator in one hour). The rear compartment is only exitable from the twin rear doors (unlike the original BMP1 these are the full width of the rear hull, they do however still incorporate external fuel tanks) with the driver having his own hatch on the front hull deck.

BMP1 AMB-S medical orderlies are usually issued with leather tank crew helmets (or at least they will try and obtain them) as their seats are placed under the angled front of the superstructure and many of them have bad experiences of banging their heads on standing up. In addition, as medics are likely to be stood working while the vehicle is moving, it is a running joke that they can be recognised by the fact they will be in a worse state than their passengers on arrival at the hospital.

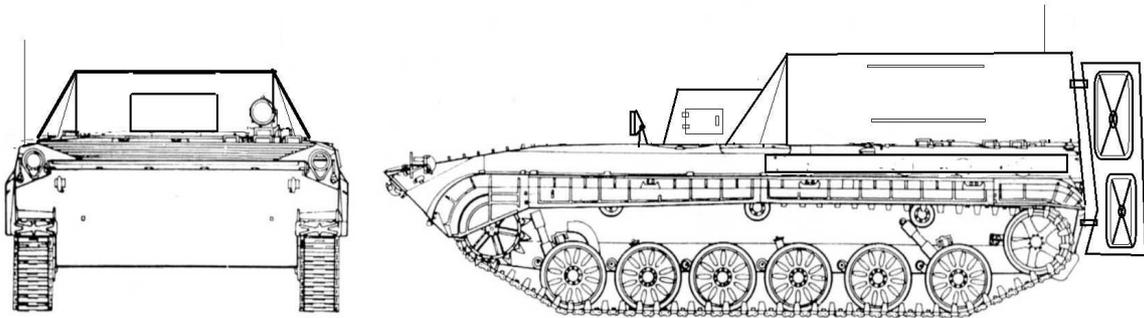


Illustration 2: BMP1 AMB-S with open rear doors (showing external fuel tanks). The bars on the side are for fixing detachable red cross panels. The small hatch on the small box at the front of the superstructure is for servicing the batteries and the electrical components of the fridge and intercom without removing the fridge completely.

Vehicle	Price	Fuel Type	Load	Veh Wt	Crew	Mnt	Night Vision	Radiological
BMP1 AMB-S	\$65,000 (-/S)	D, A	1.3 tons	12.5 tons	3+8**	8	Passive IR (D)	Shielded

Vehicle	Tr Mov	Com Mov	Fuel Cap	Fuel Cons	Config	Susp	Armor
BMP1 AMB-S	125/75	30/20 Swim 2	400	100	Standard	T2	HF6 HS4 HR3*

Vehicle	Fire Control	Stabilization	Armament	Ammunition
BMP1 AMB-S	--	--	--	--

*Floor and deck (turret and hull) armour is 3. ** 2 stretchers = 4 passengers

BMP1 M1998

During the fighting on Poland and Germany in 1997 a number of Soviet convoys were attacked by NATO special forces and stay behind parties in particular the gun jeeps of the newly formed US Marauder companies. These led to heavy losses of supplies that whilst not critical were often a major nuisance to the Soviets. As the NATO allied did, many gun trucks were brought quickly into service but this reduced carrying capacity which was at a premium with the Soviet logistic system creaking from the use of requisitioned trucks.

As a result Major Alexi Mostov of the 347th Support Regiment developed a plan to use damaged BMPs. Using the lessons he had learned in Afghanistan he found four BMP1s with damaged turrets. After a number of bottles of vodka, he not only had them but also the services of a friendly officer at the repair depot. The turrets were removed and plated over with a small hatch in its place. At the rear the front and rear roof hatches were welded shut with the other two enlarged to form a new larger oval hatch. In front of each of the new hatches a gun shield was fitted (the front being larger than the others and slightly offset to the left when viewed from the front to avoid shooting the IR searchlight). The firing ports were plated over as they were no longer required. Weapons could be any capable of being fitted on any of the Pact mountings. Initially whatever weapons could be scrounged by the 347th were fitted giving the following:

Vehicle	Front	Left	Right	Notes
1	NSV	AGS17	PKM	
2	KPV	AGS17	AGS17	
3	AGS17	DShK	DShK	
4	M2HB	PKM	PKM	Rear hatches not welded shut – extra PKM on a pintel mount no gun shield mounted there

“Obtaining captured weapons was usually no problem for us. As a transport unit we could easily ‘lose’ a few items that we could then trade with front line units for what we wanted. Major Mostov and Commissar Kolonak both knew what we were doing but they were really good for officers, they looked after us, after a tough mission they often turned up with a bottle of vodka for us, that was better than a medal! They knew that we felt we were elite for a support unit, actively seeking out fighting. They wanted us to feel that so they let us take the odd liberty.”

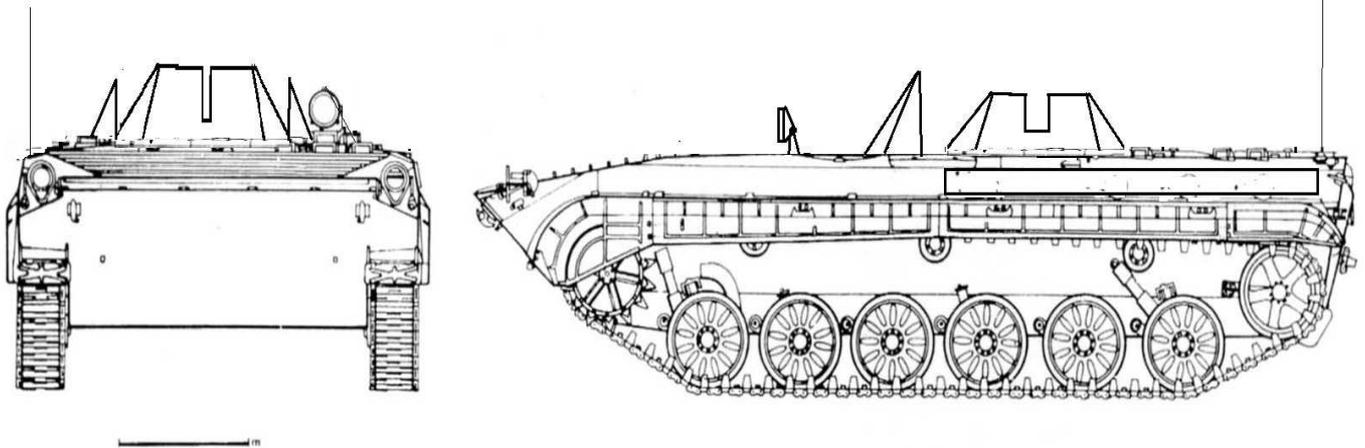
Senior Sergeant Pawel Selin

Quoted in “Forgotten Soviet Voices of the Twilight War” by Alan Smith, Arms and Armour Press 2033

Many of the crew members also ensured that they had close in protection by carrying a weapon for close in defence. These varied by the individuals preferences, popular were AKSU74s, full length AKs with BG15 grenade launchers (with folding stocks if available) and captured weapons (in particular Uzis, G11s, HK CAWS and M231s). These were used when the mounted weapon could not be brought to bear or the range was especially close. In addition a bag of grenades was often hung on the gun shield (MON50 mine bags were especially prized for this with their two compartments to allow the separating of grenade types – often offensive grenades in one, defensive in the other). A smoke grenade was often also placed handy by each gunner.

These were then used to escort convoys from the 347th. Their first action was against a Landwehr ambush where their firepower allowed the convoy to escape with minimal losses. Shortly after however vehicle 3 was badly damaged when it ran over a mine. After attempts to recover it failed it was stripped for spares with the AGS17 moved to vehicle 1's right position and the DShKs replacing the PKMs on

vehicle 4. After this the remaining three vehicles were given a layer of sandbag armour over the whole of the hull increasing the bottom armour by 3 at the expense of 1 ton of the load capacity.



In mid 1999 a second batch of at least 20 were created by the 8th Guards Tank Army to which the 347th was attached. Some of these added a layer of mesh armour to the sides of the vehicle that rose as high as the hull side only. The 347th was changed to the 347th Convoy Escort Regiment under the command of the now Colonel Mostov. In addition to the BMPs the regiment is known to have used a number of BTR60PUs as troop carriers (usually filled with troops borrowed from a local infantry unit) and after July 2000 at least 3 converted HMMWV gun trucks that had belonged to the US 5th Division (these were repainted in Soviet green with large red stars added). Some Soviet sources state that the unit may have had either a ZSU23-4 or ZSU30-2 attached. A report by survivors of the overrun 5th Infantry Division debriefed when they evaded back to NATO lines, stated that a convoy of trucks escorted by the unit also had a BTR-T in the escort vehicles (identified as part of the 347th from the unit insignia). This reported sighting is usually dismissed by intelligence specialists as a misidentified ZSU.

The vehicle was usually fitted with an R326M radio with a 25km range used in the vehicle. In addition there was a jury rigged intercom system that allowed all three gunners and the driver to communicate with each other. In order to do this however they had to wear the leather tank crew helmet instead of the standard steel ones. At least one crew compromised by having the front gunner wear a leather helmet and the other two a steel helmet.

In NATO terminology it was called the BMP1 M1998, it was never given an official designation but was popularly known as the “Без перевода” (Guard Dog) by its Russian users. None is known to survive intact but a BMP1 in the Minsk Museum of the Armed Forces has a BMP1 that has been mocked up as vehicle number 1 of the original batch.

Vehicle	Price	Fuel Type	Load	Veh Wt	Crew	Mnt	Night Vision	Radiologica
BMP1 M1998	\$80,000 (-/R)	D, A	1.5 tons	11 tons	4+2	8	Passive IR (D)	Enclosed

Vehicle	Tr Mov	Com Mov	Fuel Cap	Fuel Cons	Config	Susp	Armor
BMP1 M1998	125/75	30/20 Swim 2	450	100	Standard	T2	HF6 HS4 HR3*

Vehicle	Fire Control	Stabilization	Armament	Ammunition
BMP1 M1998	--	--	Varies (cost not included)	Ammunition is carried as cargo

*Floor and deck (turret and hull) armour is 3. Gun shields are AV2