



## RUSSIA (USSR)

**Flag Description:** Three equal horizontal bands of white (top), blue, and red.



### Background:

Founded in the 12th century, the Principality of Muscovy, was able to emerge from over 200 years of Mongol domination (13th-15th centuries) and to gradually conquer and absorb surrounding principalities. In the early 17th century, a new Romanov Dynasty continued this policy of expansion across Siberia to the Pacific. Under Peter I (ruled 1682-1725), control was extended to the Baltic Sea and the country was renamed the Russian Empire. During the 19th century, more territorial acquisitions were made in Europe and Asia. Repeated devastating defeats of the Russian army in World War I led to widespread rioting in the major cities of the Russian Empire and to the overthrow in

1917 of the imperial household. The Communists seized power soon after and formed the USSR. The rule of Iosif Stalin (1928-53) strengthened communist rule and Russian dominance of the Soviet. The Soviet economy and society stagnated in the following decades until General Secretary Mikhail Gorbachev (1985-91) introduced glasnost (openness) and perestroika (restructuring) in an attempt to modernize Communism, but his initiatives inadvertently released forces that by December 1991 splintered the USSR into Russia and 14 other independent republics. Since then, Russia has struggled in its efforts to build a democratic political system and market economy to replace the strict social, political, and economic controls of the Communist period. While some progress has been made, a determined guerrilla conflict still plagues Russia in Chechnya and threatens to destabilize the North Caucasus region.

**Geography Russia:** Location: Northern Asia (the area west of the Urals is considered part of Europe), bordering the Arctic Ocean, between Europe and the North Pacific Ocean. Area: total: 17,075,200 sq. km. Area - comparative: approximately 1.8 times the size of the US. Land boundaries: total: 20,017 km. Border countries: Azerbaijan 284 km, Belarus 959 km, China (southeast) 3,605 km, China (south) 40 km, Estonia 294 km, Finland 1,340 km, Georgia 723 km, Kazakhstan 6,846 km, North Korea 19 km, Latvia 217 km, Lithuania (Kaliningrad Oblast) 227 km, Mongolia 3,485 km, Norway 196 km, Poland (Kaliningrad Oblast) 206 km, Ukraine 1,576 km. Coastline: 37,653 km. Climate: ranges from steppes in the south through humid continental in much of European Russia; subarctic in Siberia to tundra climate in the polar north; winters vary from cool along Black Sea coast to frigid in Siberia; summers vary from warm in the steppes to cool along Arctic coast. Terrain: broad plain with low hills west of Urals; vast coniferous forest and tundra in Siberia; uplands and mountains along southern border regions. Natural resources: wide natural resource base including major deposits of oil, natural gas, coal, and many strategic minerals, timber; note: formidable obstacles of climate, terrain, and distance hinder exploitation of natural resources. Natural hazards: permafrost over much of Siberia is a major impediment to development; volcanic activity in the Kuril Islands; volcanoes and earthquakes on the Kamchatka Peninsula; spring floods and summer/autumn forest fires throughout Siberia and parts of European Russia. Environment - current issues: air pollution from heavy industry, and transportation in major cities; industrial, municipal, and agricultural pollution of inland waterways and seacoasts; deforestation; soil erosion; soil contamination from improper application of agricultural chemicals; scattered areas of sometimes intense radioactive contamination; ground-water contamination from toxic waste; urban solid waste management; abandoned stocks of obsolete pesticides. Geography - note: largest country in the world in terms of area but unfavorably located in relation to major sea lanes of the world; despite its size, much of the country lacks proper soils and climates (either too cold or too dry) for agriculture. (Information extracted from the CIA World Factbook 2006)



**1903 Car, Armd, 4x2. Charron, Girardot et Voigt.**

**Remarks:** Several of these cars were sold to Russia.  
(see France for vehicle details).

### 1906 Car, Armd, 4x2. Cie Générale des Voitures.



**Remarks:** This was the 1903 Charron with a new name. An additional pair of cars was supplied to Russia, see France for vehicle details.

1915 Car, Armd, 4x2. Austin-Putilov Mod 1915

1915 Car, Armd, 4x2. Izhorsky-White

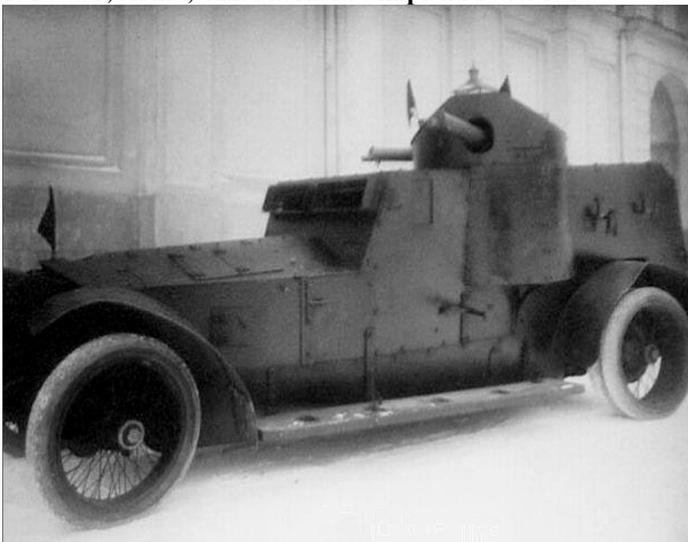
1915 Car, Armd, 4x2. Larsky-Ehrhardt

1915 Car, Armd, 4x2. Putilov-Garford

1915 Car, Armd, 4x2. Renault-Mgebrov

1915 Car, Armd, 4x2. Russo-Balt

### 1915 Car, Armd, 4x2. Sheffield-Simplex Model 1915.

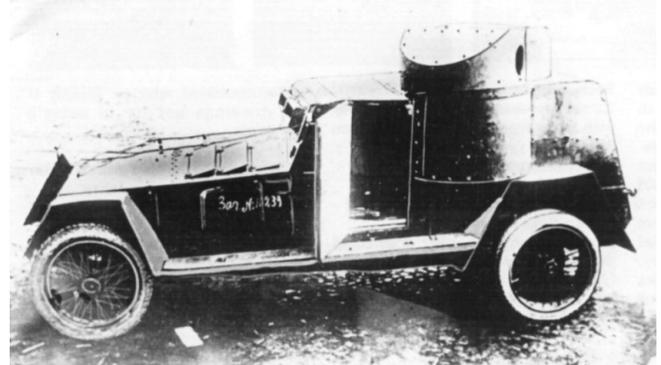


**Remarks:** In the early stages of WWI when Russia was chronically short of vehicles of all kinds, including armored cars, an order was placed with Sheffield-Simplex for a total of 24 armored cars based on their 30 hp chassis (although a 60 hp engine was substituted to help with the extra weight). Generally similar to Russian designs of the time, the car had a long hood, and two machine gun turrets set diagonally over the crew compartment. Sources indicate that 24 cars were built for Russia, but the re-

cords for Sheffield-Simplex only claim that 12 vehicles were completed. It is possible that an additional 12 chassis were shipped to Russia to have an armored body added there. The cars don't seem to have made much of an impression on the Russians and no further cars were requested. The vehicles themselves were upgraded in Russia in 1916 (these cars can be recognized by their squared-off fenders) and again in 1919 during the revolution when remaining cars were refurbished and put back into service (see UK for vehicle details).

1915 Carr, Wpns, N. N. Lebedenko (3-wheel).

### 1916 Car, Armd, 4x2. Sheffield-Simplex Model 1916.



*Above: Sheffield-Simplex Model 1916 with simplified fenders and revised frontal armor. (Photo: Author's collection)*

**Remarks:** Unhappy with the performance of their Sheffield-Simplex cars, in 1916 the Russians tried to make some improvements. First was to rearrange the radiator armor to a single slanted surface with opening doors for ventilation. The fenders were also simplified to straight angles and dual wheels fitted at the rear. It's not clear how many of the original 24 cars were finally upgraded. The cars received a third and final upgrade in 1919 during the revolution when remaining cars were refurbished and put back into service. Many of these Model 1919 cars have wood spoked wheels, with flat radiator armor and a large single headlight mounted on top of the hood centerline.

**Vehicle (Mod 1916) Data:** Drive, 4x2. Armor, .28 in (7 mm). NBC Protection, individual. *Armament:* (2) 7.92mm Maxim MMG. Elevation & traverse, manual. Fire Control, optical. Aux wpns, crew sidearms. *Capacity:* Fuel, gasoline. Crew, 4. *Engine:* 6-cylinder, liquid-cooled, gasoline engine producing 60 hp (44 kW). Location, front. *Transmission:* Type, manual. *Suspension System:* Leaf spring. Wheels Steerable, front pair. No of wheels, 4 (duals at rear). Tire Size, (self-sealing). *Performance:* Speed, 25 mph (40 km/h). *Usage:* An unknown number of cars were upgraded to 1916 standards. All were in service with Russia. *Manufacturer:* Chassis, Sheffield-Simplex. Armored body, Russian Army depots.

### 1915 Car, Armd, 4x4. AB-9 Poplavko-Jeffery.



Above: Poplavko-Jeffery AB-9 with four man crew (fourth man is behind vehicle). (Photo: Author's collection)

**Remarks:** The Jeffery chassis had separate drive shafts mounted above the main axles, through a universal joint at the wheel, which ended in a spur gear that drove a reduction gear located about halfway out from the wheel hubs. With this arrangement, dead-axles were used at both front and rear. The high ground clearance, plus four-wheel drive and four-wheel steering were the reason Captain Poplavko chose the chassis for his armored car design. The somewhat strange shape of the armored hull was to assist in breaking through barbed wire. With the addition of a frame to the front, the vehicle was able to clear a path through up to five rows of wire, even on muddy ground.

**Vehicle Data:** Weight empty, 7,839 lbs (3555 kg). Loaded, 17,640 lbs (8000 kg). Length, 196 in (4978 mm). Width, 77 in (1956 mm). Height, 84 in (2134 mm). Wheel Base, 124 in (3150 mm). Drive, 4x4. Armor, .63 in (16 mm). **Armament:** (2) 7.62mm Vickers-Maxim LMG. Elevation & traverse, manual. Fire Control, optical. Aux wpons, crew sidearms. **Capacity:** Fuel, gasoline. Crew, 4. **Engine:** (1) Buda model HU 4-cylinder water-cooled, producing 29 hp (21.5 kW). Location, front. **Transmission:** Manual with 4-fwd and 1-rev gear. **Suspension System:** Leaf spring. Wheels Steerable, all wheels. Turning Radius, 28 ft (8.5 m). No of wheels, 4. **Performance:** Speed, 15 mph (24 km/h). **Usage:** The Russian War Ministry ordered 30 AB-9s and all were in service by late 1916, early 1917. **Manufacturer:** Russian State Arsenals, St. Petersburg.

### 1917 Car, Armd, 4x2, Austin.



### 1917 Car, Armd, 4x2. Austin-Putilov Mod 1917

### 1917 Car, Armd, 4x2. Packard Mod 1917

### 1918 Car, Armd, 4x2. Izhorsky-Fiat.



Above: Izhorsky-Fiat armored car. (Photo: Author's collection)

**Remarks:** At least one car was captured and used by Finland in 1918.

### 1919 Car, Armd, 4x2. Sheffield-Simplex Model 1919.



Above: Sheffield-Simplex Model 1919 with revised frontal armor reworked by Russian army depots. (Photo: Jochen Vollert Collection)

**Remarks:** With the out-break of the Russian Civil War, even those armored cars that had been thought as unacceptable for combat, were pressed back into service. It's not clear how many of the original 24 cars were still available but evidently everything that would roll was upgraded and issued. The cars received their third and final upgrade in 1919. Many of these Model 1919 cars have wood spoked wheels, the flat (slanted) radiator armor and a large single headlight mounted on top of the hood centerline. Fenders could be either the original curved factory design, or the later simplified straight fenders applied at the depots.

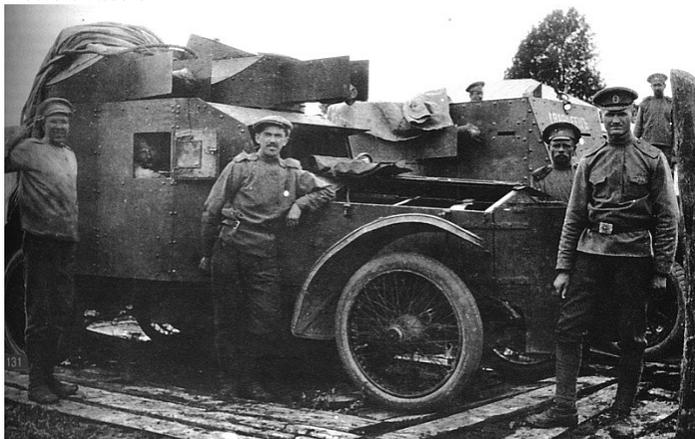
**Vehicle (Mod 1919) Data:** Drive, 4x2. Armor, .28 in (7 mm). NBC Protection, individual. *Armament:* (2) 7.92mm Maxim or (2) Lewis .303 caliber MMG. Elevation & traverse, manual. Fire Control, optical. Aux wpns, crew sidearms. *Capacity:* Fuel, gasoline. Ammo/Qty, unk. Crew, 4. *Engine:* (1) Gasoline 6-cylinder water-cooled engine producing 60 hp (44 kW). Location, front. *Transmission:* Manual. *Suspension System:* Leaf spring. Wheels Steerable, front pair. No of wheels, 4 (duals sometimes fitted at rear). Tire Size, 4.7x40 in (120x1020 mm) self-sealing. *Performance:* Speed, 25 mph (40 km/h). Range, unk. *Usage:* An unknown number of cars were upgraded to 1919 standards. All were in service with Russia. *Manufacturer:* Chassis, Sheffield-Simplex. Armored body, Russian Army depots.

**1919 Car, Armd, 4x2. Armstrong-Whitworth with Fiat Chassis**



Remarks: Series was modified from existing cars in Russian shops.

**1919 Car, Armd, 4x2. Armstrong-Whitworth with Jarrott-Letts chassis**



Remarks: There may have been more than one of these modifications with a Armstrong-Whitworth armored body fitted to a Jarrott-Letts chassis.

1928 Car, Armd, 4x2. BA-27

1928 Veh, Cmd, BA-27V

**1931 Car, Armd, 4x2. D-8.**

**Remarks:** At least one D-8 was captured and used by Finland.

1931 Car, Armd, 6x4. D-9

**Remarks:** Prototype only, no production.



Above: D9 during testing.

**1931 Car, Armd, 4x2. D-12.**

1931 Car, Armd, 6x4, D-13

**1932 Car, Armd, 6x4, BA-1.**



Above: BA-1 in Moscow parade before WWII. (Photo: Author's collection)

**1932 Car, Armd, 6x4, BA-27M**



Above: BA-27M at the start of WWII.

1932 Car, Armd, 6x4, D-13

1932 Car, Armd, Amph, BAD (BAD-1)

1932 Car, Armd, Amph, BAD-2

**1934 Car, Armd, 6x4, BA-3.**



Above: BA-3 armored car. (Photo: Author's collection)

**1935 Car, Armd, 6x4, BA-6.**

**Remarks:** At least one captured BA-6 was used by Finland during the "Winter War".

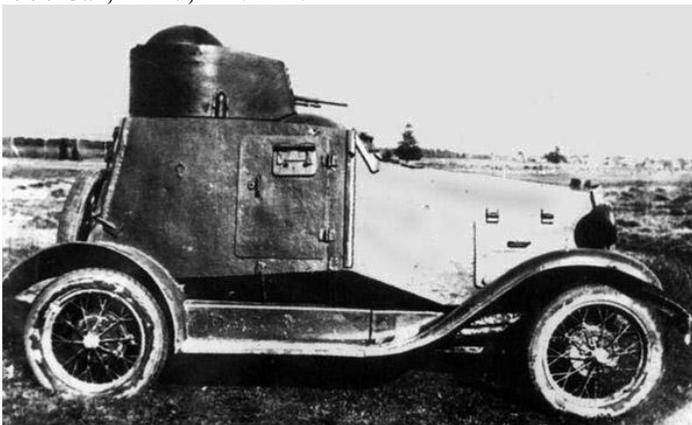
1935 Car, Armd, 6x4, GAZ-TK

1935 Car, Armd, Amph, PB-4

**1936 Car, Armd, 4x2, BA-20M.**

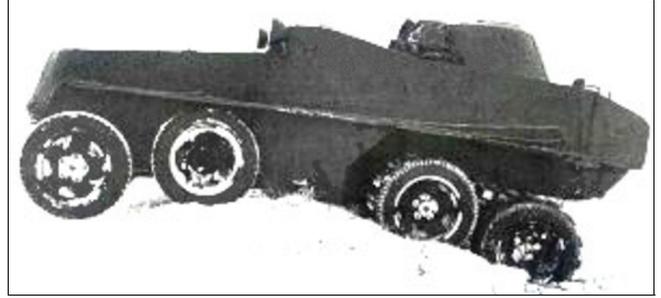
**Remarks:** One BA-20M was captured and put into service by Finland in 1941.

**1936 Car, Armd, 4x2, FAI.**



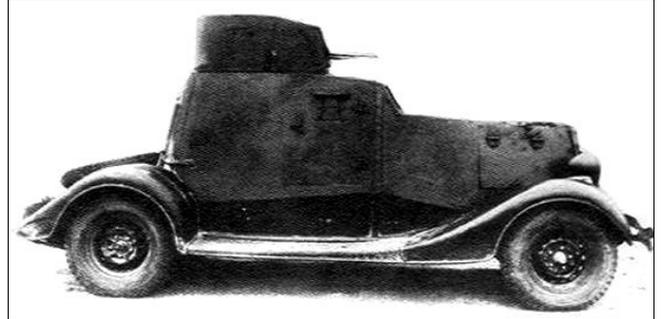
**Remarks:** At least one FAI was captured by Finland during WWII and used against the Russians.

**1937 Car, Armd, Amph, 6x4, PB-7.**



**Remarks:** Experimental design.

**1938 Car, Armd, 4x2, FAI-M.**



**Remarks:** At least one FAI-M was captured during WWII and used by Finnish forces against the Russians. The FAI-M had the hull and turret of the older FAI remounted on the same chassis as the BA-20M armored car. In Finnish service both the FAI-M (serial R-28) and the BA-20M (serial R-12) were known as the BAB-B.

**1938 Car, Armd, 6x4, BA-10.**

**Remarks:** Besides the captured BA-10s used by Germany, where it was known as the Ba-203 (r); one BA-10 was captured by Finland and issued the serial R-15.

1939 Car, Armd, 6x4, BA-10M.

**1939 Car, Armd, 6x4, BA-11.**



Above: BA-11 armored car. (Photo: Author's collection)

1939 Car, Armd, 6x4, BA-21

1939 Car, Armd, 6x4, LB-23

1940 Car, Armd, 4x2. Imp AC, Ford

1940 Car, Armd, 4x4, LB-62

1940 Car, Armd, 4x4, LB-NATI

1940 Car, Armd, 6x4, Imp AC, Leningrad

1941 Veh, Util, GAZ-61-415

1941 Veh, Util, Gaz-64.

**1942 Veh, Recce. M3A1 Scout Car.**



Above: Lend-Lease M3A1 Scout Car in Berlin, 1945.

**Remarks:** By 1946, Russia had received a total of 3,340 M3A1 Scout Cars as part of the Lend-Lease program, from the US (see US for vehicle details).

**1943 Car, Armd, 4x4, BA-64.**



Left/Below: BA-64 armed with a light machine gun. (Photo: Author's collection)

1943 Carr, Wpns, KSP-76, 76mm TD (4x4)

1943 Veh, Util, GAZ-67B

1944 Car, Armd, 4x4, BA-64 Airborne

1944 Carr, Pers, Armd, 4x4. BA-64 APC.

**1946 Carr, Pers, Armd, 6x6. APC, BTR-152. Remarks:** Vehicles have been supplied to: Algeria, Cambodia, China, Cuba,

1948 Carr, Pers, Armd, 4x4. BTR-40. BTR-40s were also supplied to China,

1952 Veh, Util, GAZ-69.

**1958 Veh, Recce, 4x4. BRDM-1.**



Above: A Soviet Army BRDM-1 M1959 during amphibious crossing. (Photo: Author's collection)

**Remarks:** One of the most common of the Soviet Bloc reconnaissance vehicles from 1960 to the mid-1970s, the BRDM (or Bronevaya Razvedyvatelnaya Dosornaya Maschina [Armored Reconnaissance Duty Machine]) variants of the vehicle lasted in service for over 20 years. A redesign of the BTR-40 Scout Car, the BRDM was at first designated as the BTR-40P which was gradually replaced in Soviet usage by BRDM. The -1 portion of the designator wasn't added until the introduction of the rear engine BRDM-2. Both vehicles were in-service for several years as the -1 was gradually retired.

Over 10,000 BRDM-1 were completed with approximately 1500 being exported to Soviet Bloc and friendly nations. Variations of the BRDM-1 include: BRDM-1 M1957 (initial open top version), BRDM-1 M1958 (first series production version and fitted with armored top), BRDM-1 M1959 (armored top and single weapon mount at the front), BRDM-1 M1960 (armored top with front and side weapon

mounts), BRDM-1U (C and C variant with extra radios), BRDM-1 Rkh (NBC Recce vehicle), 9P27 (BRDM-1 with Snapper ATGM also known as the 2P27), 9P32 (BRDM-1 with Swatter ATGM also known as the 2P32) and 9P110 (BRDM-1 with Sagger ATGM). Since most of the BRDM-1s were refitted during their life cycle, it can be difficult to establish just which variant is pictured.

**Vehicle Data:** Weight empty, 11,600 lbs (5266 kgs). Weight loaded, 12,346 lbs (5605 kgs). Length, 220.5 in (5600 mm). Width, 88.5 in (2250 mm). Height, 74.8 in (1900 mm). Ground clr, 12.4 in (315 mm). Wheel base, 110 in (2800 mm). Wheel tread, 65.3 in (1660 mm). Drive, 4x4 plus 4x4 auxillary. Armor, .16 to .39 in (4 to 10 mm). NBC protection, Overpressure. *Armament:* Main, (1) 7.62mm PKT. Elev & traverse, manual. Fire control, optical. *Capacity:* Fuel, gasoline. Ammo/Qty, 1250 rds 7.62mm. Crew/Pass, 2/3. Cargo Vol/Wgt, 800 lb (363 kg). *Engine:* (1) GAZ, 6-cyl, water-cooled, gasoline, producing 90 hp (66.4 kW) @ 3400 rpm. Mfr, State Factory. Location, front. *Transmission:* Manual. Gear Fwd/Rev, 4/1 w/2-spd transfer. *Suspension System:* Leaf spring. Steering, front axle. No/wheels, 4+4. Tire Size (main), 12.00x18. *General Data:* Elec voltage, 12V. Radio, as fitted by user. Night Vision, as fitted by user. *Performance:* Speed/Land, 50 mph (80 km/h). Speed/Water, 5.5 mph (9 km/h). Range, 310 mi (500 km). Forcing depth, amphibious. Max grade, 52.4 %. Trench, 48 in (1220 mm). Step, 15.8 in (400 mm). Usage: Soviet Union, Albania, Algeria, Angola, Bulgaria, Cuba, Czechoslovakia, East Germany, Guinea, Mozambique, Poland and Romania. Manufacturer: GAZ, Soviet State Factories, USSR.

**1958 Carr, Wpns, 9P27 (AT-1 Snapper on BRDM-1).**



Above: Soviet/Russian 9P27 missile carrier. The crew is offset from the carrier with the remote control guidance system.

**Remarks:** A conversion of the BRDM-1 ARv, the 9P27 mounted the AT-1 Snapper (Bumblebee) anti-tank missile. Specifications for the AT-1 included: Missile length: 3.79 ft (1130 mm). Wing span: 2.75 ft (838 mm). Body Dia: 5.5 in (140mm). Launch Weight: 44 lbs (22.3 kg). Power: (1) solid rocket. Max Speed: 295 ft (90 m) per sec. Warhead: HE 11.5 lbs (5.25 kg). Minimum range: 1540 ft (500 m). Maximum range: 7546 ft (2300 m). Guidance: Wire guided command to line-of-sight with optical tracking. Control by vibrating trailing edge spoilers. Launcher designer: 2P27. Carrier designer: 9P27.

**Vehicle (9P27) Data:** Weight empty, 11,600 lbs (5266 kg). Wgt loaded (est), 12,846 lbs (5832 kg). Length, 220.5 in (5600 mm). Width, 88.5 in (2250 mm). Height (closed), 74.8 in (1900 mm). Ground clr, 12.4 in (315 mm). Wheel base, 110 in (2800 mm). Wheel tread, 65.3 in (1660 mm). Drive, 4x4 plus 4x4 aux. Armor, .16 to .39 in (4 to 10 mm). NBC protection, Overpressure. *Armament:* Main, (3) AT-1 Snapper AT missiles. Elev & traverse, Power. Fire control, Wire guided. Aux wpns, crew side arms. *Capacity:* Fuel, gasoline. Ammo/Qty, 3 ready & 3 reserve. Crew/Pass, 2. Cargo Vol/Wgt, 500 lbs (227 kg). *Engine:* Type, gasoline. HP at Rev/Min, 90 hp (66.4 kW) @ 3400 rpm. Model, GAZ. Mfr, State Factory. No. of Cyls, 6. Location, front. Cooling, liquid. *Transmission:* Type, manual. Gear Fwd/Rev, 4/1 w/2-spd transfer. Model, GAZ. Mfr, State Factory. *Suspension System:* Type, leaf spring. Steering, front axle. No/wheels, 4+4. Tire Size, 12.00x18. *General Data:* Elec voltage, 24V. Radio, as fitted by user. *Night Vision:* As fitted by user. *Performance:* Speed/Land, 50 mph (80 km/h). Speed/Water, 5.5 mph (9 km/h). Range, 310 mi (500 km). Forcing depth, amphibious. Max grade, 52.4 %. Trench, 48 in (1220 mm). Step, 15.8 in (400 mm). Usage: (Among others) Soviet Union, Bulgaria, Czechoslovakia, East Germany, and Romania. Manufacturer: GAZ, Soviet State Factories, USSR.

**1960 Carr, Pers, Armd, 8x8. BTR-60.**

**Remarks:** Open topped version, vehicles were delivered to Cuba, Germany (East),

**1960 Carr, Pers, Armd, 8x8. BTR-60 PA (armored top).**

**Remarks:** PAs were delivered to Finland 1966, Germany (East),

**1960 Carr, Pers, Armd, 8x8. BTR-60 PB (turret).**



**Remarks:** Built in the thousands, carriers were delivered to Finland 1971, Iraq (250) and Peru (12) among many others.

**1960 Veh, Cmd, BTR-60 PU / BTR-R (C&C). Remarks:** PUs were also delivered to Finland 1983

### 1963 Carr, Wpns, 2P32 (AT-2a Swatter on BRDM-1).



Above: Soviet/Russian 2P32 missile carrier. Fitted with powered (non-armored) cover panels, the covers could also be supplemented with a tarp to keep out the weather. (Photos: Author's collection)

**Remarks:** A direct conversion of the BRDM armored reconnaissance vehicle, the 2P32 mounted the AT-2 Swatter anti-tank missile. Specifications for the AT-2 included: Missile length: 3.67 ft (1100 mm). Body Dia: 5.9 in (150mm). Launch Weight: 59.5 lbs (27 kg). Power: (1) solid rocket. Max Speed: 492 ft (150 m) per sec. Warhead: HEAT. Minimum range: 1,312 ft (400 m). Maximum range: 8,202 ft (2500 m). Guidance: Radio guided command to line-of-sight with Active homing. Control by elevons on trailing edge. Launcher designator: 2P32.

**Vehicle Data:** Weight empty, 11,600 lbs (5266 kg). Weight loaded (est), 12,846 lb (5832 kg). Length, 220.5 in (5600 mm). Width, 88.5 in (2250 mm). Height (closed), 74.8 in (1900 mm). Ground clearance, 12.4 in (315 mm). Wheel base, 110 in (2800 mm). Wheel tread, 65.3 in (1660 mm). Drive, 4x4 plus 4x4 aux. Armor, .16 to .39 in (4 to 10 mm). NBC protection, Overpressure. **Armament:** Main, (4) AT-2a Swatter AT missiles. Elev & traverse, power. Fire control, Radio guided. Aux wpns, Crew side arms. **Capacity:** Fuel, gasoline. Ammo/Qty, 4 ready. Crew/Pass, 2. Cargo Vol/Wgt, 500 lbs (227 kg). **Engine:** Type, gasoline. HP at Rev/Min, 90 hp (66.4 kW) @ 3400 rpm. Model, GAZ. Mfr, State Factory. No. of Cyls, 6. Location, front. Cooling, liquid. **Transmission:** Type, manual. Gear Fwd/Rev, 4/1 w/2-spd transfer. Model, GAZ. Mfr, State Factory. **Suspension System:** Type, leaf spring. Steering, front axle. No/wheels, 4+4. Tire Size, 12.00x18. **Performance:** Speed/Land, 50 mph (80 km/h). Speed/Water, 5.5 mph (9 km/h). Range, 310 mi (500 km). Fording depth, amphibious. Max grade, 52.4 %. Trench, 48 in (1220 mm). Step, 15.8 in (400 mm). **2P32 Carrier Usage:** Soviet Union. **Manufacturer:** GAZ, Soviet State Factories, USSR.

### 1963 Veh, Recce, 4x4, BRDM-2.

**Remarks:** Among other nations, cars were delivered to, Iraq (100) and Peru (30),

### 1963 Carr, Wpns, 4x4, 9P110 (AT-3 Sagger BRDM-1).



Above: Soviet/Russian 9P110 missile carrier during one of the yearly parades in Moscow. The launcher rails and cover had a limited left and right powered rotation to give some flexibility to placement of the vehicle. (Photo: Author's collection)

**Remarks:** A direct conversion of the BRDM armored reconnaissance vehicle, the 9P110 mounted the AT-3 Sagger anti-tank missile. Widely used by the Soviet Union in man-pack and vehicle launchers, the Sagger was also widely exported. Specifications for the AT-3 included, Missile length: 2.8 ft (863 mm). Body Dia: 4.7 in (119 mm). Launch Weight: 30 lbs (11.3 kg). Power: (1) solid rocket. Max Speed: 294 ft (120 m) per sec. Warhead: HEAT 11.5 lbs (5.25 kg). Minimum range: 1540 ft (500 m). Maximum range: 9843 ft (3000 m). Guidance: Wire guided command to line-of-sight with optical tracking. Max penetration: 16 in (410 mm). Launcher designator: 2P110. Carrier designator: 9P110.

**Vehicle Data:** Weight empty, 11,600 lbs (5266 kg). Wgt loaded (est), 12,846 lbs (5832 kg). Length, 220.5 in (5600 mm). Width, 88.5 in (2250 mm). Height (closed), 74.8 in (1900 mm). Ground clr, 12.4 in (315 mm). Wheel base, 110 in (2800 mm). Wheel tread, 65.3 in (1660 mm). Drive, 4x4 plus 4x4 aux. Armor, 16 to .39 in. (4 to 10 mm). NBC protection, overpressure. **Armament:** Main, (4) AT-3 Snapper AT missiles. Elev & traverse, Power. Fire control, Wire guided. Aux wpns, Crew side arms. **Capacity:** Fuel, gasoline. Ammo/Qty, 4 ready. Crew/Pass, 2. Cargo Vol/Wgt, 500 lbs (227 kg). **Engine:** Gasoline. HP at Rev/Min, 90 hp (66.4 kW) @ 3400 rpm. Model, GAZ. Mfr. State Factory. No. of Cyls, 6. Location, front. Cooling, liquid. **Transmission:** Manual. Gear Fwd/Rev, 4/1 w/2-spd transfer. Model, GAZ. Mfr, State Factory. **Suspension System:** Leaf spring. Steering, front axle. No/wheels, 4+4. Tire Size, 12.00x18. **Performance:** Speed/Land, 50 mph (80 km/h). Speed/Water, 5.5 mph (9 km/h). Range, 310 mi (500 km). Fording depth, amphibious. Max grade, 52.4 %. Trench, 48 in (1220 mm). Step, 15.8 in (400 mm). **9P110 Carrier Usage:** widely used within the Soviet bloc including East Germany and Romania. **Manufacturer:** GAZ, Soviet State Factories, USSR.

1966 Veh, Recce, BRDM-2RKha (NBC Recce) w/cannon.

1968 Carr, Anti-Aircraft, 4x4, BRDM-2 9P31 TEL (SA-9). Carriers were delivered to: Iraq (160).

1968 Carr, Wpns, 4x4, BRDM-2 9P122 (AT-3 Sagger). Carriers were delivered to: Iraq (100),

1970 Veh, Recce, BRDM-2RKhB (NBC Recce) w/MG

1970 Carr, Pers, Armd, 8x8. APC, BTR-70

1970 Veh, Cmd, BRDM-2u

1973 Carr, Wpns, BRDM-2 9P124 (AT-2c Swatter/Flanga-M)

**1973 Veh, Util, 4x4. UAZ-469.**



1974 Carr, Wpns, BRDM-2 9P148 (AT-5 Spandrel)

**1984 Carr, Pers, Armd, 8x8. APC, BTR-80**



Above: BTR-80 Baltic Fleet Russian Marines.

The BTR-80 is a modern, lightly armored vehicle with a diesel power plant. It is manufactured at the Gorkiy Automobile Factory in Nizhniy Novgorod and has been in service since the early 1980s. The BTR-80 is a lightly armored amphibious vehicle with a collective chemical-biological-radiological (CBR) protective system. Operated by a crew of three, the vehicle can carry a squad of seven infantry troops. Intended to carry personnel on the battlefield and provide close fire support. It can also carry out reconnaissance, combat support and patrol missions. It entered service with the Russian army in the late 1980's and has since been used in a number of military conflicts, including UN peace-keeping operations. Revised versions are in production.

1990 Carr, Wpns, 2S23 (Mortar Carr 8x8)

1990 Carr, Wpns, 2S23 NONA-SVK, 120mm G/H, 8x8

**1994 Carr, Pers, Armd, 8x8. BTR-80A.**



BTR-80A: The BTR-80 has evolved into the BTR-80A. In 1993, the Tula design bureau finished development of a new turret similar to that on the German Marder APC, mounting a 30-mm 2A42 (BMP-2) automatic gun, coax 7.62-mm MG, and TNP-3 day/night sights. This vehicle is in prototype and offered for export. The drop-in gun/turret package (Modular Weapon System) is offered for export, to upgrade a wide variety of vehicles to BTR-80A standard. BTR-80A can mount K1-126 bullet-resistant tires. On the BTR-80A and BTR-80S, the standard BTR-80 turret is replaced with a modular armaments system. The BTR-80A is fitted with a 30 mm 2A72 automatic gun and 7.62 mm PKT coaxial machine gun. **Remarks:** 23 new build vehicles were delivered to Uzbekistan in 2001.

**1994 Carr, Personnel, Armored, 8x8, BTR-80S.**

Variant includes the turret/fire control, but with 14.5-mm versus 30-mm gun. The BTR-80S is equipped with 14 mm KPVT machine gun and 7.62 mm PKT coaxial machine gun. For both these modifications, the armament system can be altered to fit customer requirements. The armament sighting system is manual. The fire control system includes a dual magnification day sight and x5.5 night sight.

**1994 Vehicle, Command, 8x8, BTR-80K.**

BTR-80K: Command variant w/ added R-173, R-173P, and R-159 (portable) radios, R-174intercom, navigation aids, and an 11-m mast. The BTR-80K is intended to enable the infantry battalion commander to command sub-units and maintain communications with headquarters. It is based on the BTR-80, with the same 14.5 mm and 7.62 mm machine guns, but has a number of extra systems necessary for this mission. These include: two VHF-173 radio sets, antenna device set for UHF antenna, IFF automatic interrogator, TNA-4 navigational aid, PAB- 2M artillery periscope aiming ring, TNP-165A night vision sight, TSh-4 inter-phone headsets with GVSh-T-13 head and chest set.

**1994, Vehicle, Command, 8x8, 1V152 (BTR-80)**

Artillery battalion command vehicle. Basically as the BTR-80K.

**1994, Carr, Wpn, 8x8 2S23 (BTR-80) with 120mm Mortar.**

120-mm self-propelled combination gun (howitzer/mortar).

**1994 Veh, Recce, NBC, 8x8 BTR-80 RkhM-4.** NBC reconnaissance vehicle.

**1994 Carr, Pers, Armd, 8x8. BTR-90.**



Remarks: Only a limited number of BTR-90s have been produced in favor of upgrading existing BTR-80/80As.

1994 Veh, Util, GAZ-3937, 4x4

1994 Veh, Util, URAL 4320 Armd truck

1995 Car, Armd, 4x4, GAZ-39344 SIAM