



FRANCE

Flag Description: three equal vertical bands of blue (hoist side), white, and red; known as the "Le drapeau tricolore" (French Tricolor), the origin of the flag dates to 1790 and the French Revolution.



Background: Although ultimately a victor in World Wars I and II, France suffered extensive losses in its empire, wealth, manpower, and rank as a dominant nation-state. Nevertheless, France today is one of the most modern countries in the world and is a leader among European nations. Since 1958, it has constructed a presidential democracy resistant to the instabilities experienced in earlier parliamentary democracies. In recent years, its reconciliation and cooperation with Germany have proved central to the economic integration of Europe, including the introduction of a common currency, the euro. At present, France is at the forefront of efforts to develop the EU's military capabilities to supplement progress toward an EU foreign policy.

Geography. Location: Western Europe, bordering the Bay of Biscay and English Channel, between Belgium and Spain, southeast of the UK; bordering the Mediterranean Sea, between Italy and Spain. Area: total: 547,030 sq. km. note: includes only metropolitan France. Area -

comparative: slightly less than twice the size of Colorado. Land boundaries: total: 2,889 km. Border countries: Andorra 56.6 km, Belgium 620 km, Germany 451 km, Italy 488 km, Luxembourg 73 km, Monaco 4.4 km, Spain 623 km, Switzerland 573 km. Coastline: 3,427 km. Climate: generally cool winters and mild summers, but mild winters and hot summers along the Mediterranean; occasional strong, cold, dry, north-to-northwesterly wind known as mistral. Terrain: mostly flat plains or gently rolling hills in north and west; remainder is mountainous, especially Pyrenees in south, Alps in east. Natural resources: coal, iron ore, bauxite, zinc, uranium, antimony, arsenic, potash, feldspar, fluorospar, gypsum, timber, fish. Natural hazards: flooding; avalanches; midwinter windstorms; drought; forest fires in south near the Mediterranean. Environment - current issues: some forest damage from acid rain; air pollution from industrial and vehicle emissions; water pollution from urban wastes, agricultural runoff. Geography - note: largest West European nation. (CIA Fact Book 2006)

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



Remarks (left): Several Charron cars were sold to Russia.

1905 Veh, Recce, 4x2. Genty (Panhard-Genty). Panhard chassis.

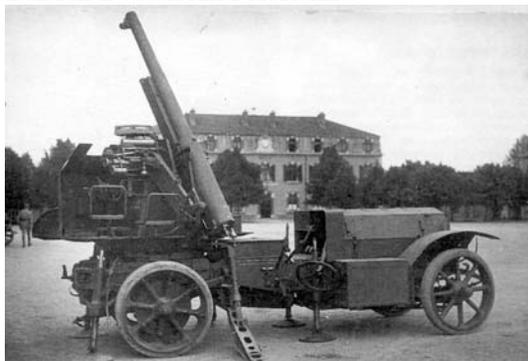
1906 Car, Armd, 4x2. Cie Générale des Voitures. This was the 1903 Charron with a new name. An additional pair of cars were supplied to Russia.

1908 Car, Armd, 4x2. Renault. Armored hull with no overhead cover. Vehicle was armed with a single Hotchkiss machine gun with a shield.

1909 Car, Armd, 4x2. Hotchkiss et Cie. At least one car was also supplied to Denmark.

1909 Car, Armd, 4x2. Schneider et Cie.

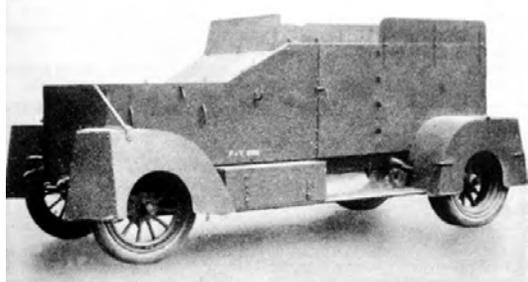
1913 Carr, Anti-Aircraft, Carriage, AA, 4x2. DeDion-Bouton Anti-Aérienne.



Above: Mobile AA vehicle fitted with 75mm cannon.

1914 Car, Armd, 4x2. Autocanon des Fusiliers Marins. 47mm cannon at the rear in a large turret.

1914 Car, Armd, 4x2. AM DeDion Bouton Mod. 1914.



Remarks: An early armored car produced by DeDion-Bouton for the French military, this vehicle was probably based on the 54 horsepower V8 chassis. Although a second design with overhead protection was completed in 1916, most of the production facilities of DeDion were turned to trucks, shells, rifle parts and the license production of Hispano-Suiza aircraft engines.

Vehicle Data: Length (est), 184 in (4680mm). Width (est), 68 in (1720mm), Height (est), 134 in (3390mm). Drive, 4x2. NBC Protection, individual. *Capacity:* Fuel, 7.3 gals (27.6 liters) gasoline. *Engine:* DeDion-Bouton V8 gasoline engine producing 54 hp @ 1500 rpm. Location, front. Cooling, liquid. *Transmission:* DeDion-Bouton manual with 4-fwd and 1-rev gear. *Suspension System:* Leaf spring. *Wheels Steerable,* front pair. No of wheels, 4. *Tire Size,* 5.3x36 inch. *Usage:* French Army. *Manufacturer:* DeDion-Bouton, France.

1914 Car, Armd, 4x2. Peugeot AM, Mod 1914 Type 1.



Above: Peugeot AM Mod 1914 Type 1. (Photo: ECPA)

Remarks: Early Peugeot AM only the driver's compartment and rear box had any armor protection. This vehicle was soon replaced with the fully armored Mod. 1914 Type 2.

Vehicle Data: Drive, 4x2. NBC Protection, individual. *Armament:* (1) 37mm autocannon. Elevation & traverse, manual. *Capacity:* Fuel, gasoline. Crew, 3-4. *Engine:* Peugeot gasoline producing 18 hp. Location, front. Cooling, liquid. *Transmission:* Manual. *Suspension System:* Leaf spring. *Wheels Steerable,* front pair. No of wheels, 4. *Usage:* French Army. *Manufacturer:* Peugeot.

1914 Car, Armd, 4x2. Peugeot AM, Mod 1914 Type 2.



Above: Peugeot AM Model 1914 Type 2. (Photo: Author's collection)

Remarks: Second version of the Peugeot armored car, the vehicle now has a fully armored body and either an 8mm machine gun or a 37mm auto-cannon. After the end of WWI, those remaining Peugeots in service would be sold to Poland.

Vehicle Data: Drive, 4x2. NBC Protection, individual. *Armament:* (1) 37mm autocannon or (1) 8mm Light machine gun. Elevation & traverse, manual. *Capacity:* Fuel, gasoline. Crew, 3-4. *Engine:* (1) Peugeot, gasoline engine producing 18 hp. Location, front. Cooling, liquid. *Transmission:* Manual. *Suspension System:* Leaf

spring. Wheels Steerable, front pair. No of wheels, 4. *Usage:* French Army. *Manufacturer:* Peugeot.

1914 Car, Armd, 4x2. Renault AM Mod 1914

1914 Car, Armd, 4x2. Renault Autoblindeée 1914 1Eme.



(Photo: ECPA)

Remarks: Between 1914 and 1915 fifty Renaults were completed as anti-aircraft vehicles. Armed with the 8mm Saint-Etienne LMG, the vehicles proved to be almost useless in their intended role. In 1916 all remaining cars were stripped of their machine gun armament and used as light armored personnel carriers.

Vehicle Data: Length, 180 in (4572mm). Width, 66 in (1676mm). Height (w/o gun), 66.5 in (1689mm). Ground Clearance, 9.5 in (241mm). Wheel Base, 132 in (3353mm). Drive, 4x2. NBC Protection, individual. *Armament:* (1) 8mm Saint-Etienne, Model 1907. Elevation, manual. Traverse, manual. *Capacity:* Fuel, gasoline. Ammo/Qty, 8mm in 24 rd metallic strips. Crew/Passengers, 4. *Engine:* Renault, gasoline. Location, front. Cooling, liquid. *Transmission:* Manual. *Suspension System:* Leaf spring. Wheels Steerable, front pair. No of wheels, 4. *Usage:* Only used by the French Army during WWI. *Manufacturer:* Renault.

1915 Car, Armd, 4x2. Archer AM Mod 1915.



Above: Archer Model 1915. (Photo: ECPA)

Remarks: Designed by a French engineer named Archer, most of the cars were used in SE Asia.

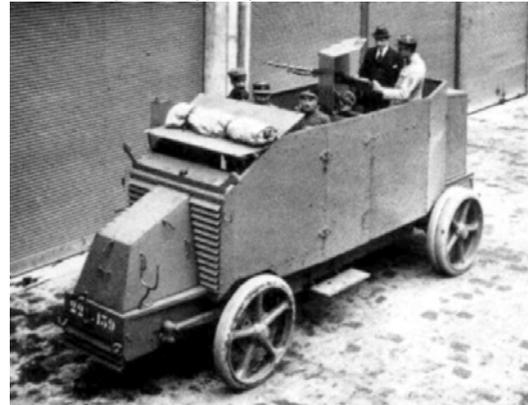
Vehicle Data: Drive, 4x2 (duals at the rear). NBC Protection, individual. *Armament:* (1) Hotchkiss LMG. Elevation & traverse, manual. *Capacity:* Fuel, gasoline. Crew, 4. *Engine:* Type, gasoline. Location, front. Cooling, liquid. *Transmission:* Manual. *Suspension System:* Leaf spring. Wheels Steerable, front pair. No of wheels, 4 (duals at rear). *Usage:* French Colonial Army. *Manufacturer:* Unknown.

1915 Car, Armd, 4x2. Renault Autoblindeée 1915 2Eme

1915 Car, Armd, 4x2. White TAD.

Remarks: A left hand drive vehicle, 20 cars were completed in the USA and shipped to France.

1916 Car, Armd, 4x2, Latil Mod. 1916.



(Photo: ECPA)

Remarks: Prototype vehicle developed by the Latil Company in 1916, and built on the Latil TAR 4x4 (tractor) chassis. Four vehicles were completed and sent to French Morocco in 1920. A further 13 vehicles with a different fully enclosed armored body were sold to Spain in the early 1920s as well. The price for a Latil TAR tractor without bodywork was 35,000 (1913) French Francs.

VehicleData: Drive, 4x4. NBC Protection, individual. *Armament:* (1) Light machine gun. Elevation & traverse, manual. *Capacity:* Fuel, gasoline. Crew, 4. *Engine:* (1) gasoline. Location, front. Cooling, liquid. *Transmission:* Manual with 5-fwd and 1-rev gear. *Suspension System:* Leaf spring. Wheels steerable, front pair. No of wheels, 4. *Usage:* Used by French colonial forces. *Manufacturer:* Latil.

1916 Car, Armd, 4x2. Renault Autocanon des Fusiliers Marins.



Remarks: Used for close support of reconnaissance units. Crewed only by French Marines.

Vehicle Data: Drive, 4x2. NBC Protection, individual. Armament: (1) 47mm Auto-cannon. Elevation & traverse, manual. Aux wpn, individual. Capacity: Fuel, gasoline. Crew, 4. Engine: Renault gasoline. Location, front. Cooling, liquid. Transmission: Manual. Suspension System: Leaf spring. Wheels Steerable, front pair. No of wheels, 4. Usage: French units only. Manufacturer: Renault.

1918 Car, Armd, 4x2. Peugeot AM Mod 1918

1918 Car, Armd, 4x2. White AMC Mod 1918.



Above: White AMC, 230 of the cars were delivered to French forces. (Photo: ECPA)

Remarks: Overall, the French were happy with the performance of their White truck based armored car, and near the end of WWI began a series of changes that would extend over 20 years. The major change for the Model 1918 was the introduction of electric lights. It was also found when the car was introduced with units in North Africa that the vehicle had comparatively better air circulation than the contemporary tanks and other armored cars of the time. Built in France on US supplied White chassis, 230 Mod 1918s were completed.

Vehicle Data: Weight empty, 12,980 lbs (5893 kg). Weight loaded, 14,520 lbs (6592 kg). Length, 220.5 in (5600 mm). Width, 82.5 in (2100 mm). Height, 108 in (2750 mm). Ground clearance (est), 12 in (305 mm). Drive, 4x2. Armor, .32 in (8 mm) Max. NBC protection, Indi-

vidual. **Armament:** (1) 37mm Cannon Model 1916 & (2) 7.5mm LMGs. Elevation & traverse, manual. **Capacity:** Fuel, gas 26.5 gals (100 liters). Ammo/Qty, 37mm (198 rds) & 7.5mm (5500 rds). Crew, 4. **Engine:** (1) Gasoline, 4-cyl, White engine producing, 37 hp (27 kW). Location, front. Cooling, liquid. **Transmission:** Type, manual. Gear Fwd/Rev, 4/2. **Suspension System:** Leaf spring. Steering, front axle (dual control). No/wheels, 4. **General Data:** Elec voltage, 6V. Radio, as fitted by user. **Performance:** Speed/Land, 28.5 mph (46 km/h). Range 155 mi (250 km). Fording depth, (est) 18 in (457 mm). Step, (est) 12 in (305 mm). **Usage:** Used by French forces both in Europe and in the colonies in Africa as well as the mid- and far-east. The last of the Model 1918 up-grades were still in service in the late 1930s. **Manufacturer:** White (US) chassis and power train; Laffly (France) armored hull and interior.

1920 Car, Armd, 4x2. White AMC Mod 1920

1921 Car, Armd, 4x2. St Chamond Convertible Tank.

1923 Car, Armd, 4x4, Renault AMC No 1. Symetrical design with a center placed turret mounting one 37mm cannon and one light machine gun.

1926 Car, Armd, 4x2. Panhard AMD 175. Twenty-eight vehicles were completed to meet French requirements. Carried one 37 mm cannon and one light machine gun.

1928 Car, Armd, 8x8. Renault SK.



Above: Renault SK experimental vehicle.

1929 Car, Armd, 4x2. Renault AM Mod 1929

1929 Car, Armd, 6x6. Berliet TV-UMPB

1929 Carr, Pers, Armd, 4x4. Berliet VUDB

1930 Car, Armd, 4x2. AM Berliet TV UDB4

1930 Veh, Recce, Latil AMD.

1930 Car, Armd, 4x2. Hotchkiss-Levant.

1930 Carr, Pers, Armd, 4x4. Renault VTT.

1931 Car, Armd, 4x2. Laffly 50 AM de Découverte.



Above: Laffly 50 AM with the Shanghai Garrison in China. (Photo: ECPA)

Remarks: By the early 1930's, the French were beginning to get suspicious of their German neighbors and began a building and improvement program for the French Army. Having had acceptable performance from their White-Laffly Model 1918 cars, the decision was made to complete a major rebuild of the vehicles and send most of them to the colonies where they were less likely to face a European level of opposition. Of the approximately 100 vehicles completed, all but 20 had been shipped overseas by the time that war was declared in Europe. As it was, the Laffly 50 AM and White-Laffly Model 1918 (which had been improved but not completely rebuilt) ended up serving beside each other.

Vehicle Data: Weight empty, 13,500 lbs (6129 kg). Weight loaded, 14,300 lbs (6492 kg). Length, 212.5 in (5400 mm). Width 90.5 in (2300 mm). Height, 97.5 in (2480 mm). Wheel base, 154 in (3900 mm). Drive, 4x2. Armor, .28 in (7 mm). NBC protection, individual. **Armament:** Main., (1) 37mm cannon SA 18 L/21 & (1) LMG. Elevation & traverse, manual. Fire control, Optical. Aux wpns, Crew side arms. **Capacity:** Fuel, gasoline. Crew/Pass, 4. Cargo Vol/Wgt 800 lbs (363 kg). **Engine:** (1) White, 4-cyl, liquid cooled, front mounted engine producing, 50 hp (40 kW). **Transmission:** Type, Manual. Gear Fwd/Rev, 3/1. Suspension System: Type, leaf-spring, Steering, front axle. No/wheels, 6 (duals at rear). **General Data:** Elec voltage, 6V. Radio, ss fitted by user. **Performance:** Speed, 43 mph (70 km/h). Range, 186 mi (300 km). Forging depth, 23.5 in (600 mm). Max grade, 50%. Trench, 16 in (400 mm). Step, 10 in (250 mm). **Usage:** Approximately 100 White-Laffly Model 1918 were converted to the AMD Laffly 50 con-

figuration in 1931. Of these, less than 20 were retained in France with the rest going to North Africa, Syria and French Indo-China. *Manufacturer:* Laffly, France.

1932 Car, Armd, 4x2. Panhard TOE. Carried one 37 mm cannon and one light machine gun. 210"x79"x104".

1932 Car, Armd, 4x4, Berliet TV-UM. 190"x88"x102".

1932 Car, Armd, 4x4, Berliet TV UPB4 "Syrie"

1932 Car, Armd, 4x4, Berliet V-UDB4.
Remarks: 4x4 armored car with small turret.

1932 Car, Armd, 4x4. Renault AMD 165.



Above: AMD 165 fitted with a forward radio aerial.

1932 Veh, Recce, 4x4, Berliet T-VUDPB.
Remarks: LWH 169"x77"x84".

1932 Carr, Pers, Armd, 6x4, Berliet, VPKD

1932 Carr, Pers, Armd, 6x4, Berliet, AMD VPC (VPBC)

1932 Veh, Cmd, Berliet TV PC

1934 Car, Armd, 4x2. Berliet, V-UB.
Remarks: Open top, engine to rear.

1934 Car, Armd, 4x2. Berliet, VUR

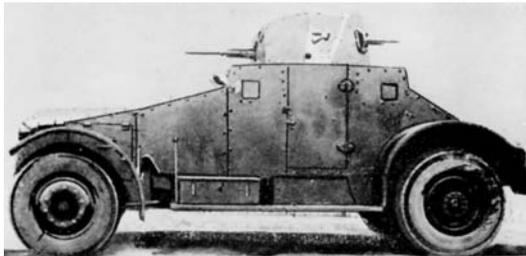
1934 Car, Armd, 6x4, Berliet, VPDM

1934 Car, Armd, 6x6. Gedron-Somua.
Remarks: Low box hull with Renault VM tank turret.

1934 Veh, Recce, Berliet TV UDPB4

1934 Carr, Pers, Armd, 6x4, Berliet, VPRM

1935 Car, Armd, 4x2. White-Laffly 80 AM de Découverte.



Above: All of the Laffly 80 AMs were eventually sent to Tunisia by 1939, where they equipped two reconnaissance squadrons. (Photo: ECPA)

Remarks: The last of the direct designs stemming from the 1917 White-Laffly AM, the 80 AM was completed in 1934 and was in service by 1935. Based on the Laffly LC2 truck chassis the vehicle was considered obsolete even before they had left the factory. Production was cut short at 28 vehicles and attention shifted to the rear engine Panhard 178. Armament for the 80 AM consisted of one 13.2mm Hotchkiss Heavy Machine Gun and one 7.5mm FM24/29 Light Machine Gun. As with the Laffly 50 front and rear driving positions were provided with a gear-box allowing 4-forward and 4-backward gears. Steering was only applied to the front axle so some practice was required to drive the vehicle at speed in reverse.

Vehicle Data: Weight loaded, 16,538 lbs (7500 kg). Length, 216.5 in (5500 mm). Width, 86.5 in (2200 mm). Height, 98.5 in (2500 mm). Ground clearance, 13 in (330 mm). Drive, 4x2. Armor, .32 to .79 in (8 to 20 mm). NBC protection, individual. **Armament:** (1) 13.2 mm HMG & (1) 7.5 mm LMG. Elevation & traverse, manual. Fire control, optical. **Capacity:** Fuel, gasoline 45 gals (170 liters). Ammo/Qty, 13.2mm (1690 rds) & 7.5mm (2100 rds). Crew, 4. **Engine:** (1) Gasoline, Lafly V4 Model 80, producing 80 hp (58.8 kW). Location, front. Cooling, liquid. **Transmission:** Manual. Gears, Fwd/Rev, 4/4. **Suspension System:** Leaf spring. Steering, front axle. Turning radius, 31.5 ft (9.6 m). No/wheels, 4. **General Data:** Elec voltage, 6V. Radio, as fitted by user. **Performance:** Speed/Land, 50 mph (80 km/h). Range, 249 mi (400 km). Fording depth, 23.5 in (600 mm). Trench, 20 in (500 mm). Step, 12 in (300 mm). **Usage:** Used by the French Army with a few cars captured by Germany during WWII. A few cars were still in operation with French units in Algeria as late as 1955. **Manufacturer:** Laffly, France.

1935 Veh, Recce, Berliet VUC aka Voiture de

Reconnaissance Type L.

1936 Car, Armd, 8x4. Fromaget.



Remarks: Experimental 8x4 armored car. Completed in 1936 no production was authorized.

Vehicle Data: Drive, 8x4 (with four sets of duals in the middle). NBC Protection, individual. **Capacity:** Fuel, gasoline. **Engine:** Location, front. Cooling, liquid. **Transmission:** Manual. **Suspension System:** Wheels Steerable, front & rear axles. No of wheels 8 (plus 4 sets of duals). **Usage:** Tested by French military. **Manufacturer:** Unkown, France.

1936 Car, Armd, 4x2. Panhard AML du Levant.

1936 Car, Armd, 4x4, Panhard AMD 178.

Remarks: There were three different versions of the AMD 178, each with a different turret. Some cars were also used by the Germans in WWII.

1937 Car, Armd, 6x6. AMC Laffly S 15T

1937 Carr, Wpns, Laffly Chasseur du Char (47 mm)

1940 Car, Armd, 8x8. Panhard, AMR Voiture Speciale 201

1940 Veh, Recce. Improvised AC (Syria pattern).

1940 Car, Armd, 4x2. Automitrailleuse Dodge.



Top: Free French forces with captured AM Dodge. (Photo: ECP Armée)

Remarks: the French constructed The Automitrailleuse Dodge during 1940-41. Short on production facilities in the colonies, the French armored approximately 10 Dodge 1.5 ton (1362 kg) chassis (which they had obtained as a commercial purchase from Egypt) to armored cars. Used by the French Army, Vichy France, the Free French and finally Syrian forces after Syrian independence. The AM Dodge proved to be a reliable and useful vehicle.

Vehicle Data: Weight empty (est), 8,245 lbs (3743 kg). Weight loaded (est), 10,250 lbs (4654 kg). Length (est), 218 in (5537 mm). Width (est), 104 in. (2642 mm). Height (est), 106 in (2692 mm). Ground clearance (est), 9.5 in (241 mm). Wheel base, 143 in (3632 mm). Wheel tread, 64 in (1626 mm). Drive, 4x2. Armor (est), .25 in (6.35 mm), NBC protection Individual. *Armament:* Main (1) 37mm cannon M16 & (2-3) LMGs M24/29. Elevation & traverse, Manual. Fire control, optical. *Capacity:* Fuel, Gas 18 gals (68 Liters). Crew, 5. Cargo Vol/Wgt (est), 2,000 lbs (908 kg). *Engine:* Type, Gasoline. HP at Rev/Min, 79 hp (58.3 kW) @ 3000 rpm. Model, T-202. Mfr, Dodge Bros. No. of Cyls, 6 (L head). Location, front. Cooling, liquid. *Transmission:* Type, manual. Gear Fwd/Rev, 4/1. Model, Warner T-9. *Suspension System:* Type, leaf spring. Steering, front axle. No/wheels, 6 (duals rear). Tire Size, 6.50x20. *General Data:* Elec voltage, 6V. *Performance:* Speed/Land, 45 mph (72 km/h). Range, 150 mi (241 km). Max grade, 40%. *Usage:* Used by the French Army in North Africa and Syria, Vichy France, Free French units and the Syrian Army. *Manufacturer:* 1.5-ton chassis and cab produced by Dodge Brothers.

1941 Car, Armd, 4x2. AM Dodge-White.

1941 Veh, Recce. SA Recce Car 4x4, Mk 3 MFF.



Remarks: South Africa supplied ten Marmon-Herrington Mk 3 MFF cars to Free French forces in equatorial Africa during 1941. The French used these vehicles through the end of WWII. An additional 48 Mk 3 ME were also supplied to Free French units in North Africa and the Middle East (see South Africa for vehicle details).

1942 Veh, Recce. M-3A1 Scout Car.



Above: Free French M-3A1 scout car circa 1944. (Photo: ECPA)

Remarks: By 1946, Free French units had received a total of 287 M-3A1 Scout Cars as part of the Lend-Lease program (see US for vehicle details).

1942 Carr, Wpns, CMP BB3 (4x4)

1944 Car, Armd, 4x2. Imp AC, CDM

1944 Car, Armd, 4x2. Imp AC, La Rochelle

(Simca)

1944 Carr, Wpns, Trk, 3-ton, w/75mm Gun, FWD

1945 Car, Armd, 4x2. Imp AC, La Rochelle.



Above: La Rochelle improvised armored car. One of several different designs. (Photo: via Col. R.J. Icks)

1945 Car, Armd, 6x6. M8 Light Armored Car.



Above: M8 in Algeria. (Photo: ECPA)

Remarks: France received 689 M8s under the Lend-Lease program by the end of 1946 (see US for vehicle details).

1945 Veh, Util. M20 Armored Utility Vehicle.

Remarks: A total of 205 of these cars were delivered to France as part of the Lend-Lease program by the end of 1946 (see US for vehicle details).

1947 Carr, Anti-Aircraft, Carr, Armd, 40mm, 6x6 CCKW

1948 Carr, Anti-Aircraft, Carr, AA, 20mm, 6x6 (CCKW)

1950 Car, Armd, 8x8. EBR 75/90.

1956 Veh, Util, Hotchkiss M-201 ¼-ton 4x4

1957 Carr, Pers, Armd, 8x8. EBR-ETT

1958 Carr, Pers, Armd, 4x4. APC, 4x4 (M37 based)

1960 Car, Armd, 4x4, AMX 90 (4x4)

1960 Car, Armd, 4x4, Panhard AML-245 (H-60).

Remarks: Cars were delivered to: Algeria, Burundi, Cambodia, Ecuador, Iraq (52) 1970-77, Rwanda, Portugal (55) 1990, Senegal.

1960 Carr, Anti-Aircraft, Panhard M3 VDA

1960 Carr, Pers, Armd, 4x4. Panhard M3-VTT.

Remarks: Carriers were delivered to: Abu Dhabi, Iraq (200) 1971-1984

1960 Carr, Wpns. Panhard AML-NA2 (4x4)

1962 Car, Armd, 4x4, Panhard AML-90.

Remarks: Cars were delivered to: Gabon, Iraq (120) 1970-77, Ivory Coast, Lebanon, Mauritania, Senegal, Zimbabwe.

1964 Carr, Pers, Armd, 4x4. Marmon-Boguer MB601

1964 Carr, Pers, Armd, 6x6. Simca-Lorraine

1964 Veh, Util, Car, Field, 4x4, Bison

1965 Carr, Pers, Armd, 6x6. Berliet GBC KT "Blinde".

1967 Carr, Pers, Armd, 4x4. Berliet BL-12

1967 Veh, Util, Renault Berline 4 ¼-ton 4x2

1968 Carr, Anti-Aircraft, Hotchkiss Crotale

1969 Carr, Anti-Aircraft, Panhard AML S530 20mm (4x4)

1970 Car, Armd, 4x4, Panhard M4

1970 Car, Armd, 6x6. Panhard M6

1970 Car, Armd, 8x8. Panhard M8

1970 Veh, Recce, Panhard Amphb Armd Veh 8x8

1970 Carr, Pers, Armd, 4x4. Panhard VCR-VTT 4x4.

1970 Carr, Pers, Armd, 6x6. AMX-10RTT.

1970 Veh, Util. VW181 Kurier, 4x2.



Above: Type 181 with soft-top and brush guards.
(Photo: Author's collection)

Remarks: An unknown number of VW Type 181 utility vehicles were acquired from West Germany for use in Berlin (see Germany for vehicle details).

1973 Car, Armd, 4x4, Panhard AML HS30

1974 Carr, Pers, Armd, 4x4. Berliet VXB-170

1975 Carr, Anti-Aircraft. M-3 VDA, Panhard.



Remarks: A co-development of Dassault and Panhard, the M-3 VDA carries the TA-20 turret fitted with twin Oerlikon 20mm cannon. Secondary armament is one or two 7.62mm light machine guns mounted to fire along the same axis as the cannon. Crew for the VDA consists of the driver (front), gunner (in the turret) and vehicle commander (with acquisition radar) in the rear of the vehicle. Panhard claimed that a trained crew could reload and re-engage with fifteen minutes.

Vehicle (M3 VDA) Data: Length, 175 in (4450 mm). Width, 94.5 in (2400 mm). Height (hull

height), 79 in (2000 mm). Ground Clearance, 14 in (350 mm). Wheel Base, 106 in (2700 mm). Drive, 4x4. Armor, .47 in (12 mm) max. NBC Protection, vehicle over pressure. *Armament:* (2) Oerlikon HSS 820 SL 20mm cannon. Elevation, power -5° to +90°. Traverse, power 360°. Fire Control, radar or optical. Aux wpn, (1) 7.62mm LMG. *Capacity:* Fuel, gasoline 43.5 gals (165 liters). *Ammo/Qty,* 20mm (500 rds). *Crew,* 3. *Engine:* (1) air-cooled Panhard 4HD 4-cyl gasoline engine producing 90 hp @ 4700 rpm. Location, rear. *Transmission:* Manual. *Suspension System:* Coil spring. *Wheels* Steerable, front pair. No of wheels, 4. *Performance:* Speed/Land, 56 mph (90 km/h). Speed/Water, 2.5 mph (4 km/h). *Fording Depth,* amphibious. *Max Grade,* 60%. *Trench Crossing,* 31.5 in (800 mm). *Usage:* Tested by French Army, but no orders, in service with the Ivory Coast, Niger and the United Arab Emirates. *Manufacturer:* Electronique M. Dassault and Panhard.

1975 Carr, Anti-Aircraft, VAB-SATCP (4x4)

1975 Carr, Pers, Armd, 4x4. Berliet-Panhard VXB 230

1975 Carr, Pers, Armd, 4x4. VAB-VCI

1975 Carr, Pers, Armd, 4x4. VAB-VTT (4x4)

1975 Carr, Pers, Armd, 6x6. VAB-VTT

1975 Carr, Wpns, Armd, 6x6. VAB-TH (6x6)

1975 Carr, Wpns, Panhard VCR PTRS HOT (4x4)

1975 Carr, Wpns, VAB-TH (4x4)

1976 Carr, Pers, Armd, 6x6. Panhard VCR/TT

1976 Carr, Wpns, 6x6. Panhard VCR/TH. Carriers were delivered to: Iraq (100) 1979-81

1976 Veh, Cmd, Panhard VCR/PC (6x6)

1977 Car, Armd, 6x6. AMX-10RC

1977 Car, Armd, 6x6. Panhard ERC 90 Lynx

1977 Car, Armd, 6x6. Saviem VCS TS90

1977 Carr, Anti-Aircraft, Saviem VCS TA20 (6x6)

1977 Carr, Pers, Armd, 6x6. Savim VCS TG 120

1977 Carr, Wpns, Mortar, 6x6. Panhard EMC81

1978 Veh, Recce, ACMAT series 4x4

1978 Carr, Pers, Armd, 6x6. Panhard VCR-2-TT

1978 Carr, Wpns, Panhard EMC 81 (6x6)

1978 Veh, Util, Lohr FL500 (4x4)

1979 Car, Armd, 6x6. Panhard ERC 90 Sagie.
Remarks: 200 cars were delivered to Iraq between 1980-1984.

1980 Car, Armd, 6x6. Renault VBC-90

1980 Carr, Anti-Aircraft, Crotale VTA 20mm

1980 Carr, Pers, Armd, 4x4. ACMAT TPK 420 VBL.

Remarks: 25 vehicles were delivered to Botswana in 2003.

1980 Carr, Pers, Armd, 6x6. ACMAT TPK 640 VBL

1981 Carr, Anti-Aircraft, Panhard ERC ESD TA-20 6x6

1981 Veh, Util, Peugeot P4 VLTT (4x4)

1981 Veh, Util, Truck, Liaison, Light, 4x4 Citroen A

1982 Veh, Util, Trk, Util, ¼-ton, 4x2. Pony

1983 Car, Armd, 4x4, Lohr RPX 90

1983 Car, Armd, 6x6. Panhard ERC 60/12 Mangouste

1983 Carr, Anti-Aircraft, Panhard ERC 20 Kriss 6x6

1984 Veh, Recce, 4x4. Panhard VBL (M11).
Remarks: During 2001, France delivered the following VBLs to foreign buyers: Portugal (12), Greece (29), Oman (6) and a further (36) in 2003.

1984 Veh, Recce, Renault VBL (4x4)

1984 Carr, Anti-Aircraft, Panhard ERC HML (6x6)

1985 Car, Armd, 6x6. Panhard ERC 90 Sagie II

1985 Carr, Anti-Aircraft, AMX 10 VTA30

1985 Carr, Pers, Armd, 4x4. APC, 4x4, Panhard Buffalo

1988 Car, Armd, 4x4, Lohr RPX 6000 (60/12)

1988 Carr, Wpns, Lohr RPX 40M 120mm Mortar 4x4

1990 Veh, Util, Lohr VLA (4x4)

1992 Veh, Util, Trk, Util, 4x4, Sovamag

1994 Carr, Pers, Armd, 4x4. Giat/MB TPP 501

1994 Carr, Pers, Armd, 6x6. GTX/VBM EVA

1994 Carr, Pers, Armd, 8x8. Giat VEXTRA.



(Photo: Giat, France)

1996 Carr, Pers, Armd, 8x8. Renault X8A

2000 Car, Armd, 8x8. Giat Vextra 105

2000 Veh, Util. Panhard-Auverland TC 10 DT.



Above: TC 10 fitted with 20mm cannon and mount.
(Photo: Panhard-Auverland)



Above: Panhard-Auverland A4, Petit Véhicule Protégé (PVP). (Photo: Auverland)

Remarks: In service with the French military, the TC 10 comes in several different versions, but is most commonly found in the command, reconnaissance or logistics role. Versions include; Canvas top, Hardtop, Chassis cab, Workshop van, Fire fighting equipment, Ambulance (2 or 4 stretchers) and with Right hand drive. Individual vehicle options include; Fuel Tank Protection, Antenna holder, Electrical winch, Jerry can holder, Stabilizing bar. Gear and Transfer boxes protections, Towing hook, Pneumatic horn and Pneumatic suspension.

Vehicle Data: Weight Empty, 4,123 lbs (1870 kg). Weight Loaded, 6,615 lbs (3000 kg). Length, 175 in (4450 mm). Width, 65 in (1654 mm). Height, 83.5 in (2120 mm). Ground Clearance, 9.5 in (240 mm). Wheel Base, 109 in (2770 mm). Wheel Tread, 55 in (1400 mm). Drive, 4x4. Armor, .4 to .6 in (10 to 15 mm) sheet metal. NBC Protection, individual. **Armament:** As fitted by user. **Capacity:** Fuel, 26.5 gals (100 l) diesel. Crew/Passengers, 2/8. Cargo Vol/Weight, 2, 492 lbs (1130 kg). **Engine:** Turbo diesel. HP @ Rev/Min, 103 hp (76 kW) @ 3600 rpm. Mfr, IVECO. No. of Cyls, 4 in-line. Location, front. Cooling, liquid. **Transmission:** Manual. Speeds Fwd/Rev, 5/1. Mfr, IVECO. Model, 2826.5. **Suspension System:** Leaf spring. Wheels Steerable, Front pair (power). Turning Radius, 42.6 ft (13 m). No of wheels, 4. Tire Size, 7.50Rx16. **General Data:** Elec Voltage, 24V. Radio, as fitted by user. **Night Vision Devices:** As fitted by user. **Performance:** Speed/Land, 81 mph (130 km/h). Range (est), 310 mi (500 km). Forging Depth, 23.6 in (600 mm). Max Grade, 100%. **Usage:** In service with the French military. **Manufacturer:** Panhard/Auverland, France.

2003 Veh, Recce. Panhard-Auverland A4 (PVP).

Remarks: Known as the Panhard/Auverland A4 AVL, it will be supplied to the French military under its Petit Véhicule Protégé (PVP) program, to serve as an armored all-terrain vehicle with excellent all-terrain capabilities. The Italian manufacturer Iveco supplies the diesel engine and the gearing is made by ZF Friedrichshafen AG. Besides its off-road performance, the vehicle is hardened against landmines, fragments and small arms fire. The A4 can be deployed in a variety of roles such as a scout or in a command or liaison role. Since the Gavial weighs just five tons, a CH-53 medium transport helicopter can airlift it as internal or external cargo. The Gavial's entire chassis is hardened against small arms fire and mine blast. For self-defense, the Gavial can mount any in-service machine gun or 40 mm automatic grenade launcher; these can be operated from the vehicle's interior. Unit cost approximately \$140,000.

Vehicle Data: Weight empty, 9,349 lbs (4240 kg). Loaded, 11,025 lbs (5000 kg). Length, 164.5 in (4180 mm). Width, 77.5 in (1970 mm). Height, 85.5 in (2170 mm). Ground Clearance, 10.7 in (272 mm). Wheel Base, 118 in (3000 mm). Wheel Tread, 64.5 in (1640 mm). Drive, 4x2 or 4x4 selective. Armor, .24 in (6 mm) armored plate covered with .39 in (10 mm) aluminum sheet. NBC Protection, central. **Armament:** As fitted by user. **Capacity:** Fuel, 33 gal (125 l) diesel. Crew/Passengers, 2/2. **Engine:** (1) water-cooled, IVECO Euro 3, 4-cyl turbo-diesel producing 144 hp (107 kW) @ 3600 rpm. Location, front. **Transmission:** Automatic. Speeds Fwd/Rev, 4/1. Mfr, ZF. **Suspension System:** Coil spring. Wheels Steerable, front pair (power). Turning Radius, 20.5 ft (6.25 m). No of wheels, 4. Tire Size, 225/100Rx16 Run flat. **General Data:** Elec Voltage, 24/12 V. Radio, as fitted by user. Cargo Weight/Vol, 1,896 lbs (860 kg). **Night Vision Devices:** As fitted by user. **Per-**

formance: Speed/Land, 74 mph (120 km/h). Range, 497 mi (800 km). Fording Depth, 21 in (535 mm). Max Grade, 100 %. *Usage:* Selected by the French Army (900+ units) are on order with the first deliveries to start in 2007; and a modified version called the Gavial that will be produced by Rheinmetall for the German Army. *Manufacturer:* (Panhard) Auverland - SOVA-MAG SA, France.

2003 Veh, Util. Panhard A3 F.



Above: The A3F as operated by the French airborne with cloth top and rollbars. (Photo: Panhard)

Remarks: The Panhard A3 all terrain vehicle is designed to fit into the interior of the CH-53 or French NH90 helicopter. It can also be carried as a slung load beneath the aircraft if necessary. In French service, most of the A3's are assigned to the 11th Parachute Brigade of the French Army. The A3 itself comes in 15 versions and can be tailored to mission requirements. Personnel are limited to between four and six men. As crew protection, the A3 is fitted with an integral armored floor against anti-personnel mines.

Vehicle Data: Weight empty, 2,977 lbs (1350 kg). Weight loaded, 5,623 lbs (2510 kg). Length, 134 in (3400 mm). Width, 62 in (1580 mm). Height, 75 in (1900 mm). Ground Clearance, 10 in (255 mm). Wheel Base, 88.5 in (2250 mm). Wheel Tread, 53 in (1342 mm). Drive, 4x4. Armor, .39 in (10mm) steel & .39 in (10mm) aluminum sandwich. NBC Protection, individual. *Armament:* As fitted by user. *Capacity:* Fuel, 21 gals (80 l) diesel. Ammo/Qty, Per wpns carried. Crew/Passengers, 2/2. CargoVol/Weight, 2,558 lbs (1160 kg). *Engine:* (1) water-cooled Peugeot XUD 9 TF, 4-cyl in-line turbo-diesel producing 89 hp (66 kW) @ 4000 rpm. Location, front. *Transmission:* Peugeot BA 7.5 manual w/2-spnd transfer case. Speeds Fwd/Rev, 5/1. *Suspension System:* Coil spring. Wheels Steerable, front pair (power). Turning Radius, 33 ft (10 m). No of

wheels, 4. Tire Size, 7.00x16. *General Data:* Elec Voltage, 24 V. Radio, as fitted by user. Night Vision Devices: As fitted by user. *Performance:* Speed, 81 mph (130 km/h). Range, 435 mi (700 km). Fording Depth, 23.6 in (600 mm). Max Grade, 100%. *Usage:* Over 300 vehicles are in use with French airborne and Special Forces units. *Manufacturer:* Panhard (Auverland), France.

2004 Veh, Recce. Panhard PVP



Above: The prototype Panhard PVP. (Photos: Panhard et Auverland).

Remarks: The Panhard Petit Vehicule Protégé (PVP), was developed by Panhard (France), in cooperation with Daimler Chrysler (Germany) in a project to combine the protection of an armored vehicle with the ease of use and maintenance of a 4x4 chassis. The PVP is designed for a maximum gross weight of approximately 4.4 metric tons (4404 kgs/9700 lbs) while operating as an infantry carrier or commander's vehicle. The PVP itself is constructed with an integral armored steel hull and powered by a Daimler Chrysler five cylinder engine producing 156hp (115 kW).

Vehicle Data: Weight Loaded, 9700 lbs (4404 kg). Drive, 4x4. Armor, steel. NBC Protection, central. *Capacity:* Fuel, diesel. Crew/Passengers, 2-4. *Engine:* Diesel. HP at Rev/Min, 156 hp (115 kW). Mfr, Daimler Chrysler. No. of Cyls, 5. Location, front. Cooling, liquid. *Suspension System:* Type, coil & leafspring. Wheels Steerable, front axle. No of wheels, 4. *Usage:* Prototype, production started in 2007. *Manufacturer:* Panhard, France.