ISRAEL

Background: Following World War II, the British withdrew from their mandate of Palestine, and the UN partitioned the area into Arab and Jewish states, an arrangement rejected by the Arabs. Subsequently, the Israelis defeated the Arabs in a series of wars without ending the deep tensions between the two sides. On 25 April 1982, Israel withdrew from the Sinai following the 1979 Israel-Egypt Peace Treaty. Israel and Palestinian officials signed on 13 September 1993 a Declaration of Principles (also known as the "Oslo Accords") guiding an interim period of Palestinian self-rule. Outstanding territorial and other disputes with Jordan were resolved in the 26 October 1994 Israel-Jordan Treaty of Peace. In addition, on 25 May 2000, Israel withdrew unilaterally from southern Lebanon, which it had occupied since 1982. Progress toward a permanent status agreement was undermined by Palestinian-Israeli violence between September 2000 and February 2005. The election in January 2005 presented an opportunity for a renewed peace effort. However in 2006 events destabilized the area again following attacks across the Lebanon border and continued fighting in the Gaza area.

Geography Israel. Location: Middle East, bordering the Mediterranean Sea, between Egypt and Lebanon Area: total: 20,770 sq. km. Area - comparative: slightly smaller than New Jersey. Land boundaries: total: 1,017 km. Border countries: Egypt 266 km, Gaza Strip 51 km, Jordan 238 km, Lebanon 79 km, Syria 76 km, West Bank 307 km. Coastline: 273 km. Climate: temperate; hot and dry in southern and eastern desert areas. Terrain: Negev desert in the south; low coastal plain; central mountains; Jordan Rift Valley along the east border. Natural resources: timber, potash, copper ore, natural gas, phosphate rock, magnesium bromide, clays and sand. Natural hazards: sandstorms may occur during spring and summer; droughts; periodic earthquakes. Environment - current issues: limited arable land and natural fresh water resources pose serious constraints; desertification; air pollution from industrial and vehicle emissions; groundwater pollution from industrial and domestic waste, chemical fertilizers, and pesticides. Geography - note: there are 242 Israeli settlements and civilian land use sites in the West Bank, 42 in the Israeli-occupied Golan Heights, 0 in the Gaza Strip, and 29 in East Jerusalem (August 2005 est.); Sea of Galilee is an important freshwater source.

Military Notes:

1935 Carr, Pers, Armd, 4x2. Trk, Armd, Imp

1938 Car, Armd, 4x2. Car, Armd, 4x2. JSP (Palestine)

1938 Car, Armd, 4x2. Car, Armd, 4x2. JSP (Palestine)

1938 Car, Armd, 4x2. Car, Armd, 4x2. JSP (Palestine)

1939 Car, Armd, 4x2. Car, Armd, Patrol, AJSP

1946 Carr, Pers, Armd, 4x2. Trk, Armd, Imp

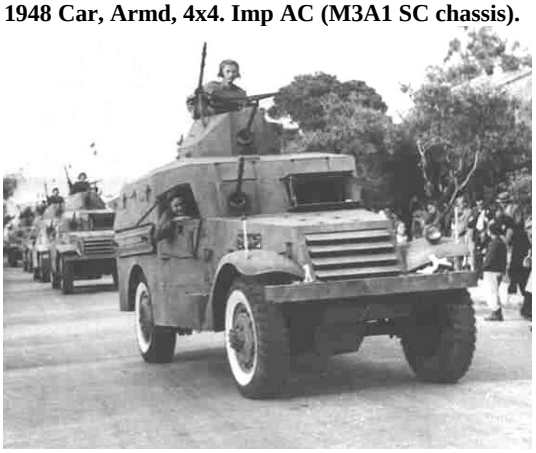
1947 Car, Armd, 4x2. Imp AC (Type I) (Reg #M309)

1948 Car, Armd, 4x2. Car, Arm, Imp, 4x2

1948 Car, Armd, 4x4, Imp AC (British chassis)

1948 Car, Armd, 4x4, Imp AC (Flat roof)

1948 Car, Armd, 4x4. Imp AC (M3A1 SC chassis).



Remarks: (see US M3A1 Scout Car for vehicle details).

1948 Car, Armd, 4x4, Imp AC (Type II) (Reg #M357)

1948 Car, Armd, 4x4, Imp AC British Quad Arty Tractor

1948 Car, Armd, 4x4, Imp AC Otter based

1948 Car, Armd, 4x4, Imp AC US WC51 chassis

1948 Car, Armd, 4x4, Imp AC (¼-ton chassis)

1948 Veh, Recce, Car, Scout, Humber, 4x4 (Modified)

1948 Carr, Pers, Armd, 4x2. Imp AB (GM chassis) ex-Brit (Reg #872)

1948 Carr, Pers, Armd, 4x2. Imp AB (Reg #M5549)

1948 Carr, Pers, Armd, 4x2. Imp AT (Mod 1)

1948 Carr, Pers, Armd, 4x2. Imp AT (Mod 2)

1948 Carr, Pers, Armd, 4x2. Imp AT (Mod 3)

1948 Carr, Pers, Armd, 4x2. Imp AT (Mod 5)

1948 Carr, Pers, Armd, 4x4. Imp APC (Brit chassis)

1948 Carr, Pers, Armd, 4x4. Imp AT (WC52)

1948 Carr, Pers, Armd, 4x4. Improvised AT (COE)

1948 Carr, Pers, Armd, 6x4, Imp AT (Mod 4)

1948 Veh, Cmd, Trk, Cmd, Armd, Imp, 4x4

1948 Veh, Recce. Marmon-Herrington Mk 4F.

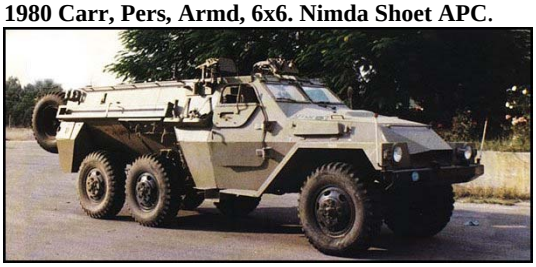
Remarks: (see South Africa for vehicle details).

1958 Carr, Pers, Armd, 4x2. Imp AB (LWB)

1958 Carr, Pers, Armd, 4x2. Imp AB (SWB)

1975 Veh, Recce, RAMTA RAM V1 / RBY Mk 1

1980 Carr, Pers, Armd, 6x6. Nimda Shoet APC.



Above: The Nimda Shoet Mk II, the Mk III had solid over head cover. Neither machine was accepted for service. (Photo: Nimda Ltd.)

Remarks: The Israeli NIMDA, a company specializing in AFV upgrades was founded in 1972 and first became known through its NIMDA SHOET Armoured Personnel Carrier designed on the lines of the Soviet BTR-152. An improved engine and automatic transmission mark its superiority over the obsolete carrier. The Shoet passed tests with the IDF but no production was requested. A late model design Mk. III with enclosed crew compartment was also completed but not selected for production.

Vehicle Data: Weight empty, 16,000 lbs (7264 kg). Drive, 6x6. Armor, .32-.55 in (8-14mm). NBC Protection, individual. *Armament*: 7.62 or 12.7mm MG. Elevation & traverse, manual. *Capacity*: Fuel, diesel. *Engine*: (1) Detroit Diesel 6V-53, 6-cyl water-cooled in-line producing 172 hp (127 kW) @ 2800 rpm. Location, front. *Transmission*: Allison MT-643 Automatic with 4-fwd and 1-rev gear. *Suspension System*: Leaf spring. Wheels Steerable, front pair. No of wheels, 6. *Night Vision Devices*: As fitted by user. *Usage*: Tested by the Israeli Army, but never accepted for service. *Manufacturer*: Nimda Ltd., Tel Aviv, Israel.

1998 Car, Armd, 4x4, Hammer (based on HMMWV)

1998 Carr, Wpns, Truck, 4x4, w/106 RR (AIL)

2000 Veh, Recce, Desert Raider, 6x6. Automotive Inds.

2004 Carr, Pers, Armd, 4x4. Rafael Ze'ev (Wolf).

Above: Ze'ev in patrol configuration. (Photo: Rafael).

Remarks: The Wolf is based on the Ford F-550 4x4 chassis and makes an APC suitable for low-intensity conflicts. All armored protection is double walled, for a total of 6,000 lbs (2724 kg) of armor. All doors on the vehicle are bullet proof including the engine and gearbox compartment. The doors themselves are designed for quick exit, while the driver and commander have a TV screen that shows the view at the rear of the vehicle. A RAFAEL stabilized remote control weapons station for a 7.62mm LMG can included with the vehicle, or a simple hatch and weapon mount on the roof.

Vehicle Data: *Weight:* Loaded, 17,621 lbs (8,000 kg). Length, 226.5 in (5750 mm). Width, 94 in (2380 mm). Height, 92.5 in (2350 mm). Wheel Base, 141 in (3576 mm). Drive, 4x4. Armor, proof against 7.62mm ball. NBC Protection, Over-pressure. *Armament:* (1) 7.62 mm LMG. Model, RAFAEL. Elevation, power. Traverse, power. Fire Control, Stabilized Remote. *Capacity:* Fuel, diesel. Crew/Passengers, 2/10. *Engine:* (1) diesel V8 producing 325 hp. Location, front. Cooling, liquid. *Transmission:* Automatic. Speeds Fwd/Rev, 5/1 w/2-spd trnsf. Mfr, Ford. *Suspension System:* Type, leaf spring/coil. Wheels Steerable, front pair. No of wheels, 4. Tire Size, 305-70/R19.5 runflat. *General Data:* Intercom, yes. *Usage*: Israel Ministry of Defense ordered 150 vehicles in 2004. *Manufacturer*: Hatehof Netzer Sereni and RAFAEL, Nazareth, Israel.

2005 Carr, Pers, Armd, 4x4. IMI Wildcat.

Above: IMI prototype. (Photo: IMI)

Remarks: Looking much like an M113 on wheels, the Wildcat is protected against a variety of anti-tank threats including RPGs, Improvised Explosive Devices (IEDs) and mines. The vehicle includes monocoque hull structure designed to provide the crew with better protection, also the crew hull is elevated one meter above ground level, providing it with enhanced protection against mines and IEDs. Wildcat is C-130 transportable. Taking into consideration recent and current conflicts around the world, the Wildcat can offer a more "friendly" image to local populations in urban terrain operations, without compromising on mission objectives. Additionally, the Wildcat is equipped with a Remotely Operated Weapon Station, as well as with firing ports. Marketed in the US by the American Truck Company (part of Terex).

Vehicle Data: Weight, 30,000 lbs (13,620 kg). Drive, 4x4. Armor, can be layered for more protection. NBC Protection, Yes. *Armament:* Remote weapon system. *Capacity:* Crew/ Passengers, 2/10. *Suspension System:* Wheels Steerable, front pair. No of wheels, 4. *Usage*: As of 2005 only the prototype vehicle was available. *Manu-*

facturer: Israel Military Industries/American Truck Company / Tatra.

2005 Veh, Recce. Plasan Sasa "Sand Cat".

Above: Sand Cat prototype (vehicle was previously known as the Caracal) during testing. (Photo: Plasan Sasa)

Remarks: Following their development of composite armor, Plasan has developed a composite-armored reconnaissance car based on a Ford F350 commercial truck chassis. Protection level for the Sand Cat is rated as B6 to B7, proof against 7.62mm, anti-personnel mines, some improvised explosive devices, and shell fragments. The chassis was modified (shortened to 112 inches (2485mm) by Manning Equipment (Louisville, KY) and the armored body fabricated and mounted in Israel by Plasan. The composite armor is applied to an aluminum frame, along with Kevlar liners and armored glass capable of providing the same level of protection as the body. Designed for use in restricted spaces, such as city streets and alleys, the vehicle is meant for low intensity situations, homeland security operations, or urban combat.

Vehicle Data: Weight Empty (est), 10,000 lbs (4540 kg). Loaded, 11,000 lbs (4994 kg). Length (est), 190 in (4814 mm). Width (est), 72 in (1829 mm). Height (est), 78 in (1980 mm). Ground Clearance, 8 in (203 mm). Wheel Base, 112 in (2845 mm). Wheel Tread,68 in (1727 mm).

Drive, selective 4x4 or 4x2. Armor, EU B6-B7 against 7.62 AP. NBC Protection, vehicle overpressure. *Armament*: As fitted by user. *Capacity*: Fuel, 31.7 gals (120 liters) diesel. Crew, 4-5. *Engine*: (1) liquid-cooled Ford turbo-diesel V8 producing 325 hp (240 kW). Location, front. *Transmission*: Type, automatic w/2-spd trnsf case. Speeds Fwd/Rev, 5/1. Model, Torque-shift. Mfr, Ford. *Suspension System*: Coil (front) leaf (rear). Wheels Steerable, power-front pair. No of wheels, 4. Tire Size, LT275/18Rx18 Run-flat. *General Data*: Elec Voltage, 12 V. Radio, as fitted by user. *Night Vision Devices*: As fitted by user. *Performance*: Speed (est), 62 mph (100 km/h). Range (est), 250 mi (400 km). *Usage*: Prototype stage as of 2006 with two vehicles completed for testing and demonstration. *Manufacturer*: Plasan Sasa, Israel.

2006 Carr, Pers, Armd, 4x4. Arotech MDT David.

Remarks: An "ultra light armored vehicle", the Arotech David was developed by MDT Protective Industries, Ltd in Israel and MDT Armor Corporation based in Alabama, USA. Accepted by the Israeli Defense Force in the first quarter of 2006, the David was judged appropriate for urban warfare situations in a low-intensity conflict. The main improvement of the use of composite armor was the ability to limit overall weight and increase payload instead. The vehicle's small size (in comparison to a HUMMWV) is an asset in narrow streets or congested areas.

Vehicle Data: *Weight:* Loaded, 7,929 lbs (3,600 kg). Length, 168 in (4260 mm). Width, (?). Height, 84.5 in (2150 mm). Wheel Base, 110 in (2794 mm). Drive, 4x4. Armor-Composite up to 7.62mm resistant. *Capacity:* Fuel, diesel. Crew/Passengers, 2/5. *Engine:* Td5 2.5 liter Turbo-charged diesel, producing 122 hp @ 4200 rpm. *Transmission:* Manual. Speeds Fwd/Rev, 5/1. *Suspension System:* Type, leaf spring and coil. Wheels Steerable, front pair. No of wheels, 4. Tire Size, 265/75/R16. *Usage*: In service with the IDF. *Manufacturer*: Arotech Corporation (MDT Armor Corporation, 1480 Pumphrey Ave., Auburn AL 36832 www.mdt-armor.com).

2006 Carr, Pers, Armd, 6x6. RAFAEL/PVI Golan.

Above: The RAFAEL/PVI Golan introduced in September of 2006. (Photo: Rafael)

Remarks: The Golan Heavy Wheeled Armored Vehicle, is a co-development of RAFAEL of Israel and Protected Vehicles Inc. (PVI), USA. Responding to a perceived need for wheeled armored vehicles for use in asymmetric warfare, RAFAEL teamed with US based PVI and the Merkava program Office (Mantak), to develop the Golan Heavy Wheeled Armored Vehicle. Golan has been proposed for the IDF and USMC. The vehicle uses an armored monocoque structure. The integrity of this structure provides the strength to absorb deformations generated by mines and IED blasts. The hull uses a V shaped formation and a "floating floor" panel to mitigate the blast effects of mines. This approach enabled the designers to dedicate 50% of the vehicle's weight to protection. The passive armor utilizes a combination of protection technologies including metals, composites, slat and transparent armor. The maximum protection level includes reactive modular armor tiles while the medium and light levels are based on passive modular armor. The vehicle can be equipped with remotely controlled weapon station mounting a machine gun, and optronic equipment, as well as a gunshot detection system.

Vehicle Data: Weight empty, 30,000 lbs (13,620 kg). Armor, proof against 20mm. NBC Protection, Veh over pressure. *Armament*: .50 cal (12.7mm) HMG. Elevation & traverse, remote control unit. *Capacity*: Fuel, diesel. Crew/Passengers, 2/8. *Engine*: Diesel. *Suspension System*: Type, coil spring. Wheels Steerable, front pair. No of wheels, 4. *Usage*: Prototypes issued in the fall of 2006. *Manufacturer*: RAFAEL, Israel and Protected Vehicles Inc. (PVI), USA.