# NEW MORROW PROJECT VEHICLES







#### **SPAD**

CREW 1

The Morrow Project's Single Passenger Airborne Device "SPAD", the "Field Recon Ultra Light Helicopter".

A one-man light reconnaissance helicopter developed in the late 1950s for the US Marine Corps. The D.O.D. passed after trials and the patent was "acquired" by Morrow Industries in 1977. The SPAD is easily assembled or broken down by one person in one hour and can be carried by any project vehicle except the bicycle. It comes in two versions, one conventionally powered by a small 4-cylinder inline, gasoline powered, air cooled engine OR and the other powered by the standard Morrow Project Fusion Power Pack. Fusion powered is far more common (80%), and has a power pack life of 10 years. Per design parameters, the SPAD's tripod landing gear doubles as a transmitter/receiver radio antenna when the craft is airborne. Performance stats for Fusion Powered and gasoline powered versions are identical except for range.

LENGTH 2.10m
WIDTH 0.49m
HEIGHT 2.23m
EMPTY WEIGHT 90 Kg
MAX. TAKE OFF WEIGHT 255 Kg (including pilot)
MAX. AIR SPEED 106 km/h
CRUISE SPEED 70 km/hr.
MAXIMUM ALTITUDE 3,500 meters
ENGINE H59 4-cylinder inline 2-stroke air-cooled engine
FUEL CAPACITY 5 Liters gasoline
FUEL CONSUMPTION 55 km per Liter
MAXIMUM RANGE 275 km
ROTOR CLEARANCE MIN. 4.0m
ARMOR CLASS 10
ARMAMENT none.



## **Project M888 Auxiliary Armored Car**

CREW Driver, Gunner, Commander, +3 casualties or 5 passengers

LENGTH 2.80m

WIDTH 1.67m

HEIGHT 3.23m

**GROUND CLEARANCE 1.3m** 

**TURNING RADIUS 6.25m** 

MAX. ROAD SPEED 120km/hr

FORDING DEPTH 1.4m

**GRADIENT 55%** 

FUEL CAPACITY 80 Liters (flex fuel engine)

FUEL CONSUMPTION 8 liters per 100 KM

VERTICAL OBSTACLE .6m

TRENCH .25m

**ARMOR CLASS 150** 

ARMAMENT 20mm AUTO CANNON, Co-Ax MAG MG, M2HB in ring mount

AMMUNITION 10 - 100 round belts 20mm HE and 5 - 100 round belts of 20mm API, 10 X 100 round belts of 7.62 X 63mm belted, 5 - 105 round belts .50BMG.



ARMAMENT M2HB in Ring Mount, 12 Tear gas / Vomit gas dispensers

## **Project BV-206 Articulated Science Vehicle**

CREW 2 + up to 10 passengers LENGTH 8.80m WIDTH 2.59m HEIGHT 3.03m GROUND CLEARANCE .6m TURNING RADIUS 8.80m MAX. ROAD SPEED 85km/hr FORDING DEPTH: AMPHIBIOUS GRADIENT 65% GROUND PRESSURE 4.3kgpm CARGO CAPACITY 3000kg VERTICAL OBSTACLE .254m TRENCH 4.25m ARMOR CLASS 250

This is the Projects auxiliary Science Vehicle. It is much smaller than a Science One, but also 5% of the cost. It is designed for Extreme Weather and Environmental conditions. As such, it is Radio logically sealed and the rear unit is equipped with a collapsible airlock. Both units can operate independently, but the rear unit is very difficult to control in

non articulated mode. Naturally, both units are fully armored and proofed for up to 30mm shells.



#### King Air passenger transport

Crew: 2

Capacity: 12 passengers Length: 43 ft 9 in (13.34 m) Wingspan: 54 ft 6 in (16.61 m) Height: 15 ft 0 in (4.57 m) Wing Area: 303 ft (28.2 m) Empty Weight: 7,755 lb (3,520 kg)

Max Takeoff Weight: 12,500 lb (5,670 kg)

Power Plant: 2 Pratt & Whitney Canada PT6A-42 turboprops, 850 SHP (635 kW)

Powered By: 2 Morrow Project Series 5 Fusion Plants, 5 MW each Maximum Speed: 385 mph (320 knots, 590 KPH at 25,000 ft (7,600m) Cruise Speed: 340 mph (294 knots, 536 km/h) at 25,000 ft (max cruise)

Stall Speed: 86 mph (75 knots, 139 km/h) IAS (flaps down)

Service Ceiling: 35,000 ft (10,700 m) Rate of Climb: 2,450 ft/min (12.5 m/s)



# DC3 standard transport

Crew: 2

Capacity: 21-32 passengers Length: 64 ft 5 in (19.7 m) Wingspan: 95 ft 0 in (29.0 m) Height: 16 ft 11 in (5.16 m) Wing Area: 987 ft (91.7 m) Empty Weight: 18,300 lb (8,300 kg)

Max Takeoff Weight: : 25,200 lb (11,400 kg)

Power Plant: 2 Wright Cyclone R-1820 Radial Engines

Powered By: 2 Morrow Project Series 5 Fusion Plants, 5 MW each

Maximum Speed: 237 mph (206 knots, 381 km/h) Cruise Speed: 150 mph (130 knots, 240 km/h)

Service Ceiling: 24,000 ft (7,300 m) Rate of Climb: 1,130 ft/min (5.73 m/s)



#### **UH-1 light helo**

Crew: 2

Capacity: 16 or 17 passengers or equivalent cargo

Length: 49 ft 4 in (15.03 m)) Rotor Diameter: 52 ft 0 in (15.85 m)

Height: 15 ft 11 in (4.84 m)

Empty Weight: 9,481 lb (4,300 kg)

Power Plant: 2 General Electric CT7-2A Turbo Shaft, 1,625 SHP (1,215 kW)

Powered By: Morrow Project Series 3 Fusion Plant, 2 MW each

Maximum Speed: 200 MPH (320 KPH) Cruise Speed: 160 MPH (260 KPH) Service Ceiling: 20,000 Ft. (6500 meters) Rate of Climb: 1780 ft/min (9.0 m/s)



#### PROJECT C-130HFP (FUSION POWERED Heavy Lift Transport.)

CREW: 5: (two pilots, navigator, flight engineer and loadmaster)

PAYLOAD: 45,000 lb (20,000 kg) 24 palletized loads or

110 general passengers or 72 litter patients with 8 medical personnel

LENGTH: 97 ft 9 in (29.8 m) WINGSPAN: 132 ft 7 in (40.4 m) HEIGHT: 38 ft 3 in (11.6 m)

WING AREA: 1,745 ft (162.1 m) EMPTY WEIGHT: 75,800 lb (34,400 kg) USEFUL LOAD: 72,000 lb (33,000 kg)

MAMIMUM TAKEOFF WEIGHT: 155,000 lb (70,300 kg)

**ARMOR RATING: 250** 

ENGINES: 4 Allison T56-A-15 turboprops, 4,590 SHP (3,430 kW) each

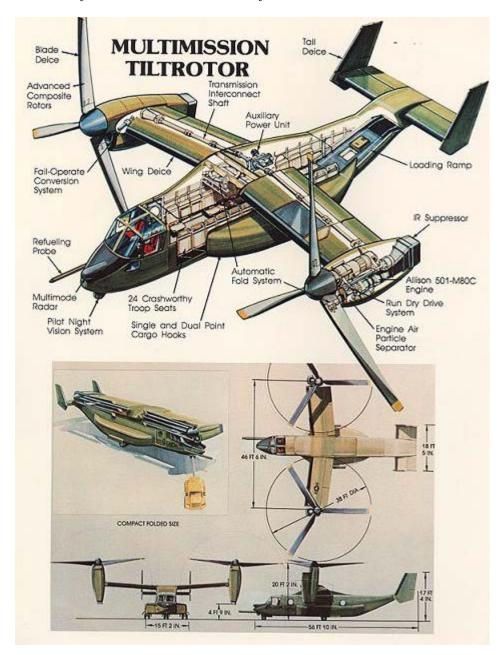
POWER PLANTs: 4 Series 3 MP Fusion Packs, 3 MW per unit

MAXIMUM SPEED: 320 knots (366 mph, 592 km/h) at 20,000 ft (6,060 m)

CRUISING SPEED: 292 knots (336 mph, 540 km/h)

RANGE: 24,000 miles or 60 hours between mandatory maintenance activity

SERVICE CEILING: 25,000 ft (8,200 m) RATE OF CLIMB: 1,830 ft/min (9.3 m/s) TAKEOFF DISTANCE: 3,586 ft (1,093 m)



#### PROJECT V-22 WOMBAT OMNICRAFT

CREW: Four (pilot, copilot and two flight engineers)

CAPACITY: 24 seated passengers or 36 standing paratroops

LENGTH: 57 ft 4 in (17.5 m)

ROTOR DIAMETER: 38 ft 0 in (11.6 m)

WINGSPAN: 45 ft 10 in (14 m)

WIDTH WITH ROTORS: 84 ft 7 in (25.8 m)

HEIGHT: 22 ft 1 in/6.73 m

WING AREA: 301.4 ft� (28 m�) EMPTY WEIGHT: 33,140 lb (15,032 kg) LOADED WEIGHT: 47,500 lb (21,500 kg)

MAMIMUM TAKEOFF WEIGHT: 60,500 lb (27,400 kg)

**ARMOR RATING: 400** 

ENGINES: 2 Rolls-Royce Allison T406 at 6,150 hp (4,590 kW) each POWERPLANTS: 2 MP Series 3 MP Fusion Packs at 3 MW each

MAZIMUM SPEED: 305 knots (351 mph, 565 km/h)

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CRUISE SPEED: 240 knots (275 mph, 445 km/h) at sea level RANGE: 12,000 miles (19,200 km) before mandatory maintenance activity

SERVICE CEILING: 26,000 ft (7,925 m) RATE OF CLIMB: 2,320 ft/min (11.8 m/s)