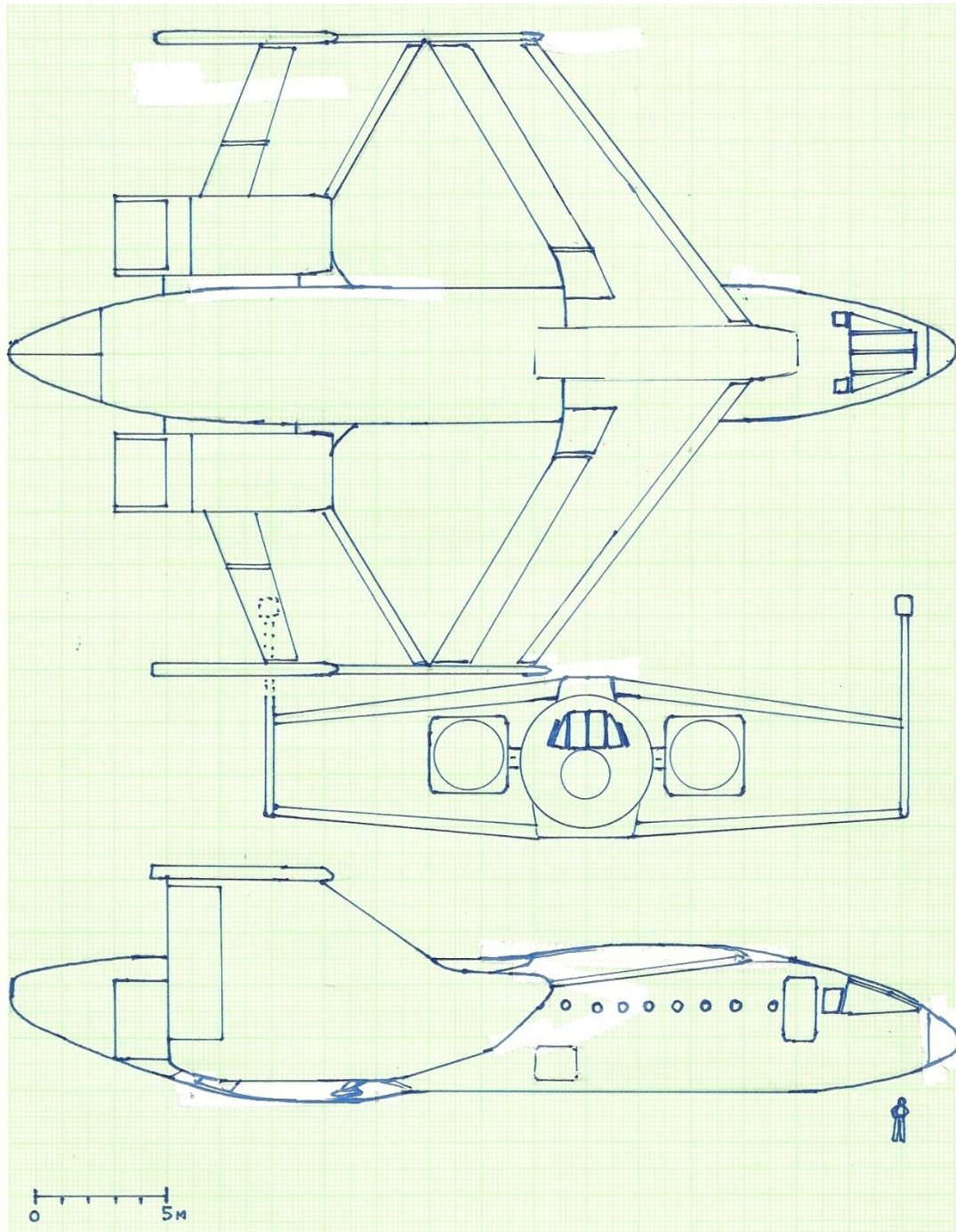


Convair C-100 MERCURY



Characteristics :

- Crew : 6 (Pilot, Copilot, Flight Engineer, two Cabin Attendants).
- Length : 36 m.
- Span : 24.4 m.

- Height : 10.4 m.
- Fuselage diameter : 5 m (external) / 4.6 m (internal).
- Cabin : Forward passenger cabin is 11 m long, 4.6 m wide and 2.2 m high, with total of 72 seats in 6-abreast arrangement. Aft cargo cabin is 10 m long, 4.6 m wide and 2.6 m max height clearance. Retractable floor rollers system for handling of palletized cargo. Clamshell tail section opens to unmask a 5 m X 2.6 m aft cargo door. Both passenger and cargo cabins are pressurized and air-conditioned. Rear cargo cabin can be reconfigured quickly with palletized seats units to add 60 extra seats instead of cargo, for a total of 132 passengers.
- Two baggage holds under the passenger cabin.
- Weights : 35,000 kg (empty, operational) / 129,000 kg (max takeoff).
- Wing area : 202 m².
- Wing loading : 638.6 kg/m² (at max takeoff mass).
- Engines : Two General Electric TF-2000 with 2D nozzles and thrust reversers. Total thrust of 479.4 KN / 49,000 kg st. Engines hooked to sliding rail system to permit aft/fwd movement in order to trim center of gravity. Small APU in belly to provide power on the ground when main engines are shut down.
- Thrust/weight ratio : 0.38 (at max takeoff mass).
- Fuel : total maximum internal capacity of 70,000 kg / 87,000 L, including vertical rudders' fuel cells. Retractable air refuelling probe.
- Construction : Classic aluminum alloy construction. Patented diamond wings and flexible wing profile.
- **Sensors/electronics :**
 - Air surveillance/meteorological radar in nose.
 - Surface mapping navigation radar in chin.
 - Radar altimeter.
 - Inertial navigation system with cockpit map display unit.
 - Heads-up display units for pilot and copilot, linked to forward-looking e/o camera pack (FLIR + LLLTV), with aircraft attitude display.
 - Three other e/o camera packs giving night view in frontal arc and down-forward.
 - Four clear comms radios (2 UHF, 1 VHF, 1 HF) for joint services operations.
 - IFF transponder.
 - TACAN receiver.
 - VOR, ILS landing aid systems.
- **Performances :**

- Max speed : Mach 0.95 (max cruise speed of Mach 0.85).
- Payload : Max 24,000 kg of payload (cargo + passengers).
- Range : 4,800 miles / 7680 km with full payload; 6,800 miles / 10,880 km with 36 passengers and no cargo.
- **Variants :**
 - **Convair C-100A MERCURY** : Medium range mixed passenger/cargo transport aircraft. In USAF service in Dec 1952 'C'. In US Air National Guard service in November 1953 'C'.
 - **Convair C-100M NIGHTINGALE** : Long range medical evacuation transport aircraft. Both forward passenger cabin and aft cargo cabins converted for transport of up to 20 patients on gurneys and six seats for medical personnel. Special gurney lift at rear of cabin. Extended range of 8,100 miles / 12,960 km. In USAF service in December 1952 'C'. In US Air National Guard service in November 1953 'C'.
 - **Convair MERCURY** : Civilian airliner variant of C-100. Capacity of 72- 132 passengers, depending on airlines' choice of setup. In US civilian commercial service in March 1953 'C' (first user : American Airlines). In French civilian commercial service in December 1953 'C'.