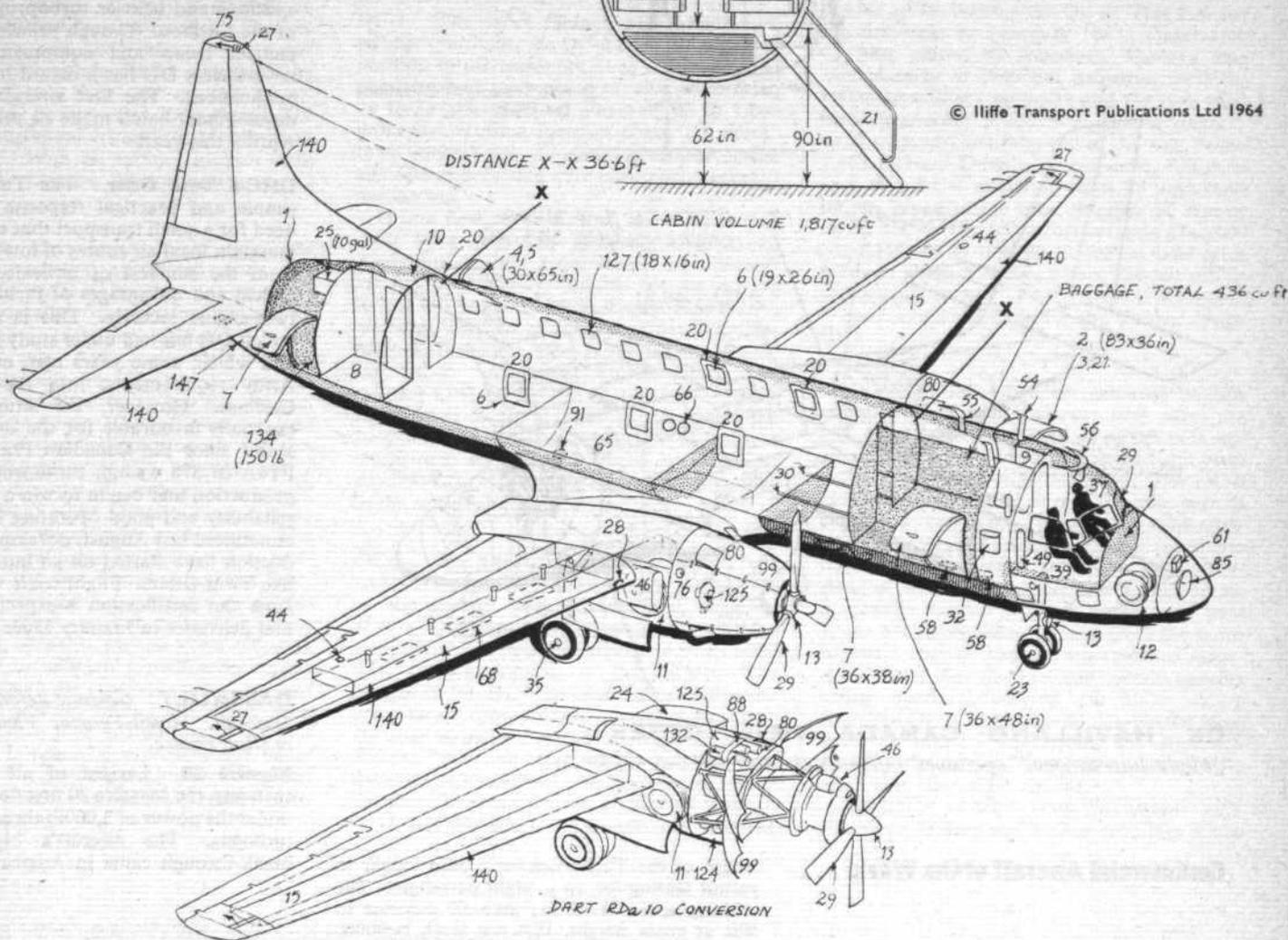


Commercial Aircraft of the World ...



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CONVAIR 440 WITH DART CONVERSION

"Flight International" operators' reference drawing (see page 903 for key)

Dart-Convair On November 3 this year General Dynamics announced details of a scheme to re-engine, with 3,025 e.s.h.p. Rolls-Royce Dart 10s, all marks of existing aircraft in the 240/340/440 series. Thus, for a relatively modest capital outlay, operators of these popular aircraft can now, if they choose, carry more payload over longer ranges with a higher cruising speed and, in all WAT conditions, have a wider safety margin during the take-off climb (even at the increased gross weights) plus turbine appeal. Conversions can be performed at the San Diego factory or, from a kit of parts costing £165,000 (ex-works), by any well-equipped engineering organization. Coinciding with the Dart-Convair announcement came details of the first orders—25 for the 240s of Trans-Texas Airways and ten for the 240s of Central Airlines. After the failure, so far, of the FAA local service airliner design competition to yield any hope of a DC-3 replacement that could bring financial self-sufficiency to this branch of the US domestic airline industry, it is perhaps significant that the first orders for 56-seat 240-Ds should have come from "all-piston" local service airlines.

Convair 880 and 990 In 1956 Convair announced their CV-880, or Convair 600 Skylark as it was originally known. From the outset it was intended to be a medium-haul aircraft to match the shorter-range versions of the Boeing and Douglas jets. Though similar to the 707 and DC-8 in overall configuration, the 880 was designed to be faster, and with

US coast-to-coast capability. The Convair 880 flew for the first time in January 1959. In its primary market the 880-22 was outsold by the bigger medium-range Boeing 720. Convair therefore intensified efforts to make the 880 more attractive, particularly to shorter-haul operators for whom, it was adjudged, the 720 would be too big. This led to the 880-22M which, apart from having increased weights and more power, was modified to reduce turn-round time and to improve airfield performance. The modifications included four leading-edge slats on each wing; power-boosted rudder and larger fin; provision for pre-loaded baggage bins; strengthened undercarriage and retractable tail skid, and an improved anti-skid braking system. About two years after launching the CV-880, and a year before the prototype flew, Convair entered negotiations with American Airlines for a developed and enlarged version for this operator's trunk routes and one that would be capable of flying faster than any other commercial transport. These enquiries developed into the Convair 990. The 11,000lb-thrust GE turbojets of the -22M were replaced by turbofans of 16,000lb thrust, fuselage length was increased 10ft, and the aircraft was aeruled by the addition of large anti-shock bodies extending beyond the wing trailing edge serving a dual purpose as fuel tanks. The 990 first flew in January 1960. Measured performance was below the minimum guaranteed, and a lengthy development period to devise a cure delayed the type's entry into service (with

Swissair) until spring 1962. The "speed-recovery programme" called for five main modifications which have been retrospectively applied to all 990s built and incorporated in all new aircraft. The modified aircraft is the Convair 990A.

A total of 102 aircraft were built in the 880/880M and 990 series. All are now sold—the most recent being a 990 to NASA, the 880 prototype to TWA, and an 880M to Japan Domestic Airlines.

CURTISS

C-46F Commando In 1937 Curtiss-Wright began discussions with several airlines in the United States for a large pressurized twin-engine transport. The resulting CW-20 flew in the spring of 1940, but production for the airlines was forestalled by Pearl Harbour. In 1941 an unpressurized version was ordered by the USAF as the C-46 Commando, and more than 3,000 were built. After the war, surplus C-46s became available to civil operators, but they were slow to be adopted and it was some years before they were used in large numbers. The reasons for this were technical difficulties connected with the award of a civil airworthiness certificate. Eventually the CAA placed the aircraft in the transport category for domestic use only. For this reason the C-46's American certificate of airworthiness has never been ratified by the UK Air Registration Board. Nearly 400 are still in service, mainly in North and South America.