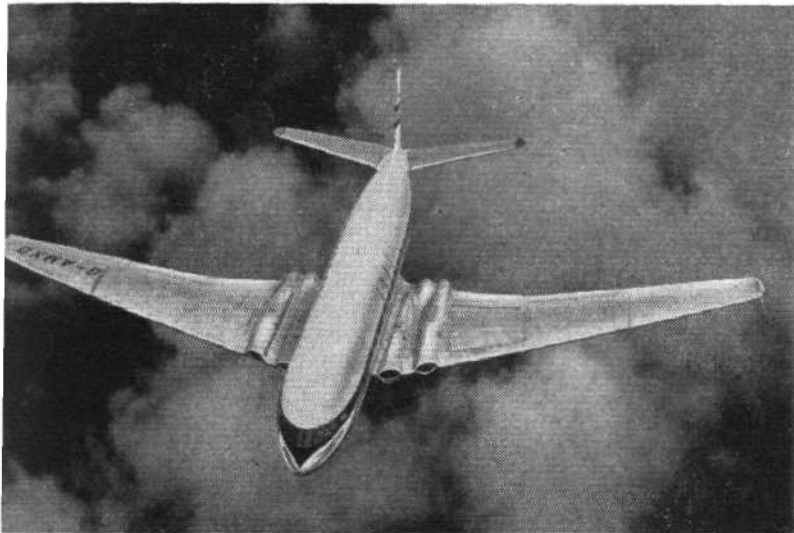
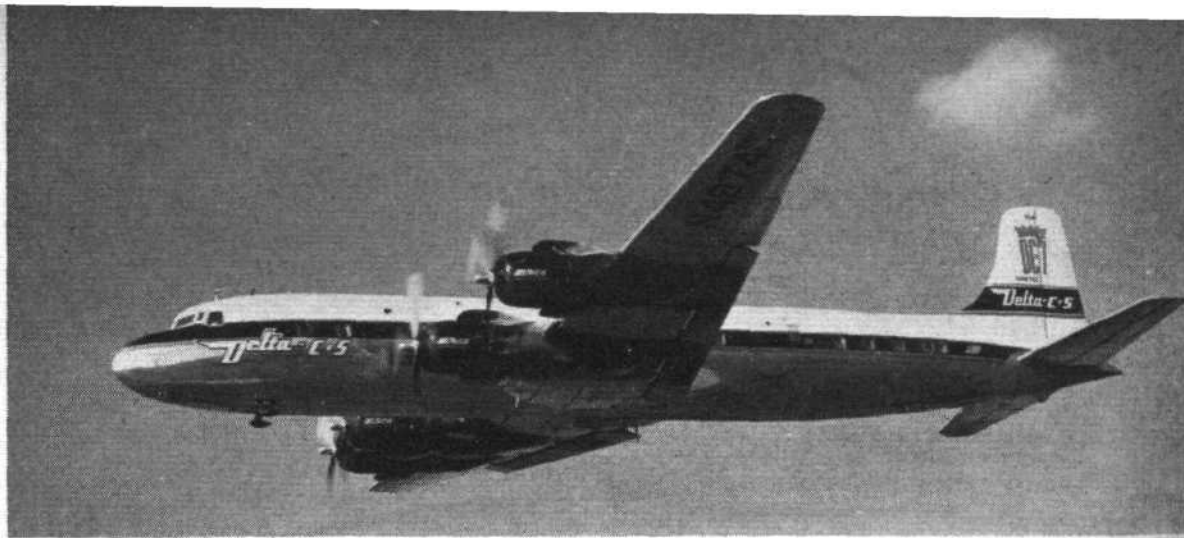


Wright Turbo-Compounds of 3,250 h.p. drive the DC-7, shown (right) in the colours of Delta-C and S. The D.H. Comet 2 (below) has four Rolls-Royce Avons of 7,350 lb thrust. The commercial future of this mark of Comet has yet to be decided.



Britannia is an impressive transport aircraft in its own right.

Until the advent of the Britannia and Comet, the majority of long-distance operators' post-war requirements had been met by two American manufacturers, Douglas and Lockheed. Douglas have captured the larger share of the market, receiving orders for a total of well over 500 aircraft in the DC-6/7 series. The series grew out of the non-pressurized DC-4, built in large numbers during the war as the Skymaster. Latest in the line is the DC-7C Seven Seas, a long-range transport designed specifically for non-stop service between North America and Europe. This aircraft is the classic example of the "stretch" process, as shown by the following comparative figures for the DC-7C and (in parentheses) a typical DC-4: length, 112ft 3in (93ft 10in); span, 127ft 6in (117ft 6in); gross weight, 139,000 lb (73,000 lb); total power, 13,600 h.p. (5,800 h.p.); capacity payload, 16,740 lb (12,000 lb); speed, 343 m.p.h. (200 m.p.h.).

Development of a basic design to such an extent has been made possible largely by increases in power, which Douglas have, in order to keep the design competitive, converted into additional range and speed rather than capacity. The company's efforts have been highly successful, as witness the ever-increasing production line at Santa Monica (and success in the airliner-manufacturing industry is cumulative). The improvement in operating economy, however, appears to have stopped short at the DC-6B; the extra work-capacity of the DC-7 is not sufficient to offset its higher initial cost. Approximate purchase prices of the DC-6/7 series are: DC-6, \$700,000; DC-6B, \$1,200,000; DC-7, \$1,800,000; DC-7C, \$3,600,000. In general, operators are unlikely to accept the DC-7 or DC-7C as a replacement for the DC-6B now in service—except where extreme ranges are involved, a classic example being the North Atlantic.

DC-7s have been in American domestic use since late 1953, their most significant achievement being the opening of direct coast-to-coast service. The DC-7B, which carries additional fuel in the inboard nacelles, will be seen in midsummer, wearing Pan American colours, on the North Atlantic route, and the type will also be introduced this year by South African Airways, who have bought three, at a total cost of some \$5,900,000, for the Johannesburg-London route. Delivery of Seven Seas will begin in mid-1956 to Pan American, who have ordered 15. Other DC-7C operators will be B.O.A.C., who have lately received Government authority to buy ten as an "insurance" against delays in Britannia development, S.A.S., Sabena and Swissair.

Lockheeds have achieved success comparable to that of Douglas in the long-range transport field, with the sale, to date, of some 400 civil models of the Constellation and Super Constellation. Success with the L.1049 Super Constellation has lately been most pronounced in the export market. Deliveries have been made to a dozen non-American carriers, and others expect early delivery. Six basic types of civil Constellation are now in service, to be joined shortly by a seventh, the L.1049G with two 500-gallon wing-tip tanks. Typical of the "unstretched" versions is the 749A, which carries up to 60 passengers and is still used by Qantas on one of the longest of over-water hauls—the 2,650-mile leg of the Indian Ocean route from Cocos to Mauritius. With a fuselage 18.4ft longer than the 749A's, the L.1049C Super Constellation accommodates a considerably larger payload—up to 99 passengers plus freight. Its ultimate still-air range (about 5,000 miles) is, contrary to general belief, less than that of the 749A, but it can carry a similar load over longer airline routes.

Designed, like the Seven Seas, specifically for long distances, the projected L.1549 differs from the Douglas concept in that it employs turboprops—6,000 h.p. Pratt and Whitney PT2Fs. Consequently, its period of introduction, possibly on T.W.A.'s network, will be somewhat later. For a 185,000 lb aircraft, the 1549 will have a low capacity-payload—some 18,000 lb, or 90 tourist passengers plus freight. It is intended however, to carry its full load over airline routes of nearly 4,500 miles at a speed of over 400 m.p.h. Total fuel capacity will be some 9,200 Imperial gallons, compared with 8,300 for the Britannia 300 L.R. and 6,550 for the Seven Seas.

Still among the most widely used of long-range transports is the Constellation 049 (above), powered by four 2,200 h.p. Wright radials; the example shown belongs to El Al, national airline of Israel. Above it is an Airwork Hermes IVA, a pressurized 56-seater powered by four 2,100 h.p. Bristol Hercules.