

was chosen by Pan American as the aircraft for its new Business Jets division to distribute in the United States. A total of 40 with an option on 120 has been ordered by PanAm. In production and well advanced towards certification—which should be completed by the middle of next year—the aircraft is now flying on the power of 4,200lb-thrust GE CF700-2B turbofans—specified for production aircraft. With an airliner interior configuration the Mystère 20 can seat up to 12 passengers.

Mystère 30c On March 21 of this year Dassault signed an agreement with the German company SIAT for the joint construction of a prototype of the Mystère 30c—a 40-seat short-haul turbofan airliner. To be powered by two Rolls-Royce RB.172s of 5,000lb thrust each, the Mystère 30c project has a similar specification to the HS.136 and Short PD.65 projects. Though Dassault and SIAT appear enthusiastic to proceed with this “jet Friendship/Herald/748 replacement,” Rolls-Royce has yet to announce plans to build the RB.172. The Mystère 30c is similar in layout to its executive jet predecessor. The 8.9ft-wide by 33ft-long circular-section pressurized cabin can seat 40 passengers in a four-abreast 34in seat-pitch arrangement. Gross weight is 35,250lb, landing weight 33,800lb, max payload 10,000lb, and max fuel, cruising at 500 m.p.h., is sufficient for 900-mile stages. The moderately swept wing has conventional slotted flaps and no special effort has been made to achieve high lift at low speed and over 5,000ft is needed for gross-weight take-offs. No further programme details have been forthcoming from the Franco/German partnership since April.

DOUGLAS The Douglas Aircraft Co Inc, Long Beach, California, USA.

DC-3 The most famous and widely-used airliner ever built, the DC-3 occupies a unique position in air transport. It is a twin-engine unpressurized monoplane capable of carrying up to 32 passengers on stages of up to 1,000 miles at a cruising speed of about 170 m.p.h. It set entirely new standards in airliner design and operation which were universally accepted and copied.

It first flew on December 22, 1935, having itself been originally designed to meet an American Airlines requirement for a sleeper version of the DC-2 suitable for use on the longer US domestic trunk routes. However, it was the “Day Plane” model of the “Douglas Sleeper Transport,” or DST, which became the DC-3. Altogether 10,928 DC-3s and military C-47s were built in the United States, in addition to about 2,000 in Russia (as the Li-2) and 450 in Japan. Some 1,200 are still in world-wide service. The DC-3 in 1936 cost £18,000-£23,000, and resale prices today are in the same bracket.

DC-4 The DC-4 has been to long-haul air transport what its stablemate the DC-3 was to the growth of the short-haul business. It is a four-engine unpressurized aeroplane capable of carrying 86 passengers over 2,500 mile sectors cruising at 200 m.p.h. The origins of the DC-4 go back to a requirement for a larger medium-haul transport issued by the four largest American carriers (American, United, TWA and Pan American) in mid-1935. Douglas produced a prototype—the DC-4E—to meet this requirement; it flew on June 7, 1938, but did not prove satisfactory and was

rejected by the airlines. Douglas thereupon started an entirely new and rather smaller project which became the DC-4. This flew for the first time in February 1942. Orders for 61 were placed by American, Eastern, and United early in 1940 but deliveries were diverted to military purposes and the type went into large-scale production as the military C-54 transport until the end of the war. Some 1,163 military C-54s were delivered, followed by a civil DC-4 model of which 79 were built before manufacture was stopped in favour of the DC-6. The DC-4 cost between £140,000 and £160,000 in 1946-47. A typical used price today is about £50,000. About 280 are still in widespread service. In the United Kingdom it has formed the basis for the Carvair (page 902).

DC-6 The DC-4 concept achieved its full potential as a civil transport only after the end of the Second World War when it appeared in a more powerful, stretched and pressurized form known as the DC-6. The DC-6 carries 90 passengers over 2,500 mile sectors cruising at 280 m.p.h. It is thus considerably faster than its predecessor because of the higher total installed power (9,600 h.p. for take-off instead of 5,800 h.p.) and because it can operate at greater heights with its pressurized passenger accommodation. Apart from the more powerful engines and the strengthened structure which they require and which permits higher operating weights, the DC-6 differs from the DC-4 in having double-slotted flaps with the idea of maintaining the approach speed of the original domestic model to little more than that of the DC-4.

The DC-6 resulted from discussions with American Airlines and United Air Lines about

DOUGLAS DC-6A “Flight International” operators’ reference drawing (see page 903 for key)

