

World Air News

Miles old and new

DURING THE FOURTEEN days from 22nd April to 6th May the Miles Group at Shoreham spanned fifty-four years of aviation history by completing the constructors' flight test programme of the improved Mk. 2 version of the Student jet trainer and of a reproduction Bristol Boxkite of 1910 vintage; the latter has been designed and built for 20th Century Fox for film purposes.

The Student Mk. 2 now incorporates the Turboméca Marboré 6F engine of 20 per cent greater thrust than previously and has interchangeable underwing weapon pods. Performance with the new engine is: maximum continuous speed at sea-level, 315 m.p.h.; stalling speed, 68 m.p.h.; time to 10,000 ft. 5.4 minutes and to 20,000 ft., 14 minutes; range 637 miles. The price of the Student for a quantity order is now £25,000.

The Bristol Boxkite replica required difficult research into the original detail of the aircraft which was only available from photographs, models and a single G.A. drawing; the aircraft had therefore to be designed and stressed from scratch. Instructions to proceed with design and manufacture were received on 14th January and the aircraft was test flown for 25 minutes on the morning of 6th May, after five days' delay waiting for strong

ABOVE RIGHT: *Four Hawker Siddeley 125s — G-ASEC, G-ARYB, G-ARYA and HB-VAG—over Hatfield; a note on 125 production appears above. HB-VAG is destined for Chartag, the Swiss Zürich-based independent operator. BELOW LEFT: The Miles Student Mk. 2 with Marboré 6F engine. BELOW RIGHT: The Bristol Boxkite replica built by Miles for 20th Century Fox*

winds to abate. Apart from the installation of a modern light aeroplane engine, supplied by Rolls-Royce, the design and construction of the aircraft are virtually authentic.

Hawker Siddeley 125

The Hawker Siddeley 125 was granted its C. of A. on 4th June, becoming the first jet aircraft specifically designed for executive use to qualify for a full airworthiness certificate. Seven H.S.125s have so far been completed and current planning calls for the construction of seventy-four by the end of 1965. The first of twenty for the R.A.F. will be delivered this year and, following a recent decision by the Air Board, the H.S. 125 will be called "Dominie", in R.A.F. service, thus reviving the name of the D.H. 89 Dragon Rapide derivative used as a navigational trainer in World War II.

Civil StarLifters

The Flying Tiger Line has placed an order with Lockheed's for eight L-300B Super StarLifters. A civil development of the C-141 now being built for the U.S.A.F., the L-300B has a 25 per cent

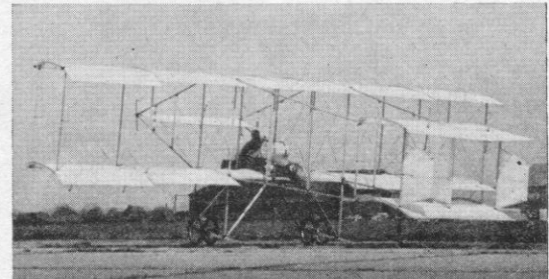
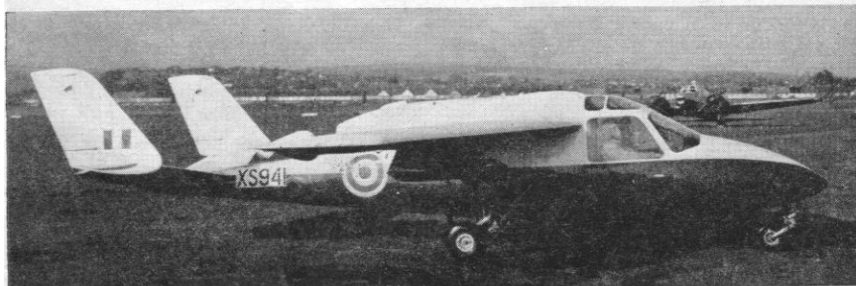
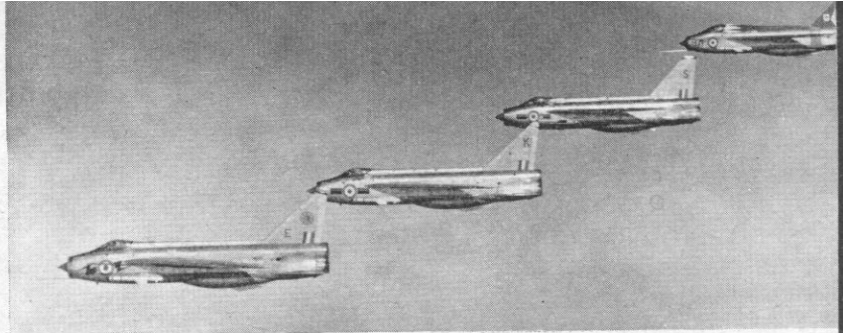
Four Marks of Lightning in R.A.F. service (LEFT TO RIGHT): an F.1 of No. 111 Squadron, Wattisham; an F.2("K") and an F.3("S"), both of the Air Fighting Development Squadron, Binbrook; and a T.4 of No. 226 O.C.U., Coltishall

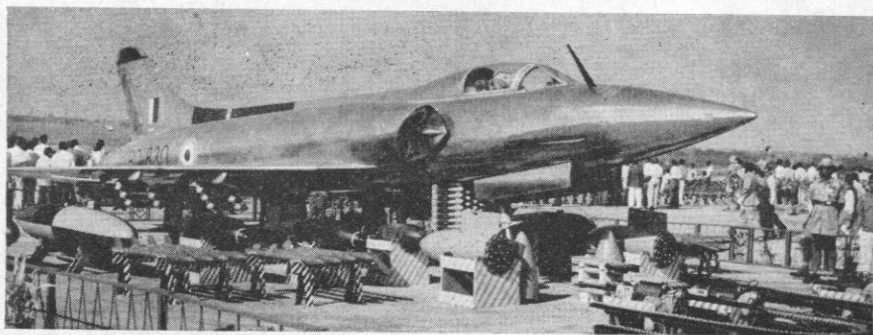
longer hold (104 ft.) in its lengthened fuselage (168 ft.) and can carry a payload of 110,000 lb. at over 550 m.p.h.; maximum take-off weight is 366,000 lb. The contract, valued at approximately £28 million, is believed to be the largest ever placed by a civil firm for cargo aircraft. Slick Airways have also ordered four L-300Bs and placed an option on two more.

U.S. "COIN" projects

Mock-ups have now been completed of several contenders for the U.S. Department of Defense's competition (managed by the U.S.N.) for a counter-insurgency ("COIN") aircraft for armed reconnaissance, close-support, and ferrying troops and supplies. All are twin-turboprop designs and companies competing include General Dynamics/Convair, Douglas, Helio, Lockheed and Martin.

Designated CL-760 the Lockheed entry (illustrated here) is powered by two 660-s.h.p. AiResearch T-76s and has a speed range of 40 to 282 knots. Span is 30 ft. and length 40 ft. 3½ in. The machine has





LEFT: Mock-up of the Lockheed CL-760 "COIN" project. RIGHT: Hindustan HF-24 Marut Mk. I with typical weapon loads; three Maruts during 10th May fly-past

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a crew of two and can carry up to eight troops or 4,500 lb. of cargo. Armament includes four 7.62-mm. machine guns plus 4,800 lb. of rockets or other stores on wingtip and under-fuselage racks. With extra tankage the CL-760 has a ferry range of 1,450 naut. miles and, with its wings removed, can easily be carried inside a C-130 Hercules.

The Douglas entry is of similar layout but powered by two 587-s.h.p. Canadian Pratt & Whitney T-74s and has a speed range of 45 to well over 200 knots. Like all the designs, it must be able to take off to clear 50 ft. in less than 800 ft., the D. o. D. requirement. Payload is 6,000 lb. Both the Martin design and the GD/Convair Model 48 have twin-boom layouts, and the Helio entry is believed to be similar to that company's U-5.

Douglas transport study

Douglas are now engaged in a design study for a heavy logistics transport to succeed their C-133 Cargomaster. The current designation for this military aircraft concept is CX-HLS (Cargo, Experimental-Heavy Logistics Support). Preliminary Douglas designs for the CX-HLS call for a swept-wing aircraft powered by six 30,000-lb. s.t. turbofan engines. The cargo hold is 100 to 110 ft. long and varies in width in different study configurations from 17.8 to 19.4 ft. Other features

include a swing-nose and an aft opening for simultaneous ground loading or unloading as well as for air-dropping of supplies.

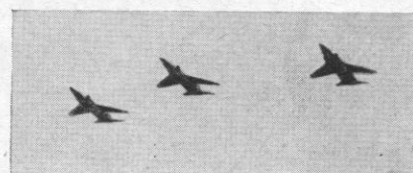
A full-size fuselage mock-up has been constructed at Long Beach. One current Douglas design is for an aircraft that could carry a 135,000-lb. payload 4,600 miles at a take-off gross weight of approximately 600,000 lb.

Aid to S. Vietnam

The U.S.A. is supplying the South Vietnamese Air Force with seventy-five Douglas Skyraiders (fifty two-seat A-1Es and twenty-five single-seat A-1Hs); a further twenty-five Skyraiders may follow. They will replace North American T-28s and Douglas B-26s previously supplied by the U.S.A., on attack duties. The U.S.A.F. itself has been flying reconnaissance missions in Vietnam, using Lockheed U-2s, Martin RB-57s and McDonnell RF-101 Voodoos, and is also operating a number of Lockheed C-130 Hercules transports.

India's jet fighter

At a ceremony on 10th May the first batch of Hindustan HF-24 jet fighters was officially handed over to the Indian Air Force. Designed by Kurt Tank, who was responsible for Focke-Wulf types in W.W.II, the HF-24 in its initial form, named Marut Mk.I, is powered by two 4,850-lb. s.t. Bristol Siddeley Orpheus



703s; the first two Orpheus 703s built under licence by HAL at Bangalore recently came off the line, following completion of a batch of one hundred Orpheus 701s for Indian-built Gnats. A later version of the HF-24, with more powerful engines, will be known as the Marut Mk.II. Apart from these two fighters, India is also building MiG-21s under licence.

DC-9s for Swissair

Swissair have ordered ten Douglas DC-9s, for delivery between June 1966 and December 1968. They will gradually replace Swissair's Convair 440 Metropolitan. DC-9 orders now total thirty-four, including fifteen for Delta Air Lines, six for Air Canada (formerly T-C A) and three for Bonanza Air Lines. The first DC-9 is scheduled to be rolled out next February and first flight is scheduled for March 1965.

K.L.M. reserves S.S.T.'s

K.L.M. Royal Dutch Airlines have taken steps to reserve delivery positions for six supersonic aircraft: three BAC/Sud Concorde and three U.S. S.S.T.'s. However, K.L.M.'s President, Mr. H. Albarda, states that it will take a considerable time before the decision can be made to place definite orders. K.L.M. are also "shopping" for a Viscount replacement.

Dutch military news

The first Dutch A.F. air defence squadron to be equipped with Lockheed F-104G Starfighters is No. 323, based at Leeuwarden; it will be followed this autumn by No. 322, at the same base. The first Starfighter unit, however, was No. 306 Squadron which operates RF-104Gs for photo-reconnaissance. In addition, two of the Dutch A.F.'s four fighter-bomber squadrons are to re-equip with F-104Gs,

The first Vickers Valiant, XD829, to be seen in the green and grey camouflage adopted for V-bombers that operate at low level





LEFT: The first U.S.A.F. S.A.C. Sikorsky CH-3C, delivered to the 341st Combat Support Group at Malmstrom A.F.B., Montana. RIGHT: The first of twenty-three Mitsubishi-built Sikorsky HSS-2s for the Japanese Maritime S.D.F.

the other two retaining their F-84F Thunderstreaks. Leeuwarden was previously a Hunter base, and six Hunters are to be used in the future as target tugs.

Owing to financial difficulties it now seems unlikely that the Dutch Army will go ahead with its plan to purchase twenty heavy helicopters, Sikorsky S-61Rs or Vertol 107s. The Navy, however, is to acquire some Alouettes or Wasps for the naval oiler *Poolster* and the four frigates of the *Van Speijk* class (similar to the R.N.'s *Leanders*). A decision is to be taken shortly about the aircraft-carrier *Karel Doorman*, which may be converted into a helicopter carrier.

T-CJA becomes Air Canada

On 1st June Trans-Canada Air Lines began the first phase of a programme to change its name to Air Canada, which it is felt more accurately describes the airline's now truly international character; the change-over will take some months to complete.

Battle of Britain Week

Battle of Britain week will be observed this year from 14th to 20th September. Saturday 19th September will be Royal Air Force "At Home" Day, when the following twelve R.A.F. Stations will be open to the public: Acklington, Morpeth, Northumberland (Flying Training Command); Benson, Oxford (Transport Command); Biggin Hill, Westerham, Kent (Flying Training Command); Colerne,

Chippenham, Wilts (Transport Command); Coltishall, Norwich, Norfolk (Fighter Command); Finningley, Doncaster, Yorks (Bomber Command); Gaydon, Leamington Spa, Warwicks (Bomber Command); St. Athan, Barry, Glamorgan (Technical Training Command); St. Mawgan, Newquay, Cornwall (Coastal Command); Ternhill, Market Drayton, Shropshire (Flying Training Command); and Waddington, Lincoln (Bomber Command).

Skyfame Museum

The Skyfame Museum run by Mr. Peter F. M. Thomas at Staverton Airport, between Cheltenham and Gloucester, is holding flying displays on 4th July and 8th August. Apart from the historic aircraft in the museum itself, Skyfame Ltd. are keeping in flying order Mosquito TA719 and Anson I N4877 (formerly G-AMDA). These two aircraft, incidentally, can be hired for other displays.

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U.S. NAVAL AVIATION

FOR THE FIRST time, the London Society of Air-Britain plays host to the U.S. Navy at the meeting (7-9.45 p.m.) for Wednesday, 8th July, in the lecture theatre of the Holborn Central Library, 38 Theobalds Road (nr. Gray's Inn Road intersection), W.C.1. Guest Speaker will be Capt. J. C. Doherty, U.S.N., who will introduce the contemporary scene and also the film "50 Years of U.S. Naval Aviation". Visitors are welcome.

The forty-two F-8E (FN) Crusaders being built by Ling-Temco-Vought for the French Navy have "blown" flaps and ailerons, greater flap angle, and double-droop leading edges (RIGHT) to give the lower landing speeds necessary for the carriers *Foch* and *Clemenceau*. The prototype (LEFT) is shown carrying French MATRA missiles

