

World Air News

India's new jet trainer, the Hindustan HJT-16, made its first flight on 4th September

Hindustan HJT-16

THE HINDUSTAN HJT-16 two-seat side-by-side trainer—the first jet aircraft to be designed and built entirely by Indian engineers—made its first flight on 4th September at Bangalore. Hindustan Aircraft Ltd. have already begun to lay down an assembly line for the manufacture of an initial batch of twenty-four pre-production machines, and it is anticipated that an order for one hundred production HJT-16s will follow.

Powered by a 2,500-lb. s.t. Bristol Siddeley Viper 11, the HJT-16 has an all-up weight of 6,490 lb. and its cockpit is fully pressurised and air-conditioned—the latter being an important feature in India for crew comfort while taxi-ing. Fuel is carried inboard in a 250-gal. tank and there is provision for two 50-gal. external wing tanks. Structural details are conventional.

Detailed design of the HJT-16, which has been produced to an Indian Air Force

requirement for a basic/intermediate trainer, began in April 1961 under Dr. V. M. Ghatage, HAL's chief designer. By November 1963 major assembly of the prototype had started, and the final installation of the aircraft systems and the Viper 11 engine were completed just before the first flight. Piloted by G/Capt. S. Das, chief test pilot of HAL, the aircraft reached a speed of 250 knots and its handling and performance were reported to be completely satisfactory.

Euravia changes name

Euravia (London) Ltd., the Luton-based international airline, has changed its name to Britannia Airways Ltd. The company recently bought six of B.O.A.C.'s Britannia 102s and because of its intention to operate an all-Britannia fleet in the near future, has decided on this change of name. Euravia started operations in April 1962 with three Constellations purchased from the Israeli airline El Al. Later that year it

took over Skyways and thus acquired three more Constellations and two Yorks. Today the fleet totals eleven four-engined aircraft, most of them being Constellations. The first Britannia is expected to enter service on 6th December, on the Tenerife route.

Short's join F.28 team

Short Brothers and Harland Ltd. and the Dutch Fokker company have concluded an agreement in principle to collaborate in the design and production of the Fokker F.28 Fellowship short-haul jet airliner. Already co-operating in the F.28 programme are two West German firms, Hamburger Flugzeugbau and the Vereinigte Flugtechnische Werke (see September issue, page 274). The new agreement provides for Short's to design the outer wing and other components and to build them at Belfast for final aircraft assembly at the Fokker works at Amsterdam.

P.1127 named

The name "Kestrel" has been chosen for the Hawker Siddeley P.1127 V/STOL ground-attack fighter, which is to equip the tripartite (U.K., U.S.A. and Germany) evaluation squadron now being formed at R.A.F. West Raynham, Norfolk, under W/Cdr. D. McL. Scrimgeour, R.A.F. Pilot conversion and ground crew training will be undertaken at Dunsfold aerodrome, Surrey, by Hawker Siddeley Aviation, and the first Kestrel FGA.1s will be delivered to the squadron early next year.

Stretched F-27

Fairchild Stratos Corp. have announced a larger, more powerful version of their F-27 transport (licence-built Friendship). Designated F-27II, it will have 120 per cent more cargo space than the present F-27 when equipped to carry forty passengers; seating density can be increased to take up to fifty-two passengers. Length of



Demonstrated at Edwards A.F.B. on 1st October, the U.S.A.F.'s new interceptor, the Lockheed YF-12A, formerly designated A-11, is fitted with Hughes fire-control radar and can carry eight Hughes AIM-47A missiles with nuclear warheads. Now painted black, 06934 is the machine illustrated in our April issue, page 98. A reconnaissance version, the SR-71, has also been announced, and there may be a bomber A-11 as well



the fuselage will be increased by 70 in., and an extra 120 s.h.p. per engine will be provided by the new Mark 532-7 version of the Rolls-Royce Dart 7. Gross weight limits will be certified at 42,000 lb. for take-off and 40,000 lb. for landing.

More Braniff One-Elevens

Braniff International Airways have taken an option on twelve additional BAC One-Elevens, for delivery in 1966. Braniff already have fourteen on order—the first of which is to be delivered next month—and will be the first U.S. airline to put the One-Eleven in service. Two other U.S. airlines that ordered, and then re-ordered, the One-Eleven are Mohawk, the largest of the regional airlines, with five and an option on two more, and American Airlines with a total of twenty-five. One-Eleven orders now total seventy-nine.

PD-808's first flight

The Piaggio-Douglas PD-808 executive jet, built by Industrie Aeronautiche e Meccaniche Rinaldo Piaggio S.p.A., made its first flight on 29th August from Sestri C. Colombo Airport, Genoa. The PD-808 is to be offered in two basic seating arrangements, for seven or ten people, in a pressurised cabin, but can be adapted for cargo transport (185 cu. ft. available), ambulance, photo-reconnaissance, navigational training or ground-attack duties.

Powered by two 3,000-lb. s.t. Bristol Siddeley Viper 525s, the machine cruises at 550 m.p.h. and has a range, with reserves, of 1,226 naut. miles. Weight empty is 9,234 lb., take-off weight 16,000 lb. and payload 1,277 lb.

More 727s for United

United Air Lines have ordered twenty-five more Boeing 727s, increasing their total to sixty-five. This order will make United the world's largest commercial operator and purchaser of Boeing jets with a fleet of ninety-four, including twenty-nine medium-range Boeing 720s already in service. Since 1930 United have purchased 170 Boeing aircraft at a cost of more than \$440 million. They paid \$4,500,000 for sixty-nine twin-engine Boeing 247s in 1933



On 3rd September the first three of a batch of twenty-four SAAB-91D Safir trainers for the Austrian Air Force set off on delivery. They will be based at the A.A.F. Flying School at Zeltweg, Steiermark; twelve of the Safirs are equipped for navigational training



A model of the Britten-Norman BN-2 feeder liner, which was announced at Farnborough. Intended as a "Rapide replacement", it seats ten and will probably be powered by 200-h.p. Rolls-Royce Continentals



ABOVE: The prototype Piaggio-Douglas PD-808 executive jet made its first flight on 29th August at Genoa

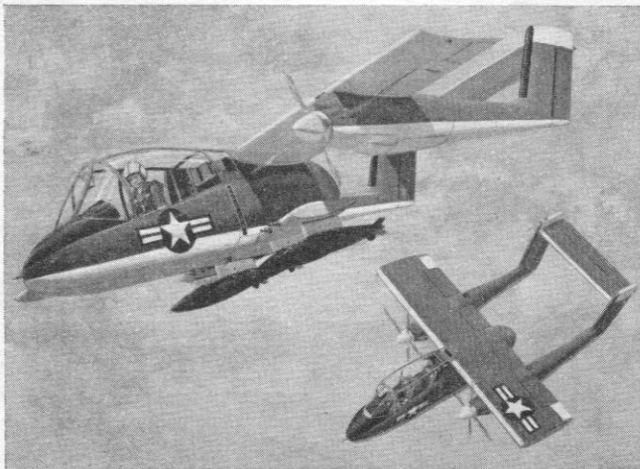
—the same price as for a single 727 today. United currently operate 108 jets in their fleet of 327 aircraft. Boeing 727 sales now total 225.

North American NA-300

North American's entry in the "COIN" competition—or "LARA" (light armed reconnaissance aircraft) as it is also known—has met with success, N.A.A.'s Columbus Division having received authority from the Department of Defense to build and flight-test seven prototypes of the NA-300. First flight is scheduled for next summer.

Powered by two 650-s.h.p. turboprops driving 8½-ft.-dia. four-bladed propellers, the machine will have a maximum speed of 265 kts. at sea-level. Wing span is 30

LEFT: Artist's impression of the North American NA-300. Seven prototypes have been ordered by the U.S. Department of Defense and the first is expected to fly next summer





As mentioned last month, page 313, the U.S.A.F. has ordered 170 Cessna T-41As (Model 172s) for pilot training. This photo shows the first aircraft as it will be delivered, although striping and the position of the registration may be changed according to U.S.A.F. wishes

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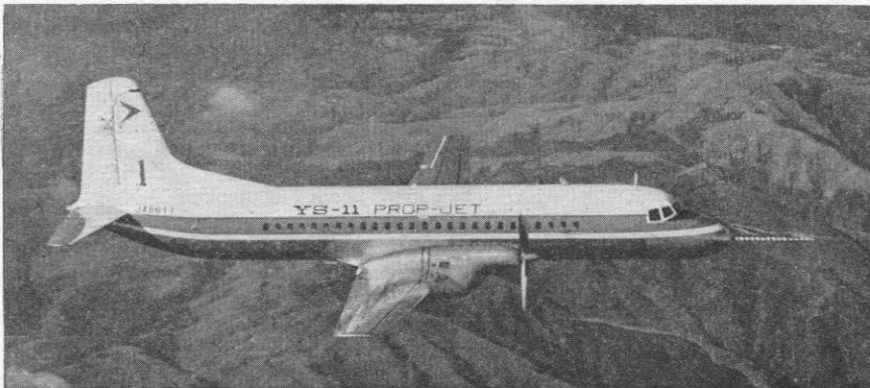
ft., length 39 ft. 3 in., tail span 13 ft. 7 in., and height 15 ft. The machine has a tricycle undercarriage with low-pressure tyres, but can be quickly converted to an amphibian by attaching twin floats, with built-in retractable wheels, below the booms.

Armament comprises four fixed 7.62-mm. machine guns, plus 2,400 lb. of external stores including bombs, napalm, rockets, and sponsons with four additional 7.62-mm. guns. Pilot and observer are seated in tandem, and there is a 111 cu. ft. compartment in the rear of the fuselage capable of accommodating cargo, litter cases or up to six fully equipped troops.

Sikorskys for Denmark

The Royal Danish Air Force has signed a contract with United Aircraft International for eight Sikorsky S-61As. These twin-turbine, amphibious helicopters will replace the Catalinas and Sikorsky S-55s of No. 722 Squadron on long-range air-sea rescue work in the North Sea. Additional fuel capacity will give the S-61As a range of 600 naut. miles, while oversize sponsons will provide stability for landings in the open sea. Four deliveries of two S-61As each will be made to the R. Danish A.F. in December 1964 and in March, April and May 1965.

Japan's Dart-powered NAMC YS-11 transport (prototype JA8611 illustrated) obtained its type certification on 25th August. The second YS-11, JA8612, is now flying, and the type has been demonstrated in Venezuela



United Aircraft have also obtained an order from Greenlandair, the Danish company serving Greenland, for three twenty-four-seat, amphibious S-61Ns. These will be used to transport passengers and cargo on routes linking the isolated villages and settlements along the Greenland coastline. Services are tentatively scheduled to begin next May.

B.E.A. orders Argosy 220s

B.E.A. have ordered five Hawker Siddeley Argosy 220s. The 220 offers 35 per cent more cargo capacity than the earlier 100 Series aircraft currently being operated by the airline. The three Argosy 100s are to be traded-in to Hawker Siddeley in part exchange for the five new aircraft. The 220 also has extra-wide loading doors which will enable 108-in.-wide pallets, now standardised on the Boeing 707-320C and Super VC10 jet-freighters, to be accommodated.

No. 820 Sqn. recommissions

No. 820 Naval Air Squadron, which was disbanded in 1960 after a distinguished service record in W.W.II, was recommissioned as a Wessex squadron at R.N.A.S. Culdrose, Helston, Cornwall, on 23rd September. The squadron is intended for the anti-submarine and commando role and will embark on H.M.S. *Eagle* at the end of this year for service in the Far East.

During W.W.II No. 820, equipped with Swordfish, took part in the hunt in 1939 for the German pocket-battleship *Graf Spee*. In 1941 the squadron helped in the torpedo attack on the *Bismarck*; and in 1944, equipped with Barracudas, attacked yet another German battleship, the *Tirpitz*.

Boeings for Lufthansa

Lufthansa have ordered nine more Boeing 707s and three more 727s. Deliveries of the former (eight 707-320Bs and one convertible 707-320C) will begin in November 1965 and be completed by the spring of 1967. Lufthansa will then have a total of eighteen 707s in their long-range fleet. The 727s will be delivered during February-March 1966, bringing the 727 total to sixteen. One 727 is at present being operated by Lufthansa's subsidiary, Condor Flugdienst, who will also be allocated one of the new machines.

Swiss Mirage cuts

A Swiss parliamentary commission has recommended that the number of Dassault Mirage IIIs to be built under licence in Switzerland should be cut from one hundred, as ordered in 1962, to fifty-seven. Cost of one hundred aircraft was originally estimated at £72 million but now seems more likely to be £120 million. It was hoped to acquire eighty IIIS fighters and twenty IIIRS fighter-recce. machines.

Japan Air Lines

Japan Air Lines have ordered four more Douglas DC-8s, bringing their total to twelve. The first of the new batch, JA8011 "Towada", has already been delivered. DC-8 sales now total 230 of which 207 have been delivered. JAL recently sold their DC-4 JA6005 to Ansett-A.N.A.; only two DC-4s now remain with the Japanese company.

Victor tankers

A number of Handley Page Victor B.1s and B.1As are being converted into three-point in-flight refuelling tankers for R.A.F. Bomber Command. Conversion of the first (XA918) has already been completed at Handley Page's Park Street works, and refuelling trials are about to start. Fitted with Flight Refuelling Ltd. equipment, the Victor will be the R.A.F.'s fastest tanker and the only one with three-point refuelling capability; furthermore, its wide speed range will allow more varied types of aircraft to be refuelled, ranging from turbo-prop transports to Lightnings.

Each Victor tanker will carry an F.R. Mk.20B pod beneath each wing and a Mk.17 unit in the rear of the bomb bay;

high-speed fighters and tactical aircraft will refuel from the pods and transports from the ventral position. The ventral refuelling unit will, however, be supplied with two drogues: one for operations with turboprop transports at 180-245 kts.; and the other, smaller, one for high-speed aircraft at 210-310 kts. V-bombers will be able to use either drogue.

R.A.A.F. in South Vietnam

As part of the Australian Government's aid to South Vietnam, a Flight of three DHC-4 Caribou transports has been detached from No. 38 Squadron, R.A.A.F., Richmond, N.S.W., to the Tan Son Nhut airfield at Saigon. They will be used for supply and paratroop dropping, as well as tactical transport operations, throughout South Vietnam. Another three Caribou are to be sent to South Vietnam later.

K.L.M. standardisation

K.L.M.'s plans to standardise their aircraft fleet have now progressed to the extent where the forty-two aircraft now in service are of three main types—sixteen DC-8s, eleven Electra IIs and nine Viscounts—and provide a greater ton-mile capacity than the sixty-one aircraft operated in 1963. A few DC-7Cs and DC-7Fs are still in service, plus one or two DC-3s which are used for short all-cargo services in Europe. K.L.M. have sold twenty-three surplus aircraft since January 1963 and have another sixteen to dispose of: seven Super Constellations, six DC-7Cs and three DC-3s.

NEWS IN BRIEF

Breguet's first production Atlantic flew on 10th September. Twenty each are on order for France and Germany. A second batch of forty will be built, states the company, for France and Holland—the first intimation that the Dutch Navy has adopted the type.

Northrop F-5 fighters are to be supplied to Greece, Turkey, South Korea, the Philippines, Iran and Nationalist China. As announced previously, Norway is buying sixty-four F-5As and 'Bs.

Grumman EA-6A is the designation of a new electronic counter-measures version of the Intruder, with an E.C.M. bulge on top of the fin and underwing electronics pods.

K.L.M. have taken an option on six Douglas DC-9s, for delivery in 1966. The Dutch airline states that this does not preclude the possibility of buying other types.

North American have projected a short-haul jet transport, the NAC-100, designed to carry forty to sixty passengers over 600-mile stages.

The Australian Army has ordered seventeen Bell 47G helicopters. Deliveries will begin next May.



The first Victor tanker (XA918) displays its three-point flight refuelling equipment, capable of handling anything from Lightnings to turboprop transports



Believed to be the first photograph showing an Argosy C.1 being refuelled in flight, from Valiant XD812—taken during trials at Boscombe Down

The U.S.A.F.'s Strategic Air Command is considering the possibility of adapting the General Dynamics F-111 for certain S.A.C. bomber duties.

Three West German firms, Messerschmitt, Bölkow and Siebelwerke, have formed a consortium under the name IG Luft- und Raumfahrt, Munich.

The R.A.A.F.'s order for D.H. Canada Caribou transports is being increased from eighteen to twenty-five.

Douglas have announced an executive version of the DC-9. Additional fuel capacity would permit a range of up to 4,000 miles.

Avensa, the Venezuelan airline, have taken delivery of the first of three Convair 580s. The 580 is a turboprop conversion of the 440 powered by two Allison 501Ds.

No. 21 Squadron, the R.A.F.'s smallest squadron (three Twin Pioneers), based at Eastleigh, Nairobi, received its Squadron Standard on 28th August.

Douglas have formed a subsidiary company, Douglas Aircraft Company of Canada Ltd., with head office in Ottawa, Ontario.

The first Lockheed C-141 StarLifter has been delivered to the U.S. M.A.T.S. at Tinker A.F.B., Oklahoma.

Now being produced by Centre Est Aéronautique at Dijon, the Record three/four-seat sportsplane (105-h.p. Potez 4E) is an improved version of the Sicile, which in turn was derived from the Fodel Ambassadeur

