

#### Anglo-French plans

BRITISH AND FRENCH government officials have had preliminary discussions to investigate the possibilities of jointly producing certain types of military aircraft. One of the first requirements is for a light strike/trainer, a class for which French firms have already developed three designs—Breguet Br 121, Potez P.92 and Dassault Cavalier—to meet the French ECAT (Ecole et d'Appui Tactique) specification.

Suggested powerplant for all three machines is two SNECMA M.45 Mars turbines, for which Bristol Siddeley now have a co-operative agreement; in the Potez design the two engines are pylonmounted at the base of the fin. As a later step joint development of a variable-sweep strike/trainer is envisaged, the principal

contenders being the BAC P.45 and Dassault Mirage IIIG.

Other military types discussed include a carrier-based early warning aircraft to replace the Gannet AEW.3—France has no exact equivalent as yet—and tactical and crane helicopters. In addition to the Bristol Siddeley-SNECMA engine agreement mentioned above, Rolls-Royce have joined with Turbomeca to develop a 6,200-lb. s.t. turbofan engine, the RB.172-T260, suitable for ECAT-type aircraft and small-medium transports.

#### Mirage IIIV hovers

The Dassault Mirage IIIV-01 prototype made its first vertical flight on 12th February at Melun-Villaroche, with René Bigand, chief-pilot of G.A.M.D., at the controls. Weighing about 26,500 lb., the IIIV is the heaviest VTOL fighter built so far and has been designed for a level speed of Mach 2. The aircraft is at present powered by a SNECMA TF 104 propulsion engine and eight Rolls-Royce RB.162-1 lift engines. The TF 104 will soon be replaced by the TF 106 and at the end of this year the IIIV will receive its definitive engine, the TF 306. If the test programme permits, the IIIV-01 will be shown at the Paris Air Show, together with the Balzac.

## DC-9 first flight

The Douglas DC-9 made its first flight at Long Beach on 25th February, a month ahead of schedule, and then proceeded to Edwards A.F.B. where further testing will be carried out. Five DC-9s will be involved in the F.A.A. certification programme and the type is expected to enter passenger service early next year. Orders and options for the DC-9 total 114 and ninety-six respectively, the latest being from Eastern (twenty-four) and West Coast (three).

#### Boeing 737 go-ahead

Having received an order from Luft-hansa for twenty-one Boeing 737 short-haul airliners (and five more 7278) Boeing have now decided to go ahead with the production of the 737. The 737 will have a gross weight of 85,000 lb., a span of 87 ft. (25 deg. sweepback) and an overall length of 93 ft. 9 in. Body width will be the same as that of all the larger Boeing



The Mirage IIIV-01 hovering, 12th February

Czech L-29 Delfin trainers are now in widescale service with the Soviet A.F.



Boeing 737 and 727 compared





civil jet airliners, so six-abreast seating will be practicable, and capacity of the 737 will be from 75 to 100 passengers.

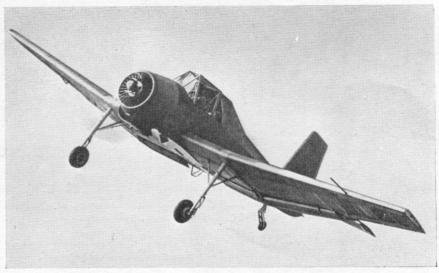
Boeing claim that the 737 will be capable of operating from 5,000-ft. runways and will have a 1,500 lb. weight advantage over comparable designs using two engines attached to the rear of the fuselage. The wing-mounted engines also allow additional passenger capacity without increase in the size of the fuselage. Designed for stages of up to 700 miles, the 737 will be powered by two 14,000-lb. s.t. Pratt & Whitney JT8Ds.

#### Rocket defence for B-52s

U.S.A.F. Boeing B-52Hs of Strategic Air Command are to be equipped with underwing rocket pods for defence. Each bomber will carry two ALE-25 pods which are about 13 ft. long, weigh some 1,100 lb. loaded, and shoot out missiles through the nose. The rocket pods will be pylonmounted between each pair of engines but will still leave room for Hound Dog air-to-ground missiles, the B-52's offensive armament.

#### B.O.A.C. plans

B.O.A.C. will be placing orders for twenty new aircraft, worth up to £12 million, during the next two years on behalf of its subsidiaries, the Chairman, Sir Giles Guthrie, stated recently. Subsidiaries concerned are Aden Airways, Bahamas Airways, and Gulf Aviation. "I certainly hope", said Sir Giles, "that we



The Czech Z-37 Čmelák ("Humble bee") agricultural aircraft

shall be able to place the bulk of these orders with British aircraft and engine manufacturers". Types being considered include the BAC One-Eleven, Hawker Siddeley 748, Handley Page Herald, and the Dutch Fokker Friendship.

#### More Mohawk One-Elevens

Mohawk Airlines have purchased two more BAC One-Elevens, bringing their total to seven, and have placed an option on a further three. The first five aircraft will enter service this summer, and the two additional aircraft now ordered will be delivered in the summer of 1966.

The new contract brings the total of firm orders for the One-Eleven to seventy-six and total options to seventeen, made up as follows: British United Airways ten, Braniff International Airways four-teen (plus twelve on option), Mohawk Airlines seven (plus three on option), Aer Lingus four, American Airlines thirty, Kuwait Airways three, Central African Airways two, Philippine Air Lines two (plus two on option), Page Airways two, Helmut Horten G.m.b.H. one, and Tennessee Gas Transmission Co. one. One-Elevens for the last three firms mentioned will be executive versions.

#### Czech "farmer"

Now in production at Kunovice, Czechoslovakia, the Z-37 Čmelák ("Humble bee") agricultural aircraft first flew on 29th June 1963. Powered by a 310-h.p. M.462 radial, it has a maximum speed of 124 m.p.h. but normally operates at about 75 m.p.h. Take-off and landing runs are both 393 ft. Of all-metal construction, the Z-37 has a span of 40 ft., is 28 ft. long and 9 ft. 6 in. high. Weight empty is 2,083 lb. and it can carry 205 lb. of agricultural equipment plus a maximum of 1,378 lb. of chemicals. The pilot is seated in an enclosed cockpit forward of the hopper, behind which there is a second seat for a mechanic or loader.

#### **Hunter exports**

Three Hawker Siddeley Hunters exported to Kuwait recently bring the total overseas earnings for this British groundattack fighter to over £100 million. The Hunters left Britain on 25th February. During the same week Hawker Siddeley also delivered two further Hunters as part of follow-on orders for the Iraqi Air Force—bringing the total Hunter export sales to about £101 million.

A confirmatory programme of static



At Luton on 2nd February, "612", the twelfth of twenty BAC Jet Provost T.52s for the Iraqi Air Force, set off on delivery four days later in company with "613" and "614"

The prototype Douglas DC-9 during its maiden flight on 25th February







Yokes on the nose of the Lockheed HC-130H search-recovery-rescue aircraft extend in flight to snare a balloon-lifted nylon line, enabling men or equipment to be recovered. Sixty-three HC-130Hs have been ordered for the U.S.A.F.

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testing-probably the most thorough ever carried out on any aircraft-has proved that the Hunter has a useful service life well into the 1970s. Total number of Hunters produced was 1,985, the recent orders involving refurbished machines.

#### H.S.748 for Leeward

Leeward Islands Air Transport (LIAT), the Caribbean airline, have ordered a Hawker Siddeley 748 for delivery this spring and have taken an option on a second. Like Linea Aeropostal Venezolana, who recently ordered six H.S.748s, LIAT are at present operating a 748 on lease until their own aircraft is delivered.

LIAT, who are based in Antigua, are flying the 748 on two of their routes: Antigua - St. Kitts - St. Thomas and return; and Antigua - Guadeloupe - Dominica - Martinique - St. Lucia - St. Vincent - Barbados and return. Few of these airfields have facilities for night flying and at many the aircraft is required to achieve a 10-minute turn-round. The routes being flown involve sixteen landings and 8 flying hours a day for six days a week.

#### Zambia A.F. orders

The Government of the newly independent African state of Zambia (formerly Northern Rhodesia) have placed an order with the de Havilland Aircraft of Canada Ltd. for four Caribou transports and six Beavers; deliveries are now in progress. The aircraft will be operated by the Zambia Air Force for general transport, Army support and Government administrative duties. During a Caribou demonstration last year, Zambia's President, Dr. Kenneth Kaunda, piloted the aircraft himself to assess its applications.

## U.S. defence budget

Points emerging from future proposed U.S. defence budgets are that the U.S.A.F. is likely to get an initial sixty-five General Dynamics F-111As and the U.S. Navy four F-111Bs during "Fiscal 1966-67"; total requirement is now said to be for 1,350 F-111As and 350 F-111Bs.

Fiscal 1966 also provides for the first squadron of Lockheed SR-71 reconnaissance aircraft (A-11 development), further development of the YF-12A fighter version, strengthening Boeing B-52s for lowlevel work, and for a start to be made on the C-5A heavy logistics transport (see March issue, page 77). Contenders for the C-5A contract, expected initially to be for sixty machines (three squadrons), are

Boeing, Douglas and Lockheed.
U.S. Navy purchases during the same period will include 140 Ling-Temco-Vought A-7A light attack aircraft, and forty-five Lockheed P-3A Orions; while the U.S. Army's share will run to some nine hundred helicopters, including seven hundred Bell UH-1Bs and 'Ds, thirty-five Vertol CH-47 Chinooks, and 168 LOHs (type still to be decided). By 30th June 1966, it is estimated that the U.S.A.F. will have an active strength of 13,706 aircraft, the Navy 8,241 and the Army

#### Commercial Hiller OH-5A

Hiller Aircraft Company, one of two finalists in the U.S. Army's competition for a new Light Observation Helicopter (LOH), have decided not to wait for an Army decision, and have already begun production of their entry, the OH-5A, for commercial sale. To be known as the FH-1100, the four-seat commercial version of the OH-5A will begin to come off the production line in December, with deliveries to customers in January 1966. Powered by a 270-h.p. Allison 250-C10B turbine, the FH-1100 has a maximum speed of 128 m.p.h. and can carry a useful load of up to 1,370 lb.

#### Large STOL Breguet

Breguet have designed a 150-passenger, medium - range, STOL transport, the Breguet 944, derived from the 942, and are now negotiating with the French Government for a subsidy to enable a pre-production batch of four to be built. The 944 is intended to carry its full passenger payload at 310 m.p.h. over stages of up to 1,240 miles; span is 118 ft. and length 115 ft.

#### **Further Friendships**

The Arabian American Oil Company (ARAMCO) at Dhahran, Saudi Arabia, have ordered two Fokker F.27 Mark 400 Combiplanes (mixed passenger/cargo layout with forty seats). The F.27s will replace some of the three DC-3s and two CV-340s at present operated by ARAMCO for personnel and supply transport.

Icelandair have ordered a second Friendship, a 44-seater due for delivery in April 1966; the first aircraft is being delivered next month. Fokkers have also sold two F.27s to an undisclosed customer, bringing

total Friendship orders to 317.

Hiller FH-1100, commercial version of the OH-5A light observation helicopter



## **NEWS IN BRIEF**

W/Cdr. R. P. Beamont's lecture on the TSR-2 to the Royal Aeronautical Society, scheduled for 10th March, was cancelledreportedly at the Ministry of Aviation's request.

The Argentine Navy is to receive sixteen Douglas AE4 Skyhawks and six more helicopters (type unknown). The Grum-

man F9Fs are being retired.

Japan Air Lines' last DC-4, JA 6015 "Amigi," has been sold to Ansett-A.N.A. The U.S. Army has selected the Beechcraft B55 Baron as its new twin-engine instrument trainer for use at the school at Fort Rucker.

Delta Air Lines have ordered two more Douglas DC-8s, bringing their total to twenty. DC-8 sales now amount to 249.

Westland's heavy helicopter project, the WG-1, is believed to be a four-Gnome tandem-rotor machine in the 30,000-lb.

BOAC started VC10 services to Tel Aviv, Israel, on 16th March. The VC10 cuts 35 minutes off Comet time.

Loftleider, the Icelandic airline, have bought two more Canadair CL-44s which, like the two already in service, will be modified to carry 189 passengers.

A new U.S.A.F. transport requirement has been issued. Designated CX-6, it is for a 10-ton V/STOL machine. North Ameriman is among the firms submitting studies.



Gatwick visitor "5-102" is one of four Lockheed C-130s used by the 50th Air Transport Squadron, Imperial Iranian A.F. (Photo: J. Magnant)

The Imperial Iranian A.F. received its first thirteen Northrop F-5 Freedom Fighters on 1st February at Teheran. One hundred F-5As and 'Bs (to equip seven squadrons) are being delivered under M.A.P.

The first Hawker Siddeley Buccaneer S.2 for the Royal Navy has been delivered to the Intensive Flying and Trials Unit at R.N.A.S. Lossiemouth.

Canada is reported to be opposing the transfer of sixty Canadair-built Sabres from the West German to the Portuguese A.F. on the grounds that they might be used in Angola.

Russian aid to Egypt has included 280 fighters (including ninety MiG-21s), 120 bombers, and forty helicopters.

Beagle have received a £600,000 grant from the Government to assist in the development of their light aircraft.

#### **Lincoln Rally**

LINCOLN AERO CLUB are holding a rally on 1st and 2nd May at Kirton Lindsey. The event includes a dinner-dance. Particulars can be obtained from the Club Secretary, Tom Hayes, at Silver Street, Branston, Lincoln (Tel.: Branston 272).

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