

World Air News

The first production Dassault Mystère 20 flew on 31st December. Pan American, U.S. agents, have sold thirty-six of these aircraft under the name "Falcon"

TSR-2 flight progress

THE FIRST BAC TSR-2, XR219—soon to be joined at Boscombe Down by XR220—had made its eleventh flight when we went to press, the most recent one being the first at low-level high-subsonic speed. Mr. R. P. Beamont, who flew the aircraft manually to test its handling (normally control at low level will be automatic through terrain-following equipment), reported that the TSR-2 behaved extremely well.

Following the seventh flight, on 22nd January, during which single-engine performance was explored, and found "excellent", Mr. Beamont issued a report on the

initial phase of the TSR-2 flight test programme, dealing with the low-speed flying characteristics, including take-off and landing. This was the area which had pounded severe problems to the design team, because of the aeroplane's wide speed range and the general configuration and wing area imposed upon it by the need to be very stable in low-level bumpy air.

He stated that in practice the low-speed handling had proved even better than predicted and that, in his view, no further basic development effort was required on this aspect of the aircraft. The handling assessment at circuit speeds had been com-

pleted with 100 per cent success, and landings had been perfect within a recorded scatter of only ± 4 knots from predicted speeds and at a vertical velocity of from 4 ft./sec. to $1\frac{1}{2}$ ft./sec. Control harmony was excellent. There appeared to be no need for further work on low speed and stability, and the aircraft and its supporting systems were behaving well. Mr. Beamont concluded by stating that the TSR-2 was the easiest high-performance aircraft to land that he had ever flown.

Heralds for Brazil

Sadia, Brazil's domestic airline serving its southern states, have ordered five Handley Page Series 200 Heralds. Two aircraft will be delivered at once; the remaining three will follow as soon as Brazilian foreign exchange is allotted. Herald orders now total forty-two. The Sadia order, worth £1½ million, follows one of the most intensive sales battles ever staged in the DC-3 replacement category; it is estimated that there is a market for about four hundred such aircraft in Latin America.

Bristow's buy Wessexes

Bristow Helicopters Ltd., having been awarded ten contracts for air support for off-shore oil and gas exploration programmes in the North Sea, have ordered three twin-engined Westland Wessex 60 helicopters at a total cost of £750,000, including all spares. Initially Bristow's will use thirteen helicopters to carry out this work: the three new Wessexes and ten Whirlwind Series 3s. The Wessex 60s will be delivered during September-October 1965 and will operate from bases on the north-east coast of England.

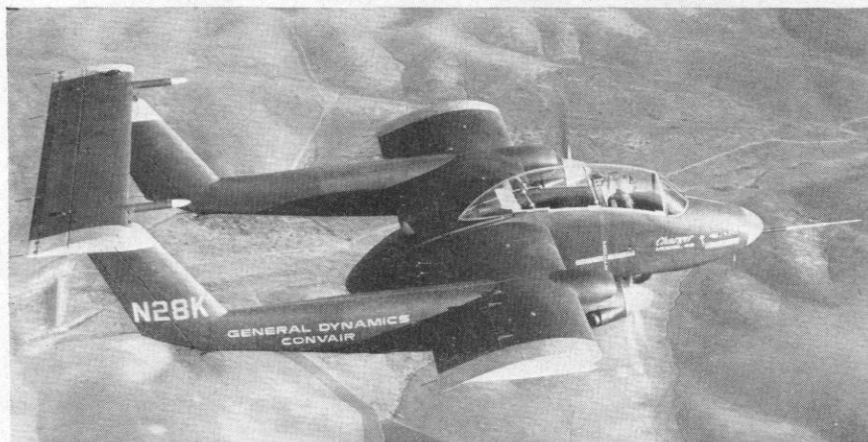
Canadair CL-41G

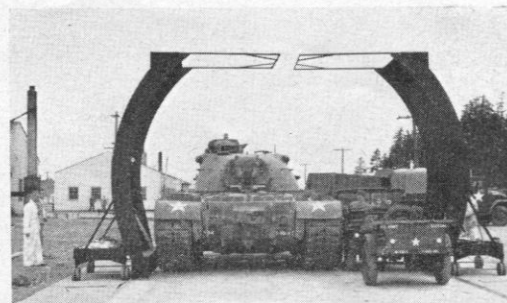
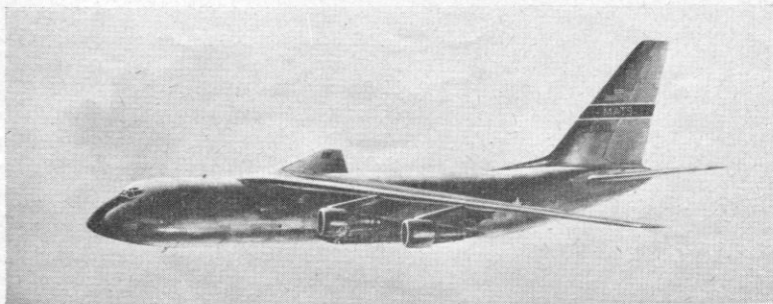
First flown in June 1964, the Canadair CL-41G counter-insurgency aircraft is an adaptation of the CL-41A Tutor trainer powered by an uprated (3,100-lb. s.t.) Orenda-built General Electric J85/CJ610. Maximum speed is 498 m.p.h. and the aircraft can carry up to 3,500 lb. of external stores, including two six-barrelled .303-in. Miniguns, bombs, rockets, Side-winder air-to-air missiles, photo-reconnaissance packages and tip tanks. The



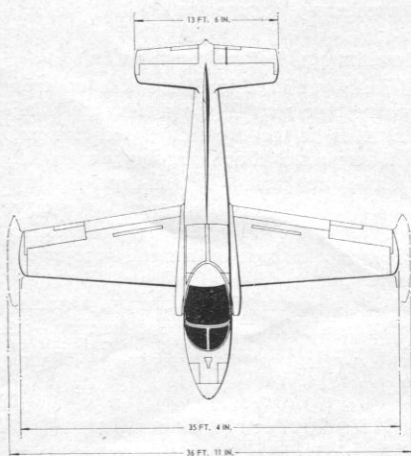
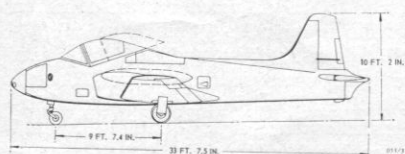
ABOVE: The first Douglas DC-9, registered N9DC, was rolled out at Long Beach on 12th January and is expected to fly this month

BELOW: First "COIN" type to fly, on 25th November, is the General Dynamics/Convair Model 48 Charger—see February issue, page 40





LEFT: An impression of the Douglas C-5A very heavy logistics transport designed to carry six hundred troops or 250,000 lb. of cargo for 5,000-7,000 miles at 575 m.p.h. RIGHT: Also bidding for the C-5A contract (formerly CX-HLS) are Boeing who have been using this fuselage-section mock-up to see how tanks and Jeeps will fit in



G.A. of the BAC 145 pressurised jet trainer being developed for the R.A.F. (January issue, page 4). Cockpit canopy distinguishes it from the Jet Provost

CL-41G has recently been evaluated by the R. Malaysian A.F. who have a requirement for thirty light-attack aircraft.

Hawkeye transport

The first Grumman C-2A "COD" (carrier on-board delivery) aircraft, developed from the E-2A Hawkeye early-warning version, has been delivered to the U.S. Navy. Intended to replace the Grumman C-1A Trader, the C-2A will be used for transport duties between aircraft-carriers and shore stations and can carry up to forty passengers or 15,000 lb. of cargo. Lacking the E-2A's massive above-



Canadair CL-41G carrying 2 Miniguns, 2 x 750-lb. Napalm and 2 x 250-lb. G.P. bombs



The Grumman C-2A "COD" transport, developed from the A.E.W. Hawkeye

fuselage radome, the C-2A has a completely new fuselage with rear-loading ramp. Two 4,050-e.s.h.p. Allison T56-A-8 turboprops give the machine a top speed of 297 m.p.h.; dimensions are 80 ft. 7 in. span, 56 ft. 6 in. length, and 16 ft. height.

S.A.A.F. equipment

The South African Air Force recently took delivery of a Dassault Mirage IIIE, believed to be the first of a sizeable "follow-on" order to the sixteen IIICZs

and three IIIBZs, the only contract so far announced officially. It is also reported that the S.A.A.F. intends to buy Mirage IV bombers in addition to, not as a substitute for, Hawker Siddeley Buccaneers, sixteen of which are being supplied by Britain. The Canberra (serial 457) illustrated in the February issue, page 62, is apparently additional to the six B.12s (serials 451-456) mentioned.

The jet trainer to be built under licence in South Africa is now reported to be the



The Potez 841, powered by Pratt & Whitney PT6A-6s, made its first flight on 23rd December. Two 841s have already been sold by Aero-Dienst, the German agents, in whose colours F-WLKR is illustrated

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Potez CM.170 Magister, a decision probably influenced by the S.A.A.F.'s increasing acceptance of French aircraft types. The S.A.A.F. has also received fifty Sud Alouette III helicopters (serials 31-80) and six Westland Wasps (serials 81-86).

Friendship sales pass 300

Fokker announce that their American licensee, Fairchild Hiller Corporation, have received an order from Mohawk Airlines for eighteen stretched F.27s. Mohawk have also taken options on an unspecified further number of stretched F.27s.

Simultaneously, Fokker sold two F.27 Friendships to Alitalia's subsidiary, Aero

Trasporti Italiani, increasing their fleet to five; an option for a sixth Friendship has also been taken by A.T.I. Shortly before that, Malaysian Airways ordered their sixth F.27 Mark 200; and Fairchild sold one Friendship to Bonanza and another (executive version) to Imperial Oil Ltd., Toronto, Canada.

Fokker have now sold 185 aircraft and Fairchild 127, making a grand total of 312 Friendships sold throughout the world.

Canadian forces

In addition to the fifteen D.H. Canada Buffaloes ordered (February issue, page 40) the R.C.A.F. plans to acquire four more Lockheed C-130Es which, with sixteen C-130Es ordered previously and

four C-130Bs already in service, will bring the R.C.A.F.'s Hercules transport fleet to twenty-four. The R.C.A.F. also has a requirement for a close-support aircraft: the Phantom II has been dropped on the grounds of cost and the choice is now believed to lie between the Northrop F-5A and the Douglas A-4 Skyhawk; how this category fits in with the R.C.A.F.'s F-104G Starfighters seems obscure. The R.C.N. is to have twelve more Sikorsky CHSS-2 Sea King anti-submarine helicopters, bringing the total order to thirty-six.

Austrian A.F. notes

Principal types now in service with, or shortly to be delivered to, the Austrian Air Force include: twenty-nine SAAB-29F fighter-bombers and P.R. machines (equipping two squadrons); fifteen Alouette II, twelve Agusta-Bell 204 and six Whirlwind helicopters; eight Vampire T.55 and sixteen Magister jet trainers; and twenty-four SAAB-91D Safir trainers (photo November 1964, page 351).

Northrop F-5s for Spain

The Spanish Air Force has ordered seventy Northrop F-5 fighters, including a number of the two-seat trainer version. It is expected that assembly or partial manufacture will be undertaken by C.A.S.A., Madrid, which company is now partly owned by Northrop. The Spanish A.F. has also been authorised to re-equip one squadron with Lockheed F-104Gs and may order some twenty aircraft. Present first-line equipment consists of six wings (eighteen squadrons) of F-86F Sabres.

S-61Ns for North Sea oil search

Three Sikorsky S-61N helicopters have been purchased for use in offshore oil explorations in the North Sea. Two of the S-61Ns have been ordered by Okanagan Helicopters Ltd. of Vancouver, B.C., and the third by B.E.A. Helicopters Ltd. All three will be used to support forthcoming North Sea drilling operations by Shell U.K. Exploration & Production Ltd. and will fly between shore bases and oil drill rigs anchored as far as 150 miles from land.

South Africa's Springbok helicopter (prototype ZS-HAB illustrated), produced by Helicopter Manufacturing Co. (Pty.) Ltd., will be slightly larger in its production form and will carry double the payload. For details of the prototype, see October 1964 issue, page 314



BIRDS OF A FEATHER STICK TOGETHER!

This applies also to Members of

THE ROYAL AIR FORCES ASSOCIATION

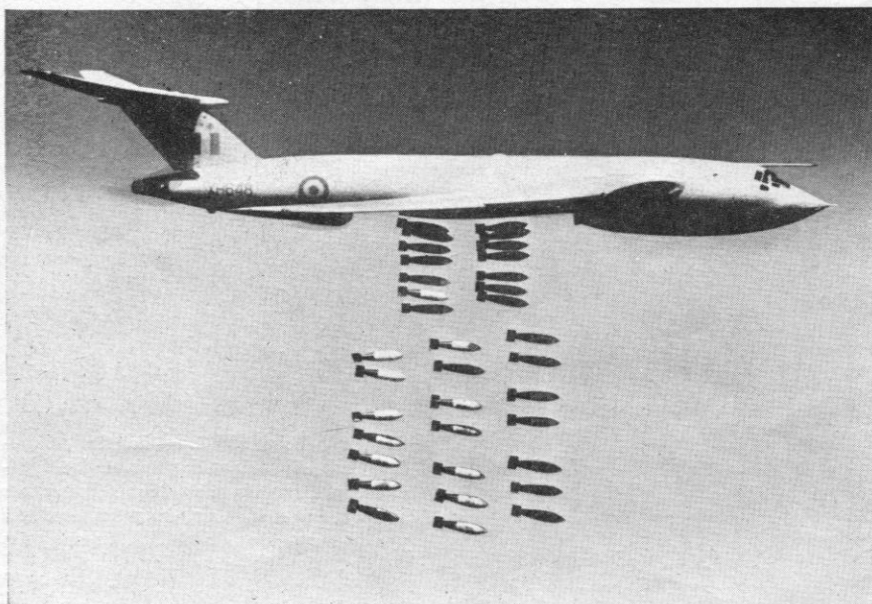
which now has almost 100,000 members who have served or are now serving in the Royal Air Force or one of the Commonwealth Air Forces and who have joined one or other of the Association's 780 Branches throughout the World.

WHY NOT YOU?

If you would like to know more about the work of the Association and have details of the subscriptions, etc., write to:

THE GENERAL SECRETARY
43 Grove Park Road
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Giving a credible demonstration of its "limited-war" capabilities, Handley Page Victor B.1A XH648 drops thirty-five 1,000-lb. (H.E.) bombs in one wallop. The Victor is of particular importance to the R.A.F. now as a number of B.1s are rapidly being converted to tankers to replace Valiants, and the B.2 (with the Vulcan B.2) forms the nuclear deterrent

NEWS IN BRIEF

South African Airways are showing extreme interest in the Boeing 737 short-haul airliner (see January issue, page 4)—a project still to receive the "go-ahead". S.A.A. may also purchase five more Boeing 727s, bringing their total to ten.

The Hindustan HJT-16 jet trainer, now named "Kiran", has been put into production at Bangalore. A first batch of twenty-four has been ordered for the Indian A.F.

The R. Malaysian A.F. has taken delivery of its eighth and final Handley Page Herald 400. The Heralds are operated by No. 4 Squadron, based at Kuala Lumpur. **The Lockheed SR-71** reconnaissance version of the A-11 (photos—February issue, page 39) made its first flight from Palm-dale on 23rd December.

The Republic of Uganda is being supplied with a small number of Israeli-built CM.170 Magister armed jet trainers.

A Vulcan B.2 of 27 Squadron and a 139 Squadron Victor B.2 took part in a display at Davis-Montham A.F.B., Arizona, last month, showing Blue Steel for the first time in the U.S.A.

Trans World Airlines have ordered twelve more Boeing 707 StarStreams, bringing their Boeing fleet to seventy-nine aircraft; 707 orders now total 482.

The New Zealand airline Tasman Empire Airways Ltd. (TEAL) is being renamed Air New Zealand; the change will be made in April.

The Swedish Government have ordered a Pilatus Turbo-Porter for evaluation by the Swedish Army.

Israel Aircraft Industries are modifying a number of IDF/AF Boeing B-377 Strato-cruisers for rear loading and paratroop-dropping.

The U.S. Army has ordered 720 more Bell Iroquois helicopters (149 UH-1Bs and 571 UH-1Ds) and the U.S.A.F. fifty-five more UH-1Fs.

Canada has suspended delivery of the eight Otters ordered by I.C.A.O. for the Indonesian territory of West Irian (see February issue, page 38) while the political situation is being re-examined.

Northrop N-285B is the designation of a carrier adaptation of the supersonic F-5 fighter being offered to the Royal Australian Navy.

The Japanese A.S.D.F. plans to have seven squadrons (Nos. 201-207) operational with F-104J Starfighters by the end of this year.

No. 78 Squadron, R.A.F., equipped with Twin Pioneers and based at Khormaksar, Aden, received its Squadron Standard on 11th February. (A history of No. 78 appeared in the April 1961 issue.)

Meyer and Maule are setting up a factory at Welkom in South Africa to produce, initially, the MD-4 Rocket.

San Francisco & Oakland Helicopter Air-lines have ordered a Sikorsky S-61N and taken an option on a second. Present fleet consists of three S-62s.

Strathallan Air Charter, a new company at Auchterarder, Perth, Scotland, has been formed and has acquired a Piper Aztec.

Icelandair's DC-3s are to be replaced on domestic routes by the Fokker F.27 Friendship, which will enter service in April.

Heinkel have merged with the Vereinigte Flugtechnische Werke (VFW), itself a merger of Focke-Wulf and Weser.

Aviation Course for Schoolteachers

THE DEPARTMENT OF EDUCATION and Science is organising a short residential course on Aviation Studies for men and women teachers of pupils of secondary school age, for lecturers in training colleges, and for officers and organisers of Local Education Authorities. The course (No. 17) will be held at the College of Aeronautics, Cranfield, Beds., from 9th to 17th July under the direction of Mrs. H. G. Alston.

The coming of the aeroplane, and the development of aviation and of space flight have profoundly affected the modern world. Some results of these developments are already reflected in the curriculum of schools; others might well be. This course is intended to suggest ways in which (without adding to the number of subjects already taught) aviation interests of many kinds can enrich the curriculum.

Special attention will be given to geography, though there will be reference also to mathematics and science. Instruction will be given in the interpretation of air photographs; and there will be lectures and discussions on aerial methods of topographical, geological and archaeological survey, on the use of aircraft in agriculture and meteorology, and on the development and organisation of air transport. Some experience will be gained of map-reading from the air (in part associated with ground reconnaissance). Space interests and astronomy will receive some attention, and a visit to a planetarium will form part of the course.

The lectures will be illustrated by a visit to London Airport, by local flights in a Dove training aircraft specially fitted for student navigators, and by a flight over Southern England in a modern airliner. There will be opportunities for those who wish it to handle the controls of the Dove, but previous experience of flying is not necessary for membership of the course. The total cost to members, who will be accommodated at the College, will be about 14 guineas.

Forms of application for admission (Form 106 R.S.C.) are obtainable from Local Education Authorities. Completed forms should reach the Department in accordance with the directions on the form, as soon as possible and in any case not later than 30th April 1965.

R.A.F. RESERVES CLUB BALL

THE R.A.F. RESERVES Club is holding a Ball at the London Hilton Hotel, Park Lane, W.1, on Thursday, 11th March (7.30 p.m. to 2 a.m.). Tickets, price £3 3s. each, and further details can be obtained from: The Secretary-General, R.A.F. Reserves Club, 14 South Street, Park Lane, London, W.1 (Telephone No.: Grosvenor 1738-9).