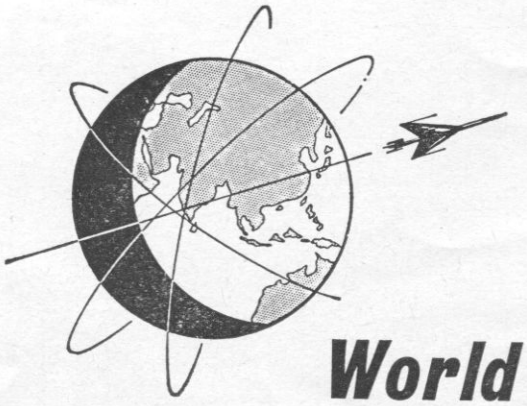


World Air News

Canadair CL-84 roll-out

THE CANADAIR CL-84 tilt-wing V/STOL aircraft, now named the "Dynavert", was rolled out at Montreal on 9th December 1964. The prototype aircraft is being developed by Canadair in a shared-cost programme with the Canadian Department of Defence Production. Powered by two 1,400-s.h.p. Lycoming LTC 1K-4A (T53) turboshaft engines, the CL-84 has a top speed of 350 m.p.h. and can carry a payload of 5,600 lb. for STOL or 3,100 lb. for VTOL.

The aircraft is considered by the manufacturers to be a versatile aerial support vehicle, capable of fulfilling a variety of tactical roles in conditions of dispersed atomic warfare. These operational tasks include close support, utility and assault transport, surveillance, search and rescue, helicopter escort or destroyer, and communications.

Performance flexibility of this order is made possible by the unusual "tilt-wing" design. With the wing tilted midway between the vertical and horizontal, the CL-84 can perform low-speed loiter missions, and can also take advantage of small airstrips to make a short take-off run and generate enough lift virtually to double the normal payload. The CL-84, it is claimed, can perform any "limited war" role at twice the speed of a helicopter and with a range capability similar to that of conventional aircraft. Its ability to accelerate rapidly from zero speed to 350 m.p.h. will also help to avoid the type of damage from enemy action that has reportedly caused such heavy losses of helicopters.

With a development of this aircraft, the CL-84A, Canadair are making a strong bid for the U.S. Army Advanced Aerial Fire Support System (A.A.F.S.S.) competition. A commercial development of the CL-84 is also envisaged for use as a passenger transport between city centres 100 to 500 miles apart.

Trident 2E

Expected to be ordered by B.E.A., the extended-range version of the Hawker Siddeley Trident, the 2E, will carry up to ninety-five passengers over a distance of 1,500 miles non-stop and will be powered by up-rated Rolls-Royce Speys. The initial B.E.A. order is estimated as fifteen, but up to twenty-five Trident 2Es may eventually be purchased.

Chinese MiG-21s

According to a report published by *The Times* in London "a small but increasing number of MiG-21s have been flown recently by the Chinese Air Force." The report goes on to say that it is believed that Peking has begun to manufacture jet fighters "after the Soviet pattern". The Chinese have also been putting into the air a larger number of MiG-19s than has been seen for several years, and it is thought that these too have been manufactured in China.

If these reports are true, it can only add point to our view, stated last month, page 16, that it is high time the R.A.F. was given a replacement for the Hunter—and also a strike/recce. aircraft (*i.e.*, TSR-2) that will be able to survive in any conflict with any air force that it is likely to be embroiled with.

C.A. release for Kestrel

The Hawker Siddeley Kestrel FGA.1 has become the world's first jet V/STOL aircraft to be granted a Ministry of Aviation C.A. (Controller of Aircraft) release, equivalent to a civil C. of A. The aircraft is now cleared for the training of pilots from Federal Germany, the U.S.A. and the U.K., who will participate in the nine-aircraft evaluation squadron now being formed at R.A.F. West Raynham, Norfolk.

Four more H.S. 125s ordered

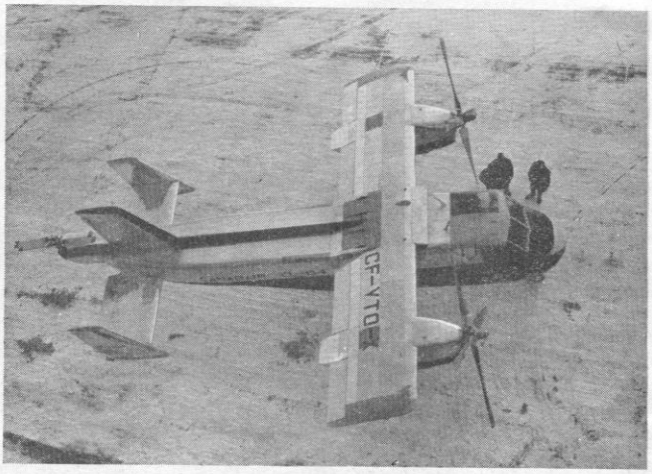
Hawker Siddeley have announced orders for four more H.S.125 business jets, all for the North American market. These sales bring the total order book to fifty-seven. Of this total, thirty-four are for overseas customers, including twenty-six for the U.S.A. and Canada. Four H.S.125s have already been delivered to North America, and with the rapidly growing order book, Hawker Siddeley are planning to increase the rate of production.

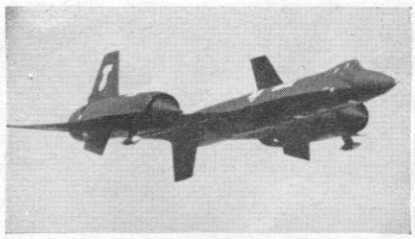
Otters for I.C.A.O.

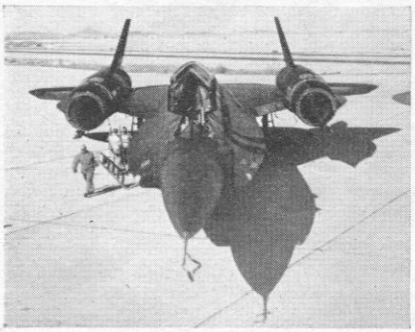
Eight D.H. Canada Otter utility transport aircraft (two equipped as amphibians) have been ordered by I.C.A.O., the International Civil Aviation Organisation, for employment with the United Nations FUNDWI (Fund for the Development of West Irian) programme. Two (one an amphibian) are equipped with dual controls for training.

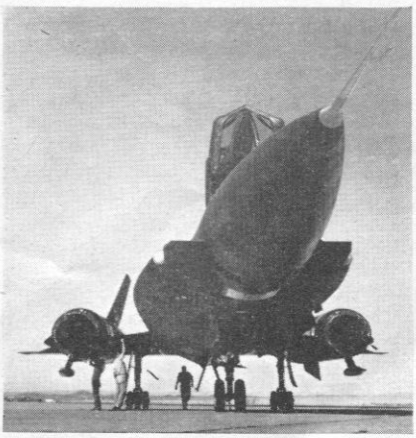
Eight other Otters are at present operating in Kalimantan (Indonesian Borneo) on scheduled charter missions be-

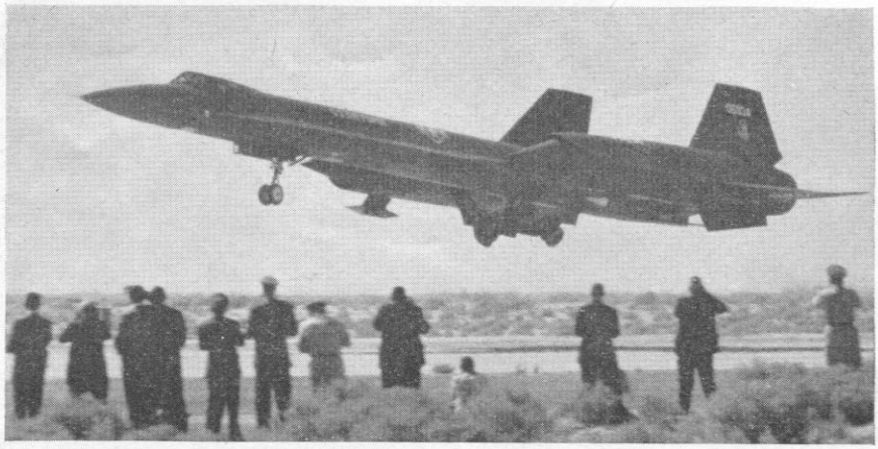
Appropriately registered CF-VTO-X and now named "Dynavert", the prototype Canadair CL-84 was rolled out on 9th December



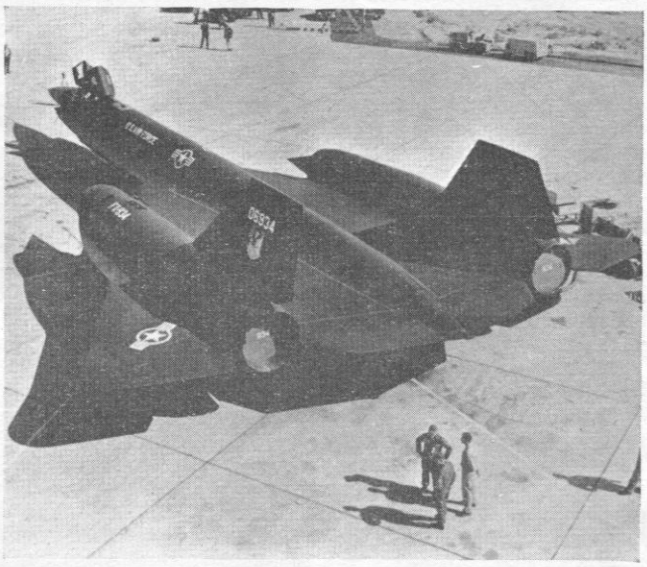


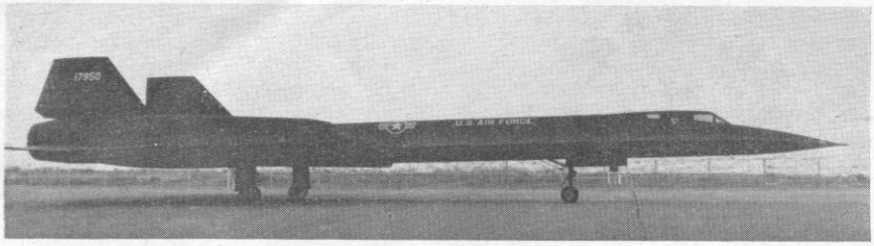


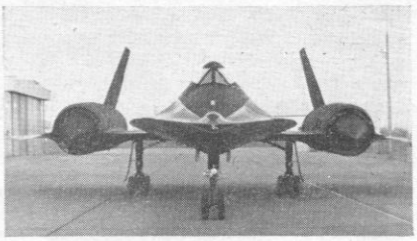




Bearing the same serial (06934) as the original Lockheed A-11, the YF-12A, painted black, is now being evaluated by the U.S.A.F. as an interceptor armed with Hughes AIM-47A missiles, which are stored in the side fairings. The two photos below are of the SR-71 multi-sensor reconnaissance version which is about 3 ft. longer, has the side fairings extended to the nose, and no ventral fins







tween the coast and the interior. Two (one an amphibian) were purchased in 1958. In 1959 three amphibians were added and in 1960 three additional Otter landplanes went into service. In Australian New Guinea, Otters operated by Ansett Airways have been providing passenger and air cargo services between Port Moresby and inland communities for several years.

Potez 840 variants

The first production Potez 842, powered by four 600-s.h.p. Turbomeca Astazou Xs, is to be delivered to the S.G.A.C. for use by the French Ministry of Public Works and Transport in July. Two Potez 841s, powered by 558-s.h.p. Pratt & Whitney PT6A-6 turboprops, have been sold to German companies through the Potez agent in Nuremberg, Aero-Dienst G.m.b.H. The first 841 made its maiden flight on 23rd December. Production of twenty-five aircraft is now under way at Toulouse and the Potez factory at Baldonnel in Eire is expected to produce its first aircraft this year.

H.S.748s for Venezuela

Venezuela became the third South American country to select the Hawker Siddeley 748 when Linea Aeropostal Venezolana recently confirmed its intention to purchase six aircraft. Powered by Rolls-Royce Dart R.Da.7s, the Venezuelan 748s will have a 44-seat layout; deliveries are to start this spring. L.A.V.'s 748s will operate on domestic routes, on routes to neighbouring countries and to islands in the Caribbean. They will replace the eighteen DC-3s at present operating these routes.

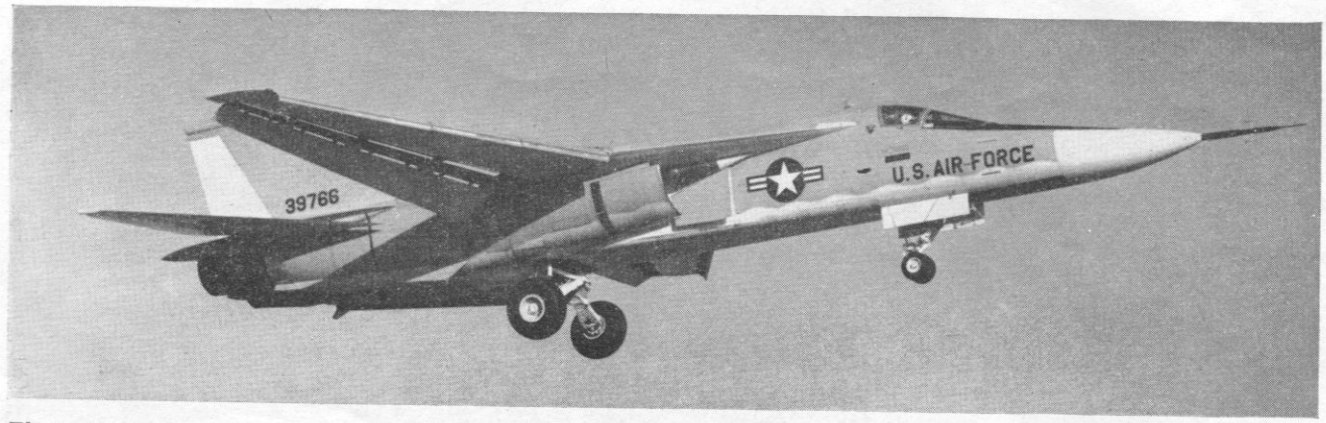
This order brings the total number of 748s sold in South America to twenty-four. Aerolineas Argentinas have a fleet of twelve and the Brazilian Air Force are operating six Series 2s.

Gambia Airways

A new African airline, Gambia Airways, has been formed by British United Airways in conjunction with the Government of Gambia. Initially it will carry out ground handling and sales services at Bathurst, but its eventual objective will be to develop international air services. B.U.A. One-Elevens are to be introduced on the London-Bathurst route early this year.

F-111's first flight

The prototype General Dynamics F-111A (U.S.A.F. version) made its first flight from Carswell Air Force Base, Texas, on 21st December, two months



The prototype General Dynamics F-111A on its first flight, 21st December 1964

Not the same beast!

THERE HAVE BEEN suggestions recently that, to save money, the R.A.F. should adopt the American General Dynamics F-111 (TFX) instead of the BAC TSR-2. Proponents of this idea, dazzled by the thought of a possible, but by no means certain, reduction in capital outlay, have neglected two vital factors: the type of aeroplane required by the R.A.F.; and its cost-effectiveness.

TSR-2 has been produced to an R.A.F. specification for a *very low level* tactical strike *and* reconnaissance aircraft. The aircraft and its equipment have been specifically designed for sustained supersonic flight at "under radar" altitudes so that it will be able to make deep penetrations into enemy territories against sophisticated air defences. "The lower, the safer" is the philosophy behind the TSR-2 and one which will guarantee its survival where other aircraft will be destroyed. Put another way, the TSR-2 will be able to get through and do its job, whereas other cheaper aircraft, even in greater numbers, may not.

The F-111 is intended by the Americans as a successor to tactical *fighters* such as the F-105 in the U.S.A.F. and fleet-defence *fighters* such as the Phantom II in the Navy; and although it obviously has some low-level capability for limited periods, it has not been designed for all-out long-range low-level penetration, nor does it have the TSR-2's highly developed automatic terrain-following, navigational and reconnaissance equipment—or payload/range capability. TSR-2 is, in fact, one of the few aircraft types absent from the U.S. armoury and one which the Americans, who have had a low-altitude manned penetrator ("LAMP") requirement, would be well advised to consider.

World Air News . . .

after roll-out (15th October). At the controls were two General Dynamics pilots, R. L. (Dick) Johnson and Val Prahl. The variable-sweep wing was fixed at an intermediate 26-deg. sweep angle for the first flight, but has been moved in later tests.

Following take-off, which was at an approximate gross weight of 58,000 lb., the aircraft climbed to altitude and checked out selected systems. The flight lasted 21 minutes.

F.A.A. training squadron

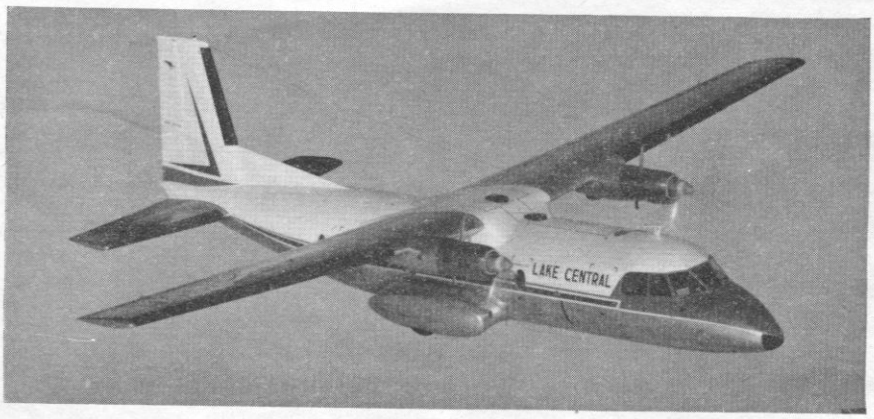
The first Fleet Air Arm helicopter squadron formed for advanced and operational Commando flying, No. 707 equipped with Wessex HC.5s, was commissioned on 9th December. Its task, previously undertaken by disembarked front-line squadrons, is to train helicopter pilots to a standard which will enable them to take their places in the squadrons embarked for operations in Commando ships.

Charger airborne

The General Dynamics Convair Model 48 Charger, the first brush-fire aeroplane designed from the drawing board up, made its first flight on 25th November 1964 at San Diego International Airport, California. Powered by two 650-s.h.p. Canadian Pratt & Whitney T74 turboprops (military designation, PT6) driving 9-ft. propellers, the Charger has extra-large flaps, bathed in the propellers' slipstream to provide maximum lift for short take-offs and landings, and can fly low-level support missions at only 50 m.p.h.; top speed is 317 m.p.h.

Reporting on the 38-minute first flight, test-pilot John W. Knebel called the Charger "a very nimble airplane that was hard to hold back. It showed me a quick clean response". The aircraft landed at North Island Naval Air Station. General Dynamics are offering the Charger as an "off-the-shelf" aircraft. One hundred production machines could be delivered eighteen months after an order was placed, or 500 aircraft three years after the go-ahead.

The first of eight Nord 262s for Lake Central, Indianapolis, U.S.A., is now flying with the provisional registration F-WKYR prior to delivery



NATO air defence

NATO countries are to have a new air defence system known as NADGE (NATO Air Defence Ground Environment), which will provide the most up-to-date forms of radar, communications and data handling facilities, capable of giving the earliest possible warning and fastest possible reaction to attack by supersonic aircraft. It will also speed up the feed-back of information and will provide a comprehensive integration of the NATO early warning chain, the Hawk/Nike missile complex and F-104G fighter squadrons.

Buffalo order

An initial order for fifteen Buffalo turboprop transports for the R.C.A.F. is to be placed with the de Havilland Aircraft of Canada, the Canadian Minister of National Defence announced recently. De-

velopment of the DHC-5 Buffalo started in 1962 and the prototype (photo June issue, page 169) made its first flight on 9th April 1964. Four aircraft are now flying and these will be delivered to the United States Army for evaluation in the next few months.

K.L.M. in 1964

In accordance with K.L.M.'s fleet standardisation programme three types of aircraft were withdrawn from service in 1964—the DC-3, Convair 340 and DC-7C. The fleet now comprises forty airliners—sixteen DC-8s, eleven Electra IIs, nine Viscounts, and four DC-7F freighters; an option has been taken on six Douglas DC-9s. During the past year twelve aircraft were sold: three Convair 340s, two Constellations, four DC-7Cs, two DC-3s and one Auster V used for aerial photography.

A world speed record is claimed for the Lockheed XH-51A rigid-rotor compound helicopter which recently touched 242 m.p.h.

NEWS IN BRIEF

The next S.B.A.C. Flying Display and Exhibition at Farnborough will be held in 1966; no precise date has yet been announced.

Boeing and EWR-Süd are co-operating in a design study for a supersonic variable-sweep V/STOL fighter for the West German Government.

The Dutch Navy's sole fighter squadron, No. 860, with Seahawks, was disbanded on 1st November 1964. It is expected to re-form in the anti-submarine role.

The U.S. Army's LOH competition is now between the Hiller OH-5 and Hughes OH-6, the Bell OH-4 having been eliminated. An initial order for 714 of the winning helicopter is expected.

More Royal Marines (about one hundred) are to be trained as helicopter pilots under a new scheme to assist the R.N. which is making increasing use of helicopters, particularly in the Commando role.

A Lake LA-4 amphibian piloted by George L. Hunt has gained an F.A.I. record for straight-line distance by flying from Reykjavik to Belfast, 1,373.7 km. (approx. 860 miles).

The R. Danish A.F. has received the first of twenty-five F-104G Starfighters and four TF-104G trainers, which will replace F-86D Sabres in No. 726 Squadron.

The Dutch Army is to have twenty-four more Sud Alouette III helicopters, bringing the total order to forty-five.

New Zealand's Ministry of Defence has recommended the purchase of six Bell UH-1 Iroquois and six Bell 47G helicopters for the N.Z. Army.

Bavaria Flug-gesellschaft of Munich have ordered a second Handley Page Herald (Series 200) and taken an option on a third.

Civil Air Transport (C.A.T.) of Taiwan (Formosa) have taken delivery of a third D.H. Canada Caribou; the first two were delivered in July 1962.

The Potez-S.E.E.M.S. 893, a new version of the Rallye powered by a 180-h.p. Lycoming, made its first flight on 7th December.

Air Canada have ordered two more Douglas DC-9s, bringing their total to eight. DC-9 sales now amount to fifty-nine with forty-four more on option.

Invicta Airways, a new company formed by W/Cdr. Hugh Kennard, will start commercial operations shortly from Manston, Kent.

LOT, the Polish airline, have ordered six Antonov An-24s. Present fleet includes two Viscounts, four Il-18s, twelve Il-14s, four Convair 240s and six Li-2s.

Portugal's T.A.P. have ordered two Boeing 707-320Bs for services to Brazil and West Africa; the 707/720 order book has now reached 464.

Misrair, Egypt's new domestic airline, have ordered seven Antonov An-24s. Misrair, the original name of United Arab Airlines, have taken over five U.A.A. DC-6Bs.

The last Handley Page Hermes, G-ALDA, was retired by Air Links Ltd. on 13th December and then went to Southend for scrapping; twenty-five were built.

Argentina's DINFIA may produce forty more Morane-Saulnier Paris IIs for the Argentine A.F.; the initial order was for forty-eight.

Northwest Airlines have ordered six more Boeing 727s, bringing their total to twenty; 727 sales now total 231.

V.I.A.S.A., the Venezuelan airline, have ordered a Douglas Series 50 DC-8. DC-8 sales now total 244.

Swissair have ordered a Fokker F.27 Friendship for feeder services. It will be operated by Balair from Basle.

The 1965 Biggin Hill International Air Fair will be held from 13th to 16th May.

LEFT: *Photographed by Neville Parnell, this R.A.A.F. Mirage IIIO is one of the first to be seen in the colours of No. 2 O.C.U., Williamtown, N.S.W. Fin marking is black and yellow, intake flash red.* RIGHT: *A model of the winning midget racer design, the Luton Group Beta. Rollason's, sponsors of the competition, are to build the prototype*