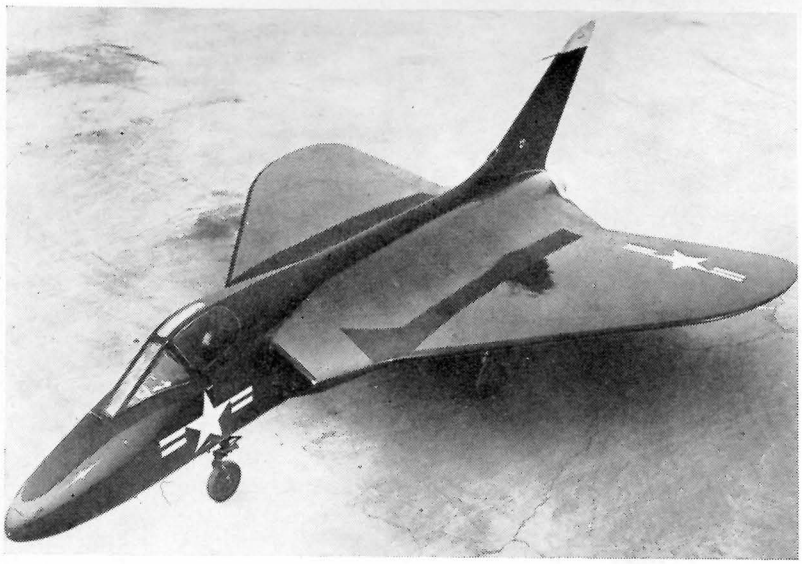
CONSTRUCTION

Snag Removal

Aimed at speeding up the production of Orenda jet engines are recently revealed plans to set up a factory in Canada to produce turbine blades, and also to expand the facilities in Canada for making required magnesium castings. The companies involved are The Steel Improvement & Forge Company, Cleveland, which specializes in gas turbine blades, and Dominion Magnesium Limited, Toronto, which supplies magnesium castings to Avro Canada for Orendas.

Steel Improvement is expected to occupy a plant, still to be constructed, near the new Avro Canada plant now being built at Malton for the production of Orendas. Dominion Magnesium, on the other hand, is to receive a large loan from the Dominion Government to provide for expansion on a major scale to its plant near Renfrew, Ontario.



SPECIALIST: Designed for the USN especially for interception work, the Douglas XF4D made its first flight early this year. Powered by a Westinghouse XJ-40 turbo-jet of 7,500 pounds thrust, the XF4D is intended for catapult take-offs and fast climbs. The aircraft features an elliptical form of the delta wing and a high narrow vertical tail. Cockpit bears strong resemblance to design used on the Douglas A2D.

Forty a Month

A production rate of 20 CF-100s and 20 F-86Es per month is the aim of defence production authorities, Minister of Trade and Commerce C. D. Howe said recently. It is expected that Canadair will be the first to attain this rate (present tempo is ten a month) and in fact the only thing now preventing it from doing so is the non-availability of engines (General Electric J-47s).

In this line Air Marshal W. A. Curtis recently returned from a visit to Washington where it was reported that he had received the assurance of USAF General Hoyt Vandenberg that every effort would be made to supply Canada with all the U.S. jet engines that it requires for its defence production order. That this will be possible seems quite likely, since U.S. Defence Mobilizer recently announced that the U.S. intends to expand its output of jet engines to a phenomenal 18,000 a month. Present production is not known, but it is well below this figure.

Production of CF-100s at a 20 a month rate also very obviously depends on production of Orenda engines. About 50 engines per month will be required for a 20-a-month CF-100 rate: a reasonable guess would be that it will be at least a year before Avro Canada will be turning out 50 Orendas each month.

The Winner

The de Havilland Beaver was recently announced as the winner of USAF evaluation tests to choose a standard liaison type aircraft. The announcement was made in Washington, but at time of writing no official word has been received by de Havilland as to the size of the order in numbers of aircraft or in dollar value. Favorite figures seem to be 200 aircraft worth about $6,000,000. Actually, 200 Beavers equipped to meet USAF needs plus necessary spares, would probably be worth much more than $6,000,000.

It is, incidentally, USAF practice to supply the airframe manufacturer with engines, purchased separately by the Air Force.

Sub-Contracts

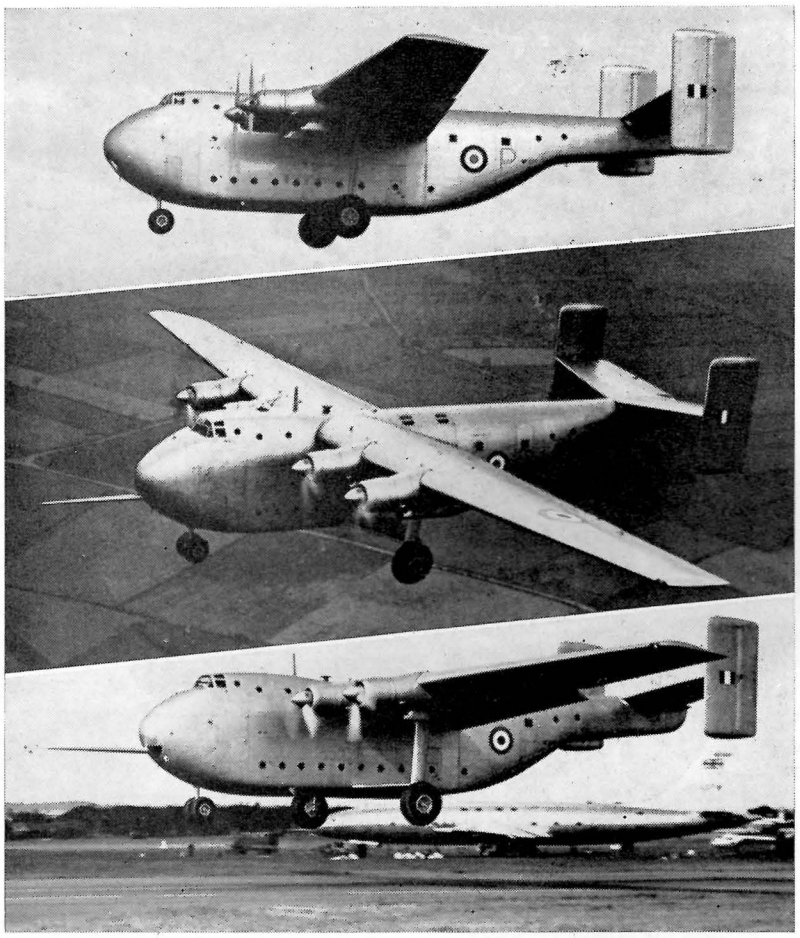
Now carrying out subcontract work for The de Havilland Aircraft of Canada are Leavens Bros. Air Services Ltd., and Central Aircraft Limited, both of Toronto. Leavens Bros. is producing all control services for Chipmunk aircraft and Central is making similar components for Beavers.

Sperry & Hughes-Owens

The outstanding shares and assets of the Ontario Hughes-Owens Company Limited have been purchased jointly by The Sperry Corporation of New York and its Canadian subsidiary, The Sperry Gyroscope Company of Canada, Ltd. Announcement of the purchase, which was completed in Montreal at the end of February, was made by B. Wensley King, managing director of the Canadian company.

Largest asset in the purchase, which totalled over $1,000,000, is the Ottawa plant at 3 Hamilton Ave. Sperry will employ the 150 people already there, and plans to expand operations to meet the increasing demands of military and commercial customers. In addition, Sperry will continue operation of branch offices at Vancouver, Halifax, and Port Colborne.

F. W. White, who founded Ontario Hughes-Owens in 1912 and has been its president and principal owner, has repurchased from Sperry that portion of the business which pertains to drawing and engineering supplies and certain British marine equipment. Sperry Gyroscope Company of Canada will now handle in Canada the marine and aviation business of Sperry Gyroscope Company Ltd. of England. Since November it has represented the Sperry Gyroscope Company of Great Neck, New York.



BIG GAL: Blackburn & General's GAL-60 Universal Freighter, the prototype of which appears above, was designed specifically for cargo carrying. Powered by four Bristol 761 Hercules engines, the Freighter has a gross weight of 105,000 pounds and a maximum economical cruising speed of 180 mph at 12,500 feet. Span is 162 feet, length 99.17 feet, and height 33 feet. Diameter of wheels is six feet.

Managing Director King, who will direct Sperry's Canadian activities from Montreal, foresees expanded use of his company's products in this country.

Montreal headquarters for Sperry in Canada is in the International Aviation Building at Montreal. The Ottawa address will be the 3 Hamilton Avenue plant.

Crystal Glass

Crystal Glass & Plastics Limited is building a new factory in Toronto where Plexiglas canopies for various Canadian aircraft, including the CF-100 and the F-86, will be produced. Located at Queen's Quay and Jarvis streets, the new plant will contain 13,000 square feet of floor space.

Contracts Awarded

Contractors awarded business in excess of $5,000 by the Canadian Commercial Corporation during the periods January 15 to 31 and February 1 to 14 include the following.

Abercorn Aero Ltd., Montreal, $117,664 for aircraft parts and accessories.

Aviation Electric Ltd. Montreal, $26,625 for aircraft and communication equipment.

Beattie Auto Electric Ltd., Winnipeg, $6,043 for aircraft parts.

S. F. Bowser Co. Ltd. Ottawa, $50,-555 for fuel pumps.

Canadair Limited, Montreal, $47,714 for aircraft parts and instruments.

Canadian Car & Foundry Co. Ltd., Montreal, $280,000 for aircraft repairs and overhaul.

The de Havilland Aircraft of Canada, Toronto, $8,648 for aircraft parts and overhaul.

Dunlop Tire & Rubber Goods Co., Toronto, $163,230 for fire hose and aircraft tires and tubes.

Sir George Godfrey & Partners, Montreal, $12,258 for aircraft parts.

B. F. Goodrich Rubber Company of Canada, Kitchener, $10,968 for fire hose and aircraft tires.

Irvin Air Chute Limited, Fort Erie, Ontario, $11,654 for parachute equipment.

MacDonald Bros. Aircraft Ltd., Winnipeg, $24,546 for aircraft parts and repairs.

Northwest Industries Limited, Edmonton, $140,000 for aircraft repairs.

Railway & Power Engineering Corporation Ltd. Montreal, $21,933 for communication equipment and aircraft parts.

Rolls Royce Montreal Ltd., Dorval, P.Q., $398,000 for aircraft parts.

Standard Aero Engine Limited, Winnipeg $12,088 for aircraft parts.

Trans-Canada Air Lines, Montreal, $255,085 for aircraft parts.

Abercorn Aero Ltd., Montreal, $6,-724 for aircraft parts and instruments.

Aircraft Appliances & Equipment, Toronto, $9,788 for aircraft parts.

Aviation Electric Limited, Montreal, $67,295 for aircraft parts and instruments.

Bancroft Industries, Montreal, $8,839 for aircraft parts.

S. F. Bowser Co. Ltd., Ottawa, $24,-462 for fuel pumps.

Canadian Aviation Electronics Limited, Montreal, $174,579 for communication equipment.

Canadian Car & Foundry Co. Ltd., Montreal, $57,358 for aircraft repairs and parts.

Canadian Pratt & Whitney Aircraft Co. Ltd. Longueil, P.Q., $32,127 for aircraft parts.

Canadian Wright Limited, Montreal, $9,000 for aircraft equipment.

The de Havilland Aircraft of Canada, Toronto, $94,207 for aircraft parts.

Goodyear Tire & Rubber Co. of Canada, Toronto, $94,207 for aircraft parts.

Irvin Air Chute Limited, Fort Erie, Ont., $150,048 for parachutes.

J. W. Lawrence (Canada) Limited, Montreal, $40,815 for aircraft parts.

MacDonald Bros. Aircraft Ltd., Winnipeg, $5,383 for aircraft parts.

Ontario Hughes Owens Co. Ltd., Ottawa, $267,495 for instruments and radar equipment.

Railway & Power Engineering Corp. Ltd. Montreal, $8,865 for aircraft parts and electrical equipment.

RCA Victor Co. Ltd., Ottawa, $8,083

for communication equipment.

A. V. Roe Canada Limited, Toronto, $120,514 for aircraft parts.

Rolls Royce Montreal Limited, Dorval, P.Q., $8,444 for aircraft parts.

Standard Aero Engine Ltd., Winnipeg, $49,631 for aircraft parts.

Plowshares to Swords

There are now at least seven major U.S. automobile manufacturers who have contracted to build aircraft or aircraft engines for the USAF (mostly engines). Kaiser-Frazer is to build C-119 Packets and Wright R-1300 engines; General Motors has contracted to build Republic F-84F jet fighters and this company's Buick Division is to produce Armstrong Siddely Sapphires under a licensing arrangement with Wright Aeronautical Corporation, the U.S. licensees for this type of jet engine. Also connected with General Motors, Chevrolet is to turn out Allison J-35s.

Ford, meanwhile, holds licenses and orders for the production of both the Westinghouse J-40 turbojet and the Pratt & Whitney R-4360 piston engine. Chrysler is to make the Pratt & Whitney J-48, while Packard is to construct General Electric J-47s, as is Studebaker. Hudson is to concentrate on the Wright R-3350.

At first it appeared that the USAF was going to let the automobile makers take over most of the airframe production, but such a howl of protest was sent up by the established aircraft companies, who claimed that all their capacity was far from being utilized, that the Air Force did not give any further orders after letting contracts to Kaiser-Frazer and General Motors. Instead, the automakers are to concentrate on engine production, which appears to be the real bottleneck, even though airframe production is far from going flat out.

Sapphire Thunderjet Flies

The first Armstrong Siddeley Sapphire-powered Republic F-84F Thunderjet recently made its initial test flight at Edwards Air Force Base, Muroc, California. The F-84F, which is a swept wing version of earlier F-84 models first flew in June of last year powered by an Allison J-35 rated at 5200 pounds of thrust. The Sapphire is rated at 7200 pounds.

Production models of the F-84F are to be powered by Sapphires (J-65) made in the U.S. by Wright Aeronautical and Buick.

Somebody Told

It was supposed to be a secret, but after the King Beaver's existence was made known to the public in several publications . . . including *Flight* and *The Toronto Globe & Mail* . . . it began to look as if somebody had told. Actually, little is known about the King Beaver, except that it is roughly a scaled up version of the ordinary de Havilland Beaver, probably about the size of a Norseman and probably powered by the same engine . . . the Pratt & Whitney S1H1 Wasp.

This aircraft was first mooted shortly after the first Beaver came out, and a few specifications were laid down. Continued work depended on RCAF interest, which wasn't forthcoming. Now, however, the RCAF is interested, and in fact it is understood that this service is financing the machine's design and development. It is RCAF practice to keep such development projects as secret as possible until the first prototype flies, so that likely little concrete information will be available on the King Beaver until it is rolled out for its initial test flight, possibly some time this year.

Avro Wage Increase

Wage increases ranging from five cents to eleven cents per hour have been granted to more than 3,000 plant employees at Avro Canada as a result of interim wage negotiations between Aeronautical Lodge 717, I. A. of M., and the management of the company. Also introduced was a cost-of-living bonus based on a one cent bonus for every 1.3 rise over the base index of February 1, 1951.

Union and management officials were quoted as saying that the wage adjustments had been arrived at having in mind the all-out effort required by the company in defence work.

Briefly

•During the test program for **the Piper Tri-Pacer, one landing was made deliberately at a speed of 140 mph.**

•Available from The Glenn L. Martin Company of Baltimore 3, Maryland, is a 40-page booklet called **"Modern Techniques in Aircraft Manufacturing".** Made up of some seventeen articles which first appeared in the company's publication "The Martin Star", the booklet is described as a collection of case histories in efficiency and economy.

CANADAIR ADDITION: These three photographs all show the addition to Canadair Limited's main plant at Montreal, which has increased the available floor space by some 200,000 square feet. The picture at left shows the view when facing northeast. Centre is the bay of the plant just to the right of the steel columns evident at the extreme right of the first photograph. At right, the same bay as shown in the centre picture, but viewed from the opposite end.