

The Industry



FAIREY'S NEW HANGAR at Halifax International Airport was officially opened September 10 by Revenue Minister George Nowlan. The 56-ft.-high building has an uninterrupted floor area of 53,000 sq. ft., and can accommodate the largest civil and military aircraft now in use or production.

A.V. Roe Reports

In its annual report to the shareholders, A. V. Roe Canada Ltd. revealed that total consolidated net sales in the year ended July 31, 1960, were \$242,264,330 as against \$331,194,291 in 1959. Total consolidated net profits dropped drastically from \$5,820,937 in 1959 to \$1,673,879 this past year.

Sir Roy Dobson, chairman of the board, attributed the decline in profits to three major factors: cancellation of the Arrow contract; a lack of railway rolling stock orders; and a general slow down of Canada's economy.

Speaking of the activities of the A. V. Roe group of aeronautical companies, Sir Roy said: "On the military side, the Canada-U.S. production-sharing agreement has proved far from profitable for your companies up to this time, even with the fullest co-operation and assistance of the Canadian Government agencies." Biggest obstacle here of course, is the declining number of military aircraft orders for the U.S. industry itself.

Orenda Engines Ltd., and Canadian Steel Improvement were doing better and were almost exclusively concerned with military contracts. The most notable of these was the \$80 million order for J-79 engines destined for the RCAF's new CF-104 Starfighters.

"Canadian Applied Research Ltd. had a poor year and suffered a substantial loss as the result of changing

trends in airborne instrument requirements . . . Meanwhile, the main volume of business continues to be instrument repair and overhaul for the RCAF and RCN."

T-56 O/H by SAE

Standard Aero Engine Ltd. of Winnipeg, recently announced the receipt of an RCAF contract for the overhaul of the Allison T56-A7 turbine engine which powers the Air Force's new C-130B Hercules. Rated at 4050 eshp, the T56-A7 is one of the most powerful turboprop engines in the world.

At the present time, Standard Aero has extensive facilities for the overhaul, repair and maintenance of piston engines and accessories. The introduction of the T56-A7 to the shops will launch Standard Aero into the large turbine repair and overhaul field. Standard is also Canadian overhaul agent for small Blackburn turbines, which are used in APU's and other similar applications.

Avian 2/180 Progress

Avian Industries Ltd., Georgetown, Ont., has launched the second prototype 2/180 Gyroplane on the first stage of its C of A certification trials. At the present time, this work is confined to the ground test work and static running of the rotor right at the Georgetown plant. However, the company confidently expects to be moving the bullet-shaped, maroon and

silver 2/180 to the airfield at Kitchener in December for taxi and flight trials.

The DoT has granted Avian a flight permit for the 2/180, which has a vertical take-off and landing capability.

Another advance is the DoT's granting of a company radio frequency to Avian, which will allow ground/air communication with the pilot during flight testing. The company hopes to start flying the 2/180 early next year. The vertical take-off and landing phases of the trials will be held toward the end of the program.

Production Sharing to Date

Total value of American contracts placed in Canada up to Aug. 31 this year under the Canada-U.S. defence production-sharing arrangements was \$65,095,000.

Total for all of 1959 was slightly over \$96,000,000. Up to the end of June this year the figure was only \$35 million but there was a sharp pickup during July and August. The eight-month figure for 1960 indicates that amount of business for Canadian firms this year will be about the same as in 1959. Of the \$65,095,000, prime contracts were valued at \$29,968,000 and sub-contracts at \$35,127,000.

Beavers to Argentina

In recent months, four more DHC-2 Beavers have been flown or shipped to Argentina.

The red-painted aircraft, equipped with wheel-skis and other equipment essential to the south polar mission, will see service with both the Argentine Air Force and the Navy, in Argentina and with the Argentinian Antarctic Expedition. They will go into operation with the Antarctic Expedition at the beginning of the 1960-61 Antarctic summer.

In all, nine of the national expeditions participating in the IGY Antarctic program are employing de Havilland Canada aircraft for a wide variety of purposes. Beavers are with the expeditions of Argentina, Japan, Australia, New Zealand and Belgium; Otters with the expeditions of the U.S., Chile, Norway, Belgium and the U.K.

Early in August, a new Beaver was flown from the de Havilland plant at Downsview, Ontario bound for

Argentina. It was the second Beaver for Aerochaco Lineas Aereas Chacuenas, a new airline serving Chaco province from the provincial capital of Resistencia. The original Aero Chaco Beaver began operations on a daily scheduled service in September 1959, carrying passengers, mail and freight.

Husky Looks East

The Canadian Press reports that Husky Aircraft Ltd. of Vancouver is looking for a plant site in eastern Canada to carry out plans to put the Super Husky into production. CP quotes G. H. Babcock, a company director, as saying that after a survey of available sites, Kitchener's Waterloo-Wellington Airport seems to be the most favourable.

Husky Aircraft was established in Vancouver a number of years ago to develop and produce an Alvis Leonides-powered version of the Fairchild F.11 Husky. A prototype was converted from an original Wasp Jr. powered F.11, one of the handful produced by Fairchild Aircraft Ltd. shortly after World War II. A con-

siderable amount of test flying, apparently successful, was carried out and then the project lost its impetus, possibly for financial reasons. The CP report would indicate that the financial, or other problems that were encountered by the company, have been solved.

The Super Husky is a further development of the F.11, being fitted with a Pratt & Whitney R-1340 Wasp.

German F-104 Program

The first of 66 F-104G's being produced by Lockheed for the West German Republic, was flown recently from Lockheed's Palmdale, Calif., plant. The company also reports on-schedule completion of 30 two-place F-104F aircraft to be used in German Air Force training.

The latest F-104F version incorporates C-2 upward ejection seats; single-point refueling capability; provisions for an in-flight refueling probe; an additional 125-gallon internal fuel capacity; and air-duct access doors for inspection of the J79 engine.

Lockheed is, at the same time, directing a major effort to support the

initial overseas program at four German factories: Messerschmitt; Heinkel; Siebel and Dornier. The company has shipped overseas more than 15,000 F-104G parts in direct support of the German manufacturing operation.

Continental/R-R Agreement

The Continental Motors Corp., Muskegon, Mich., and Rolls-Royce Ltd., Derby, England, have signed a manufacturing and sales license agreement covering the full range of Continental aircraft piston engines. Rolls-Royce will be able to supply the full range of engines and spare parts and will provide full after-sales service. The license gives Rolls-Royce exclusive rights for the sale of all Continental aircraft piston engines and spares in Europe, and for Rolls-Royce-built Continental engines in Australia and New Zealand.

Early delivery of Continental-built engines through Rolls-Royce will be possible while production facilities are being established in Britain. British-made parts and engines will be incorporated into the delivery program as

FOR TRANSAIR AT GATWICK

... the advantages of Esavian Hangar Doors

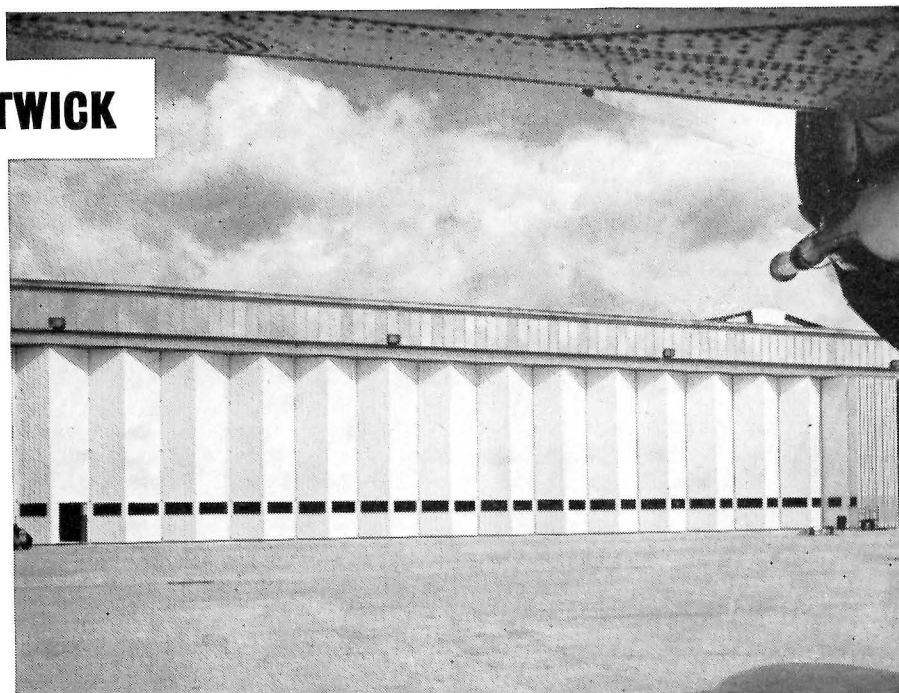
Enclosing two bays, these 280' x 30' Esavian folding and sliding doors provide easy access, full protection and maximum interior space.

They are electrically operated in such a way that either bay can be opened or closed in one operation. Their double-sheeted aluminium construction provides wind resistance of up to 25 lbs. per sq. ft. pressure with extremely light weight. Eye-level glazing, thermal insulation and personnel doors are built in.

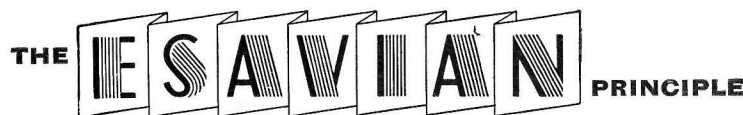
And all this is achieved on a single track. No allowance has been necessary for storage of the doors. All space is working space.

From many similar installations, in Britain and abroad, our technical staff have amassed 'on site' experience which they are pleased to offer to architects and consulting engineers working in this or related fields.

ESAVIAN LIMITED, Stevenage, Herts., England



One of the two Transair Hangar Bays at Gatwick Airport. Architects: Clive Pascall and Peter Watson, F/A.R.I.B.A.



FOR FOLDING AND SLIDING DOORS, WINDOWS, PARTITIONS AND SCREENS

SALES: David McGill & Sons Ltd., 16 St. Johns Road, Pointe Claire, Montreal 33

MANUFACTURING SERVICE & PARTS: Hall Engineering Ltd., 45 des Seigneurs Street, Montreal

A comprehensive range of low and medium frequency transmitters of advanced design for beacon and communication purposes, built to meet the stringent requirements of the Canadian Army and Department of Transport.

25 WATT BEACON TRANSMITTER

200-415 KCS, CW/MCW/RT, with automatic keyer and with "press to talk" facility.

50 WATT BEACON TRANSMITTER

Frequency range 280-330 KCS, CW/MCW, with automatic keyer.

3 KW TRANSMITTER

Frequency range 100-200 KCS, CW/FSK, will accept keying speeds up to 100 wpm (400 wpm FSK).

3 KW BEACON TRANSMITTER

Frequency range 190-415 KCS, CW/MCW/RT, with automatic keyer.

2 KW TRANSMITTER

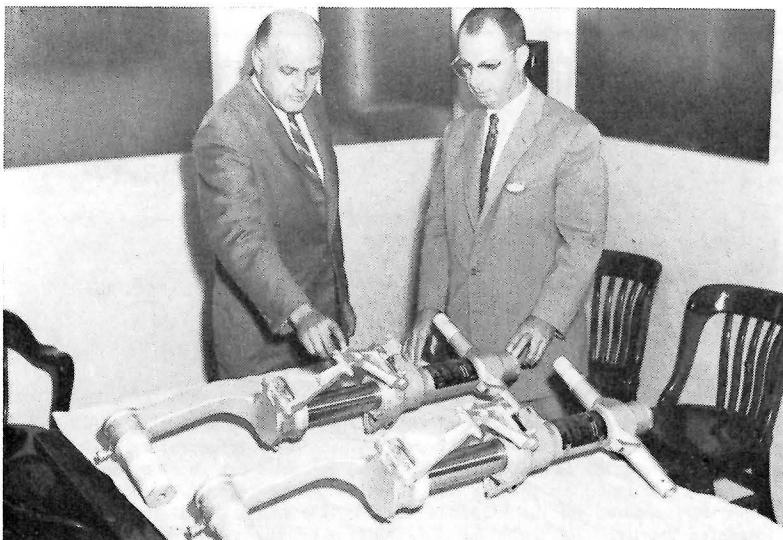
Frequency range 100-230 KCS, CW/FSK, will accept keying speeds up to 100 wpm (400 wpm FSK).

All transmitters are supplied with an Antenna Tuning Unit. For dual installations an Automatic Transfer Unit is available.

STC CANADA

**9600 St. Lawrence Blvd.,
Montreal, 11, P.Q.**

STC systems cover the whole broad field of telecommunications including: telephone and telegraph, radio and television microwave links . . . designed, manufactured and installed by STC engineers.



F-104 NOSE GEAR STRUTS BY DOWTY: H. M. Humphries, assistant vice president manufacturing, Dowty Equipment of Canada Ltd., hands over first two Dowty-built F-104 nose landing gear struts to J. Frostrom, Lockheed Aircraft Corp. representative. Dowty is presently filling a \$130,000 order for the assemblies with Lockheed; has a sub-contract with Canadair Ltd. for the Canadian CF-104.

they become available. All parts manufactured by Rolls-Royce will be fully interchangeable with those from the U.S.

Arming for Peace

One way in which Canada could solve the problem of how to maintain an effective defence industry, particularly an aircraft industry, would be to establish, equip and maintain a "police action" type force which could be moved rapidly anywhere in the world, it was suggested by AITA President Fred T. Wood at the Association's recent annual meeting in Quebec City.

Mr. Wood said that if Canada was to maintain an operationally effective Air Force, there were two choices: (a) outright purchase, or manufacture in Canada under license, foreign-designed equipment; (b) assess the specialized items of equipment designed, developed and produced in Canada and use these in the most effective manner for national defence and for the promotion of world peace.

"Outright purchase," Mr. Wood pointed out, "on a long term basis does not make economic sense." It increased our imbalance of trade, which . . . "is now the highest per capita in the world." It did not keep Canadians at work and, "on the national security side, experience has proven that it is impossible to buy off the shelf the latest in weapon systems

before they reach the early stages of obsolescence, the obvious reason being that any foreign country will satisfy its own needs before meeting outside requirements, and will, in fact, cut off the supply in times of emergency, when our national needs would be greatest."

Mr. Wood felt that the best approach was to assess the equipment the Canadian industry could produce and develop an alternative plan.

"One method, if we are to retain the glamorous role of an effective fighting force, would be the assignment to Canada of a definite role within NORAD under which Canada would be responsible for providing the equipment, logistics, personnel, etc. . . . Another would be to gradually shift the emphasis of the armed forces' role to one dedicated to the pursuit of world peace."

Mr. Wood favored the second alternative for Canada.

Precedent

A judgment awarding three months wages, a total of \$1440 and costs, to Gustaw Lazarowicz, a former mechanical engineer working for Orenda Engines Ltd., has been upheld by the Ontario Court of Appeal. Mr. Lazarowicz alleged he had been wrongfully dismissed by Orenda in February of 1959. At that time, he was fired (as a result of the cancellation of the Iroquois) with one week's



FIRST RCAF HERCULES: Deliveries of the RCAF's Lockheed C-130 Hercules transports began October 28. Powered by four Allison T-56 turboprops driving Aero-products propellers, the 124,200 lb. (max. gross) Hercules can carry a 15-ton cargo. The Hercules are being assigned to 435 Squadron at Edmonton. Although only four Hercules were ordered for the RCAF initially, it is understood that the number may be increased shortly.

pay in lieu of notice, plus pension plan repayment. He was only one of approximately 175 similarly-situated engineers who were released by the company with like salary-severance arrangements.

P. B. C. Pepper, counsel for Orenda Engines, told the Court of Appeal bench that the litigation arose from the federal government's decision to discontinue the Avro Arrow in February 1959.

U.K. Lightplane Builder

The recently announced formation of British Executive and General Aviation Ltd., to be known as BEAGLE, provides a fourth airframe manufacturing group in the British aircraft

industry. Three companies are concerned: Pressed Steel, who have been engaged in the manufacture of aircraft components, are acquiring the whole share capital of Auster Aircraft, while a technical and manufacturing liaison has been arranged with F. G. Miles Ltd. Powerplants for BEAGLE aircraft will be manufactured initially by Rolls-Royce, which has recently concluded a licensing agreement with Continental Motors Corp.

Peter Masefield, formerly managing director of Bristol Aircraft, is managing director of the new company, chairman of Auster Aircraft, and a member of Pressed Steel's Board.

Development of the Auster line of aircraft will continue, backed by the

considerable financial resources of Pressed Steel and the production facilities of all three companies.

Contracts Awarded

Contractors awarded business in excess of \$10,000 by the Department of Defence Production during the period September 1 - October 15, 1960, include the following. The list does not include orders placed by the Department outside of Canada, or with other agencies or increases in orders placed earlier — nor do orders classified as secret appear here.

Names appearing in bold face are current AIRCRAFT advertisers.

Aero Photo Inc., Quebec, Que., \$17,200 for aerial photograph and topographical services.
Aeroquip (Canada) Ltd., Toronto, \$12,470 for aircraft spares.

Aviation Electric Ltd., Montreal, \$21,434 for electrical equipment.

Brian Engineering Ltd., Montreal, \$112,406 for aircraft electrical equipment.

Canadair Ltd., Montreal, \$16,482 for research contract.

Canadian Curtiss-Wright Ltd., Toronto, \$519,496 for aircraft engine control systems trainers.

Canadian Flight Equipment Cobourg Ltd., Cobourg, Ont., \$770,000 for aircraft seat ejection equipment.

Canadian Westinghouse Co. Ltd., \$140,521 for repair and overhaul of radar equipment during year ending March 31/61.

Computing Devices of Canada Ltd., Ottawa, \$13,051 for technical representative during period ending March 31/61.

Computing Devices of Canada Ltd., Ottawa, \$13,793 for electronic equipment.

Dunlop Canada Ltd., Toronto, \$49,334 for aircraft spares.

Field Aviation Co. Ltd., Malton, Ont., \$17,813 for telecommunication benches.

Mel Sales Ltd., Toronto, \$43,450 for radar test sets.

Shaw Photogrametric Services Ltd., Hull, Que., \$14,445 for aerial photograph and topographical services.

Shell Oil Co. or Canada Ltd., Toronto, \$71,856 for aviation turbine fuel during year ending March 31/61.

Sperry Gyroscope Co. of Canada Ltd., Montreal, \$11,049 for aircraft instruments.

Abercorn Aero Ltd., Montreal, \$11,125 for life raft assemblies.

Aeroquip (Canada) Ltd., Toronto, Ont., \$10,069 for aircraft hardware.

Aviation Electric Ltd., Montreal, \$69,603 for airframe spares.

Aviation Electric Ltd., Montreal, \$29,849 for electrical equipment.

Canadair Ltd., Montreal, \$5,000,000 for airframe spares.

Canadian Aviation Electronics Ltd., Montreal, \$53,005 for modification of operational flight and tactics trainers.

Canadian Aviation Electronics Ltd., Winnipeg, Man., \$12,952 for installation of telecommunications.

Canada General Electric Co. Ltd., Toronto, \$609,000 for components for bombing computers.

Canadian General Electric Co. Ltd., Toronto, \$137,000 for components for missile launching computers.

Northern Electric Co. Ltd., Belleville, Ont., \$473,026 for radar equipment.

Orenda Engines Ltd., Toronto, \$24,875, for research contract.

Pioneer Parachute Co. of Canada Ltd., Smiths Falls, Ont., \$13,952 for parachute cases.

Sampson-Matthews Ltd., Don Mills, Ont., \$10,447 for aircraft markings.

Aircraft Marine Products of Canada Ltd., Toronto, \$10,462 for terminal kits.

Aviation Developments (Canada) Ltd., Rexdale, Ont., \$21,828 for aircraft hardware.

Aviation Electric Ltd., Montreal, \$124,944 for aero engine spares.

Aviation Electric Ltd., Montreal, \$74,081 for aircraft spares.

Canadian Vertol Aircraft Ltd., Arnprior, Ont., \$116,727 for helicopter spares.

Collins Radio Co. of Canada Ltd., Toronto, \$13,785 for technical representative during period ending March 31/61.

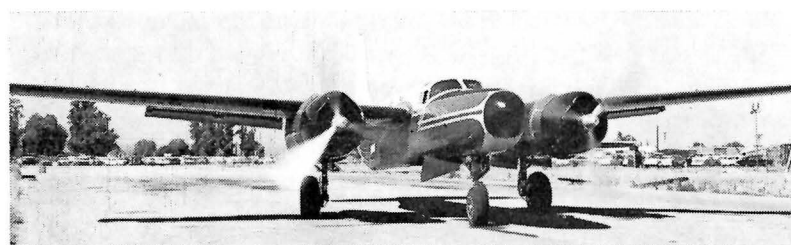
Collins Radio Co. of Canada Ltd., Toronto, \$61,974 for antennae.

DeHavilland Aircraft of Canada Ltd., Downsview, Ont., \$24,000 for technical representative during period ending March 31/62.

Irvin Air Chute Ltd., Fort Erie, Ont., \$46,279 for flight clothing.

Walter Kidde & Co. of Canada Ltd., Montreal, \$38,172 for airframe spares.

Timmins Aviation Ltd., Montreal, \$20,000 for aircraft spares.



DOUGLAS B-26 CONVERSIONS: Above is seen the Lockheed Super 26, said to be the only pressurized B-26 offered today with an elongated fuselage and performance equal to or better than the wartime configuration. Below: the Silver Sixty, by the Rhodes Berry Co., of Los Angeles. This reasonably priced executive transport carries 14 passengers, 400 lbs. baggage, cruises at plus 300 mph.

