

The Industry



FIRST FLIGHT OF WASP HELICOPTER powered by a de Havilland Gnome turbine engine was made early in May at Saunders-Roe Div. of Westland Aircraft, Eastleigh. The Gnome developed for this installation comprises a basic H.1000 engine of 1000 shp maximum power rating. Test pilot was K. M. Reed.

DHC Strike Settlement

An eight-day strike against de Havilland Aircraft of Canada Ltd. was terminated late in June when the 1300 union members of UAW Local 112 agreed to accept a 15 cents an hour increase over a two-year period. The terms call for an eight-cent increase retroactive to June 22, followed by a seven-cent raise on June 22, 1961.

The agreement followed four days of negotiation between company and union officials, conducted with the assistance of Ontario Labor Minister Charles Daley. At issue in the strike, were wages, a union demand for a supplemental unemployment benefit plan, a cost-of-living clause and improvements in the company's medical and life insurance programs.

The company's immediate pre-strike offer had been for a 15-cent-an-hour increase spread over a three year period. The union had rejected this offer as being "inadequate".

F-104G Production at CL

Canadair Ltd. recently shipped the first set of Montreal produced components for F-104G Starfighters being built for the West German Air Force by Lockheed. Under Lockheed's subcontract to Canadair, the first of 80 sets of wings, ailerons and empennages were forwarded to the Burbank, Calif. plant. The contract, due to be completed by 1962, has a total of \$4 million.

There is a possibility that Germany

will increase its order for 66 Starfighters in the near future due to the delays encountered in setting up European production. Should this occur, it is likely that Canadair Ltd. will receive further orders for component parts.

Meanwhile, the Montreal company is building airframes for 200 CF-104's (RCAF variant of the F-104G), destined to replace the aging F-86's presently in use in Air Division. The first of these aircraft is scheduled for delivery to the RCAF early in 1961.

Like a Phoenix

Engineering Research Associates, a Toronto consulting engineering firm which rose Phoenix-like from the ruins of the Arrow program, has won a major engineering subcontract from Grumman Aircraft Engineering Corp. The contract calls for special studies on the USN's new W2F advanced carrier-based AEW aircraft weapon system, for which Grumman is prime contractor.

The contract is thought to be of considerable dollar value, though all details are classified. It is the first such contract to be awarded in Canada by Grumman and was spotted and landed by ERA without direct Canadian Government assistance.

Engineering Research Associates is headed by John A. McKillop and comprises six ex-Avro Aircraft engineers who had worked as a team on first the CF-100 and then the Arrow. All were members of the Avro structural design

staff and were released when the Arrow was cancelled.

The group decided that there was a market in other fields besides aircraft for the advanced techniques that they had mastered at Avro. The decision was made to form ERA, which specializes in aero-elasticity work.

Among the advanced studies that ERA has conducted for various companies in the past year, was one for de Havilland Canada aimed at eliminating the Caribou structural problem which manifested itself in the destruction of a prototype aircraft last year.

Beavers for Britain

The order for 36 Canadian-built de Havilland Canada Beaver aircraft for the British Army Air Corps which was made public last December, has now been confirmed.

The main components of these aircraft will be manufactured at the Downsview, Ontario plant of the de Havilland Aircraft of Canada Ltd. and shipped to England. The de Havilland factory at Chester will assemble them, installing British equipment including radio and instruments. They will then be test flown and delivered to the British Army from late 1960 through 1961.

The British Army Air Corps, although adequately equipped for reconnaissance duties, needs the Beavers for liaison duties and casualty evacuation in conditions of field support where the availability of airfields cannot be counted upon.

CAE Flying High

Canadian Aviation Electronics Ltd. appears to subscribe to the old adage about the Lord helping them who help themselves. The Montreal electronics firm, which recently was reported to have won a \$20 million contract for F-104G flight simulators over the stiffest possible foreign competition, has announced the formation of its second U.S. subsidiary since the beginning of this year.

The latest addition to the expanding CAE family is Calmont Industries Inc. Based in Los Angeles, the new company will specialize in the business of electro-mechanical and energy conversion devices, with emphasis on research and development in these fields. It is intended that production work will be sub-contracted to CAE's Montreal facility where practical. A 25,000



THIRD WINDOW FOR APACHE G: The new Piper Apache G features a full-size third window on each side aft. Windows afford better rearward vision for pilot as well as convenience for fifth seat passenger. Photo also shows striking new interior styling and newly designed headrests.

sq. ft. plant has been rented in Los Angeles.

Earlier this year, following the winning of a USAF repair & overhaul contract in the ground communications field, CAE set up Oneida Electronics Inc. at Utica, N.Y. Originally planned as a 50-employee organization, it is expected to expand to 200 by October. However, the case of Calmont Industries differs from that of Oneida in that the California company has been established without any guaranteed bread and butter contracts. Further, in the electro-mechanical and energy conversion fields, CAE is moving into unknown territory. At the same time it is relatively unknown territory for all of the participants.

Calmont is under the direction of T. F. Lees, who has been associated with CAE for the past seven years. Mr. Lees will be based in Los Angeles as vice president & general manager. J. F. Tooley, president of CAE, is also president of Calmont. Other directors are L. M. Dickinson and Elmer Stone of Los Angeles, and B. J. Kaganov, D.S.D. McDonald and R. F. Elliott of Montreal.

The F-104 simulator contract which Canadian Aviation Electronics is said to have won reportedly covers a joint order for some 30 electronic flight simulators for the countries that have selected the F-104G as their standard day fighter/bomber.

CL-44 Integrated Loading

Both The Flying Tiger Line and Seaboard & Western have accepted an integrated loading system designed by Canadair Ltd. to be packaged with its CL-44 airfreighter. Heart of the system is a transfer platform which is locked to the fuselage after the swing-tail is opened. Front of the platform floats free so that it automatically adjusts to dip, rise or yaw of the aircraft.

During the loading, the rear of the platform is attached to a universal joint. Pallets are made of plywood bound with aluminum and are only half an inch thick. They are designed to hold 8000 lbs. each.

Flying Tiger has designed a two-storey cargo terminal which will be built at Chicago's O'Hare Airport. The CL-44 will be added from two second storey doors via a roller-equipped bridge to the transfer platform. The airline plans to service six aircraft per day.

The Canadair transfer platform is also designed for use with a standard forklift truck with a roller-bed attachment.

A. V. Roe Reports

In its quarterly report to shareholders, A. V. Roe Canada Ltd. says that continuing economies throughout group companies together with dis-

posal of some equipment no longer needed, are contributing toward improving working capital.

The report, signed by W. A. Curtis, vice chairman, adds that there has been no real improvement in the lowered sales already anticipated in rail equipment, aeronautical and coal operations. As a result no dividend was declared on common shares for the quarter. The last dividend paid was 10 cent a share on July 2 of last year. The regular quarterly dividend of \$1.43¾ was paid July 2 on the cumulative convertible redeemable preferred shares.

The report reads, in part: "Securing of an additional CF-104 aircraft component sub-contract in excess of \$2 million promises to improve further the employment situation at the Fort William plant of Canadian Car Co. Ltd."

"Avro Aircraft at Malton is tooling up for production of other CF-104 components, while the J-79 jet engine program for the Federal Government is on schedule at Orenda Engines Ltd. Intensive efforts to capture work in the general industrial field are being continued."

A Look at the FBA-2A

Additional details on the new Canadian freight bushplane being developed by Found Bros. Aviation Ltd. (see *AIRCRAFT*, May, p.55 and July, p.50), have been released by the Malton, Ont., company. A prototype of the aircraft-designated FBA-2A — recently completed high speed taxi trials and will begin flight tests shortly.

The design objective for the FBA-2A has been to provide a practical, low cost, utility aircraft for commercial operations in undeveloped areas all over the world, according to the company. A second four-passenger version of the same basic aircraft will be adaptable for personnel transport and business flying operations.

The FBA-2A was developed from the earlier FBA-1, which was first flown in 1949 and proved the basic design concept for the current model.

The new bushplane is described as a work airplane, so designed and built. For cargo carrying, the aft passenger seats are easily removed to yield a flat floored square sided cargo space.

Power is supplied by a 250 hp Lycoming. It is anticipated that the gross weight, currently in the 2700 lb. category, will be increased for the produc-

tion version of the aircraft. High speed performance has been reduced slightly in order to provide load carrying ability and structure sufficiently strong to withstand the rugged conditions of Canadian bush operations.

A high lift wing of thick section will provide exceptional short take-off performance, Found Bros. Aviation says. Other important features of the FBA-2A:

- Full cantilever wing, permitting free access for cabin loading and improved handling around dock during low water.

- Four large doors arranged for ease of handling bulky freight.

- Simplified construction with strong emphasis on ease of maintenance and repair requiring a minimum of tools and equipment.

- Relatively upright pilot position affords unusually wide visibility.

- Rugged wide tread tricycle undercarriage provides positive ground control and stability for land operations.

Contracts Awarded

Contractors awarded business in excess of \$10,000 by the Department of Defence Production during the period May 1-31, 1960, include the following. The list does not include orders placed by the Department outside 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.

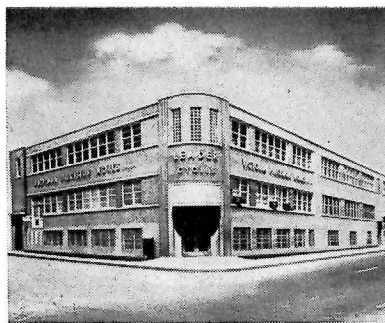
Aircraft Welding & Sheet Metals Co. Ltd., Ville St. Michel, Que. \$26,000 for repair & overhaul of aero engine containers during year ending March 31/61.

Aviation Electric Ltd., Montreal, \$11,301 for spare parts for oxygen breathing apparatus.

Avro Aircraft Ltd., Toronto, \$125,000 for airframe spares during year ending March 31/61.

Canadair Ltd., Montreal, \$75,000 for technical representative during year ending March 31/61.

Canadian Aviation Electronics Ltd., Mont-



NEW PLANT: Victoria Precision Works Co. Ltd., Montreal, effected a major expansion to its manufacturing facilities by the erection of a large modern plant adjacent to the existing building at 2901 Rouen St. Victoria, serves the Canadian aircraft industry in the supply of custom designed and engineered machinery, precision tools and component parts.



PRODUCTION JETSTAR ROLLS OUT: The first production model of the 550-mph Lockheed JetStar is seen being rolled out of the manufacturing plant and into engineering flight test at Lockheed's Georgia Division. Lockheed already has orders from five different countries for the pure-jet executive transport. In Canada, the T. Eaton Co. has announced that it has ordered one for its VIP fleet.

real, \$2,455,424 for repair & overhaul of armament radar systems, training devices, fire control systems and test equipment during year ending March 31/61.

Canadian Aviation Electronics Ltd., Montreal, \$17,574 for modification kits for flight simulators.

Canadian Marconi Co., Montreal, \$315,614 for radio communication equipment.

Canadian Pratt & Whitney Aircraft Co. Ltd., Montreal, \$50,000 for engineering, development & testing of modifications to aero engines during year ending March 31/61.

Computing Devices of Canada Ltd., Ottawa, \$49,320 for rental of air navigation equipment during year ending March 31/61.

Computing Devices of Canada Ltd., Ottawa, \$12,974 for technical representative during year ending March 31/61.

Computing Devices of Canada Ltd., Ottawa, \$130,000 to provide engineering services related to data processing.

De Havilland Aircraft of Canada Ltd., Toronto, \$100,000 for repair & overhaul of airframes & airframe components during year ending March 31/61.

Gensales Ltd., Malton, Ont., \$12,250 for spares for sea-cell lights.

Goodyear Tire & Rubber Co. of Canada Ltd., Toronto, \$13,036 for aircraft tires and tubes.

Orenda Engines Ltd., Toronto, \$74,014 for revisions to technical publications.

Redifon Canada, Montreal, \$44,462 for maintenance, repair, overhaul & engineering support for operational flight and tactics trainer during year ending March 31/61.

Rolls-Royce of Canada Ltd., Montreal, \$10,000 for engineering, development & testing of modifications to aero engines during year ending March 31/61.

Rolls-Royce of Canada Ltd., Montreal, \$10,000 for technical representative during year ending March 31/61.

Spartan Air Services Ltd., Ottawa, \$34,000 for repair, overhaul & storage of helicopters & components during year ending March 31/61.

Standard Aero Engine Ltd., Winnipeg, Man. \$2,192,000 for repair & overhaul of aero engine & airframe components, spares & accessories, special investigations & technical studies during year ending March 31/61.

Standard Aero Engine Ltd., Winnipeg, Man. \$932,000 for repair & overhaul of aero engines and aero engine components during year ending March 31/61.

Standard Aero Engine Ltd., Winnipeg, Man. \$28,000 for repair, overhaul & storage of aero engines & aero engine components, special investigations, technical studies & technical representatives during year ending March 31/61.

TransAir Ltd., St. James, Man. \$72,610 for charter of aircraft during year ending March 31/61.

Avro Aircraft Ltd., Toronto, \$35,789, for supply & installation of controls group III for high speed wind tunnel at NAE Ottawa (Uplands), Ont.

Aircraft Industries of Canada Ltd., St. Johns, Que. \$372,000 for engineering development testing & manufacture of modification kits for aircraft during year ending March 31/61.

Avro Aircraft Ltd., \$300,000 for airframe spares during year ending March 31/61.

Bancroft Industries Ltd., Montreal, \$14,512 for aircraft spares.

Bristol Aero-Industries Ltd., Winnipeg,

\$60,000 for flight engine casings for rockets.

Canadair Ltd., Montreal, \$25,000 for aircraft spares during two years ending March 31/62.

Canadair Ltd., Montreal, \$49,173 for transparencies & slides.

Canadair Ltd., Montreal, \$14,327 for aircraft hand tools.

Canadair Ltd., Montreal, \$103,391 for airframe spares.

Canadian Aviation Electronics Ltd., Winnipeg, \$50,000 for maintenance of ground radar communications equipment during year ending March 31/61.

Canadian General Electric Co. Ltd., Toronto, \$884,686 for tactical analog bombing computer.

Canadian General Electric Co. Ltd., Toronto, \$238,000 for maintenance of radar and communications equipment during year ending March 31/61.

Canadian General Electric Co. Ltd., Toronto, \$112,000 for maintenance of communications equipment during year ending March 31/61.

Collins Radio Co. of Canada Ltd., Toronto, \$200,000 for pre-production services associated with the manufacture of aircraft radio equipment.

Computing Devices of Canada Ltd., Ottawa, \$37,134 for air cameras & accessories.

Computing Devices of Canada Ltd., Ottawa, \$48,000 for technical representatives during year ending March 31/61.

De Havilland Aircraft of Canada Ltd., Toronto, \$75,000 for repair & overhaul of propeller accessories, special investigations & technical studies during year ending March 31/61.

EMI-Cossor Electronics Ltd., Dartmouth, N.S. \$920,404, for sonobuoys.

Fairey Aviation Co. of Canada Ltd., Halifax, N.S. \$19,000 for engineering, development, testing & manufacture of modification kits for aircraft during year ending March 31/61.

Field Aviation Co. Ltd., Oshawa, Ont., \$470,000 for services prior to, during & after removal from storage of major aircraft equipment, components, & accessories during year ending March 31/61.

Field Aviation Co. Ltd., Ottawa, \$11,297, for protective clothing.

Garrett Mfg. Ltd., Rexdale, Ont. \$182,380, for repair & overhaul of AiResearch angle of attack computers & associated transducers during year ending March 31/61.

Ernst Leitz Canada Ltd., Midland, Ont., \$60,000 for repair & overhaul of aerial cameras & accessories during year ending March 31/61.

Nordair Ltd., Montreal, \$217,320, for charter of aircraft.

Orenda Engines Ltd., Toronto, \$90,000 for engineering development & testing of modification to aero engines during year ending March 31/61.

R.C.A. Victor Co. Ltd., Ottawa, \$204,000 for maintenance of ground radar back-up equipment during year ending March 31/61.

Shell Oil Co. of Canada Ltd., Toronto, \$69,345 for aviation gasoline during 1960 navigation season.

Sperry Gyroscope Co. of Canada Ltd., Montreal, \$545,513 for aircraft instruments.

Sperry Gyroscope Co. of Canada Ltd., Montreal, \$30,000 for replacement of hydraulic drive fitted to mirror deck landing aids by an electrical system.

Trump Ltd., Oliver, B.C. \$102,332 for aircraft de-icing and defrosting sprayers.