

# The Industry



**AN INTERNATIONAL SALES DEMONSTRATION** tour is currently being conducted with this Caribou, CF-LVA, the ninth production aircraft off the de Havilland line. The tour, which departed from Downsview, Oct. 22, will last five months, will include Europe, Africa, Middle & Far East, the Pacific.

## CF-104 Electronics

Award of a contract exceeding \$20 million to Canadian Westinghouse of Hamilton for NASARR fire control radars for the CF-104, was announced Oct. 21 by Defence Production Minister O'Hurley.

DDP estimated that 30 to 40 per cent of the value of the contract will be sub-contracted by Westinghouse to the Canadian electronics industry.

DDP says no other prime contracts for the CF-104 program are immediately in sight. Canadair, builder of the airframe, and Orenda Engines, maker of the J-79 power plant, as well as Westinghouse will do their own sub-contracting.

Meanwhile, the Government has set a target date of April, 1961, for the first flight of the CF-104.

The aircraft industry regards this as a tough schedule but is determined to meet it. The main problem is not the construction of the main components but fitting them together on time. A delay in one area could hold up the entire project.

Authorities say that if there is a delay in any one sector of the program, more purchases of components would have to be made in the U.S. It is difficult to forecast the problems which may be encountered in the next six to eight months.

Beating the target date will mean more money for the builders and

missing it will result in a smaller profit or even a loss.

The ceiling on Canadair's contract for construction of the airframes is \$91.5 million, which will allow for a profit of about five per cent.

If Canadair can complete the contract for less than this amount it will get one-third of the consequent saving and the crown two-thirds. If costs exceed the contract ceiling, the excess will have to be met by the company. Ceiling on the Orenda contract is \$80 million.

## Allegheny Buys Elands

Brief announcement has been made concerning the purchase by Allegheny Airlines of 15 Napier Eland NE1.6 engines for the conversion to turboprop power of the fleet of Convair 340 and 440 airliners which Allegheny is to acquire. If Allegheny exercises its option of a further 30 engines, the order will total approximately \$8.1 million. The initial order is sufficient to re-engine five aircraft and if the option is taken up the total will be 15.

This is the first order placed by a commercial carrier for the Eland as a part of a used-airliner re-engine fitting program. Allegheny apparently feels that it can be profitable to purchase older Convair 340/440's from other operators and have them converted to turbine power. The conversion work

will be undertaken in the U.S. by contractors to Napier Inc. Allegheny expects to have their new fleet of turboprops in operation by autumn 1960.

Canadair had been hoping to sell Allegheny new-built Canadair 540's.

## Bristol to Manage Spartan

Spartan Air Services Ltd. announces that arrangements have been made with The Bristol Aeroplane Co. of Canada Ltd. whereby V. V. R. Symonds is being released immediately from his duties as general sales & contracts manager of Bristol Aero-Industries' Winnipeg Division to take over as general manager of Spartan. Other appointments are to follow.

The Board of Spartan Air Services Ltd. has also announced that proposals will be submitted shortly providing for a reorganization of the company's affairs, which proposals will require prior approval of the various interested parties. Upon satisfactory completion of the reorganization, The Bristol Aeroplane Co. of Canada Ltd. has indicated that it will subscribe for a substantial portion of the Spartan common stock.

## Caribou International

The de Havilland Canada Caribou international sales demonstration tour is now almost through its second month, with some three months to go. The tour itinerary covers parts of Europe and Africa, the Middle and Far East, and the Pacific.

The aircraft being used, CF-LVA, is the ninth off the de Havilland production line at Downsview. Pilot-in-command in Doug Fairbanks and he is being assisted by A. (Mick) Saunders. Both are DHC test pilots. Other crew members are D. Kendrick, H. Brinkmann and N. Paterson. The European phase of the tour, now complete, was under the direction of Russ Bannock, DMC's director of military sales. The remainder of the tour is being conducted by D. L. (Buck) Buchanan, assistant director of sales.

CF-LVA departed Downsview on Oct. 22 following normal flight tests early in October when 15 hours of shakedown flying were logged. The flight overseas followed the Great Circle route from Toronto to Gander to the Azores (where engine trouble caused a delay of several days and



**CARIBOU WORLD TOUR:** The DH Canada Caribou, which is on a world-wide demonstration tour, is shown here with its crew. L. to R.: D. Fairbanks, captain; A. Saunders, second pilot; D. Kendrick; H. Brinkmann; N. Patterson.

eventually necessitated an engine change) and thence to Hatfield, England. First job there was to remove the three 200 gal. tanks which had been installed to augment the Caribou's normal 700 gal. fuel capacity, and carry out a maintenance inspection of the aircraft.

The European phase of the tour got underway with a flight to Soest and demonstrations there for the Canadian and British Armies. It concluded 20 days and 13 demonstrations later.

The second or Asian phase of the tour actually began at Amsterdam on November 18. This phase will last four months and cover over 31,000 miles of the earth's surface. Visits will be made to some two dozen different countries and over 50 demonstrations will be staged.

## U. S. Work to York Gears

York Gears Ltd. of Toronto has been awarded an order to commence work on the manufacture of forward and aft transmissions for the production version of the Vertol 107 light tactical transport helicopter. The Model 107 is an advanced twin-turbine, tandem rotor helicopter developed and built by Vertol Aircraft Corp., Morton, Pennsylvania.

The initial go-ahead is the first part of the contract, which will amount to more than \$200,000 and calls for six forward and aft transmission assemblies to be delivered by the end of April 1960. The transmissions are being built to the design specifications of the helicopter manufacturer.

The order to York Gears marks the second contract awarded by Vertol in recent weeks to a Canadian firm. In

October, Jarry Hydraulics Ltd., of Montreal, received a pre-production prototype order from Vertol for landing gear for the U.S. Army's medium transport helicopter, the Chinook (YHC-1B).

## UHF Controls by SML

Servomechanisms (Canada) Ltd., Toronto, has received a DDP contract for the manufacture of control systems for AN/ARC-552 UHF communications sets.

The contract was awarded on the basis of competitive bidding and calls for seven different types of communication control panels and associated equipment. A total of nearly 3900 units in the various types is involved in the contract which has a total value of approximately \$570,000.

These control units form part of the AN/ARC-552 UHF communication equipment which will be used to convert the entire fleet of transport aircraft of the RCAF to UHF communication. The equipment was designed by the Collins Radio Co. of Canada Ltd.

## B. C. to Share in Bomarc?

Some of British Columbia's industries may share in contracts for Bomarc ground handling equipment.

Ralph M. Trites, Canadian co-ordinator for the Government's defence production program, said in Vancouver problems in the Bomarc program have

held up contracting for the ground handling equipment.

"But there is reason to believe that when the development program is worked out there will be opportunities for some of the contracting work in B.C.," he told Vancouver Board of Trade and the Canadian Manufacturers' Association.

He said most of the defence contracts were going to Toronto and Montreal because of the heavy concentration of industry there. It was up to manufacturers everywhere in Canada to be competitive in both delivery time and quality to get some of the contracts, he said.

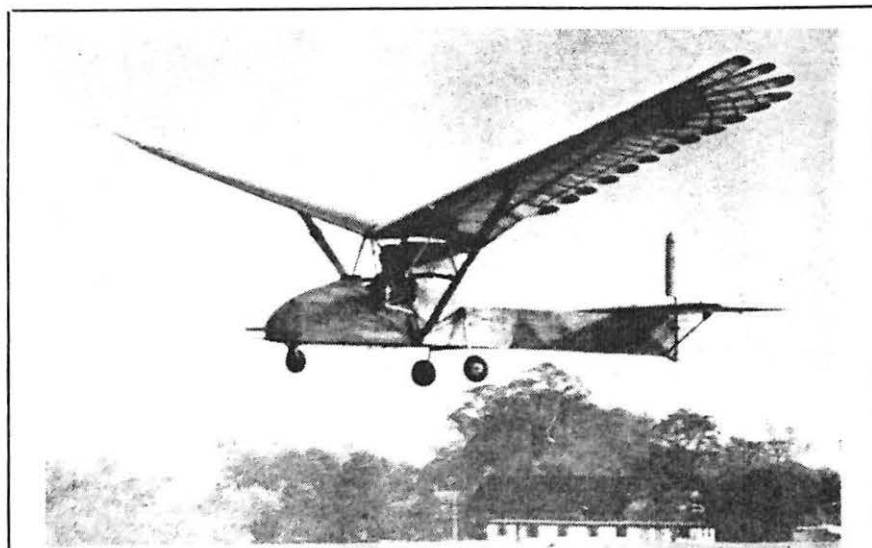
## The Chief Speaks

Prime Minister Diefenbaker has again put the shudders into some of his economic advisers by talking publicly about Canada-U.S. production-sharing.

Officials believe the more said about it the more chance of the program coming apart through strong objections from the U.S. Congress and industry.

Mr. Diefenbaker said Nov. 3 at Toronto that Canada has had \$50 million more of defence production-sharing in the first nine months of this year than in any previous one-year period. He said contracts received from Jan. 1 to Oct. 1 total about \$75 million. In the past the most that had been received had been about \$26 million.

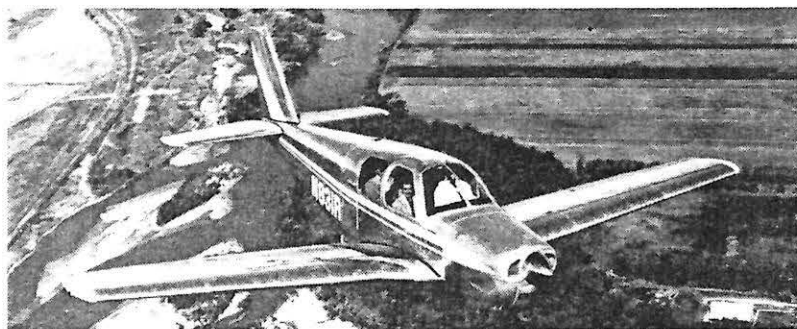
Col. O. H. Barrett of Montreal,



**ORNITHOPTER'S MAIDEN FLIGHT:** A British venture is this man-powered flapping-wing aircraft, seen here spreading its wings for the first time. At the controls is its 39-year-old inventor, London sculptor Emiel Hartman. The Ornithopter rose to a height of 20 feet after being towed at 40 mph behind a car. The feathered bird-like wings flap to obtain both lift and forward speed; pilot moves them by foot pedals and handlebars used like oars.



**NEW BEECHCRAFT MODELS:** Above: the Queen Air, priced at \$120,000 (U.S.), is tricycle geared, carries six passengers plus baggage; has a 1000 mile range at a high cruise of more than 200 mph; is instrumented for all-weather operation. At bottom: the Beechcraft Model 33 Debonair. Powered by a 225 hp Continental, the Debonair seats four, has a cruise speed of 180 mph, and a range of 1000 miles.



president of the Canadian Industrial Preparedness Association, said at the group's annual meeting in Ottawa Nov. 9: "Probably it is fair to say that in Canada it is politic to emphasize the necessity of getting much defence business from the U.S., while in the U.S. it is important to say little about placing defence business in Canada. In many respects, the politics on each side of the border are diametrically opposed to each other."

## New Canadian Company

United Electric Controls Co., Watertown, Mass., manufacturers of temperature, pressure and vacuum controls, has announced the establishment of a manufacturing facility in Canada. The new firm, named United Electric Controls (Canada) Ltd., is located at Dorval, Que. General manager of the new firm is Lorne J. Inglis.

This expansion will enable United Electric to serve more efficiently its many Canadian customers. United Electric products are widely used in aircraft and a variety of other applications. Due to the fact that United Electric has always specialized in designing controls to fit particular needs wide categories of controls of many types are presently available.

## Contracts Awarded

Contractors awarded business in excess of \$10,000 by the Department of Defence Production during the period October 1-31, 1959, 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 Industries of Canada Ltd., St. Johns, Que.,** \$10,000 for engineering studies, design and manufacture of aircraft modification kits.

**Aircraft Industries of Canada Ltd., St. Johns, Que.,** \$187,305 for aircraft modification kits.

**Avro Aircraft Ltd., Toronto,** \$1,600,000 for engineering studies, design and manufacture of aircraft modification kits.

**Bristol Aero Industries Ltd., Winnipeg,** \$10,000 for engineering studies, design and manufacture of aircraft modification kits.

**Canadair Ltd., Montreal,** \$350,000 for engineering studies, design and manufacture of aircraft modification kits.

**Canadair Ltd., Montreal,** \$122,259 for airframe components.

**Canadian Car & Foundry Co. Ltd., Fort William, Ont.,** \$10,000 for engineering studies, design and manufacture of aircraft modification kits.

**Canadian Pratt & Whitney Aircraft Co. Ltd., Longueuil, Que.,** \$40,000 for engineering studies, design and manufacture of aircraft modification kits.

**Collins Radio Co. of Canada Ltd., Toronto,** \$90,924 for electronic equipment.

**De Havilland Aircraft of Canada Ltd., Toronto,** \$60,000 for engineering studies, design and manufacture of aircraft modification kits.

**Fairley Aviation Co. of Canada Ltd., Eastern Passage, N.S.,** \$60,000 for engineering studies, design and manufacture of aircraft modification kits.

**Godfrey Engineering Co. Ltd., Montreal,** \$12,489 for spares for aircraft oxygen trailer.

**Northwest Industries Ltd., Edmonton, Alta.,** \$75,000 for engineering studies, design and manufacture of aircraft modification kits.

**Orenda Engines Ltd., Toronto,** \$59,000 for technical services during year ending March 31/60.

**Rolls-Royce of Canada Ltd., Montreal,** \$100,000 for repair & overhaul of aero engines during year ending March 31/60.

**Spartan Air Services Ltd., Ottawa,** \$10,000

for engineering studies, design and manufacture of aircraft modification kits.

**Vertol Aircraft Co. (Canada) Ltd., Arnprior, Ont.,** \$10,000 for engineering studies, design and manufacture of aircraft modification kits.

**Aeroquip (Canada) Ltd., Toronto,** \$11,251 for aircraft hardware.

**Aviation Electric Ltd., Montreal,** \$140,490 for aircraft instruments.

**Bristol Aero Industries Ltd., Montreal,** \$25,000 for engineering studies, design and manufacture of aero engine modification kits.

**Bristol Aero Industries Ltd., Winnipeg,** \$23,604 for technical publications.

**Bristol Aero Industries Ltd., Winnipeg,** \$19,467 for airframe components.

**Canadair Ltd., Montreal,** \$28,227 for aircraft servicing equipment.

**Canadair Ltd., Montreal,** \$200,000 for engineering studies, design and manufacture of aircraft modification kits.

**Canadair Ltd., Montreal,** \$100,000 for technical publications during year ending March 31/60.

**Canadair Ltd., Montreal,** \$20,000 for airframe components during two years ending March 31/60.

**Canadian Aviation Electronics Ltd., Montreal,** \$50,000 for spares for aviation trainers.

**Canadian Aviation Electronics Ltd., Winnipeg,** \$23,618 for electronic equipment.

**Canadian Flight Equipment Cobourg Ltd., Cobourg, Ont.,** \$141,815 for repair and overhaul of aircraft canopy removers and aircraft personnel catapults.

**Canadian Marconi Co., Montreal,** \$477,680 for electronic tubes.

**Canadian Pratt & Whitney Aircraft Co. Ltd., Longueuil, Que.,** \$246,713 for repair & overhaul of helicopters and helicopter components during year ending March 31/60.

**Canadian Pratt & Whitney Aircraft Co. Ltd., Longueuil, Que.,** \$50,000 for engineering studies, design and manufacture of aero engine modification kits.

**Computing Devices of Canada Ltd., Ottawa,** \$22,108 for technical services.

**Computing Devices of Canada Ltd., Ottawa,** \$22,108 for technical services.

**Martin-Baker Aircraft Co. of Canada Ltd., Toronto,** \$12,326 for repair & overhaul of aircraft ejection seats and components.

**Mine Safety Appliances Co. of Canada Ltd., Toronto,** \$12,326 for aircraft oxygen equipment.

**Orenda Engines Ltd., Toronto,** \$150,000 for engineering studies, design and manufacture of aero engine modification kits.

**R.C.A. Victor Co. Ltd., Montreal,** \$37,045 for installation of radomes.

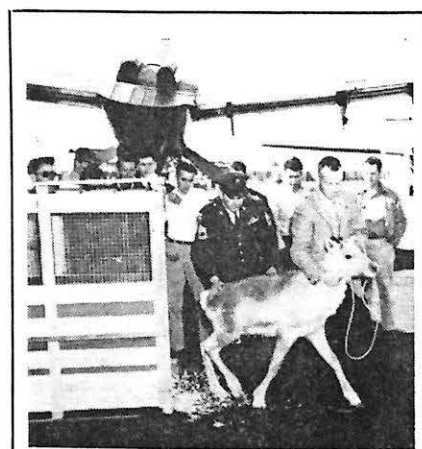
**Rolls-Royce of Canada Ltd., Montreal,** \$50,000 for engineering studies, design and manufacture of aero engine modification kits.

**Servomechanisms (Canada) Ltd., Toronto,** \$534,443 for radio set control systems.

**Spartan of Canada Ltd., London, Ont.,** \$1,340,549 for sonobuoy equipment.

**Sperry Gyroscope Co. of Canada Ltd., Montreal,** \$30,845 for research contract.

**Sperry Gyroscope Co. of Canada Ltd., Montreal,** \$10,000 for repair & overhaul of aircraft instruments during year ending March 31/60.



**CARIBOU FOR ST. LOUIS ZOO:** Sfc. J. Storm, flt. engineer on Army YAC-1DH Caribou and Dr. S. S. Peters, Chief Wildlife Biologist for Newfoundland, are seen with one of two baby caribou presented to City of St. Louis by the province. They were flown to St. Louis by the DHC Caribou, their namesake.