

U.K. Eyes CF-105

Ministry of Supply interest in the CF-105 supersonic interceptor, being developed at Malton by Avro Aircraft Ltd., is reported in British aviation circles.

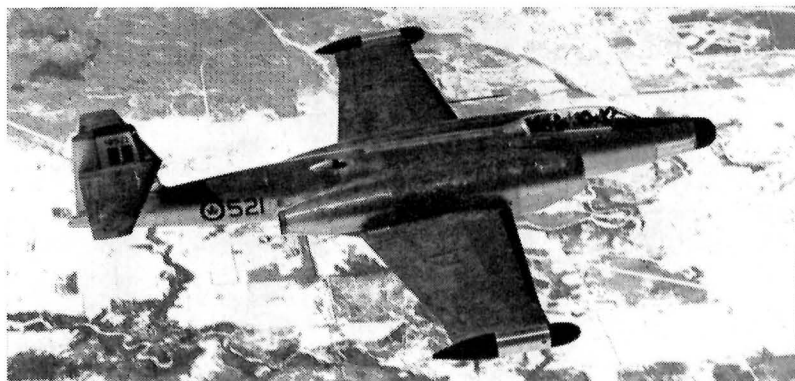
Scholarship Plans

Fourteen \$500 engineering scholarships, together with other forms of student assistance, are offered at leading eastern universities by Avro Aircraft Ltd. and Orenda Engines Ltd. Eight scholarships, an aircraft design

The details:

Avro Aircraft (University of Toronto): Five \$500 scholarships, to be awarded each year on the basis of high academic standing and financial need, as follows:

One scholarship to a student entering First-Year Engineering Physics with the intention of specializing in Aeronautical Engineering; two Aeronautical Engineering scholarships for students entering Third Year; Two Engineering Scholarships for students entering Fourth Year in any of the



FIVE IN FLIGHT: First published flight picture of new Mark 5 Avro CF-100 shows wingtip extensions much more clearly than in previous photos. The extensions, which are straight sections having parallel leading and trailing edges, and do not continue the wing's normal taper, add about three feet to each side. The tailplane has been extended proportionately. Picture below compares MK. 4 (left) with MK. 5 (right). Some armament, presumably the ventral gun pack, has been removed to lighten the Mk. 5. Higher powered Orendas of 8,000 lbs. th. have also been mentioned in connection with production versions of this latest CF-100.



prize and a \$3,000 students' loan fund are being established at University of Toronto. The other scholarships are divided between McGill University of Montreal and Queen's University of Kingston. With nine scholarships go \$300 grants to the universities.

In addition, Avro Aircraft is offering three \$500 scholarships each year to the child or ward of a company employee to provide four years' tuition at the University of Toronto.

following courses: Aeronautical, Mechanical, Electrical Engineering (Communications option), or Engineering Physics (Electricity or Thermodynamics option).

Avro Aircraft will also set up a students' loan fund of \$3,000 over the next three years (starting September, 1956) to provide loans to needy engineering students at the discretion of the university, and is offering a \$50 prize for the Fourth Year aeronautical student achieving the high-

est standing in Aircraft Design.

Orenda Engines (UofT, McGill, Queen's):

Three \$500 scholarships each year, with an accompanying grant to the university of \$300 per scholarship. The scholarships are to cover student fees and the grants to help offset additional costs of educating the student.

Scholarships are available to students of high academic standing completing first, second or third years in Engineering courses other than mining. In the event of close competition, initiative and leadership qualities will be deciding factors. Students holding other awards are eligible providing the total of such awards does not exceed \$100 or any lesser amount which the university concerned may designate.

First awards are expected to be made this spring.

D-H Profit Up

Net profit of \$375,281 is reported by The de Havilland Aircraft of Canada for the fiscal year ending Sept. 30, 1955. This compares with \$121,935 the previous year. A backlog of civil and military orders sufficient to sustain full-scale operations throughout 1956 has been accumulated.

Expenditure on additional buildings, machinery and equipment amounted to \$755,000. It provided a warehouse of 60,000 sq. ft. and an addition to the Test Flight Building to accommodate the Service Department and the Training School.

P. C. Garratt, vice-president & managing director, makes these observations about the company's Guided Missiles Division, created in 1954:

"It is occupied with development work for the Canadian defence services . . . de Havilland Canada is already well equipped to serve in this field; its association with de Havilland companies in the United Kingdom has been most valuable in the rapid development of this Division. The program for 1956 will call for further extensive expansion."

M-B in Canada

The Martin-Baker Aircraft Co. Ltd., of Middlesex, England, has purchased an unused building belonging to the Collingwood, Ont., Curling Club, pending the opening of a new Canadian subsidiary.

Until recently, Martin-Baker products were manufactured in Canada under licence by the Canadian Flight Equipment Limited, Cobourg, Ontario. It was this firm that supplied the ejection seat equipment for all models of the RCAF's CF-100 all-weather interceptor.

The company expects to employ 40 to 50 persons following the renovation of its newly acquired property.

Helicopter Team

A five-man team which will become the nucleus of a helicopter unit at the Winnipeg factory of Bristol Aircraft (Western) Ltd. has been formed under the leadership of Chief Engineer W. E. Robinson. The unit has been formed in anticipation of possible orders for Bristol helicopters in Canada and will be responsible not only for servicing and maintenance, but also for any modifications necessary to fit the helicopters for Canadian service.

The unit comprises three Canadians and two British draftsmen. The Canadians are Mr. Robinson, Dr. Glenn

Adams (dynamics engineer) and V. Dutton (stress engineer). The draftsmen, S. Henshaw and A. Hyland, have been working on helicopters in Bristol's London drawing office.

Change of Name

The name of Piasecki Helicopter Co. of Canada Ltd., with headquarters at Arnprior, Ont., has been changed to Vertol Aircraft Co. (Canada) Ltd. The change follows that in the parent company, with headquarters at Morton, Pa. Commented President Don R. Berlin: "It will better reflect the full range of our current activities and future operations."

The new name, "Vertol", is an abbreviation of "Vertical Take-Off and Landing".

Contract Ended

A repair and overhaul sub-contract placed by Orenda Engines Ltd. with Armstrong Siddeley (Brockworth) has been terminated in favor of a direct contract between the British company

and the Defence Production Department. Brockworth has handled engine maintenance for the RCAF's 1 Air Division in Europe.

It's Official

Orenda Engines Ltd. of Malton officially announces that its PS-13 engine is now being developed under contract to the Defence Production Department. Orenda spent about \$8,000,000 of its own money on the project before the contract was awarded. A name for the engine is in the process of being chosen and will be announced by Walter McLachlan, the company's general manager.

Sectionalized Engines

Field Aviation Ltd. of Oshawa has completed a Defence Production Department contract to sectionalize a number of Orenda engines to assist the RCAF in teaching the function of these engines to aircrew and mechanics. Field has now sectionalized more than 60 engines of seven different types for the RCAF.

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The models show all the areas not externally visible and demonstrate the working relationship of each individual part. In addition, a system of color coding denotes changes in temperature and pressure throughout. This difficult paint job was handled in Field's own shop.

Research Facility

Aeromagnetic Surveys Ltd. of Toronto has opened a research and development laboratory at Oshawa Airport. It will also serve as a maintenance shop for ASL-designed and developed geophysics equipment. Gil Hobrough is in charge of research and development; Ron Johnston is in charge of maintenance.

Honewell Expands

A \$250,000 industrial land purchase, largest in the history of Scarboro Township, in suburban Toronto, is the first step in an expansion program for Minneapolis-Honeywell Regulator Co. First building on the 35-acre site, on which Honeywell's complete manufacturing operation will eventually be located, will house the rapidly

expanding Aeronautical and Industrial Divisions. The Aeronautical Division, formed less than a year ago, has already outgrown its building in Leaside. The new building will be approximately 70,000 sq. ft. in area. When the plant is completed, the company expects to occupy 300,000 sq. ft.

Napier Sales Trip

H. Sammons, managing director, and W. E. Hampton, aviation export manager of D. Napier & Son Ltd., are visiting aviation centres in Canada and the U.S. to describe the latest progress of Napier gas turbines for helicopters and fixed wing aircraft.

The Eland range of turboprops, the Oryx turbo-gas generator and the Gazelle free-turbine helicopter engine have created widespread interest in North America.

Announcing . . .

•Electrol Inc. of Kingston, N.Y., hydraulic engineers and manufacturers, announces the appointment of Railway Power & Engineering Co. as its Canadian engineering and service

representative. Electrol is a major supplier of aircraft landing gear, power cylinders, valves and other hydraulic and pneumatic equipment for aircraft, industrial and mobile applications.

•Crystal Glass & Plastics Ltd. has changed its Winnipeg location to 1373 Portage Ave. The telephone number is 75-6338.

•Winnett Boyd Ltd. of Toronto has been appointed Canadian representative of the Industrial Sound Control Department of Koppers Co. Inc. of Baltimore. This department formerly functioned as Industrial Sound Control Inc. of Hartford, Conn.

•AviQUIPO of Canada Ltd., with headquarters at Montreal, has been appointed Canadian representative of Manning, Maxwell and Moore Inc. of Danbury, Conn., manufacturers of turbojet engine temperature control amplifiers, electronic amplifiers, pressure switches for pressure gauges, thermocouples, hydraulic valves and jet engine afterburner control systems.

Contracts Awarded

Contractors awarded business in excess of \$10,000 by the Department of Defence Production during the period December 16, 1955, to February 29, 1956, included the following. The list does not include orders placed by the Department outside Canada, or with other Canadian Government agencies, or amendments to orders placed earlier—nor do orders classified as secret appear here.

(Names appearing in bold face type are current *Aircraft* advertisers.)

Arctic Wings Ltd., Ottawa, \$104,928 for charter of aircraft.

Austin Airways Ltd. Toronto, \$101,350 for charter of aircraft.

Aviation Electric Ltd., Montreal \$48,000 for aircraft instruments.

Avro Aircraft Ltd., Toronto, \$12,001 for aircraft servicing equipment.

Canadair Limited, Montreal, \$12,093 for aircraft hardware.

Canadian Pratt & Whitney Aircraft Co. Ltd., Montreal, \$20,000 for helicopter airframe spares during period April 1/56-March 31/57.

Central Northern Airways Ltd., St. James, Man., \$103,750 for charter of aircraft.

Dowty Equipment of Canada Ltd., Ajax, Ont. \$100,000 for aircraft spares during period April 1/55-March 31/56.

Fairey Aviation Co. of Canada Ltd., Eastern Passage, N.S., \$100,000 for repair and modification of airframes during period April 1/55-March 31/56.

Goodyear Tire & Rubber Co. of Canada Ltd., Toronto, \$11,790 for aircraft spares.



**DRONE
'COPTER**

Typical of the advanced research and development projects currently being carried out successfully by Kaman Aircraft is this drone helicopter. The technical problems of remote control are more complex with a helicopter than with fixed-wing aircraft because of the 'copter's ability to fly in every direction at varying speeds, as well as to hover in flight. Kaman engineers solved these complicated problems by designing an entirely new electronic control system, miniature mechanical system and small automatic pilot. Kaman is proud that most of its 10 years have been devoted to the National Defense effort to keep the free world free.

KAMAN

THE KAMAN AIRCRAFT CORP., BLOOMFIELD, CONN.
KAMAN AIRCRAFT OF CANADA, LTD.

Imperial Oil Limited, Ottawa, \$90,400 for aviation gasoline during period April 1/55-March 31/56.

Irvin Air Chute Ltd., Fort Erie, Ont. \$55,764 for aircraft towed target gear.

Maritime Central Airways, Charlottetown, P.E.I., \$100,450 for charter of aircraft.

Mont-Laurier Aviation Co. Ltd., Mont Laurier, Que., \$99,250 for charter of aircraft.

Northern Wings Ltd., Seven Islands, Que. \$197,100 for charter of aircraft.

Prencos Progress & Engineering Corporation Ltd., Toronto, \$11,067 for aircraft servicing equipment.

Quebecair Inc., Rimouski, Que. \$99,055 for charter of aircraft.

Ross-Smith Co. Ltd., Montreal, \$89,698 for aircraft towed target gear.

Shell Oil Co. of Canada Ltd., Toronto, \$52,600 for aviation gasoline during period April 1/55-March 31/56.

Sperry Gyroscope Co. of Canada Ltd., Montreal, \$113,210 for aircraft navigation equipment.

Wheeler Airlines Ltd., St. Jovite, Que., \$199,100 for charter of aircraft.

World Wide Airways Inc., Dorval, Que. \$99,510 for charter of aircraft.

Abercorn Aero Ltd., Montreal, \$34,460 for lifesaving waistcoats.

Aviation Electric Ltd., Montreal, \$40,000 for aircraft instruments.

Avro Aircraft Ltd., Toronto, \$56,858 for power supply.

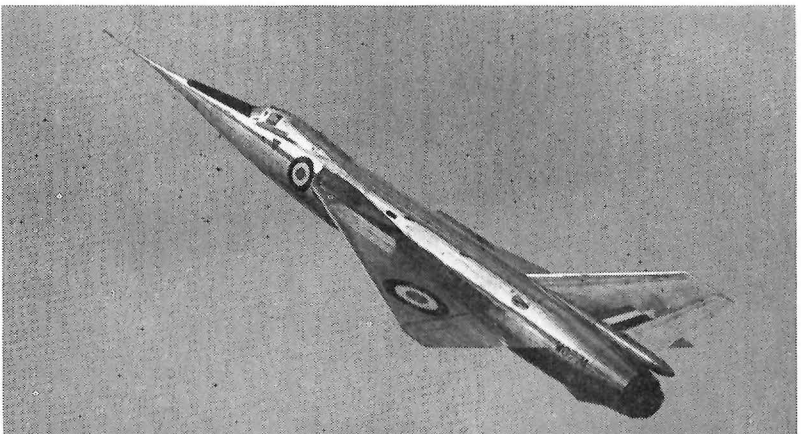
Computing Devices of Canada Ltd., Ottawa, \$21,047 for aircraft navigational equipment.

Crystal Glass & Plastics Ltd., Toronto, \$27,780 for visors for flying helmets.


Dunlop Canada Ltd., Toronto, \$164,998 for aircraft tires and tubes.

Dowty Equipment of Canada Ltd. Ajax, Ont. \$60,000 for repair and modification of aeronautical hydraulic and pneumatic equipment during period April 1/55-March 31/56.

Eastern Provincial Airways Ltd., Gander, Nfld., \$57,328 for charter of aircraft.



BRITAIN FIRST: New holder of the world's absolute speed record is Peter Twiss (R), test pilot for Fairey Aviation Co. Ltd., who made runs averaging 1,132 mph on March 10, while flying the Fairey Delta 2 (above). This speed, which is the new record, exceeds by 308 mph the previous record set in a USAF F-100 Super Sabre. It is the first time that the record has exceeded 1,000 mph. Fastest run during the record attempt was 1,147 mph. The Delta 2 is powered by a single Rolls-Royce Avon with reheat.



Firestone Tire & Rubber Co. of Canada Ltd., Hamilton, \$25,696 for aircraft tires and tubes.

Anthony Foster & Sons Ltd., Toronto, \$14,166 for telecommunications maintenance.

Garrett Mfg. Corporation of Canada Ltd., Toronto, \$40,354 for aero engine spares.

Imperial Oil Ltd., Ottawa, \$425,700 for aviation gasoline.

Walter Kidde & Co. of Canada Ltd., Montreal, \$92,995 for aircraft armament spares.

Lakeshore Industries Inc., Dorval, Que. \$36,118 for aircraft servicing equipment.

Patlon Aircraft of Canada Ltd., Toronto,

\$10,729 for electrical equipment.

P.S.C. Applied Research Ltd., Toronto, \$34,329 for aircraft navigational equipment.

Stark Electronic Instruments Ltd., Ajax, Ont., \$10,071 for aircraft instruments.

Admiral Sanitation Ltd., Toronto, \$10,716 for aircraft polish.

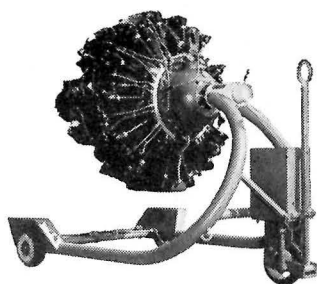
Aviation Electric Ltd., Montreal, \$46,628 for electrical equipment.

S. F. Bowser Co. Ltd., Ottawa, \$57,305 for spare parts for aircraft refuelling tenders.

Canadair Limited, Montreal, \$234,865 for airframe spares.

Canadian General Electric Co. Ltd., To-

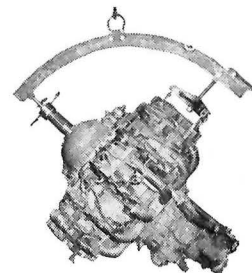
THE ENGINE PORTER



The engine porter supports the engine by the crankshaft allowing the engine to be rotated for easy working during buildup. Suitable adapter collets allow various engine sizes to be fitted alternately on the same stand. Two models are available to cover all weights and ranges of engines.

THE TILT-ARC ENGINE SLING

The Tilt-Arc engine sling allows you to roll any radial engine from "Shaft Vertical" position to "In-Flight" position while suspended. It will accommodate any size or type of radial engine within the weight limits of the sling.



An R-1380 Engine being rolled into "In-Flight" position.

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