

The Industry



VIVACIOUS VANGUARD shows its bottom in an energetic display of its aerial agility. The first of 20 of the 420 mph, 96-passenger Vanguards will be delivered to TCA this summer for service on the airline's medium-length domestic and trans-border services. Rolls-Royce Tynes supply the power.

RCAF Orders 27 Otters

A \$2 million DDP order for 27 Otter aircraft has been placed with de Havilland Canada. Delivery of the first aircraft is to begin in March 1960, and a delivery schedule of two per month until the contract has been filled.

Although some of these will be used to augment the RCAF's present fleet of 39 Otters used for communications and rescue work across Canada, the bulk of them are earmarked for the Auxiliary squadrons. At the time of the government's decision to replace the Auxiliary Sabres with transport type aircraft, it was announced that half the squadrons would later receive Otters in addition to Expeditors. The other half of the Auxiliary squadrons were to receive helicopters.

De Havilland Canada points out that with the acquisition of these aircraft, the fleet of 66 Otters will make the RCAF the second largest operator of this type of utility transport in the world.

More German 104's

There is some possibility that Canada may build Starfighter jets for West Germany, according to Canadian Government and industry sources.

It is known that West Germany was having trouble assembling a fighter

aircraft industry even before the Dec. 10 announcement in Bonn that it will buy 364 more on top of the 266 Starfighters already on order.

Canadair will build the airframes for 200 RCAF Starfighters scheduled to go into service in the next four years with the RCAF air division in Europe.

The RCAF and Luftwaffe in technical meetings in Ottawa last month agreed on standardization of some components for the Canadian and West German Starfighters.

The increased German order for Starfighters may also be welcome news to Computing Devices of Canada. West Germany had already ordered CDC's Position Homing Indicator for its first 266 Starfighters. The RCAF Starfighter (CF-104) is also expected to employ the PHI.

Outlook for Avro Saucer

Dr. Herbert York, director of research, U.S. Department of Defense, didn't have many comforting words for Avro when he held a press conference in Ottawa Dec. 9.

He said the Avro flying saucer may disappear in competition with other vehicles of the same type. The saucer being developed under U.S. government contract was only one approach to the problem of VTOL.

Dr. York said he knows about the Avro machine but hadn't seen it. The

saucer might "disappear" when it came to decide which vehicle of this type should be produced.

Canair CF-104 Contract

Canadair will award a contract worth about \$2,500,000 to Canadian Car Co. Ltd., Fort William, for forward fuselage components for the CF-104. It is expected that Canadian Car will be required to complete the contract by late 1961.

Beavers to Britain

Although few details have yet been announced by the DDP, an order for 36 Beaver aircraft for the British Army has been placed with The de Havilland Aircraft of Canada. Though the British have been evaluating a Leonides-powered Beaver for some time, no mention was made of whether this improved version is the one ordered or not. Said a de Havilland Canada spokesman: "As far as we know at the moment, it will be the Pratt & Whitney powered Beaver."

Notwithstanding this piece of good news, and the RCAF order for 27 Otters, de Havilland does not expect the current low level of employment to be affected to any marked degree. During the month of December 450 workers were laid off, although there was a possibility of about 100 of these being re-hired. Earlier lay-offs had reduced de Havilland's hourly-rated work force from 2750 to 1600; the new cuts will have brought this figure down to about 1150.

U.K. Industry Mergers

Apparently as a result of the U.K. government's demands that the British aviation industry regroup into two major airframe and two major engine companies, de Havilland Aircraft Co. shareholders are being asked to approve the company's acquisition by the Hawker Siddeley Group.

At the present time, de Havilland stock is worth approximately \$39.8 million. The Hawker Siddeley Group is said to be offering one Hawker Siddeley common share (\$2.80) for each de Havilland common share (\$2.80). Three Hawker Siddeley 5½% \$2.80 preferred shares and \$2.80 in cash will be offered for every four de Havilland 5¼% preferred shares.

It is not known at this time how the merger of Hawker Siddeley and de

Havilland will affect the two companies' respective Canadian subsidiaries, A. V. Roe Canada Ltd. and The de Havilland Aircraft of Canada Ltd.

Garrett 104 Subcontract

A new air conditioning system and central air data system for the Lockheed F-104G is to be supplied by AiResearch, a subsidiary of the Garrett Corp. Presumably the equipment for Canadian F-104G's will be supplied through Garrett's Canadian subsidiary, Garrett Mfg. Ltd. of Toronto. The new air data system incorporates recently developed miniaturized transducers, which are packaged in a smaller envelope with increased accuracy and additional range capability.

The AiResearch air conditioning unit will provide the F-104G with approximately 20% more cooling capacity within the space envelope than that of earlier models. The refrigeration package, which consists of a cooling turbine, heat exchanger, water boiler and associate controls, provides air to cool the F-104G cockpit, forward and aft electronic compartments and air for canopy defogging.

Marsland/Filtors License

Marsland Engineering Co., Kitchener, Ont., is in volume production of Filtors Inc. sub and micro-miniature relays under a licence agreement signed some time ago. The Filtors Div. of Marsland Engineering will make the complete line of Filtor's relays and will sell them in Canada, the U.K. and other countries. Marsland is one of the largest manufacturers of precision electronics components in Canada.

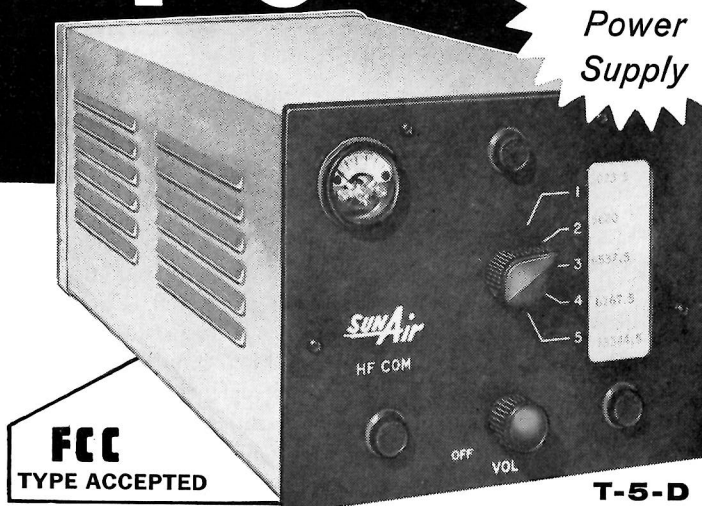
Dowty Building Boats

A revolutionary type of jet propelled boat is being manufactured by Dowty Equipment of Canada Ltd., Ajax, Ont. Built almost entirely of plastics, it will come in two models. Fuel consumption of the new inboard turbo engine with which the boat is powered is expected to be half that of conventional outboards.

This engine is the Hamilton Marine Jet Unit which, along with the boat itself, was designed in New Zealand. It will be built by Dowty in a separate division from the plastic hulls. The engine sucks water up through the hull and then forces it out the rear,

Newest Addition to the Famous SunAir Line of HF Aircraft Transceivers!*

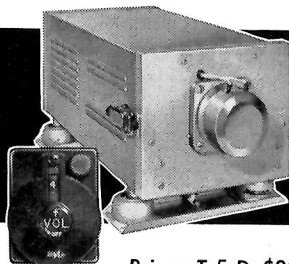
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With the development of the sensational T-5 crystal controlled high frequency transceiver, SunAir achieves the ultimate in compact, lightweight design. Utilizing a built-in transistorized power supply proved by 18 months of intensive tests, the T-5's are 13 pounds lighter than other comparable units!

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- 5 transmit and 5 receiver frequencies; simplex or duplex operation.
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The T-5-R is available as remote installation where panel space is limited. Weight, 10¾ pounds.

Prices: T-5-D, \$895.00; T-5-R, \$1,195.00
F.O.B. Fort Lauderdale, Fla., U.S.A.

SUNAIR

**Famous SunAir models 5-DTR, 5-RTR, and 22-RTR remain in production, of course.*

ELECTRONICS, INC.

BROWARD COUNTY INTERNATIONAL AIRPORT
FORT LAUDERDALE, FLA., U.S.A.

creating some 750 lbs. thrust. Since there are no appendages on the hull, the boat can be driven on or off a trailer, over logs and other obstructions without damage.

Avro Sells Briarcrest

Briarcrest, an 11-acre estate on the northern fringes of Toronto, owned by Avro Aircraft and once the stopping place of such prominent personages as Viscount Montgomery, C. D. Howe, and Sir Roy Dobson, has been put up for sale. It was here that the fateful decision to gamble the company's future on the CF-105 was made.

Asking price for the mansion and two acres surrounding it, is \$87,000. The remaining nine acres have been ear-marked for sub-division housing.

Marketing Handbook

A marketing handbook to help businessmen keep up with the latest information on the U.S.'s perplexing array of missile and space programs, has recently been published. Name of the book is "Aerospace Marketing Handbook." It is thought it should be

of value to Canadian firms seeking U.S. defence contracts.

Designed to help both the large and small company in planning defence sales strategy, the Aerospace Marketing Handbook is in hardcover, looseleaf form. The subscriber receives eleven monthly supplements which keep the Handbook up to date for a year.

A four-page color brochure which describes the Handbook in detail is available without cost from: Defense Marketing Services Inc., 600 North Sepulveda Blvd., Los Angeles 49, Calif.

Raytheon SAGE Contract

Raytheon Canada Ltd., Waterloo, Ont., has been awarded a \$1.35 million USAF contract through the Canadian Commercial Corp., a Government agency, to produce 60 transistorized position indicator units for the SAGE air defence system.

The position indicators, to be installed in SAGE centres in the United States, will monitor early warning data received from SAGE radar installations on the Arctic DEW line, the

southernmost U.S. sites and coastal stations. Each indicator unit accepts radar data in the form of electronic impulses and translates these into a picture on the scope and printed tape showing range and azimuth of any desired target.

First delivery is scheduled for June, 1960.

Contracts Awarded

Contractors awarded business in excess of \$10,000 by the Department of Defence Production during the period November 1-30, 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 AERIAL advertisers.

Aviation Electric Ltd., Montreal, \$19,493 for aircraft instrument test.

Aviation Electric Ltd., Montreal, \$15,113, for electrical connector assemblies.

Aviation Electric Ltd., Montreal, \$53,632 for components for automatic pilots.

Avro Aircraft Ltd., Toronto, \$2,976,568 for repair and overhaul of aircraft.

Bancroft Industries Ltd., Montreal, \$26,910 for components for oxygen masks.

Bristol Aero Industries Ltd., Winnipeg, \$50,000 for engineering studies, design and manufacture of aircraft modification kits.

Cannon Electric Canada Ltd., Toronto, \$10,178 for electrical connector assemblies.

Computing Devices of Canada Ltd., Ottawa, \$17,906 for electronic equipment.

De Havilland Aircraft of Canada Ltd., Toronto, \$20,000 for engineering studies, design and manufacture of aircraft modification kits.

Delta Aircraft Equipment Ltd., Toronto, \$30,051 for electronic equipment.

Imperial Oil Ltd., Ottawa, \$83,600 for aviation turbine fuel during year ending March 31/60.

Northwest Industries Ltd., Edmonton, \$615,697 for repair and overhaul of airframe components during year ending March 31/60.

Rediffusion Inc., Montreal, \$953,247 for operational flight trainer.

Up-Right Scaffolds Ltd., Toronto, \$71,732 for aircraft servicing equipment.

Abercorn Aero Ltd., Montreal, \$16,316 for aircraft hardware.

Aviation Electric Ltd., Montreal, \$35,000 for accelerometers.

Canadair Ltd., Montreal, \$124,536 for aircraft components.

Canadair Ltd., Montreal, \$255,000 for repair of aircraft during year ending March 31/60.

Canadian Vertol Aircraft Ltd., Arnprior, Ont., \$145,270 for repair and overhaul of helicopters during year ending March 31/60.

Canon Electric Canada Ltd., Toronto, \$18,000 for electrical connector assemblies.

De Havilland Aircraft of Canada Ltd., Toronto, \$44,973 for electrical equipment.

Fairey Aviation Co. of Canada Ltd., Dartmouth, N.S., \$309,942 for repair and overhaul of aircraft components during year ending March 31/60.

Fleet Manufacturing Ltd., Fort Erie, Ont., \$17,509 for repair of sonar domes.

Imperial Oil Ltd., Ottawa, \$32,760 for aviation turbine fuel during year ending March 31/60.

Imperial Oil Ltd., Ottawa, \$33,475 for aviation turbine fuel during year ending March 31/60.

Martin-Baker Aircraft Co. Ltd., Collingwood, Ont., \$36,063 for aircraft armament equipment.

Northwest Industries Ltd., Edmonton, \$29,325 for technical publications during year ending March 31/60.

Orenda Engines Ltd., Toronto, \$11,344 for technical study.

Redifon Canada, Montreal, \$74,257 for installation and testing of action speed tactical teacher.

Rolls-Royce of Canada Ltd., Montreal, \$10,000 for aircraft training aids.

Servomechanisms (Canada) Ltd., Toronto, \$10,169 for development contract.

Sperry Gyroscope Co. of Canada Ltd., Montreal, \$19,324 for electronic tubes.

Sperry Gyroscope Co. of Canada Ltd., Montreal, \$275,392 for aircraft navigational equipment.

Technical Enterprises Ltd., Toronto, \$10,945 for electronic components.



JETSTAR IN ASSEMBLY: First production Lockheed JetStar fuselage is shown being lifted from the main assembly jig and headed for static testing. With exception of nose and pilots' compartment behind forward bulkhead, the entire fuselage is fabricated and assembled in the main jig. First production model of the sleek jet transport is scheduled to fly in July. Cutaway below shows fuselage structural assembly.

