# The Industry

PROTOTYPE OF FOUND FBA-2A BUSHPLANE successfully completed its initial taxi trials June 12-13 and is now undergoing static load tests. Picture shows new aircraft making sharp turn during ground maneuvering trials at Malton. 250 hp Lycoming 0-540 powers 2700 lb. cantilever-winged aircraft.

### Slick Signs for CL-44D

Slick Airways has announced that it has signed a definitive purchase agreement with Canadair Ltd. for the purchase of two CL-44D turbo-prop air freighters, with options on four more.

The contract, worth \$9 million, calls for delivery of the first of the swingtail versions in September 1961; the second in October 1961. The remaining four on option are scheduled for delivery the following year. A downpayment of \$900,000 was made by Slick at the inking ceremony; it accompanies the \$100,000 which was deposited with its earlier letter of intent.

# A. V. Roe in Washington

The establishment of Washington representation for Aeronautical Group of A.V. Roe Canada Ltd., has been announced. Named as Washington representative is John R. Douglas, presently future products defence manager of the Aeronautical Group.

Prior to joining Avro Aircraft Ltd. in 1954, Mr. Douglas was the Canadian government's Washington representative for the Department of Defence Production. Other representational offices recently set up by the A.V. Roe Canada Aeronautical Group are in Los Angeles, and in Bonn, Germany.

# Marconi Doppler Sales

South African Airways recently placed an order with Canadian Marconi Co. for airborne Doppler sensor and computer units for fitment to its new fleet of Boeing 707-320 jetliners. Deliveries are scheduled for August of this year.

A few days after the SAA order was made public, came the announcement that Irish International Airlines had placed an order with CMC for navigation computers. These computers are to be used in conjunction with the Doppler sensor systems type CMA-623 (ARINC) already being supplied to Boeing for installation in the Irish Airlines' fleet.

# R & D Emphasized

Research and development must be continued if the Canadian aircraft industry is to be maintained at its present or a higher level, AITA President F. T. Wood told the annual dinner of the Canadian Aeronautical Institute at Ottawa May 24.

"The statement often heard that Canada should abandon research and development and concentrate only on production is both absurd and impossible," Mr. Wood said.

R and D capability couldn't be put in a deep-freeze and extracted at will.

"It is very evident in any industry that research and development is a continuous requirement if the industry is to live," Mr. Wood said. The Government's R and D fund was "a step in the right direction" though not large and on a year-to-year basis.

The export of brains must be stopped and reversed, Mr. Wood said. R and D capability was decreasing at an "alarming" rate. No less than 700

engineers last year emigrated to the United States alone.

Cancellation of the Arrow program had been a "severe setback" and had had a "tremendous impact," especially in the design and development area.

Mr. Wood said the aviation industry has the basic requirement for success. Products such as the CL-44 and Caribou were without question the leaders in their respective fields. Other promising products included Pratt & Whitney's PT-6 engine, Hunting's aerial survey equipment and Computing Devices' navigational equipment.

"The one major fear existing is that foreign countries, by legislation or other means, will prevent entry of these products into their countries whilst enjoying free access to our markets.

"This type of discrimination must be eliminated and it goes without saying, the aim of our Association being to enhance and perpetuate aviation in Canada, that we will do all within our power to urge and to ensure that Canadian manufacturers are given a fair deal in the marketing of their products both in our own and in other countries."

## Selling Expenses

The DDP recently clarified its policy concerning production sharing selling expenses.

"The Department wishes to emphasize . . . that the Audit Services Division has agreed that its normal policy with respect to selling expenses is applicable to selling expenses associated with U.S. defence business. Under this policy, the cost of preparing quotations and other specific costs incurred, may be charged to the contract obtained. If a contract is not obtained, certain of the expenses incurred, if such expenses are reasonable, can be absorbed proportionately into general overhead and such expenses are prorated over a company's total business."

This policy is presently under review by the Government and it was expected the review would be completed by June 30.

# CF-104 Sub-Contracting

Further CF-104 sub-contracts worth \$5 million have been placed recently by Canadair Ltd., with companies in

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equipment and standards, meter calibration equipment.

Technical Devices Co., manufacturers of wire-cutting and stripping equipment, component lead-forming equipment, and circuit board fixtures.

### Mid-Canada Price Tag

Total cost of the Mid-Canada warning line was \$227,718,302, Defence Production Minister O'Hurley reported to the Commons March 28. He said the first estimate submitted by Trans - Canada Telephone System, management contractor, was \$169 million.

### Du Pont Fluorescent Paints

Hyper-intensive fluorescent paint colors are being introduced by Du Pont of Canada. The new paint, identified as Hi Vi fluorescent enamel, appears to increase in brilliance in the uncertain light of dawn, dusk, and overcast when ordinary colors grey out and merge with backgrounds. In addition, the new product does not become grey, white, or black at extreme distances as do non-fluorescent colors.

Uses of the new paint are expected

to include high-visibility identification and safety marking of aircraft, trucks and buses.

### Avon Life Upped

The British Air Registration Board has approved the Rolls-Royce Avon Mk. 524 turbojet for 2000 hours operation between overhauls in the Comet 4's of the BOAC fleet.

The Avon is the first commercial turbojet to reach this between-overhaul life and has gained the position after only 19 months in airline service. During the 2000-hour life, no internal inspections are required, and the only parts scheduled for change are the two igniter plugs.

Total Avon maintenance time between overhauls, including installation and removal of the engine from the aircraft, averages less than four manminutes per flying hour.

## Doppler Proving Out

With production ARINC units of Canadian Marconi's Airborne Doppler in use with commercial jet aircraft in regular route service, the performance claimed by the company for many

years is now being confirmed by users.

The Doppler radar navaid system functions satisfactorily, and within published specifications, at altitudes from 40 to 40,000 feet. This is at high subsonic jet speeds and over diverse reflecting surfaces.

The large amount of flight experience now gathered shows that accuracies of 0.6% of total distance flown are normal. A recent evaluation of the system done by Qantas Empire Airways produced maximum errors of from 7 to 13 nautical miles in flights exceeding 3000 nautical miles. Analysis of reports to date indicate that the mean-time-between-failure, for normal airline use, is about 700 hours.

### Supersonic Transport Urged

Air Transport Association President Stuart G. Tipton recently urged the development of a supersonic transport aircraft and outlined a program.

"We should hope, in the interest of U.S. leadership in aviation, and for the sake of the prestige and economy of our nation," he told the House Science & Astronautics Committee, "that the decision will be made, and made quickly, to embark on a development program of a supersonic transport."

Mr. Tipton urged that Congress make certain that Federal agencies take a different attitude toward a transition to supersonic transports than they did during the transition to jets.

"There is no question but that the jet revolution was rendered immeasurably more difficult by confused, indecisive and often crippling government policies."

# Umbaugh U-18 Progress

The first of five prototype Umbaugh U-18 autogyro aircraft being built by Fairchild is almost ready for initial flight testing. The other four aircraft are expected to be ready within the next few weeks. All five will be used for certification trials and flight test.

# VTO Propeller

Additional details of a new type of propeller that will permit a plane to fly virtually without wings, were revealed last month by the Curtiss-Wright Corp.

The radial lift force principle of the new Curtis propeller will permit vertical take-off and landing and transition to high speed flight. In addition,

