



**STARFIGHTER PRODUCTION** at Canadair Ltd. is in full swing, with components for RCAF CF-104's and the similar F-104G's for Germany, Belgium, Holland and Japan coming steadily from the sub-assembly lines. Scene above is in Plant 2, where rear fuselages, wings and empennages are being produced.

## PHI Orders Pour In

Computing Devices of Canada Ltd., Ottawa, has accepted orders totalling more than \$6.5 million from seven different European countries for the Position Homing Indicator, according to "Canada Courier" new Dept. of Trade & Commerce publication. Some 300 of the military aircraft navigation sets have already been ordered, and CDC is reported to be expecting orders for another 1000 PHI's.

Computing Devices has also sold part of its ANTAC airborne navigation device to the French Navy. It will be tested in the anti-submarine role and if found satisfactory, will be purchased in its entirety.

## CF-104 Radomes

Brunswick of Canada has been awarded a \$500,000 contract for the production of radomes for the CF-104 Starfighter. Awarded by prime contractor Canadair Ltd., the contract will involve a new type of manufacturing process known as filament winding.

Engineers of Brunswick have been studying the new technique at the Lockheed plant in California and at a Brunswick Corp. plant in Marion, Virginia. Production of nose cones by the Dixie, Ontario company will begin in the spring after the installation of \$200,000 worth of new manufacturing and testing equipment has been completed.

The filament winding process will build nose cones for the CF-104 by

winding plastic-coated Fiberglas thread on six-foot long moulds. The process will ensure the exact combination of glass and resin needed to maintain the high-fidelity performance of the latest radar equipment.

## Reaping the Whirlwind

The Government is beginning to reap the whirlwind for cancellation of the Arrow and associated programs.

A delegation from the Electronics Industries Association, Toronto, presented a brief Dec. 8 to Prime Minister Diefenbaker, Defence Production Minister O'Hurley, Trade Minister Hees and Revenue Minister Nowlan.

Part of the brief was the same as presented to Mr. O'Hurley in September and said Canada is losing the technological base for the \$100 million-a-year industry. Production-sharing was falling off instead of increasing. The average was \$1 million a month in the first six months of 1960 compared with \$2 million a month in 1959. There was no development sharing and the DRB development fund was pitifully small. Only five per cent of DDP's development assistance fund was being allocated because of too stringent conditions. The Defence Department was buying less new equipment and allotting more funds to repair and maintenance.

The Association suggested that other countries be brought into production-sharing; that the Canadian electronics industry be allocated development and

production of certain weapons for North American defence; and that the strings attached to DDP's development assistance fund be loosened.

## Buy American Order

The AITA has advised its members that the Buy American Order issued by the U.S. government in recent months, does not apply to Canadian procurement. Part III of the U.S. Defense Department directive, paragraph C sub-para 1, specifically excludes Canada from the order. This portion of the order reads:

"The following exemptions from this policy are authorized: purchases made pursuant to treaties or executive agreements, or special arrangements made to assist friendly foreign countries, such as Canada, and procurement in West Berlin."

## Avenger Conversion

Fairey Aviation Co. of Canada Ltd. has started work at its Patricia Bay plant on southern Vancouver Island on a \$120,000 contract for conversion of 13 Grumman Avenger aircraft for crop spraying.

Formerly used by the RCN for carrier duty on the east coast, they have been bought by Skyway Air Services of Langley, B.C.

Dennis W. Howell, Fairey plant manager here, said the planes are being fitted with sprayers refined and engineered by his company. It has fitted 16 other Avengers from elsewhere in Canada for this use, he said.

## Boeing is Back

Boeing Airplane Co. of Seattle, Wash., announced in November the formation of Boeing of Canada Ltd. as an expanded subsidiary with headquarters at Arnprior, Ont. Wellwood E. Beall, Boeing senior vice president, said the new Canadian company would "broaden the interests of Boeing in Canada."

Creation of Boeing of Canada was through reorganization of Canadian Vertol Aircraft Ltd., a Boeing affiliate, and expansion of its board of directors. The Arnprior facility is now being operated as the Vertol Div., Boeing of Canada Ltd.

Officers of Boeing of Canada include: William M. Allen, chairman of the board and president; W. E. Beall, vice president; Don R. Berlin,

vice president; Lysle Wood, vice president; J. O. Yeasting, vice president; Max Bowen, vice president; H. W. Lord, treasurer; John A. O'Hara, secretary, and John S. Ciechon, asst. secretary.

Kenneth R. Patrick, formerly chairman of the board of Canadian Vertol, is on the board of Boeing of Canada as a director. Max Bowen, in addition to being a vice president, is also general manager, the same position he held with Canadian Vertol. Mr. Berlin was president of Canadian Vertol. Canadian directors, besides Mr. Patrick, are Leonard W. Brockington of Toronto, Hon. J. A. D. McCurdy and Roy G. Peers, both of Montreal.

The Arnprior facility provides overhaul, modification and repair support for Vertol helicopters operated by the RCAF, RCN and Spartan Air Services Ltd. To a lesser extent, it manufactures spare parts and conducts service trials.

Boeing was a familiar name on the aviation scene in Canada prior to World War II, but after the war Canadian operations were terminated. During the war, Boeing Aircraft of Canada Ltd., as it was then known, manufactured B-29 sub-assemblies as well as PBV aircraft at a Government-owned plant in Vancouver (now CPA's maintenance and overhaul base).

## More Bomarc Work for CL

Following the news that the Bomarc B ground-to-air missile has been accepted officially by the USAF and ordered into quantity production, Canadair received a follow-up contract for 185 more sets of wings and ailerons. The order has the effect of extending to June 1962 the Bomarc program in Canadair's Missiles & Systems Div., and brings to 300 the total of "B" sets which have been ordered from Canadair by Boeing Airplane Co., the prime contractor.

Canadair completed and shipped, last month, the remainder of 246 sets of the same components for the Bomarc A. All the components are shipped directly to Seattle, Wash., for assembly at Boeing.

## CAE Reports

Slightly reduced earnings in the first seven months of 1960, as compared with the same period last year, are

reported by Canadian Aviation Electronics Ltd. in a brief interim report. At the same time, CAE said that the results for the full calendar year should be slightly better than in 1959.

The main effort at CAE's Montreal facility is being directed toward the engineering and development work on the F-104 simulator program. Present employment at CAE in Canada is 1284. As the F-104 simulator program moves into the production phase however, there will be an employment build-up to a point which is expected to provide 600 additional jobs in the Montreal plant.

## OHL Declares Dividend

Okanagan Helicopters Ltd. has declared a dividend of five cents on common shares, payable Dec. 15 to holders of record Nov. 18.

The company previously made a payment of 15 cents in April for a total this year of 20 cents compared with a 1959 total of 15 cents.

## B.C. Propeller Bought

Vancouver businessman Paul Tak has purchased B.C. Propeller Co. Ltd., an aircraft propeller and engine overhaul, repair, and sales company.

Mr. Tak sold out his majority interest in B.C. Airlines Ltd. about a

year ago. T. C. Walsh, manager of B.C. Propeller, was also formerly associated with B.C. Airlines, the new owner said.

The company was purchased from Kenneth Hillstrom. It will be moved from its present Marpole location to Vancouver International Airport when facilities become available.

## Litton in Canada

Litton Industries Inc., Beverly Hills, Calif., has formed a Canadian subsidiary named Litton Systems (Canada) Ltd. The new Canadian firm has taken over the operations and facilities of Servomechanisms (Canada) Ltd., which Litton Industries acquired from Servomechanisms Inc. in the spring of 1960.

Litton Industries is responsible for the CF-104's inertial guidance system and the new Canadian subsidiary, which is located in the Toronto suburb of Rexdale, will participate actively in this important program. Litton plans to expand its Canadian operations with particular emphasis on advanced electronic products.

The activities of Litton Systems (Canada) Ltd. are being managed by J. M. Bridgman, who is vice president & general manager. Mr. Bridgman is well known in the Canadian elec-



**BELL VTOL FIGHTER-BOMBER:** Above, artist's conception of Bell D188A VTOL fighter-bomber in level flight. Powered by four wing-tip engines and two rear-fuselage engines, the D188A will achieve a max. horizontal speed of Mach 2.3. Aircraft has a subsonic range of 1,000 miles, ceiling of 67,500 feet. Right: Full-scale mockup is seen with wing-tip jet engines tilted to vertical position for VTOL take-off or landing. Sea Level rate of climb is estimated by Bell engineers to be over 61,000 fpm. Design study is being sponsored jointly by USAF and USN.

