THE INDUSTRY

2,000 Orendas

More than 2,000 Orenda turbojets have now been produced by Orenda Engines Ltd. at Malton, Ont., it was announced early in March by the engine firm's vice-president and general manager, Walter R. McLachlan.

Mr. McLachlan noted that the second thousand — which was produced since February 18, 1954, when the completion of the first thousand was celebrated — had been produced with a significant increase in power output. "In this second thousand," he said, "we advanced from the single-stage Series 9 Orenda to the two-stage Series 11 and 14. From an initial 6,300 lbs. thrust we have progressed to over 7,000 lbs. with a corresponding decrease in weight."

Earle K. Brownridge, Orenda vicepresident of manufacturing, says that the second thousand engine gave the first real test to the flexibility of the company's production facilities. As described by Mr. Brownridge, the test came in three major phases: (1) the introduction of the two-stage turbine Orenda while production of the remaining single-stage Series 9 requirement was proceeding; (2) a major modification program involving more than 250 engines; (3) establishment of a Blade Shop to undertake work previously done under sub-contract,

Fire at Malton

A disastrous fire at Malton, March 22, completely destroyed an Avro Aircraft/Orenda Engines hangar and all its contents, this including two CF-100's, an Orenda Sabre, and the Lancaster Flying Testbed. Value of the equipment destroyed has been placed at \$5,000,000, not including the hangar, which was leased from the Department of Transport. The fire occurred during a gale-force wind that made useless attempts to combat the blaze.

Much of the equipment lost, which included a considerable amount of "one only" test instrumentation was vitally connected with the Orenda engine test & development program.

This latest fire is the third in a series during a recent four-month period, all involving wartime wooden hangars. The two earlier fires took place in December at Saint Johns, P.Q., where a hangar of Aircraft Industries

of Canada Ltd. burned and at Calgary, where a hangar used by Field Aviation (Alberta) Ltd. and the Calgary Flying Club, also went up in flames. The replacement value of equipment and property lost in these two fires was estimated at over \$4,000,000.

Flight Refuelling

Plans for the manufacture in Canada of its complete range of aircraft pressure refuelling components, have been announced by Flight Refuelling Ltd., Blandford, Dorset, England.

Details of Flight Refuelling's expansion into Canada have yet to be finalized, but is probable that manufacturing facilities will be established in Toronto, where the company's new resident engineer, Dennis Cunliffe (see "Names in the News"), is now located.

The decision to establish a manufacturing plant in Canada was taken by Sir Alan Cobham, Flight Refuelling's chairman & managing director, for two reasons: first, it will enable FR's design staff to undertake on-the-spot tailoring of existing components to meet the Canadian Aircraft Industry; second, to

provide across-the-counter delivery facilities with the object of minimizing delays in production usually associated with supplies from overseas sources.

FR notes that for some time past it has been supplying directly from the U.K. certain of its fuel system components for Canadian-built aircraft, and with the construction in Canada of the Britannia and other aircraft of British design in which FR equipment is standard, the demand is expected to increase.

Flight Refuelling's Canadian operation will function through a subsidiary, Flight Refuelling (Canada) Ltd., which was established in 1948 to further the company's interests in Canada. It was subesquently decided not to pursue this objective at that time, and although factory space was acquired in Montreal, they were never utilized, being finally sold in 1952.

Profit in Spares

During 1954, over \$27,000,000 worth of spare parts for aircraft were shipped by Canadair Ltd. to more than 75 customers—air lines and military—in 50 countries, while during the same period, orders for almost \$16,000,000 worth of new spares business were placed with the company.

According to Lou Adamson, Canadair spare parts sales manager, each



BRITANNIA FAMILIARIZATION: A team of Canadair personnel and RCAF officers recently visited the Bristol Aeroplane Co.'s facility at Filton, England, to gain first-hand flying experience in the Britannia. Shown with J. A. Pegg, Bristol's chief test pilot (left), are, left to right: W. S. Longhurst, G. T. Mclean, and Gordon Rosenthal, all of Canadair Ltd., and S/L O. B. Philp, W/C D. E. Galloway, W/C A. Mackie, and F/L J. D. Garland, all of the RCAF.

AIRCRAFT

of the six continents was on the company's shipping list during the year for shipments of such items as C-47/DC-3 parts, C-54/DC-4M parts, for airline customers, and F-86 Sabre and T-33 Silver Star parts for military clients.

Fighter aircraft spares went to England, France, Germany, Turkey and Greece, as well as Canada, while other parts, mostly for DC-3's and DC-4M's, went to all corners of the world.

In the East, the customers included Indian Airlines, Malayan Airways, and stantial contribution to the Canadian aircraft production program during the past few years as a sub-contractor to Canadair Ltd. In this capacity, the Etobicoke firm has delivered more than 2,000 crew ejection seats for installation in Canadair T-33's and F-86's.

AEL in Calgary

Aviation Electric Ltd. of Montreal has announced the opening of a Calgary branch office under the management of Stuart Ward, formerly of Pacific Western Airlines. Complete stocks It will be recalled that some months ago, Defence Production Minister C. D. Howe disclosed during an interview in the U.K. that the Government had abandoned the project when it was discovered that development would cost several hundred million dollars, and that the anticipated results were not in proportion to this outlay.

DDP Awards

Three large contracts covering the manufacture of airframes, aircraft engines, and propellers, as well as associated spares, were recently awarded to two Canadian firms by the Department of Defence Production. The orders total more than \$10,000,000.

To Canadian Pratt & Whitney Aircraft Co. Ltd. went an order for \$6,000,000, covering the first phase of production of Wright R-1820 engines, which is being made in Canada for use in the CS2F, now in production at The de Havilland Aircraft of Canada Ltd. Also to Canadian P & W went an order worth \$2,305,000, covering production of Hamilton Standard type aircraft propellers for use on the CS2F.

To The de Havilland Aircraft of Canada went a \$1,742,000 contract for the production of Chipmunk aircraft and spares.

Domal Profit

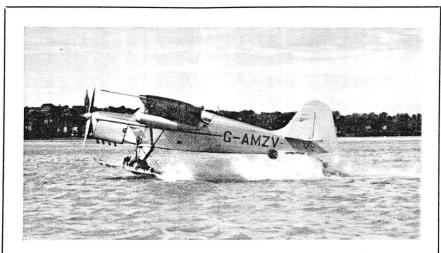
Consolidated net profit of Dominion Magnesium Ltd., and its wholly-owned subsidiaries, was \$1,338,633 during 1954, sharply reduced from 1953's \$2,173,220.

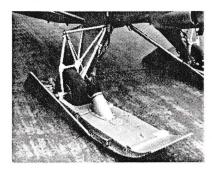
The company's recently-released annual report says that development work on titanium metal production has been continuing. "The direct production of homogenous alloy powders without subsequent mixing or melting was successfully achieved. The alloy product is suitable for powder metallurgy applications and is being developed for billet production."

Commenting on the activities of Domal's subsidiary, Light Alloys Ltd., the report notes that . . . "It would appear that the volume of light metal castings for the aircraft industry will be reduced in 1955 owing to the 'stretch-out' in defence requirements."

New Aviquipo Line

Aviquipo of Canada Ltd. has been appointed exclusive sales representatives and stocking distributors of Masters Metallic Compound, a sealant under pressure and temperature conditions, manufactured in Canada by The





SARO HYDRO-SKI: Shown installed on an Auster J.5.G is the Saunders-Roe version of the hydro-ski. Since this particular development is also a wheelski, it is actually a universal landing gear, capable of landing on any medium. Successful take-offs have been made starting from sand, shingle, and short concrete slipways, the take-off run being completed from the water. Flotation tanks (above) used in early tests as a safety measure, have since been removed.

Pakistan International Airlines; in Africa, South African Airways; in the Mediterranean area, Turkish State Airlines and Cyrus Airways; in Europe, Air France, Swissair and Finnish Airlines; in South America, Aerolineas Argentinas and Brazilian International Airlines.

Thor Seats for CS2F

Thor-Canadian Co. Ltd. of Etobicoke, Ont., a suburb of Toronto, has received a sub-contract from The de Havilland Aircraft of Canada Ltd. covering the production of crew seats for use in the anti-submarine CS2F aircraft which de Havilland is building for the RCN.

Best-known as a major Canadian producer of household appliances, Thor-Canadian has also made a subof aircraft accessories and instruments are being carried. This brings to three the number of branches operated by Aviation Electric, the other two being at Halifax and Vancouver.

\$396,740.09 for a Saucer

Total expenditure by the Canadian Government in connection with Avro Canada's so-called "flying saucer", was \$396,740.09, according to a return recently tabled in Commons. The return also said that in 1954, A. V. Roe Canada Ltd. was given a contract to investigate the possibilities of a vertical take-off aircraft. It added that no authorization was given for construction of a prototype and that Canadian Government support for the project had later been withdrawn.

Church Thompson & Co.

This product consists of 80% lead in powdered form held in solution by colloidal suspension. It is said to surpass the requirements of all existing military specifications. However, due to its unique composition, acceptance for military use is in process and Aviquipo hopes that a new specification will be issued shortly. Masters Metallic Compound was developed in Canada and is said to be meeting with marked success in the U.S. market.

More Lay-offs at Malton

New and additional cutbacks in CF-100 production rates at the Malton, Ont., plant of Avro Aircraft Ltd., have resulted in plans to reduce this company's work force by about 1,000. The announcement of the proposed lay-off, which is additional to the 1,000-man reduction in January, was made in March, though the actual release of employees will be spread out over a three-month period, beginning in May.

A direct result of the CF-100 stretchout at Avro Aircraft, is that its associate company, Orenda Engines Ltd., Malton, has also been forced to slash its staff by approximately 1,000, because of the reduction in demand for Orenda turbojets, which, of course, power the CF-100. The Orenda layoffs are expected to take place during the next few months.

Stainless O-Rings

Winnett Boyd Ltd. of Toronto is introducing to the Canadian market hollow, stainless steel O-rings. Known as "Toruseal", these seals are the product of D.S.D. Manufacturing Co. of Hamden, Conn., and are handled in Canada by Winnett Boyd Ltd.

The seals are made from stainless steel tubing by a special welding process which, after cleaning and polishing, shows no sign of the welded joint. Toruseals, which are said to have wide application in the aviation, chemical, hydraulic, and allied fields for high temperature applications, have been successfully tested in applications up to 600 psi and 700°F, without leakage. They are available in standard sizes from 1/4 in. up.

Contracts Awarded

Contractors awarded business in excess of \$10,000 by the Department of Defence Production during the period February 1-28 include the following. The list does not include orders placed by the Department outside



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