

The Arrow

The supersonic CF-105 interceptor, which will fly three times as fast as the CF-100 now in RCAF squadron service, has officially been named as the "Arrow". Chief of the Air Staff Roy Slemon last month, in a speech to the Air Cadet League of Canada, announced the naming of the 34-ton delta-wing fighter. It was the first time that any official figures concerning the aircraft has been divulged. Slemon also disclosed that the Arrow will have an altitude capability of about 12 miles and will be able to reach that height in three or four minutes.

Research and development costs for the first prototype Arrow are now estimated at \$200,000,000. This is not a final estimate, and according to reports, actual costs may be even higher. Officials say that the full price for the first Arrow will be at least double Defence Production Minister C. D. Howe's original estimate of \$100,000,000. The subsonic CF-100 all-weather fighter cost Canada \$122,000,000 to develop.

Aircraft industry informants describe as "optimistic" reports attributed to defence department officials that the CF-105 Arrow will make its first flight before the end of this year. They say a more likely date is in the first half of 1958.

1,000 MPH Jetliner

Britain has announced plans for a supersonic jet airliner in the continuing battle with the United States for commercial air supremacy. The Ministry

of Supply has embarked on a research project for developing the airplane in conjunction with Britain's aircraft industry and airline corporations. Firms working with the government on this plan are Avro, Bristol, de Havilland, Handley Page, Rolls-Royce and others. The schedule calls for the production of the aircraft by the early 1960's.

Discussions on the basic problems of a supersonic airliner have been proceeding for some months. Fundamental points still to be settled are:

1. Speed to be aimed at: Beyond the speed barrier — 660 mph, and altitudes of plus 30,000 feet — emerges the problem of the so-called "Thermal Barrier".

2. Shape: Some favor delta wing for supersonic flight, others, a thin swept wing. It is not impossible that a new and entirely revolutionary configuration at present unused in flying, may be chosen.

3. Operating cost: A 1,000 mph London-New York non-stop aircraft would be impracticable unless it could be operated by a commercial airlines at a profit.

Canberra Sale

An order for the supply of Canberra aircraft and spares worth \$10 million has been signed between the English Electric Co., and the Venezuelan government. This follows an order placed with English Electric two weeks earlier by the Indian Air Force for 68 Canberras and spares worth more than 20 million pounds sterling. This is the second order for Canberras placed by

Venezuela, the first being for a number of Mark II bombers in 1953.

The new order is for Mark VIII bombers and Mark IV dual control trainers. The aircraft are powered by Rolls-Royce Avon engines and equipped with Marconi radio compasses. Delivery will begin this year with all the aircraft being flown to Venezuela. Meanwhile, ground crew of the Venezuelan Air Force will be trained at English Electric's technical school at Samlesbury, Lancs.

Canadair Scholarships

Scholarships for sons or stepsons of employees of Canadair Ltd., three to be chosen each year for college courses of up to five years duration in engineering or allied sciences, will go into effect this year.

Geoffrey Notman, Canadair president and general manager, announced recently that the company will make grants of up to \$1,500 a year for a maximum of five years, for each boy selected. An amount not exceeding \$750 paid directly to the college or university to cover tuition and laboratory fees, \$250 to the student to help with living expenses, and an additional \$500 a year to the school if it is a privately endowed institution.

In announcing the scholarship plan Mr. Notman explained that the parent of an applicant must have been with Canadair for a minimum of three years when the application is made, but that once selected, the son would not be affected by the departure of the parent from the company. Neither will there be an obligation on the part of the son to join Canadair when his studies are completed.

To be eligible for consideration, an applicant must be a senior in high school or have graduated not more than two years before. He must be enrolled in, or have completed, a regular college preparatory course planned to meet the special requirements for admission to accredited schools of engineering or allied sciences. In addition, he must be in the upper half of his class scholastically.

HF Contract for Collins

Collins Radio Co. of Canada Ltd., has received a \$2,800,000 contract from the Department of Defence Production for an advanced design of airborne HF equipment.

The AN/ARC-38 has been ordered



JET MUFFLERS: These strange new shapes will begin to appear along Avro Aircraft Limited's flight line starting in May. They will be the first of six twin units for muffling the engines of the CF-100 during engine run-ups. Each unit is composed of a steel baffle tank about 26 feet long and 12 feet in diameter, with an exhaust pointing upwards. On the front are tubes to take the special mobile adapters which connect to the CF-100 tail pipes by rubber seals.

for new and existing long and medium range aircraft. It is the military equivalent of the Collins 618S HF Transceiver which has been in world wide airline use for several years. The AN/ARC-38, by use of a stabilized master oscillator, has a channel capacity of 35,000 channels as compared to the crystal controlled 618S which has 144 channels.

The equipment provides AM or CW communication in the range of 2 to 25 mc at a power level of 100 watts. Frequency control is obtained by means of a crystal stabilized master oscillator, and 20 frequencies may be preset. Frequencies as close as 500 cps may be selected in the range between 2 and 14 mc, or as close as 1000 cps in 14 to 25 mc. When used in conjunction with an automatic antenna tuning unit such as the Collins 180L-3, tuning and loading is completely automatic after a channel has been selected. The channel change time is less than 5 seconds.

A.V. Roe to Exhibit

Crawford Gordon Jr., president and general manager of A. V. Roe Canada Ltd., announced recently that four of

the A. V. Roe Canada group — Avro Aircraft Ltd., Orenda Engines Ltd., Canadian Car & Foundry Co. Ltd., and Canadian Steel Foundries Ltd. — have taken display space at the first Montreal International Trade Fair to be held May 20-27. These companies are already active in export sales, particularly CanCar which sells to 50 countries, and Orenda Engines. However, it is felt that there is still a great potential to be developed.

Marconi Loss

Despite the fact that all line divisions showed a profit on their normal operations, Canadian Marconi Company's annual report for 1956 records a loss, after tax recovery, of \$176,991 for the year. This compares with the 1955 profit, after taxes, of \$1,007,065.

This situation was attributable to the fact that the company incurred a substantial outlay in bringing its new Electronic Tube Plant into operation and also a heavy expenditure in Marconi's proportion of expense in a new modern plant of Radio Valve Co. Ltd., for the production of smaller type tubes.

The company also encountered very

competitive conditions in the fields of television receivers, tubes and certain other products. While selling prices for such products generally held to 1955 levels, costs of material, salaries and wages rose by several hundred thousand dollars. If these conditions had not prevailed, Canadian Marconi would have shown a profit for the year. Nevertheless, a dividend of 6% was declared to the shareholders of record Jan. 31, 1957, and paid on March 1. Profit from normal operations, before depreciation, was \$1,567,007 as compared to \$2,559,069 in 1955.

Westair Radio

Al Michaud, manager of West Coast Air Services Ltd., is now also president of the newly-formed Westair Radio Ltd., (incorporated in February, 1957). Westair will specialize in sales and service of aircraft radio and electronic equipment in Vancouver. The equipment they handle includes products of Lear Inc., Sunair, Transval, Brelonix and Narco.

Vice-president of Westair is Jack McMahon, who is president of Vancouver Aircraft Sales Ltd. Secretary-



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