

Arrow Progress

First flight of the Avro CF-105 Arrow will probably take place either late in January or early in February, it was indicated Jan. 4th by J. L. Plant, Avro's newly appointed executive vice president & general manager.

Mr. Plant said that the aircraft's low speed taxi trials (up to 100 knots) had been carried out between Christmas and the New Year, and that a complete inspection which was now in progress would occupy the next two to three weeks. Following this inspection the Arrow would be brought out of the hangar for its high speed taxi trials (up to 160 knots, just below flying speed). When these had been satisfactorily carried out, then the first flight would take place.

The first flight will be made at a weight of about 35,000 lbs.

Meanwhile, a second Arrow fig. 1 has been completed. This one, however, will never fly; it is to be used for full-scale structural testing.

Other recent news about the Arrow includes a report that Avro has sent out orders to subcontractors to proceed with the production of enough components to build 40 complete aircraft (including the initial batch of Arrow 1's and production Arrow 2's). Company officials have declined to comment on this report.

J. C. Floyd, Avro's vice president, engineering, addressing the third annual dinner of Avro's Ten-Year Club during December, stated that recent missile and satellite developments did not make the Arrow obsolete, as many people claimed.

Said Mr. Floyd: "... During the next four or five years, the biggest threat against this Continent ... will be the manned bomber ... The most potent weapon against this at the present time is the Arrow. It will be the most effective on this Continent, and this is recognized by the U.S. Even when the ICBM comes along, I still think that the Arrow will be one of the most potent weapons against it.

"If you think about it for a minute, the normal launching platforms for anti-missile missiles are stationary. The Russians can find out where they are and destroy them. On the other hand, an airborne missile mothership,

if you like (which could be the Arrow), can be rapidly moved from one place to another carrying an anti-ICBM missile on it.

"We have done a quick specific calculation on an ICBM coming in at say Mach 10 at 200 miles above the earth's surface. An anti-ICBM missile of [only about] one-third the thrust is needed if it is fired from an aircraft moving at Mach 1.5 at 60,000 feet, than would be needed to carry the same size warhead to this given point in approximately the same time if it was launched from the ground. There is, then, a distinct advantage in launching an anti-ICBM missile from a CF-105."

CAE Transport Trainers

Canadian Aviation Electronics Ltd. has been awarded a \$2 million development and production contract for twelve transport aircraft type procedure trainers for the RCAF. The trainers are designed to familiarize pilots with general characteristics of transport aircraft, and to enable them to practice procedure-flying common to the transport role.

A CAE spokesman stressed the fact that the new procedure trainers are not simulators. On December 20, CAE delivered the first of the DC-6B simulators to Canadian Pacific Airlines.

Licensing Agreement

Signing of contracts implementing the licensing of a Japanese firm to

manufacture certain airborne computing units was announced recently by Servomechanisms (Canada) Ltd., Toronto, foreign sales arm of Servomechanisms Inc., producers of electronic and electromechanical guidance and control devices for aircraft and guided missiles.

The initial contracts, which are in excess of \$75,000, with the Mitsubishi Electric Company of Tokyo, call for the provision of sample units and kits of parts to facilitate the beginning of production, and technical services to assist the Japanese company.

Since the parent corporation is completely geared to the requirements of the U.S. Department of Defense and its major contractors, Servomechanisms' Canadian organization has been made the sole channel for all foreign activities since the beginning of the year. Organized to offer prompt and effective services to overseas buyers, as well as to the Canadian market, the Toronto concern expects a substantial increase in foreign sales in 1958.

Avro in Belgium

Avro Aircraft Limited has set up a separate company called Avro Aircraft Services Limited in Brussels to assist the Belgian Air Force in maintaining its new CF-100's at peak efficiency. The new company will provide a direct link between the Belgian Air Force and the Avro plant and will act as a clearing house for the two-way flow of technical information.

Head of the new subsidiary is Jim Kenny, formerly experimental manager at the Malton plant. His new



NORTH AMERICAN F-107: Capable of Mach 2 performance, the F-107 has been delivered to the U.S. National Advisory Committee for Aeronautics, for use in supersonic testing and compilation of research data at Edwards Air Force Base, Calif. The overhead duct is designed to give maximum efficiency to the J-75 jet engine which is rated in the 20,000 pounds thrust bracket.

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title is vice president & general manager of Avro Aircraft Services Ltd., with offices located at 60 Rue Ravenstein, Brussels.

The Canadian Government is providing an initial supply of replacement spares for the CF-100 interceptors now entering service with the Belgian Air Force. These spares will ensure the continued use of the aircraft while arrangements for subsequent supplies are being completed.

AEL Expands

Aviation Electric Ltd. of Montreal has announced the completion of an addition of 35,000 sq. ft. to its Montreal plant. The new area houses an air - conditioned manufacturing machine shop and special test facilities for jet fuel controls, fuel flowmeters, and hydraulic and other equipment associated with highly inflammable liquids.

The new section, which has been added to the existing plant in the form of a wing, has been equipped with air filtering, humidity and temperature control. Temperature will be maintained at a standard 72° F., which will permit the manufacturing of precision instruments, accessories and components for the aircraft and other industries requiring extremely close tolerances.

Viscount 810 Flies

Britain's new medium range turbo-prop airliner, the 365-400 mph Vickers Viscount 810, has made its maiden flight. The first batch of these new aircraft will go to the U.S. where, early this spring, they are to enter service with Continental Airlines, which plans to use them to operate the fastest airline schedules available on U.S. domestic services. Other 810's will be delivered to Cuba, Germany, Pakistan, South Africa and Brazil. Over 45 are already on order.

Airborne Radar Beacon

An airborne radar beacon 2½ inches in diameter and weighing only 6 pounds has been developed by the Stavid Engineering Corp. Planned to be used in the North American X-15, the beacon receives single-pulse transmissions from the tactical radar sets and develops a code pulse reply for transmission back to the radar. The coded reply will be used by the radar operator to track the aircraft and/or to identify each aircraft where several are involved in an operation.

Pyrene Growing

An agreement has recently been completed whereby The Pyrene Co. Ltd., of England, has acquired additional trade marks, patents, sales and manufacturing rights previously owned by the Pyrene organization in the U.S. This British company is the parent organization of Pyrene Mfg. Co. of Canada Ltd., and its affiliate C-O-Two Fire Equipment of Canada Ltd.

The Pyrene Co. Ltd., of England, purchased control of the British operations from the Pyrene organization in the U.S. in 1953, and since that time has followed a planned growth program. This expansion program has resulted in the Pyrene Co. and its subsidiaries now becoming the largest manufacturing firm of fire fighting equipment in the world. The completing of these latest agreements opens the way for Pyrene to develop a world market for their products outside of the U.S.

Change of Name

Hunting Aircraft Limited announce that the name of the company has been changed from that of Hunting Percival Aircraft Ltd., thus completing the process of identification with the Hunting Group of which it has been a member since 1944.

Servonics Rep.

Philips Industries Ltd. has been appointed exclusive Canadian representatives for Servonics Inc. As such, they will introduce to the Canadian market the Servonics' line of quality components. The Servonic products which are now available include "Dipot" Potentiometer voltage dividers, Radar Target Generators, and a complete line of Servo equipment.

New Sperry Compass

Trans-oceanic and over-the-pole flights of the Douglas DC-8 jetliners will be navigated with unprecedented accuracy, according to Sperry Gyroscope Co. A specially-developed compass system affording precision never before achieved in commercial aviation has been specified by all domestic and foreign flag carriers which have ordered the jetliners for ocean-spanning routes, Sperry says.

The Sperry C-11 Compass System affords gyro random drift rates as low as one-half degree per hour, while gyro systems in general use today drift from three to eight degrees hourly.