

# Facts About The Arrow

The Avro Arrow is a twin engine (powered by Iroquois engines), long range, day and night supersonic interceptor. It has a crew of two. It is a big, versatile aircraft and the loaded weight of the Arrow is in the order of 30 tons.

The primary armament of the aircraft is to be air-to-air guided missiles, installed in a detachable armament bay in the fuselage. The versatility provided by this armament bay will enable the aircraft to perform other roles, such as the carrying of a nuclear weapon, revealed Avro Aircraft Limited President and General Manager Fred T. Smye at a press conference last Thursday.

The aircraft will be equipped with one of the most advanced integrated electronics systems, which will combine the navigation and operation of the aircraft with its fire control system. The Arrow is designed to operate from existing runways.

It is expected that the Arrow will fly before the end of the year, said Mr. Smye. It will use Pratt and Whitney J75 engines for test flights until all the "bugs" have been ironed out, then Orenda's Iroquois is slated to take over.

Designed to meet the RCAF requirements for the defence of Canada, the Arrow is not a hand-made prototype. It has been produced from very complete production tooling. This policy has been followed so that when the aircraft's development has been completed, Avro will be able to move into the production phase without undue delay.

The aircraft required control mechanisms sufficiently powerful to lift the equivalent of six elephants standing on the elevator. Wiring in the Arrow extends 11 miles and there are enough tubes to take care of 200 TV sets.

Air conditioning system in the Arrow must be capable of handling temperature changes of 100 degrees Fahrenheit a minute. The refrigeration capacity of the system would be equivalent to 50 domestic room air conditioners and could produce as much as 23 tons of ice per day.

There are 13,000 parts in the CF-100. In the CF-105 there are 38,000. Some 17,000 engineering drawings were released for the Arrow 1.

To achieve its supersonic speeds, the Arrow uses about twice as much power as that required to drive the Queen Mary ocean liner and will get this power from its two Iroquois engines. The power is almost sufficient to lift the aircraft vertically off the ground.

Some 650 outside suppliers were established for the present Arrow program. As the program progressed, over 5,000 people were employed in companies outside Avro in the manufacture of Arrow parts and tools.

Mr. Smye has stated that it will be two or three years before the plane will be put in general service with the RCAF, but added that there isn't another plane in the world today — that we know of — in the class of the CF-105.

Over 176,000 square feet of additional floor space was provided for the Arrow program. New machines, including a 15,000 ton rubber pad forming press, a big metal-to-metal bonding autoclave, a special heat treat furnace, a giant skin mill and heavy machining equipment were brought in.

The design was started four years ago. The Arrow was fabricated and assembled in less than two and a half years from the date of the first design release.