



AVRO chief experimental pilot, Jan Zurakowski, about to begin CF-105's taxi trials.

Continental Air Power

Role of the Avro Arrow

Avro Aircraft's CF-105 Arrow would provide a unique component in the North American Air Defense system. This point was emphasized recently by J. L. Plant, newly appointed Executive Vice-President and General Manager at Avro.

Discussing progress since the Arrow's roll-out in October, the former RCAF Air Vice-Marshal pointed out that he had held the post of Air Member for Technical Services during a significant period in the CF-105's engineering development program.

"You can rest assured," Mr. Plant declared, "that we were most careful to co-ordinate requirements for the Canadian air force to fit into over-all defense needs. We made certain that in developing the Arrow, we were not duplicating any equipment being made available in either the United States or the United Kingdom."

The CF-105 weapons system program, he continued, was conceived as a part of the general concept of an integrated air defense system for North America.

It was a "tremendous" project, the biggest single program of its kind ever undertaken in Canada. Carried through to the stage where the aircraft were brought into production for squadron service, Mr. Plant said, the CF-105 program would be comparable from the point of view of man-hours and money invested with the gigantic St. Lawrence Seaway.

The comparison, Mr. Plant explained, was made with reference to the over-all weapons system, of which the airframe (Avro's responsibility) and engine (Orenda Engines Ltd.'s Iroquois development) were but one phase. The project also included the missile (Sparrow 2) armament; the

guidance system for the missile; and the aircraft navigation system and flying controls (Astra 1).

As far as Avro was concerned, Mr. Plant said, the next phase of development was test flying of the airframe. This would be carried out with the Mark 1 version of the aircraft, powered by Pratt & Whitney J-75 engines. At the time of speaking (early January) low speed taxi trials with the first aircraft had been successfully completed. The aircraft was off the flight line for complete checking, including removal of the power plants.

When the aircraft came out of the hangar again (in two or three weeks' time) it would be starting high speed taxi trials, Mr. Plant continued. This involved rolling close to take-off speed.

Take Off Any Time

Once this sequence was under way, any one of the high speed taxi runs could culminate in a take-off, and the program would advance to its next phase — flight testing.

"After each of the high speed runs," Mr. Plant explained, "the aircraft will be completely checked as if it has been in actual flight. Every time it rolls out onto the runway, it will be as ready for flight as we can make it. Whether it takes off or not is up to the pilot."

Discussing the CF-105 project generally, the Avro executive indicated the present development program called for the building of five of the Mark 1 Arrows, all of which would be powered by Pratt & Whitney J-75s.

These would be the test vehicles on which the complete development program readying the aircraft for squadron service would be carried out. It was not contemplated that a fire control system would be made available for the Mark 1 version as such, suiting it for squadron service. It might carry the fire control system for test purposes, but the squadron aircraft would be the Mark 2 CF-105, powered by Orenda Iroquois engines.

It was difficult to make sharp distinctions between the Mark 1 and Mark 2 programs. One was closely related to the other.

It was all part of the same over-all program, but there were differences in the two aircraft because of the different power plants. Programming to bring the Mark 2 into production was already under way.

Mr. Plant said he was not able to comment on reports that an order had been placed for upwards of 30 Arrows to go into service with the RCAF. This was a matter involving contracts between the Department of Defense Production and its suppliers.