

Carry 40 at 430 MPH, Canada First in Field With TCA Turbo-Jet

The world's fastest commercial airliner, the first ever designed to use the power of the turbo-jet, will take to the air in February for its first tests preparatory to joining Trans-Canada Air Lines.

A. V. Roe Canada Ltd. announced last night that the Avro C-102, a sensational departure from conventional aircraft design, will be test-flown by D. H. Rogers, who has been sent to Britain for special training at Woodford, Lancashire.

Seating 40 passengers, the C-102 will have a cruising speed at 35,000 feet of 430 miles an hour, nearly twice the speed of TCA's Montreal-built North Star, and three times the speed of the Douglas DC3's, which are standard feeder-line equipment on all major United States airlines.

Costs of original layout engineering and planning and the two prototypes now under construction were not undertaken by TCA, but were borne by the federal government for the RCAF and by Avro, the company said.

Although work is proceeding in Britain and the United States on jet-passenger designs, the C-102 is the first in such an advanced stage. The British have one experimental machine, the Tudor 8, which is completely jet powered, but this aircraft was originally designed for gasoline engines.

Since design was started two years ago, fewer than 80 designers, engineers and technicians have worked on the C-102. Key man in the project is British-born chief designer E. H. Atkin, who worked on the Manchester and Lancaster bombers and the York and Tudor transports.

Power will be supplied by four 3,500-pound static thrust Rolls-Royce Derwent V turbojets, giving the 52,500-pound airliner an economical cruising speed 100 miles an hour faster than the newest American types.

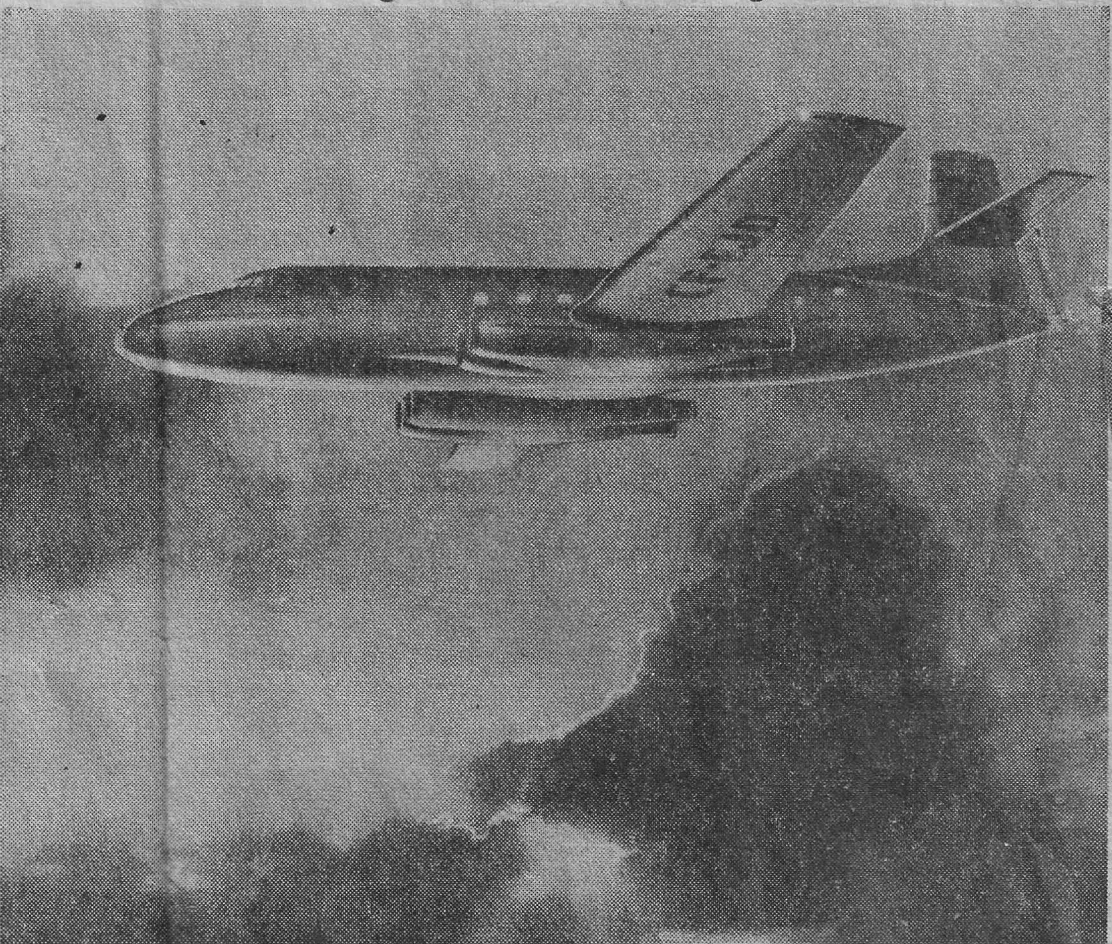
Apart from orders by Trans-Canada, company officials visualize a heavy demand from the United States. Fuel consumption and general operating efficiency of the new craft is such that the C-102 will outclass any commercial model on the market today.

Part of the sales appeal stems from the almost complete lack of noise in the pressurized cabin. The jet nacelles are mounted, two on each wing, in such a way that the noisy tailcone is away from the fuselage by a good margin.

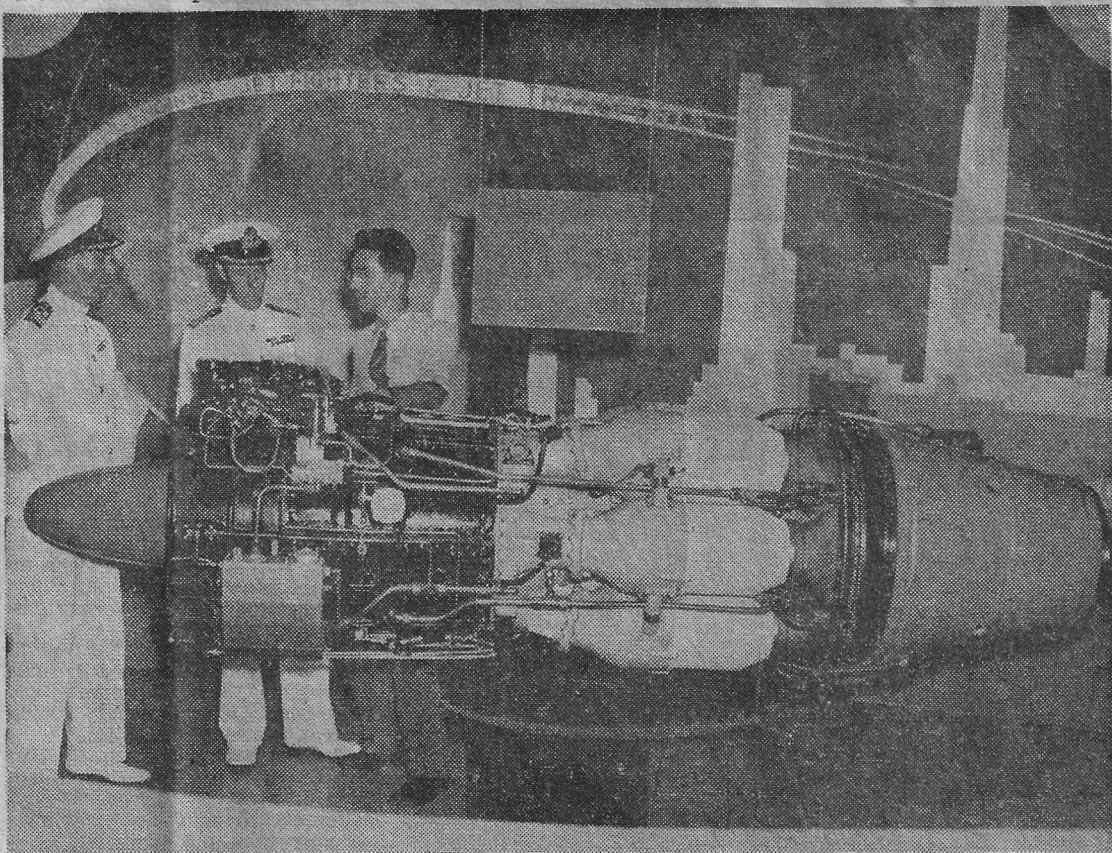
Wing span of the airliner is 98 ft., 1 in. and fuselage length is 82 ft., 5 in. Complete performance figures will not be computed until final tests have been completed but the company estimates that the C-102's takeoff run will be less than 4,000 feet, which compares favorably with contemporary transports.

All design and construction is centred at Avro's million-square-foot Malton plant and many of the components will be manufactured by the company's 2,000 employees.

Fastest Passenger Plane Being Built Here



The 40-passenger Avro C-102, the world's fastest commercial airliner, is depicted in artist's drawing released last night by A. V. Roe Canada Ltd. The C-102, after tests in February, will join the fleet of Trans-Canada Air Lines and may soon appear on the Dominion's export market.



First major development undertaken at Malton by A. V. Roe was the all-Canadian Chinook, being inspected here while on display at the CNE. Cmdr. Nelson Lay and Capt. Sir Robert Sterling-Hamilton, two naval visitors, discuss its intricate construction.