

# Aviation News

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## MacDonald Bros. to Convert CF-100s

- Mk. III CF-100s to become pilot trainers
- First new job under Bristol management

By WILLIAM MacPHERSON

A major aircraft-conversion job is being launched in Winnipeg which will give the RCAF extended facilities for training its men to fly Canada's all-weather, long-range, CF-100 Mark IV jet fighters.

► **MacDonald Bros.**, now under Bristol management, has a subcontract order from Avro Canada to convert 50 CF-100 Mark IIIs to pilot trainer versions with work to start early this year.

The engineering for the job has been prepared by Avro over the past two years with the conversion of 11 Mark IIIs at Malton. It was done in two stages: a custom job involving extensive modifications; engineering for assembly-line type conversion with straight substitution rather than modification of equipment.

► **Conversion.** The basic job is converting the CF-100s rear navigator's seat to a pilot's cockpit, this includes:

- Tearing out major bulkhead between existing pilot's and navigator's seats and splicing in new bulkhead to allow for rear cockpit rudder pedals.

- Removal of all fire-control, navigation equipment and radio compass from rear cockpit. Installation of complete duplicate set of flying and engine controls.

- Tearing out all framework and console structure either side of navigator's seat. Installation of pilot's console.

- Raising rear ejection seat three inches to provide increased visibility necessary for pilot.

- Removal of gun-firing armament at the same time keeping airframe in balance (centre of gravity position).

All the planes to be so modified are early-model types.

While they are dismantled for the trainer conversion, therefore, other modifications will be made to them to bring them closer to the standard of today's CF-100.

► **Subcontractor.** MacDonald Brothers Aircraft Ltd., a 24-year-old Winnipeg firm, is already turning out some of the sheet-metal components of the fighter's Orenda engine as an A. V. Roe sub-contractor.

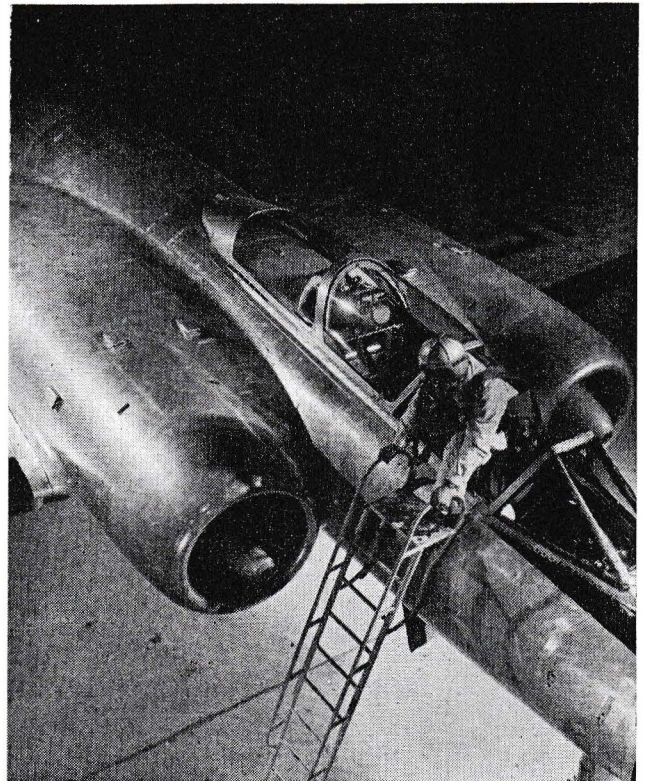
The CF-100s to be converted by MacDonald Brothers will be taken out of service and flown to Winnipeg by the RCAF for the job. Once converted, they will be test-flown by MacDonald Brothers before being flown back to jet training stations.

One of the fighters has already been sent to the Winnipeg plant for the advance familiarization of technicians. When the modification line swings into full operation early in the New Year, about one-third of the plant production space will be given over to the conversion job.

The work will be done in close co-operation with A. V. Roe, which will supply all the modification parts and a small group of technicians to help with co-ordination of the job.

► **Company Story.** MacDonald Brothers Aircraft was established in 1930 as an off-shoot of a local sheet-metal firm which is still in operation. Last July the aircraft plant was taken over by the Bristol Aeroplane Co. Ltd. of England as that firm's fourth and largest Canadian subsidiary.

Since the war the work has been split about 50-50 between building aircraft components such as floats and precision sheet-metal parts for Orenda engines, and the overhaul and modification of such aircraft as Beechcrafts, Mustangs and Mitchells.



Cockpit of Mk. III CF-100, shown here will be rearranged and equipped with dual controls for trainer version.



MacDonald Bros. Winnipeg Plant.