

Montreal which will also supply spare engines for the large number of Harvards now flying in many parts of the world. The Beaver aircraft is being manufactured to meet large United States orders as well as domestic civilian requirements. This is a Canadian-designed plane for general-purpose use in rugged territory. Full-scale production began during 1952 of the T33-A *Shooting Star* jet trainer. A number of these were received from the United States during 1951 to meet immediate needs. Preparations are being made also for the production of the T36-A trainer transport.

The Orenda engine, entirely of Canadian design, was the first jet engine to be built in Canada. The Rolls Royce Nene engine, which will power the T33-A, will eventually be assembled in Canada.

A number of aircraft stored since World War II were reconditioned and equipped to serve new purposes. Some bombers were converted for use by the Maritime squadrons of the R.C.A.F. and other aircraft were converted for training purposes.

New plants have been set up to manufacture engines and other components. One plant is designed for the manufacture of fuel systems for Orenda engines, and others for the production of magnesium castings and of compressor and turbine blades for jet engines. In the instrument field, a plant is being built to meet Canada's requirements of artificial horizons, now being obtained from the United Kingdom. Arrangements have been made with a Swedish firm to set up a subsidiary plant in this country for the production of engine and instrument bearings. Two United States firms are also establishing plants in Canada for the manufacture of aircraft instruments.

Electronic devices are very important in defence, their main uses being in the field of communication by radio, in the interception of aircraft and ships by radar, in fire control and in the exploding of missiles near their target. Many of Canada's requirements are at present being met from the United States but the Canadian electronics industry is switching from civil to military production. Several plants have been established to produce items new to Canada's economy, including sub-miniature tubes and components, and crystals.

A large quantity of radar and communications equipment for the northern screen of the air defence of this continent is being produced in Canada, together with a large number of anti-aircraft radars and other types of radar for use by the Armed Services. One type of early-warning radar used by anti-aircraft artillery, the No. 4 Mk. VI, will be used extensively in Western Europe as well as in the air defence of Canada. Orders have also been received from the United States for this equipment. Proximity fuses are being produced in Canada for the first time.

A new type of pack radio for use by the infantry was developed in Canada during 1951. It has a range of one mile and is believed to be the best of its type in existence. This equipment will be used extensively by the Canadian Army and by other North Atlantic Treaty countries.

Canadian shipyards are working on orders for 14 escort vessels, 14 minesweepers, 5 gate vessels and an ice breaker, as well as a number of harbour craft. In addition to the new ships, a "Mothball Fleet" of 21 minesweepers and frigates is being converted and refitted. The escort vessels, designed in Canada, except for the propulsion machinery, are the most modern of their kind, equipped with all the latest devices and weapons; the first was launched in November 1951. The minesweepers are being built of aluminum, with the hulls sheathed in wood to reduce their magnetism and the shipyards have developed techniques of handling aluminum