

radar, flight simulators, radio navigational aids, radio compasses, radio communication sets, training aids, anti-submarine detection equipment, etc. An increasing amount of the components of electronic end items are also being produced in Canada. An important feature of the electronics program has been the creation of the continental radar defence system in collaboration with the United States. Most of the radar and communication equipment for this project has been manufactured in Canada.

In the shipbuilding program, deliveries continued to be made during the past year of the distinctly Canadian-designed non-magnetic coastal minesweepers and converted World War II frigates. The coastal minesweepers are designed to cope with the latest known developments in enemy mines. The original non-magnetic coastal minesweeper (AMC) program, consisting of 14 new ships, was completed during 1954. Six of these minesweepers were assigned to NATO countries. The converted frigates are completely new except for propulsion and auxiliary machinery and the bare hull up to deck level. These ships are fitted with modern anti-submarine armament. Work has also been progressing on the construction of anti-submarine destroyer escorts. The Arctic patrol vessel, the *Labrador*, which is the first specifically designed Canadian ship for Arctic duty, was accepted by the Navy in 1954 and successfully completed its first mission through the Arctic. Many types of auxiliary craft, such as 150-foot seagoing tugs, looplayers, steel crane lighters, inner patrol vessels, 75-foot harbour craft, RCMP vessels, clearance diving vessels, and ammunition lighters are being constructed as part of the shipbuilding program. In addition, many small miscellaneous craft, such as whalers, 27-foot seaboats, steel crashboats, dinghies, etc., are being produced. The aircraft carrier, *Bonaventure*, which is to replace the *Magnificent* on loan from the Royal Navy, is being built in the United Kingdom. Delivery of this light fleet-carrier is expected in 1956.

Weapons and Ammunition.—Progress in the production of weapons has been highlighted by the completion of deliveries during 1954 on four major projects. The 0.5-inch Browning machine-gun for the RCAF, the 120-mm. gun for the United States Army, and the 3-inch 50-calibre twin mounts for the Canadian and United States Navies were made in Canada but the 155-mm. gun was purchased in the United States because of the limited numbers involved.

Scheduled deliveries were met in the case of five other weapons, viz., a small arms item for the United States Army, an anti-submarine mortar for the Royal Canadian Navy, two calibres of mortars for the Canadian Army, and a trial order of light automatic rifles from Belgium. Early in 1954, an agreement was reached among the principal Western nations to adopt a standard cartridge for small arms. This new ammunition is of slightly smaller calibre than that being used by the Canadian and United Kingdom Forces, and a set of manufacturing drawings for a new rifle is being produced.

Production on a wide variety of complete rounds of artillery, mortar, small-arms, pyrotechnic and underwater ammunition has been an important part of the ammunition program. Production in volume of some items was reached for the first time during the past year. Complete round production in 1954 has included nine basic types of small calibre cartridges, nine general types of artillery and mortar ammunition, three types of rockets, and various types of underwater and pyrotechnic stores. Production has also commenced of small air-to-air rockets. As the program for more versatile explosives manufacture develops in Canada, the need