

of the total net value of contracts placed in 1959, as compared with 41.1 p.c. in the previous year. Contracts having a net value of \$82,300,000 were placed under the electronics and communication equipment program in 1959, an increase of 12.1 p.c. over 1958. Initial commitments for new destroyer escorts accounted for a large portion of the \$25,989,000 in contracts placed for the ships program. Defence construction contracts, totalling \$67,141,000, were at about the same level as in the preceding year.

The value of expenditures on defence procurement and construction amounted to \$673,441,000 in 1959, 11.1 p.c. less than in 1958. Most of the major equipment programs registered declines. Expenditures on the ammunition and explosives program, however, increased by one-third; spending on electronics and communication equipment was almost unchanged. The largest expenditure decrease, some \$95,129,000, occurred in the aircraft program.

Of the total net value of contracts issued during 1959, 92.0 p.c. was placed in Canada as compared with 97.3 p.c. in 1958 and 91.0 p.c. in 1957. The increase in contracts placed abroad in 1959 was accounted for by new commitments in the United States involving royalty and reconfiguration agreements for Canadian production of the *CF-104 Starfighter* and the purchase of a small quantity of *Albatross* rescue aircraft. The proportion of expenditures paid directly to defence contractors in Canada in 1959 was 93.3 p.c. of total payments on defence procurement and construction, about the same as in 1958.

Aircraft.—The termination of production of the *CF-105 Arrow* aircraft and its *Iroquois* jet engine on Feb. 20, 1959, was the first major change in the aircraft program during 1959. Another major change resulted from the Government's decision to replace the *F-86 Sabre* aircraft in use by the Air Division in Europe with the *CF-104* strike reconnaissance version of the United States *F-104 Starfighter*. By the end of 1959, contracts had been placed with Canadian firms for preliminary activities in connection with production of the airframe and its *J-79-7* turbo jet engine, and licence and reconfiguration agreements had been completed with the United States manufacturers of the *F-104 Starfighter*. Discussions took place with officials of the Government of the Federal Republic of Germany on sharing the reconfiguration costs.

Delivery of the *CP-107 Argus* maritime reconnaissance aircraft and of the carrier-based anti-submarine *CS2F Tracker* aircraft continued on schedule during 1959. The *CC-106*, which is a long-range heavy transport version of the *Argus*, made a successful maiden flight towards the end of the year. Orders for a civilian version of this transport, with a hinged tail to permit straight-in loading, were received by the manufacturer from two United States airlines. Production on the *CC-109* medium-range transport was well under way. The *T-33* jet trainer program was completed during the first half of the year.

Three new programs for the Royal Canadian Air Force were undertaken in 1959. These included *Otter* general-purpose aircraft, *Albatross* search and rescue aircraft, and *H44A* helicopters for medium transport and search and rescue operations. The *Albatross* aircraft were ordered from the United States as the number required was too small for economical production in Canada, but their *R-1820-62* engines are being built in this country.

The production of *Beaver* and *Otter* general-purpose aircraft for the United States was virtually completed in 1959. Some *DHC-4 Caribou* troop transport and cargo aircraft were delivered to the United States Army for evaluation, and one was being produced for the Canadian Army. Production of *Hamilton Standard* propellers for the *CS2F Tracker* continued during the year and an additional quantity was ordered for the *Albatross*.

In the field of flight and navigation instruments, a position and homing indicator was selected by the Royal Canadian Air Force for use in the *CF-104* aircraft. This Canadian-designed instrument was also chosen by the German Air Force for its similar version of the *Starfighter*. Production continued on the navigation and tactical control (ANTAC)