

The authorized ceiling of cadet enrolment is 28,000 and the strength at Mar. 31, 1963 was approximately 26,900 attached to 347 squadrons across Canada. Cadet training is carried out in more than 290 communities from Newfoundland to British Columbia.

During the summer of 1962, camps were held at RCAF Stations at Greenwood, N.S., St. Jean, Que., Trenton, Ont., and Sea Island, B.C., attended by over 7,000 cadets together with officers and instructors. A seven-week course for senior leaders was held for 240 cadets at RCAF Station, Camp Borden, Ont. Under the International Exchange Visits Program for 1962, sponsored jointly by the RCAF and the Air Cadet League, 58 cadets were exchanged with Britain, the United States, Denmark, the Netherlands, Norway, Sweden, Belgium, France, West Germany, Italy and Israel.

About 250 senior air cadets receive flying training annually at flying clubs through scholarships provided by the RCAF and additional scholarships are awarded by the Air Cadet League and other organizations, which in 1962 numbered 109.

Subsection 4.—The Defence Research Board

The Defence Research Board, established on Apr. 1, 1947, provides scientific assistance and advice to the Canadian Forces. It consists of a full-time chairman and vice-chairman, five ex officio members and nine other appointed members. The ex officio members are the Chiefs of Staff of the three Armed Services, the Deputy Minister of National Defence and the President of the National Research Council. The other members, appointed by the Governor in Council for three-year terms, are selected from universities and industry because of their scientific and technical backgrounds.

The organization consists of headquarters staff, an operational research group and nine research laboratories, and liaison offices at London, England, and Washington, U.S.A. Advisory committees composed of leading Canadian scientists provide invaluable assistance to the Board by their consideration of a variety of problems.

The Defence Research Board is a fully integrated and permanent part of the defences of the country. The Chairman has the status of a Chief of Staff and is a member of the Chiefs of Staff Committee and of the Defence Council. The Board's fundamental purpose is to correlate the special scientific requirements of the Armed Forces with the general research activities of the scientific community at large. Its efforts are concentrated upon defence problems of particular importance to Canada or for which Canada has unique resources or facilities. Existing research facilities such as the National Research Council are used whenever possible to meet the needs of the Armed Forces. The Board has built up new facilities only in those fields that have little or no civilian interest. Close collaboration is maintained with Canada's larger partners; specialization is made possible only through the willingness of Britain and the United States to exchange the results of their broader programs for the less numerous but nevertheless valuable benefits of Canadian research.

The Board operates nine specialized research and development laboratories which are concerned primarily with maritime warfare, guns, rockets and missiles as armaments, defence against missiles, research on the upper atmosphere using ground-based equipment as well as balloons, rockets and satellites, propulsion and propellants, telecommunications, geophysical studies of the Arctic, defence against atomic, chemical and biological weapons, studies of shock and blast, biosciences research and operational research. The Board also supports and organizes an extramural program of research in the universities and industry. Some 200 grants are awarded annually to Canadian university staff members for research on problems of defence interest and a special fund is used to place contracts with industry for research in selected fields.

Research on maritime warfare problems, particularly those relating to submarine detection and tracking, is carried out at the Naval Research Establishment, Dartmouth, N.S., and at the Pacific Naval Laboratory, Esquimalt, B.C. Research and development of weapons and defence against various weapons is undertaken in co-operation with the