

**Royal Canadian Air Cadets.**—The Royal Canadian Air Cadets are closely associated with the RCAF. Under the sponsorship of the Air Cadet League of Canada, the air cadet movement continued to expand. As of Sept. 1, 1955 air cadet strength stood at over 19,000 in 274 squadrons. During the summer of 1955 camps for air cadets were held at RCAF Stations at Greenwood, N.S., Clinton, Ont., and Abbotsford, B.C. More than 4,000 cadets, cadet officers and instructors attended camp. A precision drill team of 40 cadets selected from the Senior Leaders course to represent Canada in the International Drill competition held at the Canadian National Exhibition at Toronto in 1955 won the competition and the Beau International Challenge Trophy for Canada for the fifth time.

The international exchange visits program, sponsored jointly by the RCAF and the Air Cadet League, was again very successful in 1954 and 1955. Cadets were exchanged with the United Kingdom, the United States, Denmark, the Netherlands, Norway and Sweden.

Two hundred and fifty senior air cadets receive flying training annually through scholarships awarded by the RCAF. Since the inception of flying scholarships in 1946 more than 2,000 cadets have learned to fly by this means. Under the Reserve Tradesmen Training Plan air cadets receive trades training in a nine-week summer course in addition to preparatory training at their respective squadrons during the school year.

#### **Subsection 4.—The Defence Research Board**

The Defence Research Board was established on Apr. 1, 1947 by an amendment to the National Defence Act.

The Board consists of a full time chairman and vice-chairman, six ex-officio members and seven other appointed members. The ex-officio members are the Chiefs of Staff of the three Armed Services, the Deputy Minister of National Defence, the President of the National Research Council and a representative of the Department of Defence Production. The remaining 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, twelve field research stations and liaison officers at London, England, and Washington, U.S.A., and is known collectively as the Defence Scientific Service. Advisory committees composed of leading Canadian scientists provide invaluable assistance to the Defence Scientific Service by their consideration of a variety of problems.

In planning this organization the Government considered the vital need for continuity in research and planned the Defence Research Board as a fully integrated and permanent part of the defences of the country. To assist co-ordination at the highest level the Chairman of the Board has the status of a Chief of Staff, and is a member of the Chiefs of Staff Committee and of the Defence Council. Thus the Defence Research Board has been described as a fourth service. Its fundamental purpose is to correlate the special scientific requirements of the Armed Forces with the general research activities of the scientific community at large.

The Board's policy is to select and concentrate its efforts 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 wherever possible to meet the needs of the Armed Forces. The Board has built up new facilities only in those fields which have little or no civilian interest.

From the policy of specialization it follows that close collaboration must be maintained with Canada's larger partners. Specialization is made possible only through the willingness of the United Kingdom and the United States to exchange the results of their broader programs for the less numerous but nonetheless valuable benefits of Canadian research.

During 1955 the Defence Research Board conducted research activities in naval, armament, telecommunications, arctic, medical, operational, materials, aeronautical and special weapons problems. Research on naval problems is carried out at the Naval Research Establishment, Dartmouth, N.S., and at the Pacific Naval Laboratory, Esquimalt, B.C. Both stations are engaged in the study of anti-submarine devices, since anti-submarine warfare will be the prime task of the RCN in time of war. Research and