

Research on maritime warfare problems is carried out at the Naval Research Establishment, Dartmouth, N.S., and at the Pacific Naval Laboratory, Esquimalt, B.C. The principal emphasis at each station is on problems related to submarine detection and tracking.

Research and development of weapons and defence against various weapons is undertaken by the Defence Research Board in co-operation with the Armed Services at several establishments. The largest of these is the Canadian Armament Research and Development Establishment near Valcartier, Que. Its principal activities include studies of defence against missiles, studies of the properties and application of infrared and other detection devices, exploration of the upper atmosphere with balloons and rockets, and the development of rocket propellants.

Research on telecommunications is carried out at the Defence Research Telecommunications Establishment in Ottawa. This Establishment is concerned mainly with problems of communications and the applications of the science of electronics to military problems. Communications research involves exploration of the ionosphere with ground-based equipment, with rockets and with satellites.

The Defence Research Northern Laboratory, Fort Churchill, Man., is a field station at which a variety of experiments requiring an Arctic environment are conducted. Studies of the aurora borealis, communications experiments and rocket firings are the principal activities at this establishment.

Special weapons is the generic term used to cover research on the defensive aspects of chemical, biological and atomic weapons. This work is carried out at three Defence Research Board establishments—the Defence Research Chemical Laboratories at Ottawa, Ont., the Suffield Experimental Station at Ralston, Alta., and the Defence Research Kingston Laboratory at Barriefield, Ont.

Biosciences research is carried out at the Defence Research Medical Laboratories near Toronto. The program is concerned chiefly with raising the operating efficiency of man working in the military environment and includes such subjects as human physiology, experimental psychology and research on clothing.

Operational research is carried on in the Defence Research Board by a Headquarters group. This group conducts long-range scientific analyses of future defence problems. In addition to this group, trained operational research scientists are provided by the Defence Research Board to the operational research teams in the three Armed Services.

In all, the Board continues to support those fields of research that are of foremost interest to the Canadian Armed Services and the program is under continuing review to ensure that cognizance is taken of all changes in emphasis in defence requirements. Close liaison is maintained between the Defence Research Board and the Department of Defence Production to ensure that research and development activities are closely integrated with production.

Section 2.—Services Colleges and Staff Training Colleges

Canadian Services Colleges.—The three Canadian Services Colleges are the Royal Military College of Canada founded at Kingston, Ont., in 1876, Royal Roads which was established in 1941 near Victoria, B.C., as a school for naval officers, and Collège Militaire Royal de Saint-Jean established at St. Jean, Que., primarily to meet the needs of French-speaking cadets. The Royal Military College and Royal Roads were constituted as Canadian Services Colleges in 1948, and Collège Militaire Royal de Saint-Jean was opened in 1952. In 1959 the Legislature of the Province of Ontario granted the Royal Military College a charter empowering it to grant degrees.

The purpose of the instruction and training at the Services Colleges is to impart the knowledge, to teach the skills and to develop the qualities of character and leadership essential to officers of all three Armed Services. The courses of instruction provide a sound