

Licensing and Regulation of Radio Stations.—Under the Radio Act and the Canada Shipping Act it is provided that radio stations employing a form of Hertzian wave transmission, including television and radar, be licensed by the Department of Transport, unless otherwise exempted by regulation. Licensing, which provides basic control over the right to establish a radio station, involves the assigning of specific frequencies to each station. Frequencies are assigned to many types of services on a shared non-interference basis. Engineering briefs covering the selection or change of frequency, amount of power and design of the directional antenna system must be approved by the Department of Transport and, before a new broadcasting station can be licensed or before modifications can be made to an existing station, notification is sent to the signatory countries of the North American Regional Broadcasting Agreement, in the case of AM broadcasting stations, and to the United States under the Canada-USA Television Agreement and the Canada-USA FM Agreement, for television and FM broadcasting stations, respectively. The setting of standards for the equipment, installation and operation of a station provides control for efficient use of the radio spectrum. A further control is the requirement that operating personnel be subject to examination and certification.

From time to time the Department of Transport establishes standards governing the technical suitability of radio equipment for licensing in Canada and Radio Standards Specifications and Procedures are issued by the Telecommunications and Electronics Branch in co-ordination with representatives of industry. Before a licence may be issued the radio equipment must comply with the technical requirements of the applicable Radio Standards Specification and be type-approved or declared technically acceptable. Type-approval and technical acceptability briefs may be prepared and submitted by a communications consulting engineer or the necessary tests may be conducted, for a fee, at the Department of Transport Radio Regulations Engineering Laboratory, Ottawa. Over 1,400 units were type-approved or declared technically acceptable during the year ended Mar. 31, 1966.

Eight fixed and one mobile monitoring stations are maintained at suitable points across Canada to observe actual radio spectrum conditions using a variety of modern electronic aids, their purpose being to ensure that radio communications are conducted according to regulatory procedures and to determine causes of harmful interference.

Under the Safety of Life at Sea Convention and the Canada Shipping Act, most passenger ships and larger cargo ships must be fitted with radiotelegraph or radiotelephone equipment, primarily for distress use. Approval is given for each make and model of equipment that meets the required standard and, in addition, the ship station as a whole is inspected after the licence is issued and periodically thereafter. All Canadian and foreign ships are subject to inspection to ensure that they conform to the requirements of the Safety of Life at Sea Convention.

Standards have been developed for the installation of aircraft radio stations specifying the techniques and materials that may be used, and inspections of radio stations aboard civil aircraft of all operational categories are carried out at prescribed periods. In-flight inspections of the radio communications and navigational aspects of proposed new air carrier operations, encompassing both land and oceanic routes, are also made as required.

Marine and aeronautical radio operator standards and related regulations are covered by international agreement. The International Telecommunication Convention prescribes the qualifications for radio operators on mobile radio stations and the regulations made under the Radio Act provide for the examination and certification of operators, both professional and amateur.

Number of Radio Stations Licensed in Canada.—The number of licences in force for radio stations in Canada during the year ended Mar. 31, 1966 was 162,840 compared with 136,912 in 1964-65. These figures include stations operated by departments of federal,