

Radio Station Operator Certificate  
Requirements

COMMUNICATIONS

TK  
6554.5  
R34  
1982

Canada

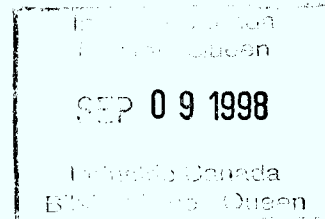


Government of Canada  
Department of Communications

Gouvernement du Canada  
Ministère des Communications

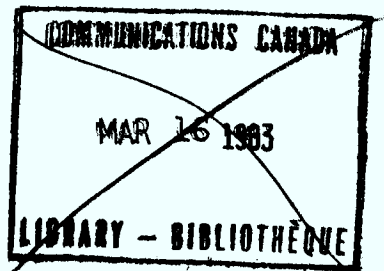
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Established by the  
Radio Operator Certificate Task Force  
as part of the  
Radio Operator Certification Review

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## 1. Introduction

The Department of Communications (DOC) established a radio operator task force in March 1982 to:

- a) review the role and duties of radio operators;
- b) determine the class of certificate needed to carry out radio station operation duties; and
- c) establish the knowledge and experience required to qualify for a radio operator certificate.

The review involves two stages; the first considered items (a) and (b) while the second will consider item (c). Members of the task force are from DOC offices across Canada and the Telecommunications and Electronics Branches of the Department of Transport.

The terms defined below have been used in this report to describe particular conditions or situations:

Safety service - A communication service used for the safeguarding of human life and property.

Full-service public coast station - A coast station providing a safety service and handling public correspondence with ship stations in the international maritime mobile service.

Limited coast station - A coast station operating on VHF providing a safety service and a vessel-traffic management service with ship stations in the international maritime mobile service.

2. Summary

The task force found that

- a) the present minimum certificate requirements for aeronautical stations and maritime mobile radiotelegraph stations are adequate;
- b) there may be a requirement for certification of operators in the land service under certain conditions;
- c) a new telephony certificate should be established for operators on-board non-compulsorily fitted vessels and for operators at stations providing a vessel-traffic management service;
- d) a new certificate should be established for operators at coast stations;
- e) the knowledge requirements for a Radiotelephone Operator's Restricted Certificate need to be augmented.

### 3. Certificate Guideline Conditions

Following a review of operators' duties by the Task Force, five conditions were identified as guidelines to indicate when a certificate would be a prerequisite for a person to operate a radio station. These conditions are:

- a) whenever Morse Code is used, other than for identification, the operation shall be performed by an operator holding a radiotelegraph certificate;
- b) whenever the movement of a mobile station is controlled (directed or influenced) by radio and there is concern for safety of life or protection of the environment, the duties shall be performed by an operator holding a certificate;
- c) whenever a radio service is provided safeguarding human life or property, the duties shall be performed by an operator holding a certificate. However, if the radio service is provided on a non-shared frequency, then there would not be any certificate requirements;
- d) whenever a radio service is provided in the aeronautical service (either aircraft station or aeronautical station), the operator shall hold a certificate;
- e) whenever the operator is required to transmit public correspondence, the operator shall hold a certificate. A telephone service provided via radio is not included within the meaning of transmitting public correspondence.



4. Radio Station Certificate Requirements

The station certificate requirements are as follows:

a) Land Service

Public  
commercial - No certificate required.

Private  
commercial - No certificate required.  
Certain stations operated on  
shared frequencies are to be  
operated by an operator holding a  
Radiotelephone Operator's  
Restricted Certificate. These  
stations include:

- (i) all stations used for  
public safety - fire,  
police and ambulance;
- (ii) all stations used when a  
mobile unit is controlled  
or directed by radio, and  
safety of life or protec-  
tion of the environment is  
associated.

It was recognized that the  
Department of Communications has  
a role to establish national  
certificate qualification  
standards that may be used by  
other agencies.

Therefore, the Department of Communications shall continue to establish certification standards and administer a certification program on behalf of those agencies who may wish to have their operators hold a certificate. Thus, it was determined that the Radiotelephone Operator's Restricted (ROR) Certificate should be available for public safety agencies and other municipal and provincial agencies.

Experimental - Certification would be determined on a case-by-case basis

Broadcasting - No certificate required.

GRS - No certificate required.

b) Aeronautical Service

Aircraft stations - A Radiotelephone Operator's Restricted (ROR) Certificate shall be required.

Aeronautical stations - A Radiotelephone Operator's Restricted (ROR) Certificate shall be required for all fixed and mobile stations (airport vehicles).

c) Maritime Service

Compulsorily - A Radiotelephone Operator's fitted radio-telephone station - Restricted (ROR) Certificate or a Radiotelephone Operator's General (ROG) Certificate shall be required. The ROR Certificate would be restricted to operation of stations where the operation of the transmitter requires only the use of simple external controls and excludes all manual adjustment of frequency-determining elements, and the peak power does not exceed 1.5 kW. The IMCO standards of training and watchkeeping should be considered for inclusion in the qualifications.

Compulsorily - A Radiocommunication Operator's fitted radio-telegraph station - General Certificate - Maritime, a Radio Operator's First Class Certificate or a Radio Operator's Second Class Certificate shall be required. The IMCO standards of training and watchkeeping should be considered for inclusion in the qualifications.

- Non-compulsorily fitted radio-telephone station - The service shall be provided by the holder of a telephony certificate. The qualifications for this certificate will be determined during the secondstage studies, and would be less than those of a ROR - no requirement for battery maintenance or survival equipment operation. The qualifications should include a knowledge of:
- (i) Radiotelephone operation and procedure;
  - (ii) Radio Regulations applying to radiotelephone communication;
  - (iii) Radio channel allocations.
- Private coast station - The communications conducted at these stations are limited to the handling of private correspondence relating to the business of the licensee. There is no requirement for a certificate.
- Full service public coast station - These stations provide a coast radiocommunication service for the handling of public correspondence and for the safeguarding of human life and property (safety service). The operators providing this service shall hold a radiotelegraphy class of certificate.

The qualifications for this certificate will be developed during the second-stage studies, and would require knowledge of communication using both radiotelegraphy and radiotelephony and should include the following:

- (i) Radio operation and procedure for
  - . safety services;
  - . communication control;
  - and
  - . public correspondence.
- (ii) Radio Regulations applying to radiotelegraph and radiotelephone communications.
- (iii) Liaison with search and rescue centres and rescue coordination centres.
- (iv) Distress detection and management of distress communications.
- (v) Operating principles and characteristics of marine radio and navigation equipment.
- (vi) Propagation.
- (vii) International Morse Code.
- (viii) Log-keeping.

Limited  
public coast  
station

- The service of these stations, primarily vessel-traffic movement, shall be provided by the holder of a radiotelephony certificate. The qualifications for this certificate should be the same as for non-compulsorily fitted stations.

Drilling  
platform

- The maritime station on a drilling platform could be a radiotelephony or a radiotelegraphy station or the station could be licensed in the land service. Therefore, the certificate requirements would depend upon the radio station service category. The certificate to be held by the operator would thus be established on a case-by-case basis.

Earth  
station

- The earth station on board a vessel shall be under the control of an operator who holds a Radiotelephone Operator's General (ROG) or a Radiotelephone Operator's Restricted (ROR) Certificate, with an endorsement for earth station operation. The qualifications for the earth station endorsement shall be determined during the second-stage studies and shall include knowledge of:
  - (i) powering up the station.
  - (ii) orienting the antenna.
  - (iii) selecting the mode of communication - voice or telex.
  - (iv) initiating a distress action and passing distress traffic.

5. Other

Other items reviewed by the task force with respect to the certification of operators concerned the certification standards to be applied to a person requesting an ROR certificate for any combination of the aeronautical, maritime or land services; and the on-air operation of equipment by technicians.

For a person requesting an ROR certificate for operation in more than one service, it was determined that the person should qualify for each service. It was felt that the qualifications for each service were not the same and thus the candidates should demonstrate that they meet the qualifications established for each service.

A technician who performs on-the-air tests of radio equipment could interfere with communications dealing with the safety of human life or property. It was determined that on-air tests of a station which would normally be operated by an operator holding a certificate, should therefore be under the control of that operator.

