Spectrum Management and Telecommunications

Radiocommunication Information Circular

Syllabus for the General Operator Certificate (GOC)

Note: Annex A has been updated (September 2018).
Preface

Radiocommunication Information Circulars are issued for the guidance of those engaged in radiocommunications in Canada. The information contained in these circulars is subject to change without notice. It is therefore suggested that interested persons consult the nearest district office of Industry Canada for additional details. While every reasonable effort has been made to ensure accuracy, no warranty is expressed or implied. As well, these circulars have no status in law.

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Radiocommunications and Broadcasting Regulatory Branch
300 Slater Street
Ottawa, Ontario
K1A 0C8

Attention: DOS

E-mail: ic.spectrumpublications-publicationsduspectre.ic@canada.ca

All Spectrum Management and Telecommunications publications are available on the following website: http://ic.gc.ca/spectrum.
# Contents

1. Intent ............................................................................................................................................... 1
2. Background .................................................................................................................................... 1
3. Related Documents ........................................................................................................................ 1
4. Global Maritime Distress and Safety System (GMDSS) ............................................................ 2
5. General Operator Certificate (GOC) ........................................................................................... 3
   5.1 Eligibility ............................................................................................................................. 3
6. Training and Examination ............................................................................................................ 3
   6.1 Full Course .......................................................................................................................................................... 3
   6.2 Refresher Course ............................................................................................................................................... 3
   6.3 Pass Mark ..................................................................................................................................................................... 3
7. Accreditation .................................................................................................................................. 4
8. Methods for Demonstrating Proficiency ...................................................................................... 4

Annex A - Accredited Institutions for GOC Training and Assessment .............................................. 5

Annex B - General Operator Certificate (GOC) - GMDSS Syllabus .................................................... 6
1. **Intent**

The material presented in this publication covers the scope of the training and assessment requirements for the Global Maritime Distress and Safety System - General Operator Certificate (GMDSS-GOC). For additional information on this or other certificates, please refer to Radiocommunication Information Circular 16, *Professional Radio Operator Certificates* (RIC-16).

The training and assessment for the GOC may be provided by trainers/examiners at accredited marine training institutes, marine industry companies and organizations, or marine equipment suppliers. A list of organizations accredited to train and examine candidates for the GOC is provided in Annex A.

2. **Background**

Canada is a member of the International Telecommunication Union (ITU), an organization established to maintain and extend international cooperation for the improvement and rational use of telecommunications of all kinds. To this end, the ITU fosters collaboration among its members to establish basic standards for communication procedures and practices, frequency allocation, and radio regulations on a worldwide basis. In 1987, the ITU World Administrative Conference for the Mobile Services adopted the necessary provisions in the international *Radio Regulations* to introduce the GMDSS.

Canada is also a member of the International Maritime Organization (IMO), which in close cooperation with the ITU, recommends practices for the establishment of maritime communications systems to serve the international marine community. As part of its work, the IMO has mandated the minimum requirements that radio operators must meet with respect to GMDSS certification.

Industry Canada administers radiocommunications in Canada, based on both national and international acts, regulations and conventions. Marine operations in Canada are generally regulated by the Marine Safety Branch of Transport Canada. The Marine Safety Branch, through its *Marine Personnel Regulations* (Canada Shipping Act (CSA) 2001)) requires that ships, which are required to be fitted with a ship radio station in accordance with the *Ship Station (Radio) Regulations* (SSRR), carry persons who hold the appropriate radio operator certification.

3. **Related Documents**


RIC-16     *Professional Radio Operator Certificates*
RIC-22     *General Radio Operating Procedures*
Canadian Coast Guard     *Radio Aids to Marine Navigation*
Canadian Coast Guard     *Notices to Mariners*
4. Global Maritime Distress and Safety System (GMDSS)

The GMDSS was implemented over a seven-year period, commencing on February 1, 1992. This worldwide system enhances the assistance that can be provided to ships in distress and urgency situations. Certificate requirements and background on GMDSS can be found in RIC-16. Current information on the progress and implementation of GMDSS shore-based facilities is available in the latest edition of the Canadian Coast Guard publication, Radio Aids to Marine Navigation (RAMN), and the annual edition of Notices to Mariners.

Generally speaking, in accordance with the SSRR, compulsorily-fitted ships with Very High-Frequency (VHF) radiotelephones must carry persons who hold a Restricted Operator’s Certificate - Maritime Commercial, and compulsorily-fitted ships with Medium Frequency (MF) or Medium Frequency/High Frequency (MF/HF) radiotelephones, or ship earth stations, must carry persons who hold either a General Operator Certificate (GOC) or a Radiocommunication Operator General Certificate Maritime (RGMC). There are two exceptions to these requirements:

- radio operators on “small fishing vessels”: A small fishing vessel is defined in Transport Canada’s Small Fishing Vessel Inspection Regulations as a vessel that is not a sailing ship, exceeds 15 tons (gross tonnage), is used in commercial fishing, but does not exceed 150 tons, (gross tonnage) and does not exceed 24.4 metres in length. This exception permits such vessels, when fitted with MF or HF transmitting equipment, or both, to carry radio operators holding only a Restricted Operator’s Certificate - Maritime Commercial.

- radio operators on vessels using the Athabasca-Mackenzie inland waterways: Even though HF radios may be carried by vessels on this waterway, the HF frequency used is outside of the marine bands. The only marine frequencies used in certain areas of this waterway are in the VHF band. Consequently, operators on these vessels are only required to hold a Restricted Operator’s Certificate - Maritime Commercial.

Note: Even if a vessel’s radio station is exempted from licensing, the operator is still required to hold the appropriate radio operator’s certificate for the equipment carried. (Radiocommunication Regulations, sections 33 and 34.(2))
5. General Operator Certificate (GOC)

The GOC as described herein is intended for mariners, serving on vessels operating in the GMDSS A1, A2, A3 and A4 Sea Areas. The GOC is compliant with the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended (STCW 95 Regulation IV/2).

Other publications that may be of assistance to candidates in obtaining the GOC are the Radio Aids to Marine Navigation (RAMN) and, to a lesser extent, the Ship Station Radio Regulations (SSRR) and the Ship Station Technical Regulations (SSTR). These last two documents have been established in accordance with the CSA.

5.1 Eligibility

A candidate must be 18 years of age or older in order to hold this class of radio operator certificate. There are no nationality requirements for issuance of the GOC. The GOC is issued for five years, after which time it can be reissued every five years upon proof of continued competency in accordance with RIC-16. A citizenship style photograph is required for the issuance, reissuance or replacement of a GOC certificate. Industry Canada may issue a replacement certificate if the original is lost, stolen or destroyed.

6. Training and Examination

6.1 Full Course

Training consists of approximately 50% theory and 50% practical instruction, using an approved GMDSS simulator or installed equipment. As indicated in the syllabus (Annex B), the course consists of 65 hours (10 days) of training. To accommodate testing, four hours is added for review of the material covered and for both theory and practical examinations (one hour for the written component and three hours to allow for practical evaluation).

6.2 Refresher Course

Refresher training consists of approximately 50% theory and 50% practical instruction, using an approved GMDSS simulator or installed equipment. As indicated in the syllabus (Annex B), the refresher course consists of 20 hours of training. An additional four hours is required to review the material covered and for both theory and practical examinations (one hour for the written component and 30 minutes per student to allow for practical evaluation).

6.3 Pass Mark

For the successful completion of a GOC, the pass mark for the examination is 70%.
7. **Accreditation**

Industry Canada will continue to accredit maritime organizations to provide training and assessment for the GOC. Accreditation means that the program of instruction has been reviewed by Industry Canada to confirm that there are sufficient facilities, expertise and equipment available to ensure an appropriate level of training for candidates for the GOC. Information regarding successful candidates will be forwarded to Industry Canada, which will then issue the GOC.

8. **Methods for Demonstrating Proficiency**

The candidate will demonstrate proficiency through practical operational procedures, using the following:

- approved equipment;
- a GMDSS communication simulator, where appropriate; and
- radiocommunication laboratory equipment.
Annex A - Accredited Institutions for GOC Training and Assessment

Western Region:

BCIT Marine Campus
265 West Esplanade
North Vancouver, BC
V7M 1A5
Telephone: 604-453-4100
Fax: 604-985-2862

Western Maritime Institute
3519 Hallberg Rd.
Ladysmith, BC
V9G 1K1
Telephone: 250-245-4455
Toll Free: 1-866-632-6888
Fax: 250-245-8881
E-mail: info@maritimeed.com
Web: www.maritimeed.com

Atlantic and Ontario Region:

The Great Lakes International Marine Training and Research Centre
1450 8th St. East
P.O. Box 700
Owen Sound, ON
N4K 5R4
Telephone: 519-376-0840
Contact: Peter Buell
E-mail: pbuell@georgianc.on.ca
Web: http://marinetraining.ca

Montreal College of Aerospace Technology and Transport
3650 Avenue Lévesque Ouest, Suite 204-210
Montreal, QC
H3R 2M6
Telephone: 514-324-1900
Fax: 514-324-1800
E-mail: marple@montrealcollege.org
Web: www.montrealcollege.org

Marine Contract Training
NBCC St. Andrews
99 Augustus St.
Saint Andrews, NB
E5B 2E9
Telephone: 902-888-6485
Contact: Steve MacFarlane
E-mail: marine@hollandcollege.com

Marine Institute
Memorial University of Newfoundland
P.O. Box 4920
St. John’s, NL
A1C 5R3
Telephone: 709-778-0354
Fax: 709-778-0664
Contact: Fred Meadus
E-mail: Fred.Meadus@mi.mun.ca

Canadian Coast Guard College
1190 Westmount Rd.
Sydney, NS
B1R 2J6
Telephone: 902-564-3660 ext. 1384
Fax: 902-567-3213
Contact: Robert Perchard,
Superintendent MCTS Training
E-mail: Robert.Perchard@dfo-mpo.gc.ca
Nova Scotia Community College (NSCC)  
Nautical Institute  
226 Reeves St.  
Port Hawkesbury, NS  
B9A 2A2  
Telephone: 902-625-4228  
Fax: 902-625-0193  
Contact: Marine Admin  
E-mail: nautical@nscc.ca

Québec Region:  
Institut maritime du Québec  
Service de la formation continue  
2965 Etchemin Rd.  
Lévis, QC  
G6W 7X5  
Telephone: 418-835-1621  
Fax: 418-835-0192  
Contact: Gréta Bédard  
E-mail: gbedard@imq.qc.ca

Canadian Coast Guard  
Rescue Training Centre  
50 Discovery Drive  
Dartmouth, NS  
B2Y 3Z8  
Telephone: 902-426 7459  
Fax: 902-426-0711  
Contact: John Drake or Phillip Walker  
E-mail: john.drake@dfo-mpo.gc.ca

Holland College  
Marine Training Centre  
100 Water St.  
Summerside, PE  
C1N 1A9  
Telephone: 902-888-6485  
Contact: Steve MacFarlane  
E-mail: marine@hollandcollege.com
<table>
<thead>
<tr>
<th>Competence</th>
<th>Knowledge, Understanding and Proficiency</th>
<th>Full Course Time - (hours)</th>
<th>Refresher Course Time - (hours)</th>
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</thead>
<tbody>
<tr>
<td>2. <strong>Survival Craft Radio Equipment: Basic Operational Specifications, Characteristics and Routine Testing:</strong>&lt;br&gt; 2.1 Portable (immersion proof) VHF radios.&lt;br&gt; 2.2 MF/HF lifeboat radio.&lt;br&gt; 2.3 Search and Rescue Radar Transponders (SARTs).&lt;br&gt; 2.4 Emergency Position Radio Beacons (EPIRBs).</td>
<td>7</td>
<td>2</td>
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<tr>
<td>3. <strong>NAVTEX:</strong>&lt;br&gt; 3.1 Maritime Safety Information (MSI) for basic NAVTEX system concept and NAVAREAs.&lt;br&gt; 3.2 NAVTEX receiver operational characteristics, set up procedures and message format.</td>
<td>8.75</td>
<td>2.5</td>
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<td><strong>(D) Distress, Safety and Routine Communication Procedures in the GMDSS</strong></td>
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<tr>
<td>1. <strong>Distress, Urgency and Safety Communications:</strong>&lt;br&gt; 1.1 VHF/MF/HF DSC Distress alert, sending, receiving and acknowledgement, cancellation of distress message. Distress relay.&lt;br&gt; 1.2 VHF/MF/HF DSC urgency, safety calls and subsequent R/T traffic.&lt;br&gt; 1.3 On-scene communication and SAR operations.&lt;br&gt; 1.4 R/T Distress subsequent traffic. Urgency and Safety communications.</td>
<td>10.5</td>
<td>3</td>
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<td>2. <strong>Operational Procedures for General Communications:</strong>&lt;br&gt; 2.1 VHF/MF/HF calling and replying frequencies.&lt;br&gt; 2.2 Using DSC to establish initial call.&lt;br&gt; 2.3 Transmission and reception of routine R/T communications.</td>
<td>10.5</td>
<td>3</td>
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<td><strong>Total Time</strong></td>
<td><strong>70</strong></td>
<td><strong>20</strong></td>
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