

**Memorandum Circular
No. 17-2-2002**

Subject: Rules and regulations governing Radio Training Centers (RTC) offering short-term GMDSS radio communications courses

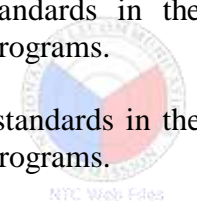
Pursuant to Act 3846, as amended, E.O. NO. 546, Chapter NIX Article 55 of the Radio Regulations of International Telecommunications Union (ITU), Regulation I/6 and I/8 of the STCW-78 Convention, as amended, the National Telecommunications Commission hereby promulgates the following rules and regulations governing RTC offering short-term GMDSS radio communications courses.

I. SCOPE

These rules and regulations shall apply to all RTC conducting training programs on short-term GMDSS radio communications courses.

II. DEFINITION OF TERMS

- Commission or (NTC) : National Telecommunications Commission.
- Radio Training Center (RTC) : NTC duly accredited academic institutions conducting training programs on short-term GMDSS radio communications courses.
- Convention : STCW-95 Convention, as amended.
- IMO : International Maritime Organization (IMO).
- IMO Model Courses : Prescribed model courses developed by the IMO.
- Approved Course Programs : Training courses or programs offered by duly accredited RTC and approved by the Commission.
- Certificate of Accreditation : A certificate issued by the Commission to operate a radio training Center.
- Conformance : The RTC compliance to established standards in the implementation of NTC approved course programs.
- Non-Conformance : The RTC non-compliance to established standards in the implementation of NTC approved course programs.



- Short-term GMDSS radio communications courses : Training courses on Ship Restricted Radiotelephone Operator's Course (SRROC), International Maritime Satellite Course (INMARSAT), Global Maritime Distress and Safety System Course (GMDSS), and Radio Electronic Officers Course (REOC).
- Radio Station License (RSL) : Written authority issued by the Commission to any individual, entity or institution to operate radio stations used for training purposes.

III. GENERAL PROVISIONS

- 3.1 No person, firm, association or corporation shall offer short-term GMDSS radio communications courses without first securing a Certificate of Accreditation from the NTC.
- 3.2 All training certificates issued by a non-accredited RTC shall not be honored.

IV. REQUIREMENTS FOR ACCREDITATION

- 4.1 Administrative Requirements
- 4.1.1 Letter of Intent
 - 4.1.2 Duly accomplished information sheets of the Board of Directors
 - 4.1.3 Feasibility study identifying the required capitalization in opening up a RTC
 - 4.1.4 Certification from any banking institution showing applicant's financial capability
 - 4.1.5 Ownership
 - Corporation – Articles of Incorporation issued by the Securities and Exchange Commission (SEC)
 - Single-Proprietor – Registration of business by the Department of Trade and Industry (DTI)
 - 4.1.6 Mayor's Permit
 - 4.1.7 Proposed Course Curriculum
 - 4.1.8 Class programs
 - 4.1.9 List of Instructors and corresponding Permit to Teach
 - 4.1.10 Laboratory and Test Equipments
 - 4.1.11 Textbooks and magazines
 - 4.1.12 Certificate of ownership of lot and building or lease of contract



- 4.2 Technical Requirements
 - 4.2.1 Permit to Purchase
 - 4.2.2 Permit to Possess
 - 4.2.3 Construction Permit
 - 4.2.4 Radio Station License

V. COURSES

The following short-term GMDSS radio communications courses may be offered by duly accredited RTC:

- 5.1 General Operator Certificate (GOC)
 - a. Ship Restricted Radiotelephone Operator's Course (SRROC)
 - b. International Maritime Satellite Course (INMARSAT)
 - c. Global Maritime Distress and Safety System (GMDSS)
- 5.2 Radio Electronic Certificate (REC)
 - a. Radio Electronic Officers Course (REOC)
- 5.3 Restricted Operator Certificate (ROC)
 - a. Ship Restricted Radiotelephone Operator's Course (SRROC)

VI. ENTRY STANDARDS

6.1 GOC or ROC

The courses are open to all experienced deck and radio officers who possess the following qualifications:

- a. At least 21 years of age.
- b. Licensed deck/radio officer.
- c. If graduate of BSECE or licensed ECE, must have one (1) year of shipboard experience on board ocean-going vessels as electrician or radio electronic trainee.

6.2 REC

The course is open to all qualified and experienced radio officers who are holders of valid General Operator Certificate and First Class Radiotelegraph License under SOLAS 1974 Convention and ITU Radio Regulations. Other certificates required include:

- a. Basic Marine Computer (MS Office)
- b. Maritime English for Officer



VII. SUBJECTS AND TIME REQUIREMENT FOR COMPLETION OF EACH COURSE

The following are the subject matters to be taken up under the short-term GMDSS radio communications courses with its corresponding time allocation:

7.1 GOC

Subject/Title	Time Allocation (Hrs)	
	Lecture	Hands-on
a. Ship Restricted Radiotelephone Operator's Course		
1. Introduction to the Course: ROC for GMDSS	1	-
2. Principles of maritime radio communications	5	-
3. GMDSS communication systems	4	5
4. Other GMDSS equipment	4	4
5. Distress alerting	5	3
6. Miscellaneous skills and operational procedures for general communications	5	-
Quiz	1	-
Assessment and discussion	1	2
TOTAL HOURS	26	14

Subject/Title	Time Allocation (Hrs)	
	Lecture	Hands-on
b. INMARSAT		
1. Introduction to the Course: GOC for GMDSS	2	-
2. Principles and basic features of the maritime mobile service	8	-
3. Principles and basic features of the maritime mobile-satellite service	4	-
4. GMDSS (only topics not covered in SRROC)	4	-
5. Knowledge and use of INMARSAT systems	4	4
6. GMDSS satellite distress, urgency and safety communication procedures (only topics not covered in SRROC)	1	4
7. General principles of narrow-band direct printing (NBDP)	2	2
Quiz	1	-
Trial/Actual Examination	2	2
TOTAL HOURS	28	12
c. GMDSS		
1. Purpose and use of digital selective calling (DSC) facilities	4	12

2. Knowledge and practical use of terrestrial ship station equipment applicable to sea areas A2, A3 and A4	4	10
3. Fault location and rectification on marine electronic equipment	-	3
4. Search and rescue operation (SAR) i.e., SAR, EPIRB operational procedures applicable to ocean distress incident	1	2
5. GMDSS terrestrial distress, urgency and safety communication procedures	2	3
6. Protection of distress frequencies and avoidance of false distress alert	1	1
7. Miscellaneous skills and operational procedures for general communications	6	1
Quiz	-	3
Assessment and discussions	3	-
TOTAL HOURS	21	35
OVERALL TOTAL	136 hours	

7.2 REC

Subject/Title	Time Allocation (Hrs)	
	Lecture	Hands-on
1. Introduction	1	-
2. Basic Electronics Theory	17	10
3. Electronics Devices	6	6
4. Amplifiers	4	3
5. Electronic Communication	8	-
6. GMDSS Equipments and Sub-systems	18	3
7. Digital Electronics and Computers	15	6
8. Maintenance of GMDSS and Electronics Navigational Aids	9	18
9. Administrative Functions and Miscellaneous Responsibilities	6	-



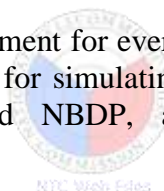
10. Assessment and Evaluation	8	6
TOTAL HOURS	92	52
OVERALL TOTAL	144 Hours	

VIII. COURSE INTAKE LIMITATIONS

- 8.1 The class must not exceed 24 students for lecture.
- 8.2 There shall be 5-6 students in a group for practical training or laboratory work.

IX. TEACHING FACILITIES AND EQUIPMENT

- 9.1 Classrooms shall be 42 square meters for 24 trainees and equipped with necessary and required facilities.
- 9.2 Classroom facilities shall include a whiteboard or flipchart and an overhead projector. When audiovisual material such as videos, slides, tape recordings, etc. are used, these equipments must be available.
- 9.3 For the practical training, adequate working space is required. The space must accommodate the following equipment:
 - a. One operational MF/HF transmitter/receiver for radiotelephony, NBDP with DSC (using dummy load); or at least one simulator or simulated equipment for MF/HF DSC;
 - b. One operational VHF transmitter/receiver for radiotelephony with DSC, incorporating a DSC watch receiver for Channel 70;
 - c. 2 Two-way portable VHF radiotelephone radio with charger;
 - d. At least one operational COSPAS/SARSAT (406 MHz) or INMARSAT-E (1.6 GHz) EPIRB with hydrostatic release mechanism;
 - e. One operational SART with dummy load;
 - f. One operational NAVTEX Receiver;
 - g. One working INMARSAT – C SES terminal;
 - h. One stand alone EGC receiver (if not included in INMARSAT-C terminal);
 - i. One personal computer or realistic simulation equipment for every two students capable of running relevant programs for simulating the operation of INMARSAT A/B, DSC and NBDP, as appropriate;



- j. One battery inverter power supply connected as the reserve source of energy (not necessarily located in the working area);
- k. Signs and marking in accordance with the requirements for GMDSS ship stations.

Additional equipment required for REOC:

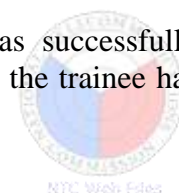
- a. One working ARPA radar;
- b. One working gyrocompass;
- c. One working GPS (if not built-in with INMARSAT-C terminal);
- d. One working echo sounder and log;
- e. Four sets of 20 MHz dual-trace oscilloscope;
- f. Four sets frequency counter;
- g. One set SWR meter;
- h. Four Dip meter;
- i. Four units auto ranging DMM;
- j. Four analog VOM with capacitance tester;
- k. Four sets electronic technician tool;
- l. Four sets of experiment board;
- m. Four watt meters;
- n. Four regulated power supplies;
- o. Four pieces bar magnet;
- p. Four units magnetic compass;
- q. Four units audio frequency generator;
- r. Four units RF generator;
- s. Four units function signal generator;
- t. Four units frequency counter;
- u. Four units Megger;
- v. Four units logic probe; and
- w. Four units personal computer and accessories.

X. TEACHING AIDS AND TEXTBOOKS

The required teaching aids, textbooks and IMO references prescribed in the course program shall be available; the teaching aids shall include the necessary competency tables of syllabi in the STCW code. Substitution of textbooks may be allowed provided they serve the same purpose.

XI. COURSE CERTIFICATE

A certificate or diploma attesting to the fact that a trainee has successfully completed the prescribed course shall be issued by the RTC after the trainee has completed the required course program.



XII. FACULTY REQUIREMENTS

All training and instructions must be given by qualified instructors who have undergone training on Instructor Training Course (IMO Model Course 6.09). Other mandatory qualifications include:

- a. Permit to Teach.
- b. At least three (3) years of relevant experience on board a GMDSS equipped vessel plying international voyage.
- c. For Holders of valid First Class Radiotelegraph Operator's Certificate: General Operator Certificate.
- d. For deck officers who are holders of valid Professional Regulation Commission (PRC) license: General Operator Certificate.
- e. For Graduates of BSECE or licensed ECE: 2 years teaching experience.
- f. For Graduates of BS Computer Science: 2 years teaching experience.

XIII. DELIVERY OF INSTRUCTIONS

Instructors shall follow the prescribed course timetable, detailed teaching syllabus and lesson plan/instructors guide for each program, and take into account the Instructors Manual and guidance in the implementation of the IMO Model Courses.

XIV. SUBMISSION OF REPORT

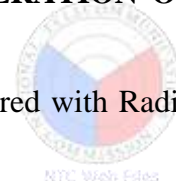
All duly accredited RTC shall, on a weekly basis, furnish the Commission with report on the list of graduates which shall include among others the names of trainees and the corresponding courses completed.

XV. ISSUANCE OF CERTIFICATE OF ACCREDITATION

- 15.1 RTC shall be granted a Certificate of Accreditation after complying the necessary requirements provided in this Circular.
- 15.2 Certificate of Accreditation may be issued for a maximum period of three (3) years.

XVI. RADIO STATION LICENSE NECESSARY FOR THE OPERATION OF RADIO STATIONS USED FOR TRAINING PURPOSES

- 16.1 All radio stations used for training purposes must be covered with Radio Station License.



- 16.2 All radio stations must be supervised by licensed instructors.
- 16.3 A Radio Station License may be issued for a maximum period of three (3) years but not to exceed the validity of the Certificate of Accreditation.

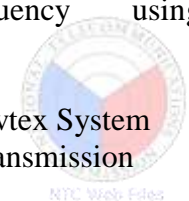
XVII. CONDUCT OF INSPECTION

- 17.1 The NTC technical staff shall conduct inspection to verify RTC conformance with the standards specified under this Circular prior to approval of Certificate of Accreditation and issuance of RSL.
- 17.2 Any non-conformance found shall be noted and made known to the authorized officials of concerned RTC.
- 17.3 Any RTC with noted deficiencies shall be given a grace period of thirty (30) days to correct the deficiency, and shall thereafter, notify the Commission for re-inspection on compliance.

XVIII. FREQUENCIES FOR THE USE OF RADIO TRAINING STATION

The following frequencies are assigned for the use of radio training centers, unless otherwise reallocated by the Commission in accordance with national and international laws:

18.1 Digital Selective Calling (DSC)	2187.5 KHz 12577.0 KHz	4207.5 KHz 16804.5 KHz	8414.5 KHz
18.2 Radiotelephony	2182.0 KHz 8291.0 KHz	4125.0 KHz 12290.0 KHz	6215.0 KHz 16420.0 KHz
18.3 Radiotelex	2174.5 KHz 8376.5 KHz	4177.5 KHz 12520.0 KHz	6268.0 KHz 16695.0 KHz
18.4 Channel 70	156.525 MHz	VHF DSC Distress and Safety Calling Frequency	
18.5 Channel 16	156.800 MHz	VHF DSC Distress and Safety Traffic Frequency using radiotelephony	
18.6 NAVTEX Frequencies	518.0 KHz 4209.5 KHz	International Navtex System Navtex-Type Transmission	



XIX. RENEWAL OF CERTIFICATE OF ACCREDITATION AND RADIO STATION LICENSE

- 19.1 Renewal of Certificate of Accreditation and Radio Station License must be filed three (3) months before its expiration date.
- 19.2 Inspection shall be conducted prior to approval of renewal to ensure RTC compliance with the standards specified in this Circular.
- 19.3 Late filing of application not beyond six (6) months from date of expiration shall be imposed a 50% surcharge of the certificate fee; if beyond six (6) months but not more than one (1) year, a 100% surcharge of certificate fee shall be imposed. After said period, the existing rules on surcharges shall apply.
- 19.4 In case of non-filing of application for renewal, the training conducted after the validity of accreditation and/or the certificates issued shall not be recognized by the Commission.

XX. GROUNDS FOR DENIAL, DISAPPROVAL OR REVOCATION OF A CERTIFICATE OF ACCREDITATION

- 20.1 Failure to comply with any of the requirements mentioned in Section IV of this Circular.
- 20.2 Failure to comply with the provisions of radio laws and regulations.
- 20.3 Non-compliance with the standards mentioned in this Circular.
- 20.4 Non-payment of required fees.

XXI. FEES

Unless otherwise revised, the following are the schedule of fees for the radio training center:

Filing Fee (Upon filing of application)	:	P200.00
Permit to Purchase (per unit)		
VHF/UHF	:	P96.00
HF/SSB	:	P120.00
Permit to Possess (per unit)		
VHF/UHF	:	P60.00



HF/SSB	:	P96.00
Construction Permit (per unit)	:	P500.00
Inspection Fee (per unit per year)	:	P500.00
Radio Station License (per unit per year)	:	P1,500.00
Certificate of Accreditation Fee (per year)	:	P5,000.00

This Circular shall take effect immediately and may be revised, revoked or amended as necessary in accordance with law and shall take effect fifteen (15) days after publication in a newspaper of general circulation, provided further, that at least three (3) certified true copies thereof shall be filed with the UP Law Center.

20 December 2002, Quezon City, Philippines.

(Signed)
ARMI JANE R. BORJE
 Commissioner

(Signed)
KATHLEEN G. HECETA
 Deputy Commissioner

(Signed)
JORGE V. SARMIENTO
 Deputy Commissioner

