



AMERC ADMINISTRATION HANDBOOK

Thirteenth Edition

2025

Revision 1

Prepared in Consultation with the Executive Committee of AMERC Ltd

Please check List of Amendments to ensure you have the latest version

LIST OF REVISION NUMBER AMENDMENTS

Revision Number	Date	Summary
1	27 th March 2025	<ul style="list-style-type: none"> - Addition of 12.9.6 – MCA approved teaching qualifications - Addition of forward note re. satellite-only/GMDSS simulators - Removal of references to Fleetbroadband and Telex - Minor typos amended - Removal of overseas centres policy notice - 1.1 added, 1.2 adjusted - Requirements for ALRS & ITU updated - Appendix 12.6 updated - Addition of ARI GMDSS Simulator 4.1.4.0 as AMERC-approved

Please note that the GMDSS simulators and Satellite-only simulators referred to in this handbook have been approved for UK-approved GMDSS training courses by AMERC Ltd. Other manufacturers of GMDSS simulator and Satellite simulator systems should contact the MCA for details on the procedures and documentation required to achieve GMDSS simulator approval. Please also note that reference to specific satellite service providers in this handbook does NOT exclude other Recognised Mobile Satellite Service providers.

Centres are encouraged to use the following website for Guidance:

www.gov.uk/government/organisations/maritime-and-coastguard-agency

Important: Please refer to section 1.1 for updated UK GMDSS procedure

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1 INTRODUCTION

1.1 THIS HANDBOOK

This handbook is the final edition of the AMERC Administration Handbook. It details AMERC procedures, guidelines and requirements correct as of March 2025.

From 12th May 2025, all provision for UK GMDSS will be the direct responsibility of the Maritime and Coastguard Agency (MCA.) AMERC will no longer be the appointed authority for these services.

This edition of this handbook is intended to be used solely as reference material for those involved with UK GMDSS, and should not be considered definitive instruction for regulatory requirements from May 12th, 2025.

After this date, any AMERC policies, procedures or requirements are void. All matters for courses, examinations, certification and quality control regarding UK GOC, ROC, LRC, ENEM & ETO should follow to MCA policy, procedure, and requirements.

For more information regarding UK GMDSS, please consult the MCA:

- www.dft.gov.uk/mca/
- email: gmdss@mca.gov.uk

After 12th May 2025, The Association of Marine Electronic and Radio Colleges (AMERC Ltd) accepts no liability nor legal responsibility for any disputes, conflict or issues arising from information used in this Handbook.

1.2 THE ASSOCIATION OF MARINE ELECTRONIC AND RADIO COLLEGES

For over 25 years, The Association of Marine Electronic and Radio Colleges (AMERC) was responsible for overseeing the provision of courses, examinations, and certification for UK GMDSS, on behalf of the Maritime and Coastguard Agency (MCA.)

As a registered charity, AMERC's membership consisted of business, colleges, enterprises, and industry experts. This meant the Association gained a wide experience of running a range of vocationally-orientated courses to meet the needs of the maritime and associated industries, developing syllabi to meet regional, national and international requirements. These courses are still recognised as being of a high standard and receive an international reputation for excellence.

AMERC (and its dedicated Examination Panel) was responsible for the setting and marking of examinations for nationally recognised qualifications, as follows:

- CEPT GMDSS General Operator's Certificate of Competence (GOC)
- CEPT GMDSS Restricted Operator's Certificate of Competence (ROC)

- CEPT GMDSS Long Range Operator's Certificate of Competence (LRC)
- Satellite Module
- Replacement of W/T, R/T and GMDSS Certificates

The Department of Transport (DoT) has recognized the quality of these standards by accepting SQA/EDEXCEL Units as exemptions from major parts of statutory qualifications.

In addition to the above, the MCA also agreed to AMERC overseeing examinations and certification for the statutory Radio Maintenance Certificate and the Electronic Navigational Equipment Maintenance Certificate.

AMERC is the trading name of AMERC Limited.

1.3 OVERVIEW OF EXAMINATION SYSTEM PROVIDED BY AMERC

AMERC's examination system organisational and management structure is based on the following:

AMERC Executive Committee (Management Board)

National Administration Centre (GMDSS)

Examination Co-ordination Centres

Approved Examination Venues

Approved Examiners

Approved Courses

- AMERC Executive Committee has responsibility for the maintenance of standards and efficient operation of the examination system. Any matters of policy or changes, which may affect the system, will be agreed between the MCA and the Executive Committee. The National Administration Centre (NAC) and all Examination Co-ordination Centres (ECCs) are directly responsible to the Executive Committee.
- The Executive Committee is supported by a Maritime Consultation Group (MCG). Membership of this group is made up of specialists from industry, Maritime and Coastguard Agency, the Chief Examiner (GMDSS) and AMERC representatives. The Executive Committee with the Maritime Consultation Group controls the conduct and Quality Assurance (QA) of the marine examinations and is responsible for the organisation of the annual meeting of examiners.
- The function of the National Administration Centre (NAC) is to act in a central co-ordinating role for administration of the Examination System.
- Examination Co-ordination Centres (ECC) are established at locations within the United Kingdom and overseas. An ECC manages the provision of the examination service at one or more Approved Examination Venues and is required to meet conditions specified in sections 2.3.1 and 2.3.2 of this handbook. Appendix 12.11 details the procedure to be followed for new centres.
- Approved Examination Venues (AEV) are those places that have been inspected and approved by AMERC Ltd on behalf of the MCA for the conduct of AMERC approved examinations. AEVs meet the conditions specified in sections 12.10 and 12.11 of this handbook.
- Candidates for GMDSS GOC and ROC examinations must undertake an approved course of instruction (STCW Regulation IV/2, STCW Code Section A IV/2). Approval of courses is conducted by AMERC Ltd on behalf of the MCA.

2 AMERC ADMINISTRATION STRUCTURE

The Association has established, through its Executive Committee, the procedures for controlling and monitoring the overall operation of the examination system.

2.1 AMERC

2.1.1 THE EXECUTIVE COMMITTEE IS RESPONSIBLE FOR:

- a) Ensuring the NAC (GMDSS) and Examination Co-ordination Centres (ECCs) carry out their specified duties and responsibilities.
- b) Reporting to the Maritime and Coastguard Agency (MCA) on the operation and standard of the courses and examinations.
- c) Making recommendations to the MCA on changes in the examination structure or syllabus content.
- d) Validating and approving Examination Co-ordination Centres and Approved Examination Venues
- e) Approving the Examiners nominated by the ECCs.
- f) Appointing the Chief Examiner (GMDSS) and, if required, Deputy Chief Examiner.
- g) Agreeing with the MCA the fees to be charged for all examinations.
- h) Agreeing with the ECCs the fees to be paid for examination services.
- i) Submitting to the MCA audited accounts of the examination operation.
- j) Receiving reports from the Chief (and Deputy Chief) Examiner. Acting upon these reports in an appropriate manner.
- k) Maintaining regular contact with the National Administration Centre (NAC).
- l) Promoting and organising at least one conference a year.

2.2 NATIONAL ADMINISTRATION CENTRE (GMDSS)

2.2.1 THE NAC IS RESPONSIBLE FOR:

- a) Accepting reports and records from ECCs.
- b) Establishing and maintaining an information database of candidates and certificate holders.
- c) Issuing of Certificates.
- d) Receiving candidate examination fees from ECCs.
- e) Dealing with general enquiries.

- f) Preparing statistical information and reports for the Maritime Consultation Group, MCA and AMERC Executive Committee.
- g) Liaising with Chief Examiner (GMDSS) to ensure uniformity and satisfactory standards.
- h) Producing and distributing examination papers.
- i) Liaising with the MCA on routine matters.
- j) Maintaining financial records and preparing an annual audited account.
- k) Forwarding appropriate fees to the MCA, ECs and Examiners (Examiners are paid monthly on a scale published by AMERC).

2.2.2 STAFFING

Appointing staff to fulfil the administrative and technical requirements.

2.2.3 LOCATION OF THE NAC (GMDSS)

Refer to Section 12.2 for the NAC (GMDSS) contact information.

2.3 EXAMINATION CO-ORDINATION CENTRE (ECC)

2.3.1 THE ECC IS RESPONSIBLE FOR:

- a) Responding to applications for examinations.
- b) Arranging for and conducting GMDSS examinations within its area at all reasonable times.
- c) Designating a member of staff as Centre Co-ordinator.
- d) Recording the performance of examination candidates.
- e) Forwarding to NAC (GMDSS) the following documentation within TWO calendar months following the date of examination:
 - i. completed candidate application forms
 - ii. results of examinations
 - iii. **two** passport photographs meeting the requirements of the UK Identity and Passport Service. Name is to be printed in block capitals on the rear of the photograph, signed by the examiner
 - iv. cheques for payment of examination fees, complete with cheque payment record.

Note NAC will not accept examination application forms received after two months following the date of examination unless prior arrangement has been made with the NAC Manager.
- f) Monitoring examination standards in accordance with the QA procedures specified in this handbook.

- g) Nominating at least TWO Approved Examiners and controlling all Approved Examiners based at the Centre.
- h) Recommending the appointment of an Examination Invigilator.
- i) Retaining the candidate's scripts and results sheet for a minimum period of one year after date of examination for access by Chief Examiner (GMDSS) and NAC (GMDSS) as required.
- j) Destroying all copies of candidate application forms once confirmation of receipt by NAC is confirmed.
- k) Advising candidates of the recommended examination result.
- l) Advising candidates of the procedures for re-sitting the examination.
- m) Informing candidates of the right of appeal and the procedures to be followed.
- n) Ensuring AMERC Company Secretary is fully informed of ECC contact names, appointed Examiners, and other ECC contact names (including home telephone numbers).

2.3.2 ECC CO-ORDINATOR IS RESPONSIBLE FOR:

- a) Liaising and maintaining a good working relationship with the centre management and associated Examination Venues.
- b) Arranging examinations as required.
- c) Allocating Examiners/Invigilators to examination duties.
- d) Maintaining the security of examination papers.
- e) Maintaining accurate records of examinations.
- f) Monitoring examination standards in accordance with the Quality Assurance (QA) procedures.
- g) Checking the records of candidates presenting themselves for re-assessment.
- h) Arranging for double marking of borderline scripts.
- i) Forwarding issues raised by Examiners/Invigilators and candidates to NAC /Chief Examiner.
- j) Ensuring relevant circulars and annual reports from AMERC AGM, EC, Examiners Panel, MCA, NAC, Inmarsat and similar bodies are notified to all Examiners via regular meetings.
- k) Ensuring exam scripts are sent by Special Delivery.

2.4 GMDSS EXAMINER

GMDSS Examiners are persons appointed to conduct assessment of GOC, ROC and LRC candidates in accordance with the requirements of 2.4.1. Examiners are initially appointed on a probationary basis (**Probationary Examiner**) and may conduct examinations only under the supervision of an experienced Approved Examiner. An **Approved Examiner** fully satisfies the requirements of 2.4.1, 2.4.2 and 2.4.3 below.

2.4.1 EXAMINER IS RESPONSIBLE FOR:

- a) Following examination guidelines and procedures for each examination category, as detailed in sections 3, 6 and 9 of this handbook.
- b) Verifying the photographic identity for each examinee.
- c) Checking each examinee for GOC and ROC has a valid Course Completion Certificate.

2.4.2 EXAMINER QUALIFICATIONS

- a) All GMDSS Examiners will hold a UK GMDSS General Operator's Certificate or MRGC or PMG Certificate.
- b) Probationary Examiners must have delivered all theoretical and practical aspects of the entire GMDSS Course (GOC, LRC, ROC as appropriate) for a minimum of 3 entire courses which can be continuous or cumulative to cover the required teaching hours, as circumstances permit.
- c) Approved Examiners will have relevant practical experience of the full range of GMDSS equipment in a teaching role for a minimum of 6 entire courses which can be continuous or cumulative to cover the required teaching hours, as circumstances permit.

2.4.3 EXAMINER APPOINTMENT

- a) Probationary Examiners are appointed by the ECC, subject to the approval of the AMERC Executive Committee.
- b) A Probationary Examiner is required to undergo an induction period supervised by an experienced Approved Examiner, where the Probationary Examiner:
 - i) Observes the assessment of candidates and experiences the procedures involved;
 - ii) Is monitored conducting all parts of 12 full individual examinations under close direct supervision;

At the discretion of the ECC co-ordinator, further supervision may be required.

- c) At the earliest opportunity Probationary Examiners are required to undergo a training course with the Chief Examiner.
- d) Subject to all conditions having been met and a satisfactory report from the ECC Co-ordinator to the Executive Committee, the Probationary Examiner will be then be appointed as an Approved Examiner.

2.4.4 CURRENT EXAMINERS

The National Administration Centre maintains a list of examiners. Any examiner who has not examined for 5 years will be removed from the list. Any such examiner wishing to recommence examining should submit an application to the EC.

2.5 COURSE PROVIDER

2.5.1 COURSE PROVIDER IS RESPONSIBLE FOR

- a) Gaining course approval certification from AMERC, for GMDSS GOC and ROC and Conversion to GOC, to meet requirement STCW Regulation IV/2, STCW Code Section A IV/2.
- b) Providing an MCA Course Completion Certificate as per STCW requirements, to candidates who have met the course criteria. Candidates must achieve 93% attendance as a minimum requirement to qualify for a course completion certificate. Where a candidate may have missed lectures due to illness etc., additional tuition is at the discretion of the course provider, if staff are available.

2.5.2 APPROVED EXAMINATION VENUE IS RESPONSIBLE FOR

- a) Providing examination premises and facilities in accordance with venue guidelines specified in section 12.10 of this Handbook.
- b) Providing the minimum equipment and support material requirement detailed in sections 4, 7 and 10 as appropriate of this Handbook.
- c) Notifying the ECC of any change in status or circumstance that would affect or prevent the conduct of examinations.

2.6 QUALITY ASSURANCE (QA) PROCEDURES

The following system for ensuring examination standards and quality of service has been adopted.

2.6.1 AMERC EXECUTIVE COMMITTEE

The AMERC Executive Committee:

- a) Considers any report raised by the GMDSS Chief Examiner, Deputy or Assistant Chief Examiner or Maritime Consultation Group.
- b) Appoints the Chief Examiner and if required Deputy or Assistant Chief Examiner.
- c) Approves the Examiners nominated by the ECCs.
- d) Validates and approves Examination Centres.

2.6.2 NATIONAL ADMINISTRATION CENTRE (GMDSS)

The National Administration Centre:

- a) Liaises with the Chief Examiner to ensure uniformity of standards.
- b) Informs the Chief Examiner of any appeals lodged.

2.6.3 EXAMINATION CO-ORDINATION CENTRE (ECC)

Each Examination Co-ordination Centre:

- a) Nominates **ONE** Examiner to attend the annual Examiners' Panel Meeting.
- b) Considers, in the first instance, any appeal raised by a candidate.

2.6.4 EXAMINERS' PANEL

This panel is chaired by the Chief Examiner (GMDSS) or Deputy Chief Examiner and is responsible to the AMERC Executive Committee for:

- a) Reviewing overall examination results, procedures and examination statistics produced by ECCs and NAC for the previous year.
- b) Producing a structure and standard format for the conduct of the examinations.
- c) Producing a bank of questions with model answers, revising and updating the question bank.
- d) Considers issues raised by the EC, Maritime Consultation Group or MCA.
- e) Providing members, at the request of the Executive Committee, to form an examiners panel to hear cases where an individual examiner is considered to have failed to adhere to examination standards.

2.6.5 CHIEF EXAMINER (GMDSS), DEPUTY OR ASSISTANT CHIEF EXAMINER

- a) The Chief Examiner is responsible to the AMERC Executive Committee for the Question Bank and overseeing the maintenance of common examination standards amongst ECCs.
- b) The Deputy or Assistant Chief Examiner, if appointed, are responsible to the AMERC Executive Committee and are required to assist the Chief Examiner with monitoring of examination standards and procedures of all examinations for which AMERC has responsibility.
- c) Either the Chief Examiner, Deputy or Assistant Chief Examiner is required to visit each Examination Centre on a scheduled, rotational basis; additionally on the instructions of the AMERC Executive Committee to investigate anomalies or complaints regarding the conduct of examinations.
- d) The Chief Examiner, with agreement of Executive Committee Chairman or Secretary is authorised to suspend an examiner with immediate effect for failing to adhere to examination standards.
- e) In the case of an appeal lodged by a candidate, based upon the standard, conduct or result of an examination, the Chief Examiner or Deputy is required to conduct an investigation and take

remedial action if appropriate. A report of such an appeal, and the ensuing action, is made to the AMERC Executive Committee and Maritime Consultation Group.

2.6.6 AUDIT PROCEDURES

Course approval and examination inspection audits are conducted to determine the effectiveness of approved courses and the GMDSS examination system. Audit reports are received by the AMERC Executive Committee and conveyed via the Maritime Consultation Group (MCG) to the Maritime and Coastguard Agency (MCA). The MCG uses the audit reports to inform any appropriate action that may be necessary to assure the quality of courses and examinations. See Appendix 12.9 for details of the audit procedure.

2.6.7 ACTIONS IN EVENT OF FAILURES TO COMPLY WITH EXAMINATION STANDARDS

2.6.7.1 APPROVED EXAMINATION VENUES (AEV)

- a) The Executive Committee meeting with Maritime Consultation Group will discuss concerns raised via normal QA procedures and will decide whether a visit is necessary. If a visit is thought not to be necessary, the Executive Committee may issue the AEV, via the ECC Co-ordinator, with requirements and/or recommendations.
- b) Where the Executive Committee decides that a visit is necessary, a visit by the Chief Examiner or Executive Committee member will be made. A verbal report will be made at the end of the visit to the ECC Co-ordinator and a written report submitted to the Executive Committee.
- c) Upon receiving the report, the Executive Committee will issue requirements, to be actioned by a specified date, to the AEV via the ECC Co-ordinator.
- d) The AEV, via the ECC Co-ordinator, should respond with an action plan to meet the requirements by the specified date.
- e) The progress of the action plan will be monitored by Secretary and the Chief Examiner
- f) A visit may be made, possibly unannounced, to ensure compliance with the action plan. This visit will be at the AEV's expense. Travelling & accommodation expenses and captive time will be charged. The rate for captive time will be commensurate with that used by the MCA
- g) Further non-compliances identified by the visit or normal QA procedures will be reported to the Executive Committee who will issue new requirements with a final warning.
- h) The Chief Examiner and a member of the Executive Committee will then make an unscheduled and possibly unannounced visit to the centre. An unsatisfactory report following this visit will lead to a recommendation by the Executive Committee for the withdrawal of the AEV's approval.
- i) Where deficiencies in course delivery have been identified and corrective measures have not been actioned, the EC has the right to suspend or remove a course provider's course approval. Once suspension or revocation has been issued, the course provider MAY NOT issue Course Completion Certificates.
- j) Where deficiencies in the examination process have been identified the Executive Committee has the right to suspend or revoke AEV status from a venue. In these circumstances, further

examinations must not be conducted. Any examination applications sent to the NAC on or after the suspension date will NOT be accepted from that AEV for processing.

- k) Appeals by a representative of the centre against actions 2.6.7.1(a) to (g) should be submitted in writing to the Secretary within the action plan date for forwarding to the MCA for their consideration. If the appeal is upheld by the MCA, the Executive Committee will modify or cancel any outcome or Action plan as directed by the MCA.
- l) Appeals against action 2.6.7.1(h) should be made in writing to the Secretary for forwarding to the MCA within seven working days of receipt of withdrawal of approval.

2.6.7.2 INDIVIDUAL EXAMINERS

- a) Concerns about an examiner raised by normal QA procedures will be reported and discussed by the Executive Committee during its meeting with the Maritime Consultation Group. If the concerns are deemed to be sufficiently serious, the matter will be referred to a specially convened examiners panel.
- b) Serious irregularities discovered during a visit by the Chief Examiner will be brought to the attention of Executive Committee Chairman, Secretary or Deputy Executive Committee Chairman. This consultation may result in the temporary, but immediate, suspension of the examiner.
- c) Following (a) or (b) the Executive Committee will ask for an Investigation Panel to be convened under the non-voting chairmanship of one of the Executive Committee. Three members of the examiners panel will be recruited to hear the case. The examiner under investigation will be able to attend with a supporter. The Chief Examiner will also be requested to attend.
- d) If the Investigation Panel finds that the examiner has failed to adhere to examination standards, they will issue a warning and a remedial action plan for the examiner.
- e) The Chairman of the Investigation Panel will monitor this action plan.
- f) In the event of failure to complete the action plan within the specified time or further non-compliances identified by QA procedures will lead to the implementation of (c). The Investigation Panel will issue a second remedial action plan with a final warning.
- g) The Chairman of the Investigation Panel will monitor this second action plan.
- h) Further failure to comply with this second action plan or identification of further non-compliances identified by QA procedures will result in a recommendation to the Executive Committee for the withdrawal of the examiner's approval.
- i) Appeals against actions issued during procedures 2.6.7.2(a) to (h) should be made in writing to the Secretary for consideration by the Executive Committee within seven working days of receipt of the suspension, action plan or withdrawal of approval.
- j) The examiner, accompanied by a supporter, may attend the Executive Committee's hearing of the appeal. If the appeal is upheld, the Executive Committee may reverse a decision or cancel or modify an action plan. If the appeal is refused the original decision or action plan will be effective.

- k) If the result of the appeal to the Executive Committee is the withdrawal of AMERC examiner status, then the examiner may appeal to the MCA. This appeal should be made in writing to the Secretary for forwarding to the MCA within seven working days of receiving the confirmation of the appeal.
- l) If the MCA upholds the appeal against the removal of the examiner status, the Executive Committee will act upon the MCA's recommendations. If the MCA rejects the appeal, then the examiner will be removed from the list of approved examiners.

2.7 REMOTE EXAMINATIONS

2.7.1 CONDITIONS

Centres MAY use remote examining in exceptional circumstances only if the following conditions are met.

- a) Approval from the Chief Examiner and/or the AMERC Secretary MUST be gained before remote examinations can take place.
- b) Remote Examinations may be conducted remotely only by a qualified AMERC Examiner AND the on-line event MUST be recorded and the recording must be kept for auditing purposes.
- c) The Examination Invigilator must be an approved AMERC Examiner (probably having delivered the course).
- d) Marking of the RT and GK Papers may be done by the Invigilator then scanned and sent to the remote Examiner for checking and double marking if required. Alternatively, the Invigilator may scan and send the RT and GK Papers to the Examiner for marking.
- e) At all times, during the RT and GK Exercises all of the students must be viewable to the Examiner and the voices of the Invigilator and Candidates must be clearly heard at all times.
- f) During the OPT Exercise the voices of the Invigilator and the Candidate must be clearly heard at all times. There MUST be a clear view of the candidate at all times AND there MUST be a shared view of the candidates touch screen (which can be toggled at the moment but the technology MUST allow for up to six shared touch screens in the future)

2.7.2 REMUNERATION

- a) UK based Examiners conducting examinations remotely in the UK OR Overseas WILL attract the full Examiners fee (as though they are actually present). Overseas Centres must be aware that they will have to pay this fee to the UK based Examiner.
- b) Overseas based Examiners conducting Examinations in the UK WILL attract the full Examiners fee (as though they are actually present.)
- c) Overseas Examiners conducting Examinations in Overseas locations may come to an arrangement with that Overseas Centre but remuneration must NOT exceed the current Examiner remuneration for UK based examiners.

3 GENERAL OPERATOR'S CERTIFICATE (GOC) EXAMINATION PROCEDURES

3.1 GENERAL

Examinations for GMDSS Certificates are usually made available subject to demand. Although every effort is made by ECCs to accommodate the requirements of candidates and Examination Centres, notice of one working week is normally required.

3.2 GUIDE TO APPLICANTS

3.2.1 STUDY REQUIREMENTS

GOC Candidates are required to undertake an MCA approved course of study and obtain a course completion certificate prior to the examination (see 2.5.1).

3.2.2 APPLICATION

Any individual or company requiring assessment for the examination should make application to the ECC of their choice.

3.2.3 NATIONALITY

There is no nationality requirement in respect of GOC certificates issued by the UK Administration.

3.2.4 AGE RESTRICTIONS

Certificates cannot be issued to candidates under the age of 18 years.

3.2.5 CONDITIONS

Each candidate is required to:

- a) Complete an Examination Application Form
- b) Supply TWO passport photographs meeting the requirements of the UK Identity and Passport Service. Name is to be printed in block capitals on the rear of the photograph.
- c) Pay the appropriate fee
- d) Provide a valid Course Completion Certificate from an MCA approved course of study
- e) Advise ECC Co-ordinator of date and location of previous examination attempts (if applicable).

3.3 LOCATION AND ARRANGEMENTS

3.3.1 LOCATION

Examinations are conducted at Approved Examination Venues (AEVs)

3.3.2 ARRANGEMENTS

Although every effort is made by ECCs to accommodate the requirements of candidates and Centres, the provision of this service will be agreed between the parties for provision at a mutually convenient date. Generally as a minimum, notice of one working week is required to offer this service in the United Kingdom and two working weeks for centres overseas. Additional costs incurred at UK remote AEVs for this service are detailed in Section 3.4.5. Additional costs at Overseas Remote AEVs are by mutual agreement between the ECC intending to provide the examination service and the Centre.

3.4 FEES AND EXPENSES

GMDSS Examination fees are VAT exempt.

3.4.1 GENERAL

Examination fees are set annually after joint consultation between AMERC and the MCA. See Appendix 12.12 for a detailed breakdown of examination fee elements.

3.4.2 PAYMENT OF EXAMINATION FEE

The following methods of payment are acceptable:-

- Bank Card (subject to bank commission charge)
- UK Postal Order
- Cheque
NB: cheques to be made payable to AMERC Ltd. NAC (GMDSS) drawn in £ sterling on a bank in the UK and supported by a Cheque Guarantee Card.
- BACs
UK A/C no. 297692 48 Sort Code 60-60-05 A/C Name: The Wray Castle Educational Trust
Re AMERC NAC (GMDSS), National Westminster Bank PLC, Leeds City Office, 8 Park Row, Leeds LS1 1QS.

(International IBAN Code GB53 NWBK 6060 0529 7692 48 B/C Code NWBK GB 2L)

NB Bank commission charges should be covered by the sender. AMERC will not process certificates until the full amount is received.

It is desirable that the ECC covers payments for all examinations. Should a cheque from a candidate be referred, then payment will be requested from the ECC. In such a case the certificate will be sent to the ECC and not directly to the candidate.

3.4.3 EXAMINATION FEE - GMDSS GENERAL OPERATOR'S CERTIFICATE (GOC)

The fee for the **FULL** GMDSS GOC examination is £180.00. Overseas Examination Co-ordination Centres pay £125.00 to AMERC NAC but may charge the candidate up to a maximum of £180.00 to cover additional expenses.

3.4.4 EXAMINATION VENUE CO-SITED WITH ECC

Where the Approved Examination Venue is co-sited with the Examination Co-ordination Centre, the Examination fee is as stated in 3.4.3 with no additional expenses incurred.

3.4.5 UK EXAMINATION VENUE NOT CO-SITED WITH ECC

Where a UK Approved Examination Venue is located at a site remote from the Examination Co-ordination Centre, candidates are required to pay the examination fee stated in 3.4.3 **PLUS**:

- i) Travel expenses, negotiated in advance between Examiner and AEV Centre
- ii) Captive time will be paid by the AEV to the Examiner by mutual agreement.

3.4.6 OVERSEAS EXAMINATION VENUE NOT CO-SITED WITH ECC

Where an overseas Approved Examination Venue is located at a site remote from the Examination Co-ordination Centre, additional costs are by mutual agreement between the ECC intending to provide the examination service and the AEV.

3.5 EXAMINATION FORMAT

3.5.1 GENERAL

All component parts of the examination must be conducted in the **English Language**.

Normally, an examiner may **NOT** conduct an examination on subjects, which they have taught the candidate. Under exceptional circumstances an instructor may have to act as examiner; in these cases, the instructor must be an approved examiner and permission should be sought from the NAC/Chief Examiner prior to the examination. Details of the exceptional circumstances must be communicated to the NAC (on page 2 of the candidate's application form).

3.5.2 GMDSS GENERAL OPERATOR'S CERTIFICATE

- a) Each ECC keeps a bank of examination papers to be used in rotation. New examination papers are prepared at the Examiners' Panel meeting. The exam papers are only accessed by the authorised centre co-ordinator via AMERC's bespoke software, 'AMERC Document Delivery System'. All AMERC Exam documents must be stored securely, with access restricted only to the ECC/AEV Coordinator.
- b) The examination consists of **THREE** elements:
 - i) General Knowledge paper. Consists of three written questions plus 12 multiple choice questions. 25 minutes allowed for this element.

Pass mark is 75%.

- ii) Operational Performance Test on the approved range of GMDSS equipment comprising Main Transceiver, DSC MF/HF/VHF Encoder, VHF Transceiver, Navtex Receiver and Keyboard skills, Inmarsat terminals or approved simulators, dummy EPIRB and SART, use of documents.

The maximum time for this examination is 90 minutes.

Pass mark of 70%.

- iii) Radiotelephony Communications Examination of simulated operating procedures in respect of SOLAS.

Examination time for six candidates approximately 30 minutes.

Pass mark of 75%.

- c) Examination sequence for assessing each element is at the discretion of each ECC and may be conducted over a maximum period of two days.
- d) The examination may be conducted by one or more Examiners.

3.6 ISSUE OF CERTIFICATES

On receipt of examination application forms and result of any assessments from the ECC, the NAC records the details on a database, files the forms and issues certificates directly to successful candidates. This procedure will normally be completed within two weeks.

3.7 STCW ENDORSEMENT

All officers who must comply with the requirements of the STCW Code must have their GMDSS Certificate endorsed by the Maritime and Coastguard Agency (MCA).

To obtain an STCW endorsement, send a completed STCW Application Form (currently MSF 4354 rev 12/23) together with supporting documentation to the MCA.

To obtain an STCW endorsement revalidation, send a completed STCW Application Form (currently MSF 4354 rev 12/23) together with supporting documentation to the MCA.

See www.amerc.ac.uk/endorsement for further details.

3.8 EXEMPTIONS - CONVERSION

Holders of an STCW GOC Certificate from a different administration wishing to obtain a UK STCW GOC certificate are permitted to attend only the last three days of a GOC course and sit the full examination in order to obtain a UK STCW GOC Certificate.

It is at the discretion of centres as to whether they offer this arrangement. Centres must gather a copy of the candidate's original GOC and their Course Completion Certificate in advance as proof of eligibility to sit the 3-day conversion course.

A UK ROC Certificate does not allow for any exemptions with regards to a GOC course or certificate.

3.9 REPLACEMENT CERTIFICATE

A Replacement GMDSS certificate can be obtained from the National Administration Centre on submission of a completed *Application for Replacement Certificates of Competence (Radio Operating)* form together with the replacement certificate fee. See www.amerc.ac.uk/lost for further details.

3.10 RE-ASSESSMENT

3.10.1 RE-SIT REQUIREMENTS

- (a) At the discretion of the ECC, candidates may be required to re-sit only failed sections of the examination providing:
- i) Re-assessment is conducted at the same AEV
 - ii) Re-assessment occurs within seven working days of original examination date
 - iii) At the discretion of the examiner, candidates may be allowed a maximum of one re-sit on the day of the examination. Thereafter, 24 hours should elapse before any further attempts.
 - iv) The FULL examination fee is paid irrespective of the number of sections to be retaken
 - v) in the case of a candidate obtaining a MINIMUM mark of 60/86 in the OPT examination but failing the examination due to one or more Shaded Box Entries, **one** re-sit may be granted covering only that equipment section in which the Shaded Box entry has been made. The original overall OPT mark should be entered on the re-sit form, together with a Pass or Fail grade.
- In the event of the candidate failing the re-sit, subsequent re-sit attempts should cover the **complete OPT scenario** examination.
- (b) In the case of a candidate re-sitting the examination eight working days, or more, after the original examination date, the candidate is required to:
- i) Re-sit ALL SECTIONS of the examination
 - ii) Pay the FULL examination fee.

3.10.2 NON-REPETITION OF EXAMINATION PAPERS

Candidates, who intend to re-sit the General Knowledge or R/T Communications examination, are to be given a different examination paper on each occasion. The GMDSS Chief Examiner is to be consulted in the event of all examination papers having been attempted by the candidate.

3.11 RE-SIT EXAMINATION AT ANOTHER AEV

A candidate who wishes to re-sit the examination at another Approved Examination Venue is required to re-sit **ALL SECTIONS** of the examination and pay the **FULL** examination fee.

3.12 CONDUCT AND INVIGILATION OF EXAMINATIONS

3.12.1 INVIGILATORS

GMDSS Examination invigilators must be approved by the ECC.

3.12.2 INSTRUCTIONS FOR INVIGILATORS:

- a) An Invigilator must be continuously present during the examination.
- b) The time allowed for each section is:
 - i) General Knowledge Paper 25 minutes
 - ii) Operational Performance Test Not exceeding 90 minutes
 - iii) R/T Communications Approximately 30 minutes (per group of 6)
- c) The examination room should be quiet at all times. Measures should be taken to prevent interruptions during the examination and an "Examination in Progress" notice posted prominently. Watches and calculators must be silent in operation.
- d) All mobile phones, smart watches or similar electronic data storage or communication devices belonging to candidates, invigilators and examiners must be fully switched off and inaccessible for the duration of the examination. They should be left on an unused desk or stowed away out of reach of candidates.
- e) A clock should be clearly visible to all candidates.
- f) Each candidate is required to provide their own writing implements.
- g) No unauthorised paper is allowed on the candidate's desk. Possession of unauthorised items will render a candidate liable to disqualification.
- h) All candidates should be seated five minutes before the start time of the examination.
- i) Candidates arriving after the start of the examination will not be allowed to enter the room.
- j) Candidates may only leave the room before the end of the examination under exceptional circumstances. In which case, the candidate must hand in all question and answer papers to the invigilator prior to quietly leaving the room. The candidate will not be permitted to re-enter the room, or continue the examination.
- k) During the Operational Performance Test, if two candidates are present in the room, there must be one examiner for each candidate. Candidates must be advised beforehand if there is to be more than one candidate present and must have the option to be examined on their own. There must be **sufficient physical separation** within the examination room to ensure that a candidate cannot hear instructions to, or responses by, the other candidate.

3.12.3 EXAMINER GUIDELINES

GENERAL

- a) All necessary papers required for the examination should be available at least one hour prior to the start of the examination.
- b) Where candidates are re-sitting the examination, ensure different papers to those already taken, are available.
- c) All equipment to be used in the R/T and OPT sections of the examination to be checked and verified to be in working order, at least one hour before the start of each section.
- d) A check should be made that each candidate holds a Course Completion Certificate.
- e) Give clear verbal instructions, on Re-sit Policy, prior to commencement of examination.
- f) Advise candidates individually, rather than collectively, of result of examination.
- g) Avoid lengthy discussion of any aspect of failure with a candidate. Information may be passed to the Course Tutor who can then brief the candidate on areas of weakness and the options available.
- h) Take care in completing the paperwork. Ensure **ALL** marks are entered on the result's sheets.

General Knowledge

- a) No books or notes allowed in examination room.
- b) Clean whiteboard/chalkboard. Clock clearly visible to all candidates.
- c) Explain the conditions of the examination.
- d) Give warnings of five minutes and two minutes remaining.
- e) Marking of papers should be strictly in accordance with model answers.
- f) Double marking must be carried out, by another examiner, if a candidate's marks are between 34 and 38. inclusive
- g) Evidence of double marking must be shown on the script in a different coloured pen.
- h) Explain how to complete the multi-choice grid, particularly with regard to changing an answer.

R/T COMMUNICATIONS

- a) Test communications system with all candidates prior to the start of the examination.
- b) Ensure all clocks are synchronised.
- c) Ensure candidates have clean log sheets.
- d) The exercise should follow as natural course of events as possible, rather than a stereotyped script format.

- e) Transmit a DSC Signal or play a recording of the DSC Signal prior to issuing the DSC Alert information.
- f) A steady pace with clear diction and use of the phonetic alphabet is required.
- g) The examiner is the control station and should dictate the flow of events, rather than the candidates.
- h) Allow time at the end of candidate's subsequent responses before transmitting the Seelonce Feenee Broadcast.
- i) If there is a low number of candidates, the examiner or other members of staff, should act as vessels. Three vessels, other than the vessel in distress, are the required minimum.
- j) Examiners should keep a log of the exercise for QA purposes.
- k) Examiners should highlight both the DSC and Distress Message positions when checking candidate's logs.

OPT

To be used in conjunction with the instructions on the OPT Examiner Marking sheet.

- a) Ensure all operating instructions are removed from the vicinity of the equipment prior to commencement of the examination.
- b) Take time to explain the marking system/time allowance to the candidate prior to commencing the tests.
- c) Keep a close watch on the time taken on each item of equipment by the candidate, bearing in mind the overall maximum time allowance of 90 minutes.
- d) Avoid the candidate seeing the results of the tests being entered on the sheets.
- e) Average ability marks should be awarded where candidates struggle to achieve the desired result of a task. It is unreasonable to have candidates achieving over 80 marks yet failing because the 90-minute time limit is exceeded.
- f) Where multiple manufacturers' equipment is indicated, the equipment must be alternated.
- g) Where live signals are required for MF/HF Transceiver Tests, 5505 kHz is an appropriate station in the UK area giving 24 hour weather information from Shannon by voice. Alternatively, HF Weather Data Stations can be sourced prior to the commencement of the examination.
- h) Candidates who are struggling to retrieve information from the Admiralty List of Signals, or the ITU Documents, should be moved on to the next task, particularly where no shaded box is involved.

3.12.4 IRREGULAR BEHAVIOUR

- a) In cases of serious disorderly conduct, the Invigilator may discontinue the examination for the candidate(s) concerned; expel the candidate(s) from the examination room after taking possession of the examination paper, answer sheets, and any material pertaining to the irregularity.

A report in writing, detailing the incident, is required to be communicated to the NAC Manager who will inform the Chief Examiner.

The candidate is to be advised of their right of appeal as detailed in Section 3.13.

- b) When a candidate is found to be in possession of unauthorised material or is suspected of copying, the candidate's answer sheets must be endorsed by the invigilator as having been used prior to the incident.

The candidate should then be advised that the procedures detailed in section 3.13 are to be applied.

- d) Where an irregularity is detected after an examination has been concluded, full details of the circumstances and all relevant materials must be immediately reported to the NAC Manager who will inform the Chief Examiner.

3.13 APPEALS

3.13.1 STAGE 1

In the event of a candidate being dissatisfied with the services received from an ECC, the candidate should, in the first instance, appeal in writing to the ECC Coordinator.

3.13.2 STAGE 2

If a satisfactory result is not achieved from the action of 3.13.1 the candidate may write to the NAC Manager. The matter will be investigated by the Chief Examiner whose decision is final and who will report directly to the Executive Committee.

4 GOC LIST OF EQUIPMENT AND SUPPORT MATERIAL

4.1 EQUIPMENT REQUIREMENTS FOR GOC COURSE APPROVAL

Approved GOC Courses must be supported with a GMDSS communications equipment installation. Two equipment options for this are available as follows:

- Option A Set of type approved marine GMDSS equipment
- Option B AMERC approved GMDSS simulation system

Course providers may supplement either option above with additional equipment - real or simulated. Advice should be sought from the Chief Examiner if in doubt.

Note: The maximum number of students on any course must not exceed 12.

Option A

One set of the following approved marine GMDSS equipment per group of 8 students as follows:

- a) Terrestrial transceiver capable of MF/HF operation or approved simulator[#]. Facility to receive live signals
- b) VHF transceiver with facilities to receive live signals or approved simulator[#]
- c) Navtex receiver or approved simulator[#]
- d) Class A, MF/HF/VHF Digital Selective Calling (DSC) encoder/decoder, with facilities to receive live signals or approved simulator[#]
- e) Inmarsat-C terminal or approved simulator⁺
- f) Facilities for measuring an Emergency DC supply or equivalent on approved simulator[#]
- g) Two dummy 406 MHz EPIRBs (different models) - only one required if approved simulator[#] provides an alternative model
- h) Two dummy 9 GHz SARTs (different models) - only one required if approved simulator[#] provides an alternative model
- i) Portable Survival Craft Handheld VHF or dummy
- j) Equipment for R/T communications exercise with PTT facilities and live or recorded DSC alarm
- k) Facilities for testing a fuse

[#] One touchscreen simulator station required for each simulated system

⁺ One simulator station required for each simulated system – touchscreen preferred, but non-touchscreen display with keyboard and mouse acceptable

AMERC approved simulators for Option A:

- i. Sailcom Inmarsat C Simulator (Version 1.50 or 1.70)
- ii. Transas 3000, 4000 and 5000 series GMDSS Simulator/Tutor (Version 9 or earlier)
- iii. ARI GMDSS Simulator 4.1.4.0

Note: Simulator displays must be configured to show equipment controls at close to real-equipment size, i.e. setups that considerably enlarge or compress the displayed equipment operator controls are not permitted.

Option B

Installation of one of the following AMERC approved GMDSS simulation systems:

- i. Poseidon Pharos GMDSS Simulator. (Only Versions 6.0.3, 7.1, 7.3 or 7.4, acceptable)
- ii. Transas 3000, 4000 and 5000 series GMDSS simulator/tutor (Version 9 or earlier)
- iii. ARI Furuno Simulator (version 4.0.9)
- iv. Vox Maris GMDSS Simulator version 2.5
- v. ARI GMDSS Simulator 4.1.4.0

The following MINIMUM requirements must be met:

- a) One instructor station if networked
- b) One trainee station per student consistent with course approval i.e. course approval for 12 students requires 12 trainee stations
- c) One set of hardware control panels per maximum of 12 students – not required if trainee stations use touchscreen technology
- d) Two dummy 9 GHz SARTs (different models) – only one required if simulator provides an alternative model
- e) Two dummy 406 MHz EPIRBs (different models) – only one required if simulator provides an alternative model
- f) One MF/HF receiver with facilities to receive live SSB voice signals – not required if using Transas simulator with live signal tuning modification, ARI Furuno simulator or Vox Maris simulator.

Note: Simulator displays must be configured to show equipment controls at close to real-equipment size, i.e. setups that considerably enlarge or compress the displayed equipment operator controls are not permitted.

4.2 EQUIPMENT REQUIREMENTS FOR GOC APPROVED EXAMINATION VENUES

An Approved Examination Venue is required to have GMDSS communications equipment installed to support the conduct of GOC examinations. Two equipment options are available as follows:

- Option A Set of type approved marine GMDSS equipment
- Option B AMERC approved simulation system

Approved Examination Venues may supplement either option above with additional equipment - real or simulated. Advice should be sought from the Chief Examiner if in doubt.

Option A

One set of the following approved marine GMDSS equipment as follows:

- a) Terrestrial transceiver capable of MF/HF operation or approved simulator[#]. Facility to receive live signals
- b) VHF transceiver with facilities to receive live signals or approved simulator[#]
- c) Navtex receiver or approved simulator[#]
- d) MF/HF/VHF Digital Selective Calling (DSC) encoder/decoder, with facilities to receive live signals or approved simulator[#]
- e) Inmarsat-C terminal or approved simulator⁺
- f) Facilities for measuring an Emergency DC supply or equivalent on approved simulator[#]
- g) Two dummy 406 MHz EPIRBs (different models) - only one required if approved simulator[#] provides an alternative model
- h) Two dummy 9 GHz SARTs (different models) - only one required if approved simulator[#] provides an alternative model
- i) Portable Survival Craft Handheld VHF or dummy
- j) Equipment for R/T communications exercise with PTT facilities and live or recorded DSC alarm
- k) Facilities for testing a fuse

[#] One simulator station required for each simulated system

⁺ One simulator station required for each simulated system – touchscreen preferred, but non-touchscreen display with keyboard and mouse acceptable

AMERC approved simulators for Option A:

- i. Sailcom Inmarsat C Simulator (Version 1.50 or 1.70)
- ii. Transas 3000, 4000 and 5000 series GMDSS Simulator/Tutor (Version 9 or earlier)
- iii. ARI GMDSS Simulator 4.1.4.0

Note: Simulator displays must be configured to show equipment controls at close to real-equipment size, i.e. setups that considerably enlarge or compress the displayed equipment operator controls are not permitted.

Option B

Installation of one of the following AMERC approved GMDSS simulation systems:

- i. Poseidon Pharos GMDSS Simulator. (Only Versions 6.0.3, 7.1, 7.3 or 7.4, acceptable)
- ii. Transas 3000, 4000 and 5000 series GMDSS simulator/tutor (Version 9 or earlier)
- iii. ARI Furuno Simulator (version 4.0.9)
- iv. Vox Maris GMDSS Simulator version 2.5
- v. ARI GMDSS Simulator 4.1.4.0

The following MINIMUM requirements must be met:

- a) One instructor station if networked.
- b) One set of hardware control panels per examination candidate

OR

One touchscreen display per item of simulated equipment per examination candidate.

- c) Two dummy 9 GHz SARTs (different models) – only one required if simulator provides an alternative model
- d) Two dummy 406 MHz EPIRBs (different models) – only one required if simulator provides an alternative model
- e) One MF/HF receiver with facilities to receive live SSB voice signals – not required if using Transas simulator with live signal tuning modification, ARI Furuno simulator or Vox Maris simulator.

Note: Simulator displays must be configured to show equipment controls at close to real-equipment size, i.e. setups that considerably enlarge or compress the displayed equipment operator controls are not permitted.

4.3 DOCUMENTATION AND SUPPORT MATERIAL FOR GOC EXAMINATIONS

Sufficient sets of the following documentation to meet examination requirements:

- a) Admiralty List of Radio Signals (ALRS) OR Admiralty Digital Radio Signals (ADRS), no more than 5 years old as follows: -
- ALRS NP281 (Volume 1) Maritime Radio Stations - *complete set of parts* **OR** ADRS Volume 1 – *all areas*
 - ALRS NP285 (Volume 5) Global Maritime Distress and Safety Systems (GMDSS) **OR** ADRS Volume 5 – *all areas*
 - ALRS NP286 (Volume 6) Pilot Services, Vessel Traffic Services and Port Operations - *complete set of parts* **OR** ADRS Volume 6 – *all areas*.
- b) ITU List of Ship Stations and Maritime Mobile Service Identity Assignments, CD ROM format, or via <https://www.itu.int/en/ITU-R/terrestrial/mars/pages/default.aspx>

4.4 DOCUMENTATION AND SUPPORT MATERIAL FOR GOC COURSE APPROVAL

Centres running or wishing to run approved GOC courses will need to show that they can provide, as a **MINIMUM**, student access to the following documentation:

- a) Admiralty List of Radio Signals (ALRS) OR Admiralty Digital Radio Signals (ADRS), no more than 5 years old as follows: -
- ALRS NP281 (Volume 1) Maritime Radio Stations - *one complete set of parts per six students per course* **OR** ADRS Volume 1 – *all areas, one set per six students per course.* *
 - ALRS NP285 (Volume 5) Global Maritime Distress and Safety Systems (GMDSS) - *one volume per two students per course* **OR** ADRS Volume 5 – *all areas, one per two students per course.* *
 - ALRS NP286 (Volume 6) Pilot Services, Vessel Traffic Services and Port Operations *one complete set per six students* **OR** ADRS Volume 6 - *all areas - one complete set per six students.* *

* For a course of more than six students the second set of ALRS/ADRS may be more than 5 years old but this teaching set cannot be used for examination and must be marked as such

ALRS and ADRS documentation may be combined to meet requirements.

- b) ITU List of Ship Stations and Maritime Mobile Service Identity Assignments, CD ROM format, or via <https://www.itu.int/en/ITU-R/terrestrial/mars/pages/default.aspx>

5 GOC EXAMINATION SYLLABUS

The information contained in Sections 5.1 and 5.2 has been extracted from Annex 1, ERC Decision of 10 March 1999 on the Harmonised Examination Syllabi for the General Operator's Certificate (GOC) ERC/DEC/(99)01 Amended 3 July 2015.

5.1 EXAMINATION SYLLABUS FOR THE GMDSS GENERAL OPERATOR'S CERTIFICATE (GOC)

The examination shall consist of theoretical and practical tests and shall include at least:

5.1.1 A. THE BASIC FEATURES OF THE MARITIME MOBILE SERVICE AND THE MARITIME MOBILE-SATELLITE SERVICE

- A1. The general principles and basic features of the maritime mobile service
- A2. The general principles and basic features of the maritime mobile-satellite service
- A3 The general principles and basic features of the GMDSS

5.1.2 B. PRACTICAL SKILLS TO USE A SHIP STATION

- B1. Radio installation
- B2. Digital Selective Calling (DSC)
- B3. NAVTEX
- B4. GMDSS compliant satellite systems.

5.1.3 C. OPERATIONAL PROCEDURES

- C1. Distress, urgency and safety communication for DSC and radiotelephony
- C2. Satellite communication
- C3. Other means of alerting and locating
- C4. Search and Rescue (SAR) communication
- C5. Maritime Safety Information (MSI)
- C6. Routine communication

5.1.4 D. MISCELLANEOUS SKILLS

- D1. Regulations and agreements
- D2. Documentation and publications
- D3. Ability to use English language, both written and spoken, for the satisfactory exchange of communications relevant to the safety of life at sea
- D4. Voyage planning
- D5. Traffic charges

5.2 EXAMINATION SYLLABUS GUIDELINES FOR THE GMDSS GOC

5.2.1 A. KNOWLEDGE OF THE BASIC FEATURES OF THE MARITIME MOBILE SERVICE AND THE MARITIME MOBILE-SATELLITE SERVICE

A1. The general principles and basic features of the Maritime Mobile Service

1.1 Types of communication in the Maritime Mobile Service

- Distress, urgency, safety and other communications
- Public correspondence
- Port operations and ship movement service
- Intership communications
- On-board communications
- Security communications
- Automatic communications

1.2 Types of stations in the Maritime Mobile Service

- Ship stations
- Coast stations:
 - Rescue Coordination Centres (RCC);
 - Port stations, etc.
- Stations on-board aircraft

1.3 Knowledge of frequencies and frequency bands

- The concept of frequency
- The equivalence between frequency and wavelength
- The unit of frequency: Hz, kHz, MHz, GHz
- The subdivision of the most significant part of the radio spectrum: LF, MF, HF, VHF, UHF, SHF

1.4 Knowledge of propagation of frequencies

- Different propagation mechanisms: line of sight, free space, ground wave and ionospheric
- Propagation of MF, HF, VHF, UHF and SHF frequencies

1.5 Knowledge of the role of the various modes of communication

- DSC
- Radiotelephony
- NBDP
- Data

1.6 Knowledge of different types of modulation and classes of emission

- Classes of emission
- Carrier frequency and assigned frequency
- Bandwidth of different emissions
- Official designations of emissions (e.g., G3E, G2B, J3E, F1B, J2B, H3E, etc.)
- Unofficial designations of emissions (e.g. SSB, TLX, etc.)

1.7 Frequencies allocated to the Maritime Mobile Service

- The usage of MF, HF, VHF, UHF and SHF frequencies in the maritime mobile service
- Simplex and duplex (VHF). - Paired and unpaired frequencies (HF).
- Distress and safety frequencies
- Routine calling frequencies

A2. The general principles and basic features of the Maritime Mobile-Satellite Service

2.1 Basic knowledge of satellite infrastructure system

- Space segment (satellites, orbits and coverage)
- Ground segment; Coast Earth Stations (CES) and Network Co-ordination Stations (NCS)
- Ship Earth Stations (SES)

2.2 Services

- Distress and safety

- Other services

A3. The general principles and basic features of the Global Maritime and Distress and Safety System (GMDSS)

- 3.1 Functional requirements in accordance with SOLAS Chapter 4
- 3.2 Sea Areas
- 3.3 Carriage requirements and methods to ensure the availability of radio equipment
- 3.4 Watch keeping on distress frequencies
- 3.5 Sources of energy including emergency and reserve sources of energy
- 3.6 Licences, radio safety certificates, radio operator certificates, inspections and surveys

5.2.2 B. PRACTICAL SKILLS TO USE A SHIP STATION

B1 Radio installation

1.1 VHF radio installation

- Typical controls and usage, e.g.
 - On/off switch
 - Transmitting power level control
 - Channel selector
 - Dual watch and scan mode
 - Volume control and squelch
 - DSC function, including watch keeping receiver

1.2 MF/HF radio installation

- Typical controls and usage, e.g.
 - On/off switch
 - Transmit power level control
 - ITU channel number setting
 - RX frequency setting
 - TX frequency setting
 - Tuning the transmitter
 - Mode of emission
 - Volume control and squelch
 - RF gain
 - AF gain
 - Automatic gain control (AGC)
- DSC function, including watch keeping receiver

1.3 Antennas and connections

- VHF whip antennas
- MF/HF whip antennas
- MF/HF wire antennas
- Spare antennas
- Satellite antennas
- Antenna cables
- Insulators

1.4 Reserve source of energy

- Different kinds of batteries and their characteristics
- Charging of batteries
- Maintenance of batteries
- Uninterruptible Power Supply (UPS) systems
- Dedicated generator for radio equipment (option for batteries)

1.5 Survival craft radio equipment

- Portable two-way VHF radiotelephone apparatus
- AIS-SART
- Search and Rescue Transponder (SART)
- Emergency Position Indicating Radio Beacons (EPIRB)

B2. Digital Selective Calling (DSC)

- 2.1 DSC setup menu (e.g. frequency selection, system check)
- 2.2 DSC call menu tree
 - Type of call (format specifier)
- 2.3 Message parts in a distress alert
 - Maritime Mobile Service Identity (MMSI) (identification of the ship in distress)
 - Nature of distress
 - Position and time (distress coordinates and UTC time)
 - Common choices of follow-up communication (telecommand)
- 2.4 Message parts in other calls
 - Address of the DSC call (address, MMSI)
 - Position definition (address) - (geographical MF or HF call only)
 - Order of priorities (category)
 - Common choices of follow-up communication (telecommand 1)
 - Additional information (telecommand 2)
 - Frequency or position information

B3. NAVTEX

- 3.1 The system
 - Purpose
 - Frequencies
 - Message format (transmitter ID, message type and number)
 - Transmitting stations
 - Reception range
- 3.2 The receiver
 - Selection of transmitters
 - Selection of message type
 - Messages which cannot be rejected
 - Storage of messages
 - Message interpretation
 - Use of subsidiary controls

B4. Usage of satellite systems

- 4.1 INMARSAT C
 - Components of an INMARSAT C terminal
 - Usage of an INMARSAT C terminal
 - Performance Verification tests (P/V) (Link test)
- 4.2 INMARSAT Enhanced Group Call (EGC) Receiver
 - Pre-programming a Ship Earth Station for EGC message reception
 - Selecting operating mode for EGC reception

5.2.3 C. OPERATIONAL PROCEDURES

C1. Distress, urgency and safety communication for DSC and radiotelephony

1.1 Distress communications using DSC

- Distress alert
 - The definition of a distress alert
 - Transmission of a distress alert
- Distress alert relay
 - The definition of a distress alert relay
 - Transmission of a shore-to-ship distress alert relay
 - Transmission of a ship-to-shore distress alert relay
 - Transmission of a distress alert by a station not itself in distress
- Receipt and acknowledgement of a distress alert
 - Receipt and acknowledgement by a coast station
 - Receipt and acknowledgement by a ship station
- Testing procedure

1.2 Distress communications using radiotelephony

- Distress signal
- Distress call
- Distress message
- Acknowledgement of a distress message
- Distress call relay (Transmission of a distress message by a station not itself in distress)
- Handling of distress traffic
- Search and Rescue (SAR) communications
- On-scene communications
- Distress traffic terminology
- Cancelling false distress alerts

1.3 Urgency and safety communications

- The meaning of urgency and safety communications
- Procedures for DSC urgency and safety calls
- Urgency announcement
- Urgency signal
- Urgency communications
- Medical transports
- Medical advice
- Safety announcement
- Safety signal
- Safety communications

1.4 Protection of distress and safety frequencies

- Guard bands
- Tests on distress and safety frequencies
- Transmissions during distress traffic
- Avoiding harmful interference
- Prevention of unauthorised transmissions

C2. Satellite communication

2.1 Ship Earth Station

- Distress alerting
 - Sending a distress alert
 - Sending a distress priority message
 - Cancelling a distress
 - Cancelling false distress alerts
- Distress communications

- Use of the distress facility
 - Telephony distress calls and messages
 - Procedures for distress calls and messages
 - Rescue Co-ordination Centres associated with the Coast Earth Stations.
 - Urgency and safety communications
 - Use of the urgency/safety facilities
 - Procedures for urgency/safety calls and messages
 - Telephony urgency/safety calls and messages
- 2.2 INMARSAT C Ship Earth Station
- Distress and safety services
 - Sending a distress alert
 - Sending a distress priority message
 - The INMARSAT C safety services
 - 2-digit service codes
 - Log in/log out
 - Performance Verification tests (P/V) (Link test)
- 2.3 INMARSAT EGC
- Purpose of the EGC system
 - Pre-programming a Ship Earth Station for EGC message reception
 - Selecting operating mode for EGC reception
- C3. Other means of alerting and locating
- 3.1 Satellite EPIRBs
- Basic characteristics of operation
 - Homing functions
 - Content of a distress alert
 - Manual activation
 - Automatic activation (Float-free function)
 - Routine maintenance
 - Testing
 - Checking battery expiry date
 - Checking the hydrostatic release mechanism expiry date
- 3.2 Cancelling false distress alerts
- 3.3 Search and Rescue Transponder (SART)
- Purpose
 - Operation
 - Range
 - Routine maintenance
 - Checking battery expiry date
 - Testing
- 3.4 AIS Search and Rescue Transmitter (AIS-SART)
- Purpose
 - Operation
 - Range
 - Routine maintenance
 - Checking battery expiry date
 - Testing
- C4. Search and Rescue (SAR) communication
- 4.1 The role of RCCs
- 4.2 Maritime rescue organisations
- 4.3 Volume III of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual
- 4.4 Ship reporting systems
- C5. Maritime Safety Information (MSI)

5.1 Reception of maritime safety information (MSI)

- NAVAREAS /METAREAS
- Reception by NAVTEX
- Reception by INMARSAT EGC
- Reception by HF NBDP
- Reception by radio telephony

C6. Routine communication

6.1 Communication by DSC

- Calling a coast station (ship-to-shore)
 - Transmitting individual DSC call on MF, HF, VHF
 - DSC acknowledgment from coast station
 - Follow-up communication
- Calling a ship station (ship-to-ship)
 - Transmitting individual DSC call on MF and VHF
 - DSC acknowledgment from ship station
 - Follow-up communication
- Coast station calling a ship station (shore-to-ship)
 - Receiving individual DSC call on MF, HF and VHF
 - Transmitting DSC acknowledgment to coast station
 - Follow-up communication
- Calling a group of stations
 - Transmitting and receiving DSC group call on MF, HF and VHF
 - Follow-up communication

6.2 Communication by radiotelephony

- Calling a coast station (ship-to-shore)
 - Calling on MF, HF, VHF
- Calling a ship station (ship-to-ship)
 - Calling on VHF
- Coast station calling a ship station (shore-to-ship)
 - Calling on VHF

5.2.4 D. MISCELLANEOUS SKILLS

D1. Regulations and agreements

- 1.1 Regulations and agreements governing the maritime mobile service and the maritime mobile-satellite service

D2. Documentation and publications

- 2.1 Use of obligatory documents and publications
- 2.2 Radio record keeping

D3. Ability to use English language, both written and spoken, for the satisfactory exchange of communications relevant to the safety of life at sea

- 3.1 Use of the IMO Standard Marine Communication Phrases (SMCP) and the International Code of Signals
- 3.2 Recognised standard abbreviations and commonly used service codes
- 3.3 Use of the international phonetic alphabet

D4. Voyage planning

- 4.1 Use of appropriate publications for the ships entire voyage
 - Identify the appropriate RCCs/Coast Radio Stations
 - Identify Search and Rescue Regions (SRR)
 - Identify NAVAREAs/METAREAs
 - Identify satellites to obtain Meteorological and Navigational information (EGC SafetyNet)

- Identify NAVTEX stations
- Identify the appropriate frequency or band

D5. Traffic charges

- 5.1 International charging system including AIC code (ITU documentation)

5.3 CONDITIONS OF THE AWARDS

The GMDSS General Operator's Certificate (GOC) will be awarded to applicants who have, by means of satisfactorily completing the appropriate standard written and practical tests, demonstrated their knowledge and ability in the area detailed in Sections 5.1 and 5.2.

6 RESTRICTED OPERATOR CERTIFICATE (ROC) EXAMINATION PROCEDURES

6.1 GENERAL

Examinations for GMDSS Certificates are usually made available subject to demand. Although every effort is made by ECCs to accommodate the requirements of candidates and Examination Centres, notice of one working week is normally required.

6.2 GUIDE TO APPLICANTS

6.2.1 STUDY REQUIREMENTS

ROC Candidates are required to undertake an MCA approved course of study and obtain a course completion certificate prior to the examination (see 2.5.1).

6.2.2 APPLICATION

Any individual, or company, requiring assessment for the examination should make application to the ECC of their choice.

6.2.3 NATIONALITY

There is no nationality requirement in respect of ROC certificates issued by the UK Administration

6.2.4 AGE RESTRICTIONS

Certificates cannot be issued to candidates under the age of 18 years.

6.2.5 CONDITIONS

Each candidate is required to:

- a) Complete an Examination Application Form
- b) Supply TWO photographs meeting the requirements of the UK Identity and Passport Service. Name is to be printed in block capitals on the rear of the photograph.
- c) Pay the appropriate fee
- d) Provide a valid Course Completion Certificate from an MCA approved course of study
- e) Advise ECC Co-ordinator of date and location of previous examination attempts (if applicable)

6.3 LOCATION AND ARRANGEMENTS

6.3.1 LOCATION

Examinations are normally conducted at Approved Examination Venues (AEVs)

6.3.2 ARRANGEMENTS

Although every effort is made by ECCs to accommodate the requirements of candidates and Centres, the provision of this service will be agreed between the parties for provision at a mutually convenient date. Generally, as a minimum, notice of one working week is required to offer this service in the United Kingdom and two working weeks for centres overseas. Additional costs incurred at UK Remote AEVs for this service are detailed in Section 6.4.5. Additional costs at Overseas Remote AEVs are by mutual agreement between the ECC intending to provide the examination service and the Centre.

6.4 FEES AND EXPENSES

GMDSS Examination fees are VAT exempt.

6.4.1 GENERAL

Examination fees are set annually after joint consultation between AMERC and the MCA. See Appendix 12.12 for a detailed breakdown of examination fee elements.

6.4.2 PAYMENT OF EXAMINATION FEE

The following methods of payment are acceptable:-

- Bank Card (subject to bank commission charge)
- UK Postal Order
- Cheque
NB: cheques to be made payable to AMERC Ltd. NAC (GMDSS) drawn in £ sterling on a bank in the UK and supported by a Cheque Guarantee Card.
- BACs
UK A/C no. 297692 48 Sort Code 60-60-05 A/C Name: The Wray Castle Educational Trust Re AMERC NAC (GMDSS), National Westminster Bank PLC, Leeds City Office, 8 Park Row, Leeds LS1 1QS.

(International IBAN Code GB53 NWBK 6060 0529 7692 48 B/C Code NWBK GB 2L)

NB Bank commission charges should be covered by the sender. AMERC will not process certificates until the full amount is received.

It is desirable that the ECC covers payments for all examinations. Should a cheque from a candidate be referred, then payment will be requested from the ECC. In such a case the certificate will be sent to the ECC and not directly to the candidate.

6.4.3 EXAMINATION FEE - RESTRICTED OPERATOR'S CERTIFICATE (ROC)

The examination fee for the CEPT Restricted Operator's Certificate (ROC) is £160.00. Overseas ECCs, pay £120.00 to AMERC NAC may charge the candidate up to a maximum of £160.00 to cover additional expenses.

6.4.4 EXAMINATION VENUE CO-SITED WITH ECC

Examination fee as stated in 6.4.3 with no additional expenses incurred.

6.4.5 UK EXAMINATION VENUE NOT CO-SITED WITH ECC

Where a UK Approved Examination Venue is located at a site remote from the Examination Co-ordination Centre, candidates are required to pay the examination fee stated in 6.4.3 **PLUS:**

- i) travel expenses, negotiated in advance between Examiner and candidates.
- ii) Captive time will be paid by the AEV to the Examiner by mutual agreement.

6.4.6 OVERSEAS EXAMINATION VENUE NOT CO-SITED WITH ECC

Where an overseas Approved Examination Venue is located at a site remote from the Examination Co-ordination Centre, additional costs are by mutual agreement between the ECC intending to provide the examination service and the AEV.

6.5 EXAMINATION FORMAT

6.5.1 GENERAL

All component parts of the examination must be conducted in the **English Language**.

Normally, an examiner may **NOT** conduct an examination on subjects, which they have taught the candidate. Under exceptional circumstances an instructor may have to act as examiner; in these cases the instructor must be an approved examiner and permission should be sought from the NAC/Chief Examiner prior to the examination. Details of the exceptional circumstances must be communicated to the NAC (on page 2 of the candidate's application form).

6.5.2 GMDSS RESTRICTED OPERATOR'S CERTIFICATE

- a) Each ECC keeps a bank of examination papers to be used in rotation. New examination papers are prepared at the Examiners' Panel meeting. The exam papers are only accessed by the authorised centre co-ordinator via AMERC's bespoke software, 'AMERC Document Delivery System'. All AMERC Exam documents must be stored securely, with access restricted only to the ECC/AEV Coordinator.
- b) The exam consists of THREE elements:
 - i) General Knowledge paper. Consists of two long questions plus 12 multiple choice questions.

When the examination is conducted orally, questions should be read out exactly as written a maximum of two times; if a question has to subsequently rephrased, a maximum of 50% of the total marks for the question may be awarded.

Reasons for marks being deducted should be written on the examination paper in the space provided.

Time allowed for this element is at the examiner's discretion.

Pass mark is 75%.

- ii) Operational Performance Test on marine radio equipment or approved simulator.

The maximum time for this examination is 45 minutes.

Pass mark of 70%.

- iii) Radiotelephony Communications Examination of simulated operating procedures in respect of SOLAS.

Pass mark of 75%.

- c) Examination sequence for assessing each element is at the discretion of each ECC.

- d) The examination may be conducted by one or more Examiners.

6.6 ISSUE OF CERTIFICATES

On receipt of examination application forms and result of any assessments from the ECC, the NAC records the details on a database, files the forms and issues certificates directly to successful candidates. This procedure will normally be completed within two weeks.

6.7 EXEMPTIONS - CONVERSION

The holder of a GMDSS LRC and a STCW Navigation Watch Keeping Certificate may apply to the MCA for a form to apply for a GMDSS ROC, otherwise no exemptions exist for any part of the examination

6.8 STCW ENDORSEMENT

All officers who must comply with the requirements of the STCW Code must have their GMDSS Certificate endorsed by the Maritime and Coastguard Agency (MCA).

To obtain an STCW endorsement, send a completed STCW Application Form (currently MSF 4354 rev 12/23) together with supporting documentation to the Maritime Coastguard Agency.

See www.amerc.ac.uk/endorsement for further details.

6.9 STCW ENDORSEMENT REVALIDATION

To obtain an STCW endorsement revalidation, send a completed STCW Application Form (currently MSF 4354 rev 12/23) together with supporting documentation to the MCA.

See www.amerc.ac.uk/revalidation for further details.

6.10 REPLACEMENT CERTIFICATE

A replacement GMDSS certificate can be obtained from the National Administration Centre on submission of a completed *Application for Replacement Certificates of Competence (Radio Operating)* form together with the replacement certificate fee. See www.amerc.ac.uk/lost for further details.

6.11 RE-ASSESSMENT

6.11.1 RE-SIT REQUIREMENTS

- a) At the discretion of the ECC, candidates may be required to re-sit only failed sections of the examination providing:
 - i) Re-assessment is conducted at the same ECC.
 - ii) Re-assessment occurs within seven working days of original examination date.
 - iii) At the discretion of the examiner, candidates may be allowed a maximum of one re-sit on the day of the examination. Thereafter, 24 hours should elapse before any further attempts.
 - iv) The FULL examination fee is paid irrespective of the number of sections to be retaken.
 - v) In the case of a candidate obtaining a MINIMUM mark of 34/48 in the OPT examination but failing the examination due to one or more Shaded Box Entries, one re-sit may be granted covering only that equipment section in which the Shaded Box entry has been made. The original overall Regulations/OPT mark should be entered on the re-sit form, together with a Pass or Fail grade.

In the event of the candidate failing the re-sit, subsequent re-sit attempts should cover the complete OPT examination.
- b) In the case of a candidate re-sitting the examination eight working days, or more, after the original examination date the candidate is required to:
 - i) Re-sit ALL SECTIONS of the examination.
 - ii) Pay the FULL examination fee.

6.11.2 NON-REPETITION OF EXAMINATION PAPERS

Candidates who intend to re-sit the SOLAS, Radio Regulation or R/T Communications examination are to be given a different examination paper on each occasion. The GMDSS Chief Examiner is to be consulted in the event of all examination papers having been attempted by the candidate.

6.11.3 RE-SIT EXAMINATIONS AT ANOTHER AEV

A candidate who wishes to re-sit the examination at another Approved Examination Venue is required to re-sit ALL SECTIONS of the examination and pay the FULL examination fee.

6.12 CONDUCT AND INVIGILATION OF EXAMINATIONS

6.12.1 INVIGILATORS.

Invigilators MUST be approved by the ECC.

6.12.2 INSTRUCTIONS FOR INVIGILATORS

- a) An Invigilator must be continuously present during the examination.
- b) The time allowed for each section is:
 - i) General Knowledge Paper At examiners discretion
 - ii) Operational Performance Test At examiners discretion
 - iii) R/T Communications Approximately 30 minutes (per group of 6)
- c) The examination room should be quiet at all times. Measures should be taken to prevent interruptions during the examination and an "Examination in Progress" notice posted prominently. Watches and calculators must be silent in operation.
- d) All mobile phones, smart watches or similar electronic data storage or communication devices belonging to candidates, invigilators and examiners must be fully switched off and inaccessible for the duration of the examination. They should be left on an unused desk or stowed away out of reach of candidates.
- e) A clock should be clearly visible to all candidates.
- f) Each candidate should provide their own writing implements.
- g) No unauthorised paper is allowed on the candidate's desk. Possession of unauthorised items will render a candidate liable to disqualification.
- h) All candidates should be seated five minutes before the start time of the examination.
- i) Candidates arriving after the start of the examination will not be allowed to enter the room.
- j) Candidates may only leave the room before the end of the exam under exceptional circumstances. In which case, the candidate must hand in all question and answer papers to the invigilator prior to quietly leaving the room. The candidate will not be permitted to re-enter the room, or continue the examination.
- k) During the Operational Performance Test if two candidates are present in the room there must be one examiner for each candidate. Candidates must be advised beforehand if there is to be more than one candidate present and must have the option to be examined on their own. There must be sufficient physical separation within the examination room to ensure that a candidate cannot hear instructions to, or responses by, the other candidate.

6.12.3 EXAMINER GUIDELINES

GENERAL

- a) All necessary papers required for the examination should be available at least one hour prior to the start of the examination.
- b) Where candidates are re-sitting the examination, ensure different papers to those already taken, are available.
- c) All equipment to be used in the R/T and OPT sections of the examination to be checked and verified to be in working order, at least one hour before the start of each section.
- d) A check should be made that each candidate holds a Course Completion Certificate.
- e) Give clear verbal instructions, on Re-sit Policy, prior to commencement of examination.
- f) Advise candidates individually, rather than collectively, of result of examination.
- g) Avoid lengthy discussion of any aspect of failure with a candidate. Information may be passed to the Course Tutor who can then brief the candidate on areas of weakness and the options available.
- h) Take care in completing the paperwork. Ensure **ALL** marks are entered on the result's sheets.

General Knowledge

- a) No books or notes allowed in examination room.
- b) Clean whiteboard/chalkboard. Clock clearly visible to all candidates.
- c) Explain the conditions of the examination.
- d) Marking of papers should be strictly in accordance with model answers.
- e) Double marking must be carried out, by another examiner, if a candidate's marks are between 25 and 29 inclusive.
- f) Evidence of double marking must be shown on the script in a different coloured pen.
- g) Explain how to complete the multi-choice grid, particularly with regard to changing an answer.

R/T COMMUNICATIONS

- a) Test communications system with all candidates prior to the start of the examination.
- b) Ensure all clocks are synchronised.
- c) Ensure candidates have clean log sheets.
- d) The exercise should follow as natural course of events as possible, rather than a stereotyped script format.
- e) Transmit a DSC Signal or play a recording of the DSC Signal prior to issuing the DSC Alert information.

- f) A steady pace with clear diction and use of the phonetic alphabet is required.
- g) The examiner is the control station and should dictate the flow of events, rather than the candidates.
- h) Allow time at the end of candidate's subsequent responses before transmitting the Seelonce Feenee Broadcast.
- i) If there is a low number of candidates, the examiner or other members of staff, should act as vessels. Three vessels, other than the vessel in distress, are the required minimum.
- j) Examiners should keep a log of the exercise for QA purposes.
- k) Examiners should highlight both the DSC and Distress Message positions when checking candidates' logs.

OPT/Regulations

To be used in conjunction with the instructions on the OPT Examiner Marking sheet.

- a) Ensure all operating instructions are removed from the vicinity of the equipment prior to commencement of the examination.
- b) Take time to explain the marking system/time allowance to the candidate prior to commencing the tests.
- c) Keep a close watch on the time taken by the candidate and, if struggling badly, move them on to the next question.
- d) Avoid the candidate seeing the results of the tests being entered on the sheets.
- e) Average ability marks should be awarded where candidates struggle to achieve the desired result of a task.
- f) Where multiple manufacturers' equipment is indicated, the equipment must be alternated.
- g) Candidates, who are struggling to retrieve information from the Admiralty List of Signals, or the ITU Documents, should be moved on to the next task, particularly where no shaded box is involved.

6.12.4 IRREGULAR BEHAVIOUR

- a) In cases of serious disorderly conduct, the invigilator may discontinue the examination for the candidate(s) concerned, expel the candidate(s) from the examination room after taking possession of the examination paper, answer sheets, and any material pertaining to the irregularity.

A report in writing, detailing the incident, is required to be communicated to the NAC Manager who will inform the Chief Examiner.

The candidate is to be advised of their right of appeal as detailed in Section 3.13.

- b) When a candidate is found to be in possession of unauthorised material or is suspected of copying, the candidate's answer sheets must be endorsed by the invigilator as having been used prior to the incident.

The candidate should then be advised that the procedures detailed in section 6.13 are to be applied.

- c) Where an irregularity is detected after an examination has been concluded, full details of the circumstances and all relevant materials must be immediately reported to the NAC Manager who will inform the Chief Examiner.

6.13 APPEALS

6.13.1 STAGE 1

In the event of a candidate being dissatisfied with the services received from an ECC, the candidate should, in the first instance, appeal in writing to the ECC Co-ordinator.

6.13.2 STAGE 2

If a satisfactory result is not achieved from the action of 6.13.1 the candidate may write to the NAC Manager. The matter will be investigated by the Chief Examiner whose decision is final and who will report directly to the Executive Committee.

7 ROC LIST OF EQUIPMENT AND SUPPORT MATERIAL

7.1 EQUIPMENT REQUIREMENTS FOR ROC COURSE APPROVAL

Approved ROC Courses must be supported with a GMDSS communications equipment installation. Two equipment options for this are available as follows:

- Option A Set of type approved marine GMDSS equipment
- Option B AMERC approved networked GMDSS simulation system

Course providers may supplement either option above with additional equipment - real or simulated. Advice should be sought from the Chief Examiner if in doubt.

Note: The maximum number of students on any course must not exceed 12.

Option A

One set of the following approved marine GMDSS equipment per group of 8 students as follows:

- a) VHF transceiver with facilities to receive live signals or approved simulator[#]
- b) Navtex receiver or approved simulator[#]
- c) Class A, VHF Digital Selective Calling (DSC) encoder/decoder, with facilities to receive live signals or approved simulator[#]
- d) Facilities for measuring an Emergency DC supply or equivalent on approved simulator[#]
- e) Two dummy 406 MHz EPIRBs (different models) - only one required if approved simulator[#] provides an alternative model
- f) Two dummy 9 GHz SARTs (different models) - only one required if approved simulator[#] provides an alternative model
- g) Portable Survival Craft Handheld VHF or dummy
- h) Equipment for R/T communications exercise with PTT facilities and live or recorded DSC alarm
- i) Facilities for testing a fuse

One touchscreen simulator station required for each simulated system

AMERC approved simulators for Option A:

- i. Sailcom Inmarsat C Simulator (Version 1.50 or 1.70)
- ii. Transas 3000, 4000 and 5000 series GMDSS Tutor (Version 9 or earlier)
- iii. ARI GMDSS Simulator 4.1.4.0

Note: Simulator displays must be configured to show equipment controls at close to real-equipment size, i.e. setups that considerably enlarge or compress the displayed equipment operator controls are not permitted.

Option B

Networked installation of one of the following AMERC approved GMDSS simulation systems:

- i. Poseidon Pharos GMDSS Simulator. (Only Versions 6.0.3, 7.1, 7.3 or 7.4, acceptable)
- ii. Transas 3000, 4000 and 5000 series GMDSS simulator/tutor (Version 9 or earlier)
- iii. ARI Furuno Simulator (version 4.0.9)
- iv. Vox Maris GMDSS Simulator version 2.5
- v. ARI GMDSS Simulator 4.1.4.0

The following MINIMUM requirements must be met:

- a) One instructor station
- b) One trainee station per student consistent with course approval i.e. course approval for 12 students requires 12 trainee stations
- c) One set of hardware control panels per maximum of 12 students – not required if trainee stations use Touchscreen technology
- d) Two dummy 9 GHz SARTs (different models) – only one required if simulator provides an alternative model
- e) Two dummy 406 MHz EPIRBs(different models) – only one required if simulator provides an alternative model

Note: Simulator displays must be configured to show equipment controls at close to real-equipment size, i.e. setups that considerably enlarge or compress the displayed equipment operator controls are not permitted.

7.2 EQUIPMENT REQUIREMENTS FOR ROC APPROVED EXAMINATION VENUES

An Approved Examination Venue is required to have GMDSS communications equipment installed to support the conduct of ROC examinations. Two equipment options are available as follows:

Option A Set of type approved marine GMDSS equipment

Option B AMERC approved networked simulation system

Approved Examination Venues may supplement either option above with additional equipment - real or simulated. Advice should be sought from the Chief Examiner if in doubt.

Option A

One set of the following approved marine GMDSS equipment as follows:

- a) VHF transceiver with facilities to receive live signals or approved simulator[#]
- b) Navtex receiver or approved simulator[#]
- c) VHF Digital Selective Calling (DSC) encoder/decoder, with facilities to receive live signals or approved simulator[#]
- d) Facilities for measuring an Emergency DC supply or equivalent on approved simulator[#]
- e) Two dummy 406 MHz EPIRBs (different models) - only one required if approved simulator[#] provides an alternative model
- f) Two dummy 9 GHz SARTs (different models) - only one required if approved simulator[#] provides an alternative model
- g) Portable Survival Craft Handheld VHF or dummy
- h) Equipment for R/T communications exercise with PTT facilities and live or recorded DSC alarm
- i) Facilities for testing a fuse

[#] One touchscreen simulator station required for each simulated system

AMERC approved simulators for Option A:

- i. Sailcom Inmarsat C Simulator (Version 1.50 or 1.70)
- ii. Transas 3000, 4000 and 5000 series GMDSS Tutor (Version 9 or earlier)
- iii. ARI GMDSS Simulator 4.1.4.0

Note: Simulator displays must be configured to show equipment controls at close to real-equipment size, i.e. setups that considerably enlarge or compress the displayed equipment operator controls are not permitted.

Option B

Networked installation of one of the following AMERC approved GMDSS simulation systems:

- i. Poseidon Pharos GMDSS Simulator. (Only Versions 6.0.3, 7.1, 7.3 or 7.4, acceptable)
- ii. Transas 3000, 4000 and 5000 series GMDSS simulator (Version 9 or earlier)
- iii. ARI Furuno Simulator (version 4.0.9)
- iv. Vox Maris GMDSS Simulator version 2.5
- v. ARI GMDSS Simulator 4.1.4.0

The following MINIMUM requirements must be met:

- a) One instructor station.
- b) One set of hardware control panels per examination candidate

OR

One touchscreen display per item of simulated equipment per examination candidate.

- c) Two dummy 9 GHz SARTs (different models) – only one required if simulator provides an alternative model
- d) Two dummy 406 MHz EPIRBs (different models) – only one required if simulator provides an alternative model

Note: Simulator displays must be configured to show equipment controls at close to real-equipment size, i.e. setups that considerably enlarge or compress the displayed equipment operator controls are not permitted.

7.3 DOCUMENTATION AND SUPPORT MATERIAL FOR ROC EXAMINATIONS

a) Admiralty List of Radio Signals (ALRS) OR Admiralty Digital Radio Signals (ADRS), no more than 5 years old as follows: -

- ALRS NP281 (Volume 1) Maritime Radio Stations – *one complete set*
- ALRS NP285 (Volume 5) Global Maritime Distress and Safety Systems (GMDSS)
- ALRS NP286 (Volume 6) Pilot Services, Vessel Traffic Services and Port Operations – *one complete set*

ALRS and ADRS documentation may be combined to meet requirements

b) ITU List of Ship Stations and Maritime Mobile Service Identity Assignments, CD ROM format, or via <https://www.itu.int/en/ITU-R/terrestrial/mars/pages/default.aspxAdmiralty>

7.4 DOCUMENTATION AND SUPPORT MATERIAL FOR ROC COURSE APPROVAL

Centres running or wishing to run approved ROC courses will need to show that they can provide, as a **MINIMUM**, student access to the following documentation:

a) Admiralty List of Radio Signals (ALRS) OR Admiralty Digital Radio Signals (ADRS), no more than 5 years old as follows: -

- ALRS NP281 (Volume 1) Maritime Radio Stations - *one complete set of parts per six students per course* **OR** ADRS Volume 1 – *all areas, one per six students per course.* *
- ALRS NP285 (Volume 5) Global Maritime Distress and Safety Systems (GMDSS) - *one volume per two students per course* **OR** ADRS Volume 5 – *all areas, one per two students per course.* *
- ALRS NP286 (Volume 6) Pilot Services, Vessel Traffic Services and Port Operations —*one complete sets of parts per six students* **OR** ADRS Volume 6 - *all areas, one complete set per six students.* *

* For a course of more than six students the second set of ALRS may be more than 5 years old but this teaching set cannot be used for examination, and must be clearly marked as such.

ALRS and ADRS documentation may be combined to meet requirements

b) ITU List of Ship Stations and Maritime Mobile Service Identity Assignments, CD ROM format, or via <https://www.itu.int/en/ITU-R/terrestrial/mars/pages/default.aspxAdmiralty>

8 ROC EXAMINATION SYLLABUS

The information contained in sections 8.1 and 8.2 has been extracted from Annex 2 of the ERC Decision of 10 March 1999 on the Harmonised Examination Syllabi for the Restricted Operator's Certificate (ROC) ERC/DEC/(99)01 amended 3 July 2015

8.1 EXAMINATION SYLLABUS FOR GMDSS RESTRICTED OPERATOR'S CERTIFICATE

The examination shall consist of theoretical and practical tests and shall include at least:

8.1.1 A THE BASIC FEATURES OF THE MARITIME MOBILE SERVICE

- A1. The general principles and basic features of the maritime mobile service
- A2. The general principles and basic features of the GMDSS

8.1.2 B PRACTICAL SKILLS TO USE A SHIP STATION

- B1. Radio installation
- B2. Digital Selective Calling (DSC)
- B3. NAVTEX

8.1.3 C OPERATIONAL PROCEDURES

- C1. Distress, urgency and safety communication for DSC and radiotelephony
- C2. Other means of alerting and locating
- C3. Search and Rescue (SAR) communication
- C4. Maritime Safety Information (MSI)
- C5. Routine communication

8.1.4 D MISCELLANEOUS SKILLS

- D1. Regulations and agreements
- D2. Documentation and publications
- D3. Ability to use English language, both written and spoken, for the satisfactory exchange of communications relevant to the safety of life at sea
- D4. Voyage planning
- D5. Traffic charges

8.2 EXAMINATION SYLLABUS GUIDELINES FOR ROC CERTIFICATE

8.2.1 A KNOWLEDGE OF THE BASIC FEATURES OF THE MARITIME MOBILE SERVICE

A1. The general principles and basic features of the Maritime Mobile Service

1.1 Types of communication in the Maritime Mobile Service

- Distress, urgency, safety and other communications
- Public correspondence
- Port operations and ship movement service
- Intership communications
- On-board communications
- Automatic communications

1.2 Types of stations in the Maritime Mobile Service

- Ship stations
- Coast stations:
 - Rescue Coordination Centres (RCC);
 - Port stations, etc.
- Stations on-board aircraft

1.3 Knowledge of frequencies and frequency bands

- The concept of frequency
- The equivalence between frequency and wavelength
- The unit of frequency: Hz, kHz, MHz, GHz
- The subdivision of the most significant part of the radio spectrum: LF, MF, HF, VHF, UHF, SHF

1.4 Knowledge of propagation of frequencies

- Different propagation mechanisms: line of sight and ground wave
- Propagation of VHF and UHF frequencies

1.5 Knowledge of the role of the various modes of communication

- DSC
- Radiotelephony
- Data

1.6 Knowledge of different types of modulation and classes of emission

- Classes of emission
- Official designations of emissions (e.g., G3E, G2B, F1B)

1.7 Frequencies allocated to the Maritime Mobile Service

- The usage of MF, HF, VHF, UHF and SHF frequencies in the maritime mobile service
- Simplex and duplex
- Distress and safety frequencies
- Routine calling frequencies

A2 The general principles and basic features of the GMDSS

2.1 Functional requirements in accordance with SOLAS Chapter 4

2.2 Sea Areas

2.3 Carriage requirements and methods to ensure the availability of radio equipment

2.4 Watch keeping on distress frequencies

2.5 Sources of energy including emergency and reserve sources of energy

2.6 Licences, radio safety certificates, radio operator certificates, inspections and surveys

8.2.2 B. PRACTICAL SKILLS TO USE A SHIP STATION

B1 Radio installation

1.1 VHF radio installation

- Typical controls and usage, e.g.
 - On/off switch
 - Transmitting power level control

- Channel selector
- Dual watch and scan mode
- Volume control and squelch
- DSC function, including watch keeping receiver
- 1.2 Antennas and connections
 - VHF whip antennas
 - Spare antennas
 - Antenna cables
 - Insulators
- 1.3 Reserve source of energy
 - Different kinds of batteries and their characteristics
 - Charging of batteries
 - Maintenance of batteries
 - UPS systems
 - Dedicated generator for radio equipment (option for batteries)
- 1.4 Survival craft radio equipment
 - Portable two-way VHF radiotelephone apparatus
 - AIS-SART
 - SART
 - EPIRB
- B2. Digital Selective Calling (DSC)
 - 2.1 DSC setup menu (e.g. frequency selection, system check)
 - 2.2 DSC call menu tree
 - Type of call (format specifier)
 - 2.3 Message parts in a distress alert
 - MMSI (identification of the ship in distress)
 - Nature of distress
 - Position and time (distress coordinates and UTC time)
 - Choices of follow-up communication (telecommand)
 - 2.4 Message parts in other calls
 - Address of the DSC call (address, MMSI)
 - Order of priorities (category)
 - Follow-up communication (telecommand 1)
 - Additional information (telecommand 2)
 - Frequency or position information
- B3. NAVTEX
 - 3.1 The system
 - Purpose
 - Frequencies
 - Message format (transmitter ID, message type and number)
 - Transmitting stations
 - Reception range
 - 3.2 The receiver
 - Selection of transmitters
 - Selection of message type
 - Messages which cannot be rejected
 - Storage of messages
 - Message interpretation
 - Use of subsidiary controls

8.2.3 C. OPERATIONAL PROCEDURES

- C1. Distress, urgency and safety communication for DSC and radiotelephony
 - 1.1 Distress communications using DSC
 - DSC distress alert
 - The definition of a distress alert
 - Transmission of a distress alert

- DSC distress alert relay
 - The definition of a distress alert relay
 - Transmission of a shore-to-ship distress alert relay
 - Transmission of a ship-to-shore distress alert relay
 - Transmission of a distress alert by a station not itself in distress
- Receipt and acknowledgement of DSC distress alert
 - Receipt and acknowledgement by a coast station
 - Receipt and acknowledgement by a ship station
- Testing procedure
- 1.2 Distress communications using radiotelephony
 - Distress signal
 - Distress call
 - Distress message
 - Acknowledgement of a distress message
 - Distress call relay (Transmission of a distress message by a station not itself in distress)
 - Handling of distress traffic
 - SAR communications
 - On-scene communications
 - Distress traffic terminology
 - Cancelling false distress alerts
- 1.3 Urgency and safety communications
 - The meaning of urgency and safety communications
 - Procedures for DSC urgency and safety calls
 - Urgency announcement
 - Urgency signal
 - Urgency communications
 - Medical transports
 - Medical advice
 - Safety announcement
 - Safety signal
 - Safety communications
- 1.4 Protection of distress frequencies
 - Guard bands
 - Tests on distress and safety frequencies
 - Transmissions during distress traffic
 - Avoiding harmful interference
 - Prevention of unauthorised transmissions
- C2. Other means of alerting and locating
 - 2.1 Satellite EPIRBs
 - Basic characteristics of operation
 - Homing functions
 - Content of a distress alert
 - Manual activation
 - Automatic activation (Float-free function)
 - Routine maintenance
 - Testing
 - Checking battery expiry date
 - Checking the hydrostatic release mechanism expiry date
 - 2.2 Cancelling false distress alerts
 - 2.3 Search and Rescue Transponder (SART)
 - Purpose
 - Operation
 - Range
 - Routine maintenance
 - Checking battery expiry date
 - Testing

- 2.4 AIS Search and Rescue Transmitter (AIS-SART)
 - Purpose
 - Operation
 - Range
 - Routine maintenance
 - Checking battery expiry date
 - Testing
- C3. Search and Rescue (SAR) communication
 - 3.1 The role of RCCs
 - 3.2 Volume III of the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual
 - 3.3 Maritime rescue organisations
 - 3.4 Ship reporting systems
- C4. Maritime Safety Information (MSI)
 - 4.1 Reception of maritime safety information (MSI)
 - NAVAREAS / METAREAS
 - Reception by NAVTEX
 - Reception by radio telephony
- C5. Routine communication
 - 5.1 Communication by DSC
 - Calling a coast station (ship-to-shore)
 - Transmitting individual DSC call
 - DSC acknowledgment from coast station
 - Follow-up communication
 - Calling a ship station (ship-to-ship)
 - Transmitting individual DSC call
 - DSC acknowledgment from ship station
 - Follow-up communication
 - Coast station calling a ship station (shore-to-ship)
 - Receiving individual DSC call
 - Transmitting DSC acknowledgment to coast station
 - Follow-up communication
 - Calling a group of stations
 - Transmitting and receiving DSC group call
 - Follow-up communication
 - 5.2 Communication by radiotelephony
 - Calling a coast station (ship-to-shore)
 - Calling a ship station (ship-to-ship)
 - Coast station calling a ship station (shore-to-ship)

8.2.4 D. MISCELLANEOUS SKILLS

- D1. Regulations and agreements
 - 1.1 Regulations and agreements governing the maritime mobile service and the maritime mobile-satellite service
- D2. Documentation and publications
 - 2.1 Use of obligatory documents and publications
 - 2.2 Radio record keeping
- D3. Ability to use English language, both written and spoken, for the satisfactory exchange of communications relevant to the safety of life at sea
 - 3.1 Use of the IMO Standard Marine Communication Phrases (SMCP) and the International Code of Signals
 - 3.2 Recognised standard abbreviations and commonly used service codes
 - 3.3 Use of the international phonetic alphabet
- D4. Voyage planning
 - 4.1 Use of appropriate publications for the ships entire voyage
 - Identify the appropriate RCCs/Coast Radio Stations

- Identify Search and Rescue Regions (SRR)
- Identify NAVAREAs/METAREAs
- Identify NAVTEX stations

D5. Traffic charges

- 5.1 International charging system including Accounting Authority Identification Code (AAIC) (ITU documentation)

8.3 CONDITIONS OF THE AWARDS

The GMDSS Restricted Operator's Certificate (ROC) will be awarded to applicants who have, by means of satisfactorily completing the appropriate standard written and practical tests, demonstrated their knowledge and ability in the areas detailed in Section 8.1

9 LONG RANGE CERTIFICATE (LRC) EXAMINATION PROCEDURES

9.1 GENERAL

Examinations for GMDSS Certificates are usually made available subject to demand. Although every effort is made by ECCs to accommodate the requirements of candidates, notice of one working week is normally required.

9.2 GUIDE TO APPLICANTS

9.2.1 STUDY REQUIREMENTS

It is recommended that candidates undertake a course of study prior to the examination.

9.2.2 APPLICATION

Any individual, or company, requiring assessment for the examination should make application to the ECC of their choice.

9.2.3 NATIONALITY

There is no nationality requirement in respect of LRC certificates issued by the UK Administration.

9.2.4 AGE RESTRICTIONS

Certificates cannot be issued to candidates under the age of 16 years.

9.2.5 CONDITIONS

Each candidate is required to:

- a) Complete an Examination Application Form.
- b) Supply TWO passport photographs meeting the requirements of the UK Identity and Passport Service. Name is to be printed in block capitals on the rear of the photograph.
- c) Pay the appropriate fee
- d) Advise ECC Co-ordinator of date and location of previous examination attempts (if applicable).

9.3 LOCATION AND ARRANGEMENTS

9.3.1 LOCATION

Examinations are normally conducted at Approved Examination Venues (AEVs).

9.3.2 ARRANGEMENTS

Although every effort is made by ECCs to accommodate the requirements of candidates and Centres, the provision of this service will be agreed between the parties for provision at a mutually convenient date. Generally, as a minimum, notice of one working week is required to offer this service in the United Kingdom and two working weeks for centres overseas. Additional costs incurred at UK Remote AEVs for this service are detailed in Section 9.4.5. Additional costs at Overseas Remote AEV are by mutual agreement between the ECC intending to provide the examination service and the Centre.

9.4 FEES AND EXPENSES

GMDSS Examination fees are VAT exempt.

9.4.1 GENERAL

Examination fees are set annually after joint consultation between AMERC and the MCA. See Appendix 12.12 for a detailed breakdown of examination fee elements.

9.4.2 PAYMENT OF EXAMINATION FEE.

The following methods of payment are acceptable:-

- Bank Card (subject to bank commission charge)
- UK Postal Order
- Cheque

NB: cheques to be made payable to AMERC Ltd. NAC (GMDSS) drawn in £ sterling on a bank in the UK and supported by a Cheque Guarantee Card.

- BACs
UK A/C no. 297692 48 Sort Code 60-60-05 A/C Name: The Wray Castle Educational Trust Re AMERC NAC (GMDSS), National Westminster Bank PLC, Leeds City Office, 8 Park Row, Leeds LS1 1QS.

(International IBAN Code GB53 NWBK 6060 0529 7692 48 B/C Code NWBK GB 2L)

NB Bank commission charges should be covered by the sender. AMERC will not process certificates until the full amount is received.

It is desirable that the ECC covers payments for all examinations. Should a cheque from a candidate be referred, then payment will be requested from the ECC. In such a case the certificate will be sent to the ECC and not directly to the candidate.

9.4.3 EXAMINATION FEE - LONG RANGE CERTIFICATE (LRC) EXAMINATION

- a) Long Range Radiotelephone Operator's Certificate of Competence.

The UK examination fee for the CEPT Long Range Certificate (LRC) is £140.00. Overseas Examination Co-ordination Centres pay £100.00 to AMERC NAC but may charge the candidate up to a maximum of £140.00 to cover additional expenses.

- b) Satellite Module.

- i) Candidates may choose to be examined for this Module while undertaking the examination of the LRC at no additional charge.
- ii) The examination fee for this Module if taken separately is £60.00.

9.4.4 EXAMINATION VENUE CO-SITED WITH ECC

Examination fee as stated in 9.4.3 with no additional expenses incurred.

9.4.5 UK EXAMINATION VENUE NOT CO-SITED WITH ECC

GMDSS LRC outreach candidates are required to pay the examination fee stated in 9.4.3 PLUS:

- i) Travel expenses, negotiated in advance between Examiner and candidates.
- ii) Captive time will be paid by the AEV to the Examiner by mutual agreement.

9.4.6 OVERSEAS EXAMINATION VENUE NOT CO-SITED WITH ECC

Where an overseas Approved Examination Venue is located at a site remote from the Examination Co-ordination Centre, additional costs are by mutual agreement between the ECC intending to provide the examination service and the AEV.

9.5 EXAMINATION FORMAT

9.5.1 GENERAL

All component parts of the examination must be conducted in the **English Language**.

Normally, an examiner may **NOT** conduct an examination on subjects, which they have taught the candidate. Under exceptional circumstances an instructor may have to act as examiner; in these cases, the instructor must be an approved examiner and permission should be sought from the NAC/Chief Examiner prior to the examination. Details of the exceptional circumstances must be communicated to the NAC (on page 2 of the candidate's application form).

9.5.2 ORAL EXAMINATION

- a) When the examination is conducted orally, questions should be read out exactly as written, a maximum of two times.
- b) If a question has to be subsequently rephrased, a maximum of 50% of the total marks may be awarded.
- c) Reasons for mark deductions should be indicated in the answer space provided; only the mark for correct answers is required to be written alongside the question.

9.5.3 CEPT LONG RANGE RADIOTELEPHONE OPERATOR'S (LRC).

- a) Each ECC keeps a bank of examination papers to be used in rotation. New examination papers are prepared at the annual Examiners' Panel meeting. The exam papers are only accessed by the authorised centre co-ordinator via AMERC's bespoke software, 'AMERC Document Delivery

System'. All AMERC Exam documents must be stored securely, with access restricted only to the ECC/AEV Coordinator.

- b) The exam consists of THREE elements:
- i) General Knowledge paper. Consists of two long questions plus 12 multiple choice questions.

When the examination is conducted orally, questions should be read out exactly as written a maximum of two times; if a question has to subsequently rephrased, a maximum of 50% of the total marks for the question may be awarded.

Reasons for marks being deducted should be written on the examination paper in the space provided.

Time allowed for this element is at the examiner's discretion.

Pass mark is 75%.
 - ii) Operational Performance Test on marine radio equipment or approved simulator.

The maximum time for this examination is at the discretion of the examiner.

Pass mark of 70%.
 - iii) Radiotelephony Communications Examination of simulated operating procedures in respect of SOLAS.

Pass mark of 75%.
- c) Examination sequence for assessing each element is at the discretion of each ECC.
- d) The examination may be conducted by one or more Examiners and may be conducted over a period of two days.

9.5.4 CEPT LRC SATELLITE MODULE

- a) Each ECC keeps a bank of examination papers to be used in rotation. New examination papers are prepared at the annual Examiners' Panel meeting.
- b) The exam consists of TWO elements:
- i) General Knowledge paper. Consists of one long question plus 8 multiple choice questions.

When the examination is conducted orally, questions should be read out exactly as written a maximum of two times; if a question has to subsequently rephrased, a maximum of 50% of the total marks for the question may be awarded.

Reasons for marks being deducted should be written on the examination paper in the space provided.

Time allowed for this element is at the examiner's discretion.

Pass mark is 75%.

- ii) Operational Performance Test on marine satellite communication equipment or approved simulator.

The maximum time for this examination is at the discretion of the examiner.

Pass mark of 70%.

- c) Examination sequence for assessing each element is at the discretion of each ECC and may be conducted over a maximum period of two days.
- d) The examination may be conducted by one or more Examiners.

9.6 ISSUE OF CERTIFICATES

On receipt of examination application forms and result of any assessments from the ECC, the NAC records the details on a database, files the forms and issues certificates directly to successful candidates. This procedure will normally be completed within two weeks.

9.7 EXEMPTIONS

No exemptions exist for any part of the examination.

9.8 REPLACEMENT CERTIFICATE

A replacement certificate can be obtained from the National Administration Centre on submission of a completed *Application for Replacement Certificates of Competence (Radio Operating)* form together with the replacement certificate fee. See www.amerc.ac.uk/lost for further details.

9.9 RE-ASSESSMENT

9.9.1 RE-SIT REQUIREMENTS

- a) At the discretion of the ECC, candidates may be required to re-sit only failed sections of the examination providing:
 - i) Re-assessment is conducted at the same ECC.
 - ii) Re-assessment occurs within seven working days of original examination date.
 - iii) At the discretion of the examiner, candidates may be allowed a maximum of one re-sit on the day of the examination. Thereafter, 24 hours should elapse before any further attempts.
 - iv) The FULL examination fee is paid irrespective of the number of sections to be retaken.
 - v) in the case of a candidate obtaining a MINIMUM mark of 40/58 in the OPT examination but failing the examination due to one or more Shaded Box Entries, a re-sit may be granted covering only that equipment section in which the Shaded Box entries have been made. The original overall OPT mark should be entered on the re-sit form, together with a Pass or Fail grade.
- b) In the case of a candidate re-sitting the examination eight working days, or more, after the original examination date the candidate is required to:

- i) Re-sit ALL SECTIONS of the examination
- ii) Pay the FULL examination fee.

9.9.2 NON-REPETITION OF EXAMINATION PAPERS

Candidates who intend to re-sit the general knowledge, or R/T Communications examination are to be given a different examination paper on each occasion. The GMDSS Chief Examiner is to be consulted in the event of all examination papers having been attempted by the candidate.

9.9.3 RE-SIT EXAMINATIONS AT ANOTHER AEV

A candidate who wishes to re-sit the examination at another Approved Examination Venue is required to re-sit ALL SECTIONS of the examination and pay the FULL examination fee.

9.10 CONDUCT AND INVIGILATION OF EXAMINATIONS

9.10.1 INVIGILATORS

Invigilators MUST be approved by the ECC.

9.10.2 INSTRUCTIONS FOR INVIGILATORS

- a) An Invigilator must be continuously present during the examination.
- b) The time allowed for each section is:
 - i) General Knowledge Paper At examiners discretion
 - ii) Operational Performance Test At examiners discretion
 - iii) R/T Communications Approximately 30 minutes (per group of 6)
- c) The examination room should be quiet at all times. Measures should be taken to prevent interruptions during the examination and an "Examination in Progress" notice posted prominently. Watches and calculators must be silent in operation.
- d) All mobile phones, smart watches or similar electronic data storage or communication devices belonging to candidates, invigilators and examiners must be fully switched off and inaccessible for the duration of the examination. They should be left on an unused desk or stowed away out of reach of candidates.
- e) A clock should be clearly visible to all candidates.
- f) Each candidate is required to provide their own writing implements.
- g) No unauthorised paper is allowed on the candidate's desk, the possession of unauthorised items will render a candidate liable to disqualification.
- h) All candidates should be seated five minutes before the start time of the examination.
- i) Candidates arriving after the start of the examination will not be allowed to enter the room.

- j) Candidates may only leave the room before the end of the exam under exceptional circumstances. In which case, the candidate must hand in all question and answer papers to the invigilator prior to quietly leaving the room. The candidate will not be permitted to re-enter the room, or continue the exam.
- k) During the Operational Performance Test if two candidates present in the room there must be one examiner for each candidate. Candidates must be advised beforehand if there is to be more than one candidate present and must have the option to be examined on their own. There must be sufficient physical separation within the examination room to ensure that a candidate cannot hear instruction to, or responses by, the other candidate.

9.10.3 EXAMINER GUIDELINES

GENERAL

- a) All necessary papers required for the examination should be available at least one hour prior to the start of the examination.
- b) Where candidates are re-sitting the examination, ensure different papers to those already taken, are available.
- c) All equipment to be used in the R/T and OPT sections of the examination to be checked and verified to be in working order, at least one hour before the start of each section.
- d) Give clear verbal instructions, on Re-sit Policy, prior to commencement of examination.
- e) Advise candidates individually, rather than collectively, of result of examination.
- f) Avoid lengthy discussion of any aspect of failure with a candidate. Information may be passed to the Course Tutor who can then brief the candidate on areas of weakness and the options available.
- g) Take care in completing the paperwork. Ensure **ALL** marks are entered on the result's sheets.

General Knowledge

- a) No books or notes allowed in examination room.
- b) Clean whiteboard/chalkboard. Clock clearly visible to all candidates.
- c) Explain the conditions of the examination.
- d) Marking of papers should be strictly in accordance with model answers.
- e) Double marking must be carried out, by another examiner, if a candidate's marks are between 25 and 29 on LRC and between 13 and 17 on Satellite Module inclusive.
- f) Evidence of double marking must be shown on the script in a different coloured pen.
- g) Explain how to complete the multi-choice grid, particularly with regards to changing an answer.

R/T COMMUNICATIONS

- a) Test communications system with all candidates prior to the start of the examination.

- b) Ensure all clocks are synchronised.
- c) Ensure candidates have clean log sheets.
- d) The exercise should follow as natural course of events as possible, rather than a stereotyped script format.
- e) Transmit a DSC Signal or play a recording of the DSC Signal prior to issuing the DSC Alert information.
- f) A steady pace with clear diction and use of the phonetic alphabet is required.
- g) The examiner is the control station and should dictate the flow of events, rather than the candidates.
- h) Allow time at the end of candidate's subsequent responses before transmitting the Seelonce Feenee Broadcast.
- i) If there is a low number of candidates, the examiner or other members of staff, should act as vessels. Three vessels, other than the vessel in distress, are the required minimum.
- j) Examiners should keep a log of the exercise for QA purposes.
- k) Examiners should highlight both the DSC and Distress Message positions when checking candidates' logs.

OPT

To be used in conjunction with the instructions on the OPT Examiner Marking sheet.

- a) Ensure all operating instructions are removed from the vicinity of the equipment prior to commencement of the examination.
- b) Take time to explain the marking system/time allowance to the candidate prior to commencing the tests.
- c) Keep a close watch on the time taken on each item of equipment by the candidate and, if struggling badly, move them on to the next equipment.
- d) Avoid the candidate seeing the results of the tests being entered on the sheets.
- e) Average ability marks should be awarded where candidates struggle to achieve the desired result of a task.
- f) Where multiple manufacturers' equipment is indicated, the equipment must be alternated.
- g) Where live signals are required for MF/HF Transceiver Tests, 5505 kHz is an appropriate station in the UK area giving 24-hour weather information from Shannon by voice. Alternatively, HF Weather data Stations can be sourced prior to the commencement of the examination.
- h) Candidates, who are struggling to retrieve information from the Admiralty List of Signals, or the ITU Documents, should be moved on to the next task, particularly where no shaded box is involved.

9.10.4 IRREGULAR BEHAVIOUR

- a) In cases of serious disorderly conduct, the invigilator may discontinue the examination for the candidate(s) concerned, expel the candidate(s) from the examination room after taking possession of the examination paper, answer sheets, and any material pertaining to the irregularity.

A report in writing, detailing the incident is required to be communicated to the NAC Manager who will inform the Chief Examiner.

The candidate is to be advised of their right of appeal as detailed in Section 9.11.

- b) Where a candidate is found to be in possession of unauthorised material or is suspected of copying, the candidate's answer sheets must be endorsed by the invigilator as having been used prior to the incident.

The candidate should then be advised that the procedures detailed in Rule 9.11 are to be applied.

- c) Where an irregularity is detected after an examination has been concluded, full details of the circumstances and all relevant materials must be immediately reported to the NAC Manager who will inform the Chief Examiner.

9.11 APPEALS

9.11.1 STAGE 1

In the event of a candidate being dissatisfied with the services received from an ECC, the candidate should, in the first instance, appeal in writing to the ECC Co-ordinator.

9.11.2 STAGE 2

If a satisfactory result is not achieved from the action of 9.11.1 the candidate may write to the NAC Manager. The matter will be investigated by the Chief Examiner whose decision is final and who will report directly to the Executive Committee.

10 LRC LIST OF EQUIPMENT AND SUPPORT MATERIAL

10.1 EQUIPMENT REQUIREMENTS FOR LRC COURSE APPROVAL

Approved LRC Courses must be supported with a GMDSS communications equipment installation. Two equipment options for this are available as follows:

- Option A Set of type approved marine GMDSS equipment
- Option B AMERC approved networked GMDSS simulation system

Course providers may supplement either option above with additional equipment - real or simulated. Advice should be sought from the Chief Examiner if in doubt.

Note: The maximum number of students on any course must not exceed 12.

Option A

One set of the following approved marine GMDSS equipment per group of 8 students as follows:

- a) Terrestrial transceiver capable of MF/HF operation or approved simulator[#]. Facility to receive live signals
- b) VHF transceiver with facilities to receive live signals or approved simulator[#]
- c) Navtex receiver or approved simulator[#]
- d) Class A, MF/HF/VHF Digital Selective Calling (DSC) encoder/decoder, with facilities to receive live signals or approved simulator[#]
- e) Inmarsat-C terminal or approved simulator⁺
- f) Facilities for measuring an Emergency DC supply or equivalent on approved simulator[#]
- g) Two 406 MHz dummy EPIRBs - only one required if approved simulator[#] provides an alternative model
- h) Two 9 GHz dummy SARTs - only one required if approved simulator[#] provides an alternative model
- i) Portable Survival Craft Handheld VHF or dummy
- j) Equipment for R/T communications exercise with PTT facilities and live or recorded DSC alarm
- k) Facilities for testing a fuse

One touchscreen simulator station required for each simulated system

+ One simulator station required for each simulated system – touchscreen preferred, but non-touchscreen display with keyboard and mouse acceptable

AMERC approved simulators for Option A:

- i. Sailcom Inmarsat C Simulator (Version 1.50 or 1.70)
- ii. Transas 3000, 4000 and 5000 series GMDSS Tutor (Version 9 or earlier)
- iii. ARI GMDSS Simulator 4.1.4.0

Note: Simulator displays must be configured to show equipment controls at close to real-equipment size, i.e. setups that considerably enlarge or compress the displayed equipment operator controls are not permitted.

Option B

Networked installation of one of the following AMERC approved GMDSS simulation systems:

- i. Poseidon Pharos GMDSS Simulator. (Only Versions 6.0.3, 7.1, 7.3 or 7.4, acceptable)
- ii. Transas 3000, 4000 and 5000 series GMDSS simulator (Version 9 or earlier)
- iii. ARI Furuno Simulator (version 4.0.9)
- iv. Vox Maris GMDSS Simulator version 2.5
- v. ARI GMDSS Simulator 4.1.4.0

The following MINIMUM requirements must be met:

- a) One instructor station
- b) One trainee station per student consistent with course approval i.e. course approval for 12 students requires 12 trainee stations
- c) One set of hardware control panels per maximum of 12 students – not required if trainee stations use Touchscreen technology
- d) Two dummy 9 GHz SARTs (different models) – only one required if simulator provides an alternative model
- e) Two dummy 406 MHz EPIRBs (different models) – only one required if simulator provides an alternative model
- f) One MF/HF receiver with facilities to receive live SSB voice signals – not required if using Transas simulator with live signal tuning modification, ARI Furuno simulator or Vox Maris simulator.

Note: Simulator displays must be configured to show equipment controls at close to real-equipment size, i.e. setups that considerably enlarge or compress the displayed equipment operator controls are not permitted.

10.2 EQUIPMENT REQUIREMENTS FOR LRC APPROVED EXAMINATION VENUES

An Approved Examination Venue is required to have GMDSS communications equipment installed to support the conduct of GOC examinations. Two equipment options are available as follows:

Option A Set of type approved marine GMDSS equipment

Option B AMERC approved networked simulation system

Approved Examination Venues may supplement either option above with additional equipment - real or simulated. Advice should be sought from the Chief Examiner if in doubt.

Option A

One set of the following approved marine GMDSS equipment as follows:

- a) Terrestrial transceiver capable of MF/HF operation or approved simulator[#]. Facility to receive live signals
- b) VHF transceiver with facilities to receive live signals or approved simulator[#]
- c) Navtex receiver or approved simulator[#]
- d) MF/HF/VHF Digital Selective Calling (DSC) encoder/decoder, with facilities to receive live signals or approved simulator[#]
- e) Inmarsat-C terminal or approved simulator⁺
- f) Facilities for measuring an Emergency DC supply or equivalent on approved simulator[#]
- g) Two dummy 406 MHz EPIRBs (different models) - only one required if approved simulator[#] provides an alternative model
- h) Two dummy 9 GHz SARTs (different models) - only one required if approved simulator[#] provides an alternative model
- i) Portable Survival Craft Handheld VHF or dummy
- j) Equipment for R/T communications exercise with PTT facilities and live or recorded DSC alarm
- k) Facilities for testing a fuse

[#] One touchscreen simulator station required for each simulated system

⁺ One simulator station required for each simulated system – touchscreen preferred, but non-touchscreen display with keyboard and mouse acceptable

AMERC approved simulators for Option A:

- i. Sailcom Inmarsat C Simulator (Version 1.50 or 1.70)
- ii. Transas 3000, 4000 and 5000 series GMDSS Tutor (Version 9 or earlier)
- iii. ARI GMDSS Simulator 4.1.4.0

Note: Simulator displays must be configured to show equipment controls at close to real-equipment size, i.e. setups that considerably enlarge or compress the displayed equipment operator controls are not permitted.

Option B

Networked installation of one of the following AMERC approved GMDSS simulation systems:

- i. Poseidon Pharos GMDSS Simulator. (Only Versions 6.0.3, 7.1, 7.3 or 7.4, acceptable)
- ii. Transas 3000, 4000 and 5000 series GMDSS simulator (Version 9 or earlier)
- iii. ARI Furuno Simulator (version 4.0.9)
- iv. Vox Maris GMDSS Simulator version 2.5
- v. ARI GMDSS Simulator 4.1.4.0

The following MINIMUM requirements must be met:

- a) One instructor station.
- b) One set of hardware control panels per examination candidate

OR

One touchscreen display per item of simulated equipment per examination candidate.

- c) Two dummy 9 GHz SARTs (different models) – only one required if simulator provides an alternative model
- d) Two dummy 406 MHz EPIRBs (different models) – only one required if simulator provides an alternative model
- e) One MF/HF receiver with facilities to receive live SSB voice signals – not required if using Transas simulator with live signal tuning modification, ARI Furuno simulator or Vox Maris simulator.

Note: Simulator displays must be configured to show equipment controls at close to real-equipment size, i.e. setups that considerably enlarge or compress the displayed equipment operator controls are not permitted.

10.3 DOCUMENTATION AND SUPPORT MATERIAL FOR LRC EXAMINATIONS

Sufficient sets to meet examination requirements of Admiralty List of Radio Signals (ALRS) OR Admiralty Digital Radio Signals (ADRS), no more than 5 years old, as follows: -

- ALRS NP 281 (Volume 1) - Maritime Radio Stations (*part 1*) **OR** ADRS Volume 1 – *part 1*
- ALRS NP 285 (Volume 5) - Global Maritime Distress and Safety System (GMDSS) **OR** ADRS Volume 5
- ALRS NP286 (Volume 6) Pilot Services, Vessel Traffic Services and Port Operations – (*part 1 and part 2*) **OR** ADRS Volume 6 – *Areas 1 & 2*.

The LRC syllabus requires candidates to have an awareness of international documentation including publications of the International Telecommunications Union (ITU). Course providers are therefore encouraged to provide the following: -

- ITU List of Ship Stations and Maritime Mobile Service Identity Assignments, CD ROM format, or via <https://www.itu.int/en/ITU-R/terrestrial/mars/pages/default.aspxAdmiralty>

10.4 DOCUMENTATION AND SUPPORT MATERIAL FOR LRC COURSE APPROVAL

Centres running or wishing to run approved LRC courses will need to show that they can provide, as a **MINIMUM**, student access to the following documentation:

Admiralty List of Radio Signals (ALRS) OR Admiralty Digital Radio Signals (ADRS), no more than 5 years old as follows: -

- ALRS NP281 (Volume 1) Maritime Radio Stations – *one copy of part 1 per six students per course OR* ADRS Volume 1 – *Area 1, one per six students per course. **
- ALRS NP285 (Volume 5) Global Maritime Distress and Safety Systems (GMDSS) - *one volume per two students per course OR* ADRS Volume 5 - *Area 1, one per two students per course. **
- ALRS NP286 (Volume 6) Pilot Services, Vessel Traffic Services and Port Operations – *two copies of part 1 OR* ADRS Volume 6 – *Areas 1, one per six students per course. **

* For a course of more than six students the second set of ALRS/ADRS may be more than 5 years old but this teaching set cannot be used for examination and must be marked as such

ALRS and ADRS documentation may be combined to meet requirements.

The LRC syllabus requires candidates to have an awareness of international documentation including publications of the International Telecommunications Union (ITU). Course providers are therefore encouraged to provide the following:

- ITU List of Ship Stations and Maritime Mobile Service Identity Assignments, CD ROM format, or via <https://www.itu.int/en/ITU-R/terrestrial/mars/pages/default.aspxAdmiralty>

11 LRC EXAMINATION SYLLABUS

The information contained in Sections 11.1 and 11.3 has been extracted from the Annex to the text of Electronic Communications Committee (ECC) Recommendation (10)03 - within the European Conference of Postal and Telecommunications Administrations (CEPT), on Harmonised CEPT Examination Procedures for the Long Range Certificate (LRC) For Non-SOLAS Vessels.

11.1 EXAMINATION SYLLABUS FOR THE CEPT LRC

The examination should consist of theoretical supplemented by practical tests and/or assessed practical training, overseen by an independent examiner and should include at least:

11.1.1 A. GENERAL KNOWLEDGE OF RADIO COMMUNICATIONS IN THE MARITIME MOBILE SERVICE

- A1. General principles and basic features
- A2. System overview of the GMDSS structure
- A3. Search and Rescue (SAR)
- A4. Maritime Safety Information (MSI)

11.1.2 B. PRACTICAL KNOWLEDGE AND ABILITY TO USE RADIO EQUIPMENT

- B1. VHF radio installation
- B2. MF/HF radio installation
- B3. Digital Selective Calling (DSC)
- B4. Antennas, interfacing and power sources

11.1.3 C. PROCEDURES AND PRACTICAL OPERATION OF THE SUBSYSTEMS

- C1. DSC Distress, urgency and safety communication procedures for VHF, MF and HF
- C2. Protection of distress frequencies on VHF, MF and HF
- C3. Alerting, Communication and Locating Signals

11.1.4 D. RADIOTELEPHONY PROCEDURES

- D1. Ability to exchange communications relevant to the safety of life at sea
- D2. Practical and theoretical knowledge of radiotelephony procedures

11.1.5 E. REGULATIONS FOR VHF/MF/HF COMMUNICATIONS

- E1. Regulations, obligatory procedures and practices

11.1.6 F. EXAMINATION REQUIREMENTS

11.2 CEPT EXAMINATION SYLLABUS GUIDELINES FOR THE GMDSS LONG RANGE CERTIFICATE (LRC)

11.2.1 A. GENERAL KNOWLEDGE OF RADIO COMMUNICATIONS IN THE MARITIME MOBILE SERVICE AND MARITIME MOBILE SATELLITE SERVICE

A1. The general principles and basic features

1.1 Types of communication

- Distress, urgency and safety communications
- SAR (Search and Rescue) Communication
- Public correspondence
- Port operations and ship movement service
- Intership communications
- On board communications

1.2 Types of stations

- Ship stations
- Coast stations
- Rescue coordination centres
- Pilot, VTS and port stations
- Aircraft stations

1.3 General knowledge of radio frequencies and frequency bands

- The concept of frequency
- Frequency and wavelength
- The unit of frequency. Hz, kHz, MHz, GHz.
- The subdivision of the most significant part of the radio spectrum: VHF, MF, and HF
- Different propagation mechanisms, typical ranges and reliability (awareness of A4)
- Propagation on MF, HF and VHF frequencies

1.4 Frequencies allocation and their usage

- The usage of VHF, MF and HF frequencies in the maritime mobile service
- Modes of communication and classes of emission.
- Official designations of emission (e.g. F1B, J3E, H3E)
- Other designations of emissions (e.g. TLX, SSB, AM, FM etc.)
- The concept of radio channel: simplex, semi-duplex and duplex; paired and unpaired frequencies.
- Frequency plans and channelling systems in the maritime mobile bands.
 - Distress and Safety frequencies
 - Calling frequencies
 - Intership communications
 - Port operations and Ship movement
 - Public correspondence
 - National frequency allocations

A2. System overview of the GMDSS structure

2.1 System design

- Structure
- Block Diagram

A3. Search and Rescue (SAR)

3.1 SAR regions

3.2 The role of Rescue coordination centres

3.3 Organisation of search and rescue

3.4 SAR communication including on-scene communications

A4. Maritime Safety Information (MSI)

4.1 The NAVTEX system

- Purpose and capabilities, including Distress and Safety functions
- Message format (transmitter ID, message type, message number)
- Selection of transmitters and message type
- Messages which cannot be rejected

11.2.2 B. PRACTICAL KNOWLEDGE AND ABILITY TO USE RADIO EQUIPMENT

B1. VHF radio installation

1.1 Radiotelephone channels

- Channel selection and controls
- Dual watch facilities and controls

1.2 Basic controls and usage

- On/Off control
- Press to transmit switch
- High/low output power switch
- Volume control
- Squelch control
- Dimmer

1.3 Handheld VHF radiotelephone

- Specifications

B2 MF/HF radio installation

2.1 Frequencies/channels and selection criteria

2.2 Typical controls and usage

- On/Off control
- Selecting RX frequency
- Selecting TX frequency
- Selecting ITU channel number
- Tuning the transmitter
- Selecting the class of emission
- Using volume control and squelch
- Using clarifier or RX fine tuning
- Controlling RF gain
- Using automatic gain control
- Selecting transmitting power

B3. Digital Selective Calling (DSC)

3.1 Call categorisation, priority and definitions

- Distress
- Urgency
- Safety
- Routine

3.2 Types of call

- Distress
- All ships
- Geographic area
- Individual

3.3 Maritime Mobile Service Identity (MMSI)

- The nationality identification: Maritime Identification Digits (MID)
- Ship station numbers
- Coast station numbers
- Group call numbers

3.4 Facilities and usage

- DISTRESS BUTTON
- Alert designation and display
- Automatic and manual updating of vessel position
- Reviewing received messages
- Watchkeeping functions and controls
- Single frequency alert attempt
- Multi-frequency alert attempt

B4. Antennas, interfacing and power sources

4.1 Antennas performance and positioning

- Antenna arrangement and tuner
- General maintenance

- Earthing
- 4.2 Interfacing
 - Connection to position device
- 4.3 Power sources
 - Connections to different power sources
 - Requirements, and fuses
 - Safety
 - Charging
 - Different types of batteries and their maintenance

11.2.3 C. PROCEDURES AND PRACTICAL OPERATION OF THE SUBSYSTEMS

- C1. DSC distress, urgency and safety communication procedures for VHF, MF and HF
 - 1.1 Distress procedures
 - Transmission of a distress alert
 - Receipt and acknowledgement by a coast station
 - Reception of a shore-to-ship distress alert relay
 - Transmission of a distress alert by a station not itself in distress
 - acknowledgement by a ship station
 - VHF/MF
 - HF
 - 1.2 Urgency and Safety communications via DSC equipment
 - Procedures for DSC Urgency and Safety announcements
- C2. Protection of distress frequencies on VHF, MF and HF bands
 - 2.1 Avoiding harmful interference
 - Avoidance of the transmission of false alerts
 - Status of Channel 16 and 70
 - Status of MF/HF distress and safety frequencies
 - 2.2 Transmissions during distress traffic
 - 2.3 Prevention of unauthorised transmissions
 - 2.4 Test protocols and procedures
 - Testing DSC equipment
 - Radiotelephone test procedures
 - 2.5 Avoidance of transmissions in VHF guard bands
 - 2.6 Procedures to follow when a false or inadvertent Distress Alert is transmitted
- C3. Alerting, Communication and Locating Signals
 - 3.1 - 406 MHz Emergency Position Indicating Radio Beacons (EPIRBs)
 - Registration and coding
 - Operation, activation and testing
 - 121.5 MHz homing function
 - Mounting float-free mechanism
 - Battery expiry date
 - 3.2 Search and Rescue Radar Transponder and Transmitter (SART)
 - Operation height and range
 - Battery expiry date
 - 3.3 Handheld VHF
 - Operation
 - Communication range
 - Battery provision

11.2.4 D. RADIOTELEPHONY PROCEDURES

- D1. Ability to exchange communications relevant to the safety of life at sea
 - 1.1 Distress communications
 - Distress signal MAYDAY
 - Distress call
 - Distress message

- Acknowledgement RECEIVED MAYDAY
- Follow up distress traffic
- The control of distress traffic
- SEELONCE MAYDAY and SEELONCE FEENEE
- Transmission of a distress message by a station not itself in distress
- MAYDAY RELAY
- 1.2 Urgency communications
 - Urgency signal PAN-PAN
 - Urgency call
 - Urgency message
 - Radiomedical
- 1.3 Safety communications
 - Safety signal SECURITE
 - Safety call
 - Safety message
- 1.4 Awareness of the existence and use of the IMO Standard Marine Communication Phrases Vocabulary
 - English phrases
- 1.5 Phonetic alphabet
- D2. Practical and theoretical knowledge of radiotelephony procedures
 - 2.1 Traffic routines
 - Use of call signs
 - Establishing communication on intership, port operation and ship movement channels
 - Unanswered calls and garbled calls
 - 2.2 Public correspondence and radiotelephony call procedures
 - Method of calling a coast station
 - Calls to ships from coast stations
 - 2.3 Traffic charges
 - International charging system
 - Accounting Authority Identification Code (AAIC)

11.2.5 E. REGULATIONS FOR VHF/MF/HF COMMUNICATIONS

- E1. Regulations, obligatory procedures and practices
 - 1.1 Awareness of National and International Documentation
 - List of Coast Stations and Special Service Stations
 - List of Ship Stations and Maritime Mobile Service Identity Assignments
 - Manual for use by the Maritime Mobile and Maritime Mobile Satellite Service
 - National manuals
 - 1.2 Knowledge of the international regulations and agreements
 - Radio Operator's Certificates
 - Ship Station Licence
 - Radio record keeping
 - Secrecy of correspondence
 - Prohibited transmissions
 - Watchkeeping

11.2.6 F. EXAMINATION REQUIREMENTS

Candidates must show proof of theoretical and practical knowledge and compliance with national requirements.

11.3 EXAMINATION MODULE FOR THE MARITIME MOBILE SATELLITE SERVICE

11.3.1 A. GENERAL KNOWLEDGE OF RADIO COMMUNICATIONS IN THE MARITIME MOBILE SATELLITE SERVICE

A1. The general principles and basic features

1.1 Types of stations

- Land Earth Stations (LES)
- Network Co-ordination Stations (NCS)
- Ship Earth Stations (SES)

1.2 Maritime Mobile Satellite Service

- Systems and Services
- Inmarsat
- COSPAS-SARSAT
- Inmarsat EGC/SafetyNet
- Telephone
- Facsimile
- Data

A2. Maritime Safety Information (MSI)

2.1 Enhanced Group Calling (EGC) system (Inmarsat C)

- pre-programming a Ship Earth Station for EGC message reception
- selecting operating mode for EGC reception

11.3.2 B. PROCEDURES AND PRACTICAL OPERATION OF THE SUBSYSTEMS

B1. Procedures and practical operation of the Maritime Mobile Satellite Service

1.1 Inmarsat-C terminal

- Components
- Entering/updating position
- Usage of an Inmarsat-C Ship Earth Station
- Sending and receiving text messages
- Distress and Safety services
 - Sending a distress alert
 - Sending a distress priority message
 - 2-digit code safety services
 - Avoidance of initiating a false distress alert
 - Procedures to follow when a false distress alert is transmitted

1.2 Inmarsat Enhanced Group Call (EGC) receiver

- Programming a Ship Earth Station for EGC reception
- Selecting NAV/MET areas

12 APPENDICES

12.1 MCA GUIDANCE ON MINIMUM CERTIFICATION REQUIREMENTS ACCORDING TO VESSEL TYPE -- MSN 1864 (12/22) + MIN 643 (01/23)

Guidance on the Requirements for Vessels

Guidance on Certification Requirements according to Vessel Type		
Type of Vessel	A2, A3 and A4 Sea Area	A1 Sea Area
All passenger ships	GOC	ROC
Cargo ship over 300 GT	GOC	ROC
Cargo ship under 300 GT	LRC or GOC	SRC or ROC

Sea Area A1: An area within the radiotelephone coverage of at least one VHF coast station in which continuous digital selective calling (Ch.70/156.525 MHz) alerting and radiotelephony services are available.

Sea Area A2: An area, excluding sea area A1, within the radiotelephone coverage of at least one MF coast station in which continuous DSC (2187.5 kHz) alerting and radiotelephony services are available.

Sea Area A3: In area, excluding sea areas A1 and A2, within the coverage of an Inmarsat geostationary satellite. This area lies between about latitude 76 Degrees North and South, but excludes A1 and/or A2 designated areas. Inmarsat guarantees their system will work between 70 South and 70 North though it will often work to 76 degrees South or North.

Sea Area A4: An area outside sea areas A1, A2 and A3 is called sea area A4. This is essentially the Polar Regions, north and south of about 70 degrees of latitude, excluding any A1 or A2 areas.

LRC: Long Range Certificate is an operator's certificate, examined to European Radiocommunication Committee (ERC) Recommendation T/R 31-05, covering MF/HF/VHF GMDSS and non-GMDSS techniques and operation for operators in the voluntary radio fit sector and operators on commercial vessels not subject to compulsory radio fitment under the SOLAS 1974 Convention. A supplementary examination (the Satellite Module) in satellite communication techniques and operation, including GMDSS techniques, is also available as part of this certificate

SRC: The Short Range Certificate is the minimum qualification required by law to control the operation of VHF and VHF Digital Selective Calling (DSC) equipment on any British flagged vessel voluntarily fitted with a radio. This includes both fixed and hand held equipment using International channels. The issue of this Certificate is delegated to The Royal Yachting Association. For further information please visit their website: www.rya.org.uk

A Radio Operator's Certificate should be suitable for the radio equipment fitted onboard in accordance with the area of operation (A1, A2, A3 or A4). For example, if a vessel is operating in sea area A1 but is fitted with sea area A2 radio equipment, then the person in charge of the radio equipment must hold a GOC. An officer with an ROC could only operate the equipment if supervised by a GOC holder.

NB An operator should always be qualified to operate the equipment fitted to vessel.

12.2 NATIONAL ADMINISTRATION CENTRE

AMERC Limited NAC

c/o. Wray Castle Ltd
Bridge Mills
Stramongate
KENDAL
LA9 4UB
UK

Contact: Tessa Brooks
Telephone: +44 (0) 1539 742 745
Fax: +44 (01) 1539 742 746
Email: amerc_nac@wraycastle.com

12.3 AMERC OFFICERS

Refer to <http://www.amerc.ac.uk/contact> for details of AMERC Officers.

12.4 AMERC EXAMINATION CO-ORDINATION CENTRES (ECC)

Refer to www.amerc.ac.uk/ecc for details of Examination Co-ordination Centres.

12.5 GMDSS COURSES

Refer to <http://www.amerc.ac.uk/courses> for details of GMDSS course providers.

12.6 PROCEDURES FOR CANDIDATES WITH DYSLEXIA AND/OR NEURODIVERSITY

The MCA allow up to an extra 15 minutes per hour for those having been diagnosed with dyslexia. This time may be extended based on the recommendation of a diagnostic report. However, this may vary according to an institution's examination policy. Candidates should refer to their institution's examinations team, or equivalent, to have extended extra time considered and for arrangements to be put in place.

If a candidate requires extra time due to their dyslexia, they will need to present their Diagnostic Assessment Report to their training provider from one of the following:

- Psychologist specializing in specific learning difficulties (SpLD) registered with the Health Care Practitioners Council (HCPC).
- Specialist teacher/assessor with Associate Membership of the BDA (AMBDA) and/or an Assessment Practicing Certificate (APC).

An assessment can have been carried out at any age. It is no longer required to have been conducted after the age of 16. It must clearly identify dyslexia as an educational need and state that reasonable adjustments be made to support the named individual in undertaking written examinations.

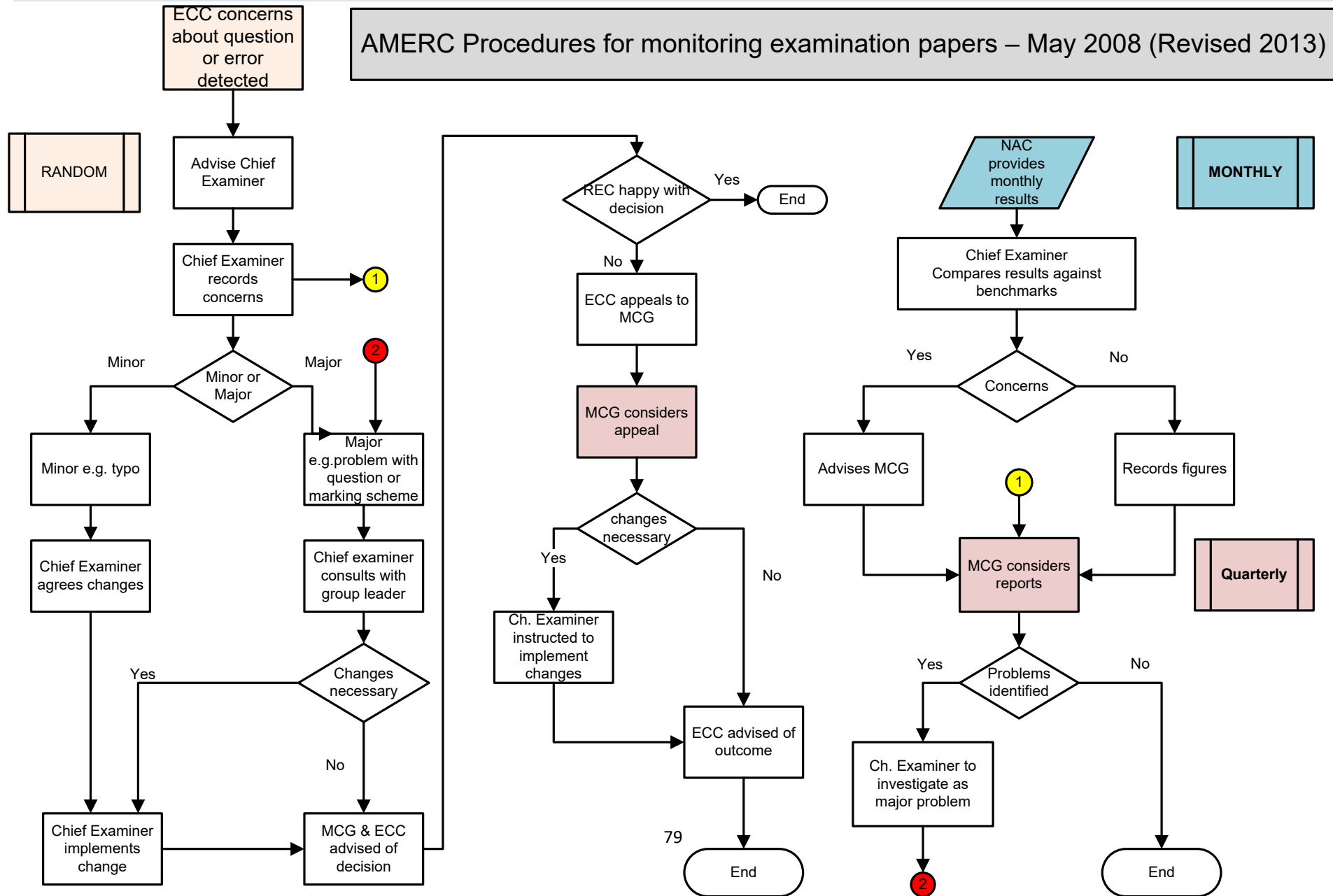
Transparent coloured overlays may assist those with dyslexia or neurodiversity however the colour is specific per individual and they must provide their own for the examination.

A diagnostic report may recommend that candidates use computers or have access to readers and scribes. If this is the case, then this should be implemented by the college or training provider as a prescribed reasonable adjustment.

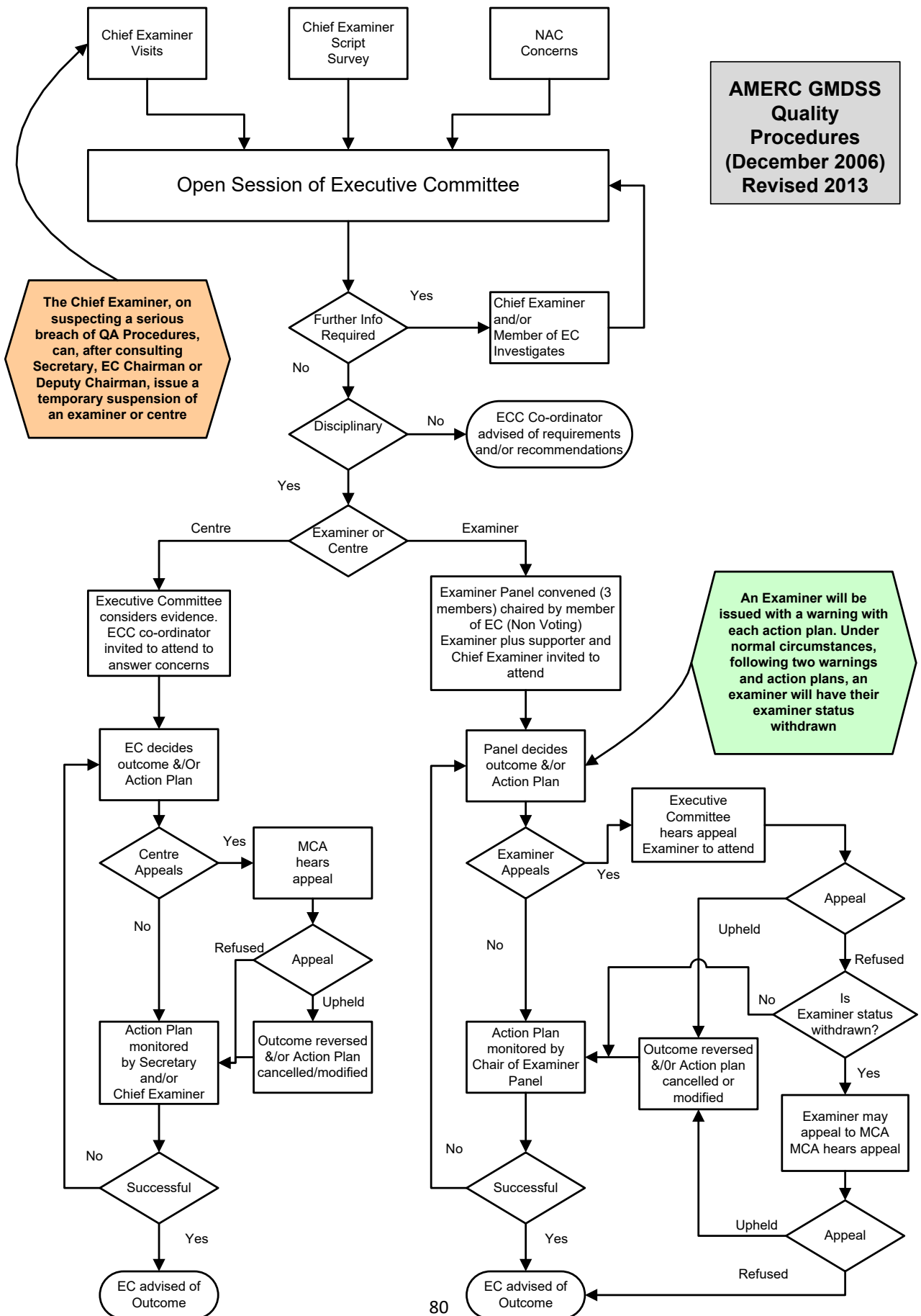
- a) Written examinations (General Knowledge) should be carried out following standard procedures but allowing extra time. When marking the candidate's script, the examiner should make allowances for mis-spelling and jumbled wording, but must adhere to the marking scheme particularly in the spelling of signals e.g. MAYDAY, PAN PAN etc. In the LRC and ROC, the SOLAS can be conducted as an Oral examination.
- b) The R/T exercise should be carried out following standard procedures. At the end of the exercise, the candidate may be allowed additional time to read through and check their logbook. Any alterations made at this time should, as is customary, be accompanied by the candidate's signature. The candidate's logbook should be marked following the standard marking scheme. With the exception of words which were spelled phonetically, e.g. callsigns, ships' names, the examiner should make allowances for mis-spelling and jumbled wording.
- c) Where the candidate's marks fall within the re-mark boundaries, a re-mark should be carried out.
- d) If after the examination, any concerns remain over the result for the candidate, the candidate's scripts should be referred to the Chief Examiner.
- e) Where a candidate has been permitted reasonable adjustments in an examination due to this policy, should they ultimately be unsuccessful in the examination, their dyslexia diagnosis may not then be raised as an issue for special consideration. Reasonable adjustments for neurodiverse candidates will be managed on a case-by-case basis and the above adjustments apply.

12.7 EXAMINATION PAPER PROCEDURES

AMERC Procedures for monitoring examination papers – May 2008 (Revised 2013)



12.8 AMERC GMDSS QUALITY ASSURANCE PROCEDURES (DECEMBER 2006)



12.9 AUDIT

This procedure should be read in conjunction with the MNTB Guidelines for GMDSS Courses.

12.9.1 INTRODUCTION

AMERC is responsible to the MCA for:

- Recommending centres for GMDSS Course Approval
- Providing a GMDSS Examination service

Courses: Each centre is free to establish its own course format, but should meet MNTB guidelines as published in “Training for the issue of a Certificate of Competency for the Global Maritime Distress and Safety System GOC and ROC” (December 2008 updated July 2009)

Examination: The format of the GMDSS Examinations (GOC, ROC and LRC) are agreed and reviewed annually by the AMERC Examiners’ Panel. Centres and Examiners should carry out the examinations in accordance with the AMERC Administration Handbook, Guidelines for Examiners and updates published in the AMERC News.

The AMERC Executive Committee (EC) advises the MCA through meetings of the Maritime Consultation Group (MCG). To assist this meeting to make informed decisions, reports are received of audit visits to centres. These audit reports are in two parts Course Approval and Examination Inspection.

The EC is responsible for:

- Establishing the aims and objectives of the audit programme
- Appointing the audit team
- Ensuring the audit programme is implemented
- Monitor review and improve the audit programme on an annual basis or whenever an operational review identifies the need.

12.9.2 AIMS OF AUDITS

Course Approval

- Ensure candidates receive adequate training prior to examination
- Ensure the training meets MNTB guidelines
- Identify areas of good practice for dissemination to other centres
- Advise centres on possible improvements
- Produce a report which will allow EC to provide a recommendation to the MCA on whether the centre should be granted initial and continuing course approval.

Examination Audit, Review and Verification (Inspection)

- Ensure candidates are assessed to the same standard irrespective of centre or examiner
- Provide the audit team with information to inform Examiners’ Panel of the suitability of present examination format and its implementation
- Provide a report which will allow EC and MCG make an informed decision on whether a centre is examining to the correct standards. If not, provide information to enable the EC and MCG to provide the centre with an action plan (or in cases of serious breaches instigate disciplinary procedures as detailed in Administration Handbook).

12.9.3 AUDIT PROCEDURES

Audit Team and Responsibilities

- The audit team consists of the Chief Examiner, Deputy Chief Examiner and Assistant Chief Examiner (All posts are appointed by the EC) or persons seconded on behalf of the EC.
- The Chief Examiner has responsibility for producing audit schedule, allocating auditors and ensuring reports are submitted to EC and MCG meeting
- The Chief Examiner, Deputy Chief Examiner and Assistant Chief Examiner are normally responsible for carrying out the audits in line with EC guidelines and producing an audit report which is presented to the EC

Audit Schedule

- Centres will normally be audited on a provisional five-year basis. The course approval and examination inspection will normally be carried out at the same time, but not exclusively so.
- The schedule for audit will be prepared annually by the Chief Examiner and published at the Examiners' Panel meeting
- The EC reserves the right, to initiate a spot audit out of sequence where QA issues have been identified.

Implementing the Audit

- The Chief Examiner will normally appoint the auditor (Normally only one auditor is needed, but can be increased to provide mentoring or monitoring of auditor)
- The Chief Examiner will determine the scope of the audit (Course Approval, Examination inspection, special audit (monitoring only certain aspects) and advise the auditor
- The auditor will contact the centre to arrange a date for visit and request relevant information (see 12.9.5 "Audit Document Checklist for Assessments")
- At the commencement of the audit, the auditor will hold an introductory meeting with centre representatives advising the scope of the audit and agree the availability of staff and resources. Minutes of this opening meeting should be included in the audit report
- Carry out the audit following appropriate guidance
- At the end of the audit visit, the auditor will carry out a feedback meeting with the centre representatives highlighting the auditor's initial findings. Minutes of this feedback meeting should be included in the audit report.
- The auditor will prepare a report in an appropriate format. If the auditor is not the Chief Examiner, the report should be submitted to the Chief Examiner for submission to EC
- The Chief Examiner will submit the report to the EC and MCG
- The EC and MCG will send a written copy of the report with any action plan to the centre
- In the case of course approval, the Secretary on behalf of the EC will write to the MCA advising of the outcome of course approval. The Secretary will provide the MCA copies of the AMERC Audit report(s), and all submitted documents for 12.9.5 "Audit Document Checklist for Assessments".

12.9.4 THE AUDIT VISIT

Course Approval Audit

- The audit should commence with an introductory meeting where introductions are made, the centre is informed of scope of the audit and a timetable and lines of communication agreed. The centre should use this meeting to advise the auditor of any changes since the last audit, special circumstances which may affect the audit and the outcome of any previous action plans.
- The audit should be carried out using the paperwork guidelines issued by the EC and should include:
 - Meetings with deliverers
 - Observation of training sessions
 - Inspection of learning materials
 - Assessment of centre's quality procedures (team meetings, H&S, course records)
 - Meetings with candidates
- The auditor, at the end, should hold a meeting with the centre's representatives and advise them of the interim findings. The response of the centre to these findings should be included in the minutes of this meeting.

Examination Inspection

- The Inspection should commence with an introductory meeting where introductions are made, the centre is informed of scope of the inspection, a timetable and lines of communication agreed. The centre should use this meeting to advise the auditor of any changes since the last inspection, special circumstances which may affect the inspection. The meeting should include a review of any previous action plans.
- The inspection should be carried out using the paperwork guidelines issued by the EC and should include:
 - Observation of the examination
 - Observation of more than one examiner where possible
 - Inspection of examination records
 - Sampling of previous scripts if deemed necessary
 - Meetings with examiners
 - Meetings with candidates
- The auditor should at the end hold a meeting with the centre's representatives and advise them of the initial findings. The response of the centre to these findings should be included in the minutes of this meeting.

12.9.5 AUDIT DOCUMENT CHECKLIST FOR ASSESSMENTS

As part of AMERC's audit procedure, the Centre (AEV and ECC) must supply the Auditor with copies of the below documents when requested. This is also a requirement for any new centres granted AEV or ECC approval by AMERC. The below list is specified by the MCA to ensure that all AMERC centres meet necessary standards, and is subject to review.

- a) Course notes, slideshows and screenshots of videos in use
- b) Lesson plans
- c) Details of QMS and IV and EV as appropriate.
- d) Photographs of equipment and facilities
- e) Records of equipment maintenance (as appropriate)
- f) Course completion certificates (blank)
- g) Registration and attendance records
- h) Student feedback forms (blanks or redacted)
- i) Risk assessment documentation
- j) Proof of up-to-date legal insurance cover
- k) Instructor/Examiner training records, CPD records and peer reviews.
- l) STCW and simulation (as appropriate)

12.9.6 MCA APPROVED TEACHING QUALIFICATIONS FOR GMDSS INSTRUCTORS

MCA/STCW Convention requires that instructors have met the requirements of STCW Regulation I/6, such as completing the IMO 6.09 Training course for instructors. ("Train the Trainer") This IMO model course has been designed to support the implementation of the STCW Convention and Code and addresses the requirements of Regulation I/6 and Section A-I/6, A-I/12, and B-I/6 of the STCW Code, concerning the qualifications of instructors.

However, existing experienced instructors shall, as per Continuous Professional Development (CPD), successfully complete this course (or equivalent) within a six-month time frame, and keep themselves up to date accordingly.

Examples of qualifications that are an acceptable alternative to the above IMO course include:

- Preparing to Teach in the Lifelong Learning Sector (PTLLS),
- Certificate in Teaching in the Lifelong Learning Sector (CTLLS),
- Diploma in Teaching in the Lifelong Learning Sector (DTLLS),
- AET
- Certificate in Education Postgraduate,
- Certificate in Education,
- SVQ levels 3 and 4 in Learning and Development,
- Scottish Training Qualification for Further Education (TQFE),
- Professional Graduate Diploma in Education (PGDE),
- Professional Graduate Certificate in Education (PGCE).
- City & Guilds Level 3 Award in Education and Training
- RYA SRC Instructor Course
- TOTA (Training for Trainers and Assessors), India

The Chief Examiner may request to see evidence of these instructor/examiner qualifications during AMERC GMDSS audits. This list is subject to review and change at the MCA's discretion.

12.10 VENUE GUIDELINES

AMERC will use the following guidelines when deciding the maximum number of delegates for exam centre and course approvals.

- a) A **minimum** requirement of 3m² floor space per delegate. [Including equipment fit]

Requirements for written examinations

- a) A minimum desk/writing area 3600cm² [not less than 50cm width or depth]
- b) Separate chair. [Seminar chairs with fold back writing area will not be approved]
- c) Minimum 1m separation between separate desks.
- d) Spacing to a minimum of 60cm must be provided with suitable screening between writing areas where delegates are seated at a single long desk

Health and Safety

The course provider must ensure that the venue complies with current H&S and Fire Regulations in the country of operation.

12.11 NEW CENTRES AND COURSES

12.11.1 INTRODUCTION

Reference should be made to the latest version of this Handbook available at www.amerc.ac.uk. Further reference as appropriate should be made to www.mntb.org.uk and the GMDSS GOC and ROC Course Criteria.

Applications for course or centre approvals should be made in the first instance to the Company Secretary of AMERC Ltd. The Company Secretary will inform the EC that an application has been made.

12.11.2 COURSE APPROVAL

Centres considering a course approval must refer to the current edition of the Merchant Navy Training Board (MNTB) 'GMDSS Courses Criteria booklet' for details of course requirements. This document is available from the Merchant Navy Training Board, 30 Park Street, LONDON. SE1 9EQ. www.mntb.org.uk for a nominal fee.

The booklet provides the criteria for the development of Courses to deliver training in the GMDSS General Operator Certificate and Restricted Operator Certificate. The Specifications described therein have been developed by the MNTB in conjunction with the Maritime and Coastguard Agency (MCA).

The *Course Approval* is conducted by AMERC Ltd on behalf of the MCA (STCW Regulation IV/2, STCW Code Section A IV/2).

Particular attention should be paid to the List of Equipment and Support Material. A minimum equipment fit is listed. Only 'live' Marine Equipment and approved simulator equipment is permitted for the conduct of the Examination.

The classroom facilities must be fit for purpose (Appendix 12.10) and will dictate maximum class size. Normally class size for course approval purposes will be limited to 8 students per full set of GMDSS equipment per Instructor (see this Handbook and MNTB Guidelines).

AMERC Ltd requires a timetable for delivery of the course set against the requirements of the syllabus ERC/DEC/(99)01, ECC/REC/(10)03, ERC/REC 31-06 (as appropriate) and MNTB Guidelines. GMDSS GOC course length must be a minimum of 60 hours' duration which includes 2.5 hours for the examination. GMDSS ROC course length must be a minimum of 20 hours' duration which includes 1.5 hours for the examination.

The following documentation must be submitted with an application:

- a) A timetable for delivery of the course set against the requirements of the ERC/DEC/(99)01, ECC/REC/(10)03, ERC/REC 31-06 (as appropriate) and MNTB Guidelines.
- b) A full set of course notes (GOC & ROC) (if ROC courses are also included in the application).
- c) Lesson Plans and Scheme of Work
- d) Curriculum Vita of the teaching staff

12.11.3 COURSE APPROVAL PROCEDURE

- a) The course provider submits details of their Course, Equipment and CVs of their teaching staff to the Executive Committee of AMERC Ltd. One member of staff should be identified as a main contact.
- b) If satisfactory the Executive Committee grants provisional course approval (MCA advised)
- c) During the first THREE courses the Chief Examiner (or nominated deputy) may visit the centre, check facilities and observe a portion of the course delivery. If satisfactory, course approval will be confirmed. The cost of the FIRST THREE visits to the Centre during the approval process will be met by AMERC. If the centre does not meet requirements within three visits, the cost of any subsequent approval visits by the Chief Examiner (or nominated deputy) will be met by the Centre, and will be charged at a rate no greater than the MCA's rate current at the time. The Company Secretary will provide indicative costs.
- d) Course Approvals are subject to quality assurance audit visits on a rotational basis by the Chief Examiner or an appointed deputy - the cost being met by AMERC Ltd. Any change in location or significant change in equipment will also require a visit. Where the Executive Committee require a revisit due to non-compliance this will be at the Centre's expense.

12.11.4 AEV APPROVAL

An Approved Examination Venue (AEV) is a place that has been inspected and approved by AMERC Ltd on behalf of the MCA for the conduct of GMDSS examinations. A centre may apply to AMERC Executive Committee to become an Approved Examination Venue (AEV) subject to:

- a) Providing examination premises and facilities in accordance with venue guidelines specified in section 12.10 of this Handbook;

- b) Providing the minimum equipment and support material requirement detailed in sections 4, 7 and 10 as appropriate of this Handbook;

12.11.5 AEV APPROVAL PROCEDURE

- a) The centre submits details of its staff, premises, facilities and equipment to the Executive Committee of AMERC Ltd. One member of staff should be identified as a main contact.
- b) The Chief Examiner (or nominated deputy) will visit the centre and check that all the criteria are satisfied. If the prospective AEV is also a course provider, the visit will normally be combined with the first course approval visit – see 12.11.3 above. If satisfactory, venue approval will be confirmed.
- c) The cost of the FIRST THREE visits to the Centre during the approval process will be met by AMERC. If the centre does not meet requirements within three visits, the cost of any subsequent approval visits by the Chief Examiner (or nominated deputy) will be met by the Centre, and will be charged at a rate no greater than the MCA's rate current at the time. The Company Secretary will provide indicative costs.
- d) Venue Approvals are subject to quality assurance audit visits on a rotational basis by the Chief Examiner or an appointed deputy - the cost being met by AMERC Ltd. Any change in location or significant change in equipment will also require a visit. Where the Executive Committee require a revisit due to non-compliance this will be at the Centre's expense.

12.11.6 ECC APPROVAL

An Examination Co-ordination Centre (ECC) manages the provision of the examination service at one or more Approved Examination Venues (AEV). Examination Co-ordination Centres (ECC) are established at locations within the United Kingdom and overseas. A centre may apply to the AMERC Executive Committee for additional approval to become an Examination Co-ordination Centre providing the following requirements are met:

- a) The centre is already an AMERC Approved Examination Venue (AEV)
- b) The centre has operated successfully as an AEV for six months since the date of AMERC AEV approval
- c) The centre has successfully conducted at least six UK GMDSS courses (GOC, ROC or LRC)
- d) The centre meets conditions specified in 2.3.1 and 2.3.2 of this Handbook

12.11.7 ECC APPROVAL PROCEDURE

The centre submits details of its staff, premises, facilities, and security arrangements to the Executive Committee of AMERC Ltd on an ECC Application form (available from the AMERC Secretary). One member of staff should be identified as a main contact.

- a) The Chief Examiner (or nominated deputy) will visit the centre and check that all the criteria are satisfied.

- b) Where a new ECC has access to TWO or more Approved Examiners and the checks in a) above are satisfactory, Provisional ECC approval for the centre will be recommended to EC and an ECC Co-ordinator identified.
 - i) At the discretion of the Chief Examiner, examination scripts will be sent to them for moderation. The number of scripts to be decided by the Chief Examiner.
 - ii) The Chief Examiner (or nominated deputy) may attend further examinations, observing the new centre's examiners, providing guidance and feedback to the centre and the examiners.
- c) Where a new ECC does not have access to TWO or more Approved Examiners, and the checks in a) above are satisfactory, the Chief Examiner (or nominated deputy) will:
 - i) Nominate an Approved Examiner to carry out the initial examinations with the centre's prospective examiners observing;
 - ii) Deliver training to TWO or more members of staff who will have a UK GMDSS GOC Qualification and then recommend appointment as Probationary Examiners to EC;
 - iii) Recommend Provisional ECC approval for the centre to EC;
 - iv) Assume the role of ECC Co-ordinator for the centre, retaining full control of all examination materials and supervising the Probationary Examiners in accordance with 2.4.3 (b). This role will continue until the centre has access to TWO or more Approved Examiners.
- d) After each set of examinations, the Chief Examiner will report to the Maritime Consultation Group on the centre's progress.
- e) Upon completion of up to THREE satisfactory reports and meeting all the conditions specified in sections 2.3.1, and 2.3.2 of this handbook, ECC approval will be confirmed, after which the centre will conduct examinations unsupervised.
- f) The cost of the FIRST THREE visits to the Centre during the approval process will be met by AMERC. If the centre does not meet requirements within three visits, the cost of any subsequent approval visits by the Chief Examiner (or nominated deputy) will be met by the Centre, and will be charged at a rate no greater than the MCA's rate current at the time. The Company Secretary will provide indicative costs.
- g) Approvals are subject to quality assurance audit visits on a rotational basis by the Chief Examiner or one of their deputies - the cost being met by AMERC Ltd. Where the Executive Committee require a revisit due to non-compliance this will be at the Centre's expense.

12.12 GMDSS EXAMINATION FEE STRUCTURE

Examination fees are set annually after joint consultation between AMERC and the MCA. The fee for conducting GMDSS examination includes payment for each of the following elements:-

- a) Examiner's fee (UK only)
- b) NAC certificate administration fee
- c) ECC facility fee (UK only)
- d) MCA fee
- e) AMERC administration fee

The fee structure effective from 1st September 2019* is shown below. The Exam Fee row shows the full examination fee payable for each examination type. The remaining rows show the distribution of that total.

	GOC UK	GOC Overseas	ROC UK	ROC Overseas	LRC	LRC Overseas	SAT Module	RNLI
Exam Fee	180	125	160	120	140	100	60	0
Examiner	55	0	40	0	36	0	26	0
NAC	38	45	38	45	35.5	35	17.5	0
ECC	25	0	20	0	18	0	16.5	0
MCA	40	40	40	40	36	36	0	0
AMERC	22	40	22	35	14.5	29	0	0

* At the 2021 AGM, members of AMERC voted in favour of waiving RNLI exam fees entirely, in line with AMERC's work as a charitable organisation.