

Serviceability and Maintenance Requirements of Radio Equipment under the Global Maritime Distress and Safety System (GMDSS)

Notice to shipbuilders, owners, **masters and officers of merchant ships and manufacturers of marine radio equipment.**

This Merchant Shipping Notice is an integral part of the Merchant Shipping (Radio Installations) Regulations 1992. It supersedes Merchant Shipping Notice No 1475 and sets out the serviceability and maintenance requirements of radio equipment under the Global Maritime Distress and Safety System (GMDSS) in accordance with regulation 15(6) of these Regulations.

1. This Notice sets out the requirements for ensuring the availability of radio equipment on vessels entering the GMDSS as provided by Regulation 15(6) of the Regulations.

Requirements for ensuring availability

2. (a) Every ship, subject to this Regulation, shall ensure availability by using at least one; and for area A3 or area A4 ships at least two, of the following methods -

- (i) duplication of equipment;
- (ii) shore-based maintenance;
- (iii) at-sea electronic maintenance capability; or,
- (iv) any other method or combination approved by the Secretary of State.

(b) Irrespective of the methods used to ensure the availability of the equipment, but subject to the exception of Regulation 46, a ship should not depart from any port unless and until the ship is capable of performing all distress and safety communications.

(c) Irrespective of the methods used by the ship, all manufacturers' instruction manuals and maintenance manuals for each piece of equipment required should be available on

board. In the case of UK ships these manuals must be in the English language. Adequate tools, spare parts and test equipment appropriate to the methods used by the ship should be provided. The manuals, tools, spare parts and test equipment, as applicable, should be readily accessible.

Duplication of equipment ensuring availability

3. (a) If availability is ensured by using duplication, either singly or in combination with other approved methods, the following radio installations, in addition to those required by Regulations 8, 9, 10, 11 and 12, as appropriate, and complying with Regulation 5, should be available on board ships engaged on voyages in -

(i) *Sea-Area A1* - a VHF radio installation complying with the requirements of Regulation 8(1)(a);

(ii) *Sea Areas A1 and A2* - a VHF radio installation complying with the requirements of Regulation 8(1)(a) and an MF radio installation complying with the requirements of Regulation 10(1)(a);

(iii) *Sea Areas A1, A2 and A3* - a VHF radio installation complying with the requirements of Regulation 8(1)(a) and

either an MF/HF radio installation complying with the requirements of Regulation 11(1) ALTERNATIVE B(a) and being able to fully comply with the watch requirements of Regulation 13(1)(c); or an INMARSAT Ship Earth Station (SES) complying with the requirements of Regulation 11(1) ALTERNATIVE A(a). The MF/HF installation or INMARSAT SES installed for duplication should also comply with Regulation 11(2);

(iv) *Sea Areas A1, A2, A3 and A4* - a VHF radio installation complying with the requirements of Regulation 8 (1)(a) and an MF/HF radio installation complying with the requirements of Regulation 11(1) ALTERNATIVE B(a) and being able to comply fully with the watch requirements of Regulation 13(1)(c). For ships operating in sea area A4 only occasionally and having originally installed an MF/HF radio installation, the additional MF/HF radio installation may be substituted by an INMARSAT SES complying with the requirements of Regulation 11(1) ALTERNATIVE A(a). The MF/HF radio installation or INMARSAT SES installed for duplication should also comply with Regulation 11(2).

(b) The additional radio installations specified in paragraphs 3(a)(i) to 3(a)(iv) above should each be connected to a separate antenna and be installed and ready for immediate operation.

(c) It should be possible to connect the additional radio installations specified in paragraphs 3(a)(i) to 3(a)(iv) above (hereinafter referred to as 'duplicated equipment') to the reserve source or sources of energy required by Regulation 14(2), in addition to the appropriate radio equipment specified in that regulation (hereinafter referred to as 'basic equipment'). The capacity of the reserve source or sources of energy should be sufficient to operate the particular installation (that is, the 'basic equipment' or the 'duplicated equipment') with the highest power consumption, for the appropriate period specified in Regulation 14(2)(a) to 14(2)(c). However, the arrangement for the reserve source or sources of energy should be such that a single fault in this arrangement should not be able to affect both

the basic and the duplicated equipment. If the reserve source of energy is a battery the charging arrangements should be duplicated. Alternatively, a suitable alarm system should be installed to indicate a failure in the charging arrangement and provision should be made to connect the equipment direct to a suitable alternative supply.

Shore-based maintenance for ensuring availability

4. If availability is ensured by using a combination of methods which include shore-based maintenance, an arrangement acceptable to the Marine Safety Agency should be established to ensure adequate support of the ship for the maintenance and repair of its radio installations. Acceptable arrangements are -

(i) a signed declaration from the Owner or his Representatives setting out the arrangement with a company or companies covering the trading area of the ship to provide maintenance and repair facilities on a call-out basis;

(ii) provision of facilities at the main base of ships engaged on a regular trading pattern.

Note: Records of Equipment (Forms DTP 30079 or DTP 30080) should include an indication of the types of arrangements for shore-based maintenance.

At-sea electronic maintenance capability for ensuring availability

5. (a) If availability is ensured by using a combination of methods which includes at-sea electronic maintenance capability, adequate additional technical documentation, tools, test equipment and spare parts must be carried on board in order to enable the maintainer to perform tests and localise and repair faults in the radio equipment. The extent of this additional technical documentation, tools, measuring equipment and spare parts to be carried on board should be consistent with the equipment installed. An indication of such approval should be entered in the Records of Equipment (Forms DTP 30079 or DTP 30080).

(b) The person designated to perform functions for at-sea electronic maintenance

should hold an appropriate certificate as specified by the Radio Regulations or have equivalent at-sea electronic maintenance qualifications.

(c) In the case of United Kingdom ships, for the purpose of the Regulations an officer or crew member shall be deemed qualified to carry out radio maintenance if he or she holds

(i) a Radio Maintenance Certificate granted by the Secretary of State, or

(ii) a certificate recognised by the Marine Safety Agency as being equivalent to the certificate in (i) above.

Acceptable combinations (or Equivalent)

6. (a) Any INMARSAT SES equipment providing the enhanced group calling (EGC) capability may be accepted as fulfilling the basic requirement of Regulation 8 (1)(e) for EGC reception.

(b) Any INMARSAT SES or any MF/HF radio telephone installed for duplication may also satisfy the basic requirements of Regulations 10(1)(c), 11(1) ALTERNATIVE A(d) and 11(1) ALTERNATIVE B(c) for another radio service to initiate the transmission of ship-to-shore distress alerts.

(c) Any INMARSAT SES or any MF/HF radiotelephone may be installed for duplication irrespective of whether the basic radio installation complies with regulation 11(1) ALTERNATIVE A(a) or regulation 11(1) ALTERNATIVE B(a).

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