



Life-Saving Appliances - Recognised Distress Signals and Advertised Alternatives to Pyrotechnic Flares

Notice to all Ship Owners, Ship Operators, Port Operators, Harbour Masters, Yacht Skippers, Pleasure Vessel Users, Masters and owners of vessels operating on Inland Waterways, Fishing Vessel Skippers and Seafarers

*This note replaces MIN464 and should be read in conjunction with MGN280 and MGN538.
This MIN expires 01 Mar 2018*

Summary

This note provides the latest advice to mariners on products sold as distress signalling equipment to be used in an emergency. It highlights the risks of using non-SOLAS or non-pyrotechnic distress flares such as Electronic Visual Distress Signals (EVDS).

1. Introduction / Background

- 1.1 The International Regulations for Preventing Collisions at Sea, 1972 (COLREGS) apply to all vessels at sea and, by special application, to vessels on inland waters. The COLREGS are reproduced in MSN1781. Annex IV of COLREGS lists the signals which should be used if a vessel is in distress and needs immediate assistance. Distress alerting equipment to transmit these signals (e.g. flares) is required to be carried on certain vessels.
- 1.2 The specific distress alerting equipment which must be carried is prescribed in the carriage requirements for each type of vessel and nature of operation. In each case, a range of equipment is specified to transmit an initial alert, communicate a long distance location signal, communicate a close range location signal or, in some cases, all three.
- 1.3 For pleasure vessels of 13.7m and over (Specified in Merchant Shipping Regulations as a Class XII vessel) operating in Category C waters and seaward, three types of COLREGS distress alerting equipment must be carried to comply with the Class XII Exemption annexed to MGN538:-
 - a maritime radio capable of transmitting and receiving calls and messages appropriate for the area of operation – it is strongly recommended that the maritime radio provided has a Digital Selective Calling (DSC) function;
 - 4 red handheld flares and 2 orange smoke flares;
 - another type of alerting equipment such as an EPIRB or a Personal Locator Beacon.



- 1.4 Hand signals e.g. slowly and repeatedly raising and lowering outstretched arms (as per COLREGS) do not qualify as an appropriate means of signalling distress for meeting the carriage requirements of the Class XII pleasure vessel exemption annexed to MGN538.
- 1.5 For pleasure vessels of less than 13.7m, there are no mandatory carriage requirements for specific signalling devices, but the COLREGS list of recognised distress signals is still relevant and should be followed by any vessel operator (including pleasure vessel skippers) when signalling distress, so certain devices would be needed to achieve this.
- 1.6 The International Convention for the Safety of Life at Sea, 1974 (SOLAS) describes the standards that distress alerting equipment should meet but there are also non-SOLAS distress signals on the market. The MCA has no mechanism for assessing the standard of non-SOLAS signals, whereas SOLAS products sold in the UK are subject to a strict assessment and type approval process, and will be marked with a Wheel Mark. The Maritime & Coastguard Agency (MCA) expects vessel operators to ensure that the distress alerting equipment they buy and carry is compliant with the applicable International Regulations in every respect.
- 1.7 The MCA is aware of the development and marketing of hand-held non-pyrotechnic devices offered as alternatives to pyrotechnic flares; these will be referred to in this document as Electronic Visual Distress Signals (EVDS), which covers an array of different devices. While these devices have a number of potential uses, from a practical and search and rescue perspective the light signal they produce is different to that produced by a pyrotechnic flare and may not be recognised as a distress signal. This could have fatal consequences.

2. UK Policy on Marketed Alternatives to Pyrotechnic Flares

- 2.1 To be effective, distress signals need to be internationally recognised. Not all EVDS provide a distress signal listed in COLREGS Annex IV (such as SOS), and the MCA knows of no EVDS device which is compliant with the SOLAS technical performance standards for distress flares. Consequently, the international carriage requirements do not recognise EVDS and the UK national carriage requirements have not been amended to formally recognise them either.
- 2.2 A change would therefore be needed to Annex IV of the COLREGS or to the SOLAS technical performance standards and to the applicable international/UK national carriage requirements in order to offer these devices full recognition as distress signals. The MCA sees no likely potential of this in the near future because objective evidence of a compelling need for change is yet to emerge.
- 2.3 The US Coast Guard has worked with the International Standards Organisation (ISO) and the Radio Technical Commission for Maritime Services (RTCM) to research the effectiveness of EVDS. The MCA supports this initiative, through monitoring progress, contributing views, and supporting this work in the appropriate international fora. The ultimate aim of the work is to consider the development of an appropriate technical performance standard for EVDS devices, if they are shown to be fit for purpose.

3. Advice for Mariners

- 3.1 Certain commercial vessels are required to carry flares in accordance with the applicable carriage requirements and such flares (other than hand-held smoke signals) must meet the requirements of the Marine Equipment Directive (MED) unless an alternative technical performance standard (such as MSN1676) is specified. Compliance with the MED is demonstrated by the presence of the Wheel Mark. MED compliance incorporates compliance with European and IMO requirements. The MCA is not aware of any EVDS product which meets the light intensity required by the IMO or MSN1676 for distress flares.



This means that for commercial vessels EVDS products cannot be used in place of the flares required in carriage requirements.

3.2 Where carriage of flares is not mandatory, the MCA nevertheless advises that EVDS should not currently be carried as a substitute for conventional pyrotechnic flares. This is because of the risk that EVDS may not be recognised internationally as a distress signal. However, for pleasure vessels, seagoing commercial vessels, and most non-seagoing commercial vessels, EVDS may be carried in addition to the required distress signalling equipment and used to identify location or transmit the S-O-S distress signal through a switch mechanism (just as a torch or other light-emitting device could be used). However, the limitations of EVDS devices should be recognised and anyone using them should be made aware of the type and quality of signal being generated.

3.3 Annex 3 to MGN538 provides guidance on the disposal of Time Expired Pyrotechnics (TEP), including pyrotechnic flares.

More Information

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