

light or lights and, where practicable, at a minimum height of 2 metres vertically above the forward masthead light, provided that it shall be carried not less than 2 metres vertically above or below the after masthead light. On a vessel where only one masthead light is carried the manoeuvring light, if fitted, shall be carried where it can best be seen, not less than 2 metres vertically apart from the masthead light.

13. Approval

The construction of lights and shapes and the installation of lights on board the vessel shall be to the satisfaction of the appropriate authority of the State whose flag the vessel is entitled to fly.

Annex II

ADDITIONAL SIGNALS FOR FISHING VESSELS FISHING IN CLOSE PROXIMITY

1. General

The lights mentioned herein shall, if exhibited in pursuance of Rule 26 (d), be placed where they can best be seen. They shall be at least 0.9 metre apart but at a lower level than lights prescribed in Rule 26 (b) (i) and (c) (i). The lights shall be visible all round the horizon at a distance of at least 1 mile but at a lesser distance than the lights prescribed by these Rules for fishing vessels.

2. Signals for Trawlers

- (a) Vessels when engaged in trawling, whether using demersal or pelagic gear, may exhibit:
 - (i) when shooting their nets, two white lights in a vertical line;
 - (ii) when hauling their nets, one white light over one red light in a vertical line;
 - (iii) when the net has come fast upon an obstruction, two red lights in a vertical line.
- (b) Each vessel engaged in pair trawling may exhibit:
 - (i) by night, a searchlight directed forward and in the direction of the other vessel of the pair;
 - (ii) when shooting or hauling their nets or when their nets have come fast upon an obstruction, the lights prescribed in 2 (a) above.

3. Signals for purse seiners

Vessels engaged in fishing with purse seine gear may exhibit two yellow lights in a vertical line. These lights shall flash alternately every second and with equal light and occultation duration. These lights may be exhibited only when the vessel is hampered by its fishing gear.

Annex III

TECHNICAL DETAILS OF SOUND SIGNAL APPLIANCES

1. Whistles

- (a) Frequencies and range of audibility

The fundamental frequency of the signal shall lie within the range 70-700 Hz.

The range of audibility of the signal from a whistle shall be determined by those frequencies, which may include the fundamental and/or one or more higher frequencies, which lie within the range 180-700 Hz (± 1 per cent) and which provide the sound pressure levels specified in paragraph 1 (c) below.
- (b) Limits of fundamental frequencies

To ensure a wide variety of whistle characteristics, the fundamental frequency of a whistle shall be between the following limits:

 - (i) 70-200 Hz, for a vessel 200 metres or more in length;
 - (ii) 130-350 Hz, for a vessel 75 metres but less than 200 metres in length;
 - (iii) 250-700 Hz, for a vessel less than 75 metres in length.
- (c) Sound signal intensity and range of audibility

A whistle fitted in a vessel shall provide, in the direction of maximum intensity of the whistle and at a distance of 1 metre from it, a sound pressure level in at least one 1/3rd-octave band within the range of frequencies 180-700 Hz (± 1 per cent) of not less than the appropriate figure given in the table below.

Lenght of vessel in metres	1/3-octave band level at 1 metre in dB referred to $2 \times 10^{-5} \text{N/m}^2$	Audibility range in nautical miles
200 or more	143	2
75 but less than 200	138	1.5
20 but less than 75	130	1
Less than 20	120	0.5

The range of audibility in the table above is for information and is approximately the range at which a whistle may be heard on its forward axis with 90 per cent probability in conditions of still air on board a vessel having average background noise level at the listening posts (taken to be 68 dB in the octave band centred on 250 Hz and 63 dB in the octave band centred on 500 Hz).

In practice the range at which a whistle may be heard is extremely variable and depends critically on weather conditions; the values given can be regarded as typical but under conditions of strong wind or high ambient noise level in the listening post the range may be much reduced.

(d) Directional properties

The sound pressure level of a directional whistle shall be not more than 4 dB below the prescribed sound pressure level on the axis at any direction in the horizontal plane within ± 45 degrees of the axis. The sound pressure level at any other direction in the horizontal plane shall be not more than 10 dB below the prescribed sound pressure level on the axis, so that the range in any direction will be at least half the range on the forward axis. The sound pressure level shall be measured in that 1/3rd-octave band which determines the audibility range.

(e) Positioning of whistles

When a directional whistle is to be used as the only whistle on a vessel, it shall be installed with its maximum intensity directed straight ahead.

A whistle shall be placed as high as practicable on a vessel, in order to reduce interception of the emitted sound by obstructions and also to minimize hearing damage risk to personnel. The sound pressure level of the vessel's own signal at listening posts shall not exceed 110 dB (A) and so far as practicable should not exceed 100 dB (A).

(f) Fitting of more than one whistle

If whistles are fitted at a distance apart of more than 100 metres, it shall be so arranged that they are not sounded simultaneously.

(g) Combined whistle systems

If due to the presence of obstructions the sound field of a single whistle or of one of the whistles referred to in paragraph 1 (f) above is likely to have a zone of greatly reduced signal level, it is recommended that a combined whistle system be fitted so as to overcome this reduction. For the purposes of the Rules a combined whistle system is to be regarded as a single whistle. The whistles of a combined system shall be located at a distance apart of not more than 100 metres and arranged to be sounded simultaneously. The frequency of any one whistle shall differ from those of the others by at least 10 Hz.

2. Bell or gong

(a) Intensity of signal

A bell or gong, or other device having similar sound characteristics shall produce a sound pressure level of not less than 110 dB at a distance of 1 metre from it.

(b) Construction

Bells and gongs shall be made of corrosion-resistant material and designed to give a clear tone. The diameter of the mouth of the bell shall be not less than 300 mm for vessels of 20 metres or more in length, and shall be not less than 200 mm for vessels of 12 metres or more but less than 20 metres in length. Where practicable, a power-driven bell striker is recommended to ensure constant force but manual operation shall be possible. The mass of the striker shall be not less than 3 per cent of the mass of the bell.

3. Approval

The construction of sound signal appliances, their performance and their installation on board the vessel shall be to the satisfaction of the appropriate authority of the State whose flag the vessel is entitled to fly.

Annex IV DISTRESS SIGNALS

1. The following signals, used or exhibited either together or separately, indicate distress and need of assistance:

- (a) a gun or other explosive signal fired at intervals of about a minute;
- (b) a continuous sounding with any fog-signalling apparatus;
- (c) rockets or shells, throwing red stars fired one at a time at short intervals;
- (d) a signal made by radiotelegraphy or by any other signalling method consisting of the group ...- - -... (SOS) in the Morse Code;
- (e) a signal sent by radiotelephony consisting of the spoken word *Mayday*;
- (f) the International Code Signal of distress indicated by N.C.;
- (g) a signal consisting of a square flag having above or below it a ball or anything resembling a ball;
- (h) flames on the vessel (as from a burning tar barrel, oil barrel, etc.)
- (i) a rocket parachute flare or a hand flare showing a red light;
- (j) a smoke signal giving off orange-coloured smoke;
- (k) slowly and repeatedly raising and lowering arms outstretched to each side;
- (l) the radiotelegraph alarm signal;
- (m) the radiotelephone alarm signal;
- (n) signals transmitted by emergency position-indicating radio beacons.
- (o) approved signals transmitted by radiocommunications systems.

2. The use or exhibition of any of the foregoing signals except for the purpose of indicating distress and need of assistance and the use of other signals which may be confused with any of the above signals is prohibited.

3. Attention is drawn to the relevant sections of the International Code of Signals, the Merchant Ship Search and Rescue Manual and the following signals:

- (a) a piece of orange-coloured canvas with either a black square and circle or other appropriate symbol (for identification from the air);
- (b) a dye marker.