

Submission: **SR14-07**

Offshore Special Regulations - 4.23

Pyrotechnics and Lights (White Flares)

A submission from US SAILING

This proposal concerns visual signals for collision avoidance. It would replace white hand (hand-held) flares with battery-powered lights, which are already required in the Special Regulations and by COLREGS.

Proposal (boat):

4.23 Pyrotechnic **and Light** Signals

- 4.23.1 Pyrotechnic signals shall be provided conforming to SOLAS LSA Code Chapter III Visual Signals and not older than the stamped expiry date (if any) or if no expiry date stamped, not older than 4 years.

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Table 13

red parachute flares LSA III 3.1	red hand flares LSA III 3.2	white hand flares*	orange smoke LSA III 3.3	race category
6	4	4	2	MoMu0,1
4	4	4	2	MoMu2,3
	4	4	2	Mo4
2	4	4	2	Mu4

— ~~*Specifications of white flares (except colour and candle rating) should comply with the LSA Code Chapter III 3.2~~ Table 13

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4.23.2 The following lights shall be provided and readily available for the purpose of collision avoidance:

a) a watertight white torch (flashlight) with spare batteries and bulb

**

b) a watertight, high-powered white spotlight (searchlight) with spare batteries and bulbs

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Current Position

N/A

Reason:

1. The “white flare” clauses in the two OSRs conflict with COLREGS

Steady white is the commonly accepted color for visual signals for collision avoidance because it differs from strobes and every navigation light except the stern light.

The current OSRs prescribing white flares conflicts with COLREGS. COLREGS prescribes a searchlight (often called a spotlight) and specifies exactly how it is to be used, including the number and duration of flashes when making signals. Of course, a flare cannot be made to flash.

COLREGS text (emphasis added):

Rule 36

Signals to Attract Attention

If necessary to attract the attention of another vessel, any vessel may make light or sound signals that cannot be mistaken for any signal authorized elsewhere in these Rules, or may direct the beam of her searchlight in the direction of the danger, in such a way as not to embarrass any vessel Any light to attract the attention of another vessel shall be such that it cannot be mistaken for any aid to navigation. For the purpose of this Rule the use of high intensity intermittent or revolving lights, such as strobe lights, shall be avoided.

2. Suitable lights are already required in OSR 4.07

4.07 Flashlight(s)

4.07.1 The following shall be provided:-

- | | |
|--|-------------|
| a) a watertight, high-powered flashlight or spotlight, with spare batteries and bulbs, and | MoMu0,1,2,3 |
| b) a watertight flashlight with spare batteries and bulb | ** |
| c) for Mu3,4 the watertight flashlight in OSR4.07.1(b) shall be stowed in the grab bag or emergency container | Mu3,4 |
| d) a watertight high-intensity heavy duty handlamp powered by the ships' batteries, instantly available for use on deck and in the cockpit, with spare bulbs | MoMu0 |

Presumably with the partial aim of collision avoidance, and presumably referring to white lights, this OSR mandates “flashlights,” which are called “torches” elsewhere in the Special Regulations(see 2.0 (h), 4.10, 4.22, and 6.4).

What this means to the owner is that in order to legally address the *one* problem of collision avoidance, he or she is currently required to inventory *two* very different types of equipment. One is bright battery-powered light that meets COLREGS requirements. The other is a set of white hand-held flares, which are not mentioned in COLREGS.

The cost considerations are large. The list price of a Pains Wessex white flare is US\$20, meaning a cost of \$120 for the 6 flares required or recommended by the current OSRs (2 for the grab bag, 4 for the boat), with the outlay to be repeated every four years as old flares expire.

For comparison, here are approximate list prices of battery-powered lights:

- 3 million candle power spotlight (searchlight), under US\$60
- 1 million cp spotlight (searchlight), under US\$20.
- Waterproof diving torch (flashlight) for ditch bag, under US\$40
(prices from *Landfall Navigation and West Marine online catalogs, June 2007*)

In daylight, lights and flares may be supplemented with inexpensive devices used as signal mirrors (for example, a compact disk).

3. Hand-held flares are difficult to use and potentially dangerous

Unlike a torch (flashlight) and spotlight (searchlight), operating a flare requires training, special equipment (gloves or other body protection), and, because the ignition device is small, good visibility.

When ignited, a hand-held flare drips and (in a fresh wind) throws hot slag. There have been reports of injuries and damage to boats and life rafts caused by slag. As is well known, on May 4, 2006, Pains Wessex issued a total recall for White Collision Warning Hand Flares following a serious injury to a user due to a faulty ignition system. See <http://members.lycos.co.uk/edyc/pains-wessex-2006-02.htm>

4. White flares may not be available

There appears to be only one major manufacturer of white hand-held flares, Pains Wessex. When its white flares were recalled in May 2006, on such short notice the Newport Bermuda Race Organizing Committee had no option but to amend the NOR to eliminate the OSR. The committee urged entrants to plan to use lights and sound signals to attract attention (as COLREGS requires). See bermudarace.com/2006/amendments1-2.pdf