

FUTURE WORKING PARTIES

Navigation Lights – IRPCAS – RRS 48.1

A paper by Stan Honey, Chair Oceanic and Offshore Committee, 18 October 2018

The Oceanic and Offshore Committee, and International Regulations Commission should consider setting up a working party on navigation lights. If formed, Rear Admiral Chris Oxenbould AO RAN (Rtd) has offered to chair it. Stuart Carruthers, chair of the International Regulations Commission would sensibly be a vice chair. Stan Honey and Chuck Hawley have offered to serve.

The IRPCAS regulations are out of date with respect to racing sailboats over 20m. A significant percentage of offshore racing sailboats that are over 20m in length are equipped in violation of the current IRPCAS requirements for running lights, both when under sail and under power. It will likely be time consuming, frustrating, and maybe impossible to update the IRPCAS, but given that the problem is most acute on offshore racing yachts, the responsibility sensibly falls to World Sailing, specifically its Oceanic and Offshore Committee and International Regulations Commission. There is background below on the problem and on possible recommendations that might come out of such a working party.

Navigation Lights

- Facts Found by Admiral Oxenbould, Chuck Hawley, and Stan Honey, as part of a recent project for the Volvo Ocean Race.
 - Annex I of IRPCAS requires that:
 - the steaming light on vessels over 20m shall be not less than 6m above the uppermost continuous deck
 - In this note I use the term “steaming light” because on sailboats the light is only used when under power. The “steaming light” is generally mounted on the front of the mast, i.e. not at the masthead, but note that in the IRPCAS the term used for this light is “masthead light”.
 - the sidelights are to be lower than the steaming light and not greater than $\frac{3}{4}$ of the height of the steaming light
 - the sidelights on vessels over 20m shall not be placed in front of the steaming light, (nearly all offshore sailboats over 20m violate this)
 - the sidelights on vessels over 20m shall be placed at or near the side of the vessel, (nearly all offshore sailboats over 20m violate this).
 - One could argue that pulpit mounted sidelights are actually on the side of the vessel, but this interpretation of the rule is a stretch given the above IRPCAS requirement that sidelights not be in front of the steaming light.
 - the sidelights on vessels over 20m require screen boards, painted matt black (nearly all sailboats over 20m violate this archaic requirement)

- The masthead is the only location on a modern ocean racer where sidelights can be mounted where they will never be blocked by sails.
 - Tricolor lights, i.e. red/green sidelights and white stern light, combined into one lantern for use at the masthead, are permitted in IRLCAS 25 but restricted to sailing vessels of less than 20m in length.
 - Many racing boats over 20m in length, mount their sidelights at the masthead to avoid them being blocked by sails (e.g. genoas, spinnakers, code zeros). These boats work around the restriction against combined sidelight lanterns and tricolor lanterns, by having multiple lanterns, red/green/sometimes white, mounted adjacent to one another at the masthead. This work-around should not be necessary, and still doesn't make the installation entirely compliant with IRLCAS rules (above).
- Possible Recommendations to update IRLCAS for sailing vessels:
 - Eliminate the obsolete requirement for screen boards. Modern LED running lights maintain very precise lit arcs without screen boards.
 - Eliminate the requirement that sidelights be mounted near the side of sailing vessels, and eliminate the prohibition against sidelights being mounted in front of the steaming light.
 - Many offshore sailboats over 20m violate these two rules, and mount their lower set of sidelights on the bow pulpit.
 - A lower set of sidelights is of course required for use when under power, when they need to be used in conjunction with a steaming light on the mast.
 - Allow sidelights in a combined lantern, or sidelights & stern light in a combined lantern (e.g. tricolor), to be mounted at the masthead of any size sailing vessel.
 - On a modern ocean racer, the masthead location is the only location where sidelights will never be blocked by sails.
 - The prohibition in the IRLCAS may exist because old combined lanterns could not accurately control the lit arc of the lights. Modern LED lights achieve very precise lighting arcs.

Training and Education regarding IRLCAS and lights

- Using both deck sidelights and masthead sidelights when under sail
 - Masthead sidelights are visible at all azimuths, but are sometimes overlooked by nearby vessels because of the height of the lights. We should recommend that ocean racers consider lighting both their bow pulpit mounted sidelights in addition to their masthead sidelights when under sail, when there is nearby traffic. The bow pulpit sidelights may be obscured by sails, but they still help.
 - Some sailors incorrectly believe that it is against IRLCAS to light multiple sets of sidelights simultaneously. We should communicate to sailors that this approach is IRLCAS compliant and seamanlike when under sail with nearby traffic.

- Attention Lights
 - Many sailors incorrectly believe that IRLCAS prohibits the use of a white flashing light at the masthead in addition to running lights. We should communicate via our educational materials that a white flashing “attention” light at the masthead is permitted, sensible, and seamanlike when in an offshore situation where one wants make one’s vessel more visible.
 - IRLCAS at Rule 21 defines a flashing light as ‘a light flashing at regular intervals at a frequency of 120 flashes or more per minute.’
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