

8th CSPCWG MEETING
Turku, Finland, 29 Nov – 02 Dec 2011

Paper for Consideration by CSPCWG

Power Source Indication for Aids to Navigation

Submitted by:	Australia
Executive Summary:	Recent experience where night navigation in the area around Brisbane was severely compromised due to an interruption of the mains power supply resulting from flood and storm damage has raised the question as to whether it is practical and useful to indicate the power source for aids to navigation on nautical charting products.
Related Documents:	IHO S-4, clause B-470
Related Projects:	None

Introduction / Background

Night-time navigation can be severely compromised by a failure of the mains power supply where navigational lights are powered using mains power. This can be further complicated where navigational lights powered by solar panels continue to operate. In early 2011 severe storms and flooding in the Brisbane area of Queensland, Australia resulted in a prolonged interruption to the mains power supply which disabled a large percentage of the navigational lights in a very busy port. This may have impacted on disaster relief activities being carried out subsequent to the storm, as well as compromising navigation of vessels in the vicinity of the port at the time of the power failure. An indication of the source of a navigational light's power supply in nautical products may aid in night navigation where there is a failure in the power supply to aids to navigation.

Analysis / Discussion

Following the storms and subsequent severe flooding in the Brisbane area in early 2011, there was a prolonged failure in the mains power supply (approximately 36 hours in some areas). Approximately 60% of the navigational lights within, and in the approaches to, the Port of Brisbane were powered by mains power and were consequently disabled. Most of these navigational lights did not have an auxiliary power supply nor were equipped with emergency lights. The majority of the remaining 40% of the navigational lights in and around the Port were powered by solar panels and continued to operate.

During the first evening following the power failure, a Maritime Safety Queensland officer and former Port of Brisbane Pilot who lives on a hill overlooking the harbour and the Brisbane River noticed that many of the navigational lights were not operating, and noted as a consequence that vessels in the vicinity during the power failure would find navigating in the area extremely difficult where relying on these lights. He concluded that navigational capability may have been improved if there was an indication on the charts as to which lights were powered by solar panels, and thus likely to be still operational. He subsequently contacted the AHO to enquire whether there was a way that such information could be included on the chart.

Discussion within the AHO concluded that it was probably not practical to provide such an indication on the paper chart, particularly given the level of information already required on charts for aids to navigation resulting in chart clutter, particularly where the aid also has an associated navigational light. The AHO determined, however, that this should be raised to the CSPCWG to look at possible depiction of this information on charts, or possible inclusion of this information in associated nautical publications such as Lists of Lights. Determination would first need to be made as to whether such information would be of benefit to the mariner in the event of a power supply failure.

At this stage, it is intended that this Paper be used only to promote discussion within CSPCWG. Further discussions may be required with mariners and organisations such as IALA. Australia has no suggestions

as to how such information could be included on paper charts, but can see merit in consideration of including this information in associated nautical publications such as Lists of Lights.

Conclusions

There may be merit in providing the mariner with information relating to the power source for navigational lights, in order to assist in night navigation in circumstances where there is a failure in the power supply to certain lights.

Recommendations

It is recommended that:

- Consideration be given to the merits of providing information regarding the source of power for navigational lights to the mariner;
- if it is considered there is merit in providing this information, a decision is made regarding the best way to provide such information, through depiction on nautical charts and/or in associated nautical publications; and
- further appropriate action be initiated by the CSPCWG.

Justification and Impacts

- May provide additional information to assist navigation in areas affected by natural disasters (e.g. to assist with disaster relief).
- Impact to be determined in relation to CSPCWG discussion.

Action required of CSPCWG

The CSPCWG is invited to:

- a. consider this paper; and
- b. discuss, on the merit of the Recommendations and Justifications above, whether further action is required.