

9th CSPCWG MEETING
Seoul, Republic of Korea, 13 – 16 November, 2012
Paper for Consideration by CSPCWG
Radio-Activated Fog Signals

Submitted by:	United States (NOAA)
Executive Summary:	Sound (fog) signals are now being deployed which require user activation
Related Documents:	Pub. S-4; Section B-450
Related Projects:	None

Introduction / Background

IHO standards for charting Audible (Sound) Fog Signals are detailed in Chart Specifications of the IHO (Publication S-4) at Section B-450.

Analysis / Discussion

In the United States, marine aids to navigation are the responsibility of the United States Coast Guard (USCG). The USCG regards the type of sound signal, such as diaphone, gong, siren, horn, whistle etc. to still be important in establishing position. Different types of sound signals are used along a route to assist in identifying the lateral aids. In the U.S., sound signals are not solely hazard warnings.

Traditionally USCG sound signals were automatically activated when the electronic fog detector detected reduced visibility at or near the sound signal station, or by wave action.

The USCG has begun replacing many fog detectors with Mariner Radio Activated Sound Signals (MRASS) or Remote Radio Activated Sound Signals (RRASS).

With Mariner Radio Activated Sound Signals (MRASS), the mariner has to key his/her VHF-FM radio microphone a specific number of times on a specific frequency to activate the sound signal for 15, 30, 45 or 60 minutes. An example is Ediz Hook Light in USCG Light List No. 6 where the characteristic states, "HORN is activated by keying the mic 5 times on VHF-FM Channel 83A (157.175 MHz). Horn will operate for 30 minutes."

With Remote Radio Activated Sound Signals (RRASS), the mariner uses VHF-FM Radio Channel 16 to verbally request the USCG to activate the sound signal. An example is Port Hueneme Light in USCG Light List No. 6, where the characteristic states, "The sound signal can be activated upon request to the Coast Guard via VHF-FM Ch 16."

Conclusions

Currently, the mariner cannot tell just looking at the paper nautical chart whether the sound signal:

- Is automatically activated by fog
- Requires keying the microphone to activate the signal
- Requires calling the USCG to activate the signal

The USCG wants NOAA to consider creating a new chart symbol or adding something to the chart to indicate a MRASS or RRASS.

Recommendations

NOAA has not been able to come up with an intuitive symbol to indicate radio activated sound signals.

One labeling possibility would be to add (RA) for "Radio Activated", such as "Horn (RA)". Since this is new, it would have to be used in conjunction with another dreaded chart note referring the user to the

Light List.

Another possibility would be to simply refer to the note in a label such as “Siren (see Note C).”

A third possibility would be to simply chart a note, such as:

SOUND SIGNALS

Some sound signals are automatically activated by low visibility conditions, but others need to be activated by VHF-FM radio. See Light List.

Justification and Impacts

The USCG believes that indication MRASS or RRASS on nautical charts would be of benefit to mariners.

Most mariners would be unfamiliar with these types of signal activation and the acronyms used.

Not all mariners are required to carry a List of Lights or Sailing Directions.

Chart clutter is a potential problem.

There is no option for attributing MRASS or RRASS in S-57. Inform might be necessary. On ECDIS Displays, the type of sound signal is usually identified in the name of the aid to navigation and in the pick report.

Action required of CSPCWG

The CSPCWG is invited to:

Inform the WG of their national policies regarding radio activated sound signals.

Consider whether or not an international standard is needed.

Comment on any of the above possible charting solutions.

Provide another charting solution for identifying MRASS or RRASS on nautical charts.