ANM19 Input paper

Agenda item 13.1

Task Number

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Questions from UKHO

# Summary

There has been an ‘on going’ dialogue between IALA and the UKHO. Following answers provided by the Chairman, before ANM18, a further request for information has been received, which is reproduced below.

## Purpose of the document

The Committee is requested to be able to contribute to a short discussion about the points raised by the UKHO, with a view to finalising a response and thus closing down the now long running correspondence.

## Related documents

1. IALA Recommendation O-130 on the Categorisation and Availability Objectives for Short Range Aids to Navigation.
2. IALA NAVGUIDE (2010).

# Previous comments by ANM and UKHO comments

At last a reply of sorts to some of our questions. In summary:

1. **Major lights.** O-130 provides some guidance on navigational significance. It definitely supplies no definition of major lights.

**Definitions**

1.2.1 Short Range Aids to Navigation

All AtoN intended for use within visual, audible or radar range of the mariner. So a major light is actually a short range AtoN!

1.2.2 System of AtoN

A group of complementary short range AtoN intended to collectively provide sufficient and timely information with which to safely navigate vessels within and through a waterway.

1.2.3 Availability

The probability that an AtoN or system of AtoN, as defined by the Competent Authority, is performing its specified function at any randomly chosen time. This is expressed as a percentage of total time that an AtoN or system of AtoN should be performing their specified

function.

So, availability targets are no use for charting purposes. Navigational significance categories may be more helpful:

**2 CATEGORIES**

There are three categories of AtoN, reflecting their navigational significance.

**2.1 Category 1**

An AtoN or system of AtoN that is considered by the Competent Authority to be of vital navigational significance. For example, lighted AtoN and racons that are considered essential for marking landfalls, primary routes, channels, waterways, dangers or the protection of the marine environment.

**2.2 Category 2**

An AtoN or system of AtoN that is considered by the Competent Authority to be of important navigational significance.

For example, it may include any lighted AtoN and racons that mark secondary routes and those used to supplement the marking of primary routes.

**2.3 Category 3**

An AtoN or system of AtoN that is considered by the Competent Authority to be of necessary navigational significance.

**2.4 Overall**

The Categorization of a system of AtoN is independent of the rating of the individual aids within the system. Such a system can be composed of various Categories of AtoN.

For example, a system rated as Category 2 could include individual AtoN that are rated Category 1, 2 or 3. A buoyed channel rated Category 2 may have an entrance/fairway buoy rated Category 1.

My underlining. None of this seems to be much help to deciding which lights have circles as opposed to flares. I guess an all-round light in Category 1 would, but each of the items within the category need defining (e.g. what is a primary or secondary route?). Would this really help a compiler, especially one wanting a rules-based¹ definition? No.

1. Direction lights. The attached IALA NAVGUIDE does not, so far as I can see, use any more specific term than narrow sector. It does refer to the sort of lights (e.g. PEL lights) that started this discussion as Precision Direction Lights (or PDL). Is this a term we should be using?

A PDL is a specialised form of sector light that can generate sharply defined sector boundaries. This feature is particularly useful for applications

that require one or several narrow sectors or high precision boundaries. The PDL may use a white light source with coloured filter, but newer

designs are utilising LED and possibly laser as a light source.

PDL sector lights are very precise, allowing a complete colour change at a sector boundary to occur over an angle of less than 1 minute of arc in most models.

1. The arc-pointer light. Apparently a unique device, one of many being developed to highlight a navigation light. Suggests details can be explained in Col 8, but no need for a chart symbol.
2. Interrupted v Group. Something to be tidied up ­ they will report back after IALA EEP and ANM committees have discussed.

 Operations Standards, United Kingdom Hydrographic Office and

Secretary IHO Chart Standardization and Paper Chart Working Group (CSPCWG)

# Current UKHO Questions / Comments

1. There is not, and never has been, a formal definition of a major light. Availability targets are no help from a charting perspective and the categories of navigational significance are not particularly useful either, as we would need to further define such features as primary and secondary routes. Consequently, I think it is going to come down to cartographic judgment which lights should be charted with a coloured circle for emphasis or just a flare. And this will vary from chart to chart for the same light.
2. As far as can see, the attached NAVGUIDE does not attempt to define narrow sector¹ for direction lights. Presumably therefore there is no definition ­ but it would be helpful to have one.
3. The arc-pointer is just one of several methods of drawing attention to a navigation light and does not need to be charted (although could usefully be included as a remark in the List of Lights).
4. Have you made any progress in your recent and various committee meetings in resolving the group v interrupted question for VQ lights?

The following is the text of an e-mail from Andrew Coleman (UKHO) dated 16 May 2012.

Thank you for the preliminary answers to my questions below. In summary:

1. There is not, and never has been, a formal definition of major¹ light. Availability targets are no help from a charting perspective and the categories of navigational significance are not particularly useful either, as we would need to further define such features as primary and secondary routes. Consequently, I think it is going to come down to cartographic judgment which lights should be charted with a coloured circle for emphasis or just a flare. And this will vary from chart to chart for the same light.
2. As far as can see, the attached NAVGUIDE does not attempt to define narrow sector¹ for direction lights. Presumably therefore there is no definition ­ but it would be helpful to have one.
3. The arc-pointer is just one of several methods of drawing attention to a navigation light and does not need to be charted (although could usefully be included as a remark in the LL).
4. Have you made any progress in your recent and various committee meetings in resolving the group v interrupted question for VQ lights?

Thank you for your continuing help.

Best regards

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# Action requested of the Committee

The Committee is requested to consider the points raised in paragraph 2 and be prepared to contribute to a plenary discussion.