ANM17 Input paper

Agenda item 9.12

Task Number 19

Author(s) TCM

Use of IALA AtoN categories

# Introduction

IALA had no record of which countries subscribe to the AtoN categories, as detailed in IALA Recommendation O-130, and was, therefore, unable to immediately respond to a query about this from an Industrial member. The simplest way to get a feel for the category usage was to ask ANM members.

The question asked was:

*It would be of interest to know which competent authorities use AtoN categories 1, 2, and 3, as described in IALA Recommendation O-130. Can you say, please, whether your authority use these categories and aim at reaching the availability objectives for each category?*

I am extremely grateful for the responses received, which I reproduce below.

## Action arising from the input of the document

This paper is provided purely for the information of the members of the ANM Committee but may be of particular interest to WG2.

## Related documents

IALA Recommendation 0-130 on Categorisation and Availability Objectives for Short Range Aids to Navigation.

# ANM Members’ responses

## AMNAS

In AMNAS, we do use the categorization (Cat 1, 2, 3) as described in IALA Recommendation O-130. We also achieve the availability objective in almost all stations.

In AMNAS, we categorise the AtoN station as one. What I mean here is that we do not categories each component separately. For example, the lantern is not categorized differently to the day mark, rather the whole station is categorized as one category.

## Australia

AMSA uses the AtoN categories and aims to achieve the availability criteria as per O-130.

## Canada

The Canadian Coast Guard uses these categories to distinguish the threat rating or importance. The reliability targets are built into our response time.

## Denmark

With regard to your query I can inform you that we (DaMSA) are not using AtoN categories 1, 2, and 3, as described in IALA Recommendation O-130 but our aim is to do it.

We are currently using our own instructions and manuals.

## England & Wales

We use the categories and availability criteria as laid down in O-130.

I am pleased to advise that we continue to achieve the required standards for each category.

## Germany

Cat I (vital for navigation) 99.8% (3 years): required generally for most of the Short-Range-AtoN in the German coastal area (requirement generally achieved)

Cat II (important for navigation) 99.0% (3 years): for visual marking of windfarms (according to IALA-Recommendation) (windfarm operator is obligated to meet this requirement)

Cat III (necessary for navigation) 97.0% (3 years):generally not sufficient for AtoN in the German coastal area, but could be taken into future consideration for some small buoys and withies.

By the way:

In the German language "notwendig/erforderlich (translated: "necessary") would be stronger than "important" (translated: "wichtig"). Hence, we include "notwendig/erforderlich" in "vital" --> 99,8 %.

Cat III in the German language, I would guess, would be something like "of secondary or minor importance".

## Ireland

The Commissioners of Irish Lights use the IALA Categories and gather availability statistics to ensure that we are meeting these levels.

## Japan

Japan Coast Guard uses the AtoN categories based on O-130 and achieves the availabilities set out in these categories.

The Japan Coast Guard adopted the standard procedure on the categorization and availability objectives for AtoN using the Recommendation O-130 since 2010.

However it is applied to not only short range AtoN but also other AtoN such as Loran, DGPS.

## Korea

The Republic of KOREA uses AtoN categories as described in O-130.

Our availability objectives are: Cat I - 99.8%, Cat II - 99.0% and Cat III- 97.0%

## Latvia

Latvia has implemented the IALA categories, however we are still trying to reach those objectives. Severe ice conditions like last winter do not allow us to comply with the stated recommendations.

## Norway

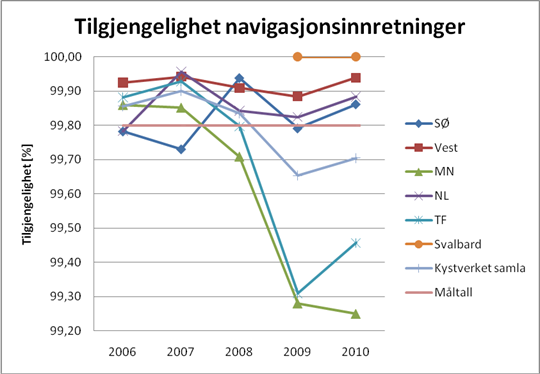
Please be advised that we follow O-130.

That is we practice some local adaptations of the categorisation of the aids. Action to restore aids that are considered to be more important are subsequently done more immediate by the region concerned. As you will understand there remains some categorisation work to be done system wide / nationally.

I find it somewhat difficult to divide the aids into categories, as the importance of the aid may depend on the circumstances. Anyway, a large part of the aids along our coast that send out a light or radio signal would be of Category 1.

Availability is calculated for lighthouses, sector and other minor lights, buoys and racons together, with an availability objective of 99.8%.

The figure below indicates the availability for five regions and Svalbard. (Operating data for the few aids at Svalbard are actually not recorded yet (Season: June/July – November/December))



1. Availability for five regions and Svalbard

Low availability in two regions is because of lights being out of order for an extended period (broken electrical cables etc.). These could, I believe, have been taken out of the calculation if duly notified in NtM.

Extinguished period calculated: “date lit” – “date extinguished” + 1. Example: When date extinguished is the same as date lit, 1 day is calculated.

Please also note that we depend on reports from the users to get it right. Further, in parts of the country there are long light days during summer, which could be an advantage with respect to the availability calculation.

## Portugal

Portugal is currently implementing the ATON categories as described in O-130.

## Scotland

NLB uses IALA categories

## Spain

Spain uses the IALA categories for the annual report of service quality. For now, the designation of each category (for the moment we're not used to groups of aids) has been left to the criteria of the responsible agencies, based on the IALA definitions for each of them.

We have developed a national recommendation about the categorization:

Cat1: Lights whit nominal range more than 7 MN; Racons; AIS-AtoN; Aids to marking dangers, some leading lines for narrow access

Cat2: Lights between 3-7 MN; DGPS (with overlapping coverage)

Cat3: Light < 3 MN; fog signal; unlighted mark and other complementary mark: radar reflectors, RTE.

For standardization of the results at national or regional or set of AtoN (service) we have defined a "weighted availability indicator" defined like the sum of availability means of each category to which we apply a weight:

Aw = 0.6 x Acat1 + 0.3 x Acat2 + 0.1 x Acat3. Aw objective = 0.9928 (annual) Acat ‘n’= availability of category ‘n’.

## Sweden

STA applied in collaboration with the SMA assigned categories in accordance with the O-130, which has resulted in continuous improvements in availability objectives.

## USA

The U.S. uses AtoN categories as described in O-130. Our availability objectives are:

Cat I (vital for navigation) - 99.8%

Cat II (important for navigation) - 99.0%

Cat III (necessary for navigation) - 97.0%