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International Association of Marine Aids to Navigation and Lighthouse Authorities

DRAFT LIAISON NOTE TO ITU-R WORKING PARTY 5B

AUTONOMOUS MARITIME RADIO DEVICES (AMRD)

During the last meeting of IALA radiocommunications experts, held 8 – 12 October 2018, and the operational experts, held 22 – 26 October 2018, IALA reviewed the liaison provided by ITU WP 5B [20 June 2018 / 5B/538-E].

IALA notes the continuing work on autonomous maritime radio devices (AMRD). As advised previously, IALA has published a recommendation on Mobile Aids to Navigation (MAtoN) (IALA Recommendation R1016) which is available on the IALA website at <http://www.iala-aism.org/product/r1016-mobile-marine-aids-navigation-maton/>

To determine the right numbering scheme for AMRD it should be clear what the difference is between a Marine Aid to Navigation (AtoN), Mobile Marine Aid to Navigation (MAtoN) and AMRD Group A. IALA notes the following definitions.

Definitions:

An AtoN is a device, system or service, external to vessels, designed and operated to enhance safe and efficient navigation of individual vessels and/or vessel traffic (IALA Dictionary).

A MAtoN shall be defined as a non-fixed or un-moored AtoN; but does not include a fixed or moored buoy that is adrift from station, temporary or otherwise. (IALA R1016)

The term “enhance safety of navigation” is derived from the International Convention for the Safety of Life at Sea (SOLAS), as amended. Within SOLAS, Chapter V is titled “Safety of navigation” and contains all relevant regulations. Any signal or information originated by a device, which reaches the navigator, may influence the safety of navigation. This includes AIS (signals should be shown on Radar and eventually also on the electronic display and information system) and VHF (working channels and Ch. 70). In any case the navigator has to decide how to proceed. In a positive case the safety of navigation will be enhanced. The term “safety of navigation” is used in SOLAS and other IMO documents, however there is no definition existing. The regulations listed in SOLAS Chapter V are relevant to achieve safety of navigation.

An AMRD is a mobile station; operating at sea and transmitting independently of a ship station or a coast station. Two groups of AMRDs are identified (ITU document 5B/411-E November 2017):

– *Group A: AMRDs that enhance the safety of navigation,*

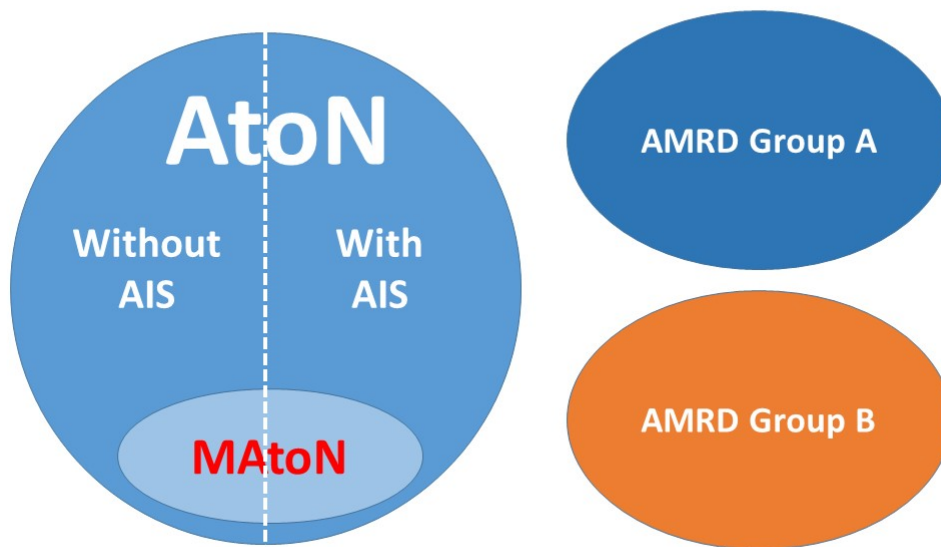
- *Group B: AMRDs that do not enhance the safety of navigation (AMRDs which deliver signals or information which do not concern the vessel can distract or mislead the navigator and degrade the safety of navigation).*

IALA recommends that the use of MAtoN should be strictly controlled, authorised by a competent authority and only used when a risk assessment has determined the requirement and benefit (IALA R1016).

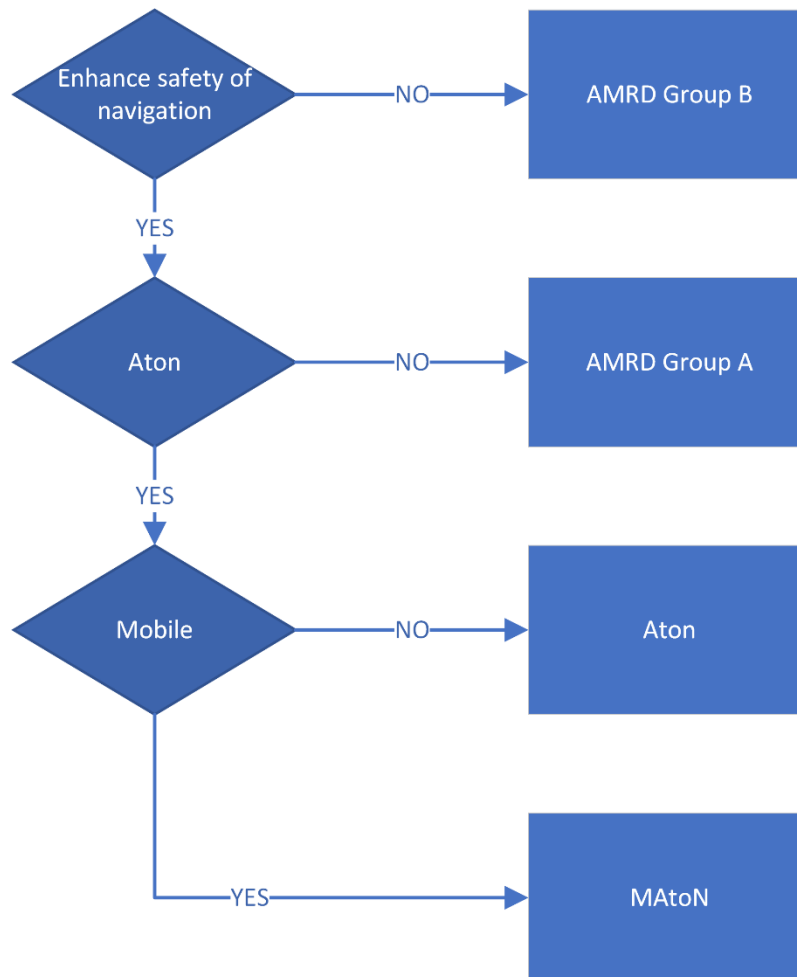
IALA notes that AtoN and MAtoN are not considered to be AMRDs, and both AtoN and MAtoN are subject to IALA guidelines and recommendations.

IALA recommends that competent authorities critically consider the benefits that an AMRD has to safety of navigation, and have the discretion to determine if the application enhances safety of navigation.

The diagram below represents the different device classifications.



In order to help competent authorities, determine the correct device classification and aid in the licensing of AIS AtoN and AMRD the following decision tree is provided.



Considering the information provided above IALA presumes that MAtaN will use the same numbering scheme as AtoN (9₁9₂M₃L₄D₅1₆X₇X₈X₉ or 9₁9₂M₃L₄D₅6₆X₇X₈X₉).

Since AMRD are not considered to be AtoN or MAtaN, IALA believes the proposed numbering scheme (9₁9₂8₃X₄X₅Y₆Y₇Y₈Y₉) will cause confusion with current AtoN and MAtaN on current installed and operational systems. IALA suggest that a different numbering scheme should be used to distinguish AMRD from other AIS devices.

IALA noticed that the type of AIS message sent and received will probably determine the symbol shown on the display equipment.

Issues that may be result include:

1. Having no symbol defined for an AMRD that might result in not displaying the AMRD;
2. Devices and/or applications like Radar and ECDIS that might display AMRD as an AtoN or a vessel;
3. Devices and/or applications might expect an AtoN message from these stations and interpret them accordingly.

IALA considers that the symbol used for AMRD must be available on Radar and ECDIS and be substantially different from those used for other AIS devices, especially Class A and B shipborne AIS

IALA suggests to confirm the impact of the chosen numbering scheme for AMRD with the industry.

IALA will make a further submission on AMRD at NCSR.

Actions requested

IALA kindly asks ITU-R WP 5B to note the comments provided.