ANM18/8/8

Formerly ANM17/WG1/WP9

Task 12 Output Document

**REVIEW IALA RECOMMENDATION O-139 ON THE MARKING OF MAN-MADE OFFSHORE STRUCTURES**

**Scope of Work**

1. Harmonise existing document to promote consistency in format and terminology.
2. Confirm that O-139 fully consolidates IALA Recommendations O-114, O-116, O-117 and O-131 within one document.
3. Highlight additional issues currently not addressed in O-139

**Review of O-139 Document:**

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| **Item** | **Description** | **Comment/Action** |
| 1 | Confirm that O-139 fully consolidates IALA Recommendations O-114, O-116, O-117 and O-131 within one document. | **Complete** |
| 2 | Reference in ‘The Council’ introduction that O-139 supersedes O-114, O-116, O-117 and O-131 should still remain |  |
| **2.1 Marking of Offshore structures in General** | | | |
| 3 | | 2.1.1 - Add the option for National Authorities to enforce more stringent regulations as appropriate, e.g. routine vessel traffic services, etc. |  |
| 4 | | 2.1.4 – Consideration of AIS as an Aid to Navigation (AIS AtoN) |  |
| 5 | | Consider inclusion of summary application to AtoN table |  |
| **2.2 Marking of Offshore Aquaculture Farms** | | | |
| 6 | | No comment other than possible simplification of diagrams. |  |
| **2.3 Marking of Offshore Windfarms** | | | |
| 7 | | Needs addition of a general comment ‘offshore wind turbine generators (WTG) to be marked so as to be conspicuous by day and night |  |
| 8 | | 2.3.2 & 2.3.5 - Marking of Individual Structures – define clearly individual; consider ‘isolated’. Mark as per ‘Offshore Structure, Morse ‘U’, etc. Confirm marking parameters for platforms in or out of the Wind farm perimeter. |  |
| 9 | | Fig 10 – Diagram unclear. Consider inclusion of jacket diagram, showing 15m above HAT painted yellow/up to the level of AtoN. |  |
| 10 | | 2.2.3 – Consistency on definition for light range ‘5NM’. Consider defining by candela? |  |
| 11 | | 2.3.3.1 – Highlight that marine AtoN lighting should be synchronised. |  |
| 12 | | 2.3.3.1 – Lighting of all structures within the windfarm – why? What does this mean? |  |
| 13 | | 2.3.3.1 – Racons – consideration of interference. If the case to use a racon is justified (e.g channel entry marker) where would it be located (height)? – refer to MCA document *(MGN 372 Offshore Renewable Energy***)** |  |
| 14 | | 2.3.3.1 – Sound signals, guidance on location within/around Windfarm. |  |
| 15 | | General: Consider defining transition between Temporary and Permanent AtoN. During construction phase |  |
| 16 | | Further guidance on channel between adjacent windfarms, risk based approach – refer to MCA document *(MGN 371 Offshore Renewable Energy)* |  |
| **Appendix 1** | | | |
| 17 | | 1.10 – Pipes, why – special marks? |  |
| 18 | | 1.12 – Seaplane Berth – should be part of O-113 – Remove? |  |
| **Minor Issues** | | | |
| 19 | | Paragraph 1 – ‘big-sized’ change to large |  |
| 20 | | Paragraph 2.1.4 – remove racon which is referenced in 2.1.2 item 8 |  |
| 21 | | Under Offshore Windfarms need consistency on terminology, i.e. wind generator wind turbine. Suggest Wind Turbine Generator (WTG) |  |
| 22 | | 2.3.5 – Remove ‘Lighting of each structure as already referenced in 2.3.3.1. |  |

**Marking inside Windfarm Perimeter (MGN 371 Offshore Renewable Energy)**

The identification characters shall each be illuminated by a low-intensity light visible

from a vessel thus enabling the structure to be detected at a suitable distance to avoid

a collision with it. For offshore wind farms, the size of the identification characters in

combination with the lighting should be such that, under normal conditions of visibility

and all known tidal conditions, they are clearly readable by an observer, stationed 3

metres above sea levels, and at a distance of at least 150 metres from the turbine. For

other OREI types, device detection and identification distances shall be agreed with

MCA’s Navigation Safety Branch. It is recommended that lighting for this purpose be

hooded or baffled so as to avoid unnecessary light pollution or confusion with

navigation marks. (Precise dimensions to be determined by the height of lights and

necessary range of visibility of the identification numbers).

d. Guidance on the calculation of safe distances of wind farm boundaries from shipping

routes can be found in MCA’s “Shipping Routes : Wind Farm Template” which follows as

Annex 3 – wind, tack damage (Roger Barker)

e. Advice on the safe distances of other OREI developments from shipping routes may be

obtained from MCA’s Navigation Safety Branch

**(MGN 372 Offshore Renewable Energy)**

2**.**8.5 Where adequate safe water exists it may be prudent in planning the voyage of

larger vessels to set tracks at least 2nm clear of turbine fields.