Liaison Note to ITU

DRAFT REVISION OF RECOMMENDATION ITU-R M.1371-5  
Technical characteristics for an automatic identification system using time division multiple access in the VHF maritime mobile frequency band

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# Introduction

IALA thanks ITU-R Working Party 5B (WP 5B) for the liaison statements (Annex 43 and Annex 44 to Document 5B/225-E) in which IALA was invited to consider proposed revisions of Recommendation ITU-R M.1371-5 related to Navigational Status, Autonomous Maritime Radio Devices (AMRD), Ship Type, Channel Management, Transmit Power, VDES capability indicators, Number of persons on board, Long-range equipment interface, Message 21 Aids to Navigation Report and Message 28 Single-slot AtoN Report.

Herewith, IALA provides comments on these issues as follows:

# Discussion

*Navigational Status*

IALA welcomes the amendments to the Navigation Status 9 (under way not making way) and its potential to improve vessel traffic services and mitigate collisions, by eliminating the ambiguity amongst vessels that are reporting Navigation Status 0 (under way using engines) or 2 (not under command), when their true status is under way not making way i.e., not using engines, stopped and adrift, yet under command[[1]](#footnote-1). and it will greatly assist vessels in restricted visibility by being able to clearly distinguish a vessel sounding one [prolonged blast](https://www.navcen.uscg.gov/?pageName=NavRulesAmalgamated#rule32%20$%2033), to convey its underway making way (per COLREGS Rule 35(a)) vice one sounding two prolonged blast in succession, to convey its making no way through the water (per COLREGS Rule 35(b )). However, IALA disagrees with proposed amendment to Navigation Status 0, for it may cause unwarranted ambiguity between power-driven and sailing vessels underway.

*Autonomous Maritime Radio Devices and Single-slotted AtoN Report / Navigational Points of Interest Message*

IALA welcomes the inclusion of MAtoN in message 21 and looks forward to having the option of reporting Navigational Point of Interest (new proposed name for Single slot Aids to Navigation Report) with a single-slot, CSTDMA message. The latter will allow AtoN Administration to report Navigational Point of Interest (and additional pertinent navigation information) without the shore-side infrastructure require to reserve slots for an AIS Message 21 Reports, and the new reports to be broadcasted at a greater rate, when ample free slots are available to them to do so. That said, IALA is of the view that this message has greater potential than the version 28 currently under consideration; and provides herewith a revised version for ITU’s consideration.

IALA does not have a position on AIS locating devices behaviour and defers to the IMO, ICAO and/or Search and Rescue Authorities to define it.

*Ship Type and Number of persons on board*

IALA welcomes broader granularity of ship types and specificity of the number of persons on board as this will assist AtoN Administrations and Port Authorities in risk management, maritime spatial planning and waterway design and their aim on improving navigation safety. However, IALA is of the opinion that rather than amending the existing Ship and Cargo Type table in message 5--which would mean these new codes would not be recognized by legacy device—this can be best accomplished by a new message, one that would accommodate Lloyd’s STATCODE 5 codes for ship types and include the reporting of persons on board, by number of crew and passengers. To this end, IALA includes herewith a proposed new message 29 -- Extended Ship Data for ITU’s consideration. Note, it also provides a parameter to report VDES capability as well as hazardous cargo, which would thus provide a means for any vessel to report this vice the current table providing for only certain ships too.

*Channel Management*

IALA welcomes any efforts to ensure the continued and future integrity of AIS and VDE channels. Channel switching was a necessary functionality at the inception of AIS, when dedicated protected channels were not available for AIS on a world-wide basis. After WRC-12 and the designation of AIS 1 and AIS 2, channel switching is no longer needed. Continuing to provide this functionality just keeps a door open to its inadvertent or malicious use, which jeopardizes the integrity of AIS, can create havoc to AIS users, may even be life threating by making AIS locating devices—which lack channel management—invisible to others. Further, this would allow for the dedicated DSC receiver in AIS Class A devices to be repurposed for other uses, e.g., AMRD Group B receiver, ASM receiver, etc.

*Transmit power*

IALA agrees with this proposal and its benefit to situational awareness and that it will provide a means to ascertain whether vessels have properly reacted to a message 22 power command, or improperly reacted to a malicious or unauthorized power command.

*VDES capability* *indicators*

IALA agrees with the need and importance of knowing the VHF digital data capability of vessels, particularly as VDES is deployed in a modular and/or regional basis. This will allow the use of existing AIS infrastructure, which already provides vessel positioning and--with this new parameter--their VHF data capabilities, which will thus make it possible for authorities and other ships, to select the most proper means of digital communication with the ship, at all times; and know its efficacy in transmitting messages through VDE-TER or VDE-SAT. IALA proposes to include this parameter in its new message 29, vice message 24B.

*Long-range equipment interface*

IALA does not foresee any need for this interface but does not speak for its entire membership on this matter.

# Proposed messages

IALA proposes to replace the new message 28 “Single slot Aids to Navigation Report” with a broader single-slot “Navigational Point of Interest” message and submits another new message 29 “Extended Ship Data report” which would replace the proposed message 30 “Person on Board” and provide an alternative to message : 8/DAC=001/FI=16 - Number of person on board.

## Message 28: Navigational Point of Interest Report

Used to provide the status (i.e., on/off-position, in/operative, open/closed, active/inactive, etc.) of navigational point of interest (i.e., aid to navigation (AtoN, bridge/lock, anchorage/caution/restricted area, environmental condition, maritime traffic light, VTS synthetic target, etc.). It may be used as an alternative to AIS messages; 8/DAC=001/FI=1 - VTS-generated/synthetic target; 8/DAC=001/FI=17 - Marine Traffic Signal; 8/DAC=001/FI=22 – Area Notice (broadcast); 8/DAC=001/FI=Route information (broadcast); and Message 21 AtoN Report.

It is primarily intended for the use by authorities to augment marine safety information sent by other means (i.e., NAVTEX, Enhanced Group Calling (ECG), via voice communication, Notice to Mariners, etc.); and facilitate its portrayal on navigational displays. Similarly, it can be used by ships to report a hazard or navigational discrepancy. It may be accompanied with Message 24A - Static Data Report, Part A to provide the charted name of the point of interest or provide an identity for a VTS-generated/ Synthetic Target.

It is not intended to be processed or portrayal on mobile AIS devices nor for its reports to be generated using the AIS MKD (i.e., Notice of Point of Interest Type 5). However, the parameters or grouping of parameters in this message should be portrayed on other navigational systems (i.e., INS) the same as these parameters are defined in IEC 62288 – Maritime navigation and radiocommunication equipment and systems–Presentation of navigation-related information on shipborne navigational displays –

General requirements, methods of testing and required test results. Users should have the ability to filter this message by type, nature, or source.

In CSTDMA mode, it may operate at a greater than nominal report rate, on a non-interfere basis with other AIS stations (polite broadcasts).

TABLE XX

**Message 28**

| Parameter | Bits | Description |
| --- | --- | --- |
| Message ID | 6 | Identifier for Message 28. |
| Repeat indicator | 2 | Used by the repeater to indicate how many times a message has been repeated. |
| Source ID | 30 | Identity (in the MMS) of the source of the message (see Article **19** of the RR and Recommendation ITU R M.585). |
| Time stamp | 6 | UTC second when the report was generated by the EPFS (0-59 or 60) if time stamp is not available, which should also be the default value or 61 if positioning system is in manual input mode or 62 if electronic position fixing system operates in estimated (dead reckoning) mode or 63 if the positioning system is inoperative). |
| Longitude | 28 | Longitude in 1/10 000 min of position of an AtoN (±180°, East = positive, West = negative, 181 = (6791AC0h) = not available = default). |
| Latitude | 27 | Latitude in 1/10 000 min of an AtoN (±90°, North = positive, South = negative, 91 = (3412140h) = not available = default). |
| Position Source | 2 | 0 = Unknown = default,  1 = Electronic position fixing system (EPFS),  2 = Manually inputted (fixed position),  3 = Dead-reckoning (calculated position). |
| Position Accuracy Flag | 1 | The position accuracy (PA) flag should be determined in accordance with Table 50. 0 = low (>10 m) = default; 1 = high (< 10 m) |
| Navigational Point of Interest (NPOI) ID | 24 | Identifies the navigational point of interest with a one-to-four (1-4) character 6-bit ASCII alpha-numeric text that reflects its charted number or designation (i.e., Table XX, Codes 2-30) or absent a chart number or designation its 3-digit “Nature of the NPOI” code, followed by a character (A-Z) to distinguish multiple iteration of the same NPOI. The last character of a NPOI defined by polyline(s) represents its sequence number amongst multi-polyline broadcasts, e.g., 44A1, 44A2, 44A3…, etc.; termination in ‘0’ denotes a single polyline, e.g., 44A0.  “@” = blank space = “@@@@” = not available = default. “ |
| Navigational Point of Interest (NPOI) Type | 3 | 0 - Physical AIS AtoN, its reported position is that of an AIS AtoN station fitted to a physical AtoN (i.e., buoy, beacon).  1 - Synthetic AIS AtoN, its reported position is for a physical AtoN (i.e., buoy, beacon), but broadcasted from a different location.  2 - Virtual AIS AtoN, its reported position is not associated with a physical AtoN.  3 - Mobile AIS AtoN, its reported position is from an AIS AtoN station fitted to a mobile buoy, object, or vehicle.  4 - Electronic Aid-in-Navigation (AinN), its reported position and dimensions are intended to aid in navigation when portrayed in an electronic navigational display.  5 - Reported from a vessel, e.g., NPOI code 20, Status 5, would denote a Cardinal Mark E as off-position.  6-7 - Reserved for future use. |
| Nature of the Navigational Point of Interest (NPOI) | 8 | Identifies the nature of the NPOI and/or its purpose. See Table XX. |
| Dimension Type and Scale | 3 | 0 - circle, Dimension A = Dimension B = 0 represents a point = default; Dimension A + Dimension B = represents a diameter, in 1 metre steps: 0-6,142.  1 - rectangle, Dimension A = True north dimension, in 1 metre steps: 0-4,095. Dimension B = True east-west dimension, in 1 metre steps: 0-2,047.  2 - rectangle, Dimension A = True north dimension, in 1 metre steps: 0-4,095. Dimension B = True east-west dimension, in 10 metre steps: 0-2,047.  3 - rectangle, Dimension A = True north dimension, in 1 metre steps: 0-4,095. Dimension B = True east-west dimension, in 100 metre steps: 0-2,047.  4 - vector (used by mobile AtoN and may be used for vessels, i.e., Table XX, Codes 164 - 173), Dimension A = COG, in true degrees: 000.0-359.9, in 1/10-degree steps, 3,600-4,095 not used. Dimension B = SOG, in 1 knot steps. 60 = anchored (with large swing circle), 61 = dynamically on station, 62 = tethered to another vessel, vehicle, or object. 63-2,047 reserved for future used.  5 - polyline, Dimension A = bearing, 000.0-359.9 true degrees, in 1/10-degree steps, 3,600-4.095 not used. Dimension B = length, in 1 metre steps: 0-2,047.  6 - polyline, Dimension A = bearing, 000.0-359.9 true degrees, in 1/10-degree steps. Dimension B = length, in 10 metre steps: 0-2,047.  7 - polyline, Dimension A = bearing, in true degrees: 000.0-359.9, in 1/10-degree steps, 3,600-4.095 not used. Dimension B = length, in 100 metre steps: 0-2,047. Feature marked on the left-side of the line.  NOTE 1: Multiple polyline messages, for the same NPOI ID, should be connected in series, i.e., Dimension B terminus should be connected to the reported position of the successive message, to compose a polygon or a serendipitous line (i.e., route, ice edge). Two successive messages with the same reported position would form a sector. Multiple polylines may be used to represent the orientation of a point of interest, i.e., Table XX, Code 3 - Fixed Structure, Code 185 – Berth). |
| ­Dimension A | 12 | As defined by Dimension Type and Scale. |
| Dimension B | 11 | As defined by Dimension Type and Scale. |
| Status | 4 | 0 - Unknown = default.  1 - Operating properly.  2 - Operating erratically.  3 - Operating at reduced functionality or intensity.  4 - Not Operational  5 - Off-station (in the vicinity).  6 - Off-station (adrift).  7 - Off-station (location unknown).  8 - Damaged, occulted or submerged.  9 - Removed or discontinued.  10 - Open (Bridge Span, Lock, Gate).  11 - Closed (Bridge Span, Lock, Gate).  12 - Active (used to denote status of a Special Area).  13 - Inactive (used to denote status of a Special Area).  14 -  15 - Cancelled, to cancel previously sent message from the same the Source ID for the same Navigational ID. |
| Spare | 1 | Should be set to zero. Reserved for future use |
| Total bits | 168 | Occupies one slot |

TABLE XX

**Nature of the Navigational Point of Interest (NPOI) and their purpose**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Nature & Source** | | **Code** | **Purpose** |  | **Nature & Source** | | **Code** | **Purpose** |
|  |  | 0 | Unknown or unspecified = default | Area Notice, DAC=001, FI=23, Table 11.11 - Notice Description |  | 132 | Restricted Area: Fishing prohibited |
| AIS Message 21, Table 74 |  | 1 | Reference point | 133 | Restricted Area: No anchoring. |
|  | 2 | RACON | 134 | Restricted Area: Entry approval required prior to transit |
|  | 3 | Fixed structures1 off-shore, such as oil platforms, wind farms.2 | 135 | Restricted Area: Entry prohibited |
| IALA Maritime Buoyage System (MBS) | 4 | IALA Emergency Wreck Marking Buoy | 136 | Restricted Area: Active military OPAREA |
| 5 | Light, without sectors | 137 | Restricted Area: Firing – danger area. |
| 6 | Light, with sectors | 138 | Restricted Area: Drifting Mines |
| 7 | Leading Light Front | 139 | (reserved for future use) |
| 8 | Leading Light Rear | 140 | Anchorage Area: Anchorage open |
| 9 | Beacon, Cardinal N | 141 | Anchorage Area: Anchorage closed |
| 10 | Beacon, Cardinal E | 142 | Anchorage Area: Anchoring prohibited |
| 11 | Beacon, Cardinal S | 143 | Anchorage Area: Deep draft anchorage |
| 12 | Beacon, Cardinal W | 144 | Anchorage Area: Shallow draft anchorage |
| 13 | Beacon, Port Hand | 145 | Anchorage Area: Vessel transfer operations |
| 14 | Beacon, Starboard Hand | 146 | (reserved for future use) |
| 15 | Beacon, Preferred Channel port Hand | 147 | (reserved for future use) |
| 16 | Beacon, Preferred Channel Starboard Hand | 148 | (reserved for future use) |
| 17 | Beacon, Isolated danger | 149 | (reserved for future use) |
| 18 | Beacon, Safe Water | 150 | (reserved for future use) |
| 19 | Beacon, Special Mark | 151 | (reserved for future use) |
| 20 | Cardinal Mark N | 152 | (reserved for future use) |
| 21 | Cardinal Mark E | 153 | (reserved for future use) |
| 22 | Cardinal Mark S | 154 | (reserved for future use) |
| 23 | Cardinal Mark W | 155 | (reserved for future use) |
| 24 | Port Hand Mark | 156 | Security Alert – Level 1 |
| 25 | Starboard Hand Mark | 157 | Security Alert – Level 2 |
| 26 | Preferred Channel Port Hand | 158 | Security Alert – Level 3 |
| 27 | Preferred Channel Starboard Hand | 159 | (reserved for future use) |
| 28 | Isolated Danger | 160 | (reserved for future use) |
| 29 | Safe Water | 161 | (reserved for future use) |
| 30 | Special Mark | 162 | (reserved for future use) |
|  | 31 | Light vessel, LANBY, Rigs | 163 | (reserved for future use) |
| Mobile AtoN | | 32 | (reserved for future use) | 164 | Distress Area: Vessel disabled and adrift4 |
| 33 | (reserved for future use) | 165 | Distress Area: Vessel sinking4 |
| 34 | (reserved for future use) | 166 | Distress Area: Vessel abandoning ship4 |
| 35 | (reserved for future use) | 167 | Distress Area: Vessel requests medical assistance4 |
| 36 | (reserved for future use) | 168 | Distress Area: Vessel flooding4 |
| 37 | (reserved for future use) | 169 | Distress Area: Vessel fire/explosion4 |
| 38 | (reserved for future use) | 170 | Distress Area: Vessel grounding4 |
| 39 | (reserved for future use) | 171 | Distress Area: Vessel collision4 |
| 40 | Wreckage (e.g., containers, debris) | 172 | Distress Area: Vessel listing/capsizing4 |
| 41 | Water quality and pollution monitoring equipment | 173 | Distress Area: Vessel under assault |
| 42 | Dynamic guard zones and convoys | 174 | Distress Area: Person overboard |
| 43 | Underwater operations | 175 | Distress Area: SAR area |
| 44 | Enhancing navigational safety during military operations, target mark | 176 | Distress Area: Pollution response area |
| 45 | Towed and deployed applications (e.g., cable laying) | 177 | (reserved for future use) |
| 46 | Search & Rescue applications, datum mark | 178 | (reserved for future use) |
| 47 | Special event, event mark | 179 | (reserved for future use) |
| 48 |  | 180 | Instruction: Contact VTS at this point/juncture |
| 49 |  | 181 | Instruction: Contact Port Administration at this point/juncture |
| 50 |  | 182 | Instruction: Do not proceed beyond this point/juncture |
| 51 |  | 183 | Instruction: Await instructions prior to proceeding beyond this point/juncture |
| 52 |  | 184 | Proceed to this location – await instructions |
| 53 |  | 185 | Clearance granted – proceed to berth3 |
| 54 |  | 186 | (reserved for future use) |
|  |  | 55-79 | (reserved for regional use) | 187 | (reserved for future use) |
| Marine Traffic Signal, DAC=001, FI=19, Table 8.2 - Signal in Service | | 80 | ~~Not available = default~~ | 188 | Information: Pilot boarding position |
| 81 | IALA port traffic signal 1: Serious emergency – all vessels to stop or divert according to instructions. | 189 | Information: Icebreaker waiting area |
| 82 | IALA port traffic signal 2: Vessels shall not proceed. | 190 | Information: Places of refuge |
| 83 | IALA port traffic signal 3: Vessels may proceed. One way traffic. | 191 | Information: Position of icebreakers |
| 84 | IALA port traffic signal 4: Vessels may proceed. Two way traffic. | 192 | Information: Location of response units |
| 85 | IALA port traffic signal 5: A vessel may proceed only when it has received specific orders to do so. | 193 | VTS active target4 |
| 86 | IALA port traffic signal 2a: Vessels shall not proceed, except that vessels which navigate outside the main channel need not comply with the main message. | 194 | Rouge or suspicious vessel4 |
| 87 | IALA port traffic signal 5a: A vessel may proceed only when it has received specific orders to do so; except that vessels which navigate outside the main channel need not comply with the main message. | 195 | Vessel requesting non-distress assistance4 |
| 88 | Japan Traffic Signal - I = "in-bound" only acceptable. | 196 | Chart Feature: Sunken vessel4 |
| 89 | Japan Traffic Signal - O = "out-bound" only acceptable. | 197 | Chart Feature: Submerged object |
| 90 | Japan Traffic Signal - F = both "in- and out-bound" acceptable. | 198 | Chart Feature: Semi-submerged object |
| 91 | Japan Traffic Signal - XI = Code will shift to "I" in due time. | 199 | Chart Feature: Shoal area |
| 92 | Japan Traffic Signal - XO = Code will shift to "O" in due time. | 200 | Chart Feature: Shoal area due north |
| 93 | Japan Traffic Signal - X = Vessels shall not proceed, except a vessel which receives the direction from the competent authority. | 201 | Chart Feature: Shoal area due east |
| 94 |  | 202 | Chart Feature: Shoal area due south |
| 95 |  | 203 | Chart Feature: Shoal area due west |
| 96 |  | 204 | Chart Feature: Channel obstruction |
| 97 |  | 205 | Chart Feature: Reduced vertical clearance |
| 98 |  | 206 | Chart Feature: Bridge closed3 |
| 99 |  | 207 | Chart Feature: Bridge partially open3 |
| Area Notice, DAC=001, FI=23, Table 11.11 - Notice Description | | 100 | Caution Area: Marine mammals habitat | 208 | Chart Feature: Bridge fully open3 |
| 101 | Caution Area: Marine mammals in area – reduce speed | 209 | (reserved for future use) |
| 102 | Caution Area: Marine mammals in area – stay clear | 210 | (reserved for future use) |
| 103 | Caution Area: Marine mammals in area – report sightings | 211 | (reserved for future use) |
| 104 | Caution Area: Protected habitat – reduce speed | 212 | Report from ship: Icing info |
| 105 | Caution Area: Protected habitat – stay clear | 213 | (reserved for future use) |
| 106 | Caution Area: Protected habitat – no fishing or anchoring | 214 | ~~Report from ship: Miscellaneous information – define in Associated text field~~ |
| 107 | Caution Area: Derelicts (drifting objects) | 215 | (reserved for future use) |
| 108 | Caution Area: Traffic congestion | 216 | (reserved for future use) |
| 109 | Caution Area: Marine event | 217 | (reserved for future use) |
| 110 | Caution Area: Divers down | 218 | (reserved for future use) |
| 111 | Caution Area: Swim area | 219 | (reserved for future use) |
| 112 | Caution Area: Dredge operations | Route Information -Message 8, DAC = 001, FI = 28, Route Type | 220 | Route: Recommended route |
| 113 | Caution Area: Survey operations | 221 | Route: Alternative route |
| 114 | Caution Area: Underwater operation | 222 | Route: Recommended route through ice |
| 115 | Caution Area: Seaplane operations | 223 | (reserved for future use) |
| 116 | Caution Area: Fishery – nets in water | 224 | (reserved for future use) |
| 117 | Caution Area: Cluster of fishing vessels | 225 | ~~Other – Define in associated text field~~ |
| 118 | Caution Area: Fairway closed | 226 | ~~Cancellation – cancel area as identified by Message Linkage ID~~ |
| 119 | Caution Area: Harbour closed | 227 | ~~Undefined (default)~~ |
| 120 | Caution Area: Risk (define in Associated text field) | 228 | Mandatory Route |
| 121 | Caution Area: Underwater vehicle operation | 229 | Ship Route Plan |
| 122 | (reserved for future use) | 230 |  |
| 123 | Environmental Caution Area: Storm front (line squall) |  | 231 | (reserved for regional use) |
| 124 | Environmental Caution Area: Hazardous sea ice | 232 |
| 125 | Environmental Caution Area: Storm warning (storm cell or line of storms) | 233 |
| 126 | Environmental Caution Area: High wind | 234 |
| 127 | Environmental Caution Area: High waves | 235 |
| 128 | Environmental Caution Area: Restricted visibility (fog, rain, etc.) | 236 |
| 129 | Environmental Caution Area: Strong currents | 237 |
| 130 | Environmental Caution Area: Heavy icing | 238 |
| 131 | (reserved for future use) |  |  | 255 |

NOTE 1 - This code should identify an obstruction that is fitted with an AtoN AIS station.

NOTE 2 - If Dimension Type = 5/6/7 is used; then Dimension A represents the orientation of the structure, Dimension B represents ½ the diagonal length of a rectangle.

NOTE 3 - If Dimension Type = 5/6/7 is used; then Dimension A represents the orientation of the berth or bridge, Dimension B represents ½ its length and the reported position its centre.

NOTE 4 - If Dimension Type = 1/2/3 is used; then Dimension A represents the length of the vessel and Dimension B represents its breadth.

## Message 29: Extend Ship Data Report

Used to provide extended information about a ship (i.e., numbers of persons and crew on board, hazardous cargo on board, type and quantity of bunker oil, and compliance with ITU-R Recommendations). It is expected that the user will have the ability to manually input this data using the AIS MKD or similar Human Machine Interface of the AIS or of an interfaced navigational system, i.e., INS.

Reporting interval should be 20 min. Using RATDMA or ITDMA access scheme.

|  |  |  |
| --- | --- | --- |
| **Message 29 - Extended Ship Data** | | |
| **Parameter** | **No. of bits** | **Description** |
| Message ID | 6 | Identifier for Message 29; always 29. |
| Repeat Indicator | 2 | Used by the repeater to indicate how many times a message has been repeated. 0 - 3, 0 = default, 3 = do not repeat anymore. |
| Source ID | 30 | Identity (in the MMS) of the source of the message (see Article **19** of the RR and Recommendation ITU R M.585). |
| Retransmit Flag | 1 | Retransmit Flag should be set upon retransmission.  0 = no retransmission = default, 1 = retransmitted. |
| Lloyd's Ship type | 42 | Lloyd's Register STATCODE 5 (e.g., A11A1AA);  7-character 6 bits ASCII alpha-numeric text,  "@@@@@@@" = not available = default. |
| Number of Persons on Board | 14 | Number of persons on-board: 1-16,383.  0 = not available = default. |
| Number of Persons on Board Other Than Passengers | 10 | Number of persons on-board, other than passengers: 0-1,023.  0 = not available = default, 1 - 1,022. 1,023 greater than 1,022 |
| Hazardous Cargo Flag | 2 | 0 - Not carrying DG, HS, or MP, IMO hazards or pollutants;  1 - Carrying DG, HS, or MP, IMO hazard or pollutant category X;  2 - Carrying DG, HS, or MP, IMO hazard or pollutant category Y;  3 - Carrying DG, HS, or MP, IMO hazard or pollutant category Z;  4 - Carrying DG, HS, or MP, IMO hazard or pollutant category OS. |
| Type of bunker oil: Heavy fuel oil  Light fuel oil  Diesel | 2 | 0 = Not available = default;1 = no; 2 = yes; 3 = not in use |
| 2 | 0 = Not available = default;1 = no; 2 = yes; 3 = not in use |
| 2 | 0 = Not available = default;1 = no; 2 = yes; 3 = not in use |
| Total amount of bunker oil in tonnes | 14 | 0 - 16,381;16,382 = 16,382 tonnes or greater;  16,383 = not available = default |
| VDES Capabilities | 3 | This field indicates the VDES capabilities supported by the equipment  Note that all equipment will have AIS as the minimum capability.  Bit 0 – ASM (0 – Not Supported, 1 – Supported)  Bit 1 – VDE-TER ( 0 – Not Supported, 1 – Supported)  Bit 2 – VDE-SAT ( 0 – Not Supported, 1 – Supported) |
| Version indicator | 3 | 0 = station compliant with Recommendation ITU-R M.1371-6;  1-3 reserved for future use |
| Spare | 35 | Should be set to zero. Reserved for future use |
| Total bits | 168 | Occupies one slot |

## Message 21: Aids-to-navigation report

**IALA agrees with the proposed changes to table 74.**

TABLE 74

The nature and type of aids to navigation can be indicated with 32 different codes

|  | Code | Definition |
| --- | --- | --- |
|  | 0 | Default, Type of AtoN not specified |
|  | 1 | Reference point |
|  | 2 | RACON or Mobile AtoN |
|  | 3 | Fixed structures off-shore, such as oil platforms, wind farms.  (NOTE 1 – This code should identify an obstruction that is fitted with an AtoN AIS station) |
|  | 4 | Emergency Wreck Marking Buoy |
| Fixed AtoN | 5 | Light, without sectors |
|  | 6 | Light, with sectors |
|  | 7 | Leading Light Front |
|  | 8 | Leading Light Rear |
|  | 9 | Beacon, Cardinal N |
|  | 10 | Beacon, Cardinal E |
|  | 11 | Beacon, Cardinal S |
|  | 12 | Beacon, Cardinal W |
|  | 13 | Beacon, Port hand |
|  | 14 | Beacon, Starboard hand |
|  | 15 | Beacon, Preferred Channel port hand |
|  | 16 | Beacon, Preferred Channel starboard hand |
|  | 17 | Beacon, Isolated danger |
|  | 18 | Beacon, Safe water |
|  | 19 | Beacon, Special mark |
| Floating AtoN | 20 | Cardinal Mark N |
|  | 21 | Cardinal Mark E |
|  | 22 | Cardinal Mark S |
|  | 23 | Cardinal Mark W |
|  | 24 | Port hand Mark |
|  | 25 | Starboard hand Mark |
|  | 26 | Preferred Channel Port hand |
|  | 27 | Preferred Channel Starboard hand |
|  | 28 | Isolated danger |
|  | 29 | Safe Water |
|  | 30 | Special Mark |
|  | 31 | AIS Mobile Marker used to mark vehicles, platforms, objects such as Light Vessel/LANBY/Mobile offshore drilling units/Rigs, unmanned autonomous vehicles, debris, etc.] |
| NOTE 1 – The types of aids to navigation listed above are based on the IALA Maritime Buoyage System, where applicable.  NOTE 2 – There is potential for confusion when deciding whether an aid is lighted or unlighted. Competent authorities may wish to use the regional/local section of the message to indicate this. | | |

# Action requested

The ITU is requested to note the information provided and act, as appropriate.

1. Per COLREGS Rule 3(f), "vessel not under command" means a vessel which through some *exceptional circumstance* [emphasis added] is unable to maneuver as required by these Rules and is therefore unable to keep out of the way of another vessel. Choosing to not use engines does not render a vessel not under command nor relieve its responsibility to give way as defined in COLREG Rule 18. [↑](#footnote-ref-1)