Liaison Note

New IALA Documentation Model

1   Introduction

The IALA Council has allocated responsibility for coordinating the implementation of the new IALA documentation model to the ARM Committee.

The IALA Council has approved the top level of the model comprising six overarching topics for which IALA Standards will be developed by the IALA Secretariat with Committee technical input.

The ARM Committee has developed draft guidance for IALA Committees to assist them in reviewing the documents that they are responsible for, to ensure that these documents are aligned, and where necessary amended and/or rationalised, in order to align with the new IALA documentation model.

2   Discussion

The ARM Committee is seeking PAP consideration of the following guidance prior to it being circulated to all Committees prior to the October / November 2015 meetings.

Further, the ARM Committee considers that the guidance as approved by PAP should be issued as mandatory instructions that Committees need to comply with in both revising existing documentation and developing new guidance in the future. This is considered essential to ensuring the intent and integrity of the new documentation model is maintained on an ongoing basis and the current situation where there is considerable inconsistency is not allowed to be repeated.

- Each committee is to note the model derived by the ARM Committee in its second session. The committee populated the draft documentation model derived at PAP with the documentation that the ARM Committee is responsible for. This model is shown at Annex A. It can be seen that there is a mix of recommendations and guidelines and that not all guidelines flow in to recommendations, nor recommendations in to the standards. The ARM Committee suggests that each committee iterates the same procedure with its own documentation. This will give an overview of all IALA documentation and where it sits; moreover, it will show where there may be duplication of effort and where documentation may need to be amended to reflect the new structure. It may be that existing documentation will need to be examined to see whether it is actually a guideline or a recommendation in light of the revised definitions and structure; furthermore, upon examination, committees may decide to divide documents into more appropriate formats.

- The NAVGUIDE and other documentation may need to be updated to reflect all these changes.

- Instructions for carrying out this process are given in Annex B.

- Text which has been placed in the Mind Map is shown at Annex C.

- When populating the new document structure, it became apparent that there were several definitions of Standards, Recommendations and Guidelines provided from differing IALA sources. The ARM Committee proposes that the following definitions, which better enable reviewers to decide which documentation should be Recommendations or Guidelines, should be used throughout all IALA documentation and websites:

a. Standard – "IALA Standards form a framework, implementation of which by all coastal states, will harmonise marine aids to navigation worldwide. IALA Standards cover both technology and service provision. IALA Standards are non-mandatory."

b. Recommendation – "IALA Recommendations describe what factors and aspects need to be taken into account to plan, design, operate and manage marine aids to navigation in order to comply with IALA Standards. Each IALA Recommendation is related to an IALA Standard."

c. Guideline – "IALA Guidelines provide detailed, in depth information on an aspect of a specific subject, indicating options, best practices and suggestions for implementation. IALA Guidelines suggest how to plan, operate and manage aids to navigation. Each IALA Guideline is related to an IALA Recommendation."

- Due to this inconsistency of definitions (shown in Annex D), the ARM Committee proposes that the above definitions are adopted.

- The ARM Committee proposes that the IALA Dictionary be used as the sole source for definitions and that those noted above are added to the dictionary.

- To better reinforce the structure of IALA documentation, and to allow readers better awareness of where documents are derived, the ARM Committee supports the proposal that new templates for recommendation and guidelines are created and suggests that they display cross references to the applicable IALA Standard, Recommendations and Guidelines.

3   Actions requested

The PAP is requested to:

1   Approve the draft instructions in Annex B subject to any amendments made;

2   Instruct the Secretariat to forward the approved instructions to all Committees prior to the October / November 2015 round of meetings;

3   Approve the new definitions above for promulgation to all committees and for use in all IALA documentation;

4   Approve the use of the IALA Dictionary as the sole source of IALA definitions; and,

5   Instigate the creation of new templates for IALA Recommendations and Guidelines which allow cross referencing in time for the October / November 2015 round of IALA committee meetings.

IALA Documentation for plenary.mmap - 28/05/2015 - Olympic Limited
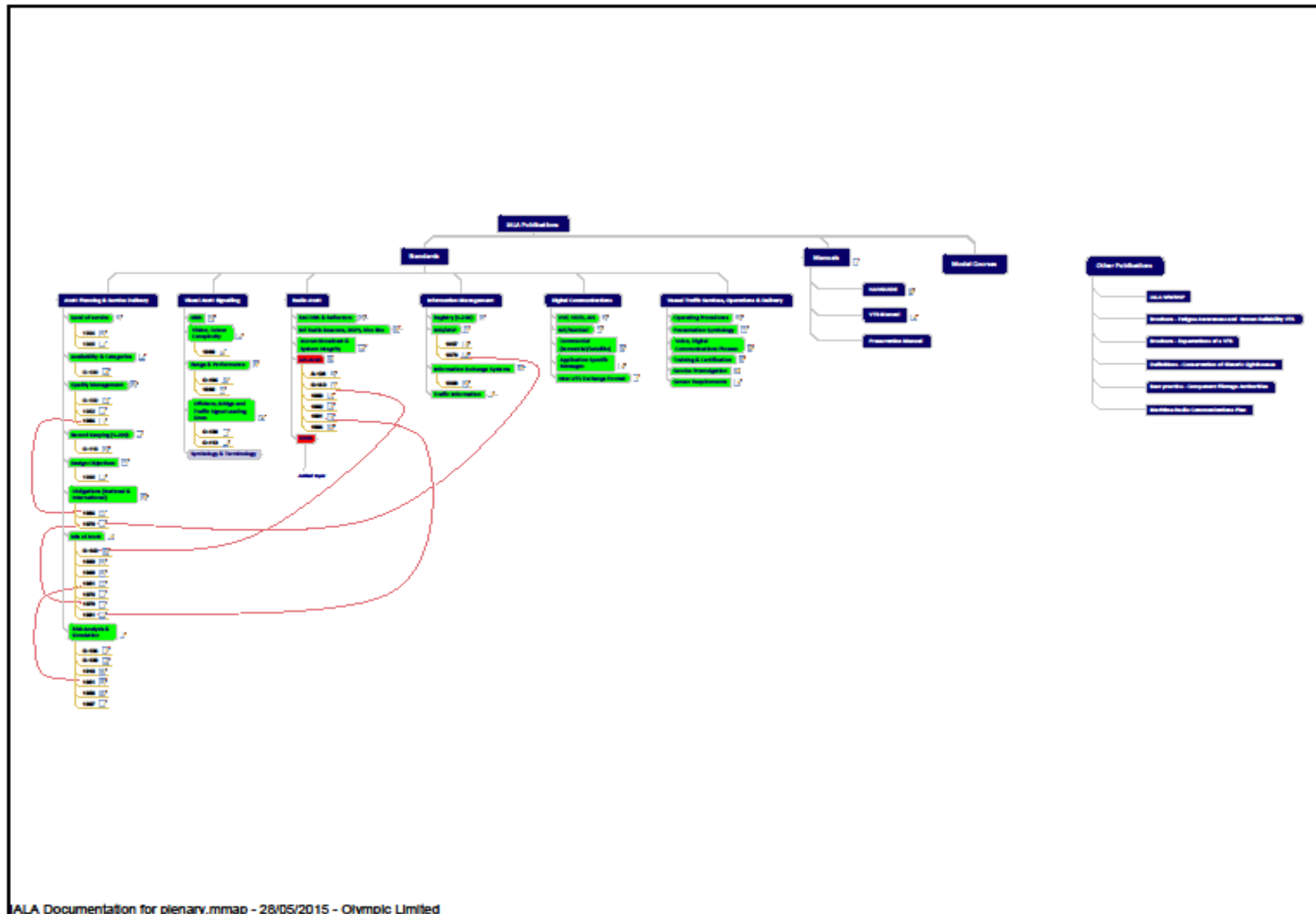
Instructions to all IALA committees on revising documentation in light of the new document model:

- Map the new document model with existing documentation numbers (see example in ANNEX A).
- When this has been done, it may come to light that technical domains associated with the six approved IALA Standard themes may need to be added, deleted or amended. Any changes must be proposed though the PAP/Council process.
- Once the mapping exercise has taken place, all documentation must be reviewed to ensure that Recommendations and Guidelines comply with the approved document structure. This will ensure the approved document structure is maintained.
- IALA Standards, Recommendations and Guidelines must meet the approved definitions contained within the dictionary.
- All documentation is to be reviewed to ensure that it is a Recommendation, Guideline, Manual or model course. Where review indicates that this is not the case, then documents may need to be separated and split in to new, more relevant documents better fitting the definitions, or revoked if considered out of date, a duplication or irrelevant. These new/revised documents must pass through the normal IALA review and approval process.
- Future documentation must also fit this new structure.

This section is to be read in conjunction with the structure shown in Annex A (where access to MindManager mind mapping software is not available).

6

1 Standards

1.1 AtoN Planning & Service Delivery

1.1.1 Level of service

The SOLAS Convention Chapter V Regulation 13 requires that contracting

governments undertake to arrange for the establishment and maintenance of such Aids

to Navigation (AtoN) as, in their opinion the volume of traffic justifies and the degree

of risk requires, and to arrange for information in relation to these AtoN to be made

available to all concerned.

There are three levels of service components:

a) "extent" which addresses whether a service will be provided by the

contracting government or other agencies;

b) "quantity" which addresses the type, size, number and mix of aids to

navigation required; and

c) "quality" which addresses the operational reliability of the service.

1004
On Levels of Service

1005
On Contracting Out AtoN Services

1.1.2 Availability & Categories

Availability

This is the probability that an aid to navigation or system is performing its specified function at any randomly chosen time. It is also defined within IMO resolution A.1046(27) for WWRNS as "The system is considered to be available when it provides the required integrity for the given accuracy level". IALA generally uses the term as a historical measure of the percentage of time that an aid to navigation was performing its specified function. The non-availability can be caused by scheduled and/or unscheduled interruptions.

Category Objective Calculation

Availability Objectives are calculated over a three-year continuous period, unless otherwise specified.

Category 1 - 99.8%

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

Category 2 - 99.0%

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 aids to navigation and RACONs that mark secondary routes and those used to supplement the marking of primary routes.

Category 3 - 97.0%

An AtoN or system of AtoN that is considered by the Competent Authority to be of necessary navigational significance. The Recommendation also states that the absolute minimum level of availability of an individual aid to navigation should be set at 95%.

O-130

On Categorisation and Availability Objectives for Short Range Aids to Navigation

1.1.3 Quality Management

Quality Management Systems have been developed and introduced by numerous businesses, but increasingly are being based on the ISO9000 series of standards. These standards provide a broadly accepted framework for implementing a quality management system.

A generic quality management system is process focused and defines procedures for how things are to be done and what resources are necessary. It addresses:

● who does what?

● what skills and qualifications are necessary?

● what processes have to be followed to get consistent outcomes?

● what resources are necessary to do the work efficiently?

The equipment in aids to navigation systems can be divided into two aspects: the specific AtoN aspect, and the more generic aspect. Each aspect must comply with applicable standards and regulations.

O-132

On Quality Management for Aids to Navigation Authorities

1052

On Quality Management in Aids to Navigation Service Delivery (revokes (guideline 1001 & 1003)

1054

See also: 1054

On Preparing for a Voluntary IMO Audit on Aids to Navigation Service Delivery

1.1.4 Record Keeping (S-200)

Recording of Aids to Navigation Positions

Aids to Navigation positions can be recorded in number of ways:

● where an Authority has operational DGPS stations, a program should be implemented to determine the WGS84 positions of each aid to navigation (fixed and floating) within the coverage area, and for this information to be passed to the hydrographic authority for future use. It is anticipated that the information would assist the hydrographic authority in checking the accuracy of charts, planning future survey requirements and for updating List of Lights.

● in the case of lighted fixed aids to navigation the WGS84 position should be measured close to the focal centre of the light so that the WGS84 elevation is also determined. Alternatively, positions around the optic or lantern house could be measured and a central position computed.

● in the case of unlighted fixed aids to navigation the WGS84 position should be the base of the structure.

● in the case of floating aids to navigation the WGS84 position should be the position of the anchor.

● each position should be recorded to three decimal places of a minute and include the time, date and details of the measuring equipment.

● where an Authority has to refer to charts of different datum, positions are communicated with the appropriate datum reference. (for example 51° 04.372'N, 100° 26.794'E (WGS 84)).

O-118

For the recording of aids to navigation positions

1.1.5 Design Objectives

e-Nav Design Objectives

Systems should be capable of automatically using the most appropriate data available and alert the user to any data integrity issues as they arise. Automated exchange and synchronisation of data can provide the basis for a risk analysis model that will inform and support safe decision making and reduce human error.

The core dataset at the heart of e-Navigation should be controlled by a National Competent Authority. However, the user interface needs to be sufficiently open to encourage innovative applications and commercial competition. Control of user functionality and presentation needs tobe balanced against the need to take advantage of rapidly developing technology and user needs.

1096

Anticipated User e-Nav requirements for AtoN Authorities

1.1.6 Obligations (National & International)

Coastal States have certain rights and obligations under various mandatory IMO instruments. When exercising their rights under the instruments coastal States incur additional obligations. In order to effectively meet their obligations, coastal States should:

1. implement policies and guidance which will assist in the implementation and

enforcement of their obligations and

2. assign responsibilities within their Administration to update and revise any relevant

policies adopted, as necessary.

1054
See also: 1054

On Preparing for a Voluntary IMO Audit on Aids to Navigation Service Delivery

1079
See also: 1079, 1079

On Establishing and Conducting User Consultancy by Aids to Navigation Authorities

1.1.7 Mix of AtoN

The primary goal of the design of AtoN systems is to facilitate safe and efficient movement of vessels. The responsible provision of AtoN systems requires that systems be designed to meet the minimum requirements for safe and expeditious navigation through waters in accordance with the type and volume of traffic and the degree of risk.

AtoN are normally intended to function as part of a system(s) and therefore mariners should make use of all information provided by the system of AtoN.

O-143
See also: O-143

Virtual Aids to Navigation

1033

On the provision of aids to navigation for different classes of vessels, including high speed craft

1046

On a Response Plan for the Marking of New Wrecks

1051
See also: 1051

On the Provision of Aids to Navigation in built up areas

1078

On a minimum comprehensive mix of AtoN in fairways

1079
See also: 1079

On Establishing and Conducting User Consultancy by Aids to Navigation Authorities

1081
See also: 1081

On Virtual AtoN

1.1.8 Risk Analysis & Simulation

The traditional definition of risk is the probability of an unwanted event occurring, multiplied by the impact or consequence of that event.

It is recommended that administrations, organisations and persons involved in a risk assessment process have suitable, updated and in-depth knowledge in the application of Human Factors disciplines.

IALA is continuing to improve risk management tools that are capable of assessing the risk in ports or waterways, compared with the risk level considered by Authorities and stakeholders to be acceptable. The risk management tools can also assist in assessing the risk level of existing ports and waterways.

O-134

On the IALA Risk Management Tool for Ports and Restricted Waterways

O-138

Use of GIS and Simulation by Aids to Navigation Authorities

1018

On Risk Management

1051

See also: [1051]

On the Provision of Aids to Navigation in built up areas

1058

Use of Simulation as a Tool for Waterway Design and Aids to Navigation Planning

1097

Technical features and technology relevant for simulation of AtoN

1.2 Visual AtoN Signalling

1.2.1 MBS
See also: MBS

The IALA Martime Buoyage System (MBS) covers buoys and uses 7 types of Aids to Navigation, which may be used in combination. The mariner can distinguish between these aids by identifiable characteristics. The system includes:

● Lateral Marks ;

● Cardinal Marks;

● Isolated Danger Marks;

● Safe Water Marks;

● Special Marks;

● Emergency Wreck Marking Buoy;

● Other Marks.

1069

See also: 1069

Synchronisation of Lights

1.2.2 Vision, Colour Conspicuity

Vision: type and characteristics such as shape, size, letters/numbers, retro-reflective features, lit/unlit, signal character, light intensity, sectors, inclusion of subsidiary aids, fixed/floating, location, elevation, observable features

Colours for lighted aids to navigation and for surface colours for visual signals on aids to navigation

Conspicuity: Contrast relative to background conditions and conspicuous features such as: headlands, mountain-tops, rocks, trees, church-towers, minarets, monuments, chimneys, etc.

1069
See also: [1069](#)

Synchronisation of Lights

1.2.3 Range & Performance

The range of an aid to navigation can broadly be defined as the distance at which an observer's receiver can detect and resolve the signal. In the case of visual marks the observer's receivers are his/her eyes. This broad definition of range leads to a number of more specific definitions:

- Geographical range
- Meteorological Optical Range
- Visual Range
- Luminous range
- Nominal range

Performance of visual AtoNs under operating conditions measured against standards or criteria of cost, accuracy, availability, maintenance requirements, etc.

O-104
On 'Off Station' signals for major floating aids

1090
On audible signals

1.2.4 Offshore, Bridge and Traffic Signal Leading Lines

Aids to Navigation marking man-made structures at sea such offshore structures/platforms, wind farm areas, bridges and approaches to and from offshore areas.

Sector lights as an aid to navigation that display different colours and/or rhythms over designated arcs. To provide a turning reference, define a clearing line for the limit of safe navigation and to provide a distance

mark along a waterway. A common means of creating a sector is to fit a coloured filter in front of the main light

Leading lines as an aid to navigation system that comprises of two separated structures with marks or lights that, when viewed from the centreline or deepest route along a straight section of channel, are aligned. The purpose of leading lines are to:

● indicate the centreline of a straight section of a navigable channel;

● indicate to deep draught vessels the deepest part of the waterway;

● indicate the navigable channel where fixed and floating aids to navigation are not available or do not satisfy the accuracy requirements for safe navigation;

● define a safe approach bearing to a harbour or river entrance, particularly where there are cross currents;

● separate two-way traffic (ie. when passing a bridge).

O-139

The Marking of Man-Made Offshore Structures

O-113

For the marking of fixed bridges over navigable waters

1.2.5 Symbology & Terminology

1.3 Radio AtoN

1.3.1 RACONS & Reflectors

Radar beacons (Racons) are receiver/transmitter devices operating in the maritime radar frequency bands (9 and 3 GHz) that enhance the detection and identification of certain radar targets. A Racon responds to the interrogation of a ship's radar by sending a characteristic pulse train. The response appears as a coded mark (or "paint") on the ship's radar display that highlights the range and bearing of the Racon. The display paint can be fixed to a specified length or can be dependent on the radar range setting and uses a Morse character for identification.

To improve the radar target and radar visibility, radar reflectors and radar reflective material should be considered. Retro reflective material can also be used

1.3.2 MF Radio Beacons, DGPS, Rho Rho

DGPS

The aim of GNSS augmentation services such as Differential Global Navigational Satellite System (DGNSS) is the improvement of GNSS based positioning within a given area. In this context various methods can be applied to increase the accuracy of GNSS based positioning and to verify the integrity of applied components (systems, services, sensors) and provided data.

MF Radio Beacons

The original purpose of marine radio beacons was to provide signals for use by radio direction finders for coastal navigation. The frequencies allocated are in the range of 283.5 - 325.0 KHz. Depending on radiated power and environmental conditions, the beacon signals have a range from 10 - 250 Nm. Beacon systems have a number of advantages for broadcast of DGPS corrections.

1.3.3 eLoran Broadcast & System Integrity

Enhanced Loran (eLoran) is a terrestrial navigation system developed from Loran-C. It is a Positioning,Navigation and Timing (PNT) service for use by land, sea and air navigation as well as other applications reliant on timing data.

eLoran is independent to and has dissimilar failure modes to GNSS and therefore complements GNSS use. Although offering some reduced accuracy, it will allow GNSS users to retain the safety, security, and economic benefits of GNSS, even when their satellite services are disrupted. eLoran provides positional accuracy in the region of 8 - 20 metres and time and frequency performance similar to current GNSS.

eLoran stations are also synchronised with, but independent of, GNSS time (UTC). Synchronising to a common time source allows receivers to employ a mixture of eLoran and GNSS signals.

1.3.4 AIS AtoN

Automatic Identification System (AIS) is a ship and shore-based data broadcast and interrogation technology, operating in the VHF maritime band, that makes it possible to monitor and track ships from suitably equipped ships and shore stations.

AIS' characteristics and capability make it a powerful tool for enhancing situational awareness, thereby contributing to the safety of navigation and efficiency of shipping traffic management .A special type of AIS station fitted to an aid to navigation provides positive identification of the aid without the need for a special ship-borne display.

A-126
Use of AIS in Marine Aids to Navigation Service

O-143
See also: O-143

Virtual Aids to Navigation

1050
On the Management and Monitoring of AIS Information

1062
On the establishment of AIS as an Aid to Navigation

1081
See also: 1081

On Virtual AtoN

1084

On the Procedure for the Authorisation of AIS AtoN

1.3.5 GNSS

● Added topic

1.4 Information Management

1.4.1 Registry (S-200)

A registry is simply a bookeeping device where definitions/ specifications are kept in organised locations known as registers. The registry eases the tasks of development of new things, by providing a centralised source for finding definitions/ specifications.

The purpose of the IMO defined Common Maritime Data Structure (CMDS) is to harmonise data exchange in the maritime domain by providing a common, authoritative reference. IHO developed the IHO GI Registry19, based on its S-100 standard, as a tool for data modelling for the specification and production of Electronic Navigational Charts (ENC) and Digital Nautical Publications(DNP).

The GI Registry is generic in setup and has been adopted by IMO as the tool to develop the CMDS.

1.4.2 MSI/MSP

Maritime Safety Information

Within a NAVAREA, there can be a hierarchy of warnings promulgated by the national co-ordinator. Collectively referred to as Maritime Safety Information (MSI), the warning hierarchy covers:

- NAVAREA Warnings
- Coastal Warnings
- Local Warnings
- Off-Station Warnings for Major Floating Aids

Maritime Service Portfolios

- A Maritime Service Portfolios (MSP) defines and describes the set of operational and technical
- services and their level of service provided by a stakeholder in a given sea area, waterway, or port, as

- appropriate. MSPs should be developed to achieve harmonization, modernization, integration and
- simplification on board and ashore, taking into account the use of the IHO's S-100 standard.

1057

Use of Geographical Information Systems by Aids to Navigation Authorities

1079

See also: 1079

On Establishing and Conducting User Consultancy by Aids to Navigation Authorities

1.4.3 Information Exchange Systems

IALA-NET is a global system of networks, facilitating the interconnection of national and regional maritime data sharing networks. It is a near real time global maritime data exchange service, assisting its participants to fulfil their duties with respect to maritime safety, security and protection of the marine environment.

1086

On Global sharing of maritime data

1.4.4 Traffic Information

Vessel Traffic Services (VTS) is designed to improve the safety and efficiency of vessel

traffic and to protect the environment. The service should have the capability to interact with the traffic and respond to traffic situations developing in the VTS area. The function of VTS is to Provide Traffic information warning advice and/or instruction.

1.5 Digital Communications

1.5.1 VHF, VDES, AIS

VHF VDES

VHF Data Exchange System (VDES) was originally developed to address emerging indications of overload of VHF Data Link (VDL) of AIS and simultaneously enabling a wider seamless data exchange for the maritime community. VDES is capable of facilitating numerous applications for safety and security of navigation, protection of marine environment, efficiency of shipping and others. VDES will have a significant beneficial impact on the maritime information services including Aids to Navigation and VTS in the future.

Automatic Identification System

Automatic Identification System (AIS) is a ship and shore-based data broadcast and interrogation technology, operating in the VHF maritime band, that makes it possible to monitor and track ships from suitably equipped ships, and shore stations.

AIS' characteristics and capability make it a powerful tool for enhancing situational awareness, thereby contributing to the safety of navigation and efficiency of shipping traffic management.

1.5.2 MF/NAVDAT

NAVDAT is an MF radio system, used in the maritime mobile service, operating in the 500 kHz band for digital broadcasting of maritime safety and security related information from shore-to-ship.

1.5.3 Commercial (terrestrial/Satellite)

This relates to communications which are not provided specifically for the, or by the AtoN authority. Examples are Iridium, Inmarsat, ISDN,

1.5.4 Application Specific Messages

AIS Application Specific Messages.

Collection of regional applications for AIS Application Specific Messages (ASM) of regional applications for AIS Binary Messages. IALA has agreed to maintain a collection of regional applications for the ASM that are in use. The intent is to provide an overview to all interested parties of what currently exists. In this way, IALA Members and other National Aids-to-Navigation Authorities can make use of existing applications and avoid developing new applications with only minor / marginal differences

1.5.5 Inter-VTS Exchange Format

The IVEF Service is intended to provide a common framework for the exchange of vessel traffic information between shore-based e-Navigation systems, such as VTS systems, e-

Navigation stakeholders and relevant external parties.

1.6 Vessel Traffic Services, Operations & Delivery

1.6.1 Operating Procedures

Development and documentation of internal and external procedures for VTS services. Internal procedures covers routine procedures, hence, the day-to-day operation of a VTS centre including operation of systems and sensors, interactions among the staff and the internal management. External procedures govern the interaction with participating vessels and allied services (defined as services actively involved in the safe and efficient passage of the vessel through the VTS area such as pilots) as well as emergency procedures.

1.6.2 Presentation Symbology

Graphical presentation of AIS, radar and other data at the VTS centre by use of symbols.

1.6.3 Voice, Digital Communications Phrases

Performance requirements for radio communication services within VTS covering radio communication equipment such as VHF, MF/HF, and RDF.

1.6.4 Training & Certification

IALA Standards and related Model Courses forming the basis for training and certification of VTS personnel.

1.6.5 Service Promulgation

Distribution of information to vessels in the VTS area such as emergency incidents (collision, capsizing, grounding etc.), pollution, natural disasters, medical emergency, etc.

1.6.6 Sensor Requirements

Requirements to different VTS sensors such as CCTV, AIS, radar, hydrometric data and long range data.

2 Manuals

These documents give a detailed overview of a specific topic. Currently this includes: NAVGUIDE; VTS Manual; and Preservation Manual.

2.1 NAVGUIDE

The NAVGUIDE covers all aspects of Aids to Navigation (AtoN) and is updated every four years at each IALA Conference.

2.2 VTS Manual

The VTS Manual covers all aspects of Vessel Traffic Services and is updated every four years at each Symposium.

2.3 Preservation Manual

3 Other Publications

From time to time, IALA produces documents that do not fall into the categories of Standard, Recommendation, Guideline or Manual. These documents are published as Other Documents and include the IALA Maritime Radio Communications Plan, the IALA World Wide Radionavigation Plan and a brochure on VTS operator fatigue.

3.1 MBS
See also: [MBS](MBS)

3.2 Maritime Radio Communications Plan

3.3 IALA WWRNP

3.4 Brochure - Fatigue Awareness and Human Reliability VTS

3.5 Brochure - Expectations of a VTS

3.6 Definitions - Conservation of Historic Lighthouses

3.7 Best practice - Competent Pilotage Authorities

ANNEX D – Potential Revised Definitions

	Standards	Recommendations	Guidelines
IALA website and NAVGUIDE	Not applicable	Recommendations provide direction to IALA members on uniform procedures and processes that will facilitate IALA objectives. IALA recommendations contain information on how members should plan, operate and manage Aids to Navigation. Recommendations may reference relevant International Standards and IALA Guidelines.	These documents provide detailed, in depth information on an aspect of a specific subject, indicating options, best practices and suggestions for implementation. IALA Guidelines relate to planning, operating and managing aids to navigation.
PAP version	IALA Standards form a framework, implementation of which by all coastal states will harmonize marine aids to navigation worldwide. IALA standards cover technology and services and are non-mandatory.	IALA Recommendations describe how to plan, design, operate, and manage marine aids to navigation in order to comply with IALA Standards. Each Recommendation is related to an IALA Standard.	These documents provide detailed, in depth information on an aspect of a specific subject, indicating options, best practices and suggestions for implementation. IALA Guidelines relate to planning, operating and managing aids to navigation.
ARM2 proposed version	IALA Standards form a framework, implementation of which by all coastal states, will harmonise marine aids to navigation worldwide. IALA Standards cover both technology and service provision. They are non-mandatory.	IALA Recommendations describe what factors and aspects need to be taken into account to plan, design, operate, and manage marine aids to navigation in order to comply with IALA Standards. Each Recommendation is related to an IALA Standard.	IALA Guidelines provide detailed, in-depth information on an aspect of a specific subject, indicating options, best practices and suggestions for implementation. IALA Guidelines suggest how to plan, operate and manage aids to navigation. Each Guideline is related to an IALA Recommendation.