NAVGUIDE 2022 publication plan (2/2 2020)

# **Introduction**

The NAVGUIDE has been a signature document and information source for IALA members and Marine Aids to Navigation (AtoN) users for many years. The guide plays an important role within the IALA information suite and is regarded as a primary source of information for AtoN managers and practitioners along with the IALA Standards, Recommendations, Guidelines, Manuals and other publications.

Following its decision to transfer the organizing role of the publication from ARM to the Secretariat from 2018, the Secretariat has prepared this document with the intention of helping the writers of the NAVGUIDE 2022.

The purpose of this plan is to define the detailed ground rule, contents, format, structure and time frames for the harmonized and balanced outcome.

# **NAVGUIDE Coordinators**

Each Committees designated the coordinators for revision of NAVGUIDE as following;

|  |  |  |
| --- | --- | --- |
| Committee | Name | Email |
| VTS | Jillian Carson Jackson, Nautical Institute | [jillian@jcjconsulting.net](mailto:jillian@jcjconsulting.net) |
| ENG | Robert Dale, Trinity House | [Rob.dale@thls.org](mailto:Rob.dale@thls.org) |
| ARM | Natasha McMahon, Canadian Coastguard | natasha.mcmahon@dfo-mpo.gc.ca |
| ENAV | Mahesh Alimchandani | mahesh.alimchandani@amsa.gov.au |

Contact point in Secretariat is Minsu Jeon, minsu.jeon@iala-aism.org

# **The ground rule for coordinators**

NAVGUIDE’s aim is to advance and disseminate knowledge in all the related areas of AtoN. For this purpose, the ground rules are defined as follows:

* The writers have the discretion to decide the contents of the chapter in close cooperation with the Committee.
* The 2022 NAVGUIDE will be an update of the current version.
* Avoid duplication of the recommendations and guidelines.
* One sub-chapter should not exceed 5 pages.
* Definitions of defined terms should refer to the IALA dictionary.
* All references mentioned in the reference notes are cited in the text, and vice versa

# **Structure and format of the contents**

**4.1 Structure**

The current NAVGUIDE has 8 chapters, and since IALA General Assembly adopted new IALA Standards in 2018, the new version NAVGUIDE will follow the structure of the 7 Standards subjects and 36 topic areas.

|  |  |
| --- | --- |
| Current | Revised version |
| 1. Introduction to IALA-AISM 2. Concepts and accuracy of navigation 3. Marine Aids to Navigation 4. e-Navigation 5. Vessel Traffic Services 6. Other services and facilities 7. Power supplies 8. Provision, design and management | 1. Introduction to IALA-AISM 2. Concepts and accuracy of navigation 3. AtoN planning and service requirements 4. AtoN design and delivery 5. Radionavigation services 6. Vessel Traffic Services 7. Training and certification 8. Digital communication technologies 9. Information services 10. Other services and facilities |

**4.2 Format**

There are no strict formatting requirements, but minimum use of style is recommended for compilation. Ensure the figures and the tables included in the single files are placed next to the relevant text in the manuscript, rather than at the bottom or the top of the file. The corresponding caption should be placed directly below the figure or table.

# **Time frame**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | ½ 2019 | 2/2 2019 | ½ 2020 | 2/2 2020 | ½ 2021 | 2/2 2021 | ½ 2022 |
| 1. Assigning coordinator and authors | Committees |  |  |  |  |  |  |  |
| 1. Writing | Committees |  |  |  |  | Extended |  |  |
| 1. Finalize and review the draft | Committees |  |  |  |  |  | Extended |  |
| 1. Council approval | Secretariat |  |  |  |  |  | Extended |  |
| 1. Compilation and design | Secretariat |  |  |  |  |  |  |  |
| 1. Publishing and printing | Secretariat |  |  |  |  |  |  |  |

# **Action requested**

PAP is requested to note and discuss this plan and act as found appropriate.

[Annex 1] the draft table of contents

* **Please revise the following list of chapters that are in the NAVGUIDE, highlighted sections are new.**
* **Proposed are the ones the ARM committee would be responsible for, as well as the WG that would author it.**
* **Also, please note if your group would like to be consulted on the development of specific chapters.**
* **Please review with your groups for accuracy and provide some contacts that would like to volunteer for writing.**

| **SECTION** | **Chapters** | **Committee** | **Author** |
| --- | --- | --- | --- |
| **Chapter 1 - Introduction to IALA-AISM** | |  |  |
| 1.1 | Purpose and Scope | Secretariat |  |
| 1.2 | Background | Secretariat |  |
| 1.3 | Membership | Secretariat |  |
| 1.4 | General Assembly | Secretariat |  |
| 1.5 | The Council | Secretariat |  |
| 1.6 | Policy Advisory Panel | Secretariat |  |
| 1.7 | Legal Advisory Panel | Secretariat |  |
| 1.8 | Committees | Secretariat |  |
| 1.9 | IALA World Wide Academy | Secretariat |  |
| 1.10 | IALA Model Courses and the IALA Accreditation Scheme | Secretariat |  |
| 1.11 | Conferences, Symposia and Exhibitions | Secretariat |  |
| 1.12 | Workshops and Seminars | Secretariat |  |
| 1.13 | IALA Publications | Secretariat |  |
| 1.14 | Related Organizations | Secretariat |  |
| **Chapter 2 - Concepts and Accuracy of Navigation** | |  |  |
| 2.1 | Navigational Methods | ARM | WG 1 |
| 2.2 | Accuracy Standards for Navigation | ARM | WG 1 |
| 2.3 | Phases of Navigation | ARM | WG 1 |
| 2.3.1 | Ocean Navigation | ARM | WG 1 |
| 2.3.2 | Coastal Navigation | ARM | WG 1 |
| 2.3.3 | Harbour Approach | ARM | WG 1 |
| 2.3.4 | Restricted Waters | ARM | WG 1 |
| 2.4 | Measurement Errors and Accuracy | ARM | WG 1 |
| 2.4.1 | Measurement Error | ARM | WG 1 |
| 2.4.2 | Accuracy | ARM | WG 1 |
| 2.5 | Hydrographic consideration | ARM | WG 1 |
| 2.5.1 | Charts | ARM | WG 1 |
| 2.5.2 | Datum | ARM | WG 1 |
| 2.5.3 | Accuracy of Charts | ARM | WG 1 |
| 2.5.4 | Charted Buoy Positions | ARM | WG 1 |
| **Chapter 3 – AtoN planning and service requirements** | |  |  |
| 3.1 | Obligation and regulatory compliance | ARM | WG 1 |
| 8.1 | International Criteria | ARM | WG 1 |
| 3.2 | AtoN planning | ARM | WG 1 |
| 3.1 | Operational Requirements | ENG |  |
| 3.2 | Visual and Audible Aids to Navigation Design Theory | ENG |  |
| 3.2.1 | Visual Perception | ENG |  |
| 3.2.2 | Daymarks | ENG |  |
| 3.2.3 | Lights | ENG |  |
| 3.2.4 | Miscellaneous | ENG |  |
| 3.3 | Virtual marking | ARM | WG 2 |
| 3.3 | Visual Aids to Navigation Technology | ENG |  |
| 3.4 | Maritime Buoyage System (MBS) | ENG |  |
| 3.4.1 | Lateral Marking System | ENG |  |
| 3.4.2 | Cardinal Marking System | ENG |  |
| 3.4.3 | Isolated Danger Marks | ENG |  |
| 3.4.4 | Safe Water Marks | ENG |  |
| 3.4.5 | Special Marks | ENG |  |
| 3.4.1 | Marking new dangers | ENG |  |
| 3.4.6 | Emergency Wreck Marking Buoy | ENG |  |
| 3.4.7 | Other Marks | ENG |  |
| 3.4 | Level of service | ARM | WG 1 |
| 8.2 | Level of Service | ARM | WG 1 |
| 8.4 | Availability Objectives | ARM | WG 1 |
| 3.5 | Risk management | ARM | WG 3 |
| 8.3 | Risk Management | ARM | WG 3 |
| 3.6 | Quality management | ARM | WG 1 |
| 8.5 | Reviews and Planning | ARM | WG 1 |
| 8.6 | Quality Management | ARM | WG 1 |
| 8.7 | Maintenance | ARM | WG 1 |
| 8.8 | Service Delivery | ARM | WG 1 |
| **Chapter 4 – AtoN design and delivery** | |  |  |
| 4.1 | Visual signaling | ARM | WG 1 |
| 4.2 | Range and performance | ARM | WG 1 |
| 4.3 | Design, implementation and maintenance | ARM | WG 1 |
| 4.4 | Power systems | ARM | WG 1 |
| 7.1 | Types | ENG |  |
| 7.2 | Electric - Renewable Energy Sources | ENG |  |
| 7.3 | Rechargeable Batteries | ENG |  |
| 7.4 | Electrical Loads and Lightning Protection | ENG |  |
| 7.5 | Non-Electric Energy Sources | ENG |  |
| 4.5 | Floating AtoN | ARM | WG 1 |
|  |  |  |  |
| 4.6 | Environment and sustainability | ARM | WG 1 |
| 8.9 | Environment | ENG |  |
| 4.7 | Heritage and legacy | ARM | WG 1 |
| 8.10 | Preservation of Historic Marine Aids to Navigation | ENG |  |
| **Chapter 5 – Radionavigation services** | | | |
| 5.1 | Satellite positioning and timing |  |  |
| 5.2 | Terrestrial radio positioning and timing |  |  |
| 5.3 | RACON and radar positioning |  |  |
| 5.4 | Augmentation services including SBAS and GBAS |  |  |
| **Chapter 6 - Vessel Traffic Services** | |  |  |
| 6.1 | VTS implementation |  |  |
| 6.2 | VTS operations |  |  |
| 6.3 | VTS data and information management |  |  |
| 6.4 | VTS communications |  |  |
| 6.5 | VTS technologies |  |  |
| 6.6 | VTS auditing and assesing |  |  |
| 6.7 | VTS additional services |  |  |
| 5.1 | Introduction | VTS |  |
| 5.2 | Purpose | VTS |  |
| 5.3 | Definition | VTS |  |
| 5.4 | IALA VTS Manual | VTS |  |
| 5.5 | Objectives | VTS |  |
| 5.6 | Functions | VTS |  |
| 5.7 | Types of Service in VTS | VTS |  |
| 5.8 | Surveillance Requirements | VTS |  |
| 5.9 | Equipment Requirements | VTS |  |
| 5.10 | Personnel | VTS |  |
| 5.11 | Promulgation of information | VTS |  |
| 5.12 | Summary | VTS |  |
| **Chapter 7 – Training and certification** | |  |  |
| 7.1 | Training and assessment | ARM | WG 3 |
| 7.2 | Competency certification and revalidation | ARM | WG 3 |
| 7.3 | Simulation in training | ARM | WG 3 |
| 7.4 | Human factors and ergonomics | ARM | WG 3 |
| 8.11 | Human Resources Challenges | ENG |  |
| 7.5 | Capacity building | ARM | WG 3 |
| 7.6 | Model courses | ARM | WG 3 |
| **Chapter 8 – Digital communication technologies** | |  |  |
| 8.1 | Wide/medium bandwith systems |  |  |
| 8.2 | Narrow bandwidth systems |  |  |
| 8.3 | Harmonized maritime connectivity | ARM | WG 2 |
|  |  |  |  |
| **Chapter 9 – information serivices** | | |  |
| 9.1 | Data models and data encoding | ARM | WG 2 |
| 9.2 | Data exchange systems | ARM | WG 2 |
| 9.3 | Terminology symbology and portrayal | ARM | WG 2 |
| 9.4 | Cybersecurity | ENAV | Martijn Ebben |
| **Chapter 10 – other services** | | | |
| 6.1 | Pilotage | ARM | WG 1 |
| 6.2 | Ships Routeing | ARM | WG 1 |
| 6.3 | Minimum Comprehensive Mix of AtoN for Channels and Waterways | ARM | WG 1 |
| 6.4 | The Marking of Man-Made Offshore Structures | ARM | WG 1 |
| 6.5 | Nautical Publications | ARM | WG 1 |
| 6.6 | Tide Gauges and Current Meters | ARM | WG 1 & 2 |
| 6.7 | Under Keel Clearance Management Systems | ARM | WG 1 & 2 |
|  |  |  |  |
| 4.1 | Introduction | ENAV |  |
| 4.2 | Background | ENAV |  |
| 4.3 | IMO's strategy for the development and implementation of e-navigation | ENAV |  |
| 4.4 | IALA's Role | ENAV |  |
| 4.5 | Maritime Service Portfolios | ENAV |  |
| 4.6 | Maritime Digital Infrastructure | ENAV |  |
| 4.7 | Communications | ENAV |  |
| 4.8 | Positioning, Navigation and Timing | ENAV |  |
| 4.9 | Testbeds | ENAV |  |