**Input paper:** PAP47-7.1.2 rev.1

**Input paper for the following Committee(s):** **Purpose of paper:**

(Select as appropriate)

ARM  ENG  PAP  Input

ENAV VTS  Information

**Agenda item** 7.1

**Technical domain/ Task number** Work programme

**Author(s)/Submitter(s)** Secretariat

committee work programme 2023-2027 post pap47

# Summary

In accordance with the general regulation, Committees should prepare Work Programme (WP) for the next quadrennial for approval of the Council. The purpose of the WP is to clearly identify any items of work with outcomes and priorities taking account of the strategic vision 2018-2026, the current drivers and trends, and the IALA position document on the development of marine AtoN.

WP could be developed from the work plan which could fulfil the tasks assigned. When developing the work programme and work plan, the number of meetings available to the Committee during the four-year work period should be considered.

This document contains summarized work items proposed by the committees so far, and invite all the members to submit work items to the committees using the template.

# Action requested of the Pap

The PAP is requested to examine the information provided in this document and ask the committee to submit more work items to the committees.

1. work programme 2023-2027

| Reference to Standards | Technical topic | Task Title | Description | Expected outcome | Committee coordinating (supporting) | Committee work item no. | Related documents |
| --- | --- | --- | --- | --- | --- | --- | --- |
| S1010 | 1.1 AtoN planning | Compile new Guideline on AtoN Tender requirements and specification – Led by ARM with ENG support. | New Guideline on Tender requirements. | Guideline | ARM | Not assigned yet |  |
|  |  | IALA MASS guideline |  |  | ENAV (ARM, ENG,VTS and LAP) |  |  |
|  | 1.3 Level of service |  | Compile a Recommendation to incorporate all references relating to the Categorisation, Availability Objectives (G1030), Availability and Reliability for Short Range Aids to Navigation (G1035), Calculation of Availability (G1004) and relevant text appearing in the 2018 & draft 2023 NAVGuides that are not cross-referenced in the aforementioned Guidelines. | Recommendation | ARM | Not assigned yet |  |
|  | 1.4 Risk management | DEVELOP Guidance on Risk Assessment and Certification Methods in the context of e-Navigation | Development of guidance documents on Risk Assessment and Certification Methods in the context of e-Navigation. | Recommendation or Guideline | ENAV | ENAV-2.6.1 |  |
| S1020 | 2.1 visual signalling | Review & update guideline 1043 on Light sources and amalgamate with Guideline on modern equipment in traditional lighthouses |  | New amalgamated Guideline | ENG | Not assigned yet |  |
|  |  | Update Guideline 1048 LED Technologies and their use in signal lights |  | Revise Guideline | ENG | Not assigned yet |  |
|  |  | Develop guideline on Port Traffic Signals |  | New Guideline | ENG | Not assigned yet |  |
|  |  | Develop E-112 Leading Lights and 1023 Leading Lines into a guideline |  | New Guideline | ENG | Not assigned yet |  |
|  |  | Complete Guideline 1061 (2008) on Illumination of Structures |  | Revise Guideline | ENG | Not assigned yet |  |
|  |  | Machine detection of aids to navigation | Guidance on requirement for AtoN database for camera and lidar recognition.  And guidance on how machines can recognise AtoN | New guideline on machine readability of AtoN | ENG |  |  |
|  | 2.2 Range and performance | Develop E200-3 on Light measurement into a guideline |  | New Guideline | ENG | Not assigned yet |  |
|  |  | Develop Guidance on monitoring of function and degradation of AtoN light sources |  | Add to G1077 | ENG | Not assigned yet |  |
|  |  | Update Guideline 1041 on Sector Lights to define ‘Angle of Uncertainty’ |  | Revise Guideline | ENG | Not assigned yet |  |
|  | 2.3 Design, Implementation & Maintenance | Update G1035 Dec 2004 Availability and reliability of AtoN – theory and examples 2.0 Provides a method of calculating availability and reliability calculation with a view to enabling members to provide a cost-effective AtoN service. |  | Revise Guideline | ENG | Not assigned yet |  |
|  |  | Update G1037 Dec 2009 Data collection for AtoN performance calculation 2.0 Provides details of methods that can be used to collect information on the availability and reliability of AtoN equipment. |  | Revise Guideline | ENG | Not assigned yet |  |
|  |  | Update G1077 Dec 2009 Maintenance of AtoN 1.0 Information to help develop a maintenance strategy. Several annexes are attached to provide detailed information on the activities involved in the [maintenance. |  | Revise Guideline | ENG | Not assigned yet |  |
|  |  | Develop Guideline on complimentary use of AtoN. Eg. Tsunami monitoring, Met Hydro monitoring, Private communications platforms etc. |  | New guideline on Complimentary use of AtoN | ENG | Not assigned yet |  |
|  |  | Develop Guideline on meteorological and oceanographical data disemination |  | New Guideline | ENG | Not assigned yet |  |
|  |  | Navguide review |  | Review of the Navguide for the 2027 publication | ENG | Not assigned yet |  |
|  |  | Update and Amalgamate the Guidelines 1108, 1136 and new guideline “AtoN equipment and structures exposed to extreme environmental conditions into one guideline” |  | New single Guideline on AtoN in extreme environmental conditions | ENG | Not assigned yet |  |
|  |  | Update G1007 ENG Dec 2005 Lighthouse maintenance structural composition, constructions, accommodation facilities and physical and environmental effects. |  | Revise Guideline | ENG | Not assigned yet |  |
|  |  | Update G1064 Dec 2008 Integrated power system lanterns (Solar LED lanterns) |  | Revise Guideline | ENG | Not assigned yet |  |
|  | 2.4 Floating Aids to Navigation | Develop guidance quantifying characteristics to meet nautical and operational requirements and ways to verify them |  | New guideline | ENG | Not assigned yet |  |
|  |  | Develop new guideline on radar reflector (reflection) properties |  | New guideline on radar reflectors. | ENG | Not assigned yet |  |
|  |  | Creating an overview guidance on floating AtoN |  | New Guideline on floating AtoN | ENG | Not assigned yet |  |
|  |  | Update Recommendation E-107 May 2009 Moorings for floating AtoN 2.0 Technical recommendation on moorings. |  | Updated Recommendation on moorings for floating AtoN | ENG | Not assigned yet |  |
|  |  | Update G1066 June 2010 Design of floating AtoN moorings 1.1 General consideration on mooring materials, and comparison of mooring loads and design. |  | Updated Guideline on Design of floating AtoN moorings | ENG | Not assigned yet |  |
|  | 2.5 Environment & Sustainability | Review and update as necessary G1036, the Green Guide |  | Revise guideline on Environmental and Sustainability responsibilities. | ENG | Not assigned yet |  |
|  | 2.6 Heritage and Culture | Maintain the Heritage web page on the IALA website |  | Updated Heritage web page | ENG | Not assigned yet |  |
|  |  | Develop Guidance on modern equipment in traditional lighthouses |  | New Guideline | ENG | Not assigned yet |  |
|  |  | Heritage LH of the Year award |  | Maintain the Award | ENG | Not assigned yet |  |
|  |  | Write the Heritage module for the WWA L1.1 AtoN Manager course |  | New module on Heritage to include in the L1.1 course. | ENG | Not assigned yet |  |
|  |  | Review of documents |  | All documents pertinent to heritage reviewed | ENG | Not assigned yet |  |
|  |  | Update G1063 ENG Dec 2008 Agreement for complementary use of lighthouse property.  What should the agreement contain and safety aspect of the agreement including examples of few countries. |  | Updated Guideline | ENG | Not assigned yet |  |
|  |  | Review Guidelines 1074, 1075 & 1076 on Branding, Business plans and Building Conditioning for content and relevance. |  | Reviewed guidelines | ENG | Not assigned yet |  |
| S1030 | 3.1 Satellite positioning and timing | Guidance on timing and synchronisation |  | New Guideline on the need and potential solutions | ENG | Not assigned yet |  |
|  | 3.2 Terrestrial positioning and timing (including eLoran, eChayka, R-mode) | R-Mode development |  | Development of R-Mode Guideline  Coordination of R-Mode test beds | ENG | Not assigned yet |  |
|  | 3.3 Racon & radar positioning | Radar & Ehanced Racon positioning |  | Development of eRacon/eRadar technology  Review related IALA documents. Updated guideline on radar positioning | ENG | Not assigned yet |  |
|  | 3.4 Augmentation services (SBAS & DGNSS) | Augmentation systems |  | Watching brief on DGNSS developments, both SBAS and marine Radiobeacon and update IALA documents as necessary | ENG | Not assigned yet |  |
|  |  | High accuracy systems |  | Guidance on new systems and how they can be used | ENG | Not assigned yet |  |
|  | 3.5 Document updates | Review and update the WWRNP |  | Reissued WWRNP | ENG | Not assigned yet |  |
|  |  | Review and updates of documents related to the WG topics. |  | Revised Recommendations and standards | ENG | Not assigned yet |  |
|  | 3.6 Liaison with related bodies | MASS overview and support |  | Watching brief on MASS developments and support for the PAP MASS task Group | ENG | Not assigned yet |  |
|  |  | S100 – S200 support |  | Watching brief on S-200 developments and response to any developments | ENG | Not assigned yet |  |
|  |  | Liaison with related bodies |  | Provide updates as needed, e.g. to ITU-R M.823 and others as required. | ENG | Not assigned yet |  |
|  | 3.7 PNT technology review | Monitor developments in radionavigation topics for information exchange and development of appropriate guidance (inc. resilient PNT, cyber security, timing aspects etc). |  | Rapporteur reports and new documents as required. | ENG | Not assigned yet |  |
| S1040 | 4.2 operations | Update documents that require changes to incorporate the new terminology post adoption of the revised IMO Resolution on Vessel Traffic Services | To lead the preparation of the draft revision of IMO Resolution A.857(20) through broad participation and engagement of all stakeholders for consideration by IMO MSC. | Revised resolution | VTS | VTS 1.1.1 |  |
|  |  | Update Guideline 1089 to be in line with Revised IMO Resolution on Vessel Traffic Services post adoption. | Update Guideline 1089 to be in line with Revised IMO Resolution on Vessel Traffic Services post adoption. | Revised guideline | VTS | VTS 1.1.1.1 |  |
|  |  | Update documents that require changes to incorporate the new terminology post adoption of the revised IMO Resolution on Vessel Traffic Services. | - a number of IALA documents need an interim update to keep them aligned to the new resolution until such time as a full review can be conducted.  - Recommendation V-120 requires a more extensive amendment and should be reissued as a guideline.  These are committee-wide tasks | reissue of relevant IALA documents | VTS | VTS 1.1.1.2 |  |
|  |  | Review and update Rec V-120 to be a Guideline | Revised recommendation | VTS | VTS 1.1.1.3 |  |
|  |  | Develop guidance for establishing a compliance and enforcement framework with respect to violations of VTS regulatory requirements by participating ships in accordance with relevant international conventions and IMO instruments, IALA standards and national law. | To provide guidance to assist Competent Authorities and VTS providers establish a compliance and enforcement framework with respect to violations of VTS regulatory requirements. | New guideline | VTS | VTS 1.1.2 |  |
|  | 4.2 operations  4.6 technologies | Develop guidance on the Implications of Maritime Autonomous Surface Ships (MASS) from a VTS Perspective. | Remain cognizant, and contribute to, the scoping exercise being progressed by PAP Task Group on the implications of MASS on VTS documents.  To prepare a discussion paper describing the implications of MASS on the provision of VTS and its regulatory and legal framework.  Provide guidance to assist authorities ensure the safety and efficiency of vessel movements in the VTS area | New guideline | VTS | VTS 1.1.3 |  |
|  | 4.1 implementation  4.2 operations  4.6 technologies | assess the implications associated with the advent of MASS on IALA Standards specifically related to the establishment and operation of VTS. | To ensure IALA Standards specifically related to the establishment and operation of VTS evolve with the advent of MASS and continue to provide an effective framework for achieving worldwide harmonisation of VTS through a scoping exercise. | mechanism | VTS | VTS 1.1.4 |  |
|  | 4.2 operations | Provide VTS input to ARM (lead Committee) for the development of a Guideline on Maritime Services in the context of e-Navigation relating to VTS | Revise sections MS1 – 3 to reflect new IMO Resolution on Guidelines for VTS for inclusion in a Guideline on Maritime Services in the context of e-Navigation relating to VTS | Guideline | VTS | VTS 1.2.1 |  |
|  | 4.6 technologies | Revise R0125 and split into a Rec + GL. Relevant parts of R1014 (Portrayal of VTS Information and Data) to be incorporated into R0125. | Draft new guidance on Portrayal and Presentation of VTS Symbology, Information and Data. To incorporate/amalgamate relevant parts of the revised R125 and consider merging with GL on Portrayal of VTS Information and Data from WP 2018-23 task 2.1.1. | Recommendation and guideline | VTS | VTS 1.2.2 |  |
|  | 4.2 operations  4.3 communications | Develop guidance on VTS Digital Communications | To provide guidance for digital interaction between VTS, ships (whether conventional or autonomous) and remote control centres | New guideline | VTS | VTS 1.3.1 |  |
|  | 4.3 communications | Revision of IMO Resolution A.918(22) IMO Standard Marine Communication Phrases |  |  | VTS | VTS 1.3.2 |  |
|  | 4.6 technologies | Revision of IMO Resolution A.954(23) Proper use of VHF channels at sea |  |  | VTS | VTS 1.3.3 |  |
|  | 4.2 operations | Guideline for VTS response to the public health emergencies | Provide references and advice for VTS to response to the public health emergencies. | New guideline | VTS | VTS 1.7.1 |  |
|  | 4.2 operations | develop a Guideline on quality management system for VTS | Guide and assist VTS organizations to formulate standard and unified quality management system  Sort out the relationship between VTS quality management system and relevant IALA documents  Facilitate audit and evaluation by Member States  Promote VTS sustainable development | New guideline | VTS | VTS 1.8.1 |  |
|  | all | Update and publish the VTS Manual and develop related procedures for its future management |  | Revised VTS manual | VTS | VTS 1.9.2 |  |
|  | all | Develop procedures for the ongoing management and conduct of the Global VTS Questionnaire |  | questionnaire | VTS | VTS 1.9.3 |  |
|  | all | Prepare a “living document” on “Future VTS”, including emerging Technologies and Human Element |  | Living document | VTS | VTS 1.9.4 |  |
|  | 4.6 technologies | Develop technical service specifications for digital data exchange between VTS and other entities - primarily ships | To develop technical service specifications for VTS using the G1128 guideline ‘ Specification of e-navigation technical services’ | guideline | VTS | VTS 2.5.1 |  |
|  | 4.6 technologies | Develop guidance for producing requirement for Vessel Traffic Services-Management Information Systems (VTS-MIS) -G1111-10 producing requirement for VTS-MIS systems. | Develop relevant guidance documents for the VTS-MIS system, and add VTS-MIS performance and requirements guidelines to the G1111 framework to provide a unified reference for the performance and functional requirements of MIS subsystems between different VTSs. | guideline | VTS | VTS 2.6.1 |  |
|  | 4.6 technologies | Develop a Product Specification under the S-100 framework for VTS | Evaluate descriptions of PS in development (gap analysis)  Determine relevant scenarios, in correspondence with WG1, for additional VTS data-elements and features  Develop a VTS product specification | Product specification  guideline | VTS | VTS 2.8.1 |  |
|  | 4.6 technologies | Review and Update Recommendation V-145 on The Inter-VTS Exchange Format (IVEF) Service (Output To be a Revised Recommendation And Associated Guideline with a view to incorporating it as a product specification under S-200) | Make IVEF available as a product specification. | Revised recommendation  Product specification | VTS | VTS 2.8.2 |  |
|  | 4.1 implementation | Review, update and reformat Guideline 1045 on Staffing Level at VTS centres |  | Revised guideline | VTS | VTS 3.2.1 |  |
|  | 4.4 auditing and assessing | Aptitudes required by VTS operators | Define aptitude and aptitude/psychometric testing  Determine the aptitudes that are consistently demonstrated by effective VTS operators  Consider methods to assess those aptitudes  Develop guidance on what aptitudes should be assessed and how the assessments could be completed | New guideline | VTS | VTS 3.4.1 |  |
|  | 4.4 auditing and assessing | Guidance for Dealing with stress or trauma in VTS operations | Define critical incidents that are likely to lead to trauma in VTS personnel  If possible seek assistance from a mental health in the workplace organization to determine the appropriate assistance to be provided  Seek input from members regarding existing programs in use  Align guidance with developing documents on Human Factors and Safety Culture | Guideline | VTS | VTS 3.8.4 |  |
|  |  |  |  |  |  |  |  |
| S1050 | 5.1 Training and assessment |  | Develop a training course and make relevant training material available to enhance mariners’ understanding of Marine Aids to Navigation (AtoN) and to facilitate the effective use thereof. | Model course | ARM | Not assigned yet |  |
|  |  | WWA lesson plans to review |  | Review and updating of the WWA Lesson plans as requested by the Academy | ENG | Not assigned yet |  |
|  |  | Review/update Model Course 103/3 adding “Typical Accident Cases |  |  | VTS | VTS 3.8.1 |  |
|  |  | Revision of G1103 on Train the Trainer |  |  | VTS | VTS 3.8.2 |  |
|  |  | Develop a Guideline for Remote training in VTS | Define the elements within remote training [note work in G1014]  Develop guidance to assist VTS training organizations in the implementation and provision of VTS training using remote training methods  Ensure VTS training remains relevant and effective, using up to date training methods and methodologies.  Establish links to existing IALA documentation | New guideline | VTS | VTS 3.8.3 |  |
|  |  | Revision of G1027 on Simulation in VTS training | update G1027 on Simulation in VTS training to ensure that it provides an effective document for training organizations and VTS providers to use when planning, designing, developing and conducting simulation exercises for VTS. | Revised guideline | VTS | VTS 3.8.5 |  |
|  |  | English Language Competency requirements in VTS operations | Assess current English language competency guidance  Determine English language competency requirements for all stages of VTS operations and a VTS Operators career  Determine options for guidance on the application of standard phraseology in VTS for all VTS Personnel.  Consider use of, or development of, VTS specific English competency assessments for all VTS Personnel. | Guideline | VTS | VTS 3.8.6 |  |
|  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |
| S1060 | 6.3 Harmonised maritime connectivity | Update G1008 May 2009 Remote control and monitoring of AtoN 2.0 Objectives of remote control and monitoring, and technical aspects such as communication links, display, maintenance and integration with other systems. |  | Revised Guideline | ENG | Not assigned yet |  |
| S1070 | 7.1 Data modes and data encoding | Develop a Marine AtoN Technical Service specification | Development of a Technical Service Specification for the exchange of marine AtoN information. This includes the distribution from shore-to-ship (S-125) and shore-to-shore (S-201). | Guideline | ENAV | ENAV-2.2.1 | G1128 |
|  |  | Develop a Position Paper on the concept of Maritime Services as basic concept of eNAV (Quality of Services, Service Level Agreements) | Development of a position paper of the concept of Maritime Services as a basic concept of e-Navigation. | Position paper | ENAV | ENAV-2.2.4 |  |
|  |  | Revise Guidance Documents on Maritime Services (MS) in the Context of e-Navigation | Revision of existing IALA Guidance documents in the area of Maritime services in the context of e-Navigation, if required. | Guideline | ENAV | ENAV-2.2.11 | G1128, G1157, G1155 |
|  |  | Develop a Maritime service description for marine aids to navigation |  | Maritime service description for maritime services in what form of document? | ARM(ENG) | ARM-x.x.x |  |
|  |  | Extend S-100 Data Exchange Formats to support Low-Bandwidth Communication | Develop an extension of S-100 that allows transmission of S-100 data to be transmitted over communication channels with a low bandwidth. This is especially relevant for the usage of VDES for Maritime Services. It is proposed to perform this task in cooperation with ENAV WG3. |  | ENAV | ENAV-2.2.12 |  |
|  |  | Develop Guidance on Future Concepts of GMDSS | Development of a recommendation or guideline on future concepts of GMDSS, including the integration of safety-relevant e-Navigation Services and the inclusion of new technologies in GMDSS. | Recommendation or Guideline | ENAV | ENAV-2.3.3 |  |
|  |  | Develop Guidance On the Integration of Maritime Services And Platforms | Development of a recommendation or guideline that discusses the integration of Maritime services to e-Navigation Platforms. | Guideline | ENAV | ENAV-2.3.4 |  |
|  |  | Develop Guidance on communication channels for Traffic Management in the Context of e-Navigation | Development of a recommendation or guideline on the integration of e-Navigation concepts and architectures into existing Vessel Traffic Services regarding traffic management focusing on harmonization, interoperability, security and efficiency. This task has to be coordinated with VTS Committee | Recommendation or Guideline | ENAV, VTS | ENAV-2.5.1 |  |
|  |  | Review of AIS documents (operational and technical) | Take the contents of AIS documents and consolidate into two AIS documents on operational and technical |  | ARM (lead), ENAV, ENG, VTS |  |  |
|  |  |  |  |  |  |  |  |

1. Template of the task item



# TASK n.n.n title

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| --- | --- | --- | --- |
| **[ARM/ENG/ENAV/VTS] COMMITTEE WORK PLAN 2023-2027** | | | |
| **Standard No** |  | | |
| **Topic Area/Scope**  *(See Standard or Work Programme 2023-2028)* |  | | |
| **Strategic Alignment**  *(See IALA Strategic Vision)* | **Goal:**  **Strategy:** | | |
| **Task**  *(Proposed task name for new tasks)* |  | | |
| **Objectives of the task** |  | | |
| **Expected outcome**  *(e.g. Recommendation, Guideline, Model Course)* |  | | |
| **Compelling need**  *(Describe briefly why this task should be included in the Work Programme)* |  | | |
| **Scope**  *(Describe key items to be taken into account as well as what is not included)* | **In Scope:**  **Out of scope:** | | |
| **Brief and concise description of the work to be undertaken and programme mile­stones** | Key milestones for completing the task include: | | |
| **Expected numbers of sessions for completion** | Session number:  xx XX xx xx xx xx xx | | |
| **Committee notes** | **Origins /Input paper**  **Who proposed the task?**  **Forwarded from previous work period:** | *(name of file)*  *(name of organisation)*  Yes No | |
|  | **Working Group** | **WG#** | **Comments** |
| **Agreed by Cte** | *(Cte Session)* | *(Month & Year)* |
| **Approved by Council** | *(Council Session)* | *(Month & Year)* |
| **Revision Notes:** |  | |