



IALA VTS COMMITTEE

REPORT OF THE 56th SESSION OF THE IALA VESSEL TRAFFIC SERVICES (VTS) COMMITTEE

20 September – 3 October 2024

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3 October 2024

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International Organization for Marine Aids to Navigation

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Report of the 56th session of the IALA Vessel Traffic Services (VTS) Committee Executive Summary

The 56th session of the VTS Committee was held from 20 September – 3 October 2024, including the physical week at IALA HQ between 23 - 27 September, with Monica Sundklev as Chair and Dirk Eckhoff as Vice-chair. The Secretary for the meeting was Thomas Southall.

131 participants from 36 countries, one Sister organisation and three observer participated in VTS56. 20 participants attended for the first time.

The VTS Committee considered 57 input papers and produced 36 output papers, including working papers, from three Working Groups.

The meeting was carried out in accordance with the *Committee Arrangements*.

Key outputs completed included:

VTS56- 12.2.2 Draft Guideline on Quality Management Practices for VTS

VTS56- 12.2.3 Draft Guideline on VTS Interaction with a Mix of Conventional, Automated and Autonomous Ships

VTS56- 12.3.4 Liaison Note to IHO on challenges regarding the development of S-200 product specifications for the VTS domain

VTS56- 12.3.5 Liaison note to IEC on Revision of the Route Plan S-421 (IEC63173-1) and its usage in VTS

VTS56- 12.3.6 S212 Proposal to the Concept Register

VTS56- 12.3.7 Service design for VTS traffic clearance service 1.1

VTS56- 12.3.8 Service specification for VTS traffic clearance service 1.4

The following liaison notes and other documents were approved:

VTS56- 12.2.1 Liaison note to ARM on guidance on Quality Management Systems

VTS56- 12.2.1.1 Draft Recommendation on QMS for MAtoN Authorities

VTS56- 12.2.4 Liaison note to DTEC and ARM on a draft Recommendation MASS and Marine AtoN

VTS56- 12.2.4.1 Draft Recommendation MASS and Marine AtoN

VTS56- 12.3.1 Liaison note to DTEC on the Emerging Technologies Review Paper

VTS56- 12.3.2 Liaison note to ARM on draft MSC Circular on MRN

VTS56- 12.3.3 Liaison note to ARM on Roadmap for the S-200 Implementation Decade (2024-2034)

VTS56- 12.4.1 Questionnaire on aptitudes for VTS personnel

Overall status of the VTS Committee 2023 - 2027 Work Programme after VTS56:

Standard	Scope	No.	Task	Comment	54	55	56	57	58	59	60
			WG#1 – Operations		2023	2024	2024	2025	2025	2026	2026
Vessel Traffic Services	VTS Implementation	1.1.2	Develop guidance for establishing a compliance and enforcement framework by participating ships						X	X	X
Vessel Traffic Services	VTS Implementation	1.1.3 a)	Develop guidance on the implications of maritime autonomous surface ships (MASS) from a VTS perspective	To Transition Council 03 for approval	X	X	X				
		b)	Assess the implications associated with the advent of MASS on IALA Standards specifically related to the establishment and operation of VTS (scoping exercise)			X	X	X	X	X	X
Vessel Traffic Services	VTS Implementation	1.1.4	Develop guidance on delineating the VTS area					X	X	X	
Vessel Traffic Services	VTS Implementation	1.1.5	Develop guidance to assist competent authorities for VTS establish an appropriate policy and regulatory framework to meet their obligations		X	X	X	X			
Vessel Traffic Services	VTS Operations	1.2.1	Develop guidance for digital route exchange within VTS operations (+ application of S-421)						X	X	X
Vessel Traffic Services	VTS Communications	1.3.1	Develop guidance on VTS digital communications (operational aspects)		X	X	X	X			
Vessel Traffic Services	VTS Communications	1.3.2	Review and update IMO Resolution A.918(22) on Standard Marine Communication Phrases (SMCP)	Awaiting action from IMO	X	X	X				
Marine AtoN planning and service requirements	Obligations and regulatory compliance	1.8.1	Consider developing guidance on the certification of technical equipment, information systems and technical infrastructure related to MASS in the domain of IALA	Awaiting DTEC							

Standard	Scope	No.	Task	Comment	54	55	56	57	58	59	60
Marine AtoN planning and service requirements	Aids to navigation planning	1.8.2	Review relevant sections of NAVGUIDE (in cooperation with the Secretariat)	Awaiting ARM							
Marine AtoN planning and service requirements	Aids to navigation planning	1.8.3	Develop guidance on the provision of Marine AtoN for autonomous vehicle/vessel operations (Maritime Autonomous Surface Ship, MASS)								
Marine AtoN planning and service requirements	Quality Management	1.8.4	Develop a guideline on quality management system for VTS	To Transition Council 03 for approval	X	X	X				
Marine AtoN planning and service requirements	Risk Management	1.8.5	Enhancing the safety and efficiency of navigation around offshore installations	Awaiting ARM							
Information services	Data models and data encoding	1.8.6	Harmonization of VTS data elements (internal and external integration)				X	X	X	X	X
Marine AtoN planning and service requirements	Risk Management	1.8.7	Develop a guideline for risk assessment and cyber security	Awaiting ARM							
Vessel Traffic Services	N/A	1.9.1	Consider relevant VTS documents to be revised/updated		X	X	X	X	X	X	X
Vessel Traffic Services	N/A	1.9.2	Continuous update of the VTS Manual		X	X	X	X	X	X	X
Vessel Traffic Services	N/A	1.9.3	Review the VTS questionnaire and conduct a digital global survey		X	X	X	X			
Vessel Traffic Services	N/A	1.9.4	Proceed with the “living document” on “Future VTS”, including emerging technologies and Human Element		X	X	X	X	X	X	X

Standard	Scope	No.	Task	Comment	54	55	56	57	58	59	60
			WG#2 – Technology		2023	2024	2024	2025	2025	2026	2026
Vessel Traffic Services	VTS Data and Information Management	2.5.1	Revise G1177 on portrayal of VTS information	C80 approved	X	X	X				

Standard	Scope	No.	Task	Comment	54	55	56	57	58	59	60
Vessel Traffic Services	VTS Data and Information Management	2.5.2	Develop Technical Service Specifications for VTS		X	X	X	X	X	X	X
		a)	Technical Service Specification and Design for VTS Traffic Clearance	Testing version published	X	X	X	X	X		
		b)	Technical Service Specification for Route Exchange		X	X	X	X	X	X	X
		c)	Coordination of combined use of VTS Technical Services (Orchestration)					X	X	X	X
Vessel Traffic Services	VTS Technologies	2.6.1	Consider updating G1111-1 to include guidance on VTS Management Information Systems		X		X	X			
Information services	Data models and data encoding	2.8.1	Develop a Product Specification S-212 on VTS Digital Information		X	X	X	X	X	X	X
Information services	Data models and data encoding	2.8.2	Review and update Recommendation R0145 on the Inter-VTS Exchange Format (IVEF) Service		X	X	X	X	X	X	X
Marine AtoN planning and service requirements	Risk Management	2.8.4	Develop guidance on cyber security for Marine AtoN	C80 approved	X	X					
AtoN design and delivery	Design, implementation and maintenance	2.8.5	Full review of A-126, G1084 and other AIS associated documentation				X	X	X		
AtoN design and delivery	Design, implementation and maintenance	2.8.6	Develop Recommendation and Guideline on the use of drones for AtoN inspection and maintenance	Awaiting ARM							
Digital communication technologies	Harmonized maritime connectivity	2.8.7	Develop guidance on Digital VHF communication	Awaiting DTEC							
Information services	Terminology, symbology and portrayal	2.8.8	Develop guidance on the symbology and portrayal of AtoN for charting	Awaiting ARM							
Vessel Traffic Services	N/A	2.9.1	Consider relevant VTS documents to be revised/updated			X	X	X	X	X	X

Standard	Scope	No.	Task	Comment	54	55	56	57	58	59	60
			WG#3 – Training		2023	2024	2024	2025	2025	2026	2026
Vessel Traffic Services	VTS Implementation	3.1.1	Develop guidance for dealing with stress or trauma in VTS operations				X	X	X	X	X
Vessel Traffic Services	VTS auditing and assessing	3.4.1	Develop guidance on aptitudes required by VTS operators		X	X	X	X	X	X	
Training and Certification	Training and Assessment	3.8.1	Revision of G1103 on Train the Trainer					X	X	X	X
Training and Certification	Training and Assessment	3.8.2	Develop guidance for remote training in VTS			X	X	X	X	X	
Training and Certification	Training and Assessment	3.8.3	Develop a model course on incident response and crisis coordination	Awaiting ARM							
Training and Certification	Training and Assessment	3.8.4	WWA lesson plans to review	Awaiting ENG							
Training and Certification	Training and Assessment	3.8.5	Training in implementation of digital solutions (data analytics & maritime informatics)	Awaiting DTEC				X	X	X	X
Training and Certification	Training and Assessment	3.8.6	Revision of G1027 on Simulation in VTS training		X	X	X	X			
Training and Certification	Training and Assessment	3.8.7	Revision of IALA VTS Model Courses								
		a)	C0103-2 VTS Supervisor	C79 approved	X						
		b)	C0103-4 OJT Instructor	C80 approved	X	X					
		c)	C0103-5 VTS Revalidation Process				X	X	X		
Training and Certification	Accreditation, competency, certification and revalidation	3.8.8	Consider including English language competency requirements in VTS operations		X	X	X	X	X		
Training and Certification	N/A	3.9.1	Consider relevant VTS documents to be revised/updated		X	X	X	X	X	X	X

Legend:

Blank: Ongoing or scheduled task
 Light orange: To Council to note or approve
 Light grey: Task completed or deleted
 X: Prolonged task

Legend for task numbering:

Digit 1: WG 1, 2 or 3
 Digit 2: S1040 VTS Scope No.; Other standards = 8; Standard not available = 9
 Digit 3: In sequence (1, 2, 3 etc.)
 Digit 4: Sub task a, b, c...(if needed)

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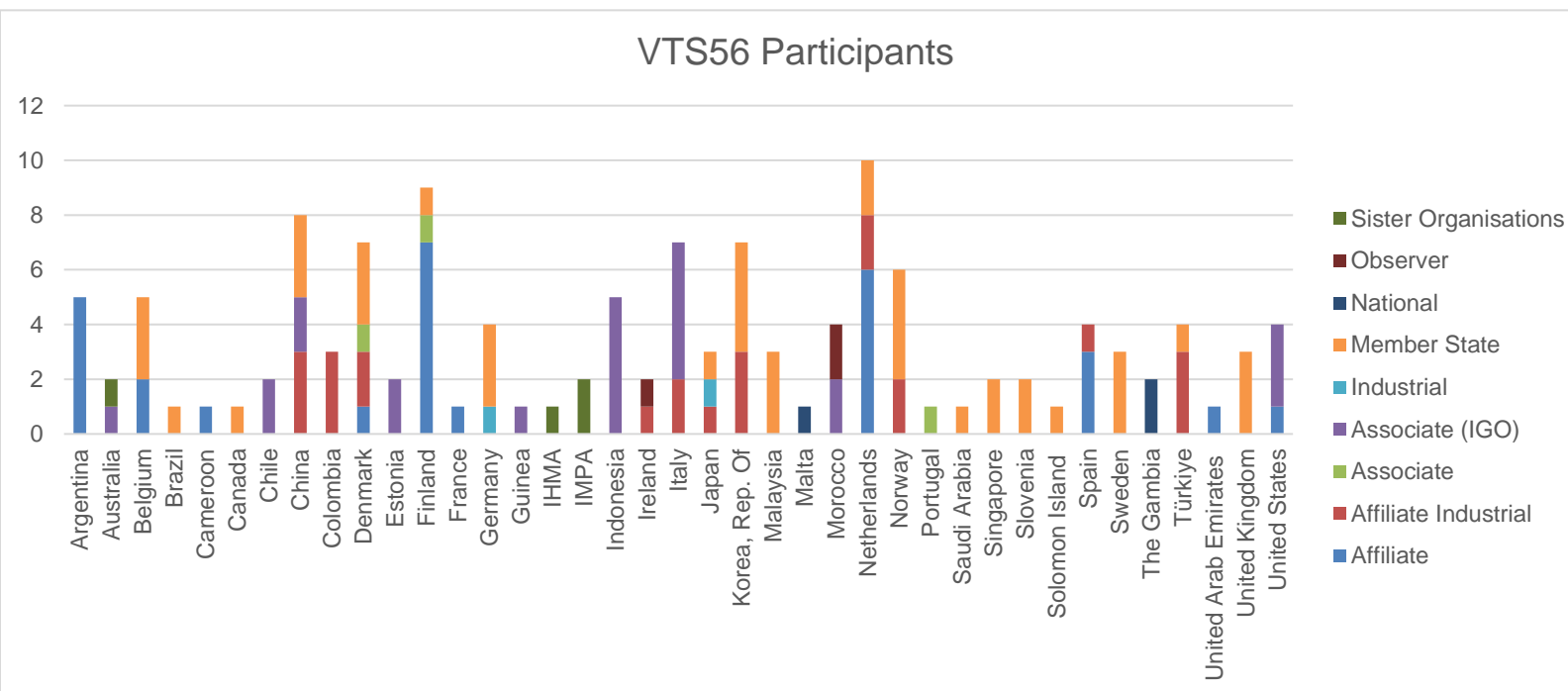
Report of the 56th session of the IALA Vessel Traffic Services (VTS) Committee

1. INTRODUCTION

The 56th session of the VTS Committee was held from 20 September – 3 October 2024, including the physical week at IALA HQ between 23 - 27 September, with Monica Sundklev as Chair and Dirk Eckhoff as Vice-chair. The Secretary for the meeting was Thomas Southall.

The session began with a virtual opening plenary on Friday 20 September and the physical week began on Monday 23 September and continued until Friday 27 September. The Chair welcomed everybody, both old as well as new participants, to the meeting and was pleased to see so many faces at IALA HQ. An approval period was followed and the virtual closing plenary was held on Thursday 3 October chaired by Vice-chair Dirk Eckhoff.

131 participants from 36 countries, one Sister organisation and three observer participated in VTS56. 20 participants attended for the first time. A breakdown of the participants is shown in the graph below.



1.1 Welcome from the Secretary-General

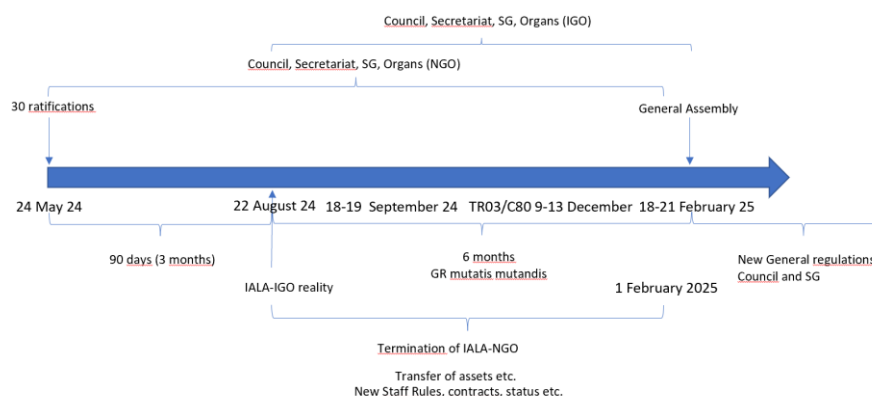
Secretary-General Francis Zachariae extended a warm welcome to all attendees at IALA headquarters. He acknowledged the importance of being able to meet in person while also greeting participants joining online. He then mentioned that IALA was currently exploring several options for a new Headquarters.

During his address, he introduced the new Technical Officer, Alisa Nechyporuk, to the Committee. He went on to express his gratitude to the Committee participants for their substantial contributions, particularly in areas related to MASS and digital developments. He highlighted the increased level of cross-committee collaboration that has been taking place.

The Secretary-General informed the Committee that as of 22 August, IALA had officially transitioned into an Intergovernmental Organization (IGO) and is now known as the International Organization for Marine Aids to

Navigation. He noted that 34 states had either ratified or acceded to the convention, with several more countries nearing completion of the process. He then elaborated on the transition period, using the diagram below to explain the current phase in greater detail.

Plan for the transition of IALA from an NGO to an IGO



Providing an update on the upcoming General Assembly in Singapore, scheduled for 18 to 21 February 2025, he outlined key agenda items, including the termination and establishment of committees and subsidiary bodies, the review and approval of their Terms of Reference, and the approval of overall policy, strategic vision and standards. He also mentioned that the following General Assembly would take place in Mumbai, India, in September 2027.

In closing, Francis wished the committee participants good luck with their meeting, expressing confidence in their continued progress and contributions.

1.2 Approval of the agenda

The agenda was reviewed and approved (VTS56-1.2.1).

1.3 Apologies

No apologies were received. A list of participants who attended VTS56 can be found on the IALA Dashboard for VTS and in Annex B.



1.4 Working Arrangements

The following statement on the IALA General Data Protection Policy was made by the Committee Secretary:

IALA complies with the General Data Protection Regulations of the European Union. IALA will include a list of participants with their contact information in the report of this meeting. Any participant who wishes to remove their contact details from the participants list should advise the Committee Secretary as soon as possible.

The following question was asked by the Committee Secretary:

If anyone present has knowledge of any patents, including pending Patents, held either by themselves or by other organisations or individuals, the use of which may be required to practice or implement the content of IALA Documents being developed or worked on in this Committee to inform the IALA Secretariat.

No patents were noted.

The Committee Secretary provided all participants with a briefing on the *Committee Working Arrangements* document and tools available to them. This brief included an overview of the VTS56 Action Plan that had been agreed by the VTS Committee Management Team (CMT) to be progressed during VTS56 through Task Groups (TG). Each task had a deadline for expressions of interest to participate to the specified Task Group Leader (TGL) by a certain date.

Task items that were worked on at VTS56 were displayed in the *Action Plan*, which can be found on IALA Dashboard for VTS.

The deadline for submitting documents to the silent approval procedure was set to 27 September 2024 at 10:00 CEST.

2. REVIEW OF ACTION ITEMS FROM VTS55

The Committee Secretary confirmed that all Secretariat actions from VTS55 were completed (input paper VTS56-2.1.1).

3. REPORTS FROM OTHER BODIES

3.1 IALA

3.1.1 IALA Council

Minsu Jeon, the Technical Operations Manager of IALA, reported that at Council 80, several key revisions and updates to the work program for 2023-2027 were approved. These approvals included workshops, guidelines, and technical specifications.

The following workshops were approved or discussed; the 2nd IALA IHO Joint Workshop on S-100/200 in September 2024 (already concluded), an Aids to Navigation Engineering Workshop in October 2024 in Sydney, Australia, a VTS Competent Authority Workshop scheduled for January 2025 in Rome, Italy, a Sustainability and ENG 21 Workshop in October 2025 in Dublin, Ireland, and a Future of Radionavigation and Radiocommunication Workshop in 2026 in Edinburgh, UK. Additionally, the International Conference on Lighthouse Tourism and Maritime Heritage is also planned for October 2025 in Dublin, Ireland in conjunction with the workshop.

Several key documents and guidelines were also approved. These included the revised R1019 on Maritime Services in the context of e-Navigation (Ed2.0), a new draft Guideline on Cyber Security from an IALA perspective (Ed1.0), and a revision of G1141 Operational Procedures for Delivering VTS (Ed3.0). The Council also approved the revised G1177 Portrayal of VTS Information (Ed2.0) and a revised version of Model Course C0103-4 for VTS On-the-Job Training Instructors (Ed3.0). Additional revisions included the new draft Guideline on the Provision of MCP

identities (Ed1.0), the revised R1007 on the VHF Data Exchange System (VDES) for Shore Infrastructure (Ed2.0), and the updated G1128 Specification of e-Navigation Technical Services (Ed1.5).

In the area of technical services, the Council noted the specifications for the Provision of Marine Aids to Navigation (AtoN) Information (Ed1.0) and the VTS Traffic Clearance Service (Ed1.3), as well as the service design for VTS Traffic Clearance using SECOM (Ed1.0). The IALA Manuals, including the VTS Manual (Ed8.3), were also acknowledged.

A procedure for the versioning and approval of product specifications and technical services was agreed. This protocol outlined three phases: the Development Phase for documents prior to version 1.0.0, the Testing and Validation Phase for documents between versions 1.0.0 and 1.9.9, and the Implementation Phase, where documents ready for publication and use are numbered from version 2.0.0 onward.

The Council further approved several liaison notes related to technical interactions with other organizations, including the IHO, RTCM, IEC, IMO, and ITU, focusing on operational interaction, standard updates and tasks.

Importantly, several documents were also approved by the Council, including Guideline G1180 focusing on Resilient Position, Navigation, and Timing, the updated Model Course C0103-2 for VTS Supervisor training, and Guideline G1181 addressing VDES VHF Data Link (VDL) Integrity monitoring. Additionally, the Council endorsed a workshop proposal concerning the VTS competent authority, with Italy offering to host the event.

A decision was made to select the Faro di Genova 'Lanterna' in Italy as the Heritage Lighthouse for the year 2024.

The Secretariat presented a paper to the Council on the necessity for more frequent updates to manuals, highlighting the rapid pace of technological evolution and the need for timely updates to ensure relevance and effectiveness. The request for authorization to implement a new process allowing committees to expedite the publication of updates to manuals was approved.

3.1.2 IALA Policy Advisory Panel (PAP)

Minsu Jeon reported that at the PAP54, held on September 16 - 17 2024, at the IALA headquarters, several important topics were discussed and reviewed.

IALA's ongoing work on Maritime Autonomous Surface Ships (MASS) was a key focus, with a MASS Task Force meeting held on September 17, 2024, also at IALA HQ. IALA contributed to the revision of the Standards of Training, Certification, and Watchkeeping (STCW) and continued its efforts in the development, training, and testing of S-200 standards. This included the establishment of a roadmap for S-200 development and a report on the progress of S-200 Product Specification development, as documented in C80-10.8.1.

Additionally, the meeting reviewed the questionnaire, ensuring continued refinement and updates to IALA's terms.

3.1.3 IMO

At the VTS Committee meeting, the Technical Operations Manager, Minsu Jeon, provided an update on key activities from the IMO relevant to IALA, summarizing the outcomes of two significant meetings, the 108th session of the IMO Maritime Safety Committee (MSC 108), held from May 15 to 24, 2024 and the 11th session of the Sub-Committee on Navigation, Communications and Search and Rescue (NCSR 11), held from June 4 to 13 2024. Both meetings took place at the IMO Headquarters.

At MSC 108 IALA was represented by Minsu Jeon, Tom Southall and Axel Hahn. IALA submitted MSC 108-INF.8 - IALA Workshop on establishing scenarios for the development of MASS (Maritime Autonomous Surface Ships).

The main outcomes of MSC 108 included:

- A revised roadmap for developing a regulatory code for MASS, marking progress in the regulation of autonomous ships.

- The adoption of revised guidelines on maritime cyber risk management, ensuring enhanced protection against cyber threats.
- New training requirements related to the prevention and response to violence and harassment in the maritime sector, particularly addressing sexual harassment, bullying, and sexual assault. These were incorporated into amendments to the STCW Code.
- Amendments to the 1974 SOLAS Convention and related instruments were also adopted, reflecting updates to key maritime safety regulations.
- Additionally, reports from various sub-committees were presented, leading to the approval of several important provisions.

At NCSR 11 IALA was represented by Minsu Jeon, Tom Southall and Stefan Bober. IALA submitted several papers, including:

- NCSR 11-14 - IALA Guideline G1181 on VDES VDL Integrity Monitoring.
- NCSR 11-18-1 - Draft revision of SN.1/Circ.297 on IALA Maritime Buoyage System (MBS).
- NCSR 11-18-2 - IALA Risk Management Toolbox.

Key outcomes from NCSR 11 included:

- The introduction of the VHF Data Exchange System (VDES) into the SOLAS framework, facilitating better communication and data transmission in maritime safety.
- Updates to the IALA Maritime Buoyage System (SN.1/Circ.297) and the Degree of Risk Evaluation (SN.1/Circ.296).
- Voluntary Vessel Traffic Services (VTS) established in the Netherlands in the North Sea.
- Improvements to Marine Safety Information (MSI) and Global Maritime Distress and Safety System (GMDSS) services.
- Addressing AIS signal blockages caused by VHF radiotelephony, and revisions to Recommendation ITU-R M.1371-5 aimed at enhancing the security and integrity of AIS signals.
- Guidance on the validity of on-board radiocommunications equipment was updated (MSC.1/Circ.1460/Rev.4).
- Considerations regarding agenda item 1.12 of WRC-27, focusing on the use of the 1645.5-1646.5 MHz band, were discussed.
- Additionally, issues concerning S-100 implementation and the associated training needs for seafarers were highlighted, along with discussions on the future of the Maritime Messaging Service.

3.2 IHO

Minsu Jeon reported on recent activities with the IHO. The focus included various collaborations, technical updates, and workshops related to the S-100 and S-200 standards.

Key liaison involved the Hydrographic Services and Standards Committee (HSSC), the Nautical Information Provision Working Group (NIPWG) and ongoing liaison notes to NIPWG regarding AtoN Product Specifications (PS). Additionally, ITU's collaboration with S-100 Working Group and Regional Hydrographic Commissions played a central role. These collaborations helped define the technical aspects and portrayals of AtoN features, with particular emphasis on the IHO GI Registry and the S-124/125 technical services.

A key co-event between IALA and IHO was the 2nd Joint IHO/IALA Workshop on S-100/200 Development and Portrayal, which was held from September 9 - 13, 2024, at the U.S. Naval Academy in Annapolis, USA. This workshop attracted 84 participants from 19 countries, providing valuable insights into the integration and evolution of various S-100 series standards, including S-101, S-124, S-125, and S-201. Key conclusions from the workshop highlighted:

Operational Recommendations:

- Evaluation of the S-101 data model to ensure all information from S-12 (List of Lights) is included.
- Clarification that S-124 is designed for time-sensitive, navigationally critical information, while S-125 addresses changes in AtoNs.
- The need for S-124 and S-125 to provide a comprehensive operational picture, while S-125 does not duplicate AtoNs information in S-101.

Technical Recommendations:

- A review of data and service provisions required by IALA for international compliance, including for non-SOLAS vessels.
- Collection of test scenarios and datasets by the IHO-SGP lab to identify technical gaps in product specifications.
- Exploration of official testing MCP's identity management with IHO and addressing security concerns.
- Establishment of a formal system to notify stakeholders of changes to the S-100 standard.
- Recommendations to retain and enhance the S-124 symbol and align S-125 with IMO Circular Letter 243, while keeping S-101 symbols unchanged during the dual-fuel period.

Training Recommendations:

- Identification of knowledge gaps within the maritime community before training on S-100 standards.
- A focus on coordinated communication and marketing from IALA and IHO regarding S-100's benefits.
- Recommendations to refine STCW training requirements and include transition training to ECDIS.
- Emphasis on addressing significant training gaps for different user groups across the maritime community.
- Tailoring training courses to specific user groups, from high-level executives to software developers, ensuring materials remain current as standards evolve.

The workshop concluded with a joint recommendation to continue future discussions on the interaction of standards like S-101, S-124, S-125, and S-201, as well as broader efforts to implement and support remaining IHO and IALA product specifications across the maritime community.

3.3 ITU

The Committee noted Minsu Jeon's report regarding ITU that the recent meeting, several key revisions and new study questions were addressed concerning maritime communication systems.

A revision of Recommendation ITU-R M.1371-5 on the Automatic Identification System (AIS) was approved, along with updates to Recommendation ITU-R M.585-9 regarding the assignment and use of identities in the maritime mobile service. Two new ITU study questions were introduced: one focused on the "Coexistence of VHF Data Exchange System (VDES) with a Ranging-Mode," and another on the "Introduction of Digital Voice Communications in VHF maritime frequency channels."

A new report, ITU-R M. [VDES R-MODE], was also presented, which assesses the impact of introducing a range mode in the VHF data exchange system. Additionally, the suppression of Recommendation ITU-R M.693-1, which previously outlined technical characteristics for VHF emergency position-indicating radio beacons using digital selective calling, was approved.

3.4 Digital@Sea

The Committee noted the innovative approach taken at the recent Digital@Sea Digital@Sea North-America held on 8-9 May 2024 in Atlantic Beach, FL, US and Digital@Sea Asia Pacific and Capacity Building workshop in 2024 Reports from Rapporteurs

3.5 MASS related to VTS

Rapporteur: Neil Trainor

Neil Trainor provided an update on developments related to Maritime Autonomous Surface Ships (MASS) since VTS55, highlighting.

1. Task Group 1.1.3 - VTS Interaction with a mix of Conventional, Automated and Autonomous Ships

Key outcomes from the Task Group's three intersessional meetings since VTS56 included:

- **A review of MASS related developments since VTS55, including:**
 - **MSC108 (15 to 24 May 2024)** – Specifically:
 - The Report of the Working Group on Maritime Autonomous Surface Ships (*MSC 108/WP7*).
 - The Draft Report of the Maritime Safety Committee on its 108th Session (*MSC 108/wp.1*).
 - **IALA MASS Task Force (14 June)**, specifically:
 - The report of the 8th meeting of the IALA Task Force - A copy is available at *MTF08-4.1 Report 8th meeting of the IALA MASS TF*.
 - The MASS publications Scoping Report – A copy is available at *MTF08-7.1 MASS Publications Scoping Report V2.1*.
- **Draft Guideline**

The Group completed a review of the draft Guideline VTS on Interaction with a mix of Conventional, Automated and Autonomous Ships from VTS54. Key components included:

 - Reflecting the changes to the draft MASS Code as at MSC108.
 - Reflecting the revised IMO Roadmap aiming to have a non-mandatory MASS Code adopted in the 1st half of 2025, with a mandatory Code entering into force on 1 January 2032.
 - Removing the section entitled '*Assumptions*'. It was recognised the section has been extremely useful in developing the draft guidance, however, consensus was that it may no longer be required, noting:
 - The report from MSC108 and associated revision of the draft MASS Code.
 - It is expected that the assumptions will be addressed in the adopted non-mandatory MASS Code and will not be required in the guidance.
 - The details are being reflected in Section 3 - *IMO Regulatory Framework of the draft Guideline as the draft MASS Code matures*.

The Group was also of the view that consideration should be given to reflecting the text in the '*Assumptions*' in a stand-alone document such as a FAQ or Information Sheet to assist stakeholders not familiar with the draft MASS Code and its association with existing IMO instruments such as SOLAS.

A draft for the Committees consideration is at *VTS56-8.1.1.2 Input Paper - Draft text for a FAQ or Information Sheet*.

A copy of the report from the Task Group is at *VTS56-8.1.1 Input Paper - Output from TG1.1.3 - VTS Interaction with a mix of Conventional, Automated and Autonomous Ships*.

2. MASS Task Force

The MASS Task Force met 17 September and provided 2 late input papers for the Committees consideration:

i. MASS Publications Scoping Report

The purpose of this document is to:

- Identify IALA recommendations, guidelines, and model courses that require revision to accommodate the advent of MASS.
- Identify new IALA recommendations, guidelines, and model courses that may be required to address the advent of MASS insofar as they are not adequately or fully addressed in other IALA recommendations and guidelines.
- Assist IALA and its Committees to adopt work programme tasks to facilitate IALA documentation related to Marine Aids to Navigation, including VTS to reflect the advent of MASS.

A copy of the report is at *VTS56-4.1.2 Del2 MASS Publications Scoping Report V2.2 (MTF09-4.2)*

VTS related sections of the report include:

2.3.1 *Future VTS*

2.3.2 *Case Studies - MASS Trials and 'Test Beds'*

7.0 *VTS Committee*

7.1 *Review of VTS related publications*

7.2 *Proposed VTS work tasks*

ii. Mindmap for the report on possible MASS related work items

A copy of the Mindmap is at *VTS56-4.1.1.1 Del3 Mindmap for the report on possible MASS related work items for the IALA committees (MTF09-4.1)*

3. Functional requirements for VTS systems under the influence of MASS

China Maritime Safety Administration provided an input paper summarising their recent experience with MASS on the smart vessel "ZHIFEI", including proposed functional requirements of VTS systems and the management and service rules of VTS.

A copy is at *VTS56-8.1.2 Functional requirements for VTS systems under the influence of MASS*.

4. PRESENTATIONS

All recordings of the presentations given at VTS56 can be found on the fileshare (login necessary). The following presentation were given:

- Demonstration of S-100 using SECOM and the new Guideline on provision of MCP identities / Juho Pitkanen, Fintraffic Vessel Traffic Services

5. WORK PROGRAMME MANAGEMENT

5.1 Work Programme 2023 – 2027, Task Plan, Task Register

The Task Plan was updated prior to the session by the VTS CMT and the Task Plan and Task Register were updated by the Chair and Vice-chair and these were noted by the Committee. They will both be forwarded to VTS57 as working papers.

Action item(s)

The Secretariat is requested to forward the WP VTS Committee Task Plan (VTS56-12.5.4.1) and WP VTS Committee Task Register (VTS56-12.5.4.2) as working papers to VTS57 for further development.

5.2 Action Plan for VTS56

The VTS56 Action Plan, which can be found on IALA Dashboard for VTS, was noted by the Committee.

6. REVIEW OF INPUT PAPERS

The input papers for VTS56 consisted of new input papers as well as working papers from the previous session. The input paper list (VTS56-7.1.1) did not include the working papers from VTS55. The working paper list (VTS56-7.1.2) was a separate input document.

7. ESTABLISH WORKING GROUPS

The Chair outlined the procedure to be followed by working groups, after which three working groups were established and their tasks outlined. The Working Group chairs and vice-chairs were introduced. Full lists of working group participants can be found in Annex F.

Working Group (WG)	Working Group Chair / Vice-Chair
WG1 – Operations	Trond Ski (Chair), Els Bogaert (Vice-chair)
WG2 – Technology	Richard Aase (Chair), Robert Townsend (Vice-chair)
WG3 – VTS Training	Stefaan Priem (Chair)

8. WORKING GROUP 1 – OPERATIONS (WG1)

Close to 40 individual participants attended one or more task group meetings formed under Working Group 1 - Operations during VTS56 (WG1). The working group progressed 10 tasks assigned under the 2023 - 2027 Work Programme and produced 6 output documents and 6 working papers for the Committee Secretary to progress. Intersessional work is planned to further progress:

- Task 1.1.3 on the implications of MASS from a VTS perspective;
- Task 1.3.1 on VTS digital communications (in cooperation with WG2); and
- Task 1.9.3 Review the VTS Questionnaire and conduct a digital global survey.

8.1 Task 1.1.3 a) Develop guidance on the implications of maritime autonomous surface ships (MASS) from a VTS perspective

Task group leaders: Neil Trainor

The following input papers were considered:

- VTS56-3.4.1.1 R23-WP5B-C-0096!N12!MSW-E revision Rec-R M1371-5
- VTS56-4.1.1 Del3 Report on possible MASS related work items for the IALA committees (MTF09-4.1)
- VTS56-4.1.1.1 Del3 Mindmap for the report on possible MASS related work items for the IALA committees (MTF09-4.1)
- VTS56-4.1.2 Del2 MASS Publications Scoping Report V2.2 (MTF09-4.2)

- VTS56-8.1.1 Input Paper - Output from TG1.1.3 - Guideline on Provision of VTS to Conventional and Autonomous Ships
- VTS56 8.1.1.1 Draft guideline on VTS interactions with a mix of Conventional, Automated and Autonomous Ships – CLEAN
- VTS56 8.1.1.2 Draft text for a FAQ or Information Sheet
- VTS56 8.1.2 Functional requirements for VTS systems under the influence of MASS
- VTS56 8.1.3 Liaison note to all from ARM on MASS Guideline Review post plenary (ARM18-11.2.8)
- VTS56 8.1.3.1 Proposed ARSM MASS Guideline 18 Apr 24 (ARM18-11.2.8.1)
- VTS56 8.1.4 Draft Guideline on Developments and implications of MASS for coastal authorities (DTEC3-5.2.2.7)
- MSC 108-WP.1 - Draft Report of The Maritime Safety Committee on Its 108th Session (Secretariat)
- MSC 108-WP.1 - Draft Report of The Maritime Safety Committee on Its 108th Session (Secretariat)
- MSC-ISWG-MASS 3-WP.1 - Report of the Working Group (Secretariat)

Key outcomes include:

Guideline on VTS Interaction with a Mix of Conventional, Automated and Autonomous Ships

A review of input paper *VTS56-8.1.1.1 Draft Guideline on VTS Interaction with a Mix of Conventional, Automated and Autonomous Ships – CLEAN* was completed as per the Committees 2024-2027 Work Program.

The document addresses practices to be considered when managing ship traffic and responding to developing unsafe situations in a VTS area with increasing automated, remote control, or autonomous operation of on-board functions that are not adequately or fully addressed in other IALA recommendations and guidelines specifically related to the establishment and operation of VTS.

Specifically, the purpose of the Guideline is to:

- Assist VTS providers interact with vessel traffic, regardless of whether certain functions are remotely controlled or autonomously operated; and
- Provide a framework to assist VTS providers prepare for the ever-increasing use of automation in the operation of ships, along with the anticipated increase in the use of remote control and autonomous operation of key functions for ships and therefore adapt their systems and processes accordingly, recognizing.
 - The introduction of digital data and information exchange between MASS, conventional ships, VTS and allied services.
 - The role of VTS in contributing to the safety and efficiency of navigation and the protection of the environment through:
 - The provision of timely and relevant information on factors that may influence the ship's movements and assist on-board decision making.
 - The monitoring and management of ship traffic to ensure the safety and efficiency of ship movements.
 - Responding to developing unsafe situations.

The Guideline is associated with IALA *Recommendation R0119 – Establishment of a VTS*, a normative of IALA Standard S1040 Vessel Traffic Services (VTS). It describes additional desirable practices for interacting with ship traffic comprising a mix of conventional, automated and autonomous ships and it is not necessary to conform with this Guideline in order to claim compliance with Recommendation R0119.

Noting the IMO aims to have a non-mandatory MASS Code adopted in the 1st half of 2025, with a mandatory Code entering into force on 1 January 2032, it was concluded that this guideline should be reviewed at each Committee meeting.

This will enable the document to evolve with the development of the MASS Code and to take into consideration the development of additional IALA guidance such as Guideline on VTS Digital Communications and VTS Digital Services.

A copy of the revised draft Guideline is at *VTS56-12.2.3*.

It was also agreed that intersessional work (virtual meetings) should commence following MSC109 to update the Guideline as necessary following finalisation of the Voluntary MASS Code.

Recommendation on MASS and Marine AtoN

A draft informative Recommendation on *MASS and Marine AtoN* was prepared. Specifically, it identifies additional desirable practices to consider with the advent of Maritime Autonomous Surface Ships insofar as they are not adequately or fully addressed in other IALA recommendations and guidelines specifically related to the provision of VTS and AtoN.

The draft is to be circulated to the ARM and DTEC Committees for their consideration.

Frequently Asked Questions

During development of the Guideline on VTS Interaction with a mix of Conventional, Automated and Autonomous Ships the Committee had maintained a section in the document entitled ‘Assumptions’. While this had been extremely useful in preparing the Guideline and monitor the development of the MASS code it was concluded that the need for such a section was no longer required as they were addressed in the maturing MASS Code.

However, consensus was that some of the text could provide the basis for a Frequently Asked Questions document to assist communicate the advent of MASS. In particular, as a means to compile responses to common questions being asked by stakeholders as the IMO develops the MASS Code and IALA prepares associated guidance specifically related to VTS in transitioning to interacting with ship traffic comprising a dynamic mix of conventional, automated and autonomous ships.

Presentations / Case Studies

Liu Jinkai (China MSA) provided a presentation on recent experiences from trials with the smart vessel “Zhifei”, focussing on possible implications for functional requirements and management services with regards to interaction between MASS and VTS. Further background information is as *VTS56-8.1.2 Functional requirements for VTS systems under the influence of MASS*.

Hovna Knut (Norwegian Coastal Administration) provided a brief overview of a recent MSC input paper from Norway on the ongoing domestic projects on MASS and sea drones, including their description, operational area and fallback states, crewing, associated ROC and other relevant information. (refer to *MSC 108/INF.16 (Norway)*).

It was agreed that the information contained in both these documents should be incorporated into the ‘MASS case studies’ document on the IALA website to further contribute to gaining insight into ‘trials’ and test beds’ being conducted, outcomes, lessons learnt, emerging information, implications for VTS, etc.

Action item(s):

The Secretariat is requested to forward the draft guideline on VTS Interaction with a Mix of Conventional, Automized and Autonomous Ships (VTS56-12.2.3) to Council for approval.

Committee participants are invited to join the intersessional task group (Virtual meetings) working on the development of guidance on the implications of MASS from a VTS perspective and to express their interest to Neil Trainor (neil.trainor@hotmail.com) by 30 October 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Secretariat is requested to update the 'MASS Case Studies' document on the IALA website to reflect (VTS56-8.1.2 Functional requirements for VTS systems under the influence of MASS) and (MSC 108/INF.16 (Norway)) as appropriate.

Committee participants involved with "MASS Testbeds" are requested to, where possible, share information they may have with regards to the outcomes and specifically any operational implications from a VTS perspective. Please email Neil Trainor (neil.trainor@hotmail.com).

Committee participants who have already provided information to the MASS Case Studies are requested to update their information. Similarly, members who wish to contribute are encouraged to do so. Inputs can be provided to Neil Trainor (neil.trainor@hotmail.com).

The Secretariat is requested to forward the draft Recommendation (VTS56-12.2.4.1) to the ARM and DTEC Committees for their consideration accompanied by liaison note (VTS56-12.2.4).

The Secretariat is requested to forward the WP on Frequently Asked Questions on MASS (VTS56-12.5.1.1) as a working paper to VTS57 for further development.

8.2 Task 1.1.3 b) Assess the implications associated with the advent of MASS on IALA Standards specifically related to the establishment and operation of VTS (scoping exercise)

Task group leader: Neil Trainor

A scoping exercise to assess the implications associated with the advent of MASS on IALA Standards specifically related to the establishment and operation of VTS was completed.

In summary, the exercise identified minor amendments to be considered for:

- R1012 VTS Communications
- R0103 Training and Certification of VTS Personnel
- R0145 The Inter-VTS Exchange Format (IVEF) Service
- G1150 Establishing, Planning and Implementing a VTS
- G1089 Provision of VTS
- G1141 Operational Procedures for Delivering VTS
- G1110 Use of Decision Support Tools for VTS Personnel
- G1177 Portrayal of VTS information
- G1111 Establishing Functional and Performance Requirements for VTS Systems and Equipment
- G1070 VTS Role in Managing Restricted or Limited Access Areas
- G1102 VTS Interaction with Allied or Other Services

- G1130 Technical Aspects of Information Exchange Between VTS and Allied or Other Services

It was concluded that with the release of the draft Guideline on VTS Interaction with a Mix of Conventional, Automated and Autonomous Ships, the development of the MASS Code and additional IALA guidance such as Guideline on VTS Digital Communications and VTS Digital Services, the working paper be reviewed at each Committee meeting.

It was also concluded that intersessional work (virtual) should include preparing the minor updates to recommendations and guidelines mentioned above for consideration at VTS57.

Action item(s):

The Secretariat is requested to forward the WP on the scoping exercise (VTS56-12.5.1.2) as a working paper to VTS57 for further development.

8.3 Task 1.1.5 Develop guidance to assist competent authorities for VTS establish an appropriate policy and regulatory framework to meet their obligations

Task group leader: Neil Trainor/ James Clark

The task commenced with open discussions from working group members sharing experiences and context of how the competent authority for VTS is set up and functions in their respective country. Many examples of the Competent Authority for VTS fulfilling the role of both the VTS provider and Training organisation were observed.

The draft guideline 'Establishing a Policy and Legal Framework for VTS' was reviewed and discussed. The main discussion points and amends were:

- A draft diagram which could potentially replace the triangle diagram in section 4 describing the International and legal framework was produced, given comments received around confusion with having 'national law' below non mandatory IALA standards.
- The three main components of establishing and operating VTS were moved from section 4, to section 4.4.
- The emphasis of the CA for VTS being 'independent' from VTS providers was emphasised
- Included the need for Competent Authorities for VTS to audit and assess 'VTS Training Organisations'

A discussion group was also convened to discuss the proposed programme for the upcoming 'Competent Authorities' workshop planned to take place in January 2025 and hosted by Italy. A separate document was produced which captured the groups thoughts around what delegates might want to get out of the workshop and included the following items:

- How do you accredit and regulate VTS with IALA guidelines and IMO res.
- New CA creating an audit programme for different VTS port/coastal.
- Links between port/coastal VTS- MoUs etc.
- VTS vs LPS - when is a LPS actually performing as a VTS with less trained staff/ staff not trained to IALA standards.
- Which laws should be created to give CA relevant powers?
- National laws of different countries specifically for VTS.
- If laws are too difficult to create/ change what solutions can there be.

- Protection of VTS? Does having legal powers take the responsibility from the captain if there is an accident etc.?
- KL convention - VTS is an AtoN - CA must maintain AtoNs. Does this mean liability if an incident is deemed to be due to VTS mistakes.
- What do countries do if ships do not comply with VTS?
- Standard nomenclature- Have countries made VTS providers change their radio callsigns to 'location VTS' or 'VTS location'?
- How to set operational objectives for the VTS provider.
- Vessel Traffic Monitoring - when does it become VTS, should there be guidelines on VTM? VTM in non-territorial waters, "voluntary VTS".
- Endorsing different countries on VTS training. Global recognition of certification.
- Other topics discussed included:
 - HMs have no specific controls on how they manage traffic in their ports/facilities.
 - The loss of the differentiation between a port/coastal VTS has been difficult for some countries.
 - Assessing the need for VTS - should a risk assessment be periodically completed? Does the VTS meet the need for the area?
 - How does a VTS harmonize with ship's routing or reporting schemes? What is specifically meant by harmonization?
 - Is there a desire for a more formal IALA recognition, for CA, auditing assessment procedures, in order to open up more opportunity for harmonization?
 - Could there be a hybrid capability?
 - Is there a possibility for inputs to be put in by those not there?
 - How will the outputs be shared to those who cannot attend the workshop?

Committee participants are invited to review the draft guideline *VT56-12.5.1.3* and identify gaps in existing IALA documentation with regards to the role of competent authorities and practices that should be considered. Inputs can be provided to Neil Trainor (neil.trainor@hotmail.com) by VT57.

Action item(s):

The Secretariat is requested to forward the WP draft guideline on Establishing policy and regulatory framework (VT56-12.5.1.3) as a working paper to VT57 for further development.

Committee participants are invited to review the WP draft guideline on Establishing policy and regulatory framework (VT56-12.1.5.3) and submit comments and remarks to Neil Trainor (neil.trainor@hotmail.com) by VT57.

8.4 Task 1.3.1 Develop guidance on VTS digital communications (operational aspects)

Task group leader: Fredrik Karlsson

The following input papers were considered:

- VT56-8.3.1 Proposal to modify the Draft guideline on VTS Digital Communications

- VTS56-8.3.2 Information Paper – Intersessional meeting TG1.3.1

The main working paper for the task this week was the working paper forwarded from intersessional meeting held in Oslo in June:

- *VTS55 WP Draft GL on VTS Digital communications WP for VTS56 20240627*

Work conducted at a glance:

- *Cleaned up the overall GL, particular the purpose of the document.*
- *Breakout sessions with WG2*
- *Reviewed the input paper from China MSA and took action*
- *Discussed and gave input to new task “Coordination of combined use of VTS Technical Services (Orchestration)”. [Task register 2.5.2 c Coordination of combined use of VTS Technical Services (Orchestration)]*
- *Provided input in accordance with the Liaison letter “VTS56-9.1.3 Liaison letter from IEC TC80-WG17 on the revision of the Route Plan (S-421, IEC 63173-1) and its exchange”*
- *Contributed to the upcoming task to create a roadmap on development and implementation of VTS S-200 Technical Services, Product Specifications and training*
- *Contributed to update the ARM Roadmap, Liaison Note to ARM to be completed at VTS56 providing very rough roadmap coordinated by WG2*
- *Looking into the new task 1.8.6 Harmonization of VTS data elements (internal and external integration). The group decided to postpone the task due to current workload and limited information about the task.*
- *The Secretariat will provide more information regarding the task 1.8.6 in the task register such as objective and list of datasets concerning IHO and IALA VTS.*

The TG continued the work to develop the Guideline on VTS Digital Communications. The aim of the Guideline is to specify how to implement the practices associated with Recommendations R0127 - VTS Operations and R1012 - VTS communications for the interaction between VTS and ships by digital means. The focus of the work during the week was to clean up the overall GL, particular the purpose of the document, add explaining pictures, sorting the use-cases and creating an annex for the use cases.

During the week two break-out sessions together with WG2, TG2.5.2 *Develop Technical Service Specifications for VTS* was arranged. The relationship between TG2.5.2 and TG1.3.1 can be described as both technical service specifications and product specifications for VTS need to be derived from a set of detailed use-cases describing the different situations in which data is being exchanged between VTS and other systems/stakeholders. These use-cases should/cannot be developed by any of these task groups alone - so this work had to be conducted by these groups jointly. With this input and TG2.8.1 will be able to specify the technical services and product specifications respectively.

The TG also went through the input paper *VTS56-8.3.1 Proposal to modify the Draft guideline on VTS Digital communications* submitted by China MSA. A few actions were decided as a reaction on the input.

1. China MSA was asked to provide a short description of the new proposed operational service “*Scheduling and Allocation Service*” and also elaborate a use-case using the already finalised use case on “*Traffic clearance service*” and “*Route exchange service*” described in the Annex to the GL as a template.

This is to be included in the GL and its annex 2.4 and 2.4.1 during VTS57.

2. China MSA was asked to provide input to TG 2.8.1 in regards of the adjacent technical service specifications and product specifications necessary for the proposed operational task *“Scheduling and Allocation Service”*.
3. The proposed service may have similarities or could be the same as proposed *“Slot allocation service”* possible differences between the services should be elaborated and if none the services should be merged to one.

Some of the technical services will be used in conjunction and together create an operational service or one technical service will be the same for different operational services. How the orchestration of the usage of these services should be done have to be described and it was decided that a separate task led by TG 2.8.1 but be done in close cooperation with the operational WG. [Task register 2.5.2 c Coordination of combined use of VTS Technical Services (Orchestration)]

The task group also provided input in accordance with the Liaison letter *“VTS56-9.1.3 Liaison letter from IEC TC80-WG17 on the revision of the Route Plan (S-421, IEC 63173-1) and its exchange”* by providing use case on route exchange and traffic clearance service to the input for IEC that will be put forward to IALA council by WG2.

The group contributed to the upcoming task to create a roadmap on development and implementation of VTS S-200 Technical Services, Product Specifications and training which will be coordinated by WG2. It also contributed to update the ARM Roadmap (not a new task as we have an input paper to VTS56). Liaison Note to ARM to be completed at VTS56 providing very rough roadmap coordinated by WG2.

The group was also tasked with looking into the new task 1.8.6 Harmonization of VTS data elements (internal and external integration). The group decided to postpone the task due to current workload and limited information about the task.

The Secretariat will provide more information regarding the task in the task register such as objective and list of datasets concerning IHO and IALA VTS. However, the task is important and probably also need the input from WG2 and maybe knowledge of data element structures.

The task group is planning an intersessional meeting 15th – 16th January 2025 in Rotterdam, the Netherlands to focus on use case for operational service *“VTS information service”*.

If there is interest of participate on this meeting contact Remi Hoeve, remi.hoeve@rws.nl no later than the 20th of December 2024. Participation from TG 2.8.1 are especially welcome.

Action item(s):

The Secretariat is requested to forward the WP draft guideline on VTS Digital Communications (VTS56-12.5.1.4) as a working paper to VTS57 for further development.

*Committee participants are invited to join the intersessional meeting in Rotterdam, the Netherlands at 15 – 16 January focusing on use case for operational service *“VTS information service”*. Committee participants are invited to express their interest to Remi Hoeve remi.hoeve@rws.nl no later than the 20th of December 2024.*

8.5 Task 1.3.2 Revision of IMO Resolution A.918(22) IMO Standard Marine Communication Phrases (prepare note to IMO in time)

Task group leader: Heidi Clevett

The task to revise IMO Resolution A.918(22) on SMCP was completed by the committee at VTS55 through a final review of a revision document providing proposed updates and comments to the resolution to reflect changes in IMO Resolution A.1158(32) and IALA guideline G1132. This ensured that the committee is prepared for a future revision of the SMCP resolution at the IMO.

It is the Committees understanding that the IMO is not expected to revise the SMCP resolution until earliest NCSR13 in 2026.

Action item(s):

The Secretariat is requested to keep WP 'A.918-22-SMCP-original_New Draft' (VTS56-12.5.1.5) as a working paper for a future session of the committee.

Committee participants are invited to review the WP draft revision document regarding IMO Resolution A.918(22) (VTS56-12.5.1.5) and submit comments and remarks to Heidi Clevett (heidi.clevett@mcqa.gov.uk) by VTS57.

8.6 Task 1.8.4 Develop a guideline on quality management system for VTS

Task group leader: Trond Ski

The following input papers were considered:

- VTS56 8.2.1 Input Paper – Output from TG1.8.4 – Quality Management
- VTS56 8.2.1.1 Draft-RO132 Quality Management for Aids to Navigation Authorities
- VTS56 8.2.1.2 Draft Guideline on Quality Management Practices for VTS Providers

The task to develop a draft guideline on QMS was progressed at VTS56 to better aligned the draft guideline with the quality management standards of ISO 9001. Furthermore, textual inputs kindly provided by WG3 were implemented and minor editorial amendments were made. The purpose of the guideline is to provide a framework for VTS providers to implement quality management practices consistent with the International Organization of Standardization (ISO).

The VTS Committee have been liaising with the ARM Committee regarding the development of a guideline on QMS for VTS and have thus by been requested by the ARM Committee to provide draft amendments to recommendation R0132 on QM for MatoN Authorities with the purpose to better align and reference this recommendation to the new guideline.

The revised draft recommendation is provided as an output paper accompanied by a liaison note requesting the ARM committee to note the completion of the task to develop a guideline on QMS for VTS, and further consider the proposed amendments to the draft R0132.

Action item(s):

The Secretariat is requested to forward liaison note (VTS56-12.2.1) to the ARM committee for their consideration accompanied by the draft R0132 on QM for MatoN Authorities (VTS56-12.2.1.1).

The Secretariat is requested to forward the draft guideline on QMS for VTS (VTS56-12.2.2) to Council for approval.

8.7 Task 1.9.1 Consider relevant VTS documents to be revised/updated

Under this task the following input papers were considered:

- VTS56-7.2.1 Real-time Vessel Monitoring in Coastal Waters and the EEZ
- VTS56-8.7.1 Proposal for the revision of guideline related natural disaster
- VTS56-8.7.2 Input paper – Maintaining up-to-date ENC's

Input paper VTS56-7.2.1 from MCA UK and The Netherlands raised issues on real time monitoring of vessels when outside of a VTS. It was agreed to set down a task group under task 1.9.1 during VTS57 to consider necessary amendments to G1089 and G1141 regarding vessel monitoring in coastal waters.

Input paper VTS56-8.7.1 from Japan Coast Guard highlights the crucial role of VTS for maritime safety under the condition of severe natural disaster such as earthquakes, tsunamis, or extreme weather. The paper proposes a revision to G1120 on Disaster Recovery regarding the first response after a disaster. Since G1120 is not a document of the VTS committee, this proposal was not considered. A proposal to revise G1141 on Operational Procedures for Delivering VTS was considered and the Committee provided some minor amendments to G1141 based on the input paper from Japan Coast Guard.

Input paper VTS56 8.7.2 from AMSA and the Australian Hydrographic Office proposed amendments with regards to keeping ENCs up-to-date and consistent with those used on board ships.

The Committee agreed to adopt this into Task 1.9.1 and consider relevant VTS documents to be revised/updated, and in particular:

- *G1141 Operational Procedures for Delivering VTS.*
- *G1111-1 Producing Requirements for the Core VTS system.*

The committee made some minor amendments to G1141. The WP draft revised G1141 will be forwarded to VTS57 for further development.

Action item(s):

The Secretariat is requested to forward the WP draft G1141 (VTS56- 12.5.1.6) as a working paper to VTS57 for further development.

8.8 Task 1.9.3 Conduct of the Global VTS Questionnaire

At VTS54 the Secretariat asked the VTS Committee to revise the questions in the VTS Questionnaire to be included in the new online digital solution for an IALA questionnaire. The reason for the request was the fact that the questions were outdated as the survey of the global VTS questionnaire in 2016 was done when the old IMO resolution A.857(20) was in force. The questions thus needed to be updated to be align with IMO resolution A.1158(32).

At VTS56 the Committee further reviewed and updated the questionnaire. A web solution for the management of the questionnaire is under development in collaboration with KRISO. In that regard the Committee is planning to conduct intersessional work to align the questionnaire to such a web solution.

Action item(s):

Committee participants are invited to join the intersessional task group (Virtual meetings) working on the further development of the VTS Questionnaire and to express their interest to Trond Ski (trond.ski@kystverket.no) by 30 October 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

8.9 Task 1.9.4 Proceed with the “living document” on “Future VTS”, including emerging technologies and Human Element

Task group leader: Neil Trainor

The “Future VTS” document provides a basis for discussion within the Committee on emerging trends, technologies and practices that have implications for VTS and to strategically plan and coordinate embracing the change associated with these to improve the safety and efficiency of navigation, contribute to the safety of life at sea and support protection of the marine environment.

Emerging trends, technologies and practices considered in the Discussion Paper include:

- *Maritime Autonomous Surface Ships (MASS)*

- *Digital technologies and communications*
- *Green House Gas Emissions / Just in Time Arrival*
- *Advanced Decision Support Services*
- *Automated Data and Information Exchange*
- *Navigational Support / Assistance*
- *Sea Traffic Management*
- *Marine Spatial Planning*
- *Interacting Objects*
- *Digital situational awareness / Common Situational awareness*
- *Slot Management*
- *New sensing technology for nearshore and port waters*
- *Long-distance sensing technology*

With completion of the Guideline on VTS Interaction with a Mix of Conventional and Autonomous Ships the Task Group was tasked with updating *Section 4.3.1 Maritime Autonomous Surface Ships (MASS)* of the Discussion Paper.

Action item(s):

The Secretariat is requested to forward the WP revised Discussion Paper on future VTS (VTS56-12.5.1.7) as a working paper to VTS57 for further development.

9. WORKING GROUP 2 – TECHNOLOGY (WG2)

The Chair, Richard Aase and Vice-chair Rob Townsend, held an initial plenary session for the 29 participants of the Technology Working Group (WG2) and this was followed by a final plenary during the course of VTS56 to monitor progress and agree outputs and any working papers for VTS57.

The Technology Working Group (WG2) welcomed new members at VTS56.

The Technology Working Group has 10 formal tasks assigned in the current 2023 – 2027 Work Period. WG2 had 12 input papers and 8 working papers during VTS56

There are 7 output papers comprising five liaison notes. Additionally there are 9 working papers to take into VTS57.

During VTS56 WG2 worked on the following tasks:

Task 2.5.2 Develop Technical Service Specifications for VTS. Task Leaders – Wim Smets and Juho. S-212

Task 2.8.1 Develop a Product Specification S-212 on VTS Digital Information. Task Leaders Wim Smets and Juho Pitkänen.

Task 2.8.2 Review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service Task Leader Rene Hogendoorn S-210.

Task 2.6.1 Consider updating G1111-1 to include guidance on VTS Management Information Systems.

9.1 Tasks 2.5.2 and 2.8.1 are being worked on jointly and are thus summarised together below:

These tasks have been carried over from the previous work period and has a new number allocated. Whilst we acknowledge this has been a long term task (commenced VTS45), as it is complex we see this task running for a number of years. Our plan is to be in a position to publish editions at suitable intervals.

During VTS56 the groups jointly discussed the following key areas:

An updated version of the traffic clearance service specification and Service Design including the input paper from China MSA commenting on both subjects. All issues were resolved, and a new version 1.4 of the service specification and version 1.1 of the Service Design was made and these will both be output papers.

The service design (SECOM based) for route exchange was not progressed during VTS56. This will continue at VTS57 for further work.

In addition to the above, the Groups also spend considerable time with Task 2.5.2, working on use-cases for route exchange between vessel and VTS. Based on these discussions and use-cases, work continued on the technical service specification for VTS route exchange service. This specification will also be a working paper to be forwarded to VTS57.

It is proposed that one on line intersessional meeting and one face to face intersessional meeting is arranged before VTS57. The on line intersessional will be held 9th December 2024 from 11am to 1pm UTC. The face to face meeting will be held in Helsinki from 29th Jan 2025 at 9am EET and end on 30th Jan 2025 at 2pm EET. The aim is to complete the draft service specification for route exchange prior to VTS57.

Action item(s):

That the Secretariat forwards the liaison note on Maritime Resource Naming (MRN) circular (VTS56- 12.3.2) to the ARM Committee for their consideration

That the Secretariat forwards the liaison note on the digital interaction between VTS and ship (e.g. 2-way communication) (VTS56- 12.3.4) to Council for approval to be subsequently submitted to IHO.

That the Secretariat forward the liaison note on Revision of the Route Plan S-421 (IEC 63173-1) and its usage in VTS (VTS56-12.3.5) to Council for approval to be subsequently submitted to IEC.

That the Secretariat liaises with the IHO Secretariat on the GI Concept Registry using document VTS56-12.3.6.

That the Secretariat updates the IALA website on the latest version of S-212 Product Specification (version 0.7.3)

That the Secretariat considers setting up a GitHub for “xml” schemes related to S-200 product specifications

That the Secretariat forwards the Liaison note to ARM on draft IALA S-200 Roadmap (VTS56-12.3.3) for their consideration.

That the Secretariat notes output papers Service design for VTS traffic clearance service 1.1 (VTS56- 12.3.7) and Service specification for VTS traffic clearance service 1.4 (VTS56-12.3.8) and takes appropriate action.

That the Secretariat forwards the following working papers to VTS56: VTS Digital Information product specification V0.7.3 DRAFT Task 2.8.1 (VTS56-12.5.2.2); WP on the Architecture of the Digital Delivery of VTS Information (adjusted after liaison note from DTEC) (VTS56-12.5.2.3); Technical Service specification for VTS - vessel route exchange v0.2 (VTS56- 12.5.2.6); Service design for route exchange v0.1 (VTS56-12.5.2.10)

9.2 Task 2.6.1 Consider updating G1111-1 to include guidance on VTS Management Information Systems.

This task has been proposed by China MSA who provided an overview and presentation during VTS55 WG2 Plenary session. China MSA also provides a draft version as a blueprint for the discussion in VTS56. This task was completed during VTS56 under the leadership of Heidi Clevett from the Operational Working Group who worked with

members of the Technology Working Group however it will be sent to VTS57 as a working paper as a result of other requirements needing to be addressed such as redundancy, cyber security and Artificial Intelligence.

Action item(s):

That the Secretariat forward the WP revised G1111-1 (VTS56-12.5.2.1) to VTS57 as a working paper for further consideration.

9.3 Task 2.8.2 Review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service

Korea Coast Guard presented their recent test bed experience with data sharing. The associated input paper VTS55-9.3.2 was reviewed and discussed; also in relation with the draft VTS position paper on information exchange shore-to-shore. As a result, amendments were proposed to the Service Description and Data Dictionary to enable exchange of meta data about radar data, CCTV data, voyage data and weather data. It was understood that the sensor data itself would be distributed in the respective native format.

Work on the draft IVEF Technical Service Description was progressed.

Action item(s):

That the Secretariat forward the working papers listed below to VTS57: WP IVEF DD working copy v0.6 (VTS56-12.5.2.9); WP IVEF Technical Service Description, working copy v0.3 (VTS56-12.5.2.5) for further consideration.

9.4 Task 2.8.3 Develop guidance on the certification of technical equipment, information systems and technical infrastructure related to MASS in the domain of IALA

DTEC has the lead on this and VTS Committee awaits further information before we can progress.

9.5 Task 2.8.4 Develop guidance on cyber security for Marine AtoN

ARM has the lead on this task and VTS awaits further information before we can progress.

9.6 Task 2.8.5 Full review of A-126, G1084 and other AIS associated documentation

ARM has the lead on this Task and VTS Committee awaits further information before we can progress.

9.7 Task 2.8.6 Develop Recommendation and Guideline on the use of drones for AtoN inspection and Maintenance.

ARM has the lead on this Task and VTS Committee awaits further information before we can progress.

9.8 Task 2.9.1 Consider relevant VTS documents to be revised/updated

This task has not identified any other documents to revise or update at this session.

9.9 Consideration of Input Papers not relating to a task

VTS56 7.2.2 Update Emerging Technology Review

The VTS Committee welcomes the paper from DTEC and although the action was to note the paper, a number of comments have been collated (see below) which we consider worth passing back to DTEC.

Action item(s):

That the Secretariat forward the Liaison note to DTEC on the Emerging Technologies Review Paper (VTS56-12.3.1) for their consideration.

10. WORKING GROUP 3 – VTS PERSONNEL AND TRAINING (WG3)

The Chair of the Working Group 3 thanked all participants for their hard work during VTS56.

During VTS56 the working group met in a hybrid meeting environment and focused on the following items:

- Task 3.1.1 – Develop guidance for dealing with stress or trauma in VTS operations
- Task 3.4.1 – Develop guidance on aptitudes required by VTS Operators
- Task 3.8.2 – Develop guidance on remote training in VTS
- Task 3.8.6 – Revision of G1027 on Simulation in VTS Training
- Task 3.8.7 – Revision of IALA Model Courses. Worked focused on:
 - 3.8.7c – Revision of C0103-5 (V-103/5) The Revalidation Process for VTS Qualification and Certification (commenced at VTS56)
- Task 3.8.8 - English Language competency requirements in VTS operations
- Task 3.9.1 – Consider relevant VTS documents to be revised/updated
- Additional items as identified during the meeting

All input papers identified for WG3 were addressed.

A number of intersessional sessions are planned to progress the work on tasks, as identified in the body of the report. While the dates and times of the intersessional meetings will be provided on the IALA Dashboard, a table of intersessional sessions was also prepared. This will be maintained on the IALA File Share under VTS WG3 Intersessional Meetings.

10.1 Task 3.1.1 - Develop guidance for dealing with stress or trauma in VTS operations

Task Leader: N Supian / J Lundsten

It was noted that, due to new responsibilities, Nisham Supian will be unable to dedicate the time and effort needed to continue leading this task group. After careful consideration the Working Group agreed to appoint Jockum Lundsten from Fintraffic as Task Leader.

The Working Group noted the input papers:

VTS56-	10.4.1	Input Paper - Fintraffic - Guidance for dealing with stress or trauma in VTS operations	Fintraffic
VTS56-	10.4.2	Proposal to Develop Guidance for Dealing with Stress or Trauma in VTS Operations	China MSA
VTS56-	10.4.4	Task 3.1.1 - Pilotproject psychosociale gezondheid VTS operatoren	Port of Antwerp-Bruges (PoAB)

Input papers were presented by Jockum Lundsten (Fintraffic), Mattias Vercammen (PoAB) and Liu Wei (China MSA). Copies of the presentations provided were placed in the WG3 area of the IALA fileshare.

Fintraffic provided insights in their broad experience in dealing with stress factors and symptom recognition, stress recovery and debriefings. Key areas for discussion were addressed to be included in the guidance.

Port of Antwerp-Bruges (PoAB) has carried out extensive research on the psychosocial health of their VTS operators. It measured and evaluated the impact of high vessel traffic volumes on the mental energy and

psychosocial health of VTS operators. The results led to strategic adjustments in workforce deployment and psychosocial health management.

China MSA presented their questionnaire template and the results from it. The questionnaire was sent to their employees, current VTS operators.

The following points were highlighted in discussion:

- The benefit of analysis and data within the review. This included a discussion on the possibility to adapt the questionnaire that China MSA presented/develop a questionnaire that could assess the status / level of stress in VTS centres.
- The focus and possible structure for the draft guideline, noting with thanks the input provided by China MSA.
- The content to be included in the draft guideline

These points will be further discussed during intersessional work and provided to VTS57.

The intersessional meetings will be held online, using the VTS WG3 Plenary room:

- Wednesday 23rd of October 2024 – 1000-1130 UTC
- Tuesday 7th January 2025 – 1000-1130 UTC

Action item(s):

The Committee participants interested in participating in Task 3.1.1 - guidance for dealing with stress and trauma in VTS are invited to contact J Lundsten (jockum.lundsten@fintraffic.fi) by the 13th of October 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee dashboard and on the table of intersessional meetings on the IALA fileshare, VTS WG3 Intersessional Meetings.

10.2 Task 3.4.1 - Guidance on aptitudes required for VTS Operators

Task Leader: K Glew

The Working Group noted the input paper:

VT556-	10.4.3	Input on the ITG for developing guidance on aptitudes required by VTS Operators	CCG
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Work on the development of a guideline on aptitudes that are demonstrated by effective VTS operators and the use of aptitude and / or psychometric testing in the recruitment process continued during VTS56. Further discussions refined a list of previously identified aptitudes and behaviours that are considered beneficial in aspects of VTS training and in the role of a VTS operator. A questionnaire (VTS56-12.4.1) has been developed to solicit input from VTS Operators and VTS Providers on the importance of those aptitudes and behaviours. The results of this questionnaire will be important for the development of the guideline.

It was agreed that the work would continue during intersessional on-line meetings, which will be advertised on the IALA dashboard. The outcomes of the intersessional meetings will be submitted for further consideration at VTS57.

The intersessional meetings will be held online, using the VTS WG3 Plenary room:

- Wednesday, November 13, 2024 – 1000-1130UTC
- Wednesday, January 22, 2025 – 1000-1130 UTC

Action item(s):

The Secretariat is requested to format the questionnaire on aptitudes and behaviours for VTS Personnel in a suitable platform for distribution (VTS56-12.4.1).

Committee participants of the IALA VTS Committee are asked to distribute the questionnaire on aptitudes and behaviours for VTS Personnel to VTS Providers and VTS Operators for completion by 17 February, 2025.

The Committee participants interested in participating in Task 3.4.1 are invited to contact K Glew (Kelly.Glew@DFO-MPO.GC.CA) by the 11th of November 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard and on the table of intersessional meetings on the IALA fileshare, VTS WG3 Intersessional Meetings.

10.3 Task 3.8.2 - Develop a Guideline for Remote training in VTS

Task Leader: J Carson-Jackson

The Working Group noted the input papers

VT556-	10.1.1	Input task 3.8.2 Draft G-Remote Train VTS	Chair WG3
VT556-	10.1.1.1	Draft Guideline Remote Training in VTS	Chair WG3

Building on the work carried out at VT555 and the input paper provided following the intersessional meeting, the draft guideline on remote training in VTS was reviewed in detail. The working document (VT556- 12.5.3.1) will be forwarded to VT557.

The draft guideline will be further discussed during intersessional work and provided to VT557.

The intersessional meetings will be held online, using the VTS WG3 Plenary room:

- Wednesday 4th of December 2024 – 1000-1130 UTC

Action item(s):

The Secretariat is requested to forward the draft guideline on Remote Training in VTS (VT556- 12.5.3.1) for VT557 for further development.

The Committee participants interested in participating in Task 3.8.2 - guidance on Remote Training in VTS are invited to contact J Carson-Jackson (jillian@jcjconsulting.net) by the 27 November 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard and on the table of intersessional meetings on the IALA fileshare, VTS WG3 Intersessional Meetings.

10.4 Task 3.8.6 Revision of G1027 on Simulation on VTS training

Task Leader: S Priem

The Working Group noted the input papers

VT556-	10.1.2	Input paper on task 3.8.6 Revision of G1027 Simulation in VTS training	Vice-chair WG3
VT556-	10.1.2.1	Draft Revision G1027 Simulation in VTS Training	Vice-chair WG3

A summary of the work carried out between VT555 and VT556 was presented. The Working Group discussed the links with the revised IALA model courses, the functional and technical requirements of simulation, the implementation of annexes to the Guideline and the challenges of simulation in VTS training. The Working Group

agreed on the document structure, the use and benefits of simulation, and the different types of simulation techniques. The working document VTS56-12.5.3.2 will be forwarded to VTS57.

It was agreed that the work would proceed during intersessional on-line meetings and the outcomes of the intersessional work will be submitted for further consideration at VTS57.

The intersessional meetings will be held online, using the VTS WG3 Plenary room, on:

- Wednesday 20 November 2024 – 1000-1130 UTC
- Wednesday 11 December 2024 – 1000-1130 UTC
- Wednesday 15 January 2024 – 1000-1130 UTC

Action item(s):

The Secretariat is requested for forward the WP draft revised guideline on Simulation in VTS Training (VTS56-12.5.3.2) for VTS57 for further development.

The Committee participants are invited to join the intersessional task group working on the revision of G1027 of Simulation Training in VTS and to express their interest to S Priem (stefaan.priem@mow.vlaanderen.be) by 17 October 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard and on the table of intersessional meetings on the IALA fileshare, VTS WG3 Intersessional Meetings.

10.5 Task 3.8.7c - Revision of IALA VTS Model Courses (C0103-5)

Task Leader: J Carson-Jackson

The Working Group noted the input paper

VTS56-	10.1.3	Input task 3.8.7c-Revision C0103-5	Chair WG3
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The review of C0103-5 noted the different approaches taken for ensuring competence is maintained by VTS Personnel, noting the terminology included in IMO Res. A.1158(32):

8 QUALIFICATIONS AND TRAINING

8.1 A major factor in the operation of VTS is the competence of their personnel.

8.2 VTS personnel should only be considered competent when appropriately trained and qualified for their VTS duties. This includes:

- .1 satisfactorily completing generic VTS training approved by a competent authority;
- .2 satisfactorily completing on-the-job training at the VTS where the personnel are employed;
- .3 undergoing periodic assessments and revalidation training to ensure competence is maintained; and
- .4 being in possession of appropriate certification.

It was noted that the current C0103-5 focuses on recurrent training based on C0103-1 only, however the terminology in the IMO Resolution reflects the need to be trained and qualified for their VTS duties, which would include Supervisor (C0103-2) and OJT Instructor (C0103-4).

Discussion summary:

Agreed – keep a model course, focus on recurrent training, review and amend process for revalidation in G1156.

Guiding principles for the review:

- Use existing C0103-5 as basis for review
- Clearly identify process for ensuring competence (note terminology in the IMO Resolution)
- Ensure the approach for revalidation remains flexible while reflecting the updated model course format/competence level required
- Add in clear guidance on adaptation and updating training

It was agreed that the work would proceed during intersessional on-line meetings and the outcomes of the intersessional work will be submitted for further consideration at VTS57. Based on the scope of discussion, it was noted that the anticipated completion date for the review will now be VTS58.

The proposed dates for the intersessional meetings to review C0103-5 will be:

- Tuesday 5 November 2024 – 1000-1130 UTC
- Wednesday 8 January 2025 – 1000-1130 UTC

Action item(s):

The Committee participants are invited to join the intersessional task group working on the revision of IALA Model Course C0103-5 and to express their interest to J Carson-Jackson (jillian@jcjconsulting.net) by 27 October 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard and on the table of intersessional meetings on the IALA fileshare, VTS WG3 Intersessional Meetings.

10.6 Task 3.8.8 English Language Competency requirements in VTS operations

Task Leader: S Choi

The Working Group noted the input papers:

VTS56-	10.2.1	Input Paper - TASK 3.8.8 VTS Comms Competency Test	KCG and others
VTS56-	10.2.1.1	Draft Guideline VTS Comms Competency Testing (13 Aug)	KCG and others

The Working Group, following the review of VTS55 and feedback received in various intersessional discussions, has completed a comprehensive analysis of the VTS English Language Competency Test framework based on VTS56-10.2.1. This task continues to focus on refining and advancing the test design, along with the qualifications of testing developers and assessors, guided by best practices from linguistic standards and VTS-related communication requirements.

Through extensive collaboration, the group has made several advancements in the structure and content of the competency testing guidelines. During the session multiple areas of the document were reviewed and updated. This included restructuring the first half of the document, noting the

Consensus Reached:

The following points were reached through mutual consensus and were agreed upon, noting the competency levels identified in the draft guideline:

- A qualified VTS operator should achieve at least a Level 4 rating on the competency scale to be considered proficient in VTS communications.

- A VTS English trainer should hold a Level 5 or higher rating, and the establishment of clear criteria for this requirement will need to be further explored. Additionally, once the testing system is fully established, further consideration needs to be given to including supervisors in this framework, likely in the next revision.
- Guidelines for English instructors are essential to ensure consistency and clarity in the training of VTS Communications. Without such guidelines, there is potential for confusion, which highlights the need for a guideline to train/teach in the use of standard messaging structure and VTS phraseology as a priority for future WG 3 tasks.
- Descriptions in the rating scale should be carefully reviewed to ensure they use constructive language in a positive tone that fosters the growth and development of trainees, rather than focusing on negative terms.

The Korean Coast Guard presented their ongoing contribution of analyzing communication data from three major ports, including Busan and Incheon, using AI to develop realistic VTS test scenarios. This work will be submitted as an input paper at VTS57, hoping to contribute at the IALA level through collaborative research with other IALA members.

It was agreed to continue the work for this task during intersessional meetings.

The intersessional meetings will be held online, using the VTS WG3 Plenary room, on:

- Wednesday, October 30, 2024 – UTC 0900-1100

Action Items:

Committee participants interested in participating in Task 3.8.8 – VTS English Communication Competency Testing and the VTS English research conducted by the Korean Coast Guard are invited to contact S Choi (seunghye.choi.1017@googlemail.com) by October 11, 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard and on the table of intersessional meetings on the IALA fileshare, VTS WG3 Intersessional Meetings.

10.7 Task 3.9.1 – Consider relevant VTS documents to be revised/updated

The Working Group carried out a systematic review of all IALA documents related to VTS Training, including those documents that are critical to the training for VTS Personnel.

The review noted the following:

- IALA R O-149 (Ed 1.1) – Accreditation of Training Organisations has not been updated for some time and would benefit from a detailed review and updating to the IALA documentation naming structure for Recommendations. This document resides within the ARM Committee.
- IALA R1012 (Ed 1.1) – VTS Communication and IALA Guideline G1132 (Ed 2.2) – While not specific to WG3, it was noted that these documents will require review as the work on the Guideline on VTS English Competency Testing nears completion.
- Both IALA Guidelines G1027 and G1103 are currently being reviewed.
- IALA G1142 (Ed 1.1) – While not specific to WG3, this guideline is used within the training programs. It was noted that there is some confusion when reviewing the guideline. Related to discussion on LPS and clarity the input paper VTS56-7.2.1 was referred. WG3 had previously developed a draft proposal for the review of G1142. It may be appropriate to consider the revision of G1142 as a future work item within the VTS Committee.

- IALA G1045 (Ed 1.2) – Staffing level at VTS Centres – Based on presentations provided under Task 3.1.1 and the publication of G1171 on Human Factors and Ergonomics, it is felt that this guideline requires review and update and should be considered for review and revision.
- IALA G1118 (Ed 1.1) – Marine Casualty / Incident reporting and recording, including near miss situations – While not directly related to WG3, this document is used within the training programs. Based on the age of the document, the link to external documents and the references to the IALA VTS Model courses, as well as the publication of the IALA Guideline on Safety Culture in VTS (G1176) it was felt that this document should be considered for review and revision.

Action item(s):

Committee members are asked to consider the results of the review of IALA VTS Training related documentation as carried out by WG3 at VTS56 under Task 3.9.1.

10.8 Review of work programme / tasks to be commenced and continued at VTS57

As part of the ongoing activity to monitor and update the work programme, the following documents were reviewed:

VT556-	6.1.1	Draft Task Plan 2023-2027	VT5 CMT
VT556-	6.1.2	VTS Task Register 2023-2027	VT5 CMT

A detailed review of the work programme, task list and task register was completed. The revisions were provided to the IALA VTS CMT for consideration.

Items to be commenced and continued at VTS 57 were noted.

10.8.1 Task 3.8.1 – Revision of G1103 –Train the Trainer

Task to commence at VTS 57 (Task Leader: J Carson-Jackson)

It was noted that there are existing IMO Model Courses on Train the Trainer and Train the Simulator Trainer and Assessor. Many Working Group members highlighted the need for nationally identified qualifications, which may or may not be required by VTS Training Providers.

It was agreed that further input regarding the application of the existing G1103 should be sought before proceeding further with this task. This includes seeking confirmation from the Committee if the guideline is in use, or if other train-the-trainer approaches are used. Once input is received the Working Group will consider the next steps in the revision of this document.

Action item(s):

The Committee participants are invited to provide comments and input regarding IALA G1103 on Train the Trainer to VTS57, noting this task will commence at VTS57.

10.9 Additional Document Review

During the meeting the Working Group reviewed additional documents as identified by the Chair and Vice-Chair of the Committee for review by all working groups. This included

- VTS56-7.2.1 – Real-time Vessel Monitoring in Coastal Waters and the EEZ
- VTS56-7.2.2 – Liaison note to ARM, ENG, VTS on Tech Review Summary Table (DTEC2-12.2.2.2)
- VTS56-8.2.1.2 – Draft guideline on quality management practices for VTS providers

Comments based on the review were provided to the appropriate WG within the Committee or noted within the text of this report.

11. ANY OTHER BUSINESS

25 years of Jens Christian Pedersen at IALA

At the Monday evening soiree the VTS Committee came together to recognize and raise a glass to Jens Christian Pedersen and TERMA who celebrated 25 years of contributing to IALA. The Secretary-General, VTS Chair and all participants congratulated him on such a significant achievement.

Workshop on VTS Competent Authorities

Barbara Magro, Italian Coast Guard, provided an update on the Workshop on VTS Competent Authorities, which will take place from 20 to 24 January 2025 in Rome, Italy, at the Roma Eventi, Piazza di Spagna. The purpose of the workshop is to facilitate discussion and active engagement among participants to identify key areas for developing guidance aimed at helping competent authorities establish appropriate policies and regulatory frameworks. These frameworks are essential to ensuring both the authorities and VTS providers can meet their respective obligations.

During the workshop, participants will work to identify gaps in existing documentation, particularly concerning the role of competent authorities. The event will also provide a valuable opportunity to broaden participation and engagement in the process of preparing guidance.

12. SUMMARY OF OUTPUT AND WORKING PAPERS

The Working Group Chairs reported on the work carried out by their Working Groups.

Outputs from VTS56 were approved by the Committee using the approval procedure. The output documents and working papers are listed in Annex D.

13. REVIEW OF SESSION REPORT

The draft report of the meeting (VTS56-13.1) was approved by the Committee at the Closing Plenary.

14. DATE AND VENUE OF NEXT MEETINGS

VTS57 is planned to be held between 17 – 27 March 2025 at IALA Headquarters, Saint Germain-en-Laye, France.

Other IALA events will be publicised on the IALA website.

15. CLOSING OF THE MEETING

The Vice-chair thanked all Committee participants again for all the engagement and hard work. He hoped that all the participants would return again to VTS57.

He also hoped that everyone could take the IALA survey that is sent out after every Committee meeting in order to receive feedback for continuous improvements.

Secretary-General, Francis Zachariae, thanked all participants for their work especially as he is aware that all have their jobs back at home to work on also.

Finally, the Chair asked if there were any final comments that participants wished to make; there were none.

16. LIST OF ANNEXES

A. Agenda

A copy of the agenda is at Annex A.

- B. Participants list
A list of participants is at Annex B.
- C. Input Papers
A list of input papers is at Annex C.
- D. Output and Working papers
A list of output and working papers is at Annex D.
- E. Action Items
A list of action items is at Annex E.
- F. Working Group Participants Lists
Lists of working group participants is at Annex F



56th Meeting of the Vessel Traffic Services Committee (VTS56)

The physical week of the 56th session of the VTS Committee will take place on the 23 – 27 September 2024 at the IALA HQ, Saint Germain-en-Laye, France. Please note that the Opening Plenary will be held virtually on Friday 20 September starting at 11:00 UTC. The Closing Plenary will be held online on Thursday 3 October 2024 starting at 11:00 UTC.

Agenda

- | | | |
|--------|---|--------------|
| 1. | Introduction | VTS Chair |
| 1.1. | Welcome from the Secretary-General | |
| 1.2. | Approval of agenda | |
| 1.3. | Apologies | |
| 1.4. | Working arrangements | |
| 2. | Review of action items | |
| 3. | Reports from other bodies | Minsu Jeon |
| 3.1. | IALA | |
| 3.1.1. | IALA Council | |
| 3.1.2. | IALA Policy Advisory Panel (PAP) | |
| 3.2. | IMO | |
| 3.3. | IHO | |
| 3.4. | ITU | |
| 4. | Reports from rapporteurs | |
| 4.1. | MASS related to VTS | Neil Trainor |
| 5. | Presentations | |
| 5.1. | Demonstration of S-100 using SECOM and the new Guideline on provision of MCP identities | |
| 5.2. | IALA World Wide Academy Update | WWA |
| 6. | Work programme management | |
| 6.1. | Work Programme, Task Plan, Task Register | |
| 6.2. | Action plan for VTS56 | |
| 7. | Review of input papers | |
| 7.1. | Input papers | |
| 7.2. | Input papers not related to an existing task | |
| 8. | Establish WG1 - Operations | |
| 8.1. | VTS implementation | |

- 8.2. VTS operations
- 8.3. VTS communications
- 8.4. VTS auditing and assessing
- 8.5. VTS Manual updates
- 8.6. VTS Questionnaire
- 8.7. Additional tasks/work
- 9. Establish WG2 - Technology
 - 9.1. VTS data and information management
 - 9.2. VTS technology
 - 9.3. Data models and data encoding
 - 9.4. Additional tasks/work
- 10. Establish WG3 - VTS training
 - 10.1. Training and assessment
 - 10.2. Accreditation, competency, certification and revalidation
 - 10.3. Capacity building
 - 10.4. Additional tasks/work
- 11. Any other business
- 12. Summary of output and working papers
 - 12.1. Committee wide
 - 12.2. WG1 output
 - 12.3. WG2 output
 - 12.4. WG3 output
 - 12.5. Working papers
- 13. Review of session report
- 14. Date and venue of next meeting
- 15. Close of the meeting

ANNEX B

LIST OF PARTICIPANTS

First name	Last name	Organisation	Member type	Member Country
Gustavo	Gallias	Prefectura Naval Argentina	Affiliate	Argentina
Lorena	Garcia	Prefectura Naval Argentina	Affiliate	Argentina
Cinthyia Romina	Famoso	Prefectura Naval Argentina	Affiliate	Argentina
Ana	Micheloud	Prefectura Naval Argentina	Affiliate	Argentina
Jesus Alfredo	Zappa	Prefectura Naval Argentina	Affiliate	Argentina
Kerrie	Abercrombie	Australian Maritime Safety Authority	Associate (IGO)	Australia
Jillian	Carson-Jackson	Nautical Institute	Sister Organisations	Australia
Els	Bogaert	Shipping And Assistance Division	Member State	Belgium
Stefaan	Priem	Agency For Maritime Services And Coast	Member State	Belgium
Wim	Smets	Agency For Maritime Services And Coast	Member State	Belgium
Mattias	Vercammen	Port Of Antwerp Bruges	Affiliate	Belgium
Kevin	Vervoort	Port Of Antwerp Bruges	Affiliate	Belgium
Antonio	Oliveira	Marinha Do Brasil	Member State	Brazil
Alain Serge	Mbene Koah	Port Authority Of Kribi	Affiliate	Cameroon
Kelly	Glew	Canadian Coast Guard	Member State	Canada
Henry	Arriagada	Armada De Chile	Associate (IGO)	Chile
Oliver	Spichiger	Armada De Chile	Associate (IGO)	Chile
Rucun	Jia	CHINA MSA	Member State	China
Junkai	Liu	China MSA	Member State	China
Liu	Wei	China MSA	Member State	China
Chun Wun	Tsang	Marine Department Hksar, Hong Kong, China	Associate (IGO)	China
Dennis	Wong	Marine Department Hksar, Hong Kong, China	Associate (IGO)	China
XueTao	Sun	CSSC PRIDE	Affiliate Industrial	China
Chi	Tian	CSSC PRIDE	Affiliate Industrial	China
Congbo	Yi	CSSC PRIDE	Affiliate Industrial	China
Pedro	Duarte	Compañía Internacional De Integración Ci2 S.a	Affiliate Industrial	Colombia
Victor	Radicchio	Compañía Internacional de Integración Ci2 S.A	Affiliate Industrial	Colombia
Lina	Rodriguez Palacios	Compañía Internacional de Integración Ci2 S.A	Affiliate Industrial	Colombia
Jakob	Bang	Danish Maritime Authority	Member State	Denmark
Michael	Strandberg	Danish Maritime Authority	Member State	Denmark
Michael	Magaard Hansen	Svendborg International Maritime Academy – Simac	Associate	Denmark
Dorte	Hansen	Defence Command Denmark Naval Staff	Affiliate	Denmark
Thomas	Jeppesen	Terma AS	Affiliate Industrial	Denmark
Jens Chr.	Pedersen	Terma AS	Affiliate Industrial	Denmark
Jyri	Ehandi	Estonian Transport Administration	Associate (IGO)	Estonia
Are	Piel	Estonian Transport Administration	Associate (IGO)	Estonia
Toni	Sobott	Finnish Transport Infrastructure Agency	Member State	Finland

First name	Last name	Organisation	Member type	Member Country
Matti	Latvalahti	Finnish Transport And Communications Agency	Associate	Finland
Mika	Halttunen	Fintraffic Vessel Traffic Services	Affiliate	Finland
Esa	Kallio	Fintraffic Vessel Traffic Services	Affiliate	Finland
Sirpa	Kannos	Fintraffic Vessel Traffic Services	Affiliate	Finland
Maiju	Kaski	Fintraffic Vessel Traffic Services	Affiliate	Finland
Jockum	Lundsten	Fintraffic Vessel Traffic Services	Affiliate	Finland
Ramin	Mirafatabi	Fintraffic Vessel Traffic Services	Affiliate	Finland
Juho	Pitkanen	Fintraffic Vessel Traffic Services	Affiliate	Finland
Pierre	Mingot	Cerema	Affiliate	France
Dirk	Eckhoff	Federal Waterways And Shipping Agency	Member State	Germany
Jörg	Kuchta	Federal Waterways And Shipping Administration	Member State	Germany
Lukas	Kussel	Federal Waterways and Shipping Administration	Member State	Germany
Gero	Diezls	In-innovative Navigation Gmbh	Industrial	Germany
Frébory	Dioubate	Agence De Navigation Maritime	Associate (IGO)	Guinea
Budi	Mantoro	Directorate of Navigation	Associate (IGO)	Indonesia
Fathan	Muta Ali	Ministry of Transportation Indonesia	Associate (IGO)	Indonesia
Arthur	Nendisa	Directorate of Navigation	Associate (IGO)	Indonesia
Revo	Rizki Aditiya	Directorate of Navigation	Associate (IGO)	Indonesia
Suyadi	Suyadi	Directorate of Navigation	Associate (IGO)	Indonesia
Cameron	Butchart	Wärtsilä Voyage Limited	Affiliate Industrial	Ireland
Dmitry	Rostopshin	Dinav Marine Oy	Observer	Ireland
Michele	Landi	Italian Coast Guard	Associate (IGO)	Italy
Barbara	Magro	Italian Coast Guard	Associate (IGO)	Italy
Fabio	Melis	Italian Coast Guard	Associate (IGO)	Italy
Gian Luca	Menabene	Italian Coast Guard	Associate (IGO)	Italy
Stasi	Nicola	Italian Coast Guard	Associate (IGO)	Italy
Domenico	Febbo	Elman S.r.l.	Affiliate Industrial	Italy
Pierluigi	Fiori	Elman S.r.l.	Affiliate Industrial	Italy
Mayumi	Arita	Japan Coast Guard	Member State	Japan
Takuya	Fukuda	Tokyo Keiki Inc. Maritime Traffic Systems Dept.	Affiliate Industrial	Japan
Yasuko	Nakai	Tst Corporation	Industrial	Japan
Seunghee	Choi	Ministry of Oceans and Fisheries	Member State	Korea, Rep. Of
Ryu	Jeongseon	Korea coast guard	Member State	Korea, Rep. Of
Nayoung	Kim	Korea Coast Guard	Member State	Korea, Rep. of
Sung Yong	Park	Korea Coast Guard	Member State	Korea, Rep. Of
Yumin	Kim	Gc Co. Ltd	Affiliate Industrial	Korea, Rep. Of
Younggeun	Lee	Gc Co. Ltd	Affiliate Industrial	Korea, Rep. Of

First name	Last name	Organisation	Member type	Member Country
Jaegoo	Shin	Gc Co. Ltd	Affiliate Industrial	Korea, Rep. Of
Mohd Farez	Bin Mohamad Mazlan	Light Dues Board Peninsular	Member State	Malaysia
Yasmin	Mohd Hasni	Light Dues Board Peninsular	Member State	Malaysia
Nurul Suhana	Sulaiman	Light Dues Board Peninsular	Member State	Malaysia
Bjorn	Cassar-Simmonds	Ports & Yachting Directorate	National	Malta
Said	Charri	Ministère Des Transports, De L'aviation Civile Et De La Marine Marchande	Associate (IGO)	Morocco
Driss	Kourima	Ministère Des Transports, De L'aviation Civile Et De La Marine Marchande	Associate (IGO)	Morocco
Kamal	Lakhmas	Tanger Med Port Authority	Observer	Morocco
Adil	Bouhifd	Institut Supérieur D'etudes Maritimes	Observer	Morocco
Maarten	Berrevoets	Ministry of Infrastructure and Water Management	Member State	Netherlands
Jan Remi	Hoeve	Ministry Of Infrastructure And Water Management	Member State	Netherlands
Milou	Aerts	Port Of Rotterdam Authority	Affiliate	Netherlands
Hans	Huisman	Marin	Affiliate	Netherlands
Martijn	Ebben	Port Of Rotterdam Authority	Affiliate	Netherlands
Andreas	Keller	Nvvo – Dutch Vts Training Foundation	Affiliate	Netherlands
Kevin	Van Drongelen	Port Of Rotterdam Authority	Affiliate	Netherlands
Hilbert	Van Omme	Dutch Pilots Corporation	Affiliate	Netherlands
René	Hogendoorn	Tidalis	Affiliate Industrial	Netherlands
Richard	Jonker	Tidalis	Affiliate Industrial	Netherlands
Richard	Aase	Norwegian Coastal Administration	Member State	Norway
Malin	Dreijer	Norwegian Coastal Administration	Member State	Norway
Knut	Hovda	Norwegian Coastal Administration	Member State	Norway
Trond	Ski	Norwegian Coastal Administration	Member State	Norway
Øystein	Jørgensen	Kongsberg Norcontrol As	Affiliate Industrial	Norway
Bjorn	Coster	Kongsberg Norcontrol As	Affiliate Industrial	Norway
Manuel	Maias	Portuguese Maritime Administration	Associate	Portugal
Mohammed	Al Dossari	Saudi Ports Authority	Member State	Saudi Arabia
Muhammad Kamal	Bin Ahmad	Maritime And Port Authority	Member State	Singapore
Henry	Sng	Maritime and Port Authority	Member State	Singapore
Ivan	Govše	Slovenian Maritime Administration	Member State	Slovenia
Migel	Mehlmauer	Slovenian Maritime Administration	Member State	Slovenia
Agnes	Gaotee	Solomon Islands Maritime Authority	Member State	Solomon Island
Fernando	Alvarez Matias	EPE Sociedad de Salvamento y Seguridad Maritima	Affiliate	Spain
Raquel	Rojo Díaz	Sociedad De Salvamento Y Seguridad Maritima	Affiliate	Spain
Carlos	Salinas	Spanish Maritime Safety Agency	Affiliate	Spain
Admir	Salahovic	Indra Sistemas Sa	Affiliate Industrial	Spain
Fredrik	Karlsson	Swedish Maritime Administration	Member State	Sweden
Monica	Sundkleiv	Swedish Transport Agency	Member State	Sweden

First name	Last name	Organisation	Member type	Member Country
Marco	Svantesson	Swedish Maritime Administration	Member State	Sweden
Abas	Saidykhan	Gambia Maritime Administration	National	Gambia
Olimatou	Danso	Gambia Maritime Administration	National	Gambia
Abdullah	Kizilelma	Directorate General Of Coastal Safety	Member State	Türkiye
Habibe Irem	Celik	Havelsan As	Affiliate Industrial	Türkiye
Berkant	Bayraktar	Havelsan As	Affiliate Industrial	Türkiye
Hande	Orkus	Havelsan As	Affiliate Industrial	Türkiye
Fawziya	Al Dhaheri	Abu Dhabi Ports Group	Affiliate	United Arab Emirates
James	Clark	Uk Maritime and Coastguard Agency	Member State	United Kingdom
Heidi	Clevett	Uk Maritime And Coastguard Agency	Member State	United Kingdom
Robert	Townsend	Maritime & Coastguard Agency	Member State	United Kingdom
Clayton	Diamond	American Pilots' Association Inc	Affiliate	United States of America
Mathew	Fine	Us Coast Guard	Associate (IGO)	United States of America
Scott	Jacobs	Us Coast Guard	Associate (IGO)	United States of America
Scott	Whalen	Us Coast Guard	Associate (IGO)	United States of America
Neil	Trainor	IHMA	Sister Organisations	

All papers are posted on the Committee section of the IALA website. Items in blue = late or updated paper.

Meeting	Paper Number	Input Paper Title	Source	Allocation
VT556-	1.2.1	Provisional Agenda	Secretariat	All
VT556-	1.4.1	Programme for the week	Secretariat	All
VT556-	2.1	VT555 Action Items	Secretariat	All
VT556-	3.1.1.1	Final Report Council 80 (C80-19.1)	Secretariat	All
VT556-	3.2.1	Report to the committee_MSC 108	Secretariat	All
VT556-	3.2.2	IALA Report NCSR 11	Secretariat	All
VT556-	3.4.1	IALA Report on ITU-R WP5B meeting 14 to 24 May 2024	Secretariat	All
VT556-	3.4.1.1	R23-WP5B-C-0096!N12!MSW-E revision Rec-R M1371-5	Secretariat	All
VT556-	3.4.2	ITU LN to IALA R23-WP5B-240514-TD-0031!!MSW-E	ITU	All
VT556-	4.1.1	Report on possible MASS related work items for the IALA committees (MTF09-4.1)	MTF	WG1
VT556-	4.1.1.1	Mindmap for the report on possible MASS related work items for the IALA committees (MTF09-4.1)	MTF	WG1
VT556-	4.1.2	MASS Publications Scoping Report V2.2 (MTF09-4.2)	MTF	WG1
VT556-	6.1.1	Draft Task Plan 2023-2027	VT5 CMT	All
VT556-	6.1.2	VT5 Task Register 2023-2027	VT5 CMT	All
VT556-	7.0	Input paper committee meeting template	Secretariat	All
VT556-	7.1.1	Input Paper List_Rev1	Secretariat	All
VT556-	7.1.2	Working paper list	Secretariat	All
VT556-	7.2.1	Real-time Vessel Monitoring in Coastal Waters and the EEZ	MCA and MIWM	WG1
VT556-	7.2.2	Liaison note to ARM, ENG, VT5 on Tech Review Summary Table (DTEC2-12.2.2.2)	DTEC2	All WGs – led by WG2
VT556-	7.2.3	Liaison from ARM to VT5 and DTEC on MSC Circular on MRN (ARM18-11.3.4)	ARM18	WG2
VT556-	7.2.3.1	Draft Circular to MSC on Harmonisation of identifiers using MRN (ARM18-11.3.4.1)	ARM18	WG2

Meeting	Paper Number	Input Paper Title	Source	Allocation
VTS56-	7.2.3.2	Draft Input to NCSR on Use of MRN Circular (ARM18-11.3.4.2)	ARM18	WG2
VTS56-	7.2.4	Input paper on Sustainability Workshop (PAP54-7.3.3.1)	ENG Chair	All
VTS56-	7.2.4.1	Programme Overview_v1.0 (PAP54-7.3.3.1.1)	ENG Chair	All
VTS56-	7.2.5	Draft Report on the 2nd Joint IHO IALA Workshop S-100 S-200	US Workshop	All
VTS56-	8.1.1	Input Paper - Output from TG1.1.3 - VTS Interaction with a mix of Conventional, Automated and Autonomous Ships	IG1.1.3	WG1
VTS56-	8.1.1.1	Draft Guideline on VTS Interaction with a Mix of Conventional, Automated and Autonomous Ships - CLEAN	IG1.1.3	WG1
VTS56-	8.1.1.2	Draft text for a FAQ or Information Sheet	IG1.1.3	WG1
VTS56-	8.1.2	Functional requirements for VTS systems under the influence of MASS	China MSA	WG1
VTS56-	8.1.3	Liaison note to all from ARM on MASS Guideline Review post plenary (ARM18-11.2.8)	ARM18	WG1
VTS56-	8.1.3.1	Proposed ARM MASS Guideline 18 Apr 24 (ARM18-11.2.8.1)	ARM18	WG1
VTS56-	8.1.4	Draft Guideline on Developments and implications of MASS for coastal authorities (DTEC3-5.2.2.7)	MTF	WG1
VTS56-	8.2.1	Input Paper - Output from TG1.8.4 - Quality Management	IG1.8.4	WG1
VTS56-	8.2.1.1	Draft - R0132-Quality-Management-for-Aids-to-Navigation-Authorities	IG1.8.4	WG1
VTS56-	8.2.1.2	Draft Guideline on Quality Management Practices for VTS Providers	IG1.8.4	WG1
VTS56-	8.3.1	Proposal to modify the Draft guideline on VTS Digital communications	China MSA	WG1
VTS56-	8.3.2	Information Paper - Intersessional meeting TG1.3.1	IG 1.3.1	WG1
VTS56-	8.7.1	Proposal for the revision of guidelines related natural disaster	JCG	WG1
VTS56-	8.7.2	Input Paper - Maintaining up-to-date ENCs	AMSA	WG1

Meeting	Paper Number	Input Paper Title	Source	Allocation
VT556-	9.1.1	Proposal on the “Service Specification for VTS Traffic Clearance Service Edition 1.3” and “Service design”	China MSA	WG2
VT556-	9.1.2	Liaison note to VTS-ENG related to Draft IALA S-200 Roadmap (ARM18-11.3.6)	ARM18	WG2
VT556-	9.1.3	Liaison note from IEC TC80-WG17 on the revision of the Route Plan (S-421, IEC 63173-1) and its exchange	IEC	WG2 **
VT556-	9.2.1	Draft Revision of G1111-1 PRODUCING REQUIREMENTS FOR THE CORE VTS SYSTEM	China MSA	WG2 / WG1
VT556-	9.3.1	Proposal on Working Paper of VTS Digital information Product Specification Edition 0.7.2	China MSA	WG2
VT556-	9.3.2	Proposal update on the IVEF service (S-210) wbased on the KCG case study Rev 1	KCG	WG2
VT556-	9.4.1	LN to All C's - ARM18 TASK 2.2.2 Overview of AIS documentation (ARM18-11.2.4)	ARM18	WG2
VT556-	9.4.1.1	Appendix to liaison note ARM18, TASK 2.2.2 (ARM18-11.2.4.1)	ARM18	WG2
VT556-	10.1.1	Input task 3.8.2 Draft G-Remote Train VTS	Chair WG3	WG3
VT556-	10.1.1.1	Draft Guideline Remote Training in VTS	Chair WG3	WG3
VT556-	10.1.2	Input paper on task 3.8.6 Revision of G1027 Simulation in VTS training	Vice-chair WG3	WG3
VT556-	10.1.2.1	Draft Revision G1027 Simulation in VTS Training	Vice-chair WG3	WG3
VT556-	10.1.3	Input task 3.8.7c-Revision C0103-5	Chair WG3	WG3
VT556-	10.2.1	Input Paper - TASK 3.8.8 VTS Comms Competency Test	KCG and others	WG3
VT556-	10.2.1.1	Draft Guideline VTS Comms Competency Testing (13 Aug)	KCG and others	WG3
VT556-	10.4.1	Input Paper - Finntraffic - Guidance for dealing with stress or trauma in VTS operations	Finntraffic	WG3
VT556-	10.4.2	Proposal to Develop Guidance for Dealing with Stress or Trauma in VTS Operations	China MSA	WG3
VT556-	10.4.3	Input on the ITG for developing guidance on aptitudes required by VTS Operators	CCG	WG3

Meeting	Paper Number	Input Paper Title	Source	Allocation
VT556-	10.4.4	Task 3.1.1 - Pilootproject psychosociale gezondheid VTS operatoren	Port of Antwerp	WG3

Working papers from VT555

Meeting	WP No.	Working Paper Title	Source	Action
VT555-	12.5.1.1	WP draft Guideline on VTS Interaction with a Mix of Conventional, Automized and Autonomous Ships	WG1	to VT556
VT555-	12.5.1.2	WP draft Guideline on Establishing policy and regulatory framework	WG1	to VT556
VT555-	12.5.1.3	WP draft guideline on VTS Digital Communications	WG1	to VT556
VT555-	12.5.1.4	WP A.918-22-SMCP-original_New Draft	WG1	to VT556
VT555-	12.5.1.5	WP draft guideline on quality management for VTS	WG1	to VT556
VT555-	12.5.2.1	WP VTS Digital Information product specification V0.7.2 DRAFT Task 2.8.1	WG2	to VT556
VT555-	12.5.2.2	WP Proposal to GI Concept Registry	WG2	to VT556
VT555-	12.5.2.3	WP on the Architecture of the Digital Delivery of VTS Information (adjusted after liaison note from DTEC)	WG2	to VT556
VT555-	12.5.2.4	WP Service specification for VTS - vessel route exchange v0.1	WG2	to VT556
VT555-	12.5.2.5	WP Service design for route exchange v0.1	WG2	to VT556
VT555-	12.5.2.6	WP VTS Position Paper on Information Exchange Shore to Shore v0.1	WG2	to VT556
VT555-	12.5.2.7	WP IVEF DD working copy v0.5	WG2	to VT556
VT555-	12.5.2.8	WP IVEF Technical Service Description, working copy v0.2	WG2	to VT556
VT555-	12.5.4.1	WP VTS Committee Task Plan	CMT	to VT556

Meeting	WP No.	Working Paper Title	Source	Action
VT555-	12.5.4.2	WP VTS Committee Task Register	CMT	to VT556
VT555-	12.5.4.3	WP VTS Questions	CMT	To VT556

Output documents are submitted to a body other than the Committee initiating the document for further review/action or as information.

Meeting	Output paper number	Output Paper Title	Source	Action
VT556-	12.2.1	Liaison note to ARM on draft Recommendation on MAtON Authorities	WG1	ARM
VT556-	12.2.1.1	Draft Recommendation on QMS for MAtON Authorities	WG1	ARM
VT556-	12.2.2	Draft Guideline on QMS for VTS	WG1	Council
VT556-	12.2.3	Draft Guideline on the Implications of MASS from a VTS perspective	WG1	Council
VT556-	12.2.4	Liaison note to DTEC and ARM on a draft Recommendation MASS and Marine AtoN	WG1	ARM and DTEC
VT556-	12.2.4.1	Draft Recommendation MASS and Marine AtoN	WG1	ARM and DTEC
VT556-	12.3.1	Liaison note to DTEC on the Emerging Technologies Review Paper	WG2	DTEC
VT556-	12.3.2	Liaison note to ARM on IMO MRN Circular	WG2	ARM
VT556-	12.3.3	Liaison note to ARM on draft IALA S-200 Roadmap	WG2	ARM
VT556-	12.3.4	Liaison Note to IHO regarding the use of S-200 for VTS v1	WG2	Council
VT556-	12.3.5	Liaison note to IEC on VTS use cases	WG2	Council
VT556-	12.3.6	S212 Proposal to the Concept Register	WG2	Secretariat
VT556-	12.3.7	Service design for VTS traffic clearance service 1.1	WG2	Secretariat
VT556-	12.3.8	Service specification for VTS traffic clearance service 1.4	WG2	Secretariat
VT556-	12.4.1	Questionnaire on aptitudes for VTS personnel	WG3	Secretariat

Working papers will remain within the Committee for further review during VT556.

Meeting	Agenda Item	Working Paper Title	Source	Action
VT556-	12.5.1.1	WP on Frequently Asked Questions MASS	WG1	to VT557
VT556-	12.5.1.2	WP on the scoping exercise	WG1	to VT557
VT556-	12.5.1.3	WP draft guideline on Establishing policy and regulatory framework	WG1	to VT557
VT556-	12.5.1.4	WP draft guideline on VTS Digital Communications	WG1	to VT557
VT556-	12.5.1.5	WP 'A.918-22-SMCP-original_New Draft'	WG1	to VT557
VT556-	12.5.1.6	WP draft G1141	WG1	to VT557
VT556-	12.5.1.7	WP revised Discussion Paper on future VTS	WG1	to VT557
VT556-	12.5.2.1	Revised G1111-1 Producing Requirements for the Core VTS System to include a new section dealing with Management Information Systems.	WG2	to VT557
VT556-	12.5.2.2	WP VTS Digital Information product specification V0.7.2 DRAFT Task 2.8.1	WG2	to VT557
VT556-	12.5.2.3	On the Architecture of the Digital Delivery of VTS Information (adjusted after liaison note from DTEC) Task 2.8.1	WG2	to VT557
VT556-	12.5.2.4	IVEF DD working copy v0.6 Task 2.8.2	WG2	to VT557
VT556-	12.5.2.5	IVEF Technical Service Description, working copy v0.3 Task 2.8.2	WG2	to VT557
VT556-	12.5.2.6	Service specification for VTS - vessel route exchange v0.2 Task 2.8.1	WG2	to VT557
VT556-	12.5.2.7	VTS Position paper on information exchange shore to shore 0.2 Task 2.8.2	WG2	to VT557
VT556-	12.5.2.8	IVEF Technical Service Specification v0.2	WG2	to VT557
VT556-	12.5.2.9	IVEF DD working copy v0.5	WG2	to VT557
VT556-	12.5.2.10	Service design for route exchange v0.1	WG2	to VT557

VTS56-	12.5.3.1	WP draft guideline on Remote Training in VTS	WG3	to VTS57
VTS56-	12.5.3.2	WP draft revised guideline on Simulation in VTS Training	WG3	to VTS57
VTS56-	12.5.4.1	WP VTS Committee Task Plan	CMT	to VTS57
VTS56-	12.5.4.2	WP VTS Committee Task Register	CMT	to VTS57

Action Items for the IALA Secretariat

1. The Secretariat is requested to forward the WP VTS Committee Task Plan (VTS56-12.5.4.1) and WP VTS Committee Task Register (VTS56-12.5.4.2) as working papers to VTS57 for further development. 17
2. The Secretariat is requested to forward the draft guideline on VTS Interaction with a Mix of Conventional, Automized and Autonomous Ships (VTS56-12.2.3) to Council for approval. 21
3. The Secretariat is requested to update the 'MASS Case Studies' document on the IALA website to reflect (VTS56-8.1.2 Functional requirements for VTS systems under the influence of MASS) and (MSC 108/INF.16 (Norway)) as appropriate. 21
4. The Secretariat is requested to forward the draft Recommendation (VTS56-12.2.4.1) to the ARM and DTEC Committees for their consideration accompanied by liaison note (VTS56-12.2.4). 21
5. The Secretariat is requested to forward the WP on Frequently Asked Questions on MASS (VTS56-12.5.1.1) as a working paper to VTS57 for further development. 21
6. The Secretariat is requested to forward the WP on the scoping exercise (VTS56-12.5.1.2) as a working paper to VTS57 for further development. 22
7. The Secretariat is requested to forward the WP draft guideline on Establishing policy and regulatory framework (VTS56-12.5.1.3) as a working paper to VTS57 for further development. 23
8. The Secretariat is requested to forward the WP draft guideline on VTS Digital Communications (VTS56-12.5.1.4) as a working paper to VTS57 for further development. 25
9. The Secretariat is requested to keep WP 'A.918-22-SMCP-original_New Draft' (VTS56-12.5.1.5) as a working paper for a future session of the committee. 26
10. The Secretariat is requested to forward liaison note (VTS56-12.2.1) to the ARM committee for their consideration accompanied by the draft R0132 on QM for MatON Authorities (VTS56-12.2.1.1). 26
11. The Secretariat is requested to forward the draft guideline on QMS for VTS (VTS56-12.2.2) to Council for approval. 26
12. The Secretariat is requested to forward the WP draft G1141 (VTS56- 12.5.1.6) as a working paper to VTS57 for further development. 27
13. The Secretariat is requested to forward the WP revised Discussion Paper on future VTS (VTS56-12.5.1.7) as a working paper to VTS57 for further development. 28
14. That the Secretariat forwards the liaison note on Maritime Resource Naming (MRN) circular (VTS56- 12.3.2) to the ARM Committee for their consideration 29
15. That the Secretariat forwards the liaison note on the digital interaction between VTS and ship (e.g. 2-way communication) (VTS56- 12.3.4) to Council for approval to be subsequently submitted to IHO. 29
16. That the Secretariat forward the liaison note on Revision of the Route Plan S-421 (IEC 63173-1) and its usage in VTS (VTS56-12.3.5) to Council for approval to be subsequently submitted to IEC. 29

17. That the Secretariat liaises with the IHO Secretariat on the GI Concept Registry using document VTS56-12.3.6. 29
18. That the Secretariat updates the IALA website on the latest version of S-212 Product Specification (version 0.7.3) 29
19. That the Secretariat considers setting up a GitHub for “xml” schemes related to S-200 product specifications 29
20. That the Secretariat forwards the Liaison note to ARM on draft IALA S-200 Roadmap (VTS56-12.3.3) for their consideration. 29
21. That the Secretariat notes output papers Service design for VTS traffic clearance service 1.1 (VTS56- 12.3.7) and Service specification for VTS traffic clearance service 1.4 (VTS56-12.3.8) and takes appropriate action. 29
22. That the Secretariat forwards the following working papers to VTS56: VTS Digital Information product specification V0.7.3 DRAFT Task 2.8.1 (VTS56-12.5.2.2); WP on the Architecture of the Digital Delivery of VTS Information (adjusted after liaison note from DTEC) (VTS56-12.5.2.3); Technical Service specification for VTS - vessel route exchange v0.2 (VTS56- 12.5.2.6); Service design for route exchange v0.1 (VTS56-12.5.2.10) 29
23. That the Secretariat forward the WP revised G1111-1 (VTS56-12.5.2.1) to VTS57 as a working paper for further consideration. 30
24. That the Secretariat forward the working papers listed below to VTS57: WP IVEF DD working copy v0.6 (VTS56-12.5.2.9); WP IVEF Technical Service Description, working copy v0.3 (VTS56-12.5.2.5) for further consideration. 30
25. That the Secretariat forward the Liaison note to DTEC on the Emerging Technologies Review Paper (VTS56-12.3.1) for their consideration. 30
26. The Secretariat is requested to format the questionnaire on aptitudes and behaviours for VTS Personnel in a suitable platform for distribution (VTS56-12.4.1). 33
27. The Secretariat is requested for forward the draft guideline on Remote Training in VTS (VTS56-12.5.3.1) for VTS57 for further development. 33
28. The Secretariat is requested for forward the WP draft revised guideline on Simulation in VTS Training (VTS56- 12.5.3.2) for VTS57 for further development. 34

Action Items for Participants

29. Committee participants are invited to join the intersessional task group (Virtual meetings) working on the development of guidance on the implications of MASS from a VTS perspective and to express their interest to Neil Trainor (neil.trainor@hotmail.com) by 30 October 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 21
30. Committee participants involved with “MASS Testbeds” are requested to, where possible, share information they may have with regards to the outcomes and specifically any operational implications from a VTS perspective. Please email Neil Trainor (neil.trainor@hotmail.com). 21

31. Committee participants who have already provided information to the MASS Case Studies are requested to update their information. Similarly, members who wish to contribute are encouraged to do so. Inputs can be provided to Neil Trainor (neil.trainor@hotmail.com). 21
32. Committee participants are invited to review the WP draft guideline on Establishing policy and regulatory framework (VTS56-12.1.5.3) and submit comments and remarks to Neil Trainor (neil.trainor@hotmail.com) by VTS57. 23
33. Committee participants are invited to join the intersessional meeting in Rotterdam, the Netherlands at 15 – 16 January focusing on use case for operational service “VTS information service”. Committee participants are invited to express their interest to Remi Hoeve remi.hoeve@rws.nl no later than the 20th of December 2024. 25
34. Committee participants are invited to join the intersessional task group (Virtual meetings) working on the further development of the VTS Questionnaire and to express their interest to Trond Ski (trond.ski@kystverket.no) by 30 October 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 27
35. The Committee participants interested in participating in Task 3.1.1 - guidance for dealing with stress and trauma in VTS are invited to contact J Lundsten (jockum.lundsten@fintraffic.fi) by the 13th of October 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee dashboard and on the table of intersessional meetings on the IALA fileshare, VTS WG3 Intersessional Meetings. 32
36. Committee participants of the IALA VTS Committee are asked to distribute the questionnaire on aptitudes and behaviours for VTS Personnel to VTS Providers and VTS Operators for completion by 17 February, 2025. 33
37. The Committee participants interested in participating in Task 3.4.1 are invited to contact K Glew (Kelly.Glew@DFO-MPO.GC.CA) by the 11th of November 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard and on the table of intersessional meetings on the IALA fileshare, VTS WG3 Intersessional Meetings. 33
38. The Committee participants interested in participating in Task 3.8.2 - guidance on Remote Training in VTS are invited to contact J Carson-Jackson (jillian@jcjconsulting.net) by the 27 November 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard and on the table of intersessional meetings on the IALA fileshare, VTS WG3 Intersessional Meetings. 33
39. The Committee participants are invited to join the intersessional task group working on the revision of G1027 of Simulation Training in VTS and to express their interest to S Priem (stefaan.priem@mow.vlaanderen.be) by 17 October 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard and on the table of intersessional meetings on the IALA fileshare, VTS WG3 Intersessional Meetings. 34
40. The Committee participants are invited to join the intersessional task group working on the revision of IALA Model Course C0103-5 and to express their interest to J Carson-Jackson (jillian@jcjconsulting.net) by 27 October 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard and on the table of intersessional meetings on the IALA fileshare, VTS WG3 Intersessional Meetings. 35
41. Committee participants interested in participating in Task 3.8.8 – VTS English Communication Competency Testing and the VTS English research conducted by the Korean Coast Guard are invited to contact S Choi (seunghee.choi.1017@googlemail.com) by October 11, 2024, noting the

dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard and on the table of intersessional meetings on the IALA fileshare, VTS WG3 Intersessional Meetings.

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42. Committee members are asked to consider the results of the review of IALA VTS Training related documentation as carried out by WG3 at VTS56 under Task 3.9.1. 37
43. The Committee participants are invited to provide comments and input regarding IALA G1103 on Train the Trainer to VTS57, noting this task will commence at VTS57. 37

Working Group 1**Operations**

Chair – Trond Ski, Norwegian Coastal Administration

Vice-chair – Els Bogaert, Belgium, Shipping and Assistance Division

Members	Organisation	Task Group No.
Abercrombie, Kerrie	Australian Maritime Safety Authority	1.8.4
Aerts Milou	Port of Rotterdam Authority	1.8.6/1.1.3/1.1.5
Al Dhaheri Fawziya	Abu Dhabi Ports Group	1.1.3
Arita Mayumi	Japan Coast Guard	1.1.3/1.9.4
Bang Jakob	Danish Maritime Authority	1.1.3/1.1.5/1.9.4
Berrevoets Maarten	Ministry of Infrastructure and Water Management	1.1.3
Bogaert Els	Agency for Maritime Services and Coast	1.8.4/1.1.9/1.9.2/1.9.3
Clark James	UK Maritime and Coastguard Agency	1.1.5/1.1.3
Clevett Heidi	Maritime and Coastguard Agency	1.3.1/1.9.1
Coster Bjørn	Kongsberg Norcontrol, Norway	1.3.1
Ehandi Jyri	Estonian Transport Administration, Estonia	1.3.1
Dioubate Frebory	Agence De Navigation Maritime	1.1.5
Dreijer Malin	Norwegian Coastal Administration	1.3.1
Govse Ivan	Ministry of Infrastructure	1.1.5
Hansen, Dorte Olbæk	Defence Command Denmark Naval Staff	1.1.3, 1.9.4
Hoeve Jan Remi	Ministry of Infrastructure and Water Management	1.3.1, 1.9.1
Hovda Knut	Norwegian Coastal Administration	1.1.3
Huisman Hans	Marin	1.3.1
Jonker Richard	Tidalis	1.3.1
Kallio Esa	Fintraffic VTS	1.3.1
Karlsson Fredrik	Swedish Maritime Administration	1.3.1
Kaski Maiju	Fintraffic Vessel Traffic Services Ltd	1.3.1
Kuchta Joerg	Federal Waterways and Shipping Administration	1.1.3
Latvalahti Matti	Finnish Transport and Communications Agency	1.1.5

Members	Organisation	Task Group No.
Liu Junkai	China MSA	1.1.3/1.8.4
Magro Barbara	Italian Coast Guard	1.1.5/1.8.6
Maias Manuel	Portuguese Maritime Administration	1.1.3
Mazlan Mohd Farez Bin Mohamad	Light Dues Board Peninsular	1.1.3/1.1.5
Menabene Gian Luca	Italian Coast Guard	1.1.3/1.9.4
Radicchio Victor	Compania Internacional de Integracion Ci2S.A	1.1.3
Sabott Toni	Finnish Transport Infrastructure Agency	1.1.3/1.9.4
Sulaiman Nurul Suhana	Light Dues Board Peninsular	1.1.3/1.1.5
Sun XueTao	CCSC Pride	1.3.1
Tian Chi	CSSC Pride	1.3.1
Trainor Neil	IHMA	1.1.3/1.1.5
Tsang Chun Wun	Marine Department Hksar	1.1.3/1.1.5/1.3.1/1.8.4
Trond Ski	Norwegian Coastal Administration	1.8.4/1.1.9/1.9.2/1.9.3
Van Drongelen Kevin	Port of Rotterdam Authority	1.1.3/1.1.5
Van Omme Hilber	Dutch Pilots Corporation	1.1.3
Whalen Scott	US Coast Guard	1.8.4

Working Group 2 Technology

Chair – Richard Aase, Norwegian Coastal Administration

Vice-chair – Rob Townsend, UK Maritime and Coastguard Agency

Members	Organisation	Task Group No.	Online (x)
Richard Aase	NCA	All	
Robert Townsend	MCA	All	
Jia Rucun	China MSA	2.6.1	
Liu Wei	China MSA	2.6.1	
Jens Christian Pedersen	TERMA	2.6.1	
Pedro Duarte	Colombia CI2 SA	2.6.1 /2.5.2	
Thomas H Jeppesen	TERMA	2.6.1	
Rene Hogendoorn	Tidalis	2.8.2	
Younggeun Lee	GC Co Republic of Korea	2.8.2	
Ryu Jeongseon	Republic of Korea	2.8.2	
Pierre Mingot	Cerema France	2.8.2	
Takuya Fukuda	Tokyo Keiki	2.8.2	
Dmitry Rostopshin	ICS technologies	2.6.1 / 2.5.2 / 2.8.1	
Michael Strandberg	Danish MA	2.5.2 / 2.8.1	
Wim Smets	Flemish Government Maritime Services and Coast	2.5.2 / 2.8.1	
Minsu Jeon	IALA	2.5.2 / 2.8.1	
Jaime Alvarez	IALA	2.5.2 /2.8.1	Yes
Ramin Miraftebi	Fintraffic Vessel Traffic Services Ltd	2.5.2 /2.8.1	
Juho Pitkänen	Fintraffic Vessel Traffic Services Ltd	2.5.2 /2.8.1	
Lukas Kussel	Federal Waterways and Shipping Administration	2.5.2 /2.8.1	
Øystein Jørgensen	Kongsberg Norcontrol AS	2.5.2 /2.8.1	
Martijn Ebben	Port of Rotterdam Authority	2.5.2 /2.8.1	
Sirpa Kannos	Fintraffic Vessel Traffic Services Ltd	2.5.2/2.8.1	
Matthew Fine	USCG	2.5.2 /2.8.1	
Migel Mehlmauer	Slovenian Maritime Admin	2.5.2/2.8.1	
Yumin Kim	GC Co., LTD.	2.5.2/2.8.1	
Young Geun Lee	GC Co., LTD.	2.5.2/2.8.1	
Jaegoo Shin	GC Co., LTD.	2.5.2/2.8.1	
Sung Yong Park	Korea Coast Guard	2.5.2/2.8.1	

Working Group 3 Training

Chair – Stefaan Priem, Agency for Maritime Services and Coast

Members	Organisation	Task Group No.	Online (x)
Abas Saidykhan	Gambia Maritime Administration	All tasks	
Abdullah Kizilelma	Directorate General of Coastal Safety Türkiye	All tasks	
Agnes Gaotee	Solomon Islands Maritime Authority	All tasks	
Ana Micheloud	Prefectura Naval Argentina	All tasks	X
Andreas Keller	NNVO, Dutch Training Foundations	All tasks	
Budi Mantoro	Directorate of Navigation (Indonesia)	All tasks	
Cinthya Romina Famoso	Prefectura Naval Argentina	All tasks	X
Dennis Wong	Marine Department Hksar, Hong Kong, China	All tasks	
Henry Sng	MPA Singapore	All tasks	
J. Carlos F. Salinas	Spanish Maritime Safety Agency	All tasks	
Jillian Carson-Jackson	Nautical Institute	All tasks	X
Jockum Lundsten	Fintraffic Vessel Traffic Services Ltd	All tasks	
Karamo Bakary Janneh	Gambia Maritime Administration	All tasks	
Keeta Rowlands	UK Maritime & Coastguard Agency	All tasks	
Kelly Glew	Canadian Coastguard	All tasks	
Kerrie Abercrombie	Australian Maritime Safety Authority	All tasks	X
Kevin Vervoort	Port of Antwerp-Bruges (BEL)	All tasks	
Lina Rodriguez Palacios	Compañía Internacional de Integración Ci2 S.A (Col)	All tasks	
Lorena García	Prefectura Naval Argentina	All tasks	X
Malin Dreijer	Norwegian Coastal Administration	Task 3.8.6	
Matthias Vercammen	Port of Antwerp-Bruges (BEL)	Task 3.1.1	
Michael M. Hansen	Svendborg International Maritime Academy (DEN)	All tasks	
Michele Landi	Italian Coast Guard	All tasks	
Mika Halttunen	Fintraffic Vessel Traffic Services Ltd	All tasks	
Nayoung Kim	Korea Coast Guard	All tasks	
Olimanton Danso	Gambia Maritime Administration	All tasks	
Renée Rijkhoek	NNVO, Dutch Training Foundation	Task 3.8.8	X
Raquel Rojo	Spanish Maritime Safety Agency	All tasks	
Revo Rizki Aditiya	Directorate of Navigation (Indonesia)	All tasks	
Said Charri	Ministère Des Transports, De L'aviation Civile Et De La Marine Marchande (Morocco)	All tasks	
Scott Jacobs	US Coast Guard	All tasks	
Scott Whalen	U.S. Coast Guard	All tasks	
Seunghye Choi	Ministry of Oceans and Fisheries (Korea)	Task 3.8.8	
Stefaan Priem	Agency for Maritime Services and Coast (Bel)	All tasks	
Suyadi	Directorate of Navigation (Indonesia)	All tasks	
Yasuko Nakai	TST Corporation (Japan)	All tasks	

Members	Organisation	Task Group No.	Online (x)
Yi Congbo	China MSA	All Tasks	



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