



IALA VTS COMMITTEE

REPORT OF THE 55th SESSION OF THE IALA VESSEL TRAFFIC SERVICES (VTS) COMMITTEE

8 – 21 March 2024

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21 March 2024

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International Association of Marine Aids to Navigation and Lighthouse Authorities

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Report of the 55th session of the IALA Vessel Traffic Services (VTS) Committee Executive Summary

The 55th session of the VTS Committee was held from 8 - 21 March 2024, including the physical week at IALA HQ between 11 - 15 March, with Monica Sundklev as Chair and Dirk Eckhoff as Vice-chair. The Secretary for the meeting was Thomas Southall.

142 participants from 33 countries, four Sister organisations and one observer participated in VTS55. 44 participants attended for the first time.

The VTS Committee considered 42 input papers and produced 26 output papers, including working papers, from three Working Groups.

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

Key outputs completed included:

VTS55- 12.2.2 Revised Guideline G1141 Operational Procedures for VTS

VTS55- 12.3.3 Revised Guideline G1177 Portrayal of VTS information

VTS55- 12.3.5 Service design for VTS traffic clearance service (v. 1.0)

VTS55- 12.3.6 Service specification for VTS traffic clearance service (v. 1.3)

VTS55- 12.4.1 Revised model course C0103-4 VTS On-the-Job Training Instructor

The following liaison notes were approved:

VTS55- 12.2.1 LN to ARM - Guidance on Quality Management Systems

VTS55- 12.3.1 LN to DTEC on draft Cyber Security Guideline

VTS55- 12.3.1.1 Draft Cyber Security Guideline

VTS55- 12.3.2 LN to ARM on S-100/200

VTS55- 12.3.2.1 Report on intersessional on S-210 and S-212

VTS55- 12.3.4 Liaison Note to IEC TC80 WG17 on Proposed change to IEC 63173-1

Overall status of the VTS Committee 2023 - 2027 Work Programme after VTS55:

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		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
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	Revision of IMO Resolution A.918(22) IMO Standard Marine Communication Phrases (prepare note IMO in time)		X	X	X	X			
Marine AtoN planning and service requirements	Obligations and regulatory compliance	1.8.1	Develop guidance on the certification of technical equipment, information systems and technical infrastructure related to MASS in the domain of IALA	Awaiting DTEC							
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 AtoN and risk management for autonomous vehicle/vessel operations (Maritime Autonomous Surface Ship, MASS)	Awaiting DTEC							
Marine AtoN planning and service requirements	Quality Management	1.8.4	Develop a guideline on quality management system for VTS		X	X	X				

Standard	Scope	No.	Task	Comment	54	55	56	57	58	59	60
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)	New task to Council 80 for approval			X	X	X	X	X
Vessel Traffic Services	N/A	1.9.1	Consider relevant VTS documents to be revised/updated a) Update of G1141 Operational Procedures for VTS b) Update G1120 Disaster Recovery	To Council 80 for approval	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
			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	To Council 80 for approval	X	X	X				
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 for VTS Traffic Clearance	Testing version to be publish	X	X	X			X	X
		b)	Technical Service Specification for Route Exchange		X	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 (V-145) on the Inter-VTS Exchange Format (IVEF) Service		X	X	X	X	X	X	X

Standard	Scope	No.	Task	Comment	54	55	56	57	58	59	60
Marine AtoN planning and service requirements	Obligations and regulatory compliance	2.8.3	Develop guidance on the certification of technical equipment, information systems and technical infrastructure related to MASS in the domain of IALA	Awaiting DTEC							
Marine AtoN planning and service requirements	Risk Management	2.8.4	Develop guidance on cyber security for Marine AtoN		X	X					
AtoN design and delivery	Design, implementation and maintenance	2.8.5	Full review of A-126, G1084 and other AIS associated documentation	Awaiting ARM							
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
			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		
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	Develop a guideline on skills related to the digital environment, such as data analytics and maritime informatics and associated training programs with WWA.	Awaiting DTEC			X	X	X	X	X

Standard	Scope	No.	Task	Comment	54	55	56	57	58	59	60
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		X						
		b)	C0103-4 OJT Instructor	To Council 80 for approval	X	X	X				
		c)	C0103-5 VTS Revalidation Process				X	X	X		
Training and Certification	Training and Assessment	3.8.9	Training in implementation of digital solutions (data analytics & maritime informatics)	Awaiting DTEC							
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	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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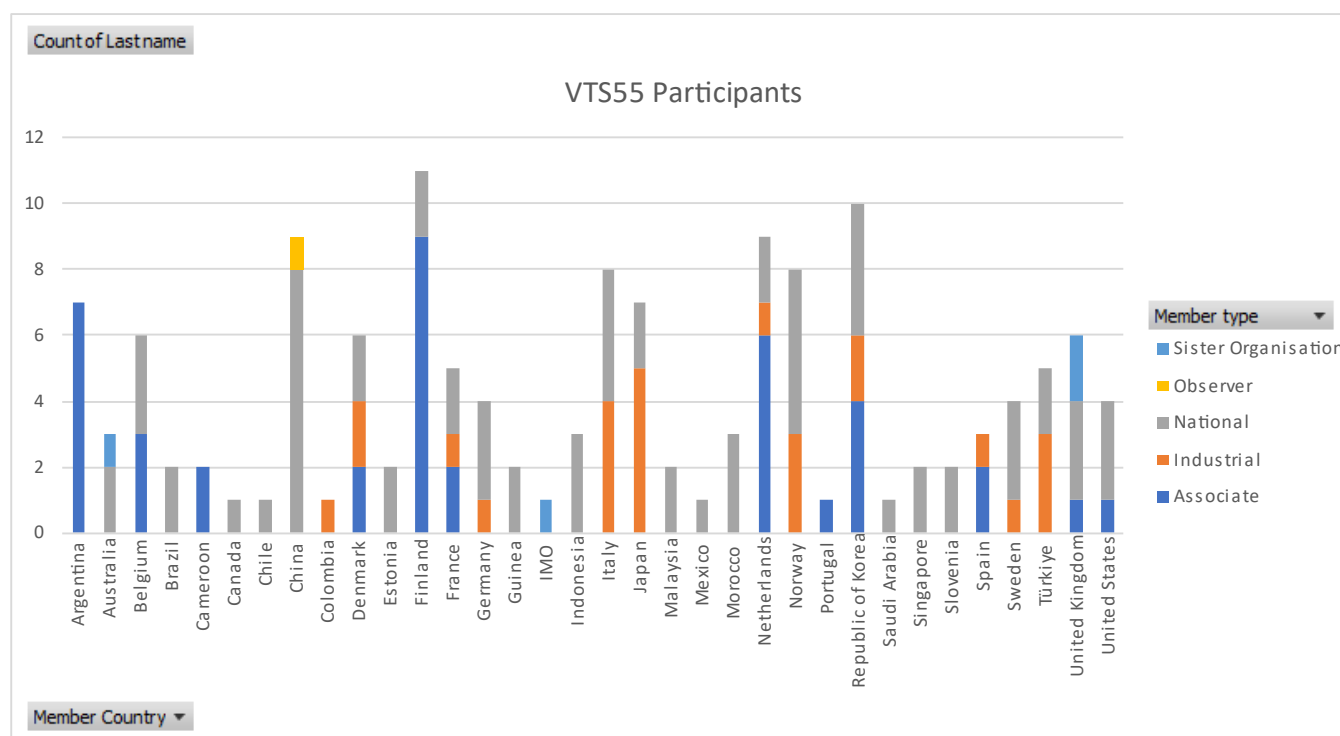
Report of the 55th session of the IALA Vessel Traffic Services (VTS) Committee

1. INTRODUCTION

The 55th session of the VTS Committee was held from 8 - 21 March 2024, including the physical week at IALA HQ between 11 - 15 March, 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 8 March and the physical week began on Monday 11 March and continued until Friday 15 March. 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 21 March.

142 participants from 33 countries, four Sister organisations and one observer participated in VTS55. 44 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 warmly welcomed participants to Headquarters, expressing delight at the in-person attendance as well as acknowledging online participants. He noted the busy schedule highlighting the efficiency of using online tools for the Plenary.

The Secretary-General expressed interest in the diverse range of papers presented, particularly focusing on communications, MASS and traditional VTS operations. He emphasized the importance of the session for sharing experiences and knowledge within IALA. Mentioning Neil Trainor's briefing on the outcome of the MASS workshop, he urged participants to refer to the report available on the website for insights into the future autonomy of ships. He then underscored the significance of VTS's evolution in response to the maritime sector's development and expressed confidence in participants' preparedness for forthcoming changes.

Finally the Secretary-General provided updates on the transformation of IALA into an Intergovernmental Organization (IGO), noting progress with 27 ratifications and the anticipation of reaching 30 in the near future. He extended his best wishes for the meeting, thanking participants for their contributions in the spirit of the IALA family and expressing anticipation for further discussions throughout the week.

1.2 Approval of the agenda

The agenda was reviewed and approved (VTS55-1.2.1).

1.3 Apologies

No apologies were received. A list of participants who attended VTS55 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 VTS55 Action Plan that had been agreed by the VTS Committee Management Team (CMT) to be progressed during VTS55 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 VTS55 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 15 March 2024 at 10:00 CET.

2. REVIEW OF ACTION ITEMS FROM VTS54

The Committee Secretary confirmed that all Secretariat actions from VTS54 were completed (input paper VTS55-2.1.1).

3. REPORTS FROM OTHER BODIES

3.1 IALA

3.1.1 IALA Council

Minsu Jeon, the Technical Operations Manager of IALA, reported on various key outcomes and decisions made at the Council meeting 79 held from December 11 to 14 2023, at the Headquarters. This session marked the beginning of the new 2023 - 2027 work period. A significant outcome was the approval of the revised committee work program.

During the meeting, several documents were 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.

The Council also expressed interest in the progress of the Maritime Connectivity Platform, tasking the Secretariat with preparing a detailed report for presentation at the 80th Council meeting in June. Discussion concluded that this paper would be developed by the Secretariat and will be based upon the work by the DTEC Committee.

Furthermore, a councillor requested the generation of a harmonized list of work item progress status. Discussion followed regarding the means of providing an overview of the status to the work that led to the Secretariat's agreeing evaluate the means of reporting to ensure consistency in reporting in the new work program online platform.

3.1.2 IALA Policy Advisory Panel (PAP)

Minsu Jeon also reported on the outcomes of PAP52, which took place from 6th to 8th February 2024. Key highlights included the decision to implement new work programme tools for upcoming committee seasons and the approval of draft Terms of Reference (ToRs) for Committees and Subsidiary Bodies within the new Intergovernmental Organization (IGO) for submission to the inaugural General Assembly.

Additionally, updates were provided on various matters, including IALA's involvement in the review of the STCW Code, AIS document review, S-200 development, document management and data harmonization.

3.2 IMO

Minsu Jeon provided an overview of IALA's engagement with IMO, highlighting submissions to various meetings.

Last year, IALA submitted an information paper on the IALA IGO project update to IMO Assembly 33. During HTW 10, an information paper was sent to raise awareness on training regarding the updated Maritime Buoyage System (MBS).

For the upcoming NCSR meeting in June, three documents are being submitted:

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

Additionally, IALA plans to send two documents to the MSC:

- A proposal for STCW updates related to MBS training
- Outcomes of the IALA MASS workshop, which were discussed at the MASS Task Force meeting.

3.3 IHO

Minsu Jeon reported on recent activities with the IHO. A liaison note was issued to NIPWG regarding S-125, furthermore, plans were discussed for the joint workshop to be held in the United States later in the year. Coordination meetings are currently underway for this event. During discussions, it was highlighted that the completion of S-125 is essential for the progression of S-124 and the IHO will be invited to Headquarters for further liaison and discussions on this and other matters.

Emphasis was also placed on the significance of IALA's attendance at the Regional Hydrographic Commissions, underscoring the importance of collaboration and engagement between IALA and hydrographic commissions at the regional level for promoting the work around AtoN.

3.4 ITU

The Committee noted Minsu Jeon's report that the ITU World Radiocommunication Conference 2023 convened in Dubai from November 20 to December 15, attracting over 3900 delegates from 161 member states. The conference aimed to coordinate global frequency usage, address spectrum demands for information and communication technologies (ICT) and update the ITU Radio Regulations (RR).

IALA's interests at the conference included the Maritime Mobile Service, encompassing the Global Maritime Distress and Safety System (GMDSS) and the Radiodetermination Service.

There was focus on modernizing the GMDSS and implementing e-navigation. Under Issue A, advancements were made in GMDSS modernization, including amendments to RR, introduction of NAVDAT frequencies, and updates to operational procedures. Issue B covered the implementation of e-Navigation, leveraging existing satellite networks without necessitating RR changes. Issue C addressed integrating additional satellite systems into the GMDSS, provisionally recognizing the BeiDou Satellite Messaging Service System.

Discussions also centred on improving VHF maritime mobile band utilization. Proposed agenda items for WRC-31 were formulated to advance digital voice and data technologies within this band.

New agenda items for WRC-27 included considering regulatory actions for aeronautical mobile high-frequency modernization and examining possible allocations and regulatory actions for the mobile-satellite service. These items hold significance for the maritime community, particularly in mitigating potential interference on maritime HF bands and exploring opportunities for mobile-satellite services.

3.5 Digital@Sea

The Committee noted the innovative approach taken at the recent Digital@Sea International held in Copenhagen, Denmark on 30-31 Jan 2024. Discussion noted that with three events the schedule was reasonably intense and this would be discussed at the next steering committee.

Minsu Jeon reported that the dates for the upcoming Digital@Sea Conferences are:

- Digital@Sea North-America on 8-9 May 2024 in Atlantic Beach, FL, US

- Digital@Sea Asia Pacific and Capacity Building workshop in 2024 in Seoul, Korea

4. REPORTS FROM RAPPORTEURS

4.1 MASS related to VTS

Rapporteur: Neil Trainor

Neil Trainor provided an update on developments related to Maritime Autonomous Surface Ships (MASS) since VTS54, highlighting.

- IALA MASS Workshop - IALA HQ (2-3 October). Key outcomes included:
 - The document entitled The Future of Maritime Autonomous Surface Ships (MASS) which considers the outlook for the gradual adoption of MASS over the next twenty years and potential drivers and challenges for the technology. A copy is at (VTS55-4.1.1 The Future of Mass 2024).
 - IALA webinar entitled Sailing into the Future of Autonomous Ships. A recording is available on the IALA website - <https://www.youtube.com/watch?v=mUiQY7Eq444>.
- IMO Intersessional Working Group on Maritime Autonomous Surface Ships (30 Oct - 3 Nov). The Groups report to MSC 108 is at ((VTS55-8.1.1.2 Attachment MSC 108-4-1 - Report of the Intersessional MASS Working Group (Secretariat)).
- IALA MASS Task Force (6 March) focussing on the development of an overarching IALA MASS Recommendation and Guideline. A copy is at (VTS55-8.1.2 WP Guideline on developments and implications of MASS for coastal authorities (DTEC2-5.2.0.6)).
- Draft Guideline on the Provision of VTS to Conventional, Automized and Autonomous Ships – The Committee’s Task Group 1.1.3 met three times following VTS54 to progress the Guideline for consideration at VTS55. This included:
 - Review of the report from the IMO Intersessional Working Group on Maritime Autonomous Surface Ships to MSC 108, specifically, the elements related to VTS. A copy is at ((VTS55-8.1.1.2 Attachment MSC 108-4-1 - Report of the Intersessional MASS Working Group (Secretariat)).
 - Revision of the draft guideline, with more focus on:
 - Situational awareness – and its importance from the perspective of both the VTS and individual ships, where there is a dynamic mix of conventional, automized and autonomous ships, to maintaining safe and efficient navigation.
 - Interaction - Ensuring VTS capability to interact with vessel traffic to provide information or issue advice, warnings, and instructions seamlessly by digital means as well as VHF voice.
 - Management - Ensuring systems, processes and procedures are in place to manage ship traffic and respond to developing situations irrespective of whether communications is by digital means, VHF voice, or both.

The input paper from the Task Group and the draft revision of the guideline are at:

- VTS55-8.1.1 Input Paper - Output from TG1.1.3 - Guideline on Provision of VTS to Conventional and Autonomous Ships.
- VTS55-8.1.1.1 Draft Guideline on Provision of VTS to Autonomous and Conventional Ships (29 Feb - clean copy).

The Task Group also noted there is little documented information available on the operational implications regarding the safety and efficiency of navigation from “MASS Testbeds” around the world as many have been outside VTS areas or if so, in a controlled environment and suggested that Committee members be encouraged to share any information they may have available at VTS55.

4.2 VTS questionnaire

Rapporteur: Neil Trainor – presented at VTS55 by Technical Operations Manager, Minsu Jeon

Minsu Jeon, reported that the Secretariat has been working on an online solution and digitizing the Aids to Navigation as well as the VTS questionnaire. The Committee has been asked to revise the questions at VTS54 and VTS55, ensuring that they are prepared and ready for implementation when the digitalization process is completed. The development of this questionnaire was overseen by the Committee Management Team (CMT) and the report of the review can be found under section 9.7.

5. PRESENTATIONS

All recordings of the presentations given at VTS55 can be found on the fileshare (login necessary). The following presentations were given at VTS55:

- IALA World Wide Academy Update / Latifa Oumouzoune, IALA
- Demonstration of VHF digital voice communication / Mayumi Arita, JCG

6. WORK PROGRAMME MANAGEMENT

6.1 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 VTS56 as working papers.

Action item(s)

The Secretariat is requested to forward the WP VTS Committee Task Plan (VTS55-12.5.4.1) and WP VTS Committee Task Register (VTS54-12.5.4.2) as working papers to VTS56 for further development.

6.2 Action Plan for VTS55

The VTS55 Action Plan, which can be found on IALA Dashboard for VTS, was noted by the Committee.

7. REVIEW OF INPUT PAPERS

The input papers for VTS55 consisted of new input papers as well as working papers from the previous session. The input paper list (VTS55-7.1.1) did not include the working papers from VTS54. The working paper list (VTS55-7.1.2) was a separate input document.

8. 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	Jillian Carson-Jackson (Chair), Stefaan Priem (Vice-chair)

9. WORKING GROUP 1 – OPERATIONS (WG1)

Close to 50 individual participants attended one or more task group meetings formed under Working Group 1 - Operations (WG1) during VTS55. The working group progressed five tasks assigned under the 2023 - 2027 Work Programme and produced three output documents and five working papers for the Committee Secretary to progress. Intersessional work is planned to further progress:

- Task 1.1.3 on implications of MASS from a VTS perspective;
- Task 1.3.1 on VTS digital communications (in cooperation with WG2); and
- Task 1.8.4 on Quality Management for VTS.

9.1 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 / Dorte Olbaek

The following input papers were considered:

- VTS55-8.1.1 Input Paper - Output from TG1.1.3 - Guideline on Provision of VTS to Conventional and Autonomous Ships
- VTS55-8.1.1.1 Draft Guideline on Provision of VTS to Autonomous and Conventional Ships (29 Feb - clean copy)
- VTS55-8.1.1.2 Attachment MSC 108-4-1 - Report of the Intersessional MASS Working Group (Secretariat)
- VTS55-8.1.2 WP Guideline on developments and implications of MASS for coastal authorities (DTEC2-5.2.0.6)
- VTS55-4.1.1 The Future of Mass 2024
- VTS54-12.5.4.2 WP VTS Task Register 2023-2027(2023-09-22)

Key outcomes include:

1. Discussion Paper on the Implications of MASS from a VTS Perspective

The Committee noted that no further comments had been received on the Discussion Paper (VTS54-8.1.1.4 *Discussion Paper - Implications of MASS from a VTS Perspective*) since VTS54 and it was agreed no further work would continue on the paper at VTS55.

2. Draft Guideline

The Committee continued preparing the Guideline on *VTS Interaction with a Mix of Conventional, Automated and Autonomous Ships*, noting:

- The revised draft prepared by the intersessional group following VTS54 (VTS55-8.1.1.1 Draft Guideline on Provision of VTS to Autonomous and Conventional Ships (29 Feb - clean copy).
- The IALA document entitled The Future of Maritime Autonomous Surface Ships (MASS) (VTS55-4.1.1 The Future of Mass 2024).
- The draft overarching IALA MASS Guideline (VTS55-8.1.2 WP Guideline on developments and implications of MASS for coastal authorities (DTEC2-5.2.0.6)).
- The report of the IMO Intersessional MASS Working Group to MSC 108 ((VTS55-8.1.1.2 Attachment MSC 108-4-1 - Report of the Intersessional MASS Working Group (Secretariat)).

The review of the draft guideline focussed on preparing it in a manner that:

- Addresses practices to be considered when managing ship traffic and responding the 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 operation of VTS.
- Recognises in transitioning to a mix of conventional, automated, autonomous ships and digital interaction, the importance of:
 - **Situational Awareness** - Ensuring situational awareness from both the perspective of VTS and participating ships (i.e., the Master / Master of a MASS) is achieved.
 - **Interaction** – Interaction between the VTS and participating ships is undertaken in a manner that the intent of messages is conveyed to participating ships is the same, irrespective of whether the communications is by digital means, VHF voice, or both.
 - **Management** - Systems, processes and procedures are in place to ensure the capability to interact by VHF Voice, digital means, or both when managing ship traffic and responding to developing situations.

A copy of the draft is at VTS55- 12.5.1.1 *VTS Interaction with a Mix of Conventional, Automated and Autonomous Ships*.

3. Task Register

A review of the Task register was undertaken, and minor amendments made to reflect the above.

Other Considerations

Noting the parallel development of the draft *Guideline for digital VTS Communications* general discussion highlighted that consideration should be given to hosting for a brief combined meeting of the two task groups at VTS56 to ensure they are sufficiently aligned.

A possible mechanism to progress this would be for the task group leaders to meet virtually intersessionally to identify areas that may need consideration and plan accordingly for VTS56.

General discussion highlighted:

- There is little documented information available on the operational implications from “MASS Testbeds” with regards to the safety and efficiency of navigation as most have been outside VTS areas or if so, in a controlled environment.
- Committee members 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.

- The MASS Case Studies document available on the IALA website (<https://www.iala-aism.org/technical/mass/>) has not been updated since 2022.
- Committee members who have already provided information to the MASS Case Studies are encouraged to update their information where possible. Similarly, members who may not have already contributed are encouraged to do so.

Action item(s):

The Secretariat is requested to forward the WP draft guideline on VTS Interaction with a Mix of Conventional, Automized and Autonomous Ships (VTS55-12.5.1.1) as an input paper to VTS56 for further development.

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@amsa.gov.au) by 5 April 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

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@amsa.gov.au).

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@amsa.gov.au).

9.2 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/ Els Bogaert

Work commenced on this Task at VTS54 and was progressed during VTS55.

The purpose of the guideline is to assist competent authorities establish VTS under national law in accordance with relevant international conventions, IMO instruments and IALA documents.

The WP on the draft guideline (VTS55-12.5.1.2) will be forwarded to VTS56 for further development.

Committee participants are invited to review the draft guideline VTS55-12.5.1.2 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 VTS56.

Considerations are also needed if the guidance to assist competent authorities can be included in IALA Guideline G1150 Establishing, Planning and Implementing a VTS.

A workshop to assist the Committee complete Task 1.1.5 will be held Q1 2025 in Italy.

Action item(s):

The Secretariat is requested to forward the WP draft guideline on Establishing policy and regulatory framework (VTS55-12.5.1.2) as a working paper to VTS56 for further development.

Committee participants are invited to review the WP draft guideline on Establishing policy and regulatory framework (VTS55-12.5.1.2) and submit comments and remarks to Neil Trainor (neil.trainor@hotmail.com) by VTS56.

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

Task group leader: Fredrik Karlsson

The task group primarily considered the WP draft guideline forwarded from VTS54:

- VTS54 12.5.1.3 Draft 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. During the session the task group further matured the guideline, but also focused on producing operational use-cases together with WG2 on the following tasks:

- 2.5.2 Develop technical service description for digital data exchange between VTS and other entities – primarily ships.
- 2.8.1 Develop a Product Specification S-212 for VTS under the S-100 framework

These two tasks, together with task 1.3.1, concerns the development of documents that can be described as both technical service specifications and product specifications for VTS.

The operational use-cases developed in close corporation with WG2 describes in detail different situations in which data is exchanged between VTS and other systems/stakeholders. The use-cases will contribute to further develop the draft guideline on VTS Digital Communications.

An intersessional meeting is planned in Oslo, Norway at 26 - 27 June to further develop the guideline. Committee participants are invited to join the intersessional meeting and to express their interest to participate to Fredrik Karlsson (fredrik.karlsson@sjofartsverket.se) by 25 May.

Furthermore, an intersessional meeting is planned to progress tasks 1.3.1, 2.5.2 and 2.8.1 to further progress the work on the guideline, the technical service description and the product specification.

Action item(s):

The Secretariat is requested to forward the WP draft guideline on VTS Digital Communications (VTS55-12.5.1.3 as an input paper to VTS56 for further development.

Committee participants are invited to join the intersessional meeting in Oslo, Norway at 26 - 27 June working on the development of a guideline on VTS Digital Communications and express their interest to Fredrik Karlsson (fredrik.karlsson@sjofartsverket.se) by 25 May 2024.

Committee participants are invited to join the intersessional task group (Virtual meetings) 30 August 10:00-12:00 CET working on the development of the guideline on VTS Digital Communications, the technical service description for digital data exchange between VTS and other entities and the Product Specification S-212 for VTS under the S-100 framework. Committee participants are invited to express their interest Fredrik Karlsson (fredrik.karlsson@sjofartsverket.se) by 23 August 2024.

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

Task group leader: Heidi Clevett

The following input paper was considered:

- VTS55-8.3.1 Proposal on Improving the Output of Revising IMO Standard Marine Communication Phrases

During VTS55 the Committee continued task 1.3.3 'Revision of IMO A.918(22) IMO Standard Marine Communication Phrases (sections relating to VTS)'. The task group continued to work on the SMCP revision document, which contains proposed updates and comments to the resolution to reflect changes in the IMO Resolution A.1158(32) and IALA guideline G1132, to prepare for a future revision at the IMO, considering document NCSR 9/23/2 which proposes to review and amend A.918(22).

Input paper VTS55-8.3.1 from China was considered, with several changes being made within the revision document as considered necessary and appropriate.

In reviewing the VTS related sections of IMO Resolution A.918(22), the Committee proposed several amendments to:

- align with changes in A.1158(32)
- reflect the definitions of the message markers and additional phrases in G1132
- update to reflect current technology and widely used practices.
- consider simplifying the structure and format of the document for easier reference with the inclusion of tables to set out the standard phrases.
- remove duplicated sections and phrases, so they only appear once in the document.
- transfer some VTS sections to general, where appropriate.

As the IMO is not expected to consider the resolution on SMCP for revision until NCSR session 12 or 13, the task might be set on hold for one session and then continue in alignment with a submission to the IMO.

Action item(s):

The Secretariat is requested to forward WP ‘A.918-22-SMCP-original_New Draft’ (VTS55-12.5.1.4) ‘A.918-22-SMCP-original_New Draft’ to VTS56 for further development.

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

Task group leader: Trond Ski

The following input papers were considered:

- VTS55-7.2.1 Liaison note to all committees on Best practice of QMS for AtoN Service Delivery (ARM17-11.2.2)
- VTS55-8.7.1 Liaison note to VTS on Recommendation R0132 on QMS for AtoN Service Delivery (ARM17-11.2.3)
- VTS55-8.7.1.1 Draft Revised R0132 Quality Management for Aids to Navigation Authorities (ARM16-7.2.1.1)

At VTS54 the committee participants were invited to review the WP draft guideline on quality management for VTS and submit comments and remarks by VTS55. No such comments or remarks were received. At VTS55 the task group thus progressed the work to develop the draft guideline based on the WP draft forwarded from VTS54. An editorial change was made to the title of the guideline to make it more general. Furthermore, several editorial changes were made to better align the document with text in ISO 9001 (2015). The draft guideline will be forwarded as a working paper to VTS56 for further development.

Intersessional work will be conducted on the draft guideline (virtual meetings) and committee participants are invited to express their interest in joining the intersessional work to Trond Ski (trond.ski@kystverket.no) by 5 April 2024.

In input paper VTS55-7.2.1 it was noted that the ARM Committee will finalize the revision of Guideline G1052 on Quality Management Systems (QMS) for Aids to Navigation (AtoN) Service Delivery during the 2023-2027 work period. In connection to this, the ARM Committee wishes to collect examples of best practice on QMS for AtoN service delivery to assist Member States with achieving consistent and effective implementation of a QMS. The ARM Committee thus encourages interested IALA members to provide an overview of their current best practice of QMS implementation, with as much detail as possible, as input for the continued revision of Guideline G1052.

Input paper VTS55-8.7.1 also stated that the ARM Committee will finalize the revision of R0132 once the VTS Committee has finalized the development of a new guideline on quality management in VTS. The VTS Committee was invited to review the draft recommendation and if necessary provide feedback to the ARM Committee to adapt the recommendation to accurately refer to the new guideline on quality management in VTS. In this regard, a liaison note was prepared (VTS55-12.2.1) to inform the ARM Committee on the progress of the ongoing development of a guideline on quality management for VTS.

Action item(s):

The Secretariat is requested to forward liaison note (VTS55-12.2.1) to the ARM Committee for their consideration.

The Secretariat is requested to forward the draft guideline on quality management for VTS (VTS55-12.5.1.5) as a working paper to VTS56 for further development.

Committee participants are invited to join the intersessional task group (virtual meetings) working on the development of a guideline on quality management for VTS and to express their interest to Trond Ski (trond.ski@kystverket.no) by 5 April 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

Committee participants are invited to provide examples of best practice on QMS for AtoN service delivery as input to the ARM Committee, before ARM18.

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

Under this task the following input papers were considered:

- VTS55-7.2.2 Input paper on disaster management_JCG
- VTS55-8.2.1 Input Paper - VHF and Maintaining Situational Awareness

Input paper VTS55-7.2.2 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 that the VTS Committee develops a new guideline for the disaster management from VTS. The proposal was considered with the conclusion that the inclusion of the proposed content in input paper VTS55-7.2.2 into the related guidelines listed in the paper, should be further considered at VTS56 under task 1.9.1. The Committee will review existing documentation to include elements of the Japanese Coast Guard proposals where appropriate.

Input paper VTS55-8.2.1 from IHMA request the Committee to consider amendments to guidelines G1141, G1132 and G1111-2 to include text on the importance of the use of simplex communications to maximize situational awareness amongst participating ships. Based on the request, guideline G1141 was revised to include text on this issue with reference to G1111-2. In this regard it was considered that since G1132 contains sufficient reference to G1141, it was neither necessary or appropriate to duplicate the revised text from G1141 into G1132. The proposed amendments to G1111-2 will be considered by WG 2 at VTS56.

Action item(s):

The Secretariat is requested to forward the revised guideline (VTS55-12.2.2) G1141 to Council for approval.

9.7 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 revising the questions is that they have been outdated as the survey of the global VTS questionnaire in 2016 was done when the old IMO resolution A.857(20) was in force. Now the questions need to be updated to follow the new resolution A.1158(32).

The VTS Committee reviewed the questions at VTS54 and put it on the fileshare to be used by the Secretariat when developing the online IALA questionnaire.

At VTS55 the questions were further reviewed by the CMT and an updated version was developed which will be forwarded to VTS56 as a working paper.

Action item(s):

The Secretariat is invited to use the WP on the fileshare and include the VTS questions into the digital IALA questionnaire and if necessary, provide feedback to the VTS Committee.

The Secretariat is requested to forward the WP VTS Questions (VTS55-12.5.4.3) as a working paper to VTS56 for further development.

10. WORKING GROUP 2 – TECHNOLOGY (WG2)

The Chair, Richard Aase and Vice-chair, Rob Townsend, held an initial plenary session for the 33 participants of the Technology Working Group (WG2) and this was followed by a mid-way plenary and a final plenary during the course of VTS55 to monitor progress, set expectations and plan for the rest of the period.

The Technology Working Group (WG2) welcomed a number of new participants.

The work undertaken intersessionally on S-210 and S-212 in Quebec which was hosted by Canadian Coast Guard in January 2024 and subsequent Teams meetings were noted.

The Technology Working Group has 10 formal tasks assigned in the current 2023 – 2027 Work Period.

There are 8 output paper comprising two liaison notes, an amended draft guideline, a service specification, a service design and a draft guideline. Additionally there a number of working papers to send to VTS56.

The China MSA delegation gave a presentation on their input paper proposing a new section for inclusion in G1111-1. This presentation will be made available on the VTS file share area.

WG2 has 8 output papers and 8 working papers.

During VTS55 WG2 worked on the following Tasks:

- Task 2.5.1 Revise G1177 on portrayal of VTS information
- Task 2.5.2 Develop technical service description for digital data exchange between VTS and other entities – primarily ships. Task Leaders – Wim Smets and Thomas Christensen.
- Task 2.8.1 Develop a Product Specification S-212 for VTS under the S-100 framework. Task Leaders Wim Smets and Thomas Christensen.
- Task 2.8.2 Review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service. Task Leader Rene Hogendoorn.

10.1 Task 2.5.1 Revise G1177 on portrayal of VTS information.

During VTS55, work progressed to finalize the addition of relevant parts of the work undertaken by WG2 during 2018 - 2023 on portrayal to the newly approved Guideline G1177. This work was also circulated to WG1 Operations.

Action item:

That the Secretariat forward the revised Guideline G1177 on the portrayal of VTS information and data (VTS55-12.3.3) to Council for approval.

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

This task has 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.

Several two-day intersessionals were held in Nov 2023 and Feb 2024 comprising both Task Groups, focussing on Product Specification (Task 2.8.1) on Day 1 and Technical Services specification (Task 2.5.2) on Day 2.

During VTS55 the groups jointly discussed the following key areas:

An updated version of the traffic clearance service including the input paper from China MSA commenting on this. All issues were resolved, and a new version 1.3, which is output from this committee session, was made.

The service design (SECOM based) for the traffic clearance service, which finalized in version 1.0, and is also output from this committee session.

The service design (SECOM based) for route exchange was discussed, but not finalized. This will be passed to VTS56 for further work.

In addition to the above, the Groups also spend considerable time with TG2.8.1, working on use-cases for route exchange between vessel and VTS. Based on these use-cases, TG2.8.1 and TG2.5.2 began working on a technical service specification for VTS - Vessel route exchange. This specification will also be a working paper to be forwarded to VTS56.

In the discussion of the route exchange service, which is intended to use S-421, an issue was identified in S-421. Thus, the group prepared a liaison note to IEC TC80 WG17, in order to correct this. This issue is that when an acceptance of a route is to be send back to the vessel from the VTS, then the entire route must be included in the response, according to the way S-421 is currently defined.

Finally, the TG's discussed the feedback from DTEC on the VTS architecture document - and updated.

It is proposed that an on line intersessional meeting is held on 5th of June from 10:00 to 12:00 UTC to follow up on the progress on the development of the S-212 product specification. During this meeting special attention will go to the status of the registration of the new concepts in de GI registry.

It is also proposed to hold a joint intersessional on-line meeting comprising WG2 and WG1 members on Tasks 1.3.1, 2.5.2 and 2.8.1 to align the actions and capture operational aspects. Date proposed is 30th Aug 2024 10am till noon UTC.

Action item(s):

That the Secretariat forward the liaison note (VTS55-12.3.4) on proposed change to IEC 63173-1 to IEC TC80 WG17 to Council for approval.

That the Secretariat forward the liaison note on S-210 and S-212 (VTS55-12.3.2) and the report on intersessional on S-210 and S-212 (VTS55-12.3.2.1) to the ARM Committee.

That the Secretariat publish the service specification for VTS traffic clearance service (v. 1.3) (VTS55-12.3.6).

That the Secretariat publish the Service design for VTS traffic clearance service (v. 1.0) (VTS55-13.3.5)

That the Secretariat forwards WP VTS Digital Information product specification V0.7.2 DRAFT Task 2.8.1 (VTS55-12.5.2.1), WP Proposal to GI Concept Registry (VTS55-12.5.2.2), WP on the Architecture of the Digital Delivery of VTS Information (adjusted after liaison note from DTEC) (VTS55-12.5.2.3), WP Service specification for VTS - vessel route exchange v0.1 (VTS55-12.5.2.4), WP Service design for route exchange v0.1 (VTS55-12.5.2.5) to VTS56 for further development.

The Committee participants interested in participating in Tasks 1.3.1, 2.5.2 and 2.8.1 are invited to contact Wim Smets (wim.smets@mow.vlaanderen.be) by 25 June 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

10.3 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 a WG2 Plenary session. The task will commence formally during VTS56 which will give other members of WG2 time to provide feedback and ensure it aligns with other tasking.

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

Korea Coast Guard presented the results of a study on data exchange between VTS centres using a cloud system. The associated input paper VTS55-9.3.2 introduced sharing of sensor data such as Radar, CCTV, and VHF.

The data format was reviewed and discussed in relation with the draft VTS position paper on information exchange shore to shore, most notably enhancing compatibility of the data exchange format. Work on the draft IVEF Technical Service Description was progressed considerably.

Action item(s):

That the Secretariat forward WP VTS Position Paper on Information Exchange Shore to Shore v0.1 (VTS55-12.5.2.6), WP IVEF DD working copy v0.5 (VTS55-12.5.2.7) and WP IVEF Technical Service Description, working copy v0.2 (VTS55-12.5.2.8) as working papers to VTS56 for further development.

10.5 Task 2.8.4 Develop guidance on cyber security for Marine AtoN

The draft guideline on cyber security received from ARM was reviewed and further developed. The draft guideline and a liaison note has been forwarded for further consideration.

Action item:

That the Secretariat forward LN to DTEC on draft Cyber Security Guideline (VTS55-12.3.1) and Draft Cyber Security Guideline (VTS55-12.3.1.1) to the DTEC Committee for consideration.

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

The Chair of the Working Group 3 thanked all participants for their active involvement during VTS55.

During VTS55 the Working Group met in a hybrid meeting environment and focused on the following items:

- Task 3.4.1 – Develop guidance on aptitudes required by VTS Operators
- Task 3.8.2 – Develop guidance for remote training in VTS
- Task 3.8.6 – Revision of G1027 on Simulation in VTS Training
- Task 3.8.7b – Revision of IALA Model Courses: C0103-4 VTS OJT Instructor
- Task 3.8.8 – VTS English Communication Competency testing (formerly: Consider including English Language competency requirements in VTS operations)
- Overview of tasks to be commenced within the 2023-2027 Work Program
- Additional items as identified

All input papers identified for WG3 were addressed.

11.1 Task 3.4.1 – Develop guidance on aptitudes required by VTS Operators

Task Leader: Kelly Glew

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 commenced during VTS55. Committee members provided an overview of the current use of aptitude and psychometric testing in the recruitment of potential VTS operators. A discussion was held to identify aptitudes and behaviours that are beneficial in all aspects of VTS training and in the role of a VTS operator. In discussion with the Secretariat, it was identified that a survey could provide this information. This will be further discussed during the intersessional meetings for consideration at VTS56.

It was agreed that the work would proceed during intersessional on-line meetings and the outcomes of the intersessional meetings will be submitted for further consideration at VTS56.

The proposed date for the first intersessional meeting will be:

- Wednesday 17 April 2024 – 0900-1030 UTC

Action item(s):

That Committee participants interested in participating in Task 3.4.1 are invited to contact Kelly Glew (Kelly.Glew@DFO-MPO.GC.CA) by 10 April 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

11.2 Task 3.8.2 – Develop guidance on remote training in VTS

Task Leader: Jillian Carson-Jackson

Input papers VTS55 – 10.1.1; VTS55 – 10.1.1.1; VTS55-10.1.5; VTS55-10.1.5.1 and VTS55-10.1.5.2 were reviewed.

The members noted that the input papers provided an excellent foundation for the initial discussions on the expectations, scope and purpose of the guideline. The input from China MSA provided a good initial structure, which was discussed and revised during the meeting.

It was agreed that the work would proceed during an intersessional on-line meeting and the outcomes of the intersessional work will be submitted for further consideration at VTS56.

The proposed date for the intersessional meeting on this task will be:

- Tuesday, 18 June 2024 – 0900-1030 UTC

Action item(s):

The Committee participants interested in participating in Task 3.8.2 are invited to contact Jillian Carson-Jackson (jillian@jcjconsulting.net) by 8 June 2024, noting the date and time of the intersessional meeting will be published on the IALA VTS Committee Dashboard.

11.3 Task 3.8.6 – Revision of G1027 on Simulation in VTS training

Task Leader: Stefaan Priem

Input paper 10.1.2 Proposal for Revision of G1027 on VTS Simulation Training was noted. The members thanked China MSA for their valuable contribution. The current and future challenges of simulation in VTS training were discussed, as well as learning objectives and qualities of simulator instructors.

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 VTS56.

The proposed date for the first intersessional meeting on the review of G1027 will be:

- Tuesday 23 April 2024 – 0900-1030 UTC

Action item(s):

The Committee participants are invited to join the intersessional task group working on task 3.8.6 and to express their interest to Stefaan Priem (stefaan.priem@mow.vlaanderen.be) by 16 April 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

11.4 Task 3.8.7 - Revision of IALA VTS Model Courses

Task Leader: Jillian Carson-Jackson

As this task has been brought forward from the last work term, the updated task reference was noted, with work to be carried out in the following sub-tasks:

3.8.7a – Review / update model course C0103-2 (completed at VTS54)

3.8.7b – Review / updated model course C0103-4 (finalized at VTS55)

3.8.7c – Review / update model course C0103-5 (to commence at VTS 56)

11.4.1 Task 3.8.7b – Review and update model course C0103-4

Input papers VTS55-10.1.4, VTS55-10.1.4.1 and VTS55-10.1.4.2 were noted. The work carried out by the intersessional working group was reviewed at VTS55.

All remaining elements were addressed, including:

- elements related to training and educational theory
- proposed range of hours for the training programme
- structure of the document as a whole

The revised draft model course C0103-4 was submitted to VTS55 for approval.

Action item(s):

That the Secretariat forward the Revised model course C0103-4 VTS On-the-Job Training Instructor(VTS55-12.4.1) to Council for approval.

11.5 Task 3.8.8 English Language Competency Requirements in VTS Operations

Task Leader: Seung-Hee Choi

Input paper VTS55-10.1.4, VTS55-10.1.4.1 and VTS55-10.1.4.2 were reviewed.

The Working Group discussed the VTS English Language Competency Test, noting it had been developed through multiple discussions held by the intersessional group.

Consensus was reached on the importance of defining the direction and scope of future tasks, with a focus on developing key strategies through thorough research and analysis, as well as examining best practices in linguistics and transportation industries.

The consensus led to the following provisional framework:

1. Provisional Title of Guideline: VTS English Communication Competency Testing
2. The Structure of the Guideline:
 - Introduction
 - The Scope of VTS Voice Communication
 - Relationship to Key Documents

- Document Purpose
- Establishment of Evaluation Framework
 - Rating scale
 - Evaluation criteria
 - The qualification of test developers/raters
- Development of a Competency Test
 - The length of the test
 - Number of task items
 - Difficulty of task items
- Assessment Process
 - Composition of test developers/raters
 - Validity Period of Examination (expiration date)
 - Testing Environment
- Record Maintenance
 - Storage and security of test data
 - Procedure for endorsing licenses to indicate the holders' language competency level
- Other Considerations
 - Legal implication arising from the test
 - Benchmark across IALA members
- Annex A: Language Task of VTS Operators according to the degree of difficulty of tasks
- Annex B: Evaluation Criteria Based on SMCP and IALA G1132
- Annex C: A set of IALA Version Sample Test

Given the close relationship between this testing and VTS English Language training, including Train-the-trainer initiatives, the necessity for a separate guideline as a subsequent task was acknowledged, with further work deemed essential.

The presentation by Dr. Sungchul Choi (Republic of Korea) on AI-based automated scoring and feedback systems for VTS English competency assessment was noted. Contributions by Lorena Andrea Garcia (Argentina) on the systemic approach to VTS English language training and trainer education, as well as insights from Kerrie Abercrombie (Australia) on document direction and considerations for other industries were also acknowledged. Inputs from various member countries will act as reference material for further guideline development.

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 VTS56.

The proposed date for the first intersessional meeting on this task will be:

- Wednesday 3 April 2024 – 0900-1030 UTC

Action item(s):

The Committee participants interested in participating in Task 3.8.8 – English Language Competency requirements in VTS Operations are invited to contact Seung-Hee Choi (seunghee.choi.1017@gmail.com) by 25 March 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

11.6 Overview of tasks to be commenced within the 2023-2027 Work Program

The Working Group reviewed the Task Register and Task Plan and noted the tasks to be commenced during the work program.

11.6.1 Task 3.1.1 – Guidance for dealing with stress or trauma in VTS operations

Task Leader: Nisham Supian

Task to commence at VTS56.

It was noted that VTS personnel encounter high-stress and potentially traumatic situations as an inherent aspect of their duties. Recognizing the importance of the mental well-being of VTS personnel, the task aims to provide guidance on the development of support protocols and best practices to mitigate stress and trauma in VTS Operations. Gathering input from members, relevant stakeholders, particularly mental health experts, will be key in ensuring the development of effective strategies. VTS56 will focus on defining the scope of the task to enable further development of the new guideline.

It is proposed that the guideline should be aligned with existing Guideline G1045 – Staffing Levels at VTS Centres, and G1171 – Human Factors and Ergonomics in VTS.

Action item(s):

That Committee participants who have established support protocols for managing stress and trauma in their VTS operations are invited to provide input to VTS56.

11.6.2 Task 3.8.1 – Revision of G1103 –Train the Trainer

Task Leader: Jillian Carson-Jackson

Task to commence at VTS57.

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 to support the work of 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):

That Committee participants who are using IALA G1103 on Train the Trainer are invited to provide input to VTS56.

11.7 Additional Document Review

The working group noted training requirements for LPS and VTS. It was highlighted the G1142 – The Provision of a Local Port Service other than a VTS focuses on the ‘information’ and covers training at a very high level. In discussion it was noted that the delivery of LPS may include the use of DST, procedures for interaction as well as providing information.

It is noted that this item will be discussed at the Competent Authority Workshop in Q1 2025 in Italy.

12. ANY OTHER BUSINESS

International VTS symposium, 23-24 May in Jeju Korea

Mr. Cha, Korea Coast Guard (KCG), shared information about an upcoming conference dedicated to enhancing VTS. With a theme on "Challenges and Innovations for the Future of VTS" the event aims to bring together a

diverse group of VTS experts and scholars. The event will take a place on 23 - 24 May 2024 in Jeju, Korea and this conference offers a good opportunity for both professionals and academics to exchange ideas and contribute to the evolution of VTS. KCG warmly invites all interested parties to join this symposium. Interested participants are requested to contact Mr Cha, cjg2080@korea.kr, Ms Song, dim74@korea.kr.

VTS Manual and Technical Catalogue

The Chair announced that the VTS Manual has now been updated to version 8.3 as has the IALA Technical Catalogue. Both documents are available to be downloaded from the IALA website.

13. SUMMARY OF OUTPUT AND WORKING PAPERS

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

Outputs from VTS55 were approved by the Committee using the approval procedure. The output documents and working papers are listed in Annex D.

14. REVIEW OF SESSION REPORT

The draft report of the meeting (VTS55-13.1) was approved by the Committee at the Closing Plenary.

15. DATE AND VENUE OF NEXT MEETINGS

VTS56 is planned to be held between 23 – 27 September 2024 at IALA Headquarters, Saint Germain-en-Laye, France.

Other IALA events will be publicised on the IALA website.

16. CLOSING OF THE MEETING

The Chair thanked all Committee participants again for all the engagement and hard work. She hoped that all the participants would return again to VTS56.

She 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.

17. 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



55th Meeting of the Vessel Traffic Services Committee (VTS55)

The physical week of the 55th session of the VTS Committee will take place on the 11 – 15 March 2024 at the IALA HQ, Saint Germain-en-Laye, France. Please note that the Opening Plenary will be held virtually on Friday 8 March starting at 11:00 UTC. The Closing Plenary will be held online on Thursday 21 March 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/ITU | |
| 3.4. | Digital@Sea | |
| 4. | Reports from rapporteurs | |
| 4.1. | MASS related to VTS | Neil Trainor |
| 4.2. | VTS questionnaire | Neil Trainor |
| 5. | Presentations | |
| 5.1. | IALA World Wide Academy Update | Latifa Oumouzoune, IALA |
| 5.2. | Demonstration of VHF digital voice communication | Mayumi ARITA, JCG |
| 6. | Work programme management | |
| 6.1. | Work Programme 2023 – 2027, Task Plan, Task Register | |
| 6.2. | Action plan for VTS55 | |
| 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

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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
VT555-	1.2.1	Provisional Agenda	Secretariat	All
VT555-	1.4.1	Programme of the Week	Secretariat	All
VT555-	2.1	VT554 Action Items	Secretariat	All
VT555-	3.1.1.1	Final Report Council79 (C79-19.1)	Secretariat	All
VT555-	4.1.1	The Future of Mass 2024	Secretariat	All
VT555-	5.2.1	Inf paper_VHF_digital_demo_Japan	JCG and JRC	All
VT555-	6.1.1	Draft Task Plan 2023-2027	VT5 CMT	All
VT555-	7.1.1	Input Paper List	Secretariat	All
VT555-	7.1.2	Working paper list	Secretariat	All
VT555-	7.2.1	Liaison note to all committees on Best practice of QMS for AtoN Service Delivery (ARM17-11.2.2)	ARM17	WG1
VT555-	7.2.2	Input paper on disaster management_JCG	Japanese Coastguard	VT5 CMT
VT555-	8.1.1	Input Paper - Output from TG1.1.3 - Guideline on Provision of VTS to Conventional and Autonomous Ships	IG on task 1.1.3	WG1
VT555-	8.1.1.1	Draft Guideline on Provision of VTS to Autonomous and Conventional Ships (29 Feb - clean copy)	IG on task 1.1.3	WG1
VT555-	8.1.1.2	Attachment MSC 108-4-1 - Report of the Intersessional MASS Working Group (Secretariat)	IG on task 1.1.3	WG1
VT555-	8.1.2	WP Guideline on developments and implications of MASS for coastal authorities (DTEC2-5.2.0.6)	DTEC2	WG1
VT555-	8.2.1	Input Paper - VHF and Maintaining Situational Awareness	IHMA	WG1
VT555-	8.3.1	Proposal on Improving the Output of Revising IMO Standard Marine Communication Phrases	China MSA	WG1
VT555-	8.7.1	Liaison note to VTS on Recommendation R0132 on QMS for AtoN Service Delivery (ARM17-11.2.3)	ARM17	WG1
VT555-	8.7.1.1	Draft Revised R0132 Quality Management for Aids to Navigation Authorities (ARM16-7.2.1.1)	ARM17	WG1
VT555-	9.1.1	Proposals on the "Service Specification for VTS Traffic Clearance Service Edition 1.0"	China MSA	WG2

Meeting	Paper Number	Input Paper Title	Source	Allocation
VTSS55-	9.2.1	Feedback on revision of G1111-1	China MSA	WG2
VTSS55-	9.3.1	LN VTS on VTS Digital Services Architecture Development (DTEC1-12.3.1.2)	ARM17 / DTEC1	WG2
VTSS55-	9.3.2	Proposal For Development of S-210 using IVEF service based on KCG Study Case	KCG	WG2
VTSS55-	9.3.3	Report on intersessional on S-210 and S-212	IG on Tasks 2.5.2 and 2.8.1	WG2
VTSS55-	9.3.3.1	S-210 documentation	IG on Tasks 2.5.2 and 2.8.1	WG2
VTSS55-	9.3.4	Input on service design for traffic clearance service	Fintraffic et al	WG2
VTSS55-	9.3.4.1	S-212 draft 150224 (please note this is a .xml file and available on the fileshare not the website)	Fintraffic et al	WG2
VTSS55-	9.3.4.2	IALA Service Design - Generic S-421 SECOM REST Design (before DTEC02)	Fintraffic et al	WG2
VTSS55-	9.3.4.3	Service Design for VTS Traffic Clearance 0.1	Fintraffic et al	WG2
VTSS55-	9.4.1	Liaison from ARM to all committees on cyber security guideline (ARM17-11.3.3)	ARM17	WG2
VTSS55-	9.4.1.1	draft Guideline on Cyber Security (ARM17-11.3.3.1)	ARM17	WG2 and WG1
VTSS55-	10.1.1	Proposal for Developing Guideline for Remote Training in VTS	China MSA	WG3
VTSS55-	10.1.1.1	Enclosure 1 -Draft Guideline on Remote Training in VTS	China MSA	WG3
VTSS55-	10.1.2	Proposal for Revision of G1027 on VTS Simulation Training	China MSA	WG3
VTSS55-	10.1.3	Report of ITG on Task 3.8.7b-vs2	WG3 Chair	WG3
VTSS55-	10.1.3.1	20240210-C0103-4-revised model course - clean vs1 - VTSS55	WG3 Chair	WG3
VTSS55-	10.1.4	IG report on TASK 3.8.8	IG on Task 3.8.8	WG3
VTSS55-	10.1.4.1	Draft Guideline on Task 3.8.8: VTS English Language Competency Test	IG on Task 3.8.8	WG3
VTSS55-	10.1.4.2	Proposed revision to task register - Task 3.8.8	IG on Task 3.8.8	WG3
VTSS55-	10.1.5	Remote VTS Training-BrazilConf Paper	WG3 Chair	WG3
VTSS55-	10.1.5.1	Paper-Concrete Concepts in Virtual Environment - JCJ - vs3	WG3 Chair	WG3
VTSS55-	10.1.5.2	IALA-2023-Brazil-JCJ-vs3-no notes	WG3 Chair	WG3

Working papers from VTS54

Meeting	WP no.	Working Paper Title	Source	Action
VTS54-	12.5.1.1	WP draft guideline on Provision of VTS to Autonomous and Conventional Ships	WG1	to VTS55
VTS54-	12.5.1.2	WP draft guideline on establishing policy and regulatory framework	WG1	to VTS55
VTS54-	12.5.1.3	WP draft guideline on VTS Digital Communications	WG1	to VTS55
VTS54-	12.5.1.4	WP on technical service for VTS Route Exchange Service	WG1	to VTS55
VTS54-	12.5.1.5	WP on VTS Common Operational Picture	WG1	to VTS55
VTS54-	12.5.1.6	WP 'SMCP Revision Draft'	WG1	to VTS55
VTS54-	12.5.1.7	WP 'Consideration of the proposed revisions to IMO STANDARD MARINE COMMUNICATION PHRASES'	WG1	to VTS55
VTS54-	12.5.1.8	WP draft guideline on quality management system for VTS	WG1	to VTS55
VTS54-	12.5.1.9	WP draft VTS questionnaire	WG1	to VTS55
VTS54-	12.5.1.10	WP discussion paper on future VTS	WG1	to VTS55
VTS54-	12.5.2.1	WP on additions to Guideline 1177 on the portrayal of VTS information and data	WG2	to VTS55
VTS54-	12.5.2.2	WP Proposal on updating G1111-1 to include guidance on VTS Management Information Systems VTS54-9.2.1	WG2	to VTS55
VTS54-	12.5.2.3	WP Annex G1111-1 Producing Requirements for Core VTS Systems and Equipment VTS54-9.2.1.1	WG2	to VTS55
VTS54-	12.5.2.4	WP Generic roadmap.pptx	WG2	to VTS55
VTS54-	12.5.2.5	WP VTS Digital Information product specification V0.7.0 DRAFT Task 2.8.1	WG2	to VTS55
VTS54-	12.5.2.6	WP VTS Digital Services System Architecturev0.6.pptx	WG2	to VTS55
VTS54-	12.5.2.7	WP VTS Technical Services High Level Architecture v2	WG2	to VTS55
VTS54-	12.5.2.8	WP Working Paper on the Architecture of the digital delivery of VTS information	WG2	to VTS55
VTS54-	12.5.2.9	VTS Position Paper on Information Exchange Shore to Shore v0.1	WG2	to VTS55
VTS54-	12.5.2.10	IVEF DD working copy v0.5	WG2	to VTS55
VTS54-	12.5.3.1	WP discussions with the IALA WWA	WG3	to VTS55
VTS54-	12.5.3.2	WP Task Proposal Revision of G1142 - The Provision of a local port service other than a VTS	WG3	to VTS55
VTS54-	12.5.4.1	WP VTS Committee Task Plan	CMT	to VTS55

Meeting	WP no.	Working Paper Title	Source	Action
VT554-	12.5.4.2	WP VTS Committee Task Register	CMT	to VT555

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
VTS55-	12.2.1	LN to ARM - Guidance on Quality Management Systems	WG1	ARM
VTS55-	12.2.2	Revised Guideline G1141 Operational Procedures for VTS	WG1	Council
VTS55-	12.3.1	LN to DTEC on draft Cyber Security Guideline	WG2	DTEC
VTS55-	12.3.1.1	Draft Cyber Security Guideline	WG2	DTEC
VTS55-	12.3.2	LN to ARM on S-100/200	WG2	ARM
VTS55-	12.3.2.1	Report on intersessional on S-210 and S-212	WG2	ARM
VTS55-	12.3.3	Revised Guideline G1177 Portrayal of VTS information	WG2	Council
VTS55-	12.3.4	Liaison Note to IEC TC80 WG17 on Proposed change to IEC 63173-1	WG2	Council
VTS55-	12.3.5	Service design for VTS traffic clearance service (v. 1.0)	WG2	Secretariat
VTS55-	12.3.6	Service specification for VTS traffic clearance service (v. 1.3)	WG2	Secretariat
VTS55-	12.4.1	Revised model course C0103-4 VTS On-the-Job Training Instructor	WG3	Council

Working papers will remain within the Committee for further review during VTS56.

Meeting	Agenda Item	Working Paper Title	Source	Action
VTS55-	12.5.1.1	WP draft Guideline on VTS Interaction with a Mix of Conventional, Automated and Autonomous Ships	WG1	to VTS56
VTS55-	12.5.1.2	WP draft Guideline on Establishing policy and regulatory framework	WG1	to VTS56
VTS55-	12.5.1.3	WP draft guideline on VTS Digital Communications	WG1	to VTS56
VTS55-	12.5.1.4	WP A.918-22-SMCP-original_New Draft	WG1	to VTS56
VTS55-	12.5.1.5	WP draft guideline on quality management for VTS	WG1	to VTS56
VTS55-	12.5.2.1	WP VTS Digital Information product specification V0.7.2 DRAFT Task 2.8.1	WG2	to VTS56
VTS55-	12.5.2.2	WP Proposal to GI Concept Registry	WG2	to VTS56

Meeting	Agenda Item	Working Paper Title	Source	Action
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
VT555-	12.5.4.2	WP VTS Committee Task Register	CMT	to VT556
VT555-	12.5.4.3	WP VTS Questions	CMT	To VT556

Action Items for the IALA Secretariat

1. The Secretariat is requested to forward the WP VTS Committee Task Plan (VTS55-12.5.4.1) and WP VTS Committee Task Register (VTS54-12.5.4.2) as working papers to VTS56 for further development. 15
2. The Secretariat is requested to forward the WP draft guideline on VTS Interaction with a Mix of Conventional, Automated and Autonomous Ships (VTS55-12.5.1.1) as an input paper to VTS56 for further development. 18
3. The Secretariat is requested to forward the WP draft guideline on Establishing policy and regulatory framework (VTS55-12.5.1.2) as a working paper to VTS56 for further development. 18
4. The Secretariat is requested to forward the WP draft guideline on VTS Digital Communications (VTS55-12.5.1.3) as an input paper to VTS56 for further development. 19
5. The Secretariat is requested to forward liaison note (VTS55-12.2.1) to the ARM Committee for their consideration. 21
6. The Secretariat is requested to forward the draft guideline on quality management for VTS (VTS55-12.5.1.5) as a working paper to VTS56 for further development. 21
7. The Secretariat is requested to forward the revised guideline (VTS55-12.2.2) G1141 to Council for approval. 21
8. The Secretariat is invited to use the WP on the fileshare and include the VTS questions into the digital IALA questionnaire and if necessary, provide feedback to the VTS Committee. 22
9. The Secretariat is requested to forward the WP VTS Questions (VTS55-12.5.4.3) as a working paper to VTS56 for further development. 22
10. That the Secretariat forward the revised Guideline G1177 on the portrayal of VTS information and data (VTS55-12.3.3) to Council for approval. 22
11. That the Secretariat forward the liaison note (VTS55-12.3.4) on proposed change to IEC 63173-1 to IEC TC80 WG17 to Council for approval. 23
12. That the Secretariat forward the liaison note on S-210 and S-212 (VTS55-12.3.2) and the report on intersessional on S-210 and S-212 (VTS55-12.3.2.1) to the ARM Committee. 23
13. That the Secretariat publish the service specification for VTS traffic clearance service (v. 1.3) (VTS55-12.3.6). 23
14. That the Secretariat publish the Service design for VTS traffic clearance service (v. 1.0) (VTS55-13.3.5) 23
15. That the Secretariat forwards WP VTS Digital Information product specification V0.7.2 DRAFT Task 2.8.1 (VTS55-12.5.2.1), WP Proposal to GI Concept Registry (VTS55-12.5.2.2), WP on the Architecture of the Digital Delivery of VTS Information (adjusted after liaison note from DTEC) (VTS55-12.5.2.3), WP Service specification for VTS - vessel route exchange v0.1 (VTS55-12.5.2.4), WP Service design for route exchange v0.1 (VTS55-12.5.2.5) to VTS56 for further development. 23
16. That the Secretariat forward WP VTS Position Paper on Information Exchange Shore to Shore v0.1 (VTS55-12.5.2.6), WP IVEF DD working copy v0.5 (VTS55-12.5.2.7) and WP IVEF Technical Service

- Description, working copy v0.2 (VTS55-12.5.2.8) as working papers to VTS56 for further development. 24
17. The draft guideline on cyber security received from ARM was reviewed and further developed. The draft guideline and a liaison note has been forwarded for further consideration. 24
18. That the Secretariat forward LN to DTEC on draft Cyber Security Guideline (VTS55-12.3.1) and Draft Cyber Security Guideline (VTS55-12.3.1.1) to the DTEC Committee for consideration. 24
19. That the Secretariat forward the Revised model course C0103-4 VTS On-the-Job Training Instructor(VTS55-12.4.1) to Council for approval. 26

Action Items for Participants

20. 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@amsa.gov.au) by 5 April 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 18
21. 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@amsa.gov.au). 18
22. 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@amsa.gov.au). 18
23. Committee participants are invited to review the WP draft guideline on Establishing policy and regulatory framework (VTS55-12.5.1.2) and submit comments and remarks to Neil Trainor (neil.trainor@hotmail.com) by VTS56. 18
24. Committee participants are invited to join the intersessional meeting in Oslo, Norway at 26 - 27 June working on the development of a guideline on VTS Digital Communications and express their interest to Fredrik Karlsson (fredrik.karlsson@sjofartsverket.se) by 25 May 2024. 19
25. Committee participants are invited to join the intersessional task group (Virtual meetings) 30 August 10:00-12:00 CET working on the development of the guideline on VTS Digital Communications, the technical service description for digital data exchange between VTS and other entities and the Product Specification S-212 for VTS under the S-100 framework. Committee participants are invited to express their interest Fredrik Karlsson (fredrik.karlsson@sjofartsverket.se) by 23 August 2024. 19
26. Committee participants are invited to join the intersessional task group (virtual meetings) working on the development of a guideline on quality management for VTS and to express their interest to Trond Ski (trond.ski@kystverket.no) by 5 April 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 21
27. Committee participants are invited to provide examples of best practice on QMS for AtoN service delivery as input to the ARM Committee, before ARM18. 21
28. The Committee participants interested in participating in Tasks 1.3.1, 2.5.2 and 2.8.1 are invited to contact Wim Smets (wim.smets@mow.vlaanderen.be) by 25 June 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 23

29. That Committee participants interested in participating in Task 3.4.1 are invited to contact Kelly Glew (Kelly.Glew@DFO-MPO.GC.CA) by 10 April 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 25
30. The Committee participants interested in participating in Task 3.8.2 are invited to contact Jillian Carson-Jackson (jillian@jcjconsulting.net) by 8 June 2024, noting the date and time of the intersessional meeting will be published on the IALA VTS Committee Dashboard. 25
31. The Committee participants are invited to join the intersessional task group working on task 3.8.6 and to express their interest to Stefaan Priem (stefaan.priem@mow.vlaanderen.be) by 16 April 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 26
32. The Committee participants interested in participating in Task 3.8.8 – English Language Competency requirements in VTS Operations are invited to contact Seung-Hee Choi (seunghee.choi.1017@gmail.com) by 25 March 2024, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 27
33. That Committee participants who have established support protocols for managing stress and trauma in their VTS operations are invited to provide input to VTS56. 28
34. That Committee participants who are using IALA G1103 on Train the Trainer are invited to provide input to VTS56. 28

Working Group 1**Operations**

Chair – Trond Ski, Norwegian Coastal Administration

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

Members	Organisation	Task Group No.
Burhanudin Abdullah	Light Dues Board Peninsular Malaysia	1.1.5
Mayumi Arita	Japan Coast Guard	1.3.2
Merve Arik	Havelsan As	1.3.1
Jeanette Assev-lindin	Norwegian Coastal Administration	1.1.5
Jakob Bang	Danish Maritime Authority	1.1.3
Maarten Berrevoets	Ministry of Infrastructure and Water Management	1.1.3
Els Bogaert	Agency for Maritime Services and Coast	1.1.5
Kai Pong	Marine Department HKSAR, Hong Kong	1.3.2
Heidi Clevett	Maritime and Coastguard Agency	1.3.2
Bjorn Coster	Kongsberg Norcontrol AS	1.3.1
Clayton Diamond	American Pilots Association Inc	1.1.3
Frebory Dioubate	Agence de Navigation Maritime	1.1.5
Malin Dreijer	Norwegian Coastal Administration	1.3.1
Jyri Ehandi	Estonian Transport Administration	1.3.1
Ivan Govse	Ministry of Infrastructure	1.1.5
Dorte Olbæk Hansen	Defence Command Denmark Naval Staff	1.1.3
Jan Remi Hoeve	Ministry of Infrastructure and Water Management	1.3.1
Hovda Knut	Norwegian Coastal Administration	1.1.3
Hans Huisman	Marin	1.3.1
Scott Jacobs	US Coast Guard	1.3.2
Richard Jonker	Tidalis	1.3.1
Esa Kallio	Fintraffic VTS	1.3.1
Fredrik Karlsson	Swedish Maritime Administration	1.3.1
Maiju Kaski	Fintraffic Vessel Traffic Services Ltd	1.3.1

Members	Organisation	Task Group No.
Hye-jin Kim	KRISO Korea Research Institute of Ships and Ocean Engineering	1.1.3
Joerg Kuchta	Federal Waterways and Shipping Administration	1.1.3
Matti Latvalahti	Finnish Transport and Communications Agency	1.1.5
Yoss Leclerc	IHMA	
Loïk Lelièvre	Direction Générale des affaires maritimes	
Xu Lin Di	China MSA	
Osamu Marumoto	IMO	1.1.5/1.3.2
Barbara Magro	Italian Coast Guard	1.1.5
Manuel Maias	Portuguese Maritime Administration	1.1.3
Gian Luca Menabene	Italian Coast Guard	1.1.3
Are Piel	Estonian Transport Administration	1.3.2
Fathi Amine	Agence Nationale de Ports	
Marco Svantesson	Swedish Maritime Administration	1.8.4
Neil Trainor	Australian Maritime Safety Administration	1.1.3/1.1.5
Trond Ski	Norwegian Coastal Administration	1.8.4
Toni Sobott	Finnish Transport Infrastructure Agency	1.1.3
Fabio Sobrinho	Marinha do Brasil	1.1.5
Nicola Stasi	Italian Coast Guard	1.1.5
Park Sung Yong	Korea Coast Guard	1.1.3
Nisham Supian	Maritime and Port Authority of Singapore	1.1.3
Toon Van Den Bogarrd	Port of Antwerp-Bruges	1.8.4
Hilber van Omme	Dutch Pilots Corporation	1.1.5
Yang Wenbin	China Maritime Safety Administration	1.8.4
Matthew Williams	IMPA	
Siu Hin Wong	Marine Department Hong Kong	1.8.4
Mohd Zulkifli	Light Dues Board Peninsular Malaysia	
Milou Aerts	Port of Rotterdam	1.1.3

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	
Michael Strandberg	Danish MA	2.5.2 / 2.8.1	
Thomas Christensen	DLR	2.5.2 / 2.8.1	
Wim Smets	Flemis Government Maritime Services and Coast	2.5.2 / 2.8.1	
Domenic Febbo	Elman SRL	2.8.2	
Minsu Jeon	IALA	2.5.2 / 2.8.1	
Dmitry Rostopshin	ICS technologies	2.5.2 / 2.8.1	
Rene Hogendoorn	Tidalis	2.8.2	
Mads Ulrik Kristoffersen	Terma	2.5.2 / 2.8.1	
Takuya Fukuda	Tokyo Keiki	2.8.2	
Xiong E	China MSA	2.5.2 / 2.8.1	
Luwei	China MSA	2.5.1	
Peter Kito	JRC America	2.5.1	
Bruno Nasone	CEREMA	2.5.2 / 2.8.1	
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	
Pierre Mingot	CEREMA	2.5.2 / 2.8.1	
MikitoKoeda	JRC America	2.5.2 / 2.8.1	
Mathew Fine	USCG	2.5.2 / 2.8.1	
Migel Mehlmauer	Slovenian Maritime Admin	2.8.2	
Pedro Duarte	Columbia CI2 SA	2.8.2	
Pierluigi Fiori	Elman	2.8.2	
Yoshio Miyadera	JRC	2.8.2	
Johann Larue	ADS	2.8.2	
Richard Jonker	Tidalis	2.8.2	
JAEGWON CHA	Korea CG	2.8.2	
SONG I SONG	Korea CG	2.8.2	
Alain Serge	Port Authority of Kribi	2.5.2/2.8.1	Yes

Members	Organisation	Task Group No.	Online (x)
Fredrick Karlsson	SMA	2.5.2/2.8.1	Yes
Kannos Sirpa	Fintraffic Vessel Traffic Services Ltd	2.5.2/2.8.1	Yes
Mikael Olofsson	SAAB	2.5.2/2.8.1	Yes
Peter Eade	VissimAS	2.5.2/2.8.1	Yes
John Steve	TONGO BOKAM Port Authority of Kribi	2.5.2/2.8.1	Yes
Jens Christian Pedersen	TERMA		
Omer Yanik	Havelsan AS	2.8.2	
Abdellatif Abbassi	Centre de Surveillance du Trafic Maritime de Tanger	2.5.2./2.8.1	

Working Group 3 Training

Chair – Jillian Carson-Jackson, Nautical Institute

Vice-chair – Stefaan Priem, Agency for Maritime Services and Coast

Members	Organisation	Task Group No.	Online (x)
Abdullah Kizilelma	Directorate General of Coastal Safety Türkiye	All tasks	
Adil Bouhifd	Tanger Med Port Authority (Morocco)	All tasks	
Alfredo Zappa	Prefectura Naval Argentina	All tasks	X
Ana Micheloud	Prefectura Naval Argentina	All tasks	X
Andreas Keller	NNVO, Dutch Training Foundations	All tasks	
Azul Zampedri	Prefectura Naval Argentina	All tasks	X
Daniela Sosa	Prefectura Naval Argentina	All tasks	X
Erika Marpaung	Directorate of Navigation (Indonesia)	All tasks	
Evan Frendo	Ministry of Oceans and Fisheries (Republic of Korea)	All tasks	
Fréboury Dioubate	Agence de Navigation Maritime (Guinee)	All tasks	
Henry Arriagada	Dirección General del Territorio Marítimo y de Marina Mercante de Chile	All tasks	X
J. Carlos F. Salinas	Spanish Maritime Safety Agency	All tasks	
Jillian Carson-Jackson	Nautical Institute	All tasks	
Jockum Lundsten	Fintraffic Vessel Traffic Services Ltd	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	
Lorena García	Prefectura Naval Argentina	All tasks	X
Lui Wei	China MSA	3.8.2 3.8.6	
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	
Nisham Supian	Singapore MPA	All tasks	X

Members	Organisation	Task Group No.	Online (x)
Raquel Rojo	Spanish Maritime Safety Agency	All tasks	
Revo Rizki Aditiya	Directorate of Navigation (Indonesia)	All tasks	
Rodrigue Bijlsma	Antwerp Maritime Academy (Bel)	All tasks	
Sari Talja	Fintraffic Vessel Traffic Services Ltd	All tasks	
Sebastián Buso Vega	Prefectura Naval Argentina	All tasks	X
Seunghye Choi	Ministry of Oceans and Fisheries (Korea)	3.8.8	X
Stefaan Priem	Agency for Maritime Services and Coast (Bel)	All tasks	
Sungchul Choi	Ministry of Oceans and Fisheries (Republic of Korea)	3.8.8	
Suyadi	Directorate of Navigation (Indonesia)	All tasks	
Wang Wei	China MSA	All tasks	X
Yasuko Nakai	TST Corporation	All tasks	



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Association Internationale de Signalisation Maritime