



IALA VTS COMMITTEE

REPORT OF THE 54th SESSION OF THE IALA VESSEL TRAFFIC SERVICES (VTS) COMMITTEE

18 – 27 September 2023

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27 September 2023

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International Association of Marine Aids to Navigation and Lighthouse Authorities

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Report of the 54th session of the IALA Vessel Traffic Services (VTS) Committee Executive Summary

The 54th session of the VTS Committee was held from 18 - 27 September 2023, including the physical week at IALA HQ between 18-22 September, with Monica Sundklev as Chair and Dirk Eckhoff as Vice-chair. The Secretary for the meeting was Thomas Southall.

131 participants from 33 countries, three Sister organisations participated in VTS54. 37 participants attended for the first time.

The VTS Committee considered 49 input papers and produced 33 output papers, including working papers, from three Working Groups.

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

Key outputs completed included:

- VT54- 12.2.1 Workshop proposal – VTS Competent Authorities
- VT54- 12.2.3 Dictionary entry - situational awareness
- VT54- 12.3.3 Technical Service Specification for VTS Traffic Clearance
- VT54- 12.4.1 Model Course C0103-2 Vessel Traffic Services Supervisor Training

The following liaison notes were approved:

- VT54- 12.2.2 Liaison note to ARM on quality management systems for VTS
- VT54- 12.3.1 Liaison note to DTEC / ARM on cyber security guideline
- VT54- 12.3.1.1 Draft Cyber security guideline
- VT54- 12.3.2 Liaison note to DTEC on Digital Services Architecture

Overall status of the VTS Committee 2023 - 2027 Work Programme after VTS54:

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				
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					
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							

Standard	Scope	No.	Task	Comment	54	55	56	57	58	59	60
Marine AtoN planning and service requirements	Aids to navigation planning	1.8.3	<i>Develop guidance on the provision of AtoN and risk management for autonomous vehicle/vessel operations (Maritime Autonomous Surface Ship, MASS)</i>	Awaiting DTEC							
Marine AtoN planning and service requirements	Quality Management	1.8.4	Develop a guideline on quality management system for VTS	LN to ARM	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							
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	Added to the WP	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	Added to the WP	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		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	To Sec to publish for testing	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	LN to DTEC	X	X	X	X	X	X	X

Standard	Scope	No.	Task	Comment	54	55	56	57	58	59	60
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
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	LN to ARM & DTEC	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 Added to the WP							
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
Training and Certification	Training and Assessment	3.8.6	Revision of G1027 on Simulation in VTS training		X	X	X	X			

Standard	Scope	No.	Task	Comment	54	55	56	57	58	59	60
Training and Certification	Training and Assessment	3.8.7	Revision of IALA VTS Model Courses								
		a)	C0103-2 VTS Supervisor	To Council for approval	X						
		b)	C0103-4 OJT Instructor		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:

Light orange:

Light grey:

X

Ongoing or scheduled task

To Council to note or approve

Task completed or deleted

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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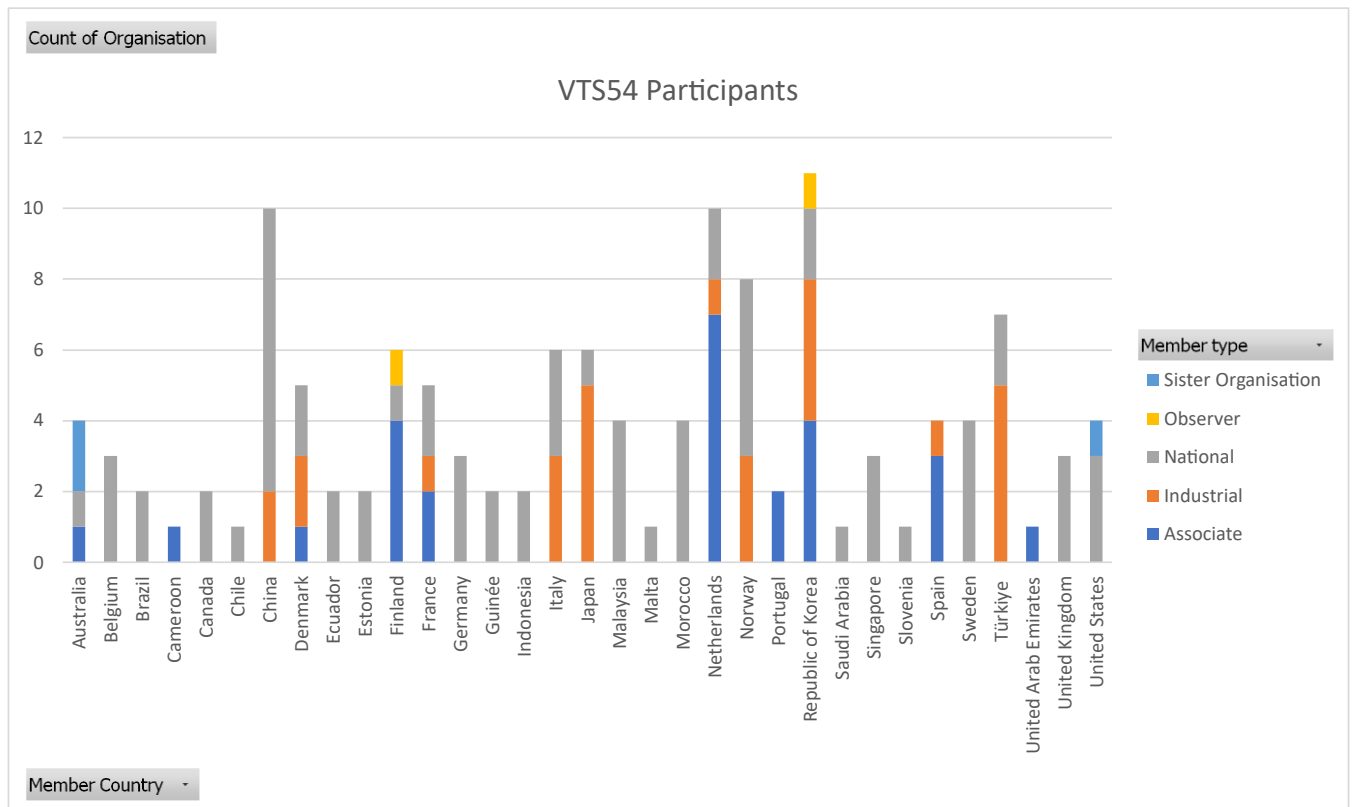
Report of the 54th session of the IALA Vessel Traffic Services (VTS) Committee

1. INTRODUCTION

The 54th meeting of the VTS Committee was held from 18 – 27 September 2023 with Monica Sundklev as Chair and Dirk Eckhoff as Vice-Chair. The Secretary for the meeting was Thomas Southall.

The physical week began on Monday 18 September with the opening plenary and the session continued until Friday 22 September, followed by an approval period and the virtual closing plenary on 27 September. The Chair welcomed everybody, **both old as well as new participants**, to the meeting following the IALA Conference in Brazil earlier in the year and was pleased to see so many faces at IALA HQ.

131 participants from 33 countries, three Sister organisations participated in VTS54. 37 participants attended for the first time. A breakdown of the participants is shown in the graph below.



1.1 Welcome from the Secretary-General

At the Opening Plenary of VTS54 on Monday 18 September 2023, Secretary-General, Francis Zachariae welcomed attendees to VTS54, the first meeting of the new work period following the successful Conference and General Assembly held in Rio de Janeiro in June. The Secretary-General expressed gratitude to the Brazilian hosts and industry colleagues for their significant contributions to the event and added the next Conference is scheduled for 2027 in India.

Attendees were encouraged to review the highlights from the recent Conference, including key points relevant to the VTS committee's work.

Francis Zachariae acknowledged the packed schedule for VTS 54, highlighting the abundance of interesting input documents and unfinished tasks from the previous work period. He then noted the considerable focus on papers related to Maritime Autonomous Surface Ships (MASS) and the future of VTS. Emphasizing the importance of adapting to evolving maritime trends, it was acknowledged that VTS may undergo changes and acquire new responsibilities as the maritime sector progresses.

The Secretary-General highlighted the significance of the recently adopted Resolution, which takes future developments into account and ensures its long-term relevance.

Francis Zachariae brought the upcoming workshop hosted by IALA, featuring key stakeholders from users, shipbuilders, authorities, and other industry representatives to the attention of the Committee. The workshop aims to explore scenarios for MASS investment and its implications on various types of ships over the next 5 to 20 years.

He then provided an update on the transformation of IALA into an Intergovernmental Organization (IGO). With 25 ratifications in progress, it was noted that IALA could become an IGO as soon as by the end of the current year or early in the next. Singapore have generously offered to host the first General Assembly of the new IGO.

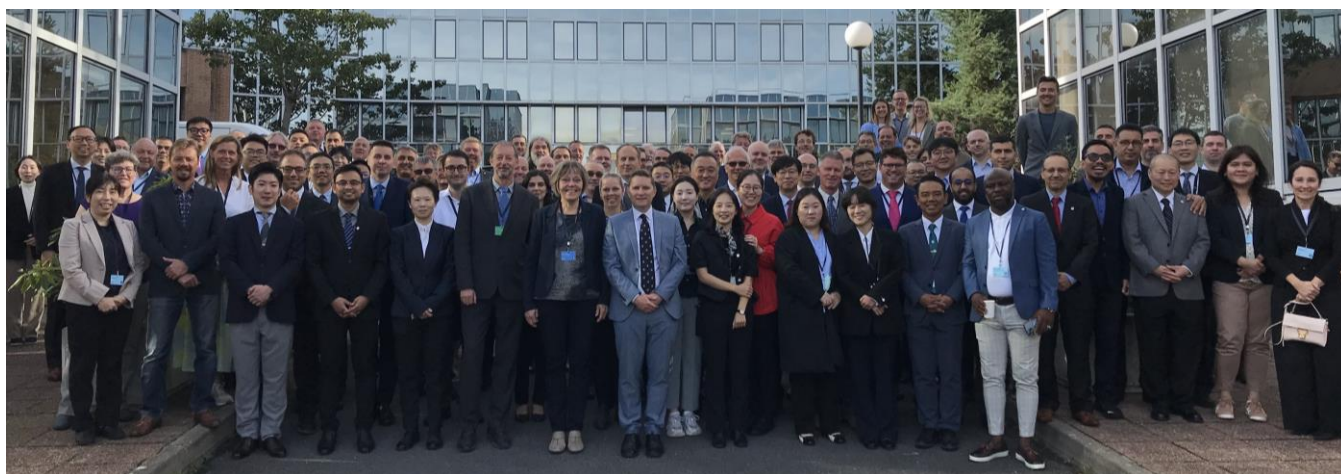
The Secretary-General finally wished attendees success during the meeting and expressed appreciation for their contributions in the spirit of the IALA family.

1.2 Approval of the agenda

The agenda was reviewed and approved (VTS54-1.2.1).

1.3 Apologies

Maarten Berrevoets submitted his apologies to the Secretariat. A list of participants who attended VTS54 can be found on 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 VTS54 Action Plan that had been agreed by the VTS Committee Management Team (CMT) to be progressed during VTS54 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 VTS54 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 22 September 2023 at 10:00 CEST.

2. REVIEW OF ACTION ITEMS FROM VTS53

The Committee Secretary confirmed that all Secretariat actions from VTS53 were completed (input paper VTS54-2.1.1).

3. REPORTS FROM OTHER BODIES

3.1 IALA

3.1.1 IALA Council

Minsu Jeon, the Technical Operations Manager reported on three council meetings that have taken place since the last VTS Committee meeting. Notably, all of these council meetings were held in Brazil.

The first of these meetings was the 76th session of the Council, which occurred from December 12 to December 16, 2022. Given that this session marked the culmination of the previous work program spanning from 2018 to 2023, several significant developments transpired. The Council approved a substantial number of draft documents encompassing standards, recommendations, and guidelines. These documents were subsequently endorsed by the General Assembly. Among these approved documents were ones pertaining to the strategic vision, an amendment to the constitution, Recommendation R1001 Maritime Buoyage System Edition 2.0, and a suite of standards Edition 2.0. Furthermore, Guideline G1139, which addressed the Technical Specification of VHF Data Exchange System (VDES), was revoked. Additionally, the VTS Committee requested the Council to withdraw two documents: Recommendation R0120 (VTS in Inland Waterways) and Recommendation R1014 (Portrayal of VTS Information and Data). A substantial number of guidelines, totalling 15, were completed by the VTS Committee. The Council also approved a proposal from the ARM Committee for the second IHO IALA workshop on S 100 and 200, scheduled to take place in Annapolis, USA, in 2024. Lastly, the council designated Cap Spartel Lighthouse in Morocco as the Heritage Lighthouse of the Year for 2023.

Council 77 convened on May 28 this year in Brazil, during this session, the group made note of the report from PAP49 and an extraordinary session of the ENAV Committee.

Finally, the 78th session of the Council was held on June 3 in the same location, with newly elected councillors participating. This session marked the approval of the committee structure for the work period spanning from 2023 to 2027. A significant change involved the renaming of the ENAV Committee to the DTEC Committee. The Council also endorsed the appointment of new chairs for the ENG and ARM Committees, along with a new vice-chair for the ARM Committee, as well as re-appointing chairs and vice-chairs for VTS and ENAV Committees and vice-chair for ENG Committee.

3.1.2 IALA Policy Advisory Panel

Minsu Jeon, IALA Technical Operations Manager, reported that the 50th session of PAP was held between 6 - 8 September 2023.

The PAP agreed to the adoption of an online work programme database. This database will be helpful in the management of tasks assigned to the various committees. It promises to streamline committee operations and enhance efficiency within the organization.

The PAP also considered the draft new terms of reference for the committees and subsidiary bodies for the future intergovernmental organization (IGO).

Furthermore, discussion considered establishing a liaison with the International Civil Aviation Organization (ICAO) regarding the marking of seaplane operational areas, which may also be present in VTS areas. This liaison aims to foster collaboration and ensure the smooth functioning of seaplane operations in alignment with international standards.

The PAP session provided valuable updates on IALA's involvement in the ongoing Standards of Training, Certification, and Watchkeeping (STCW) review, the review of the Automatic Identification System (AIS) documents, developments related to S-200, and progress with MRN.

3.1.3 IALA Conference and General Assembly 2023

Minsu Jeon, informed participants that the IALA Conference provided a remarkable platform for delving into a wide array of presentations encompassing various technical aspects within IALA's scope. Over the course of this event, approximately 140 presentations were delivered, spanning both plenary sessions and the speaker's corner, and all of these presentations can be accessed via the file-sharing platform. This opportunity proved invaluable for staying abreast of ongoing technical advancements and gaining insights into forthcoming developments.

Upon examining the conclusions drawn from the conference, some trends were prominently discussed, with a notable focus on sustainability, in alignment with the United Nations Sustainable Development Goals (SDGs). The cooperative relationship between the International Hydrographic Organization (IHO) and IALA was emphasized as well.

A considerable number of presentations delved into the realm of autonomy and the human dimension, a topic magnified by the influence of digitalization in the maritime field. The Conference also highlighted that it is equally crucial not to lose sight of the importance of physical Aids to Navigation (AtoN) for mariners.

During the week of the Conference, the General Assembly convened. Several significant decisions were reached during this Assembly:

- An amendment to the Constitution was approved.
- Revised standards were adopted.
- The revised Maritime Buoyage System (MBS) was approved.
- A strategic vision for the organization was approved.

Furthermore, the General Assembly elected the members who now constitute the new Council of IALA.

3.2 IMO

Minsu Jeon reported relevant results from IMO meetings since the last Committee (NCSR10 and MSC107) meeting starting with NCSR10.

At NCSR10 IALA presented five papers, and delivered a presentation on MRN which was well received by many of the member States.

IALA had submitted document NCSR 10/7/1, proposing updated and new descriptions on Maritime Services for VTS and Aids to Navigation. This submission was approved without any changes. As an outcome, VTS 1, 2, and 3 have been consolidated into a singular description on VTS under MS1. The updated AtoN description is now the second point on the list of the descriptions (MS2).

IALA had also submitted a proposal to amend on the aids to navigation and VTS part of the IMSAS manual, and it was well received and has been forwarded to the IMO III sub-committee. The proposal is intended to be incorporated into the development of a new III Code Implementation Guide. This guidance will provide essential advice for countries undergoing audits, ensuring a more efficient and comprehensive evaluation process.

NCSR also approved a revision of resolution MSC.530(106) on Performance standards for ECDIS that introduces new ECDIS functionalities for a standardized digital exchange of ships' route plans between ships and shore. This approval may signify an opening step, potentially paving the way for broader data exchanges between ECDIS systems and coastal States.

3.3 Digital@Sea

Minsu Jeon reported that Digital@Sea Asia Pacific took place in Korea which included a capacity building workshop. This event attracted a substantial pool of expertise in the maritime domain.

Looking ahead, the next conference, Digital@Sea International, is scheduled for 30 – 31 January 2024, in Copenhagen, Denmark. Subsequently, another conference in North America is planned for 8 – 9 May 2024, in Atlantic Beach, Florida, USA.

3.4 IHO

Minsu Jeon, reported that regarding International Hydrographic Organization (IHO) matters, IALA continues to be actively engaged in several initiatives. IALA is active in IHO Hydrographic Services and Standards Committee (HSSC) meetings and additionally, the World-Wide Academy (WWA) has joined regional hydrographic Commission meetings, demonstrating a cooperative approach to regional discussions.

A second joint workshop between IHO and IALA has been scheduled for next year and IALA is poised to resume its regular technical cooperation meetings with the IHO later in the current year.

3.5 ITU

Minsu Jeon informed the Committee on IALA / ITU matters highlighting that the ITU Working Party 5B convened for its latest meeting from 10 – 21 July this year in Geneva. This gathering marked the conclusion of the study cycle spanning from 2019 to 2023. Representing IALA at this meeting was Stefan Bober.

A focus of WP5B centered on two key objectives:

- Revision of several recommendations.
- Introduction of two ITU study questions: one pertaining to VHF digital voice and the other concerning VDES R-mode.

It is noteworthy that the preparation of documents for the upcoming World Radiocommunication Conference 2023 (WRC23) had been completed during the previous meeting. WRC23 is scheduled to take place in Dubai, UAE, from 20 November - 15 December 2023.

IALA maintains a specific interest in the maritime mobile service, encompassing the Global Maritime Distress and Safety System (GMDSS) and the radio determination service. IALA places particular emphasis on the development of technologies such as VDES, AIS, AMRD, VHF digital voice, and VDES R-mode.

4. REPORTS FROM RAPPORTEURS

4.1 MASS related to VTS

Rapporteur: Neil Trainor, IHMA

Neil Trainor, IHMA representative, provided the following report outlining developments related to Maritime Autonomous Surface Ships (MASS) since the VTS53 meeting held in September 2022.

The IMO held two significant meetings since VTS53, MSC 106 in November 2022 and MSC 107 in May and June of 2023. Notably, the development of a goal-based code for MASS was discussed, with related input papers available (VTS54-8.1.1.2). Additionally, an updated IMO roadmap for developing this code was presented (VTS54-8.1.1.3). It's important to note that progress within the IMO is advancing rapidly. The expectation is to adopt the new non-mandatory code for MASS by the second half of 2024. Furthermore, the approval of necessary amendments to existing instruments is anticipated in the first half of 2025, leading to the mandatory code for MASS and associated conventions entering into force in January 2028.

The MASS Task Force convened in March 2023. A major focus of this meeting was the development of the overarching MASS recommendation and guideline. An input paper is available as a draft guideline for MASS applications by shore authorities (VTS54-8.1.1.1).

Since VTS53, the VTS Committee's MASS Task Group held five intersessional meetings. Two key outcomes from these meetings were highlighted. Firstly, an update was made to the discussion paper on the implications of MASS from a VTS perspective (VTS54-8.1.1.4). Secondly, the task group drafted a guideline regarding the provision of VTS to both autonomous and conventional ships, which was presented for the committee's consideration (VTS54-8.1.1.5).

4.2 VTS questionnaire

Rapporteur: Neil Trainor, IHMA – presented at VTS54 by the Chair, Monica Sundklev

The Chair, Monica Sundklev, reported that although the previous questionnaire project has been on hold for a period, there is progress to report on this matter. The Chair stated that, the Secretariat has been working on an online solution and digitizing the Aids to Navigation (AtoN) questionnaire. Whilst this aspect is fully developed, the Committee has been asked to revise the questions, ensuring that they are prepared and ready for implementation when the digitalization process is completed. The development of this questionnaire will be overseen by the Committee Management Team (CMT).

5. PRESENTATIONS

All recordings of the presentations given at VTS54 can be found on the fileshare (login necessary). The following presentations were given at VTS54:

- IALA World Wide Academy Update / Gerardine Delanoye, IALA
- Update on S-200 series PS data models / Minsu Jeon, IALA
- Japanese VTS and Natural Disasters / Mayumi Arita, JCG
- Preparing for Future VTS / Ji-yeon Lee, KCG

6. WORK PROGRAMME MANAGEMENT

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

The Task Plan was updated to reflect the new 2023 – 2027 Work Programme and throughout the session, the new document and the Task Register were updated by the Vice-chair and these were noted by the Committee. They will both be forwarded to VTS55 as working papers.

Action item(s)

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

6.2 Action Plan for VTS54

The VTS54 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 VTS54 consisted of new input papers as well as working papers from the previous session. The input paper list (VTS54-7.1.1) did not include the working papers from VTS53. The working paper list (VTS54-7.1.2) 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	Stefaan Priem (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 during VTS54 (WG1). The working group progressed six tasks assigned under the 2023 – 2027 Work Programme and produced a total of three output documents and 10 working papers. Intersessional work is planned to further progress task 1.1.3 regarding implications of MASS from a VTS perspective.

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

Task group leader: Neil Trainor

The following input papers were considered:

- VTS54-8.1.1.1 MTF05-8.1 Draft Guideline MASS implications for Shore Authorities.
- VTS54-8.1.1.2 MSC 107-5 - Report of the Correspondence Group (Marshall Islands)).
- VTS54-8.1.1.3 Road Map for Developing a Goal-based Code for MASS (MSC 107)).
- VTS54-8.1.1.4 Discussion Paper - Implications of MASS from a VTS Perspective.
- VTS54-8.1.1.5 Draft Guideline on Provision of VTS to Autonomous and Conventional Ships.
- VTS53-12.1.2 New VTS Task Register 2023-2027.

Key outcomes include:

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

A review of the Discussion Paper (*VT554-8.1.1.4 Discussion Paper - Implications of MASS from a VTS Perspective*) highlighted the Paper has provided a valuable contribution to assist the Committee achieve a common understanding of MASS and its implications on the provision of VTS by focusing on:

- Clearly and concisely identifying:
 - Trends and opportunities presented by MASS.
 - Issues / challenges / expectations for the management of ship traffic in a VTS area.
 - Options, policies, and strategies for VTS to embrace / influence MASS.
 - Implications for the regulatory and legal framework for VTS.
 - Implications for IALA Standards relating to VTS.
- The 'operational requirements' for managing ship traffic and the interaction between VTS, ships (both conventional and autonomous), allied services and RCCs through mix of traditional VHF voice, digital communications, and automated data exchange.

The Paper has also been provided to the other IALA technical committees for their information and comment following VT553 and, in addition, was forwarded to Council.

It was concluded that the no further work was required on the paper and the focus should now be directed to preparing the *Guideline on Provision of VTS to Autonomous and Conventional Ships*.

2. Draft Guideline on Provision of VTS to Autonomous and Conventional Ships

The Committee commenced preparing the Guideline on *Provision of VTS to Autonomous and Conventional Ships* based on the draft document prepared by the intersessional group following VT553 (*VT554-8.1.1.5 Draft Guideline on Provision of VTS to Autonomous and Conventional Ships*).

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.

A copy of the revised draft Guideline is at *VT554-12.5.1.1*.

Note – a copy of the working document used at VT554, including track changes, is available on the VTS Dashboard.

3. Task Register

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

Action item(s):

The Secretariat is requested to forward the WP draft guideline on Provision of VTS to Autonomous and Conventional Ships (VTS54-12.5.1.1) as a working paper to VTS55 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@hotmail.com) by 21 October 2023, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Task Group Leader to provide input on the intersessional work on task 1.1.3 to VTS55.

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)

General discussion identified that commencement of this task should be postponed, pending:

- Completion of guidance on the Implications of Maritime Autonomous Surface Ships (MASS) from a VTS Perspective (Task 1.1.3 (a)); and
- Finalization of the non-mandatory MASS Code and approval of amendments to existing instruments necessary for the entry into force of the new instrument by the IMO (MSC) in 2024.

Action item(s):

That the VTS Committee Vice-chair update the Task Register and Work Plan to reflect postponing Task 1.1.3(b) until VTS56.

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

Work commenced on this Task at VTS54 by considering the following input papers:

- VTS54-7.2.2 Workshop Proposal - VTS competent authorities
- VTS54-7.2.2.1 Annex - Workshop proposal - VTS CA's.
- VTS53-12.1.2 New VTS Task Register 2023-2027.

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 standards.

A copy of the draft Guideline prepared is at VTS54-12.5.1.2.

Committee participants are invited to review draft Guideline VTS54-12.5.1.2 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 VTS 55.

The proposed workshop to assist the Committee complete Task 1.1.5 was considered (Input papers VTS54-7.2.2 Workshop Proposal - VTS competent authorities and VTS54-7.2.2.1 Annex - Workshop proposal - VTS CA's) was also considered and a submission to Council (VTS54-12.2.1) was prepared for silent approval.

Action item(s):

The Secretariat is requested to forward the WP draft guideline on establishing policy and regulatory framework (VTS54-12.5.1.2) as a working paper to VTS55 for further development.

The Secretariat is requested to forward the workshop proposal – VTS Competent Authorities (VTS54-12.2.1) to Council for approval.

Committee participants are invited to review the WP draft guideline on establishing policy and regulatory framework (VTS54-12.5.1.2) and submit comments and remarks to Neil Trainor (neil.trainor@hotmail.com) by VTS55.

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

Task group leader: Tuomas Martikainen

The following input papers were considered in connection with Task 1.3.1:

- *VTSS4-7.2.3 Testing of VTS information service based on VDES*
- *VTSS4-8.2.3 Analysis of the Impact of Digital Route Exchange within VTS Operations*
- *VTSS4-8.3.1 Input paper IG 1.3.2 VTS Digital Communications*
- *VTSS4-8.3.1.1 Draft GL on VTS Digital communications_20230615*
- *VTSS4-8.3.1.2 VTS Route Service Specification_230815*
- *VTSS4-8.3.1.3 VTS Common Operational Picture_230615*
- *VTSS4-8.3.2 Input paper - Draft of Service Specification for digital VTS Anchorage Assignment Service_V0.5.0*
- *VTSS4-8.3.2.1 AnnexA_Draft of Service Specification for digital VTS Anchorage Assignment Service_V0.5.0*

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 was on the general principles of VTS digital communications and on message structure and delivery.

The TG revisited and updated the list of the potential Technical Services used by VTS for digital communication in the draft guideline. These Technical Services can be divided into VTS-specific services and services developed within other Maritime Services.

The information provided from China MSA in document VTSS4-7.2.3 was considered when updating of the paragraph on the use of AIS/VDES Application Specific Messages in the draft guideline.

The information provided from China MSA in document VTSS4-8.2.3 was considered when developing the technical service specification for VTS Route Exchange Service and the paragraph on route exchange in the draft guideline on VTS Digital Communications. The task group had the following remarks on the document:

Route exchange will be voluntary for the foreseeable future, but coastal states can require the sharing of route information for ships to be able to make use of certain other complementary future services from VTS, ports and other actors. In these cases, the Route exchange service should use standardized data models and technical services and cannot be of “unsupported” nature. Risk assessments have been well undertaken in a large number of research and implementation projects around the world and the positive factors by having the exact same information in regards of the route on shore and onboard and the ability send this information to relevant parties are considered to outweigh the disadvantages. In the case of MASS traffic Digital Route Exchange, including schedule, is probably one of the core solutions of presenting MASS intentions for other ships, VTS and other actors. But as the document VTSS4-8.2.3 states, procedures and personnel training are crucial before services that use Route Exchange are deployed.

The TG also updated the description of operational context and use cases in the technical service specification for VTS Route Exchange Service.

The TG did go through the documents VTSS4-8.3.2 and VTSS4-8.3.2.1. The TG noted that the proposal for new Technical Service on digital VTS anchorage assignment service had similarities with the draft Technical Service for VTS Traffic Clearance Service and the services could be merged. The TG updated the description of operational context in the service specification and forwarded the documents to WG2 to be considered when defining the technical details for the service. The TG had joint sessions with TG’s 2.5.2 and 2.8.1 to further

develop and finalize the Technical Service Specification for VTS Traffic Clearance Service, which was forwarded for Committee approval.

Action item(s):

The Secretariat is requested to forward WP draft guideline on VTS Digital Communications (VTS54-12.5.1.3), WP on technical service for VTS Route Exchange Service (VTS54-12.5.1.4) and WP on VTS Common Operational Picture (VTS54-12.5.1.5) as working papers to VTS55 for further development.

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

During VTS54 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 developed a draft paper to IMO and created 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 NCSR document 9/23/2 which proposes to review and amend A.918(22).

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)
- To reflect the definitions of the message markers and additional phrases in G1132
- To update to reflect current technology and widely used practices.
- To consider simplifying the structure and format of the document for easier reference with the inclusion of tables to set out the standard phrases.

As the IMO is not expected to consider this Resolution for revision until NCSR 12/13, the task is expected to continue into the next several sessions, in alignment with any possible output proposal to NCSR.

Action item(s):

The Secretariat is requested to forward WP 'SMCP Revision Draft' (VTS54-12.5.1.6) and WP 'Consideration of the proposed revisions to IMO STANDARD MARINE COMMUNICATION PHRASES' (VTS54-12.5.1.7) as working papers to VTS55 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:

- VTS54-8.7.3 Proposal to Promote the Development of Guideline on Quality Management System for Vessel Traffic Service
- VTS54-8.7.3.1 Draft of Guideline on Quality Management System for Vessel Traffic Service

At VTS54 the task group commenced the work to develop a guideline on quality management system for VTS based on a draft guideline kindly provided by China MSA. With valid support from participants from China MSA the draft guideline was restructured to better align with guideline G1052 "Quality Management Systems for Aids to Navigation Service Delivery". Furthermore, some editorial changes were made and references to ISO 9001 (2015) added. The draft guideline will be forwarded as a working paper to VTS55 for further development.

Committee participants are invited to review the draft guideline on quality management system for VTS and submit comments and remarks to Trond Ski (trond.ski@kystverket.no) by VTS 55.

As the ARM Committee is planning to commence a review of Recommendation R0132 “Quality Management for Aids to Navigation Authorities” a liaison note was prepared for approval with the purpose to inform the ARM committee of the ongoing development of a guideline on quality management system for VTS.

Action item(s):

The Secretariat is requested to forward liaison note (VTS54-12.2.2) on Quality Management Systems for VTS to the ARM committee for their consideration.

The Secretariat is requested to forward the WP draft guideline on quality management system for VTS (VTS54-12.5.1.8) as a working paper to VTS55 for further development.

That Committee participants are invited to review the WP draft guideline on quality management system for VTS (VTS54-12.5.1.8) and submit comments and remarks to Trond Ski (trond.ski@kystverket.no) by VTS55.

9.6 Task 1.9.3 Conduct of the Global VTS Questionnaire

Task group leader: Neil Trainor on behalf of the CMT

The Secretariat is working on an online digital solution for the IALA AtoN questionnaire and the VTS questionnaire. When this has been done the digital VTS questionnaire will be continued to be developed. The Secretariat has therefore asked the VTS Committee to start revising the questions previously used in the global VTS questionnaire 2016 as that survey was done when the old IMO resolution A.857(20) was in force and these questions need to be updated to follow the new resolution A.1158(32).

The Committee Management Team (CMT) reviewed and updated the questions and completed a draft VTS questionnaire to be used by the Secretariat when developing the online solution.

The questions will be further reviewed at VTS55.

Action item(s):

The Secretariat is requested to forward the WP draft VTS questionnaire (VTS54-12.5.1.9) as a working paper to VTS55 for further development.

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

Task group leader: Neil Trainor

The following input papers were considered:

- VTS53-8.6.2 Input Paper - Output from TG1.4.3 - Future VTS
- VTS53-12.1.2 New VTS Task Register 2023-2027

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.

Fourteen emerging trends, technologies and practices are currently being considered. These include:

Maritime Autonomous Surface Ships (MASS)	Marine Spatial Planning
Digital technologies and communications	Interacting Objects
Green House Gas Emissions / Just in Time Arrival	Enhanced Situational Awareness through a Shared Operational Picture

Advanced Decision Support Tools	Slot Management
Automated Data and Information Exchange	New sensing technology for nearshore and port waters
Navigational Support / Assistance	Long-distance sensing technology
Sea Traffic Management	A review of the document was completed

A review of the Discussion Paper was completed, focussing on the following emerging trends, technologies, and practices:

- Enhanced Situational Awareness through a Shared Operational Picture
In reviewing this section, it was identified there was a need to define the term “Situational Awareness” from a VTS perspective and a definition was prepared. The IALA “Dictionary template for new and amendment terms and definitions” was subsequently completed to request the definition to be included in the IALA Dictionary.
- Advanced Decision Support Tools.
- Achieving Resilience in Delivering a VTS.

A copy of the revised document is at VTS54-12.5.1.10.

Note – a copy of the revised working document, including track changes, is available on the VTS Dashboard.

Action item(s):

The Secretariat is requested to forward the WP discussion paper on future VTS (VTS54-12.5.1.10) as a working paper to VTS55 for further development.

The Secretariat is requested to action the request to include the definition of “Situational Awareness” from a VTS perspective in the IALA Dictionary contained in Dictionary template for new and amendment terms and definitions - Situational Awareness (VTS54-12.2.3).

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 VTS54 to monitor progress, set expectations and plan for the rest of the period.

The Technology Working Group (WG2) welcomed a number of new members. The WG also noted the work undertaken inter-sessionally on S-212, S-210 and IVEF in Oostende from 13 to 15 March 2023.

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

There are four output papers comprising two liaison notes, an amended draft guideline and a service specification. Additionally, there are several working papers to be forwarded to VTS55.

The China MSA delegation gave a presentation on their proposals regarding VTS Management Information Systems and their input paper proposing a new section for inclusion in G1111-1. This presentation is available on the VTS file share area. Any feedback from VTS Committee participants on the China MSA papers (VTS54-9.2.1 & VTS54-9.2.1.1) should be sent to Liuwei@shmsa.gov.cn

10.1 Task 2.5.1 Revise G1177 on portrayal of VTS information

During VTS54 work progressed adding 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(s):

That the Secretariat forward the WP on additions to Guideline 1177 on the portrayal of VTS information and data (VTS54-12.5.2.1) as a working papers to VTS55 for further development.

10.1 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.

Action item(s):

That the Secretariat forward WP Proposal on updating G1111-1 to include guidance on VTS Management Information Systems VTS54-9.2.1 (VTS54-12.5.2.2) and WP Annex G1111-1 Producing Requirements for Core VTS Systems and Equipment VTS54-9.2.1.1 (VTS54-12.5.2.3) to VTS55 as working papers.

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

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 several years. The WG plan is to be in a position is to publish editions at suitable intervals.

The task group developed a Technical Service Specification for VTS Traffic Clearance (VTS54-12.3.3) and this document will now be forwarded to the Secretariat to be published on the IALA website for testing as S-212 version 1.0.

Several two-day online intersessional meetings will be held from 16 - 17 November 2023 and 14 - 15 February 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 with suggested two-hour time slots at 11 am UTC which will strive to mitigate any time zone challenges.

Note that Input paper VTS54-9.1.3 *Suggestions on the New Work Task of Developing Technical Service Specifications for Digital Data Exchange between VTS and Other Entities* from China MSA was referred to this task group. During VTS54 the China MSA team assisted in the incorporation of this input into the service specification on VTS traffic clearance.

Action item(s):

That the Secretariat forward the liaison note on VTS Digital Services Architecture Development to DTEC and ARM for their consideration (VTS54-12.3.2).

That the Secretariat forwards WP Generic roadmap.pptx (VTS54-12.5.2.4), WP VTS Digital Information product specification V0.7.0 DRAFT Task 2.8.1 (VTS54-12.5.2.5), WP VTS Digital Services System Architecturev0.6.pptx (VTS54-12.5.2.6), WP VTS Technical Services High Level Architecture v2 (VTS54-12.5.2.7), WP Working Paper on the Architecture of the digital delivery of VTS information (VTS54-12.5.2.8) as working papers to VTS55 for further development.

That the Secretariat publish Technical Service Specification for VTS Traffic Clearance (VTS54-12.3.3) on the IALA website for testing as S-212 version 1.0.

Committee participants are invited to join the intersessional task group (Virtual meetings) working on Task 2.5.2 Develop technical service description for digital data exchange between VTS and other entities – primarily ships and Task 2.8.1 Develop a Product Specification S-212 for VTS under the S-100 framework and to express their interest to Wim Smets (wim.smets@mow.vlaanderen.be) by 21 October 2023, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Task Group Leader to provide input on the intersessional work on task 2.5.2 and 2.8.1 to VTS55.

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

This task has been carried over from the previous work programme and also has a new task number allocated. Work started inter-sessionally in March 2023. An intersessional meeting is proposed to be held in Quebec in Dec 2023 and this session will also assist in progressing Tasks 2.5.2 and 2.8.1. Additionally, Input Paper VTS54-9.3.1 Proposal For update on the IVEF service Korea Coast Guard case study was referred to this task group.

Action item(s):

That the Secretariat forwards WP VTS Position Paper on Information Exchange Shore to Shore v0.1 (VTS54-12.5.2.9) and IVEF DD working copy v0.5 (VTS54-12.5.2.10) as working papers to VTS55 for further development.

Committee participants are invited to join the intersessional task group to be held in Quebec, in December 2023, working on Task 2.5.2 Develop technical service description for digital data exchange between VTS and other entities – primarily ships and Task 2.8.2 Review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service and to express their interest to Richard Aase (richard.aase@kystverket.no) by 21 October 2023, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Task Group Leader to provide input on the intersessional work on task 2.5.2 and 2.8.2 to VTS55.

10.4 Task 2.8.4 Develop guidance on cyber security for Marine AtoN

ARM has the lead on this task, and the task group have reviewed their input papers VTS54-9.4.1 and VTS54-9.4.1.1. An updated draft guideline will be forwarded to ARM and additionally DTEC for progression.

Action item(s):

The Secretariat is requested to forward the liaison note (VTS54-12.3.1) and the updated draft guideline on cyber security (VTS54-12.3.1.1) to ARM and DTEC for their consideration.

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

The Chair of the Working Group thanked all participants for their hard work during VTS54.

During VTS54 the working group met in a hybrid meeting environment and focused on the following items:

- Task 3.8.6 – Revision of G1027 on Simulation in VTS Training
- Task 3.8.7 – Revision of IALA Model Courses. Worked focused on:
 - 3.8.7a – Revision of C0103-2 (V-103/2) VTS Supervisor Course (completed at VTS54)
 - 3.8.7b – Revision of C0103-4 (V-103/4) VTS OJT Instructor Course (work continuing at VTS55)
 - 3.8.7c – Revision of C0103-5 (V-103/5) The Revalidation Process for VTS Qualification and Certification (work to commence at VTS56)

- Task 3.8.8 - English Language competency requirements in VTS operations
- Overview of tasks to be commenced within the 2023-2027 Work Programme
- Additional papers as identified for review.

All input papers identified for WG3 were addressed.

11.1 Task 3.8.6 Revision of G1027 on Simulation on VTS training

Task Leader: S Priem

Work on the revision of Guideline G1027 commenced during VTS54 with a discussion on the current practices of simulation in VTS training and an inventory of items to be addressed in the revision of the guideline. It was agreed that the work would proceed 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 VTS55.

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

- Wednesday, 25 October 2023 – 0900-1030 UTC

Action item(s):

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 Stefaan Priem (stefaan.priem@mow.vlaanderen.be) by 9 October 2023, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Task Group Leader to provide input on the intersessional work on task 3.8.6 to VTS55.

11.2 Task 3.8.7 - Revision of IALA VTS Model Courses

Task Leader: J Carson-Jackson

The Working Group noted the input papers VTS54-10.1.1 – Report of ICG on the revision of model courses V-103/2 (VTS Supervisor) and V-103/4 (VTS OJT Instructor) with associated input papers VTS54-10.1.1.1 and VTS54-10.1.1.2

The working group also noted the paper VTS50-11.3.1 ‘Proposal for adding “typical Accident Case Study” and that the use of case studies provides value for all IALA VTS Model Courses.

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 (V-103/2) (completed at VTS54)
- 3.8.7b – Review / updated model course C0103-4 (V-103/4) (work continuing at VTS55)
- 3.8.7c – Review / update model course C0103-5 (V-103/5) (to commence at VTS 56)

In addition, the working group noted an error in the reference area of C0103-1 and C0103-3: the reference to SOLAS Chapter V, Regulation 11 – Aids to Navigation should read Regulation 13.

10.4. Training course references

Course development and delivery should take into consideration the following reference additional references are identified in specific modules:

- United Nations Convention on the Law of the Sea (UNCLOS)
- International Regulations for Preventing Collisions at Sea, 1972 (COLREGS)
- International Conventions for the Safety of Life at Sea (SOLAS):
 - SOLAS Chapter V, Regulation 12 - Vessel traffic services
 - SOLAS, Chapter V, Regulation 7 - Search and Rescue Services
 - SOLAS Chapter V, Regulation 11 – Aids to Navigation

11.2.1 Task 3.8.7a – Review and update model course C0103-2 (V-103/2)

The work carried out by the intersessional working group was noted and used as the basis for the work at VTS54. All remaining elements were addressed, and the revised draft model course C0103-2 (VTS54-12.4.1) was submitted for approval.

11.2.2 Task 3.8.7b – Review and update model course C0103-4 (V-103/4)

The work carried out by the intersessional working group was noted and reviewed at VTS54. It was agreed to progress the revision between VTS54 and VTS55 through intersessional working groups. The proposed dates and times for the online intersessional work are provided below:

- Thursday 26 October 2023 – 0900-1030 UTC
- Wednesday 17 January 2024 – 0900-1030 UTC

Action item(s):

The Committee participants are invited to join the intersessional task group working on review and update model course C0103-4 (V-103/4) and to express their interest to Jillian Carson-Jackson (jillian@jcjconsulting.net) by 9 October 2023, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Task Group Leader to provide input on the intersessional work on task 3.8.7b to VTS55.

The IALA Secretariat is asked to forward the revised IALA Model Course C0103-2 (V-103/2) (VTS54-12.4.1) to IALA Council for approval.

The IALA Secretariat is asked to amend the reference in C0103-1 and C0103-3 that currently reads SOLAS Chapter V, Regulation 11 – Aids to Navigation to SOLAS Chapter V, Regulation 13 – Aids to Navigation.

11.3 Task 3.8.8 English Language Competency requirements in VTS operations

Task Leader: S Choi

The Working Group reviewed input paper VTS54-10.2.1 – Gleaning Insights from the International Civil Aviation Organization (ICAO) to Shape the Guidelines on the VTS English Competency Test

Work on the task commenced during VTS54 with a presentation on the work carried out by the Republic of Korea on VTS English Language training and testing. The input paper was reviewed, noting the proposed general framework for the test as identified in section 3.1 of the input paper. It was agreed that the actual structure of the output needs to be refined, and that the actual output could be:

- A guideline focussed on English Language Testing for VTS
- An annex to a revised G1132 with guidance on testing VTS communications

- An application or software tool that could be used by IALA members for both training and assessment purposes.

The value of ongoing practice using an app or language tool was discussed, with the example provided from S Priem using an online tool called 'Drillster'. Using this tool VTSOs complete a minimum series of activities on a regular basis to maintain VTS communication proficiency.

It was agreed that, to progress this work, those interested in the task should review the existing documentation from the Republic of Korea prior to participating in intersessional meetings.

Members who wish to participate in the task are asked to contact S Choi by 2 October, who will forward documentation. The work will continue to be developed through intersessional meetings, with the first meeting scheduled as noted below:

- Wednesday, 8 November 2023 – 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 S Choi (seunghye.choi.1017@googlemail.com) by 9 October 2023, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Task Group Leader to provide input on the intersessional work on task 3.8.8 to VTS55.

11.4 Tasks to be commenced during 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.

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

Task to commence at VTS56.

Recognising the expertise required for the development of this task, members shared their knowledge and experience with developing and implementing programs to support VTS personnel.

F Wu highlighted the focus on this work within Singapore MPA, with a unique opportunity to make a significant contribution to the improvement of the mental wellbeing of VTS professionals.

There was significant experience within the Working Group who indicated experience in development or implementing programs to support VTS personnel, including recognising and supporting those dealing with stress and Post-Traumatic Stress Disorder (PTSD).

The Working Group recognised the offer of Singapore MPA to take the lead in developing this task, noting the Task Group Leader would be Nisham Supian.

11.4.2 Task 3.8.1 – Revision of G1103 –Train the Trainer

Task to commence at VTS57 (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 who are using IALA G1103 on Train the Trainer are invited to provide input to VTS55 in order to assist with the review.

11.4.3 Task 3.4.1 - Guidance on aptitude [psychometric] testing for VTS personnel

Task to commence at VTS55 (Task Leader: K Glew)

In order to begin the development of a guideline on aptitudes that are demonstrated by effective VTS operators it was noted that there is a need to gather information from committee members regarding the current use of aptitude (or psychometric) testing as part of the recruitment and hiring process.

This information includes:

- the aptitudes that are tested,
- the format of the test and
- how the test is administered / assessed.

Information can be sent to K Glew prior to VTS55.

Action item(s):

The Committee participants are invited to provide information on aptitude and/or psychometric assessments used, including the format of the test and how the test is administered and assessed, to K Glew (kelly.glew@dfo-mpo.gc.ca) prior to VTS55 in order to assist task 3.4.1.

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

Task to commence at VTS55 (Task Leader: J Carson-Jackson)

The Working Group reviewed the definition of remote training in IALA G1014. They shared their experiences with various forms of remote training, including online training, workbooks, hybrid learning and online learning platforms.

To commence the task, it was noted that there is a need to gather input from the committee members on their experiences with remote training in VTS, including the scope of the training, assessment and evaluation approaches.

Information can be sent to J Carson-Jackson prior to VTS55.

Definition of Remote Learning (G1014)

Remote learning – Where the student and the instructor are not physically together. This may occur either in a synchronous or asynchronous manner, using online or offline training approaches (e.g., distance learning, e-learning, self-study or a blended delivery).

Action item(s):

The Committee participants are invited to provide information on remote training in VTS, including the scope of the training, assessment and evaluation approaches to J Carson-Jackson (jillian@jcjconsulting.net) prior to VTS55 in order to assist task 3.8.2.

11.5 Review of VTS Training Related Documentation / Discussion with IALA WWA

A joint session with IALA WWA was held in relation to Task 3.9.1 Consider relevant VTS documents to be revised /updated. Omar Eriksson and Latifa Oumouzoune from the IALA WWA joined the Working Group. A presentation on the competency framework that is in development by the IALA WWA was well received, providing good insights into the future vision of training related to Marine Aids to Navigation.

The key points identified in the discussion include:

- Identification of possible new model courses on an ‘introduction to VTS’ and local port services

- Future work on model courses related to interpreting IALA documents.
- Guidance on how to determine if a VTS is required.
- The need to ensure consistency in VTS training delivery and assessment, including possible approaches that could be taken such as:
 - IALA WWA carry out accreditation of training providers.
 - IALA WWA design and set assessments for VTS training.
 - IALA WWA use an 'audit' approach (similar to the IMO IMSAS) on a regular basis.
- A need to gather information from VTS training providers on the implementation of VTS training (a questionnaire with a focus on VTS training)
- Possible development of online resources to support VTS training, including webinars, best practices and sharing of sample assessments.

Working paper regarding discussions with the WWA (VTS54-12.5.3.1) was developed, to be forwarded to VTS55.

Action item(s):

The IALA Secretariat was asked to forward WP discussions with the IALA WWA (VTS54-12.5.3.1) to VTS55.

The IALA Secretariat was asked to forward WP Task Proposal Revision of G1142 - The Provision of a local port service other than a VTS (VTS54-12.5.3.2) to VTS55.

11.6 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 the liaison note on the draft guideline on cyber security, the Task Plan and the Task Register.

12. ANY OTHER BUSINESS

No matters arising.

13. SUMMARY OF OUTPUT AND WORKING PAPERS

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

Outputs from VTS54 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 (VTS54-13.1) was approved by the Committee at the Closing Plenary.

15. DATE AND VENUE OF NEXT MEETINGS

VTS55 is planned to be held between 11 – 15 March 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 VTS55.

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.

The Chair congratulated Hans Verra on his retirement having served the Committee for many years.

Secretary-General, Francis Zachariae, thanked all participants for their work.

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



54th Meeting of the Vessel Traffic Services Committee (VTS54)

The physical week of the 54th session of the VTS Committee will take place at IALA HQ between the 18 – 22 September 2023. The opening plenary will be held on Monday 18 September 2023 at IALA Headquarters commencing at 08:00 UTC. The closing plenary will be held online between 10:00 – 12:00 UTC on Wednesday 27 September 2023.

Agenda

1. Introduction
 - 1.1. Welcome from the Secretary-General
 - 1.2. Approval of agenda
 - 1.3. Apologies and introductions
 - 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)
 - 3.1.3. IALA Conference and General Assembly 2023
 - 3.2. IMO
 - 3.3. Digital@Sea
 - 3.4. IHO/ITU
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 Gerardine Delanoye, IALA
 - 5.2. Update on S-200 series PS data models Minsu Jeon, IALA
 - 5.3. Japanese VTS and Natural Disasters Mayumi Arita, JCG
 - 5.4. Preparing for Future VTS – KCG Case Study Ji-yeon Lee, KCG
6. Work programme management
 - 6.1. Work Programme 2023 – 2027, Task Plan, Task Register
 - 6.2. Action plan for VTS54
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	WG
VTS54-	1.2.1	Provisional Agenda	Secretariat	All
VTS54-	1.4.1.1	Programme of the Week	Secretariat	All
VTS54-	2.1.1	VTS53 Action Items	Secretariat	All
VTS54-	3.1.3.1	IALA Conference 2023 Summary	Secretariat	All
VTS54-	3.2.1	IA LA report on IMO NCSR10	Secretariat	All
VTS54-	6.1.1	Draft Task Plan 2023-2027 (2023-09-12)	CMT	All
VTS54-	7.1.1	Input Paper List	Secretariat	All
VTS54-	7.1.2	Working paper list	Secretariat	All
VTS54-	7.2.1	LN to all committees on New Technology Review	DTec	2 lead with 1 and 3
VTS54-	7.2.2	Workshop Proposal - VTS competent authorities	VTS CMT	1
VTS54-	7.2.2.1	Annex - Workshop proposal - VTS CA's	VTS CMT	1
VTS54-	7.2.3	Testing of VTS information service based on VDES	China MSA	2
VTS54-	8.1.1	Input Paper - Output from TG1.2.5 - Implications of MASS from a VTS perspective	IG on MASS	1
VTS54-	8.1.1.1	Draft Guideline MASS implications for Shore Authorities (MTF05-8.1)	IG on MASS	1
VTS54-	8.1.1.2	IMO MSC 107-5 - Report of the Correspondence Group (Marshall Islands)	IG on MASS	1
VTS54-	8.1.1.3	Road Map for Developing a Goal-based Code for MASS (MSC 107)	IG on MASS	1
VTS54-	8.1.1.4	Discussion paper - Implications of MASS from a VTS Perspective (Input to VTS54)	IG on MASS	1
VTS54-	8.1.1.5	Draft Guideline on Provision of VTS to Autonomous and Conventional Ships	IG on MASS	1
VTS54-	8.2.3	Analysis of the Impact of Digital Route Exchange within VTS Operations	China MSA	1

Meeting	Paper Number	Input Paper Title	Source	WG
VTSS4-	8.3.1	Input paper IG 1.3.2 VTS Digital Communications	IG on VTS Digital Communication	1
VTSS4-	8.3.1.1	Draft GL on VTS Digital communications_20230615	IG on VTS Digital Communication	1
VTSS4-	8.3.1.2	VTS Route Service Specification_230815	IG on VTS Digital Communication	1
VTSS4-	8.3.1.3	VTS Common Operational Picture_230615	IG on VTS Digital Communication	1
VTSS4-	8.3.2	Input paper - Draft of Service Specification for digital VTS Anchorage Assignment Service_V0.5.0	China MSA	1 and 2
VTSS4-	8.3.2.1	AnnexA_Draft of Service Specification for digital VTS Anchorage Assignment Service_V0.5.0	China MSA	1 and 2
VTSS4-	8.7.1	Preparing for Future VTS Korea Coast Guard	Korea Coast Guard	1
VTSS4-	8.7.2	Research on VTS system by using the digital twin technology	China MSA	1 and 2
VTSS4-	8.7.3	Proposal to Promote the Development of Guideline on Quality Management System for Vessel Traffic Service	China MSA	1
VTSS4-	8.7.3.1	Enclosure 1 -Draft of Guideline on Quality Management System for Vessel Traffic Service	China MSA	1
VTSS4-	9.1.1	VTS Technical Services - roadmap	Belgium et al.	2
VTSS4-	9.1.2	WG2 intersessional work	WG2 Chair	2
VTSS4-	9.1.2.1	Work paper for VTS Traffic Clearance Service Specification	WG2 Chair	2
VTSS4-	9.1.2.2	Technical Service specification for VTS Traffic Clearance Service	WG2 Chair	2
VTSS4-	9.1.2.3	IVEF_DD	WG2 Chair	2
VTSS4-	9.1.2.4	S-210 development plan v2	WG2 Chair	2
VTSS4-	9.1.2.5	temp_gi	WG2 Chair	2
VTSS4-	9.1.2.6	Secom S-421 REST Design (iala draft-2)	WG2 Chair	2
VTSS4-	9.1.2.7	Work paper for VTS Traffic Clearance Service Specification_0.23	WG2 Chair	2
VTSS4-	9.1.3	Suggestions on the New Work Task of Developing Technical Service Specifications for Digital Data Exchange between VTS and Other Entities	China MSA	2

Meeting	Paper Number	Input Paper Title	Source	WG
VTS54-	9.2.1	Proposal on updating G1111-1 to include guidance on VTS Management Information Systems	China MSA	2
VTS54-	9.2.1.1	Annex_G1111-1 Producing Requirements for Core VTS Systems and Equipment	China MSA	2
VTS54-	9.3.1	Proposal For update on the IVEF service Korea Coast Guard case study	Korea Coast Guard	2
VTS54-	9.4.1	LN from ARM to all committees on the progress of cyber security tasks (ARM16-11.3.4)	ARM16	2 lead with 1,3
VTS54-	9.4.1.1	Draft Guideline on Cyber Security (ARM16-11.3.4.1)	ARM16	2 lead with 1,3
VTS54-	10.1.1	Input paper on Task 3.3.1 - Model Course Review	ICG on 3.3.1	3
VTS54-	10.1.1.1	C0103-2-post ICG-20230815	ICG on 3.3.1	3
VTS54-	10.1.1.2	C0103-4-Course Overview post ICG-20230614	ICG on 3.3.1	3
VTS54-	10.2.1	Gleaning Insights from the International Civil Aviation Organization	Korea Coast Guard	3

Working papers from VTS53

Meeting	Agenda Item	Output Paper Title	Source	Action
VTS53-	12.5.1.1	WP VTS technical service-UseCase_DRAFT - UPDATE Task 1.3.2	WG1	To VTS54
VTS53-	12.5.1.2	WP Edition 2.0 Discussion Paper on the Implications of MASS from a VTS Perspective	WG1	To VTS54
VTS53-	12.5.1.3	WP draft Guideline on VTS Digital Communications	WG1	To VTS54
VTS53-	12.5.1.4	WP List of revisions to IMO Resolution A.918(22)	WG1	To VTS54
VTS53-	12.5.1.5	WP Edition 2.0 Discussion Paper on Future VTS	WG1	To VTS54

Meeting	Agenda Item	Output Paper Title	Source	Action
VTS53-	12.5.2.1	WP draft Guideline on the portrayal of VTS information and data	WG2	To VTS54
VTS53-	12.5.2.2	WP Liaison Note from ARM on Cyber Security (VTS52-13.2.2.3)	WG2	To VTS54
VTS53-	12.5.2.3	WP China MSA Proposal for the Development of an Independent G1111 Sub-guideline for VTS-MIS	WG2	To VTS54
VTS53-	12.5.2.4	WP on the Architecture of the Digital Delivery of VTS Information	WG2	To VTS54
VTS53-	12.5.2.5	WP on the mapping of use cases to technical services	WG2	To VTS54
VTS53-	12.5.2.6	WP on review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service	WG2	To VTS54
VTS53-	12.5.2.7	Proposal for the Development of an Independent G1111 Sub-guideline for VTS-MIS from China MSA. See paper VTS53-12.5.2.3	WG2	To VTS54
VTS53-	12.5.2.8	Proposal For VTS Data Exchange Using CLOUD VTS Concept from Korea Coastguard	WG2	To VTS54
VTS53-	12.5.2.9	Draft of VTS Digital Information Service Product Specification V 0.6.5 Proposal for the Development of an Independent G1111 Sub-guideline for VTS-MIS from China MSA	WG2	To VTS54
VTS53-	12.5.2.10	Proposed amendments to Recommendation V-145 on VTS Interchange Format (IVEF) from China MSA See paper VTS53-12.5.2.6	WG2	To VTS54

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

Meeting	Output no.	Output Paper Title	Source	Action
VT554-	12.2.1	Workshop proposal – VTS Competent Authorities	WG1	Council
VT554-	12.2.2	Liaison note to ARM on quality management systems for VTS.	WG1	ARM
VT554-	12.2.3	Dictionary entry - situational awareness	WG1	Secretariat
VT554-	12.3.1	Liaison note to DTEC / ARM on cyber security guideline	WG2	DTEC / ARM
VT554-	12.3.1.1	Draft Cyber security guideline	WG2	DTEC / ARM
VT554-	12.3.2	Liaison note to DTEC on Digital Services Architecture	WG2	DTEC
VT554-	12.3.3	Technical Service Specification for VTS Traffic Clearance	WG2/1	Secretariat
VT554-	12.4.1	Model Course C0103-2 VTS Supervisor Training	WG3	Council

Working papers will remain within the Committee for further review during VT555.

Meeting	WP no.	Working Paper Title	Source	Action
VT554-	12.5.1.1	WP draft guideline on Provision of VTS to Autonomous and Conventional Ships	WG1	to VT555
VT554-	12.5.1.2	WP draft guideline on establishing policy and regulatory framework	WG1	to VT555
VT554-	12.5.1.3	WP draft guideline on VTS Digital Communications	WG1	to VT555
VT554-	12.5.1.4	WP on technical service for VTS Route Exchange Service	WG1	to VT555
VT554-	12.5.1.5	WP on VTS Common Operational Picture	WG1	to VT555
VT554-	12.5.1.6	WP 'SMCP Revision Draft'	WG1	to VT555
VT554-	12.5.1.7	WP 'Consideration of the proposed revisions to IMO STANDARD MARINE COMMUNICATION PHRASES'	WG1	to VT555
VT554-	12.5.1.8	WP draft guideline on quality management system for VTS	WG1	to VT555
VT554-	12.5.1.9	WP draft VTS questionnaire	WG1	to VT555
VT554-	12.5.1.10	WP discussion paper on future VTS	WG1	to VT555
VT554-	12.5.2.1	WP on additions to Guideline 1177 on the portrayal of VTS information and data	WG2	to VT555

Meeting	WP no.	Working Paper Title	Source	Action
VTSS54-	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
VTSS54-	12.5.2.3	WP Annex G1111-1 Producing Requirements for Core VTS Systems and Equipment VTS54-9.2.1.1	WG2	to VTS55
VTSS54-	12.5.2.4	WP Generic roadmap.pptx	WG2	to VTS55
VTSS54-	12.5.2.5	WP VTS Digital Information product specification V0.7.0 DRAFT Task 2.8.1	WG2	to VTS55
VTSS54-	12.5.2.6	WP VTS Digital Services System Architecturev0.6.pptx	WG2	to VTS55
VTSS54-	12.5.2.7	WP VTS Technical Services High Level Architecture v2	WG2	to VTS55
VTSS54-	12.5.2.8	WP Working Paper on the Architecture of the digital delivery of VTS information	WG2	to VTS55
VTSS54-	12.5.2.9	VTS Position Paper on Information Exchange Shore to Shore v0.1	WG2	to VTS55
VTSS54-	12.5.2.10	IVEF DD working copy v0.5	WG2	to VTS55
VTSS54-	12.5.3.1	WP discussions with the IALA WWA	WG3	to VTS55
VTSS54-	12.5.3.2	WP Task Proposal Revision of G1142 - The Provision of a local port service other than a VTS	WG3	to VTS55
VTSS54-	12.5.4.1	WP VTS Committee Task Plan	CMT	to VTS55
VTSS54-	12.5.4.2	WP VTS Committee Task Register	CMT	to VTS55

Action Items for the IALA Secretariat

1. The Secretariat is requested to forward the WP VTS Committee Task Plan (VTS54-12.5.4.1) and WP VTS Committee Task Register (VTS54-12.5.4.2) as working papers to VTS55 for further development. 16
2. The Secretariat is requested to forward the WP draft guideline on Provision of VTS to Autonomous and Conventional Ships (VTS54-12.5.1.1) as a working paper to VTS55 for further development. 18
3. The Secretariat is requested to forward the WP draft guideline on establishing policy and regulatory framework (VTS54-12.5.1.2) as a working paper to VTS55 for further development. 18
4. The Secretariat is requested to forward the workshop proposal – VTS Competent Authorities (VTS54-12.2.1) to Council for approval. 18
5. The Secretariat is requested to forward WP draft guideline on VTS Digital Communications (VTS54-12.5.1.3), WP on technical service for VTS Route Exchange Service (VTS54-12.5.1.4) and WP on VTS Common Operational Picture (VTS54-12.5.1.5) as working papers to VTS55 for further development. 20
6. The Secretariat is requested to forward WP ‘SMCP Revision Draft’ (VTS54-12.5.1.6) and WP ‘Consideration of the proposed revisions to IMO STANDARD MARINE COMMUNICATION PHRASES’ (VTS54-12.5.1.7) as working papers to VTS55 for further development. 20
7. The Secretariat is requested to forward liaison note (VTS54-12.2.2) on Quality Management Systems for VTS to the ARM committee for their consideration. 21
8. The Secretariat is requested to forward the WP draft guideline on quality management system for VTS (VTS54-12.5.1.8) as a working paper to VTS55 for further development. 21
9. The Secretariat is requested to forward the WP draft VTS questionnaire (VTS54-12.5.1.9) as a working paper to VTS55 for further development. 21
10. The Secretariat is requested to forward the WP discussion paper on future VTS (VTS54-12.5.1.10) as a working paper to VTS55 for further development. 22
11. The Secretariat is requested to action the request to include the definition of “Situational Awareness” from a VTS perspective in the IALA Dictionary contained in Dictionary template for new and amendment terms and definitions - Situational Awareness (VTS54-12.2.3). 22
12. That the Secretariat forward the WP on additions to Guideline 1177 on the portrayal of VTS information and data (VTS54-12.5.2.1) as a working papers to VTS55 for further development. 23
13. That the Secretariat forward WP Proposal on updating G1111-1 to include guidance on VTS Management Information Systems VTS54-9.2.1 (VTS54-12.5.2.2) and WP Annex G1111-1 Producing Requirements for Core VTS Systems and Equipment VTS54-9.2.1.1 (VTS54-12.5.2.3) to VTS55 as working papers. 23
14. That the Secretariat forward the liaison note on VTS Digital Services Architecture Development to DTEC and ARM for their consideration (VTS54-12.3.2). 23
15. That the Secretariat forwards WP Generic roadmap.pptx (VTS54-12.5.2.4), WP VTS Digital Information product specification V0.7.0 DRAFT Task 2.8.1 (VTS54-12.5.2.5), WP VTS Digital Services System Architecturev0.6.pptx (VTS54-12.5.2.6), WP VTS Technical Services High Level

- Architecture v2 (VTS54-12.5.2.7), WP Working Paper on the Architecture of the digital delivery of VTS information (VTS54-12.5.2.8) as working papers to VTS55 for further development. 23
16. That the Secretariat publish Technical Service Specification for VTS Traffic Clearance (VTS54-12.3.3) on the IALA website for testing as S-212 version 1.0. 24
 17. The Secretariat is requested to forward the liaison note (VTS54-12.3.1) and the updated draft guideline on cyber security (VTS54-12.3.1.1) to ARM and DTEC for their consideration. 24
 18. The IALA Secretariat is asked to forward the revised IALA Model Course C0103-2 (V-103/2) (VTS54-12.4.1) to IALA Council for approval. 26
 19. The IALA Secretariat is asked to amend the reference in C0103-1 and C0103-3 that currently reads SOLAS Chapter V, Regulation 11 – Aids to Navigation to SOLAS Chapter V, Regulation 13 – Aids to Navigation. 26
 20. The IALA Secretariat was asked to forward WP discussions with the IALA WWA (VTS54-12.5.3.1) to VTS55. 29
 21. The IALA Secretariat was asked to forward WP Task Proposal Revision of G1142 - The Provision of a local port service other than a VTS (VTS54-12.5.3.2) to VTS55. 29

Action Items for Participants

22. 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 21 October 2023, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 18
23. The Intersessional Task Group Leader to provide input on the intersessional work on task 1.1.3 to VTS55. 18
24. That the VTS Committee Vice-chair update the Task Register and Work Plan to reflect postponing Task 1.1.3(b) until VTS56. 18
25. Committee participants are invited to review the WP draft guideline on establishing policy and regulatory framework (VTS54-12.5.1.2) and submit comments and remarks to Neil Trainor (neil.trainor@hotmail.com) by VTS55. 18
26. That Committee participants are invited to review the WP draft guideline on quality management system for VTS (VTS54-12.5.1.8) and submit comments and remarks to Trond Ski (trond.ski@kystverket.no) by VTS55. 21
27. Committee participants are invited to join the intersessional task group (Virtual meetings) working on Task 2.5.2 Develop technical service description for digital data exchange between VTS and other entities – primarily ships and Task 2.8.1 Develop a Product Specification S-212 for VTS under the S-100 framework and to express their interest to Wim Smets (wim.smets@mow.vlaanderen.be) by 21 October 2023, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 24
28. The Intersessional Task Group Leader to provide input on the intersessional work on task 2.5.2 and 2.8.1 to VTS55. 24
29. Committee participants are invited to join the intersessional task group to be held in Quebec, in December 2023, working on Task 2.5.2 Develop technical service description for digital data

exchange between VTS and other entities – primarily ships and Task 2.8.2 Review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service and to express their interest to Richard Aase (richard.aase@kystverket.no) by 21 October 2023, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

24

30. The Intersessional Task Group Leader to provide input on the intersessional work on task 2.5.2 and 2.8.2 to VTS55. 24
31. 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 Stefaan Priem (stefaan.priem@mow.vlaanderen.be) by 9 October 2023, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 25
32. The Intersessional Task Group Leader to provide input on the intersessional work on task 3.8.6 to VTS55. 25
33. The Committee participants are invited to join the intersessional task group working on review and update model course C0103-4 (V-103/4) and to express their interest to Jillian Carson-Jackson (jillian@jcconsulting.net) by 9 October 2023, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 26
34. The Intersessional Task Group Leader to provide input on the intersessional work on task 3.8.7b to VTS55. 26
35. The Committee participants interested in participating in Task 3.8.8 – English Language Competency requirements in VTS Operations are invited to contact S Choi (seunghye.choi.1017@gmail.com) by 9 October 2023, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 27
36. The Intersessional Task Group Leader to provide input on the intersessional work on task 3.8.8 to VTS55. 27
37. The Committee participants who are using IALA G1103 on Train the Trainer are invited to provide input to VTS55 in order to assist with the review. 28
38. The Committee participants are invited to provide information on aptitude and/or psychometric assessments used, including the format of the test and how the test is administered and assessed, to K Glew (kelly.glew@dfo-mpo.gc.ca) prior to VTS55 in order to assist task 3.4.1. 28
39. The Committee participants are invited to provide information on remote training in VTS, including the scope of the training, assessment and evaluation approaches to J Carson-Jackson (jillian@jcconsulting.net) prior to VTS55 in order to assist task 3.8.2. 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.	Online (x)
Al Dhaheri Fawziya	Abu Dhabi Ports Company	1.8.4	
Alvarez Matias Fernando	EPE Sociedad de Salvamento y Seguridad Maritima	1.3.2	
Aydogan Orkun	HAVELSAN AS	1.3.1	
Els Bogaert	Agency for Maritime Services and Coast	1.1.5	
Colin Guiking	Marin	1.1.3/1.9.4	
Dorte Hansen	Defence Command Denmark Naval Staff	1.1.3/1.9.4	
Ehandi Jyri	Estonian Transport Administration	1.1.3/1.9.4	
Esa Kallio	Fintraffic Vessel Traffic Services Ltd	1.1.3/1.9.4	
Ferro Antonella	Canadian Coast Guard	1.1.3/1.9.4	
Fredrik Karlsson	Swedish Maritime Administration	1.3.1	
Gian Luca Menebene	Italian Coast Guard	1.1.3 / 1.9.4	
Harmen van Dorsser	Port of Rotterdam Authority	1.3.1	
Heidi Clevett	Maritime and Coastguard Agency	1.3.2	
Muhammad Kamal Ahmad	Maritime and Port Authority of Singapore	1.1.3/1.9.4	X
Hilber van Omme	Dutch Pilots Corporation	1.1.5	
Hovda Knut	Norwegian Coastal Administration	1.1.3/1.3.1	
Jakob Bang	Danish Maritime Authority	1.1.3 / 1.9.4	
Kim Hey-jin	KRISO	1.1.3/1.9.4	
Junsung Kim	Korea Coast Guard	1.1.3/1.8.4	
Kuchta Jörg	Federal Waterways and Shipping Administration	1.1.3/1.9.4/1.8.4	
Lee Da Hee	KRISO	1.1.3/1.9.4	
Lee Ji Yeon	Korea Coast Guard	1.9.4	
Liu Jinkai	China Maritime Safety Administration	1.2.5 / 1.4.3	X
Liu Wei	China Maritime Safety Administration	1.9.4	
Zhang Wei	China Maritime Safety Administration	1.1.3/1.8.4	

Members	Organisation	Task Group No.	Online (x)
Loughzail Afifa	Ministère de l'Équipement et de l'Eau	1.8.4	
Maías Manuel	Direção-Geral de Recursos Naturais	1.1.3/1.9.4	
Makhtar Muhammad Fadhli	Malaysia Marine Department	1.1.3/1.9.4	
Marco Svantesson	Swedish Maritime Administration	1.8.4	
Mathis Darin	US Coast Guard	1.3.2	
Mayumi Arita	Japan Coast Guard	1.3.2	
Michael Trent	IHMA	1.1.3/1.9.4	
Närripä Kaido	Estonian Transport Administration	1.3.2	
Neil Trainor	IHMA	1.1.3/1.1.5/1.9.4	
Nisham SUPIAN	Maritime and Port Authority of Singapore	1.2.5 / 1.4.3	
Peter Eade	Visim	1.3.1	
Pierre Mingot	Cerema	1.2.5 / 1.4.3	
Remi Hoeve	Ministry of Infrastructure and Water Management	1.3.1	
Trond Ski	Norwegian Coastal Administration	1.1.5/1.8.4	
Tuomas Martikainen	Finnish Transport Infrastructure Agency	1.3.1	
Wang Wei	China Maritime Safety Administration	1.3.1/1.8.4	
Woo-Seong Shim	KRISO	1.1.3 / 1.9.4	
Younes Alahaine	Ministère de l'Équipement et de l'Eau	1.1.3/1.9.4	
Janette Assev-Lindin	Norwegian Coastal Administration	1.1.5	
Iris Yi-lun Yiu	Hong Kong Marine Department	1.1.3/1.9.4	
Mohd Hisham Bin Rubani	Marine Department Malaysia	1.1.5	
Frebory Dioubate	Agence de Navigation Maritime, Guinée	1.1.5	
Barbara Margo	Italian Coast Guard	1.1.5	
Jin seok Lee	Mokpo Maritime University	1.3.1	
Zhao Xianfeng	China Maritime Safety Administration	task 1.9.4/task 1.3.1	

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	
Hans Verra	Port of Rotterdam	2.5.1	
Jin Ku Lee	GC Co, Ltd	2.8.2	
Jung Jin Lee	GC Co, Ltd	2.8.2	
Sang Won Park	Korea Maritime Institute	2.8.2	
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	
Admir Salahovic	Indra	2.8.2	
Minsu Jeon	IALA	2.5.2 / 2.8.1	
Dmitry Rostopshin	Observer	2.5.2 / 2.8.1	
Rene Hogendoorn	Tidalis	2.8.2	
Peter Eade	Vissim AS	2.5.2 / 2.8.1	
Jens-Christian Pedersen	Terma	2.5.2 / 2.8.1	
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	
Yalei Ren	China MSA	2.5.2 / 2.8.1	
Peter Kito	JRC America	2.5.1	
Timfeng Xia	CSIC Pride Atmospheric Ltd	2.5.2 / 2.8.1	
Chi Tian	CSIC Pride Atmospheric Ltd	2.5.2 / 2.8.1	
Bruno Nasone	CEREMA	2.5.2 / 2.8.1	
Ramin Miraftabi	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	
Akihiko Takahashi	JRC America	2.5.2 / 2.8.1	

Members	Organisation	Task Group No.	Online (x)
Habibe Irem Celik	HAVELSAN	2.8.2	
Ji Yeon Lee	MOF	2.8.2	

Working Group 3 Training

Chair – Stefaan Priem, Agency for Maritime Services and Coast - Shipping Assistance Division

Members	Organisation	Task Group No.	Online (x)
Jillian Carson-Jackson	Nautical Institute	All tasks	X
Mika Halttunen	Fintraffic Vessel Traffic Services Ltd	All tasks	
Abdullah Kizilelma	Directorate General of Coastal Safety Türkiye	All tasks	
Kelly Glew	Canadian Coastguard	All tasks	
Yasuko Nakai	TST Corporation	All tasks	
Junhyeok Byun	Korea Coast Guard	All tasks	
Andres Keller	NNVO, Dutch Training Foundations	All tasks	
Fredrik Dahlgren	Swedish Maritime Administration	All tasks	
Stefaan Priem	Agency for Maritime Services and Coast	All tasks	
Michele Landi	Italian Coast Guard	All tasks	
Scott Jacobs	United States Coast Guard	All tasks	
Frederick Wu	Singapore MPA	All tasks	X
Raquel Rojo	Spanish Maritime Safety Agency	All tasks	
J. Carlos F. Salinas	Spanish Maritime Safety Agency	All tasks	
Keeta Rowlands	UK Maritime & Coastguard Agency	All tasks	
Xue Feng	China MSA	All tasks	
Dennis Wong	Marine Department Hong Kong, China	All tasks	
Revo Rizki Aditiya	Directorate of Navigation (Indonesia)	All tasks	
Koji Saito	Japan Radio Co. Ltd	All tasks	
Sunghee Choi	Ministry of Oceans and Fisheries (Korea)	All tasks	
Adil Bouhifd	Tanger Med Port Authority (Morocco)	All tasks	
Caroline Veronica	Directorate of Navigation (Indonesia)	All tasks	



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