



IALA VTS COMMITTEE

REPORT OF THE 53rd SESSION OF THE IALA VESSEL TRAFFIC SERVICES (VTS) COMMITTEE

16 – 28 September 2022

Thomas Southall

28 September 2022

Committee Secretary

10, rue des Gaudines – 78100 Saint Germain en Laye, France

Tél. +33 (0)1 34 51 70 01 – Fax +33 (0)1 34 51 82 05 – contact@iala-aism.org

www.iala-aism.org

International Association of Marine Aids to Navigation and Lighthouse Authorities

Association Internationale de Signalisation Maritime

This page intentionally blank

Report of the 53rd Session of the IALA Vessel Traffic Services (VTS) Committee Executive Summary

The 53rd session of the VTS Committee was held from 16 - 28 September 2022 with Monica Sundklev as Chair and Dirk Eckhoff as Vice-chair. The Secretary for the meeting was Thomas Southall.

119 participants from 29 countries, three Sister organisations participated in VTS53. 32 participants attended for the first time.

The VTS Committee considered 53 input papers and produced 45 output papers, including working papers, from three Working Groups.

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

Key outputs completed included:

- VT53- 12.1.1 Future task plan period 2023 - 2027
- VT53- 12.1.2 Future task register 2023 - 2027
- VT53- 12.2.2 Draft Guideline on How to Promote Safety Culture in VTS
- VT53- 12.2.3 Draft Guideline on Portrayal of VTS Information
- VT53- 12.2.4 Revised Recommendation R0125 VTS Portrayal
- VT53- 12.3.1 Revised R0128 VTS Systems and Equipment
- VT53- 12.3.2 Revised G1130 VTS information exchange with allied or other services
- VT53- 12.3.4 Revised G1111 Establishing Functional Performance Requirements for VTS systems and equipment
- VT53- 12.3.5 Revised G1111-1 Producing Requirements for Core VTS Systems and Equipment
- VT53- 12.3.6 Revised G1111-2 Producing Requirements for Voice Communications
- VT53- 12.3.7 Revised G1111-3 Producing Requirements for Radar
- VT53- 12.3.8 Revised G1111-4 Producing Requirements for AIS
- VT53- 12.3.9 Revised G1111-5 Producing Requirements for Environment Monitoring Sensors
- VT53- 12.3.10 Revised G1111-6 Producing Requirements for Electro Optical Systems
- VT53- 12.3.11 Revised G1111-7 Producing Requirements for Radio Direction Finders
- VT53- 12.3.12 Revised G1111-8 Producing Requirements for Long Range Sensors
- VT53- 12.3.13 Revised G1111-9 Framework for Acceptance of VTS Systems and Equipment
- VT53- 12.4.1 Revised Model Course C0103-1 VTSO
- VT53- 12.4.2 Revised Model Course C0103-3 On-the-Job Training

The following liaison notes were approved:

- VT53- 12.1.3 Input note to Council on Input to NCSR10 - Amendments to IMSAS Manual relating to VTS
- VT53- 12.1.3.1 Input to NCSR10 - Amendments to IMSAS Manual relating to VTS
- VT53- 12.2.1 Liaison note to PAP and ARM on Draft description of Maritime Service 1- VTS
- VT53- 12.2.1.1 Attachment - draft description of Maritime Service 1- VTS
- VT53- 12.2.5 Input to Council on Implications of MASS

- VT53- 12.2.5.1 Attachment - Discussion paper on MASS
- VT53- 12.2.6 LN to MTF, PAP and all other committees on MASS
- VT53- 12.2.6.1 Attachment - Discussion paper on MASS
- VT53- 12.2.7 Input paper to Council on Future VTS
- VT53- 12.2.7.1 Attachment - Discussion paper on Future VTS
- VT53- 12.3.3 Liaison note to ARM on Guideline G1105
- VT53- 12.3.3.1 Attachment - Revised Recommendation R0125 VTS Portrayal
- VT53- 12.3.3.2 Attachment - Draft Guideline on Portrayal of VTS Information

Overall status of the VTS Committee at the end of the 2018-2023 Work Programme after VTS53:

Task		Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
					Green	Yellow	Red	
WG#1 – Operations								
1.1.1	Revision of IMO Resolution A.857(20) Guidelines on Vessel Traffic Services	45	47					Completed at VTS47 and submitted to NCSR7. IMO Assembly adopted Res. A.1158(32) on 15 Dec.2021.
	1.1.1.1 Update Guideline 1089 to be in line with Revised IMO Resolution on Vessel Traffic Services post adoption.	47	49					Approved at Council 72, pending adoption of new IMO Resolution.
	1.1.1.2 Update documents that require changes to incorporate the new terminology post adoption of the revised IMO Resolution on Vessel Traffic Services.	47	51	53				Approved at Council 74. Completed at VTS53
	1.1.1.3 Review and update Rec V-120 to be a GL on VTS in Inland Waters (under R0119)	50	51					Approved at Council 74. Rec. V-120 to Council 76 for withdrawal.
	Consider relevant VTS documents to be revised/updated next WP	52	53					Completed at VTS53. Inserted in next WP.
1.1.2	I. Review and update V-119 on the Implementation of Vessel Traffic Services (R0119) (Output to be a revised Recommendation and associated Guideline 1050 on the Establishment of VTS)	47	50	49				Approval of R0119 and G1150 at Council 72.
	II. Review and update Recommendation R0119 Establishment of a VTS and Guideline G1150 Establishing Planning and implementing a VTS	52	52					G1150 approved at Council 75.
1.1.3	Develop a guideline on Competencies for Planning and Implementing	47	50					Approved at Council 73.
1.1.4	Develop a Guideline on the Provision of Local Port Services (LPS) other than VTS	45						Completed at VTS45.
1.2.1	Review and update V-127 on Operational Procedures for Vessel Traffic Services (Output to be a revised Recommendation and associated Guideline)	45	50					R0127 approval at C68. G1141 approved at Council 73.
1.2.2	Update a Guideline 1110 on Decision Support Tools for VTS Personnel (take into account emerging concepts and technologies)	49	50	51				Approved at Council 74.

Task		Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
					Green	Yellow	Red	
1.2.3	Develop a Guideline for Promulgating the Requirements of a VTS to Mariners – A VTS Users Guide Template	45	46					Completed at VTS46.
1.2.4	Provide VTS input to ARM (lead Committee) for the development of a Guideline on Maritime Services in the context of e-Navigation relating to VTS (merged with task 1.2.7)	45	51	53				Completed at VTS53. Liaison to ARM & PAP It is expected that a subsequent submission will for to Council for approval and then submit to IMO/NCSR10.
1.2.5	Develop a Guideline on the implications of maritime autonomous surface ships (MASS) from a VTS perspective including scoping exercise on IALA Standards	50	51	>53				Continue next WP.
1.2.6	Develop a Guideline on how to promote a safety culture in VTS	50	>53					To Council 76 for approval.
1.2.7	Develop Guideline on the development and implementation of VTS related MS's other than MS 1, 2 and 3	46	48					Council 70 approved to merge with task 1.2.4. and delete task 1.2.7.
1.2.8	Develop a IALA Reference List on IALA Documentation Relating to VTS	45	49					Task discontinued. (Covered by the Secretariat)
1.2.9	Revise R0125 and split into a Rec + GL. Relevant parts of R1014 to be incorporated into R0125 on VTS Portrayal and GL on Portrayal of VTS Information.			>53				Rec R0125 and new GLXXXX to C76 for approval. R1014 to C76 for withdrawal.
1.3.1	Update Guideline G1132 on VTS Voice Communication, including VTS standard Phrases/Phraseology	45	48	50				Approved at Council 73.
1.3.2	Develop guidance on VTS Digital communications (operational aspects)	51	51	>53				Continue next WP.
1.3.3	Revision of IMO Resolution A.918(22) IMO Standard Marine Communication Phrases	52	>53					Continue next WP.
1.3.4	Revision of IMO Resolution A.954(23) Proper use of VHF channels at sea	52	53					Council 76 to note task deletion.
1.4.1	Continuous update of VTS Manual	46	>53					Ongoing task. Continue next WP.

Task	Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
				Green	Yellow	Red	
1.4.2	Conduct of the Global VTS Questionnaire	45	46	>53			On hold, pending data base management. Continue next WP.
1.4.3	Prepare a “living document” on “Future VTS”, including emerging technologies and human element	50	>53				Ongoing task. Continue next WP.
1.4.4	Produce a Guideline on preparing for Zero Accident Campaign						No IMO response. Task discontinued.
WG#2 – Technology							
2.1.1	Develop Guideline on the portrayal of VTS information and data (both operational and technical aspects).	45	48	53			Council 76 to note task deletion (see also task 1.2.9).
2.1.2	Develop a Recommendation and Guideline on Cyber-Security in AtoN operations (lead by ARM, all Committees via Workshop)			>53			Commence next WP
2.2.1	Review and update Recommendation V-128 on VTS Systems and Equipment	52	52	53			To Council 76 for approval, also to note new title.
2.2.2	Review and update Guideline 1111 on Functional Performance Requirements for VTS Systems and Equipment	45	48	53			To Council 76 for approval, also to note new title.
	2.2.2 a – j Develop 9 Sub-GL under G1111	45	52	53			To Council 76 for approval.
2.2.3	Develop a Guideline on Acceptance of VTS systems	45	46	51			One specific GL under G1111. Merged with task 2.2.2
2.7.1	Update G1130 (Technical aspects of information exchange between VTS and allied or other services) to include cyber-security considerations	53	53				To Council 76 for approval.
2.3.1	Develop a Product Specification under the S-100 framework for VTS	45	47	>53			Continue next WP.
2.3.2	Review and update Recommendation V-145 on the Inter-VTS Exchange Format (IVEF) Service (Output to be a revised Recommendation and associated Guideline, including a technical service and/or product specification S-210))	50	51	>53			Continue next WP.
2.5.1	Develop technical service specifications for digital data exchange between VTS and other entities - primarily ships	53	>53				To Council to note new task. Continue next WP.
WG#3 –Training							

Task		Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
					Green	Yellow	Red	
3.1.1	Develop a Guideline on human factors and ergonomics in VTS	46	49	52				Approved at Council 75.
3.2.1	Develop a Guideline on the management of a VTS	45	49	51				Approved at Council 74.
3.2.2	Review, update and reformat Guideline 1045 on Staffing Level at VTS centres	45	45					Approved at Council 68.
3.3.1	a. Review and split R0103 (V-103) to a Recommendation and Guideline	45	48	49				Both completed at VTS 49. Approved at Council 72.
	b. Review / update Model Course 103/1 – VTS Operator	47	51	53				To Council 76 for approval.
	c. Review / update Model Course V-103/2 – VTS Supervisor	52	51	>53				Continue next WP.
	d. Review / update Model Course V-103/3	51	51	53				To Council 76 for approval.
	e. Review / update Model Course V-103/4	53	51	>53				Continue next WP.
	f. Review / update Model Course V-103/5		51	>53				Commence at next WP.
3.3.2	Review and update Guideline 1017 on Assessment for Recognition of Prior Learning in VTS Training	47	50					Approved at Council 73.
3.3.3	Produce a VTS Training Manual to complement V-103 and its model courses	48	51					C70 approved task deletion.
3.4.1	Review and update Guideline 1014 on the Accreditation and Approval to Deliver IALA VTS Model Courses	49	51					Approved at Council 74.
3.5.1	a. Develop guidance on VTS training for deck officers	45	46	47				Approved at C70
	b. Develop Recommendation on Marine Aids to Navigation awareness for Mariners	47	49					Approved at Council 72.

Legend:

Green light – progress as planned

Yellow light – risk that task needs more time and target time prolonged

Red light – target time exceeds work period

No light – task not started

Grew background - task completed, deleted or merged

Blank background - task scheduled or ongoing

Light orange background - to Council to note or approve

Table of Contents

1.	Introduction	11
1.1	Welcome from the Secretary-General and Deputy Secretary-General	11
1.2	Approval of the agenda	13
1.3	Apologies	13
1.4	Working Arrangements	13
2.	Review of Action Items from VTS52.....	14
3.	Reports from other bodies.....	14
3.1	IALA	14
3.2	IMO	14
3.3	Digital@Sea	16
3.4	IHO	16
3.5	ITU	17
4.	Reports from Rapporteurs	17
4.1	MASS related to VTS	17
4.2	VTS questionnaire coordination group	18
4.3	e-Nav operational service description	18
4.4	IALA NAVGUIDE	18
5.	Presentations	19
6.	Work Programme 2018-2023.....	19
6.1	VTS Task Plan and Task Register	19
6.2	Action Plan for VTS53	19
6.3	VTS tasks for Work Programme 2023 – 2027	19
7.	Review of input papers	19
8.	Establish Working Groups	20
9.	Working Group 1 – Operations (WG1).....	20
9.1	Task 1.2.4 - Develop a Guideline on Maritime Services in the context of e-Navigation relating to VTS	20
9.2	Task 1.2.5 - Develop guidance on the Implications of Maritime Autonomous Surface Ships (MASS) from a VTS Perspective	20
9.3	Task 1.2.6 - Develop a Guideline on how to develop a safety culture in VTS	21
9.4	Task 1.2.9 - Revise R0125 and split into Rec + GL	22
9.5	Task 1.3.2 - Develop guidance on VTS Digital communications (operational aspects)	22
9.6	Task 1.3.3 - Revision of IMO Resolution A.918(22) IMO Standard Marine Communication Phrases	23

9.7	Task 1.3.4 - Revision of IMO Resolution A.954(23) Proper use of VHF channels at sea	23
9.8	Task 1.4.3 - Prepare a “living document” on “Future VTS”	23
9.9	Review of the VTS Committee Task Plan 2023 - 2027	24
10.	Working Group 2 – Technology (WG2)	25
10.1	Task 2.1.1 Develop a Guideline on the portrayal of VTS information and data (both operational and technical aspects)	26
10.2	Task 2.1.2 Develop a Recommendation and Guideline on Cyber-Security in AtoN operations (lead by ARM, all Committees via Workshop)	26
10.3	Task 2.2.0 Consider relevant VTS documents to be revised/updated next WP	26
10.4	Task 2.2.1 Review and update Recommendation V-128 on Operational and Technical Performance of VTS Systems	27
10.5	Task 2.2.2 Review and update Guideline 1111 on Preparation of Operational and Technical Performance Requirements for VTS Systems	27
10.6	Task 2.3.1 Develop a Product Specification under the S-100 framework for VTS	27
10.7	Task 2.3.2 Review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service	27
10.8	TASK 2.7.1 Update G1130 (Technical aspects of information exchange between VTS and allied or other services) to include cyber-security considerations	27
11.	WORKING GROUP 3 – VTS Personnel and Training (WG3)	28
11.1	Review and update Recommendation R0103 on the Standards for Training and Certification of VTS Personnel and associated Model Courses (Task 3.3.1)	28
11.2	Proposed work items for IALA Work Term 2023-2027	30
12.	Any other Business.....	30
13.	Summary of output and working papers	31
14.	Review of session report	31
15.	Date and venue of next meetings	31
16.	Closing of the Meeting	31
17.	List of Annexes	32
ANNEX A	VTS53 Committee Agenda	33
ANNEX B	List of participants.....	35
ANNEX C	List of input papers	42
ANNEX D	List of Output Documents and Working Papers	46
ANNEX E	Action Items	49
ANNEX F	Working Group Participants Lists.....	52

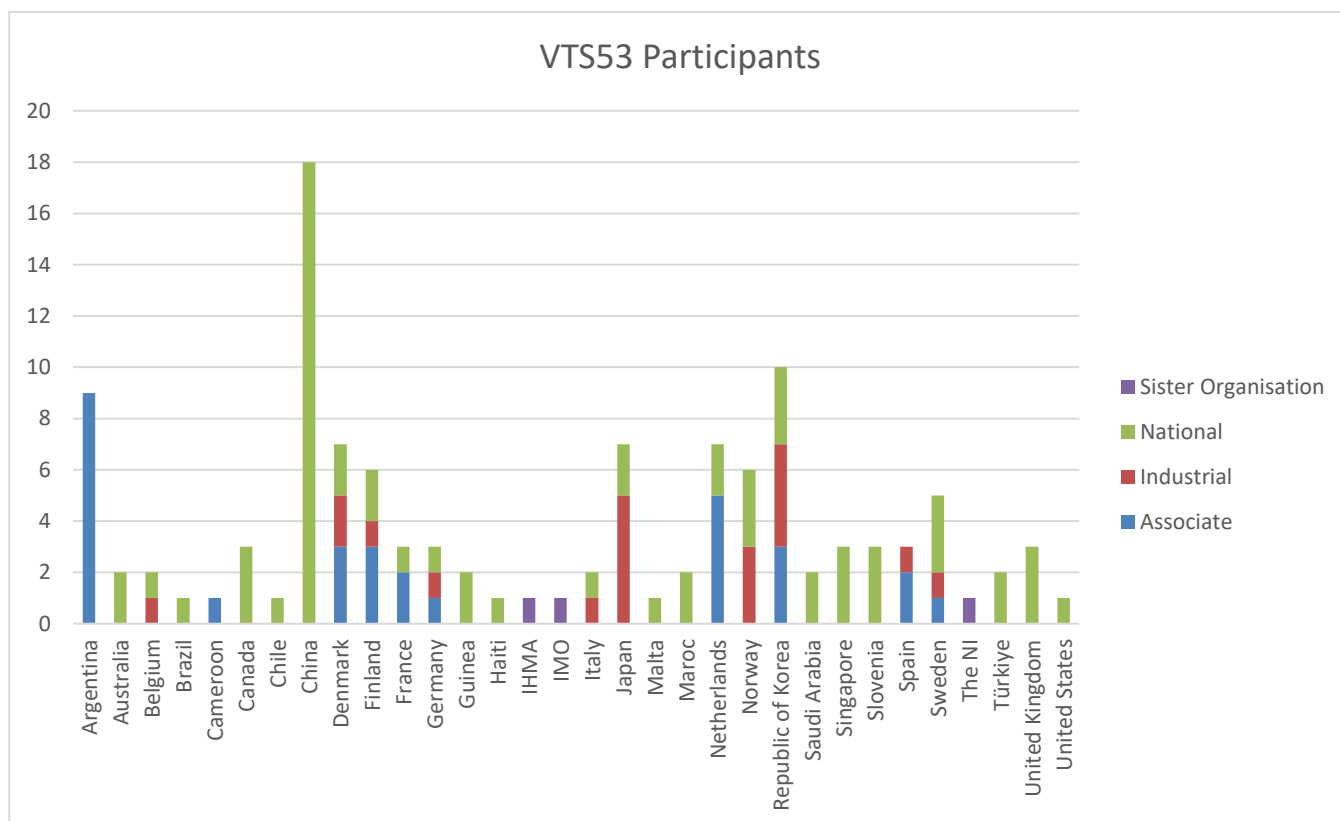
Report of the 53rd session of the IALA Vessel Traffic Services (VTS) Committee

1. INTRODUCTION

The 53rd meeting of the VTS Committee was held from 16 – 28 September 2022 with Monica Sundklev as Chair and Dirk Eckhoff as Vice-Chair. The Secretary for the meeting was Thomas Southall.

The opening plenary was held virtually on Friday 16 September and continued physically between 19-23 September. The Chair welcomed everybody to the first physically meeting since VTS47 and was pleased to see so many faces at IALA HQ after three long years of virtual meetings. She pointed out that the work had gone very well anyway due to the engagement of the WG Chairs, the Task Group Leaders and all the participants.

119 participants from 29 countries, three Sister organisations participated in VTS53. 32 participants attended for the first time. A breakdown of the participants is shown in the graph below.



1.1 Welcome from the Secretary-General and Deputy Secretary-General

At the online Opening Plenary of VTS53 on Friday 16 September 2022, Deputy Secretary-General Omar Frits Eriksson stated:

“I would like to welcome you to VTS53, which is going to be the first face to face meeting of the IALA committees after the COVID pandemic.

More and more countries have lifted or are in the process of lifting all restrictions and it seems like the virus is getting weaker and allow us to live a normal life again.

The Secretariat have started normal work routine in the HQ and travels to meetings and events have already filled up our agendas for the rest of the year.

So hopefully we will all be together next week, but of course there is a possibility to participate online if travel is not an option.

However, you must remember to register to VTS53 on the IALA Website, since, if you are not registered, you are of course not a committee participant.

I see you have a very busy schedule for this meeting with a lot of interesting input documents, I counted 52 input documents, and a lot of work to do in order to finish your work programme, this time around.

I noticed with special interest the work item proposal on the Development of technical service specifications for digital data exchange.

This is a very important work which will help bringing VTS fully into the digital age of e-navigation and beyond.

To this end, we held a joint IHO – IALA Workshop last week, where we discussed the status of S-100 and S-200 Product Specifications.

The workshop was held in Aalesund, Norway, hosted by the Norwegian Coastal Administration, thank you for hosting so brilliantly NCA.

The workshop was a great success and advanced our work in the digital domain quite a lot.

This will definitely not be the last joint event together with our friends in the Hydrographic community.

I also noticed with interest the input proposal from China MSA on the application of Virtual Reality technology to VTS simulation training.

I believe this kind of technology can bring significant benefits to, not only VTS training, but also to Aids to Navigation training in general.

I say good luck to you all with dealing with all these input papers.

It will be a busy week, and once again I must thank every one of you for your contribution to this important work within IALA.

The Inter-Governmental project continues to evolve. We have now nine ratifications or accessions and we are aware of several more which are coming in the near future.

Once we have 30 of these, IALA Will transform into an Inter-Governmental Organization, so we are about one third of the way already now, only six months after the first ratification by Singapore in March this year.”

At IALA HQ on Monday 19 September 2022, Secretary-General, Francis Zachariae, welcomed VTS participants to the meeting. He stated that it was wonderful to see the VTS Committee face to face.

Francis had just returned from the Digital@Sea Conference in the Republic of Korea where it was reported that the, SMART-navigation project had been finalized and as a result e-Navigation is operational around the coastline and urged members to find out more on their website.

Following the pandemic IALA has learnt a lot and changed the way it works both internally and with events for the better. He stated that their had been investment in online tools and equipment at HQ for easier online participation.

Francis reported that planning for the transition period (for IGO) is well underway. France will be the 10th ratification for the IGO very soon, and it is hoped that within a couple of years IALA will have the 30 ratifications required to become an IGO. The new IGO *General Regulations* and other arrangements are underway to be agreed including the new terms of reference for the committees and subsidiary bodies.

Happily the preparations for the General Assembly and Conference next year in Rio were going very well and he urged VTS Committee participants to register for the conference when it opens in October 2022 at the website: <https://iala-brazil2023.rio.br/home>

Francis concluded by giving his condolences to the United Kingdom and the Commonwealth with the death of Her Majesty the Queen Elizabeth II which was gratefully received.

1.2 Approval of the agenda

The agenda was reviewed and approved (VTS53-1.2.1).

1.3 Apologies

The Chair welcomed the new participants of the Committee. Els Bogaert submitted apologies to the Secretariat. A list of participants who attended VTS53 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 updated *Committee Working Arrangements* document and tools available to them. This brief included an overview of the VTS53 Action Plan that had been agreed by the VTS Committee Management Team to be progressed during VTS53 through Task Groups (TG). Each task had a deadline for expressions of interest to participate to the specified Task Group Leader by a certain date.

Task items that were worked on at VTS53 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 23 September 2022 at 10:00 CEST.

2. REVIEW OF ACTION ITEMS FROM VTS52

The Committee Secretary confirmed that all Secretariat actions from VTS52 were completed (input paper VTS53-2.1.1).

3. REPORTS FROM OTHER BODIES

3.1 IALA

3.1.1 IALA Council

Minsu Jeon, IALA Technical Operations Manager, reported the results from Council 75. In addition to new recommendations and guidelines these results included:

- Revision of the Current drivers and trends document.
- The Council approved the revised Committee work programme for 2018-2023.
- Council approved the workshop proposal on Digital Maritime Radio Communication Infrastructure to be held in 20-24 Feb 2023 in Tokyo, Japan.
- The Council approved the change of the heritage lighthouse of the year selection process and agreed to apply it for the heritage lighthouse of the year 2023. As a result the Council will choose the Lighthouse of the Year 2023 in December 2022.
- The Council approved Homigot Lighthouse, the Republic of Korea, as the Heritage Lighthouse of the Year 2022.

Council 76 will be held 12 – 16 December 2022 in Brazil.

3.1.2 IALA Policy Advisory Panel

Minsu Jeon, IALA Technical Operations Manager, reported that the 47th session of PAP was held between 13 - 15 September 2022.

Many items were discussed and key outcomes included:

- The revised IALA standards were approved at PAP and will be forwarded to Council.
- A draft input to IMO regarding IALAs activities regarding MASS.
- Discussion on Maritime Services in the context of e-Navigation.
- A review of entries in the IALA Dictionary.
- A update on the *Committee Work Programme 2023-2027*, for which the VTS Committee proposals had to be finalized at VTS53.

3.1.3 IALA Conference 2023

Minsu Jeon, informed participants that the IALA Conference will take place in Rio de Janeiro, Brazil starting in May 2023. The program for the Conference is available at the website: <https://iala-brazil2023.rio.br/home>

The VTS Chair, reminded participants that as a result there will be no committee meetings in the first half of 2023.

3.2 IMO

Minsu Jeon, IALA Technical Operations Manager, reported that the ninth session of the IMO NCSR Sub-Committee was held virtually from 21 to 30 June 2022, chaired by Mr. Nigel Clifford (New Zealand), supported by the vice-chair, Mr. A. Schwarz (Germany).

IALA had submitted four papers to this meeting:

- NCSR 9-7-2 - Development of Maritime Services descriptions (IALA)
- NCSR 9-12-9 - Proposal on WRC-23 agenda item 10 (IALA)
- NCSR 9-INF.12 - Report of the trial on digital voice communication in the maritime VHF band (IALA)
- NCSR 9-INF.13 - VDES ranging mode (R-Mode) (IALA)

Navigation WG matters

- Development of Maritime Services descriptions

NCSR noted the input paper from IALA (NCSR 9/7/2) concerning the update of Maritime Services 1 (VTS Information service (INS)), 2 (VTS Navigational assistance service (NAS)) and 3 (Traffic organization service (TOS)) into a new Maritime Service description for vessel traffic service (VTS) in accordance with the revised Guidelines for vessel traffic services (resolution A.1158(32)), and the development of a new Maritime Service description for aids to navigation (AtoN).

Noting that further work on the descriptions of Maritime Services was required, the Sub-Committee invited the Committee to extend the target completion year of output 2.11 "Consideration of descriptions of Maritime Services in the context of e-navigation" to 2023.

The Sub-Committee also invited interested Member States and international organizations to submit relevant proposals to NCSR 10 in order to update the description of Maritime Services in the context of e-navigation and finalize the revision of MSC.1/Circ.1610.

- Revision of ECDIS Guidance and performance standards

The Sub-Committee finalized a revision of the ECDIS Guidance for good practice (MSC.1/Circ.1503/Rev.1) for submission to MSC for approval. The draft updated guidance includes, in particular, a new section on onboard ECDIS updates.

The updates to the performance standards introduce, in particular, the application of new IHO Data Standards and product specifications (S-98, S-100 and S-101) with regard to ECDIS equipment installed on or after 1 January 2029 and, optionally, for equipment installed after 1 January 2026 and before 1 January 2029.

- Unlawful practices associated with fraudulent registration and registries of ships

The Sub-Committee noted that LEG 109 had invited MSC 105 to consider whether to investigate how ships without proper registration were able to obtain Maritime Mobile Service Identity (MMSI) numbers, in particular to manipulate Automatic Information System (AIS) data transmissions, and that, taking into account the technical nature of the issue, the Committee had agreed to refer the matter to the NCSR Sub-Committee for consideration and advice, as appropriate, and invited Member States and international organizations to submit relevant comments and proposals to the Sub-Committee (MSC 105/20, paragraph 2.7).

In this context, noting that MSC 105 was held after the deadline for submission of documents to NCSR 9, the Sub-Committee agreed to refer the matter to the Working Group on Communications for preliminary consideration and to advise the Sub-Committee, as appropriate.

Communications WG matters

- ITU WRC 23

In connection with the draft IMO position on WRC-23 agenda item 10, NCSR had for its consideration on the three documents from IALA.

The draft IMO position on relevant agenda items of ITU WRC-23 concerning matters relating to maritime services was finalized, for approval by MSC 106 and submission to the ITU's Conference Preparatory Meeting for WRC-23. However, regarding the agenda item 10, NCSR instructed the IMO/ITU EG 18 to develop the IMO position and to advise NCSR 10 as appropriate.

The next World Radiocommunication Conference ([WRC-23](#)) will be held in the United Arab Emirates from 20 November to 15 December 2023.

Draft liaison statements to ITU on maritime radiocommunication matters were also approved. However, the liaison statements on the revision of Recommendation ITU-R M.1371-5, NCSR established a Correspondence Group coordinated by Mr. Stefan Bober (Germany) to submit a report, including a draft liaison statement to ITU-R Working Party 5B for consideration at NCSR 10.

Other matters

- **IMO Member State Audit Scheme (IMSAS)**

NCSR noted that MSC 104 had instructed the NCSR to consider the proposal contained in documents MSC 102/22/3 (WMO) and MSC 103/20/9 (IALA), taking into account related mandatory requirements contained in IMO instruments, and advise the Committee accordingly, so that their inclusion in the appropriate IMSAS guidance materials could be considered (MSC 104/18, paragraph 17.17).

The Sub-Committee referred the document from IALA (MSC 103/20/9) for consideration at NCSR 10 and invited interested Member States and international organizations to submit relevant proposals, as appropriate.

The VTS Chair recalled the recent submission to IMO on the IMSAS manual. The Committee noted that the appendix relating to VTS needed updating to be in line with the new IMO VTS resolution. The CMT undertook this task and the update will be submitted to Council to be sent to IMO NCSR10, see agenda item 12.

3.3 Digital@Sea

Minsu Jeon reported that the 2022 Digital@Sea North America conference was held 11-12 May 2022 at the Florida Aquarium, Tampa, Florida. The report from this event can be found in input document VTS53-3.3.1.

The Committee noted that Digital@Sea Asia-Pacific had just come to a close and that the dates for the upcoming Digital@Sea conferences were as follows:

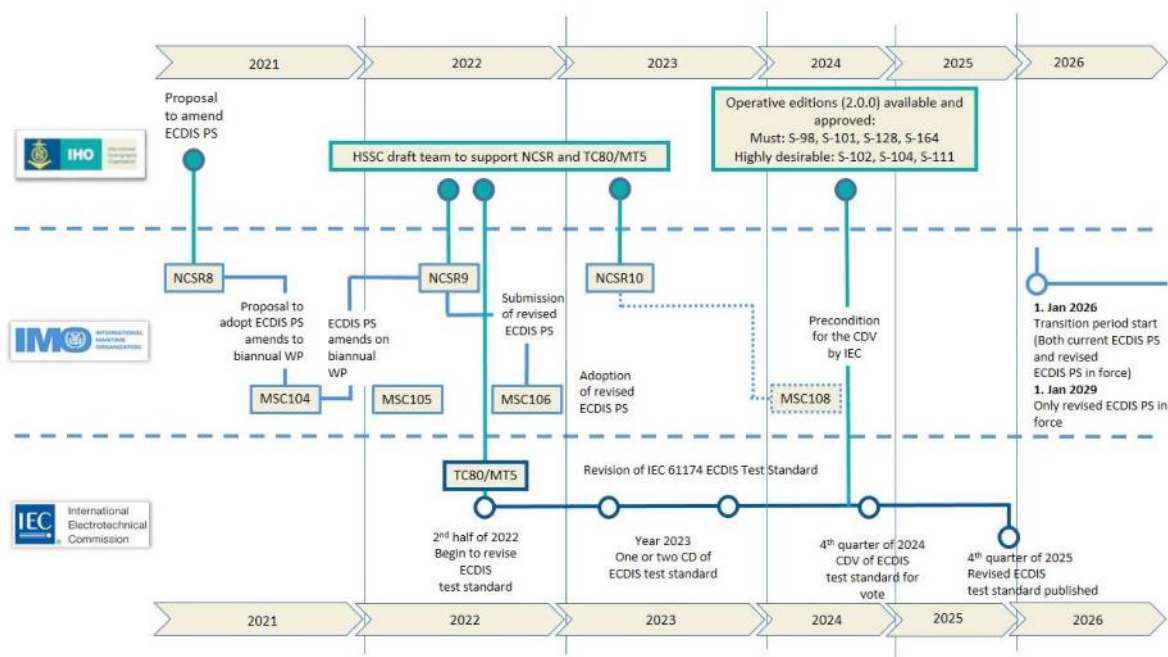
- Digital@Sea International in 1Q 2023
- Digital@Sea North-America May 2023 in Canada

3.4 IHO

Minsu Jeon, reported that NCSR9 endorsed an implementation phase (depicted below) for a new resolution, including S-100, a transition period was agreed upon:

- S-100 ECDIS will be legal to use after 1 January 2026 and
- from 1 January 2029 new systems must comply with the new IMO Resolution on ECDIS PS.

This gives IALA a time indication for when the ECDIS related elements of S-200 and S-201 should be ready.



3.5 ITU

Minsu Jeon informed the Committee on IALA / ITU matters highlighting that there is currently liaison between the two organizations on ITU Recommendation M.1371 : Technical characteristics for an automatic identification system using time division multiple access in the VHF maritime mobile frequency band and these discussions will continue.

4. REPORTS FROM RAPPORTEURS

4.1 MASS related to VTS

Rapporteur: Neil Trainor

Neil Trainor briefed participants on intersessional work undertaken since VT552 by both the Committee's Task Group 1.2.5 - *Implications of MASS from a VTS Perspective* and the IALA MASS Task Force, highlighting:

1. Committee Task Group 1.2.5 - Implications of MASS from a VTS Perspective

At VT552, the Task Group was tasked with:

- 1) Preparing a high-level brief on the implications of MASS from a VTS perspective, focussing on:
 - The operational considerations 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. For example:
 - How does VTS interact with MASS and the entity in control of the ship (RCC/automated systems), including managing interaction with multiple RCC's.
 - Ensuring the intent of messages conveyed to actors, including allied services, is the same, irrespective of the technology used to deliver it (e.g., voice/digital/automated data exchange)
 - This includes the provision of information and issuing warning, advice and instruction to achieve the purpose of VTS.
 - How VTS responds to the development of unsafe situations (conventional ships and MASS).

- The role of human operators in transitioning from the traditional means of vessel navigation, management of ship traffic and communications, to more highly automated means of voyage planning, digital data exchange, and MASS.
- The brief is to also focus on how to communicate this to stakeholders and engage in the development development of a goal-based instrument for MASS.

A first draft of the proposed brief has been prepared and is available in the annex at Input paper VTS53-6.3.7.

2) Update the Discussion Paper.

The Task Group intends to review / update the document at VTS53-8.2.2 Expected Influence of MASS on VTS Traffic Management Rules, taking into consideration the intersessional work and the outcomes from MSC106, particularly the road map for the development of a goal-based instrument for MASS.

Also highlighted were two input papers to VTS53 related to MASS. These include:

- VTS53-8.2 Expected Influence of MASS on VTS Traffic Management Rules
- VTS53-6.3.7 Digital Route Exchange – Operational Requirements from a VTS perspective.

2. IALA MASS Task Force since VTS52.

The MASS Task Force has met twice since VTS52 (May and September). Key developments include preparing:

- An IALA guideline on developments and implications of maritime autonomous surface ships for coastal authorities
- An IALA MASS Roadmap, and
- An Information paper on MASS – focussing on IALA's contribution toward safe operation of MASS.

4.2 VTS questionnaire coordination group

Rapporteur: Neil Trainor

Minsu Jeon reported that the Secretariat is looking to digitize the questionnaire, receiving answers to IALA's questionnaires through a web based portal. The Chair noted that the questionnaire had not been updated since the release of the new IMO VTS resolution and suggested it would be a good time to revise the VTS related questions.

4.3 e-Nav operational service description

Rapporteur: Fredrik Karlsson

No updates were received.

4.4 IALA NAVGUIDE

Rapporteur: Jillian Carson-Jackson, presented by Minsu Jeon, IALA.

Minsu Jeon reported that the NAVGUIDE coordinating group has been reviewing and updating the IALA NAVGUIDE edition 2023. All of the committees and the Secretariat have updated the relevant chapters with a view to have the new edition 9 launched at the 2023 IALA Conference in Brazil.

The coordinating group will continue working on the draft during the committees of 2nd half of 2022.

Once the draft is ready, the text and illustrations will be professionally designed to produce a book that will conform to the IALA document standard.

5. PRESENTATIONS

All recordings of the presentations given at VTS53 can be found at the IALA Dashboard for “All Committees” under “Resources / Committee Presentations” (login necessary). The following presentations were given at VTS53:

- IALA World Wide Academy Update / Omar Eriksson, IALA
- The revision of model courses V-103/1 (C0103-1) and V-103/3 (C0103-3) / Jillian Carson-Jackson and Stefaan Priem
- Development of technical service specifications for digital data exchange between VTS and other entities - primarily ships / Thomas Christensen
- Standard of English Tests for VTS in Korea / Seunghee Choi
- Introduction to the IALA Conference 2023 in Brazil / Alberto Piovesana

6. WORK PROGRAMME 2018-2023

6.1 VTS Task Plan and Task Register

An updated Task Plan and Task Register pre-VTS53 was noted by the Committee. As this was the last session in the 2018 – 2023 Work Programme this documents will not be forwarded to VTS54.

6.2 Action Plan for VTS53

The VTS53 Action Plan, which can be found on IALA Dashboard for VTS, was noted by the Committee.

6.3 VTS tasks for Work Programme 2023 – 2027

At VTS53 the new Task plan and Task Register for the next Work Programme (WP) was finalized by the CMT, coordinated by the VTS Vice-chair, having taken into account tasks to be carried over from the current 2018 – 2022 work programme and task proposals from VTS participants. The VTS 2023 -2027 Task Plan and Register will now be forwarded to the Secretariat to collate with the other committees proposals before being submitted to PAP.

Action item:

The Secretariat is requested to collate the future task plan period 2023 – 2027 (VTS53-12.1.2) and the future task register 2023 – 2027 (VTS53-12.1.3) with the other committee’s submission and forward them to PAP for further consideration.

7. REVIEW OF INPUT PAPERS

The input papers for VTS53 consisted of new input papers as well as working papers from the previous session. The input paper list (VTS53-7.1.1) did not include the working papers from VTS52. The working paper list (VTS53-7.1.2) was a separate input document.

The Committee noted input paper VTS53-7.2.1 *Liaison note all committees on developments in IMT related to termination of 2G and 3G service* from the ENAV Committee as well as VTS53-7.2.2

8. ESTABLISH WORKING GROUPS

The Chair outlined the procedure to be followed by working groups, including the associated paperwork and description of IALA secretary support, 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), Heidi Clevett (Vice-chair)
WG2 – Technology	Robert Townsend (Chair)
WG3 – VTS Training	Stefaan Priem (Chair)

9. WORKING GROUP 1 – OPERATIONS (WG1)

More than 40 individual participants attended at least one of the many task group meetings formed under Working Group 1 - Operations during VTS53 (WG1). The working group progressed the eight remaining tasks assigned under the 2018 - 2023 Work Programme, finalizing two of the tasks. A total of 10 output documents and 5 working papers were produced for the Committee Secretary to progress. Intersessional work is planned to further progress task 1.3.2 in close co-operation with WG2.

9.1 Task 1.2.4 - Develop a Guideline on Maritime Services in the context of e-Navigation relating to VTS

Task group leader: Tuomas Martikainen

The task group considered the working papers from VTS52 and revised and finalized the maritime service descriptions on VTS (MS 1-3) which were merged at VTS52 into one single maritime service (MS1). This was done to align the description with the IMO Resolution A.1158(32) on VTS. As part of the revision, the task group added examples of associated technical services.

The description of 'MS 1 - Vessel Traffic Service' can be used as part of the IALA's proposal to IMO to amend IMO MSC.1/Circ.1610 'Initial descriptions of Maritime Services in the context of e-navigation'. It is expected that IALA will submit this proposal to IMO NCSR 10 in 2023.

Action item(s):

The Secretariat is requested to forward the liaison note and attachment on description of Maritime Service 1- Vessel Traffic Service (VTS53-12.2.1 and 12.2.1.1) to ARM for information and to PAP for approval and inclusion into the IALA's submission for the update of IMO MSC.1/Circ.1610.

9.2 Task 1.2.5 - Develop guidance on the Implications of Maritime Autonomous Surface Ships (MASS) from a VTS Perspective

Task group leader: Michael Trent

The following input papers were considered in connection with Task 1.2.5:

- VTS53-8.2.1 Input Paper - Output from TG1.2.5 - Implications of MASS from a VTS perspective
- VTS53-8.2.2 Expected Influence of MASS on VTS Traffic Management Rules

With the aim to encourage IALA members to proactively engage with the IMO during the next two years as its committees work to develop a goal-based MASS Code, the task group prepared an information paper to be forwarded to Council, noting the Discussion Paper “Implications of MASS from a VTS Perspective” and requesting further distribution and engagement. The task group also prepared a liaison note to IALA’s ARM, ENAV, ENG Committees, PAP and the MASS Task Force citing the content of the MASS Discussion Paper, noting the intent of the VTS Committee to begin development of MASS guidance at VTS54. Additionally, the liaison note requests that the MASS task force include a statement in their information paper to MSC107 of the importance of including VTS and the shore-side element in developing the MASS instrument.

Finally, the task group reviewed and updated the Discussion Paper on the implications of MASS. This included review of an insightful paper by China MSA on challenges associated with MASS (VTS53 8.2.2) and recommendations of the use of risk analysis tools for MASS on different waterways under varying traffic conditions. It also included the insertion of the IMO MASS Development Roadmap.

The Intersessional task group working on the development of guidance on the implications of MASS from a VTS perspective is requested to prepare an updated Discussion Document for consideration at VTS54, focussing on:

- The operational considerations 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 outcomes from MSC regarding the development of a goal-based instrument for MASS and the associated road map.

Action item(s):

The Secretariat is requested to forward information paper (VTS53-12.2.5) Implications of MASS from a VTS Perspective with the accompanying 2nd edition of the Discussion Paper on Implications of MASS from a VTS Perspective (VTS53-12.2.5.1) to Council for their consideration.

The Secretariat is further requested to forward (VTS53-12.2.6.1) Edition 2.0 Discussion Paper on the Implications of MASS from a VTS Perspective with the accompanying liaison note (VTS53-12.2.6) regarding the discussion Paper and the IALA Task Force Draft Information Paper to MSC107 to the other IALA Committees and the MASS Task Force for their further consideration.

The Secretariat is also requested to forward (VTS53-12.5.1.2) Edition 2.0 Discussion Paper on the Implications of MASS from a VTS Perspective as a working paper to VTS54.

The Committee participants are invited to join the intersessional task group (Virtual meetings) working on the development of guidance on the implications of MASS from a VTS perspective and to express their interest to Neil Trainor (neil.trainor@amsa.gov.au) by 21 October 2022, 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 1.2.5 to VTS54.

9.3 Task 1.2.6 - Develop a Guideline on how to develop a safety culture in VTS

Task group leader: Trond Ski

At VTS53 the task group finalized the work on the draft guideline by updating the text on the recognized elements of safety culture and the references to the IALA guidance most relevant for the promotion of safety culture. The text of the draft guideline was further simplified by merging content from several chapters into the chapter on the recognized elements. The title of the draft guideline was modified to reflect the fact that IALA have guidance relevant for the topic of safety culture and that a new guideline thus would seek to promote the safety culture developed within VTS.

Action item(s):

The Secretariat is requested to forward draft guideline (VTS53-12.2.2) GNNN 'How to promote safety culture in VTS' to Council for approval.

9.4 Task 1.2.9 - Revise R0125 and split into Rec + GL

Task group leader: Trond Ski

At VTS53 the task group edited appropriate sections of the existing R0125 and R1014 such that the text of R1014 will form the wording of an updated R1025 with a new title "VTS Portrayal". The content of R0125 will form the basis of a new guideline entitled "Portrayal of VTS Information".

As a result, there will be one recommendation and one associated guideline specific to VTS portrayal. R1014 will then be withdrawn as there is already a guideline with the same number.

During the 2023 - 2027 Work Programme, the Committee will update this new guideline on portrayal of VTS information to incorporate the significant work WG2 has produced over the existing work period on the tasks.

Action item(s):

The Secretariat is requested to forward revised recommendation R0125 'VTS Portrayal' (VTS53-12.2.4) and draft guideline GNNN 'Portrayal of VTS information' (VTS53-12.2.3) to Council for approval.

9.5 Task 1.3.2 - Develop guidance on VTS Digital communications (operational aspects)

Task group leader: Tuomas Martikainen

The following input papers were considered in connection with Task 1.3.2:

- VTS53-8.3.2 Input paper IG 1.3.2 VTS Digital Communications
- VTS53-8.3.2.1 Draft GL on VTS Digital communications_20220812
- VTS53-8.6.1 Creating silent VTS at the Port of Rotterdam - Impact analyses of digitalizing VHF communications

The task group continued the work to develop a guideline on VTS Digital Communications based on the task description from VTS52. The purpose of the new 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 task group developed several use cases in dialog with WG2. The purpose of this joint effort by TG 1.3.2 and TG 2.3.1 and TG 2.5.1 of WG 2 was to get a common understanding of operational services provide by the VTS. TG 1.3.2 included the use cases as an annex to the draft guideline VTS Digital Communications. Further, the task group worked on part A "General principle of VTS digital communications" of the Guideline.

The group also updated the expected numbers of sessions for completion of the task for the next work period. The task is expected to be finalized at VTS56.

Further collaboration with WG2 task groups 2.3.1, 2.3.2 and 2.5.1 is considered necessary to sustain the progress made during VTS53 following a rewarding workshop in September 2022 in Norway.

A joint intersessional task group meeting is thus planned in March 2023 to be held at IALA HQ. Approval of the Secretary-General has been given for this physical meeting. Detailed information on the intersessional meeting will be published on the IALA website.

Action item(s):

The Secretariat is requested to forward WP draft Guideline on VTS Digital Communications (VTS53-12.5.1.3) and WP Appendix 1 MS1-3 (VTS53-12.5.1.1) as working papers to VTS54.

That Committee participants are invited to join an intersessional task group meeting working on task 1.3.2 and task 2.3.1; 2.3.2, and 2.5.1 to express their interest to Wim Smets (wim.smets@mow.vlaanderen.be) by 13 February 2023. The physical meeting is planned to take place on 13 to 15 March 2023 at a location to be confirmed. Details of the intersessional meeting will be published on the IALA VTS Committee Dashboard.

The Intersessional Task Group Leader to provide input on the intersessional work on tasks 1.3.2; 2.3.1; 2.3.2; and 2.5.1 to VTS54.

9.6 Task 1.3.3 - Revision of IMO Resolution A.918(22) IMO Standard Marine Communication Phrases

Task group leader: Heidi Clevett

During VTS53 the Committee begun task 1.3.3 'Revision of IMO A.918(22) IMO Standard Marine Communication Phrases (sections relating to VTS)'. The task group developed draft updates 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 recognized the following requirements:

- To align with changes in the new A.1158(32)
- To reflect the definitions of the message markers and additional phrases in G1132
- To update to reflect current technology
- To consider simplifying the structure and format of the document for easier reference

As the IMO is not yet considering this Resolution for revision, the task is expected to continue into the next several sessions, in alignment with any possible output proposal to MSC.

Action item(s):

The Secretariat is requested to forward working paper (VTS53-12.5.1.4) 'List of revisions to IMO Resolution A.918(22)' to VTS54.

9.7 Task 1.3.4 - Revision of IMO Resolution A.954(23) Proper use of VHF channels at sea

Task group leader: Heidi Clevett

Input paper VTS53-8.3.1 Proposals on Revision of IMO Resolution A.954 (23) Proper Use of VHF Channels at Sea was considered in connection with Task 1.3.4

At VTS53 the task group considered the input paper with a proposal to review IMO Resolution A.954(23). As the IMO is not considering this resolution for revision, the task group agreed to discontinue the work with the proposal to remove Task 1.3.4 from the committees work programme.

9.8 Task 1.4.3 - Prepare a "living document" on "Future VTS"

Task group leader: Michael Trent

The following input papers were considered in connection with Task 1.4.2:

- VTS53-8.6.2 Input Paper - Output from IG1.4.3 - Future VTS

The task group prepared an information paper to be forwarded to Council. This information paper cites the ongoing work by the VTS Committee to understand the implications of emerging trends, technologies and practices that will shape the future of the marine industry and the provision of 'Future VTS'. The paper requests the Council members to note the 'Future VTS' Discussion paper and to share it with relevant stakeholders so

that all may work together to embrace both the challenges and opportunities presented by these developments. The TG also reviewed the 'Future VTS' Discussion Paper and updated this living documents with new information and insights from the TG participants.

Concerning Input Paper VTS53-6.3.7 Proposed New Task – Digital Route Exchange – Operational Requirements from a VTS Perspective, the paper was discussed at VTS53 with the principals from TG 1.4.3 that drafted the input paper during the intersessional meetings. The consensus was that this task should be included in the work program to provide the operational framework needed for the development of future implementation strategies. Additionally, the task name has been updated for inclusion in the 2023-2027 Task Plan as '1.2.1 Develop guidance for digital route exchange within VTS operations.'

Action item(s):

The Secretariat is requested to forward information paper (VTS53-12.2.7) 'Discussion Paper on Future VTS' with the accompanying 2nd edition of the Discussion Paper on 'Future VTS' (VTS53-12.2.7.1) to Council for their consideration.

The Secretariat is also requested to forward (VTS53-12.5.1.5) WP Edition 2.0 Discussion Paper on Future VTS as a working paper to VTS54.

9.9 Review of the VTS Committee Task Plan 2023 - 2027

During the closing plenary session, the working group considered input paper VTS53-6.3.8, New Task Plan 2023 - 2027. The plan did gain support in general, but some objections were raised. Based on the subsequent discussions the following amendments were made:

- Task 1.1.1 on updating documents post adoption of the new IMO resolution is completed. The task was thus deleted.
- Task 1.1.4 on assessing implications associated with the advent of MASS was considered to be in close relations to the scope of Task 1.1.3 on developing guidance on the implications of MASS. The two tasks were thus merged into Task 1.1.3. Task 1.1.4 was deleted.
- Task 1.2.1 was retitled 'Provide VTS input to ARM for the development of guidance on Maritime Services'.
- Task 1.2.2 on the revision of R0125 is completed. The task was thus deleted.
- Task 1.3.3 on the revision of IMO Resolution A.954(23) was deleted due to the fact that the IMO is not considering the resolution for revision. Section 9.7 of this report refers.
- Task 1.7.1 on developing a guideline for VTS response to public health emergencies was deleted. The working group recalled that G1141 on operational procedures for delivering VTS do cover medical emergencies. This guidance was considered to sufficiently cover responses to public health emergencies.
- Task 1.9.2 on updating the VTS Manual was retained. The working group did however question the need for such a manual, especially when the IALA secretariat is maintaining a technical documents catalogue. The working group agreed to further consider this task at the next session.
- Task 1.9.4, sub tasks a and b, were considered to be somewhat included in the scope of the living document on future VTS. Furthermore, the sub tasks were considered to be covered by IALA technical guidance documents in general. The two sub tasks were thus deleted.

10. WORKING GROUP 2 – TECHNOLOGY (WG2)

The Chair for this session, Rob Townsend, held an initial plenary session for participants of the Technology Working Group and this was followed by a mid-way plenary and a final plenary during the course of VTS 53 to monitor progress, set expectations and plan for the next work period.

The Technology Working Group has eight formal tasks assigned in the current Work Period. During VTS53, we successfully completed Tasks 2.2.1, 2.2.2 and 2.7.1. Additionally significant progress was made on Tasks 2.3.1. which will help with Task 2.3.2. Members of WG2 also progressed Task 2.5.1 in company with members of the Task 2.3.1

Post-VTS53 Intersessional work has been proposed in order to progress the ongoing work on S-212 and IVEF.

There are 13 output papers comprising R0128, G-1111, G1130 and liaison note.

In addition to the tasks described above, WG2 also received 6 input papers. Responses to each of the input papers are as follows:

- **VTS53-6.3.2 Development of technical service specifications for digital data exchange between VTS and other entities from DLR Germany et al.** The paper was highlighted to the Technology Working Group and acknowledged.
- **VTS53-6.3.4 suggestion about formulating “Functional Requirements and Technical Performance Requirements for Bridge Area VTS” from the China MSA.** This paper was introduced to the Technology Working Group and also further discussed with WG1. We agreed that whilst of interest and relevance, we don’t see a requirement to proceed with this particular scenario as there are many other aspects of VTS operations consider.
- **VTS53-6.3.5 Proposal for the Development of an Independent G1111 Sub-guideline for VTS-MIS from China MSA.** This paper was introduced to the Technology Working Group and discussed and the consensus was that MIS logically resides in core VTS and thus can be incorporated into G-1111-1 during the next work programme.
- **VTS53-9.3.1 Information Paper (Proposal For VTS Data Exchange Using CLOUD VTS Concept from Korea Coast Guard.** This paper was discussed at the opening WG2 plenary and the representatives from South Korea provided an introductory presentation which generated much interest from within WG2. It will be used as we progress the update task on V-145. Further discussion with the test-bed data will be expected in the next session. (Task 2.3.2)
- **VTS53-9.3.2 Proposal on Draft of VTS Digital Information Service Product Specification V 0.6.5 from the China MSA.** This paper was also raised at the opening WG2 Plenary and it will be used as we progress Task 2.3.1 on S-212
- **VTS53-9.3.3 Proposed amendments to Recommendation V-145 on VTS Interchange Format (IVEF) Services from China MSA.** This paper was raised and discussed and it will be addressed as the work on Task 2.3.2 progresses.

Action item(s):

That the Secretariat forward the working paper on Proposal for the Development of an Independent G1111 Sub-guideline for VTS-MIS from China MSA (VTS53-12.5.2.7) at VTS54 for further consideration.

That the Secretariat forward the working paper on Proposal For VTS Data Exchange Using CLOUD VTS Concept from Korea Coastguard (VTS53-12.5.2.8) at VTS54 for further consideration.

That the Secretariat forward the working paper on 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 (VTS53-12.5.2.9) at VTS54 for further consideration.

That the Secretariat forward the working paper on Proposed amendments to Recommendation V-145 on VTS Interchange Format (IVEF) from China MSA (VTS53-12.2.10) at VTS54 for further consideration.

10.1 Task 2.1.1 Develop a Guideline on the portrayal of VTS information and data (both operational and technical aspects)

This task is near complete however we have halted works due to recent developments highlighted by ARM and their own work on updating G1105. Due to this and in view of several existing Recommendations and Guidelines relating to portrayal or symbology we have agreed a plan to address the various issues.

At VTS53, VTS Committee will amend the numbering of the documents and edit appropriate sections of the existing Recommendations R0125 (Use and Presentation of Symbology at a VTS Centre Ed 3.1 Jun 2012) and R1014 (Portrayal of VTS Information and Data Ed 1 Dec 2017) such that the text of R1014 will form the wording of an updated R0125 entitled “VTS Portrayal” and similarly, the text of R0125 will form the basis of a new Guideline entitled “Portrayal of VTS Information”. As a result, VTS Committee will produce a Recommendation and an associated Guideline specific to VTS portrayal.

During the 2023-2027 WP, VTS Committee will update this new guideline on portrayal of VTS Information to incorporate the significant work the VTS Committee has produced over the existing work period on Task 2.1.1 DRAFT Guideline Gnnnn Ed 1.0 Portrayal of VTS Information and Data.

During the work described above, VTS Committee will remove references to “data”, any references not bespoke to VTS and to ensure that there is nil overlap with the work undertaken by ARM.

A liaison note to ARM has been approved which explains in more detail.

Action item(s):

That the Secretariat forward the working paper on draft Guideline on the portrayal of VTS information and data (VTS53-12.5.2.1) at VTS54 for further consideration.

The Secretariat is requested to forward the liaison note to ARM on Guideline G1105 (VTS53-12.3.3) for their consideration.

10.2 Task 2.1.2 Develop a Recommendation and Guideline on Cyber-Security in AtoN operations (lead by ARM, all Committees via Workshop)

This task has not started yet and we await an update by ARM on the proposed workshop.

Action item:

That the Secretariat forward the WP liaison note from ARM on Cyber Security (VTS53-12.5.2.2) to VTS54 for further consideration and response to ARM.

10.3 Task 2.2.0 Consider relevant VTS documents to be revised/updated next WP

The Working Group considered which documents should be included for updating during the next Work Period and concluded that we are likely to need to make some changes to G1111 and sub-Guidelines. With regards to the proposal to create another sub-Guideline within G1111 on VTS Management Information Systems, the consensus is that this logically resides within G1111-1 which deals with core VTS systems and the excellent paper from the China MSA (VTS53-6.3.5) will provide the foundations for this.

Action item:

That the Secretariat forward the WP from China MSA Proposal for the Development of an Independent G1111 Sub-guideline for VTS-MIS (VTS53-12.5.2.3) to VTS54 for further consideration.

10.4 Task 2.2.1 Review and update Recommendation V-128 on Operational and Technical Performance of VTS Systems

Following discussion and feedback the working group finalized this task and submitted and gained Committee approval.

Action item:

The Secretariat forward the Revised R0128 VTS Systems and Equipment (VTS53-12.3.1) to Council for approval.

10.5 Task 2.2.2 Review and update Guideline 1111 on Preparation of Operational and Technical Performance Requirements for VTS Systems

The Secretariat made editorial amendments intersessionally. Following discussion and feedback the working group finalised this task and submitted and gained Committee approval for the revised Guideline G1111 Establishing Functional Performance Requirements for VTS systems and equipment and sub-guidelines 1 to 9.

Action item(s):

The Secretariat forward the revised Guideline G1111 Establishing Functional Performance Requirements for VTS systems and equipment and sub-guidelines 1 to 9 (VTS53-12.3.4 – 12.3.13 inclusive) to Council for approval.

10.6 Task 2.3.1 Develop a Product Specification under the S-100 framework for VTS

Task 2.3.1 started at VTS45 and at VTS52 a new Task (2.5.1) started and this is closely related to task 2.3.1. At the end of the joint IHO/IALA workshop in Ålesund in September 2022 a workplan was created for VTS53 which included close co-operation with WG1 on TG 1.3.2 (Develop Guideline on VTS Digital Communications).

During VTS53 a general architecture for the digital delivery of VTS information was discussed and from this architecture it became clear these tasks are closely related and also provide a basis for ongoing work. Task 1.3.2 has produced a number of use cases which were used to derive identification of technical requirements/services. Furthermore, two technical services were identified as possible tests 'pioneer services'.

Action item(s):

That Committee participants are invited to join an intersessional task group meeting working on task 2.3.1 Develop a Product Specification under the S-100 framework for VTS, together with task 2.3.2, task 2.5.1 and task 1.3.2 to express their interest to Wim Smets (wim.smets@mow.vlaanderen.be) by 13 February 2023. The physical meeting is planned to take place on 13 -15 March 2023 at a location to be confirmed. Details of the intersessional meeting will be published on the IALA VTS Committee Dashboard.

That the Secretariat forward the WP on the Architecture of the Digital Delivery of VTS Information (VTS53-12.2.4) and WP on the mapping of use cases to technical services (VTS53-12.5.2.5) to VTS54 for further consideration.

10.7 Task 2.3.2 Review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service

This task has not progressed at VTS53 but will be reconvened at the intersessional meeting under task 2.3.1 and subsequently at VTS54.

Action item:

That the Secretariat forward (VTS53-12.5.2.6) WP on review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service to VTS54.

10.8 TASK 2.7.1 Update G1130 (Technical aspects of information exchange between VTS and allied or other services) to include cyber-security considerations

Following discussion and feedback the working group finalized this task and submitted and gained Committee approval for revised G1130 VTS information exchange with allied or other services.

Action item(s):

The Secretariat forward the revised G1130 VTS information exchange with allied or other services (VTS53-12.3.2) to Council for approval.

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

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

A number of Working Group meetings were held over the course of the VTS53, including many sessions in the hybrid environment. The Working Group focused on the following items:

- 3.3.1 - Review and update Recommendation V-103 on the Standards for Training and Certification of VTS Personnel and its associated Model Courses. This included:
 - 3.3.1b – Revision of V-103/1 (C0103-1) VTS Operator Course
 - 3.3.1d – Revision of V-103/3 (C0103-3) VTS On-the-Job Training (OJT) Course
- Review continued or commenced on tasks 3.3.1b – Revision of V-103/2 (C0103-2) VTS Supervisor Course and task 3.3.1e – Revision of V-103/4 (C0103-4) VTS OJT Instructor Course
- Review of proposed tasks for 2023-2027

All input papers identified for WG3 were addressed.

11.1 Review and update Recommendation R0103 on the Standards for Training and Certification of VTS Personnel and associated Model Courses (Task 3.3.1)

Overall Task Leader: J Carson-Jackson

The Working Group reviewed the input papers VTS53-10.3.1, VTS53-10.3.1.1, VTS53-10.3.1.2, VTS53-10.3.2, VTS53-10.3.2.1, VTS53-10.3.2.2, VTS53-10.3.2.3

In addition, Input paper VTS50-11.3.1 'Proposal for adding "typical Accident Case Study" subject to Model Courses V-103/3' was noted, including the agreement at VTS51 that the use of case studies provides value for all IALA VTS Model Courses.

As previously agreed, noting the scope of the work, the task was broken into sub-tasks:

- 3.3.1a – Review and deprecate R0103 to a recommendation and guideline (completed)
- 3.3.1b – Review/update model course V-103/1 (Task Leader J Carson-Jackson)
- 3.3.1c – Review / update model course V-103/2 (Task Leader J Carson-Jackson)
- 3.3.1d – Review / updated model course V-103/3 (Task Leader S. Priem)
- 3.3.1e – Review / update model course V-103/4 (Task Leader J Carson-Jackson)
- 3.3.1f – Review / update model course V-103/5 (Task Leader J Carson-Jackson)

11.1.1 Task 3.3.1b – Review and update model course V-103/1 (C0103-1)

The work carried out during the intersessional working group was noted and used as the basis for the work at VTS53. All remaining elements were addressed, which included:

- confirming the references that would be suitable to be used by instructors in the preparation of the training program
- agreeing the range of hours suitable to reach the competence levels identified for each module

- completing an editorial and formatting review of the entire document

It was confirmed that the model course is designed for 'ab initio' or 'from the start' students.

The document was completed and approved at VTS53 (VTS53-12.4.1) for forwarding to IALA Council.

The WG Chair liaised with the Dean of IALA WWA to consider a webinar to introduce the new C0103-1 model course in the first half of 2023.

Action item:

The Secretariat forward the revised IALA Model Course C0103-1 on VTS Operator Training (VTS53-12.4.1) to Council for approval.

11.1.2 Task 3.3.1d – Review and update model course V-103/3 (C0103-3)

The work carried out during the intersessional working group was noted and used as the basis for the work at VTS53. All remaining elements were addressed, which included:

- highlighting of the link between VTS Operator training and VTS OJT
- the entry level and recognition of prior learning
- the completion of the detailed competence tables
- the revision of the document in line with the C0103-1 where appropriate
- editorial review and formatting of the entire document.

The document was completed and approved at VTS53 (VTS53-12.4.2) for forwarding to IALA Council.

Action item:

The Secretariat forward the revised IALA Model Course C0103-3 on VTS On-The-Job Training (VTS53-12.4.2) to IALA Council for approval.

11.1.3 Task 3.3.1b – Review and update model course V-103/2 (C0103-2)

The work carried out during the initial review of V-103 was reviewed. A brainstorming discussion on the role and competences required by the VTS Supervisor provided input to support the review of the model course. It was agreed that the work would proceed during intersessional on-line meetings, which will be advertised on the IALA Dashboard.

The proposed date for the first intersessional meeting on the review of C0103-2 will be:

- Wednesday, 19 October 2022 – 0900-1030 UTC

Action item(s):

The Committee participants are invited to join the intersessional task group working on review and update model course C0103-2 and to express their interest to Jillian Carson-Jackson (jillian@jcjconsulting.net) by 17 October 2022, 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 3.3.1b to VTS54.

11.1.4 Task 3.3.1e – Review and update model course V-103/4 (C0103-4)

The work carried out during the initial review of V-103 and the development of C0103-3 were noted. It was agreed that the C0103-4 would provide a clear link with C0103-3, to prepare the VTS OJT Instructors to develop and deliver the VTS OJT Program. It was agreed that the work would proceed during intersessional on-line meetings, which will be advertised on the IALA Dashboard.

The proposed date for the first intersessional meeting on the review of C0103-4 will be:

- Wednesday, 26 October 2022 – 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 and to express their interest to Jillian Carson-Jackson (jillian@jcjconsulting.net) by 17 October 2022, 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 3.3.1e to VTS54.

11.2 Proposed work items for IALA Work Term 2023-2027

The WG reviewed the proposed work items for the IALA Work Term 2023 - 2027, noting the input as provided was accurately represented.

11.2.1 Presentation on English Language Competency in VTS

Related to the proposed work item on English Language Competency requirements in VTS Operations, a presentation on the development and use of a VTS specific English competency assessment for VTS Personnel was provided by the Republic of Korea. The WG was impressed with the methodology of the competency assessment presented.

A recording of the presentation, is provided on the IALA VTS Committee dashboard [here](#).

Input paper VTS53-6.3.1 Development of the Guidelines on the VTS English Competency Test was noted, and the task will be included in the proposed work items.

11.2.2 Proposal on the application of VR technology to VTS simulation training

Input paper VTS53-6.3.3 was noted, and identified to be forwarded to VTS 54 for review under the proposed task on the review of IALA G1027 on simulation in VTS training.

12. ANY OTHER BUSINESS

The Chair raised the following items under AOB:

- The Chair stated that following the introduction of Guideline *G1166 VTS in Inland Waters* which sits under Recommendation *R0119 Establishment of a VTS*, Recommendation *R0120 Vessel Traffic Services in inland waters* needs to be withdrawn and the Committee wishes that the Secretariat requests this of Council 76 in December.
- The VTS Chair recalled the recent submission to IMO on the IMSAS manual. The Committee noted that the appendix relating to VTS needed updating to be in line with the new IMO VTS resolution., which also the PAP had noted. The Chair undertook this task and the Committee approved the amendments to the IMSAS Manual, which will be submitted to Council and further sent to IMO NCSR10.
- The Chair highlighted a late input paper from PAP47 on the Open Digital Incubator Initiative (VTS53-3.1.2.1) which was noted by the Committee.

Action item:

That the Secretariat requests Council 76 to approve the withdrawal of Recommendation R0120 Vessel Traffic Services in inland waters following the introduction of Guideline G1166 VTS in Inland Waters.

The Secretariat is requested to forward the input note and Input to NCSR10 - Amendments to IMSAS Manual relating to VTS (VTS53-12.1.3 and 12.1.3.1) to Council for approval.

13. SUMMARY OF OUTPUT AND WORKING PAPERS

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

Outputs from VTS53 were approved by the Committee using the approval procedure. The output documents and working papers are listed in Annex D.

The Committee noted that regarding Model Course C0103-3 there were some comments from WG3 to a specific part where the final approval group revised the text. It is of great importance that this Model Course is approved at Council in December as it will take another year if it is not. C0103-1 and C0103-3 are closely connected and the OJT course is now more in accordance with the IMO model courses. Therefore, it was considered important that the C0103-1 and 3 are approved as a package. Another issue is that the present V-103-3 includes text and references from the old resolution including levels of services as well as the term VTS authority, which means that it is currently out of date following the IMO Assembly adoption of the new resolution. If the Model Course will not be approved by Council in December then training organisations and VTS providers may be confused of how to plan for their training. The Chair encouraged participants to share their experiences of using the proposed C0103-3 as it may be revised in the next work period.

The Committee Chair then thanked the working group chairs, vice-chairs, task group leaders and participants of the working groups for all their efforts during the session. The Chair was impressed by the hard and dedicated work also at very late hours to reach the goal to finalize the tasks.

The Chair informed about the silent approval process which was set to 3 calendar days and that it may include deadlines even during the weekend. However, it was considered to be an improvement from before the pandemic when all documents were displayed in the plenary room starting on Thursday afternoon. By this new procedure the Committee has been able to work longer with the tasks and the Chair thought it was a success factor as we have finalized over 30 documents.

14. REVIEW OF SESSION REPORT

The draft report of the meeting (VTS53-14.1) was approved by the Committee at the Closing Plenary.

15. DATE AND VENUE OF NEXT MEETINGS

VTS54 is planned to be held between 18 - 22 September 2023 at IALA Headquarters, Saint Germain-en-Laye, France.

The Chair also reminded the participants to plan for the upcoming Workshop on Digital Maritime Radio Communication Infrastructure in Tokyo 20 – 24 February 2023 and the IALA Conference that will take place between 27 May – 3 June 2023 in Rio de Janeiro, Brazil!

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 over the past five years of this extended work period, especially during the time of the pandemic. She hoped that all the participants would return again to VTS54 where new exciting tasks should be developed.

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 Jin Shengli on his retirement in July 2023 having served the Committee for many years and IALA for over 20 years.

Secretary-General, Francis Zachariae, thanked all participants for their work at IALA during the work period, he particularly praised the new IMO VTS resolution as a huge achievement by the Committee that has now changed VTS forever. Francis finished looking forward to seeing all in person at the IALA Conference in Brazil.

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



53rd Meeting of the Vessel Traffic Services Committee (VTS53)

The opening plenary of the 53rd session of the VTS Committee will be held online between 10:00 – 12:00 UTC on Friday 16 September 2022 and the closing plenary will be held online between 10:00 – 12:00 UTC on Wednesday 28 September 2022. The physical week will take place at IALA HQ between the 19 – 23 September 2022, commencing on the Monday morning at 10:00 local time.

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 2023
 - 3.2. IMO
 - 3.3. Digital@Sea
 - 3.4. IHO/ITU
4. Reports from rapporteurs
Neil Trainor
Neil Trainor
Fredrik Karlsson
Jillian Carson-Jackson
 - 4.1. MASS related to VTS
 - 4.2. VTS questionnaire coordination group
 - 4.3. e-Nav operational service description
 - 4.4. IALA NAVGUIDE
5. Presentations
 - 5.1. IALA World Wide Academy Update
 - 5.2. The revision of model courses V-103/1 (C0103-1) and V-103/3 (C0103-3)
 - 5.3. Development of technical service specifications for digital data exchange between VTS and other entities - primarily ships
6. Work programme management
 - 6.1. Work Programme 2018 – 2023, Task Plan, Task Register
 - 6.2. Action plan for VTS53
 - 6.3. VTS tasks for Work Programme 2023 – 2027

- 6.4.
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 Manual updates
 - 8.5. VTS Questionnaire
 - 8.6. 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. VTS implementation
 - 10.2. VTS operations
 - 10.3. Training and assessment
 - 10.4. Competency, certification and revalidation
 - 10.5. 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

LAST NAME	FIRST NAME	MEMBER TYPE	ORGANIZATION	MEMBER COUNTRY	EMAIL
Istanbullu	Cafer	Sister Organisation	IMO		cistanbu@imo.org
Carson-Jackson	Jillian	Sister Organisation	The Nautical Institute		jillian@jcjconsulting.net
Cerrudo	Mario Alejandro	Associate	Prefectura Naval Argentina	Argentina	aleconuru@yahoo.com.ar
Gallas	Gustavo Daniel	Associate	Prefectura Naval Argentina	Argentina	gdgallas84@hotmail.com
Garcia	Lorena Andrea	Associate	Prefectura Naval Argentina	Argentina	lagpsc@hotmail.com
Gauna	Luis Ariel	Associate	Prefectura Naval Argentina	Argentina	galuari@yahoo.com.ar
Gomez	Carlos Francisco	Associate	Prefectura Naval Argentina	Argentina	frangomez.1103@gmail.com
Micheloud	Ana	Associate	Prefectura Naval Argentina	Argentina	anamicheloud@yahoo.com
Núñez	Ricardo	Associate	Prefectura Naval Argentina	Argentina	ricardorenenu_uz@hotmail.com
Troche	Angel	Associate	Prefectura Naval Argentina	Argentina	trocheangel19@gmail.com
Zappa	Alfredo Jesus	Associate	Prefectura Naval Argentina	Argentina	ajzappa@prefectura naval.gov.ar
Abercrombie	Kerrie	National	Australian Maritime Safety Authority	Australia	kerrie.abercrombie@amsa.gov.au
Trainor	Neil	National	Australian Maritime Safety Authority	Australia	neil.trainor@amsa.gov.au
Smets	Wim	Industrial	Agency for Maritime and Coastal Services, Shipping Assistance Division	Belgium	wim.smets@mow.vlaanderen.be
Priem	Stefaan	National	Agency for Maritime Services and Coast	Belgium	stefaan.priem@mow.vlaanderen.be
Oliveira	Antonio	National	Marinha do Brasil	Brazil	acarlosoliv@yahoo.com.br
Mbene Koah	Alain Serge	Associate	Port Authority of Kribi	Cameroon	serge.mbene@pak.cm
Glew	Kelly	National	Canadian Coast Guard	Canada	kelly.glew@dfo-mpo.gc.ca
Guevremont	Jean	National	Canadian Coast Guard	Canada	jean.guevremont@dfo-mpo.gc.ca
Morin	Marc-Andre	National	Canadian Coast Guard	Canada	marc-andre.morin@dfo-mpo.gc.ca

LAST NAME	FIRST NAME	MEMBER TYPE	ORGANIZATION	MEMBER COUNTRY	EMAIL
Arriagada	Henry	National	Armada de Chile - DIRECTEMAR	Chile	harriagada@directemar.cl
Chen	Wang	National	China Maritime Safety Administration	China	2634543@qq.com
Congbo	Yi	National	China Maritime Safety Administration	China	252358087@qq.com
E	Xiong	National	China Maritime Safety Administration	China	13825086995@139.com
Jinkai	Liu	National	China Maritime Safety Administration	China	Goldenk@126.com
Jun	Tao	National	China Maritime Safety Administration	China	tj41305583@163.com
Liu	Lei	National	China Maritime Safety Administration	China	liuleimsa@163.com
Iv	Xinli	National	China Maritime Safety Administration	China	329831342@qq.com
Rucun	Jia	National	China Maritime Safety Administration	China	rucun.jia@163.com
Shengli	Jin	National	China Maritime Safety Administration	China	jinshengli@msa.gov.cn
Su	Changliang	National	China Maritime Safety Administration	China	suchangliang2020@163.com
Wei	Wang	National	China Maritime Safety Administration	China	wangwei@sd.msa.gov.cn
Wei	Liu	National	China Maritime Safety Administration	China	liuwei@shmsa.gov.cn
Wei	Junjie	National	China Maritime Safety Administration	China	383064241@qq.com
Xiao	Li	National	China Maritime Safety Administration	China	lvvcbbc@163.com
Yalei	Ren	National	China Maritime Safety Administration	China	735047470@qq.com
Yang	Wenbin	National	China Maritime Safety Administration	China	yangwenbinmsa2020@163.com

LAST NAME	FIRST NAME	MEMBER TYPE	ORGANIZATION	MEMBER COUNTRY	EMAIL
Yao	Gaole	National	China Maritime Safety Administration	China	yaogaole@glyao.cn
Yuanhang	Li	National	China Maritime Safety Administration	China	sailingli@yeah.net
Bang	Jakob	National	Danish Maritime Authority	Denmark	cjb@dma.dk
Strandberg	Michael	National	Danish Maritime Authority	Denmark	mst@dma.dk
Haagensen	Anders	Associate	Defence Command Denmark Naval Staff	Denmark	andershaagensen@safeseanet.dk
Hansen	Dorte Olbæk	Associate	Defence Command Denmark Naval Staff	Denmark	3E-SOE-ST103@mil.dk
Carstensen	Jeppe	Associate	Svendborg International Maritime Academy	Denmark	jca@simac.dk
Kristofferse n	Mads	Industrial	Terma A S - Radar Systems	Denmark	muk@terma.com
Pedersen	Jens Chr.	Industrial	Terma A S - Radar Systems	Denmark	JCP@terma.com
Martikainen	Tuomas	National	Finnish Transport Infrastructure Agency	Finland	tuomas.martikainen@vayla.fi
Halttunen	Mika	Associate	Fintraffic Vessel Traffic Services Ltd	Finland	mika.halttunen@fintraffic.fi
Kallio	Esa	National	Fintraffic Vessel Traffic Services Ltd	Finland	esa.kallio@fintraffic.fi
Nyrhila	Mika	Associate	Fintraffic Vessel Traffic Services Ltd	Finland	mika.nyrhila@fintraffic.fi
Talja	Sari	Associate	Fintraffic Vessel Traffic Services Ltd	Finland	sari.talja@fintraffic.fi
Rostopshin	Dmitry	Industrial	Wartsila	Finland	dmitry.rostopshin@wartsila.com
Mingot	Pierre	Associate	Cerema	France	pierre.mingot@cerema.fr
Nasone	Bruno	Associate	Cerema	France	bruno.nasone@cerema.fr
Metayer	Hervé	National	Direction Générale des Affaires Maritimes, de la pêche et de l'aquaculture	France	herve.metayer@developpement-durable.gouv.fr

LAST NAME	FIRST NAME	MEMBER TYPE	ORGANIZATION	MEMBER COUNTRY	EMAIL
Eckhoff	Dirk	National	Federal Waterways and Shipping Agency	Germany	dirk.eckhoff@wsv.bund.de
Christensen	Thomas	Associate	German Aerospace Center	Germany	thomas@dmc.international
Krol	Marcus	Industrial	In-innovative navigation GmbH	Germany	marcus.krol@innovative-navigation.de
Baldé	Mamadou Alpha	National	Agence de Navigation Maritime	Guinea	alphabaguire@yahoo.fr
Camara	Sory	National	Agence de Navigation Maritime	Guinea	sorysoundou@gmail.com
Polyte	Matthieu	National	Service maritime et de la navigation d'Haïti	Haiti	polytemat13@yahoo.fr
Trent	Michael	Sister Organisation		IHMA	michael.trent@maritechusa.com
Febbo	Domenico	Industrial	ELMAN S.r.l.	Italy	domenico.febbo@elmansrl.com
Menabene	Gian Luca	National	Italian Coast Guard	Italy	gianluca.menabene@mit.gov.it
Arita	Mayumi	National	Japan Coast Guard	Japan	kotsu_kokusai_4@outlook.jp
Fukamachi	Hirofumi	National	Japan Coast Guard	Japan	58.fukamachi@gmail.com
Kito	Peter	Industrial	Japan Radio Co, Ltd	Japan	peterkito@jrcamerica.com
Takahashi	Akihiko	Industrial	Japan Radio Co, Ltd	Japan	takahashi.akhiko@jrc.co.jp
Fukuda	Takuya	Industrial	Tokyo Keiki Inc. Maritime Traffic Systems Dept.	Japan	
Nakai	Yasuko	Industrial	TST Corporation	Japan	ynakai@toyoshingo.co.jp
Nishimura	Koichi	Industrial	TST Corporation	Japan	knishimura@toyoshingo.co.jp
Cassar-Simmonds	Bjorn	National	Transport Malta	Malta	bjorn.cassar-simmonds@transport.gov.mt
Bezia	Hamza	National	Direction de la Marine Marchande	Maroc	bezia.hamza@gmail.com
Ali	Taoufiq	National	Ministère de l'Équipement et de l'Eau	Maroc	aga.ataoufiq@hotmail.com
Van Omme	Hilbert	Associate	Dutch Pilots Corporation	Netherlands	h.vanomme@loodswezen.nl
Guiking	Colin	Associate	MARIN	Netherlands	c.guiking@marin.nl
Hoeve	Jan Remi	National	Ministry of Infrastructure	Netherlands	remi.hoeve@rws.nl

LAST NAME	FIRST NAME	MEMBER TYPE	ORGANIZATION	MEMBER COUNTRY	EMAIL
			and Water Management		
Janse	Jur	National	Ministry of Infrastructure and Water Management	Netherlands	jur.janse@rws.nl
Keller	Andreas	Associate	NNVO - Dutch VTS Training Foundation	Netherlands	akeller@nnvo.nl
van Dorsser	Harmen	Associate	Port of Rotterdam Authority	Netherlands	ha.dorsser@portofrotterdam.com
Verra	Hans	Associate	Port of Rotterdam Authority	Netherlands	H.Verra@portofrotterdam.com
Coster	Bjorn	Industrial	Kongsberg Norcontrol AS	Norway	bjorn.coster@knc.kongsberg.com
Jorgensen	Oystein	Industrial	Kongsberg Norcontrol AS	Norway	oystein.jorgensen@kongsberg.com
Aase	Richard	National	Norwegian Coastal Administration	Norway	richard.aase@kystverket.no
Ski	Trond	National	Norwegian Coastal Administration	Norway	trond.ski@kystverket.no
Dreijer	Malin	National	Norwegian Coastal Administration - Norway	Norway	malin.dreijer@kystverket.no
Eade	Peter	Industrial	Vissim AS	Norway	peter.eade@vissim.no
Jinku	Lee	Industrial	GC Co. Ltd	Republic of Korea	jklee@gcsc.co.kr
Jungjin	Lee	Industrial	GC Co. Ltd	Republic of Korea	jjlee@gcsc.co.kr
Kim	Yumin	Industrial	GC Co. Ltd	Republic of Korea	ymkim@gcsc.co.kr
Park	Sangwon	Associate	Korea Maritime Institute	Republic of Korea	psw6745@kmi.re.kr
Jin Hyoung	Park	Associate	KRISO	Republic of Korea	jin.h.park@kriso.re.kr
Woo-seong	Shim	Associate	KRISO	Republic of Korea	pianows@kriso.re.kr
Byun	Junhyeok	National	Ministry of Oceans and Fisheries	Republic of Korea	byunjh01@korea.kr
Jung	Jae Youn	National	Ministry of Oceans and Fisheries	Republic of Korea	jungvert@korea.kr
Sung-yong	Park	National	Ministry of Oceans and Fisheries	Republic of Korea	momaf8530@korea.kr

LAST NAME	FIRST NAME	MEMBER TYPE	ORGANIZATION	MEMBER COUNTRY	EMAIL
Bader	Alanazi	National	Saudi Port Authority	Saudi Arabia	b.alanazi@mawani.gov.sa
Al Dossari	Mohammed	National	Saudi Ports Authority	Saudi Arabia	M.Aldosari@mawani.gov.sa
Chiew	Nicholas	National	Maritime and Port Authority of Singapore	Singapore	nicholas_chiew@mpa.gov.sg
Henry	Sng	National	Maritime and Port Authority of Singapore	Singapore	henry_sng@mpa.gov.sg
Nisham	Supian	National	Maritime and Port Authority of Singapore	Singapore	nisham_supian@mpa.gov.sg
Kos	Martina	National	Slovenian Maritime Administration	Slovenia	martina.kos@gov.si
Mehlmauer	Migel	National	Slovenian Maritime Administration	Slovenia	migel.mehlmauer@gov.si
Vladović	Vladimir	National	Slovenian Maritime Administration	Slovenia	vladimir.vladovic@gov.si
Alvarez	Fernando	Associate	EPE Sociedad de Salvamento y Seguridad Maritima	Spain	fernandoam@centrojoellanos.es
F. Salinas	Carlos	Associate	EPE Sociedad de Salvamento y Seguridad Maritima	Spain	jcarlosfs@centrojoellanos.es
Salahovic	Admir	Industrial	Indra Sistemas SA	Spain	admir@indra.es
Hogendoorn	René	Industrial	SAAB Technologies	Sweden	rene.hogendoorn@saabgroup.com
Dahlgren	Fredrik	National	Swedish Maritime Administration	Sweden	
Karlsson	Fredrik	National	Swedish Maritime Administration	Sweden	fredrik.karlsson@sjofartsverket.se
Sundklev	Monica	Associate	Swedish Transport Agency	Sweden	monica.sundklev@transportstyrelsen.se
Adnan	Bilen	National	Directorate General of Coastal Safety	Türkiye	adnanbilen@hotmail.com
Kizilelma	Abdullah	National	Directorate General of Coastal Safety	Türkiye	abdullahkizilelma@hotmail.com

LAST NAME	FIRST NAME	MEMBER TYPE	ORGANIZATION	MEMBER COUNTRY	EMAIL
Townsend	Robert	National	Maritime & Coastguard Agency	United Kingdom	robert.townsend@mcga.gov.uk
Clevett	Heidi	National	Maritime and Coastguard Agency	United Kingdom	heidi.clevett@mcga.gov.uk
Hannon	James	National	Maritime and Coastguard Agency	United Kingdom	james.hannon@mcga.gov.uk
Darin	Mathis	National	US Coast Guard	United States	darin.e.mathis@uscg.mil

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	Presented by / WG
VTS53-	1.2.1	Provisional Agenda	IALA Secretariat	All
VTS53-	1.4.1.1	Programme of the week	IALA Secretariat	All
VTS53-	2.1.1	VTS52 Action Items	IALA Secretariat	All
VTS53-	3.1.2.1	The Open Digital Incubator Initiative	IALA Secretariat and PAP47	All
VTS53-	3.2.1	Report on IMO NCSR 9	IALA Secretariat	All
VTS53-	3.2.2	Input from IALA to NCSR9 - IALAs contribution to the development of the description of the maritime services	IALA Secretariat	All
VTS53-	3.3.1	2022 Final Report Digital@Sea NA	IALA Secretariat	All
VTS53	6.1.1	Task Plan 2018-2023 (2022-04-13)	VTS CMT	All
VTS53-	6.3.1	Development of the Guidelines on the VTS English Competency Test Korea Coast Guard	Korean Coast Guard	WG3
VTS53-	6.3.2	Development of technical service specifications for digital data exchange between VTS and other entities	DLR Germany et al	WG2
VTS53-	6.3.3	Proposal on the application of VR technology to VTS simulation training	China MSA	WG3
VTS53-	6.3.4	Suggestion about formulating “Functional Requirements and Technical Performance Requirements for Bridge Area VTS”	China MSA	WG2 lead with WG1 input
VTS53-	6.3.5	Proposal for the Development of an Independent G1111 Sub-guideline for VTS-MIS	China MSA	WG2
VTS53-	6.3.6	New VTS Task register	VTS Vice-chair	All
VTS53-	6.3.7	Proposed new task - Digital Route Exchange – Operational Requirements from a VTS perspective	IG 1.4.3	WG1
VTS53-	6.3.8	New Task Plan 2023-2027(2022-09-11)Rev13-clean	VTS Vice-chair	All
VTS53-	7.1.1	Input Paper List	IALA Secretariat	All
VTS53-	7.1.2	Working paper list	IALA Secretariat	All
VTS53-	7.2.1	Liaison note all committees on developments in IMT related to termination of 2G and 3G service	ENAV	All

Meeting	Paper Number	Input Paper Title	Source	Presented by / WG
VTS53-	7.2.2	Questionnaire on Developing a New Guideline on Quality Management System for Vessel Traffic Service	China MSA	WG1
VTS53-	7.2.2.1	Enclosure 1 -Questionnaire for VTS QMS	China MSA	WG1
VTS53-	8.2.1	Input Paper - Output from TG1.2.5 - Implications of MASS from a VTS perspective	IG 1.2.5	WG1
VTS53-	8.2.2	Expected Influence of MASS on VTS Traffic Management Rules	China MSA	WG1
VTS53-	8.3.2	Input paper IG 1.3.2 VTS Digital Communications	IG1.3.2	WG1
VTS53-	8.3.2.1	Draft GL on VTS Digital communications_20220812	IG1.3.2	WG1
VTS53-	8.6.1	Creating silent VTS at the Port of Rotterdam - Impact analyses of digitalizing VHF communications	Port of Rotterdam	WG1
VTS53-	8.6.2	Input Paper - Output from IG1.4.3 - Future VTS	IG1.4.3	WG1
VTS53-	9.1.1	IALA Secretariat editorial changes to the draft Guideline on the Portrayal of VTS Information and Data	IALA Secretariat	WG2
VTS53-	9.1.1.1	DRAFT Guideline Gnnnn Ed 1.0 Portrayal of VTS Information and Data xx 2022 (IALA Sec Edit)	IALA Secretariat	WG2
VTS53-	9.2.1	IALA Secretariat editorials to R0128 and G1111	IALA Secretariat	WG2
VTS53-	9.2.1.1	DRAFT Recommendation R0128 Ed5.0 Establishment of VTS Systems and VTS Equipment xx 2022 (IALA Sec Edit)	IALA Secretariat	WG2
VTS53-	9.2.1.2	DRAFT Guideline G1111 Ed 2.0 Establishing Functional Performance Req for VTS systems xx 2022 (IALA Sec Edit)	IALA Secretariat	WG2
VTS53-	9.2.1.3	DRAFT Guideline G1111-1 Ed1.0 Producing Requirements for the Core VTS System xx 2022(IALA Sec Edit)	IALA Secretariat	WG2
VTS53-	9.2.1.4	DRAFT Guideline G1111-3 Ed1.0 Producing Requirements for Radar xx 2022 (IALA Sec Edit)	IALA Secretariat	WG2
VTS53-	9.2.1.5	DRAFT Guideline G1111-4 Ed1.0 Producing Functional and Performance Req for AIS and VDES systems xx 2022 (IALA Sec Edit)	IALA Secretariat	WG2

Meeting	Paper Number	Input Paper Title	Source	Presented by / WG
VT553-	9.2.1.6	DRAFT Guideline G1111-5 Ed1.0 Producing Reqfor Environment Monitoring Sensors xx 2022 (IALA Sec Edit)	IALA Secretariat	WG2
VT553-	9.2.1.7	DRAFT Guideline G1111-6 Ed1.0 Electro Optical Systems xx 2022 (IALA Sec Edit)	IALA Secretariat	WG2
VT553-	9.2.1.8	DRAFT Guideline G1111-7 Ed1.0 Producing Requirements for Radio Direction Finders xx 2022 (IALA Sec Edit)	IALA Secretariat	WG2
VT553-	9.2.1.9	DRAFT Guideline G1111-8 Ed1.0 Producing Requirements for Long Range Sensors xx2022 (IALA Sec Edit)	IALA Secretariat	WG2
VT553-	9.2.1.10	DRAFT Guideline G1111-9 Ed1.0 Framework for Acceptance of VTS Systems xx 2022 (IALA Sec Edit)	IALA Secretariat	WG2
VT553-	9.2.1.11	Draft G1111-2 VHF Voice Communications 10-07-2022	IG 2.2.2c	WG2
VT553-	9.3.1	Information Paper (Proposal For VTS Data Exchange Using CLOUD VTS Concept Korea Coast Guard	Korea Coast Guard	WG2
VT553-	9.3.2	Proposal on Draft of VTS Digital Information Service Product Specification V 0.6.5	China MSA	WG2
VT553-	9.3.3	Proposed amendments to Recommendation V-145 on VTS Interchange Format (IVEF) Services	China MSA	WG2
VT553-	10.3.1	Input paper on Task 3.3.1 - Model Course Review	IG3.3.1	WG3
VT553-	10.3.1.1	20220810-C0103-1-Revised-Input to VT553	IG3.3.1	WG3
VT553-	10.3.1.2	20220819-C0103-3-Revised draft-Input to VT553	IG3.3.1	WG3
VT553-	10.3.2	Australian Comments on C0103-1 and C0103-3	AMSA	WG3
VT553-	10.3.2.1	C0103-1-Aust comments	AMSA	WG3
VT553-	10.3.2.2	C0103-3-Aust comments	AMSA	WG3
VT553-	10.3.2.3	C103 analysis of hours	AMSA	WG3

Working papers from VTS52

Meeting	Paper No.	Output Paper Title	Action
VTS52-	13.2.0.1	WP Task plan post VTS52	VTS53
VTS52-	13.2.0.2	WP Task register post VTS52	VTS53
VTS52-	13.2.0.3	WP Provisional 2023 – 2027 Task Plan	
VTS52-	13.2.1.1	WP Draft Guideline on Maritime Services	VTS53
VTS52-	13.2.1.2	WP Appendix 1 MS1-3	VTS53
VTS52-	13.2.1.3	WP TG-1.2.5 Guiding Principles	VTS53
VTS52-	13.2.1.4	WP TG.1.2.5 Discussion Paper - Implications of MASS from a VTS perspective (as at VTS52)	VTS53
VTS52-	13.2.1.5	WP WG1 Report from TG1.2.5 and TG1.4.3 Joint Session	VTS53
VTS52-	13.2.1.6	WP draft guideline on Safety Culture	VTS53
VTS52-	13.2.1.7	WP draft Guideline on VTS Digital Communications	VTS53
VTS52-	13.2.1.8	WP Task 1.4.3 Future VTS Discussion Paper (as at VTS52)	VTS53
VTS52-	13.2.1.9	WP Task 1.4.3 WP Task 1.4.3 Future VTS Discussion Paper (Output from VTS52)	VTS53
VTS52-	13.2.1.10	WP TG-1.2.5 Guiding Principles	VTS53
VTS52-	13.2.2.1	WP draft Guideline on the portrayal of VTS information and data	VTS53
VTS52-	13.2.2.2	WP liaison note from ARM on Guideline G1105	VTS53
VTS52-	13.2.2.3	WP liaison note from ARM on Cyber Security	VTS53
VTS52-	13.2.2.4	WP develop a Product Specification under the S-100 framework for VTS	VTS53
VTS52-	13.2.2.5	WP on review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service	VTS53
VTS52-	13.2.2.6	WP Guideline G1111 Establishing Functional Performance Requirements for VTS systems	VTS53

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

Meeting	Output paper number	Output Paper Title	Source	Action
VTS53-	12.1.1	Future task plan period 2023 - 2027	CMT	To Secretariat
VTS53-	12.1.2	Future task register 2023 - 2027	CMT	To Secretariat
VTS53-	12.1.3	Input note to Council on Input to NCSR10 - Amendments to IMSAS Manual relating to VTS	CMT	To Council
VTS53-	12.1.3.1	Input to NCSR10 - Amendments to IMSAS Manual relating to VTS	CMT	To Council
VTS53-	12.2.1	Liaison note to PAP and ARM on Draft description of Maritime Service 1- VTS	WG1	To PAP and ARM
VTS53-	12.2.1.1	Attachment - draft description of Maritime Service 1- VTS	WG1	To PAP and ARM
VTS53-	12.2.2	Draft Guideline on How to Promote Safety Culture in VTS	WG1	To Council
VTS53-	12.2.3	Draft Guideline on Portrayal of VTS Information	WG1	To Council
VTS53-	12.2.4	Revised Recommendation R0125 VTS Portrayal	WG1	To Council
VTS53-	12.2.5	Input to Council on Implications of MASS	WG1	To Council
VTS53-	12.2.5.1	Attachment - Discussion paper on MASS	WG1	To Council
VTS53-	12.2.6	Liaison note on Implications of MASS	WG1	To PAP, MTF and all committees
VTS53-	12.2.6.1	Attachment - Discussion paper on MASS	WG1	To PAP, MTF and all committees
VTS53-	12.2.7	Input paper to Council on Future VTS	WG1	To Council
VTS53-	12.2.7.1	Attachment - Discussion paper on Future VTS	WG1	To Council
VTS53-	12.3.1	Revised R0128 VTS Systems and Equipment	WG2	To Council
VTS53-	12.3.2	Revised G1130 VTS information exchange with allied or other services	WG2	To Council
VTS53-	12.3.3	Liaison note on Guideline G1105	WG2	To ARM
VTS53-	12.3.3.1	Attachment - Revised Recommendation R0125 VTS Portrayal	WG2	To ARM
VTS53-	12.3.3.2	Attachment - Draft Guideline on Portrayal of VTS Information	WG2	To ARM
VTS53-	12.3.4	Revised G1111 Establishing Functional Performance Requirements for VTS systems and equipment	WG2	To Council
VTS53-	12.3.5	Revised G1111-1 Producing Requirements for Core VTS Systems and Equipment	WG2	To Council

Meeting	Output paper number	Output Paper Title	Source	Action
VTS53-	12.3.6	Revised G1111-2 Producing Requirements for Voice Communications	WG2	To Council
VTS53-	12.3.7	Revised G1111-3 Producing Requirements for Radar	WG2	To Council
VTS53-	12.3.8	Revised G1111-4 Producing Requirements for AIS	WG2	To Council
VTS53-	12.3.9	Revised G1111-5 Producing Requirements for Environment Monitoring Sensors	WG2	To Council
VTS53-	12.3.10	Revised G1111-6 Producing Requirements for Electro Optical Systems	WG2	To Council
VTS53-	12.3.11	Revised G1111-7 Producing Requirements for Radio Direction Finders	WG2	To Council
VTS53-	12.3.12	Revised G1111-8 Producing Requirements for Long Range Sensors	WG2	To Council
VTS53-	12.3.13	Revised G1111-9 Framework for Acceptance of VTS Systems and Equipment	WG2	To Council
VTS53-	12.4.1	Revised Model Course C0103-1 VTSO	WG3	To Council
VTS53-	12.4.2	Revised Model Course C0103-3 On-the-Job Training	WG3	To Council

Working papers will remain within the Committee for further review during VTS54.

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
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

Meeting	Agenda Item	Output Paper Title	Source	Action
VT53-	12.5.2.5	WP on the mapping of use cases to technical services	WG2	To VT54
VT53-	12.5.2.6	WP on review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service	WG2	To VT54
VT53-	12.5.2.7	Proposal for the Development of an Independent G1111 Sub-guideline for VTS-MIS from China MSA.	WG2	To VT54
VT53-	12.5.2.8	Proposal For VTS Data Exchange Using CLOUD VTS Concept from Korea Coastguard	WG2	To VT54
VT53-	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 VT54
VT53-	12.5.2.10	Proposed amendments to Recommendation V-145 on VTS Interchange Format (IVEF) from China MSA	WG2	To VT54

Action Items for the IALA Secretariat

1. The Secretariat is requested to collate the future task plan period 2023 – 2027 (VTS53-12.1.2) and the future task register 2023 – 2027 (VTS53-12.1.3) with the other committee's submission and forward them to PAP for further consideration. 19
2. The Secretariat is requested to forward the liaison note and attachment on description of Maritime Service 1- Vessel Traffic Service (VTS53-12.2.1 and 12.2.1.1) to ARM for information and to PAP for approval and inclusion into the IALA's submission for the update of IMO MSC.1/Circ.1610. 20
3. The Secretariat is requested to forward information paper (VTS53-12.2.5) Implications of MASS from a VTS Perspective with the accompanying 2nd edition of the Discussion Paper on Implications of MASS from a VTS Perspective (VTS53-12.2.5.1) to Council for their consideration. 21
4. The Secretariat is further requested to forward (VTS53-12.2.6.1) Edition 2.0 Discussion Paper on the Implications of MASS from a VTS Perspective with the accompanying liaison note (VTS53-12.2.6) regarding the discussion Paper and the IALA Task Force Draft Information Paper to MSC107 to the other IALA Committees and the MASS Task Force for their further consideration. 21
5. The Secretariat is also requested to forward (VTS53-12.5.1.2) Edition 2.0 Discussion Paper on the Implications of MASS from a VTS Perspective as a working paper to VTS54. 21
6. The Secretariat is requested to forward draft guideline (VTS53-12.2.2) GNNN 'How to promote safety culture in VTS' to Council for approval. 22
7. The Secretariat is requested to forward revised recommendation RO125 'VTS Portrayal' (VTS53-12.2.4) and draft guideline GNNN 'Portrayal of VTS information' (VTS53-12.2.3) to Council for approval. 22
8. That the Secretariat forward the working paper on Proposal for the Development of an Independent G1111 Sub-guideline for VTS-MIS from China MSA (VTS53-12.5.2.7) at VTS54 for further consideration. 25
9. That the Secretariat forward the working paper on Proposal For VTS Data Exchange Using CLOUD VTS Concept from Korea Coastguard (VTS53-12.5.2.8) at VTS54 for further consideration. 25
10. That the Secretariat forward the working paper on 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 (VTS53-12.5.2.9) at VTS54 for further consideration. 25
11. That the Secretariat forward the working paper on Proposed amendments to Recommendation V-145 on VTS Interchange Format (IVEF) from China MSA (VTS53-12.2.10) at VTS54 for further consideration. 26
12. That the Secretariat forward the working paper on draft Guideline on the portrayal of VTS information and data (VTS53-12.5.2.1) at VTS54 for further consideration. 26
13. The Secretariat is requested to forward the liaison note to ARM on Guideline G1105 (VTS53-12.3.3) for their consideration. 26
14. That the Secretariat forward the WP liaison note from ARM on Cyber Security (VTS53-12.5.2.2) to VTS54 for further consideration and response to ARM. 26

15. That the Secretariat forward the WP from China MSA Proposal for the Development of an Independent G1111 Sub-guideline for VTS-MIS (VTS53-12.5.2.3) to VTS54 for further consideration. 26
16. The Secretariat forward the Revised R0128 VTS Systems and Equipment (VTS53-12.3.1) to Council for approval. 27
17. The Secretariat forward the revised Guideline G1111 Establishing Functional Performance Requirements for VTS systems and equipment and sub-guidelines 1 to 9 (VTS53-12.3.4 – 12.3.13 inclusive) to Council for approval. 27
18. That the Secretariat forward the WP on the Architecture of the Digital Delivery of VTS Information (VTS53-12.2.4) and WP on the mapping of use cases to technical services (VTS53-12.5.2.5) to VTS54 for further consideration. 27
19. That the Secretariat forward (VTS53-12.5.2.6) WP on review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service to VTS54. 27
20. The Secretariat forward the revised G1130 VTS information exchange with allied or other services (VTS53-12.3.2) to Council for approval. 28
21. The Secretariat forward the revised IALA Model Course C0103-1 on VTS Operator Training (VTS53-12.4.1) to Council for approval. 29
22. The Secretariat forward the revised IALA Model Course C0103-3 on VTS On-The-Job Training (VTS53-12.4.2) to IALA Council for approval. 29
23. That the Secretariat requests Council 76 to approve the withdrawal of Recommendation R0120 Vessel Traffic Services in inland waters following the introduction of Guideline G1166 VTS in Inland Waters. 30
24. The Secretariat is requested to forward the input note and Input to NCSR10 - Amendments to IMSAS Manual relating to VTS (VTS53-12.1.3 and 12.1.3.1) to Council for approval. 30

Action Items for Participants

25. The Committee participants are invited to join the intersessional task group (Virtual meetings) working on the development of guidance on the implications of MASS from a VTS perspective and to express their interest to Neil Trainor (neil.trainor@amsa.gov.au) by 21 October 2022, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 21
26. The Intersessional Task Group Leader to provide input on the intersessional work on task 1.2.5 to VTS54. 21
27. The Intersessional Task Group Leader to provide input on the intersessional work on tasks 1.3.2; 2.3.1; 2.3.2; and 2.5.1 to VTS54. 23
28. That Committee participants are invited to join an intersessional task group meeting working on task 2.3.1 Develop a Product Specification under the S-100 framework for VTS, together with task 2.3.2, task 2.5.1 and task 1.3.2 to express their interest to Wim Smets (wim.smets@mow.vlaanderen.be) by 13 February 2023. The physical meeting is planned to take place on 13 -15 March 2023 at a location to be confirmed. Details of the intersessional meeting will be published on the IALA VTS Committee Dashboard. 27

29. The Committee participants are invited to join the intersessional task group working on review and update model course C0103-2 and to express their interest to Jillian Carson-Jackson (jillian@jcjconsulting.net) by 17 October 2022, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 29
30. The Intersessional Task Group Leader to provide input on the intersessional work on task 3.3.1b to VTS54. 29
31. The Committee participants are invited to join the intersessional task group working on review and update model course C0103-4 and to express their interest to Jillian Carson-Jackson (jillian@jcjconsulting.net) by 17 October 2022, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 30
32. The Intersessional Task Group Leader to provide input on the intersessional work on task 3.3.1e to VTS54. 30

Working Group 1**Operations**

Chair – Trond Ski, Norwegian Coastal Administration

Vice-chair – Heidi Clevett, UK Maritime Coastguard Agency

Members	Organisation	Task Group No.	Online (x)
Tuomas Martikainen	Finnish Transport Infrastructure Agency	1.2.4 / 1.3.2	
Anders H. Haagenzen	Defence Command Denmark Naval Staff	1.2.4 / 1.3.2	
Remi Hoeve	Ministry of Infrastructure and Water Management	1.2.4 / 1.3.2	
Malin Dreijer	Norwegian Coastal Authority	1.2.4 / 1.3.2	
Bjorn Cassar-Simmonds	Transport Malta	1.2.4 / 1.3.2	
Øystein Jørgensen	Kongsberg Norcontrol	1.2.4 / 1.3.2	
Cafer Ozkan Istanbulu	IMO	1.2.4 / 1.3.2	
Fredrik Karlsson	Swedish Maritime Administration	1.2.4 / 1.3.2	
Trond Ski	Norwegian Coastal Administration	1.2.9 / 1.3.2 / 1.2.6	
Heidi Clevett	Maritime and Coastguard Agency	1.3.3 / 1.3.4 / 1.2.9 / 1.3.2 / 1.2.6	
Mayumi Arita	Japan Coast Guard	1.3.3 / 1.3.4 / 1.2.9 / 1.3.2 / 1.2.6	
Mathis Darin	US Coast Guard	1.3.3 / 1.3.4 / 1.2.9 / 1.3.2 / 1.2.6	
Carlos F. Salinas	EPE Sociedad de Salvamento y Seguridad Maritima	1.3.3 / 1.3.4 / 1.2.9 / 1.3.2 / 1.2.6	
Jur Janse	Ministry of Infrastructure and Water Management	1.3.3 / 1.2.6	X
Lorena Andrea Garcia	Prefectura Naval Argentina	1.3.3	X
Jingming		1.3.3	X
Ke Han		1.3.3	X
Rucun Jia	China Maritime Safety Administration	1.3.3 / 1.2.6	X
Yuanhang Li	China Maritime Safety Administration	1.3.3 / 1.2.5 / 1.4.3	X
Xiaohui Li		1.3.3	X
Antonio Oliveira	Marinha do Brasil	1.2.6	X
Michael Trent	IHMA	1.2.5 / 1.4.3	
Harmen van Dorsser	Port of Rotterdam Authority	1.2.5 / 1.4.3	
Neil Trainor	Australian Maritime Safety Authority	1.2.5 / 1.4.3	X

Members	Organisation	Task Group No.	Online (x)
Dorte Hansen	Defence Command Denmark Naval Staff	1.2.5 / 1.4.3	X
Liu Jinkai	China Maritime Safety Administration	1.2.5 / 1.4.3	X
Sung-Yong Park	Korea Coast Guard	1.2.5 / 1.4.3	
Woo-Seong Shim	KRISO	1.2.5 / 1.4.3	
Hilber van Omme	Dutch Pilots Corporation	1.2.5 / 1.4.3	X
Liu Wei	China Maritime Safety Administration	1.2.5 / 1.4.3	
Pierre Mingot	Cerema	1.2.5 / 1.4.3	
Peter Eade		1.2.5 / 1.4.3	
Alfredo Jesus Zappa	Prefectura Naval Argentina	1.2.5 / 1.4.3	
Esa Kallio	Fintraffic Vessel Traffic Services Ltd	1.2.5 / 1.4.3	
Jakob Bang	Danish Maritime Authority	1.2.5 / 1.4.3	
Cafer Ozkan Istanbulu	IMO	1.2.5 / 1.4.3	
Gian Luca Menebene	Italian Coast Guard	1.2.5 / 1.4.3	
Collin Guiking	MARIN	1.2.5 / 1.4.3	
Francisco Gomez	Prefectura Naval Argentina	1.2.5 / 1.4.3	
Luis Ariel Gauna	Prefectura Naval Argentina	1.2.5 / 1.4.3	
Nisham SUPIAN	Maritime and Port Authority of Singapore	1.2.5 / 1.4.3	
Henry Sng	Maritime and Port Authority of Singapore	1.2.5 / 1.4.3	
Gaole Yao	China Maritime Safety Administration	1.2.5 / 1.4.3	X

Working Group 2 Technology

Chair – Rob Townsend, UK Maritime and Coastguard Agency

Members	Organisation	Task Group No.	Online (x)
Richard Aase	NCA		X
Robert Townsend	MCA	G1111	
Hans Verra	Port of Rotterdam	G1111 Voice Comms	
Nicholas Chiew	MPA Singapore	S-100 Technical Services	
Migel Mehlmauer	Slovenian MA	S-100 Technical Services	
Yumin Kim	GC Co, Ltd	S-100 Technical Services	
Jin Ku Lee	GC Co, Ltd	G1111 Radar	
Jae Youn Jung	Korea Coast Guard	S-100 Technical Services	
Jung Jin Lee	GC Co, Ltd	S-100 Technical Services	
Sang Won Park	Korea Maritime Institute	S-100 Technical Services	
Michael Strandberg	Danish MA	S-100 Technical Services	
Bruno Nasone	CEREMA	S-100 Technical Services	

Members	Organisation	Task Group No.	Online (x)
Marc-André Morin	Canadian Coast Guard	S-100 Technical Services	
Thomas Christensen	DLR	S-100 Technical Services	
Mika Nirhilä	Fintraffic VTS	S-100 Technical Services	
Wim Smets	Flemis Government Maritime Services and Coast	S-100 Technical Services	
Domenic Febbo	Elman SRL	S-100 Technical Services	
Admir Salahovic	Indra	S-100 Technical Services	
Minsu Jeon	IALA	S-100 Technical Services	
Dmitry Rostopshin	Wartsila	S-100 Technical Services	
Rene Hogendoorn	SAAB Technologies	S-100 Technical Services	
Peter Eade	Vissim AS	G1111 Voice Comms	
Dirk Eckhof	German Waterways	S-100 Technical Services	
Jens-Christian Pedersen	Terma	G1111 Radar	
Mads Ulrik Kristoffersen	Terma	G1111 Radar	
Takuya Fukuda	Tokyo Keiki	G1111 Acceptance	
Xiong E(Yosa)	China MSA	S-100 Technical Services	X
Luwei	China MSA	S-100 Technical Services	X
Yalei Ren	China MSA	S-100 Technical Services	X
Peter Kito		Portrayal	

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	3.3.1b, 3.3.1d	X
Kerrie Abercrombie	Australian Maritime Safety Authority	3.3.1b, 3.3.1d	X
Sari Talja	Fintraffic Vessel Traffic Services Ltd	3.3.1b, 3.3.1d	
Mika Halttunen	Fintraffic Vessel Traffic Services Ltd	3.3.1b, 3.3.1d	
Jeppe Carstensen	Simac Training	3.3.1b, 3.3.1d	
Martina Kos	Slovenian Maritime Administration	3.3.1b, 3.3.1d	
Abdullah Kizilelma	Directorate General of Coastal Safety Türkiye	3.3.1b, 3.3.1d	
Fernando Alvarez Matias	Spanish Marime Safety Agency (Salemar)	3.3.1b, 3.3.1d	
Coling Guiking	Marin, Netherlands	3.3.1b, 3.3.1d	
Kelly Glew	Canadian Coastguard	3.3.1b, 3.3.1d	
Hirofumi Fukamachi	Japan Coast Guard	3.3.1b, 3.3.1d	
Yasuko Nakai	TST Coroporation	3.3.1b, 3.3.1d	

Members	Organisation	Task Group No.	Online (x)
Mohammed Aldosari	Saudi Ports Authority	3.3.1b, 3.3.1d	
Bader Alanazi	Saudi Ports Authority	3.3.1b, 3.3.1d	
Junhyeok Byun	Korea Coast Guard	3.3.1b, 3.3.1d	
Nisham Supian	Maritime and Port of Authority of Singapore	3.3.1b, 3.3.1d	
Andres Keller	NNVO, Dutch Training Foundations	3.3.1b, 3.3.1d	
Mario Alejandro Cerrudo	Prefectura Naval Argentina	3.3.1b, 3.3.1d	X
Gustavo Daniel Gallas	Prefectura Naval Argentina	3.3.1b, 3.3.1d	X
Ana Micheloud	Prefectura Naval Argentina	3.3.1b, 3.3.1d	X
Lorena Andrea García	Prefectura Naval Argentina	3.3.1b, 3.3.1d	X
Fredrik Dahlgren	Swedish Maritime Administration	3.3.1b, 3.3.1d	X
Su Changliang	China MSA	3.3.1b, 3.3.1d	X



10, rue des Gaudines – 78100 Saint Germain en Laye, France

Tel. +33 (0) 1 34 51 70 01 – Fax +33 (0) 1 34 51 82 05 – contact@iala-aism.org

www.iala-aism.org

International Association of Marine Aids to Navigation and Lighthouse Authorities

Association Internationale de Signalisation Maritime