



IALA VTS COMMITTEE

REPORT OF THE 51ST SESSION OF THE IALA VESSEL TRAFFIC SERVICES (VTS) COMMITTEE

16 September - 7 October 2021

Virtual Committee

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7 October 2021

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Report of the 51st Session of the IALA Vessel Traffic Services (VTS) Committee Executive Summary

The 51st session of the VTS Committee was held from 16 September - 7 October 2021 virtually with Monica Sundklev as Chair and Dirk Eckhoff as Vice-chair. The Secretary for the meeting was Thomas Southall.

151 participants from 33 countries, four Sister organisations participated in VTS51. 14 participants attended for the first time.

The VTS Committee considered 108 input papers and produced 40 output papers, including working papers, from three Working Groups.

The meeting was carried out in accordance with the updated *Virtual Committee Arrangements* online. Approximately 60 meetings were arranged.

Key outputs completed included:

- Council Liaison Note including the package of 23 amended documents aligning with the new IMO resolution
- Draft Guideline Gnnnn VTS in Inland Waters
- Draft Guideline Gnnnn VTS Management
- Revised Guideline G1110 Use of Decision Support Tools for VTS Personnel
- Revised Guideline G1014 Accreditation of VTS Training Organizations and Approval to Deliver IALA VTS Model Courses
- VTS Manual updates

The following liaison notes were prepared:

- Liaison note to ARM on the proposed revision to the IALA NAVGUIDE (VTS Section)
- Liaison Note to ARM on the MBS Review
- Liaison Note to ARM on review and update of G1088
- Liaison Note to PAP on IALA standards
- Liaison Note to PAP on Maritime Services
- Liaison Note regarding possible case studies - Operations and Trials of Autonomous Ships
- Liaison Note regarding the discussion paper - Implications of MASS from a VTS perspective

Overall status of the VTS Committee 2018-2023 Work Programme after VTS51:

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					Submitted to NCSR7, pending adoption at IMO Assembly 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 C72, 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				Package 1 to Council 74 for approval. Continue in next WP
	1.1.1.3 Review and update Rec V-120 to be a GL on VTS in Inland Waters (under R0119)	50	51					To Council 74 for approval.
1.1.2	Review and update V-119 on the Implementation of Vessel Traffic Services (R0119) (Output to be a revised Rec. and associated Guideline	47	50	49				Approval of R0119 and G1150 at Council 72.
1.1.3	Develop a guideline on Competencies for Planning and Implementing	47	50					Approved at C73.
1.1.4	Develop a Guideline on the Provision of Local Port Services (LPS) other than VTS	45	45					Approved at C68.
1.2.1	Review and update V-127 on Operational Procedures for Vessel Traffic Services (split into a revised Rec. and associated Guideline)	45	50					R0127 approval at C68. G1141 approved at C73.
1.2.2	Update a Guideline 1110 on Decision Support Tools for VTS Personnel (take into account emerging concepts and technologies)	49	50	51				To Council 74 for approval.
1.2.3	Develop a Guideline for Promulgating the Requirements of a VTS to Mariners – A VTS Users Guide Template	45	46					Approved at C69.
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		Yellow		Merged with task 1.2.7. Await outcomes on MS from other parties.
1.2.5	Develop a Guideline on the implications of maritime autonomous surface ships (MASS) from a VTS perspective	50	51	53		Yellow		
	1.2.5.1 Assess the implications associated with the advent of MASS on IALA Standards specifically related to the establishment and operation of VTS (scoping exercise)	51	57					To Council 74 to note new task. Continue in next WP.
1.2.6	Develop a Guideline on how to develop a safety culture in VTS	50	51	53		Yellow		

Task	Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
				Green	Yellow	Red	
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	53				Update together with Task 1.4.1.
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 a Recommendation Guideline on Digital information transfer between ship and shore in VTS operations (operational aspects)	51	51	53			To Council 74 to note title change.
1.3.3	Revision of IMO Resolution A.918(22) IMO Standard Marine Communication Phrases	52	58				To Council 74 to note new task. Continue next WP.
1.3.4	Revision of IMO Resolution A.954(23) Proper use of VHF channels at sea	52	58				To Council 74 to note new task. Continue next WP.
1.4.1	Continuous update of VTS Manual	46	53				Ongoing task
1.4.2	Conduct of the Global VTS Questionnaire	45	46	52			Pending data base management.
1.4.3	Prepare a "living document" on "Future VTS", including emerging technologies and human element	50					Ongoing task
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			Include relevant issues from both V-125 and G1105.
2.1.2	Develop a Recommendation and Guideline on Cyber-Security in AtoN operations (lead by ARM, all Committees via Workshop)	52	53				Pending workshop on cyber security in Nov 2021.
2.2.1	Review and update Recommendation V-128 on Operational and Technical Performance of VTS Systems	52	52				Together with task 2.2.2.
2.2.2	Review and update Guideline 1111 on Preparation of Operational and Technical Performance Requirements for VTS Systems	45	48	52			Split into one general GL and 9 sub-GLs.
2.2.3	Develop a Guideline on Acceptance of VTS systems	45	46	51			Merged with task 2.2.2 as one GL under G1111.
2.2.4	Update G1130 to include cyber-security considerations	52	53				To Council 74 to note new task.

Task	Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
				Green	Yellow	Red	
2.3.1	Develop a Product Specification under the S-100 framework for VTS	45	47	53			
2.3.2	Review and update Rec V-145 on the Inter-VTS Exchange Format (IVEF) Service (split into a revised Rec. and associated Guideline, including a product specification S-210))	50	51	53			
WG#3 –Training							
3.1.1	Develop a Guideline on human factors and ergonomics in VTS	46	49	52			
3.2.1	Develop a Guideline on the management of a VTS	45	49	51			To Council 74 for approval.
3.2.2	Review, update and reformat Guideline 1045 on Staffing Level at VTS centres	45	45				Approved at C68.
3.3.1	a. Review and split R0103 (V-103) to a Recommendation and Guideline	45	48	49			Both approved at C72.
	b. Review / update Model Course 103/1 – VTS Operator	47	51	52			
	c. Review / update Model Course V-103/2 – VTS Supervisor	52	51	52			
	d. Review / update Model Course V-103/3	51	51	53			
	e. Review / update Model Course V-103/4	53	51	53			
	f. Review / update Model Course V-103/5	53	51	53			
3.3.2	Review and update Guideline 1017 on Assessment for Recognition of Prior Learning in VTS Training	47	50				Approved at C73.
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				To Council 74 for approval
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 C72.

Legend:

Green – progress as planned

Yellow – task needs more time, target time prolonged

Red – task needs more time, may not be completed during this work period

Blank – task not started

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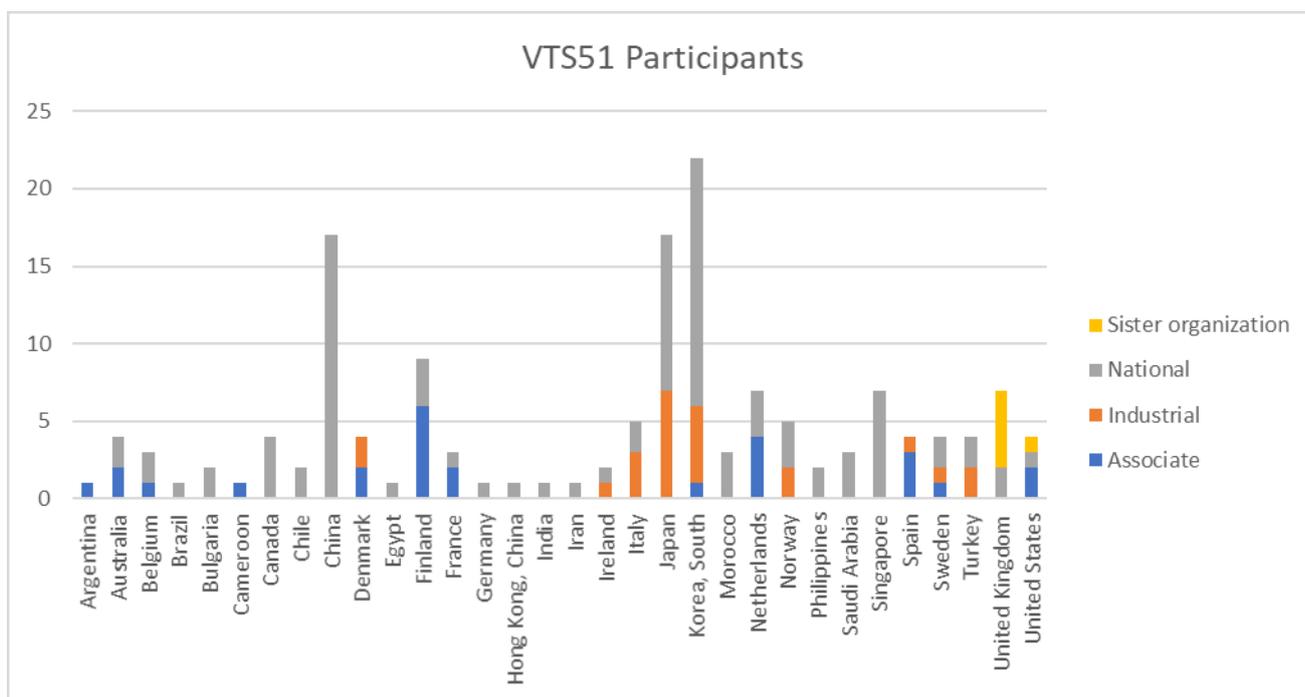
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Report of the 51st session of the IALA Vessel Traffic Services (VTS) Committee

1. INTRODUCTION

The 51st meeting of the VTS Committee was held from 16 September - 7 October 2021 virtually with Monica Sundklev as Chair and Dirk Eckhoff as Vice-Chair. The Secretary for the meeting was Thomas Southall.

151 participants from 32 countries, four Sister organisations participated in VTS51. 14 participants attended for the first time. A breakdown of the participants is shown in the graph below.



1.1 Welcome from the Chair of the VTS Committee

The Chair of the VTS Committee, Monica Sundklev, welcomed all participants to the 51st meeting of the VTS Committee. The Chair introduced Dirk Eckhoff, Vice-Chair of the VTS Committee and Thomas Southall who served as the Committee Secretary.

The Chair informed about the two extra sessions in 2022 due to the postponement of the IALA Conference to be held in 2023. The Chair also clarified the procedures on intersessional work as there has been many intersessional task groups to progress the work of the VTS Committee.

1.2 Welcome from the Secretary-General

Francis Zachariae, Secretary-General of IALA welcomed all participants to VTS51, he stated:

“On behalf of the Secretariat and myself I would like to welcome you all to the meeting of the VTS Committee. We are of course very disappointed that it is another virtual event, but we hope that the next one can be in person here in Saint-Germain-en-Laye. I think we really need that, and we certainly miss you all.

Since your last meeting on 1 July along with the international maritime community we celebrated World Marine Aids to Navigation Day, the third in the series following the good work initiated in Palma de Mallorca, Spain, in 2019 and repeated virtually around the globe last year and this.

The principal objective of this day was to promote greater awareness of IALA and its work by bringing to the attention of the wider public the role of marine aids to navigation and the significance of IALA's technical work in enhancing safety of navigation and protection of the environment. I feel we achieved all this.

I must thank all involved for their very kind collaboration and support with this year's most successful World Marine Aids to Navigation Day.

The topic of Maritime Autonomous Surface Ships or MASS continues to grasp the imagination and after the workshop of late May which attracted more than one hundred participants from twenty-nine countries the topic was presented to the Spanish-speaking members of IALA at the end of June.

As you probably know the Council has decided to establish a MASS task force under the PAP to investigate IALAs involvement in MASS developments. The group has held one meeting so far. All the committees are represented, and it will be interesting to follow the work and see the results.

Of course, for your Committee the new resolution is a significant result and now all the work of implementing the new system has taken a lot of time and effort. Luckily you are well prepared and ready to meet the challenge. Cdre Barry Goldman has been instrumental in this work and as this is his last session, I want to thank him and wish him good luck. I am sure we will see him from time to time.

Since January a growing number of States have signed the Convention on the International Organization for Marine Aids to Navigation. It is encouraging to note that we are halfway through the year of the Convention with three ratifications/acceptances and fourteen signatures received from diplomatic representatives in Paris. This progress surely embodies the respect that the new organisation will have based on the many years of IALA's growth, maturity and excellence.

Preparations are well in hand for virtual Committee and LAP meetings in the second half of the year and you can find all the dates and necessary information on the web site.

Looking ahead we will also have the Workshop on Cyber security in Marine AtoN operations in November and Workshop on Enhanced Radar Positioning System (ERPS) in November/December this year.

Once again, I send my thanks for the continued dedication of those who attend these gatherings and for the time that they give to ensure the committees keep working in these unprecedented times.

Finally, I pay tribute to the efforts of our members during these difficult times with Covid-19 in our midst. They have continued to provide aids to navigation so essential for the safety of marine traffic and the continuous facilitation of the global economy.

Staff of our members have been (and still are) required to attend their normal workplace when responding to outages and maintenance required to keep their services operational. This devotion deserves special mention.

Lastly, I will mention, that we were sorry to learn of the death on 14 August of Mme Christiane Ville, former head of administration at IALA. This was sad news for she was instrumental in the success of IALA over the many years she was part of the organisation, from its origins in 1957 to her retirement in 1991. Even after retirement she kept in touch and will be long remembered for her sound advice.

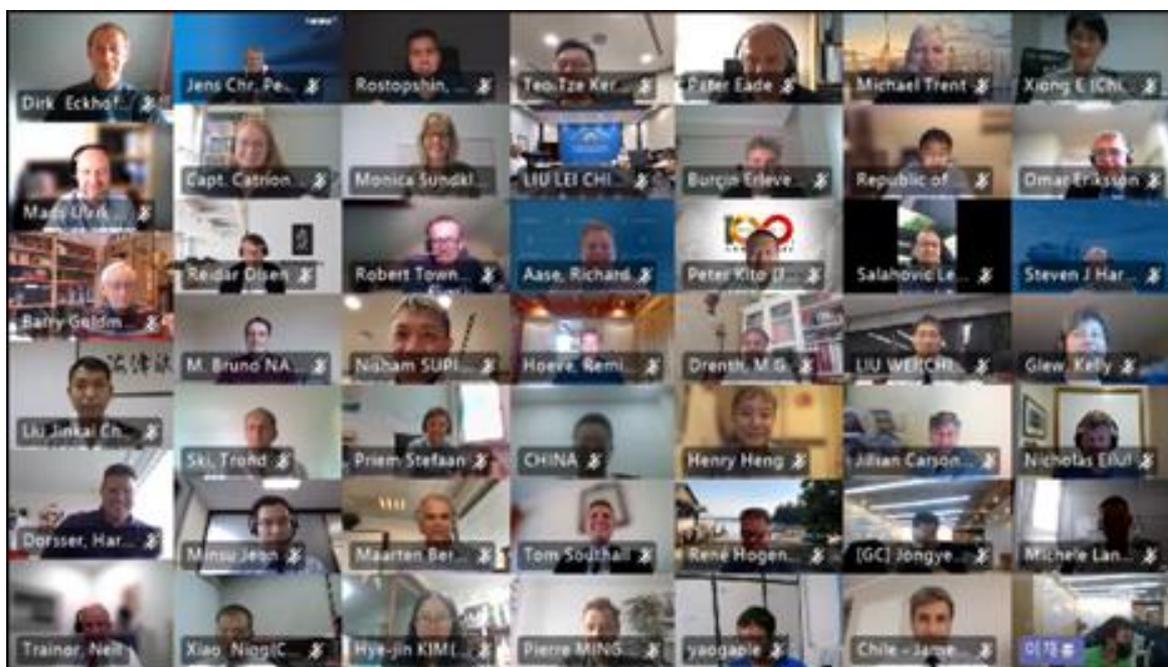
With this I wish you good luck with your important work the weeks ahead."

1.3 Approval of the agenda

The agenda was reviewed and approved (VTSS1-1.2.1).

1.4 Introductions

The Chair welcomed the new participants of the Committee. No apologies for absence had been received by the Secretariat. A list of participants who attended VTS51 can be found on IALA Dashboard for VTS.



1.5 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 *Virtual Committee Working Arrangements* document and tools available to them. This brief included an overview of the tasks, in the form of the VTS51 Action Plan that had been agreed by the VTS Committee Management Team to be progressed during VTS51 through virtual Task Groups (TG). Each task had a deadline for expressions of interest to participate to the specified Task Group Leader by a certain date. Timings of the TG meetings were arranged by each Task Group Leader in liaison with the Secretariat and displayed on a Committee dashboard calendar.

Task items that were worked on at VTS51 were displayed in the *Action Plan*, which can be found on IALA Dashboard for VTS.

The Chair acknowledged that the Dashboard had become a very useful tool at the virtual meetings.

The deadline for submitting documents to the silent approval procedure was set to 1 October at 12.00 UTC. The Chair also informed that the revised IMO resolution A.857(20) is up for approval at IMO Assembly in December and documents that are up for approval during VTS51 should therefore align with the new resolution.

2. REVIEW OF ACTION ITEMS FROM VTS51

The Committee Secretary confirmed that all Secretariat and participant actions from VTS51 were completed (input paper VTS51-2.1.1).

3. REVIEW OF INPUT PAPERS

The Chair reminded everyone of holding the deadline for submitting input papers to the meeting as well as using the input paper template to explain what is being requested by the VTS Committee.

3.1 Input papers to VTS51

Input papers were noted as listed in VTS51-3.1.1.

The Chair highlighted VTS51-9.1.3 and 9.1.3.1 papers relating to information on the changes associated with the revision to IMO Resolution A.857(20). Participants were urged to share this information amongst all relevant stakeholders in order that they are best prepared for the changes.

Action item:

That Committee participants share VTS51-9.1.3 and 9.1.3.1 which provides information on the changes associated with the revision to IMO Resolution A.857(20) amongst all relevant stakeholders in order that they are best prepared for the changes.

3.2 Input papers not related to an existing task

The Chair highlighted a number of papers, these included:

- VTS51-3.2.1, 3.2.1.1 and 3.2.1.2 papers related to proposals from the ARM Committee on the revision of the IALA Maritime Buoyage System. During VTS51 a Liaison Note to ARM regarding the MBS was approved.
- VTS51-4.1.2.1 and associated input paper on the revision of IALA standards. During VTS51 a Liaison Note to PAP regarding the standards was approved.

Action item(s):

The Secretariat is requested to forward the Liaison Note to ARM on the MBS Review (VTS51-13.1.0.2) for their consideration.

The Secretariat is requested to forward the Liaison Note to PAP on IALA standards (VTS51-13.1.0.3) for their consideration.

4. REPORTS FROM OTHER BODIES

4.1 IALA

4.1.1 IALA Council

The 73rd session of the IALA Council was held virtually from 8 to 10 June 2021 by videoconference. Technical Operations Manager, Minsu Jeon, highlighted the approved documents and the Committee noted that there was one document returned to the VTS Committee for further consideration.

Other highlights were:

- Current drivers and trends document will be reviewed at the 74th session.
- Committee work programmes have been extended to 2018 – 2023 and 2023 – 2027 respectively.

- Webinars on virtual aids to navigation will be held in the next couple of months.
- Cape Byron Lighthouse was proclaimed as the *Lighthouse of the Year 2021*.
- A proposal for an ENG workshop on Enhanced Radar Positioning System was approved to take place virtually in November 2021.

4.1.2 IALA Policy Advisory Panel

Minsu Jeon, Technical Operations Manager, reported to the Committee that the 42nd session of PAP was held virtually 8 - 10 September 2021. The current Work Programme and cross-committee cooperation on various subjects were discussed.

There was good discussion on issues relating to portrayal and it was agreed that VTS and ARM would liaise closely on these tasks.

Maritime Services were also discussed and it was agreed that an input would be provided to IMO with the ARM Committee coordinating this work.

4.2 IMO

Minsu Jeon reported that IMO NCSR8 and IMO MSC 103 have been held since the last VTS session. Highlights that the Committee noted were:

NCSR 8

- The revision of Recommendation ITU-R M.1371-5
- Recognition of the Japanese regional navigation satellite system QZSS as a component of the WWRNS
- Use of public broadband communication and technical standardization for public mobile networks in the context of maritime safety
- Progress on standards development by IEC (NCSR 8/13)
- Report on the monitoring of ECDIS issues by IHO (NCSR 8/13/1)

MSC 103

- IALA submitted the following documents to MSC:
 - MSC 103/20/5 Opening for signature of the Convention on the International Organization for Marine Aids to Navigation (France and IALA)
 - MSC 103/20/9 IMO Member State Audit Scheme (IALA)
- MASS Regulatory Scoping Exercise
- VDES – a proposal for the amendment of SOLAS chapters 4 and 5 was agreed.

4.3 IHO

Minsu Jeon reported that the 5th Session of the IHO IALA Technical Cooperation meeting was held virtually on 27 April 2021 topics including S-100, S-200 updates, GI registry, S-127, S-131, S-124 and S-125. The joint workshop was originally meant to be held in 2020 but due to the COVID situation, the group agreed to postpone the event one more year to 2022. The host, Norway, is still in favour of hosting this event physically and the group underlined that the programme needs to be refined in due course.

IHO HSSC has approved an IALA domain to be created in the portrayal register. This will enable IALA to make symbology proposals formally.

4.4 ITU

Minsu Jeon reported that the ITU-R Working Party 5B (WP 5B) - Maritime mobile service including Global Maritime Distress and Safety System (GMDSS); aeronautical mobile service and radiodetermination service - held its meeting from 10th to 21st May 2021. This was the third meeting in the study cycle 2019 to 2023. The meeting was held as a web meeting due to the COVID 19 pandemic. Mr. Stefan Bober represented IALA.

IALA has a specific interest in Maritime mobile service including Global Maritime Distress and Safety System (GMDSS) and radiodetermination service, with particular emphasis on the development of VHF Data Exchange System (VDES), Automatic Identification System (AIS), Autonomous Maritime Radio Devices (AMRD) and e-Navigation.

5. REPORTS FROM RAPPORTEURS

5.1 Revision of the IMO Res. A.857(20)

Rapporteur: Neil Trainor

Neil Trainor, AMSA, updated the Committee on the status of the approval procedure at IMO Assembly in December.

The Chair thanked Neil for his important and dedicated work during the revision of resolution A.857(20), but as the document is up for approval at IMO, the review will be finalized and there is no need to report on this at VTS52. The Committee approved that reporting of the revision of IMO Res. A.857(20) should be discontinued.

5.2 MASS related to VTS (new subject)

The Chair proposed to add another reporting subject to the VTS Committee agenda “MASS related to VTS”, which the Committee approved. Neil Trainor was selected to be rapporteur on the subject as he is also appointed to represent the VTS Committee in the MASS Task Force under PAP as well as being the task group leader of task 1.2.5 “MASS as it relates to VTS”.

Rapporteur: Neil Trainor

Neil Trainor provided a brief presentation on the tasks currently being undertaken by the Committee relating to MASS, highlighting:

- The formation of the MASS task force and its role.
- VTS is a recognised key player for the advent of MASS (Refer IALA MASS Workshop, IALA Symposium)
- Task 1.2.5 is focussed on the implications of MASS for VTS – Commencing in March this year, outcomes to date include:

Common Understanding

The Discussion Paper, as a ‘living document’ / ‘Working paper’, is assisting the Committee achieve a common understanding of MASS and its implications on the provision of VTS

Proposed New Work Programme Tasks – Two new tasks have been proposed:

- Digital VTS Communications (VTS51-9.2.1.2)
- Scoping Exercise to ensure VTS Guidance documents evolve with the advent of MASS (VTS51-9.2.1.3)

Opportunities

1. *Monitoring key developments*

- Outcomes from IMO Regulatory Scoping Exercise - Pending MSC104
- Concept of Case Studies / Mass Register as adopted by the Committee

2. *Engagement*

Encouraging liaising / engaging in both MASS test beds and developing operational trials.

Action item:

That the Secretariat add another reporting subject to the VTS Committee agenda called “MASS related to VTS”.

5.3 VTS questionnaire coordination group

Rapporteur: Neil Trainor

This task is currently on hold.

5.4 e-Nav operational service description

Rapporteur: Fredrik Karlsson

At PAP 42 a proposal of changing the order of the Maritime Services (MS) in the context of e-Navigation was discussed.

The proposed changes were to merge MS 1-3 (INS, NAS, TOS) to one MS VTS and use the free slots 2 and 3 for two other MS for which IALA is the coordinating body, namely AtoN and PNT. Therefore IALA would have to revise the present Guideline on Maritime Services in the context of e-Navigation and begin the process of updating IMO to get the changes approved.

It was Frederik’s view that the Secretariat should ensure that this task is conducted transparently and coordinated amongst the different committees in order that past discussions between VTS, e-NAV and ARM committees can be left behind.

For VTS 51, task 1.2.4, which works on the description for MS 1-3, will merge the descriptions into one MS and also continue to update the description so that it is in line with the updated IMO resolution on VTS.

5.5 IALA NAVGUIDE

Rapporteur: Jillian Carson-Jackson

Jillian Carson-Jackson provided an update on the approach for the VTS section in the NAVGUIDE. Jillian urged participants to review input paper VTS51-11.5.2 which was the basis for the Committees output to ARM for the VTS Section of the NAVGUIDE.

The Chair also emphasized that ARM and IALA Secretariat had informed that the section on VTS should not only point to the VTS Manual, but instead inform the NAVGUIDE readers of what a VTS is.

6. PRESENTATIONS

All recordings of the presentations given at VTS51 can be found at IALA Dashboard for All Committees under Resources / Committee Presentations (login necessary). The following presentations were given at VTS51:

- MASS Remote Operation Centre / Todd Schuett, Anton Westerlund, Kongsberg
- Ningbo-Zhoushan VTS / Zhou Chi, CMSA
- IALA World-Wide Academy Update / Kevin Gregory, IALA WWA
- Discussion on the Future of VTS / Harmen van Dorsser, Zoscha Droog, Danny de Roo, Port of Rotterdam Authority

7. WORK PROGRAMME 2018-2023

7.1 VTS Task Plan and Task Register for VTS51

An updated Task Plan pre-VTS51 was noted by the Committee. The Committee Management Team made further updates to the Task Plan (VTS51-13.3.0.1), considering the developments during VTS51, and which will be forwarded to VTS52.

WG Chairs and Task Group Leaders are asked to send any updates to the Task Register on the tasks to be worked at during the Work Programme 2018-2023 by e-mail to the VTS Vice-chair, Dirk Eckhoff (dirk.eckhoff@wsv.bund.de) by 17 December 2021 so that a consolidated version can be provided to VTS52 as input for the Committee's consideration.

Action item:

The Secretariat is requested to forward the updated Task Plan (VTS51-13.3.0.1) to VTS52.

WG Chairs and Task Group Leaders are requested to e-mail any updates on the present Task Register to the VTS Vice-chair, Dirk Eckhoff (dirk.eckhoff@wsv.bund.de) by 17 December 2021 so that a consolidated version can be provided to VTS52 as input for the Committee's consideration.

7.2 Action Plan for VTS51

The VTS51 Action Plan, which can be found on IALA Dashboard for VTS, was noted by the Committee.

7.3 VTS tasks for Work Programme 2023 – 2027

The new task register for the next Work Programme (WP) will, beside the tasks that are being carried over from this WP, include the new tasks which are provided in the new template format for the next working period.

The Chair urged that any task proposals should be accompanied by a full entry for the Task Register using the updated template which can be found on the IALA file-share.

The tasks for the next working period will be processed intersessionally by the Committee chairs and WG chairs. Furthermore PAP will coordinate the tasks of all Committees, identify cooperation and lead on relevant tasks and allocate them in the IALA Work Programme for period 2023-27.

VTS participants have been requested to submit task proposals for the future work programme and proposals have been received notably from:

China MSA:

VTS51-	7.3.2	Task register proposal 2022-2026-Guideline on quality management system for VTS
VTS51-	7.3.2.1	GUIDELINE OF QUALITY MANAGEMENT SYSTEMS FOR VESSEL TRAFFIC SERVICES (Draft Framework)
VTS51-	7.3.3	Task register proposal 2022-2026 - Guideline for VTS response to public health emergencies
VTS51-	7.3.3.1	GUIDELINES FOR VTS RESPONSE TO PUBLIC HEALTH EMERGENCIES (Draft Framework)
VTS51-	7.3.4	Task register proposal 2022-2026-G1111-10 producing requirement for VTS-MIS systems
VTS51-	7.3.4.1	PRODUCING REQUIREMENT FOR VTS-MIS SYSTEMS (Draft Framework)

AMSA:

VTS50-	7.3.2	Guidance for establishing a compliance and enforcement framework for participating ships
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The VTS MASS Task Group:

VTS51-	9.2.1.2	Proposed new task - VTS Digital Communications
VTS51-	9.2.1.3	Proposed new task - MASS - Implications for IALA Guidance

During VTS51 proposals were also provided from WG3:

Task register proposal 2022-2026 - Remote training in VTS
Task register proposal 2022-2026 - English Language Competency requirements in VTS operations
Task register proposal 2022-2026 - Dealing with stress or trauma in VTS operations
Task register proposal 2022-2026 - Aptitudes required by VTS operators

From TG 1.1.1.2:

VTS51-	7.3.1	Carry over Task 2.1.1 - Develop a new guideline on “The portrayal of VTS information and data” (Transpose V-125 - Use and Presentation of Symbology at a VTS Centre and include relevant sections of Guideline 1105 - Shore side portrayal ensuring harmonisation with e-Navigation related information)
VTS51-	7.3.1	Proposed New task – Update Guideline 1105 - Shore side portrayal ensuring harmonisation with e-Navigation related information (ARM lead)

The Vice-chair compiled the new task proposals into a provisional 2023 – 2027 Task Plan (VTS51-13.3.0.2), which will be forwarded to VTS52 as a working paper.

Action item:

That the Secretariat forward the Provisional 2023 – 2027 Task Plan (VTS51-13.3.0.2) to VTS52 as a working paper.

Committee participants are asked to provide proposals of new tasks for next WP in the new template format until 17 December 2021.

The Committee Management Team is requested to process the new tasks and provide an updated VTS Task Plan to VTS52.

8. ESTABLISH WORKING GROUPS

The Chair outlined the procedure to be followed by working groups, including the associated paperwork and description of IALA support, after which three working groups were established and their tasks outlined. The Working Group Chairs and Vice-Chairs were introduced.

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

9. WORKING GROUP 1 – OPERATIONS (WG1)

Around 50 individual participants attended at least one of the Task Group meetings formed under Working Group 1 - Operations during VTS51.

Working group 1 progressed all of the eight remaining tasks assigned under the 2018 - 2022 Work Programme and finalized tasks 1.1.1.2, 1.1.1.3, and 1.2.2. The working group produced a total of six output papers and eight working papers for the Committee Secretary to progress. Furthermore, a package of 23 amended documents was forwarded to Council for approval and issue on publication of the new IMO Resolution - Guidelines for Vessel Traffic Services. Intersessional work is planned to further progress two of the five remaining tasks.

9.1 Task 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

Task group leader: Barry Goldman

During VTS51 the Committee considered the following input papers regarding the updating of documents that require changes to incorporate the new terminology post adoption of the revised IMO Resolution on Vessel Traffic Services:

- VTS51-9.1.1 IALA Docs Editorial Alignment - Input Paper Rev1
- VTS51-9.1.1.1 Draft Council Liaison Note - for VTS51 final Rev1
- The package of 5 Recommendations, 17 guidelines and 1 brochure that had been amended

The package of amended documents and the covering liaison note to Council was approved by the silent approval procedure with the inclusion of one comment regarding minor editorial revision to the covering Council Liaison Note. The input paper invites Council to approve the package of documents at C74 in December 2021 but identifies that, exceptionally, they should not be issued until after the new Resolution is published by IMO and that they be dated on the title page and in the Document Revisions page no earlier than the date of publication of the new IMO Resolution to clearly indicate that they reflect the provisions of the new IMO Resolution. The input paper also identifies that final minor Secretarial adjustments may still be required should any changes be made by the IMO Assembly and will require inclusion of the document reference and date of issue when known as highlighted in yellow in the draft documents.

Action item(s):

The Secretariat is requested to forward the amended covering Council Liaison note (VTS51-13.1.1.1 - Draft Council Liaison Note - for VTS51 final Rev2) and the package of 23 amended documents to Council for approval and issue on publication of the new IMO Resolution – Guidelines for Vessel Traffic Services.

9.2 Task 1.1.1.3 - Review and update Recommendation V-120 VTS in Inland Waters to be a Guideline

Task group leader: Barry Goldman

Following VTS50, the draft guideline on VTS in Inland Waters was developed and finalised intersessionally with important contributions from UNECE in the drafting process. During VTS51 the committee considered the following input papers regarding the review and update of Recommendation V-120 – *VTS in Inland Waters* to be a Guideline:

- VTS51-9.1.2 Draft Input paper - Task 1.1.1.3 - VTS in Inland Waters - clean
- VTS51-9.1.2.1 Draft Gnnnn - VTS in Inland Waters - Rev1

The draft guideline was approved by the silent approval procedure with the inclusion of one set of editorial comments. The draft guideline reflects the provisions of the new IMO VTS Resolution and issue should be deferred until the new Resolution is published.

Action item:

The Secretariat is requested to forward the updated draft guideline (VTS51-13.1.1.2) Draft Gnnnn - VTS in Inland Waters - Rev2 to Council for approval and issue on publication of the new IMO Resolution – Guidelines for Vessel Traffic Services.

9.3 Task 1.2.2 - Update Guideline G1110 on Decision Support Tools for VTS Personnel

Task group leader: Trond Ski

At VTS50 the Committee completed a review and update of Guideline G1110 (VTS50-9.2.3) on the Use of Decision Support Tools for VTS Personnel. The Guideline was updated to take into account new and emerging concepts and technologies, reflect new and amended IALA documentation structure and to reflect new IALA documentation. The updated guideline was forwarded to the Council for approval (VTS50-13.1.1.3)/(C73-10.4.4).

C73 expressed concerns that the revised G1110 needed further discussion at the VTS Committee and forwarded the document to VTS51 for further review (VTS51-9.2.4).

At VTS51 some minor editorial changes were made to the revised G1110 to address the concerns raised at C73 and to align the guideline with the new IMO Resolution on VTS.

Action item:

The Secretariat is requested to forward the revised and updated Guideline G1110 Use of Decision Support Tools for VTS Personnel (VTS51-13.1.1.3) to Council for approval and issue on publication of the new IMO Resolution – Guidelines for Vessel Traffic Services.

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

Task group leader: Tuomas Martikainen

At VTS51 the task group continued to merge the current three maritime service descriptions on VTS (MS 1-3) into one single maritime service (MS1) to aligning with the new IMO Resolution on VTS. During the merge confusion between the operational service and maritime service in the context of e-navigation was removed by clarifying that the descriptions of maritime services refer to the provision and exchange of information in digital format. The group intends to finalise the maritime service description during the next session of the committee and proceed based on the strategic direction from PAP.

The group also prepared draft input paper to PAP to communicate the VTS Committees view on maritime services and seek clarification on future strategic direction. The initial descriptions of Maritime Services in the Context of E-Navigation were published in the IMO Circular MSC.1/Circ.1610. The group highlights the need for cross-committee work to prepare a submission to the IMO to update the MSC.1/Circ.1610 to update the changes in the VTS related Maritime Services 1-3 and to address the inconsistencies that have become apparent in the period since the Circular was first approved.

Action item(s):

The Secretariat is requested to forward the Liaison Note to PAP on Maritime Services (VTS51-13.1.1.4) for their consideration.

The Secretariat is requested to forward the WP draft description of Maritime Service 1- VTS (VTS51-13.3.1.1), draft Guideline on Maritime Services (VTS51-13.3.1.2) and WP Appendix 1 MS1-3 (VTS51-13.3.1.3) as working papers to VTS52 for further development.

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

Task group leader: Neil Trainor

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

- VTS51-9.2.1 Input Paper - Output from TG1.2.5 - Implications of MASS from a VTS perspective
- VTS51-9.2.1.1 Input TG.1.2.5 Draft Discussion paper - Implications of MASS from a VTS perspective
- VTS51-9.2.1.2 Proposed new task - VTS Digital Communications
- VTS51-9.2.1.3 Proposed new task - MASS - Implications for IALA Guidance
- VTS50-13.3.1.5 TG-1.2.5 Guiding Principles

Key outcomes include:

Case Studies – The use of case studies was identified as a useful tool in developing the Discussion Paper to assist the Committee achieve a common understanding of MASS and its implications on the provision of VTS. Particularly, ‘case studies’ provide a mechanism to gain insight into ‘trials’ and test beds’ being conducted, outcomes, lessons learnt, emerging information, implications for VTS, etc.

A draft document was prepared, highlighting possible projects being conducted, or about to commence, in 10 countries (VTS51-WP TG1.2.5 Possible case studies - Operations and Trials of Autonomous Ships (as at VTS51))

Preparation of the ‘Case Studies’ document also highlighted:

- The document should be circulated to the other IALA Committees and the IALA Task Force for their information.
- There may be benefits for IALA giving consideration to:
 - Adapting the ‘Case Studies’ template to also flag studies which may also have implications/interest for ENAV and ARM.
 - Expanding IALA Guideline 1107 – Planning and reporting of e-Navigation Testbeds to include MASS and in a manner that compliments the IMO Interim Guidelines for MASS Trials.
 - Encouraging Committee participants to engage with MASS trials being initiated in their waters with a view to involvement in the projects as appropriate.

Discussion Paper – The working paper is maturing as a document that clearly and concisely identifies:

- Trends and opportunities presented by MASS.
- Issues / challenges for the management of ship traffic in a VTS area.
- Options, policies, and strategies for VTS to embrace / influence MASS.
- Implications for the regulatory and legal framework for VTS.
- Implications for IALA Standards relating to VTS.

Noting the advent of MASS will be ongoing for many years and that this document will be reviewed and updated, as appropriate, following each VTS Committee meeting, the Committee is of the view there would be benefits in circulating the working paper to the other IALA Committees and the MASS Task Force for their information and comment.

A copy of the Working paper is at VTS51 WP TG.1.2.5 Discussion paper - Implications of MASS from a VTS perspective as at VTS51.

Preparation of Guidance – The Committee is of the view that preparation of guidance material should continue to be paused, noting:

- The Regulatory Scoping Exercise completed by the IMO in May 2021 identified far ranging implications to international conventions which need to be worked through. For example:
 - “ a number of high-priority issues, cutting across several instruments, that would need to be addressed at a policy level to determine future work.
 - These involve the development of MASS terminology and definitions, including an internationally agreed definition of MASS and clarifying the meaning of the term “master”, “crew” or “responsible person”, particularly in Degrees Three (remotely controlled ship) and Four (fully autonomous ship).”
 - “Other key issues include addressing the functional and operational requirements of the remote-control station/centre and the possible designation of a remote operator as seafarer”.
 - “..... the best way forward to address MASS in the IMO regulatory framework could, preferably, be in a holistic manner through the development of a goal-based MASS instrument.”
- The development of the Discussion paper.
- The consideration of ‘Case Studies’.
- Existing guidance available for MASS trials such as:
 - The IMO Interim Guidelines for MASS Trials (MSC.1/Circ.1604).
 - EU Operational Guidelines for Safe, Secure and Sustainable Trials of Maritime Autonomous Surface Ships (MASS).
 - MASS UK Industry Conduct Principles and Code of Practice.

Proposed new Work programme items – the two proposed work programme items submitted to VTS51 by the Task group were considered:

- Digital VTS Communications – Input paper *VTS51-9.2.1.2 Proposed new task - VTS Digital Communications* was considered by TG1.3.2 and merged with Task 1.3.2.
- Ensuring VTS Guidance Documents evolve with the Advent of Mass – Input paper *VTS51-9.2.1.3 Proposed new task - MASS - Implications for IALA Guidance*.

Guiding Principles - The Guiding principles (*VTS50-13.3.1.5 TG-1.2.5 Guiding Principles*) were prepared at VTS50 to provide a framework for drafting the guidance in a manner that will assist authorities interact with all ships and contribute to the safety and efficiency of ship movements in the VTS area, recognising:

- The advent of MASS within VTS areas and their interaction with conventional ships.
- The data and information exchange between MASS, conventional ships, VTS and allied services.
- The role of VTS in contributing to the safety and efficiency of navigation and the protection of the environment through:
 - The provision of timely and relevant information on factors that may influence the ship's movements and assist on-board decision making
 - The monitoring and management of ship traffic to ensure the safety and efficiency of ship movements
 - Responding to developing unsafe situations.
- Preparing a preliminary draft of the Guidance.

No changes were proposed to the Guiding principles.

Task register - No changes were proposed to the Task register for Task 1.2.5.

It was also agreed the Task Group would continue to work intersessionally on developing the Discussion paper and the proposed guidance for consideration at VTS52.

Action item(s):

The Secretariat is requested to forward the Case Studies (VTS51-13.3.1.4 WP TG1.2.5 Possible case studies - Operations and Trials of Autonomous Ships (as at VTS51) to the other IALA Committees, VTS52 and the IALA Task Force for their information. A draft liaison note to accompany the document is at (VTS51-13.1.1.5).

The Secretariat is requested to consider placing the Case Studies VTS51-13.3.1.4 WP TG1.2.5 Possible case studies - Operations and Trials of Autonomous Ships (as at VTS51)) on the IALA website as a means to communicate information on the advent of MASS to all stakeholders.

The Secretariat is requested to forward the Discussion Paper (VTS51-13.3.1.5 WP TG.1.2.5 Draft Discussion paper - Implications of MASS from a VTS perspective) to the other IALA Committees and the IALA Task Force for their information and comment. A draft liaison note to accompany the document is at (VTS51-13.1.1.6).

The Secretariat is requested give consideration to adapting the ‘Case Studies’ template to also flag studies which may also have implications/interest for ENAV and ARM, pending their consideration of the concept.

The Secretariat is requested give consideration to expanding IALA Guideline 1107 – Planning and reporting of e-Navigation Testbeds to include MASS and in a manner that compliments the IMO Interim Guidelines for MASS Trials.

The Secretariat is requested give consideration to encourage Committee participants to engage with MASS trials being initiated in their waters with a view to involvement in the projects as appropriate.

The Secretariat is requested to forward the following documents as working papers to VTS52 for further development: VTS51-13.3.1.6 WP TG-1.2.5 Guiding Principles; VTS51-13.3.1.5 WP TG.1.2.5 Discussion paper - Implications of MASS from a VTS perspective as at VTS51.

That Committee participants are invited to join the intersessional task group 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 31 October 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Group working on the development of guidance on the implications of MASS from a VTS perspective is requested to prepare an updated draft document as an input to VTS52.

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

Task group leader: Trond Ski

The work on task 1.2.6 commenced at VTS50 by recognizing that IALA has established guidance on several topics related to “safety culture”. Based on this it was decided that the objectives of the task would not be to produce guidance on how to develop Safety Culture in VTS, but rather on how to improve Safety Culture in VTS. This will be reflected in the Task register and the title of the guideline.

Recognizing that elements within Safety Culture and related IALA guidance do not fall under one single Recommendation, the group agreed that the guidance would be most suited as an informative stand-alone guideline, not associated with a Recommendation.

China MSA have kindly provided a draft guideline skeleton (VTS51-9.2.8) and a draft guideline (VTS51-9.2.6, VTS51-9.2.6.1). At VTS51 the group started to review the draft guideline provided by China MSA and do plan to continue this review post VTS51 by correspondence.

Action item(s):

The Secretariat is requested to forward the WP draft guideline on Safety Culture (VTS51-13.3.1.7) as a working paper to VTS52 for further development.

That Committee participants are invited to submit comments and remarks on the WP draft guideline on Safety Culture (VTS51-13.3.1.7) to Trond Ski (trond.ski@kystverket.no) by 30 November 2021.

9.7 Task 1.3.2 – Develop a Recommendation on Digital information transfer between ship and shore in VTS operations (operational aspects)

Task group leader: Tuomas Martikainen

The group noted that the Task Register currently lacks the objectives, expected outcome and compelling needs of the existing Task on ‘Digital Information Transfer between Ship and Shore in VTS Operations’. It was identified that this task was very similar to that of the new work proposal on VTS Digital Communications (VTS51-9.2.1.2) from the MASS intersessional task group that identified there is currently no guidance available for establishing a global framework for standardising digital interaction between VTS, ships (whether conventional or autonomous) and other entities.

This task was populated the Task Register based on the input paper from TG 1.2.5 (VTS51-9.2.1.2).

The title of the task was changed to Develop guidance on VTS Digital Communications. Due to changes in the IALA document structure the expected outcome of the task was also changed to produce a new IALA Guideline instead of Recommendation. The aim is to prepare first draft of the guideline during the next session of the Committee and finalised the draft Guideline by VTS54.

Action item(s):

The Secretariat is requested to note the new proposed objectives of task 1.3.2 and highlight to Council that the VTS Committee believe that it would be more appropriate for this task to be completed as a Guideline rather than a Recommendation.

9.8 Task 1.4.3 - Prepare a “living document” on “Future VTS”

Task group leader: Neil Trainor

The following input papers Committee were considered in connection with Task 1.4.3:

- VTS51-9.6.1 Input Paper - Output from TG-1.4.3 - Future VTS
- VTS51-9.6.1.1 TG-1.4.3 Future VTS - Discussion Paper
- VTS51-9.6.2 WPTG-1.4.3-04 Future VTS - Discussion Paper (V0.2 - Input for Meeting 4 (VTS50-13.3.1.9)
- VTS51-9.6.3 WP Guiding Principles - Future VTS (1.0) (VTS50-13.3.1.8)
- VTS51-7.1.2 WP VTS Task Register 2018-2022 - Rev2 (2021-03-31) (VTS50-13.3.0.2)

The aim of this document is to provide a high-level reference to assist the Committee consider emerging trends, technologies and practices that have implications for VTS and to strategically plan and coordinate embracing changes associated with them in transitioning to ‘Future VTS’.

A review/update of input paper VTS51-9.6.1.1 TG-1.4.3 Future VTS - Discussion Paper was completed. Key outcomes included:

- Aligning the document with the IALA’s *Strategic Vision and Current Drivers and Trends*.
- **Expectations for ‘Future VTS’** – A review/update of this section was completed.
- **Contributing Practices, Technologies and Trends** – Considerable progress was made with scoping the emerging trends, technologies and practices identified that will shape the role and capabilities for ‘Future VTS’:

Contributing practices, technologies, and trends		First Drafts completed
4.2.1	Maritime Autonomous Surface Ships (MASS)	Y
4.2.2	Digital technologies and communications	Y
4.2.3	Green House Gas Emissions / Just in Time Arrival	Y
4.2.4	Advanced Decision Support Services	Y
4.2.5	Automated Data and Information Exchange	Y
4.2.6	Navigational Support / Assistance	Y
4.2.7	Sea Traffic Management	N
4.2.8	Marine Spatial Planning	N
4.2.9	Interacting Objects	Y
4.2.10	Digital situational awareness / Common Situational awareness	Y
4.2.11	Slot Management	Y
4.2.12	New sensing technology for nearshore and port waters	Y
4.2.13	Long-distance sensing technology	Y

Action item(s):

The Secretariat is requested to forward the following documents as working papers to VTS52 for further development: VTS51-13.3.1.8 WP Task 1.4.3 - Future VTS and VTS51-13.3.1.9 WP Guiding Principles - Future VTS (1.0).

That Committee participants are invited to join the intersessional task group working on the Future VTS to express their interest to Neil Trainor (neil.trainor@amsa.gov.au) by 22 October 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Group working on the Future VTS is requested to prepare an updated draft document as an input to VTS52.

9.9 Task 1.4.1 Updates to the VTS Manual

Task group leader: Neil Trainor

This task is a continuous task to be managed at each Committee session.

The Committee noted that the Manual would require updating following VTS51 to reflect changes associated with new/revised documents completed at VTS51 and forwarded to Council for approval, including:

1. The package of documents associated with the update to IALA VTS Documentation on Adoption of Revised IMO Resolution on Guidelines for Vessel Traffic Services, expected to be adopted by the IMO Assembly in December (Task 1.1.1.2). In addition to editorial amendments to align with the new Resolution the package also proposes withdrawal of:
 - *Guideline 1071 – Establishment of a Vessel Traffic Service beyond Territorial Seas; and*

- *Recommendation R0102 (V-102) – The Application of the ‘User Pays’ Principle to Vessel Traffic Services.*

Note: The revision of *Guideline 1089 – Provision of a VTS* to align with the new Resolution has already been approved by Council, pending adoption of the new Resolution by the IMO Assembly in December 2021.

2. *New Guideline – VTS in Inland Waters.*
3. *New Guideline– VTS Management.*
4. *Revised Guideline 1110 - Use of Decision Support Tools for VTS Personnel.*
5. *Revised Guideline 1014 - Accreditation of VTS Training Organizations and Approval to Deliver IALA VTS Model Courses.*

Recognising the pending adoption of the new Resolution, the package of 23 IALA documents associated with the update to VTS Documentation on adoption of the ‘new’ IMO Resolution and Council approval of the new/revised Guidelines above:

- Draft amendments to the Manual were prepared; and
- It was agreed this would be provided to Secretariat for appropriate action pending the outcomes from the IMO Assembly and Council in December.

Action item:

The Secretariat is requested to action the updates and editorial amendments to the VTS Manual described at VTS51-13.1.1.7 VTS Manual updates pending the outcomes from the IMO Assembly regarding the ‘new’ VTS resolution and Council approval of the documents forwarded from VTS51.

10. WORKING GROUP 2 – TECHNOLOGY (WG2)

The Chair and Vice Chair 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 VTS51 to monitor progress and set expectations.

The Technology Working Group has six formal tasks assigned in the current Work Period. During VTS51, progress were made on four tasks (2.1.1, 2.2.2, 2.3.1 and 2.3.2).

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

Task 2.1.1 is considered near completion but will be reviewed intersessionally in order to be approved at VTS52.

Action item(s):

That the Secretariat forward the working paper on draft IALA Guideline on the portrayal of VTS information and data (VTS51-13.3.2.1) to VTS52.

That Committee participants consider participating in the intersessional group working on Task 2.1.1 to further develop the draft Guideline on the portrayal of VTS information and data, should contact Peter Kito (peterkito@jrcamerica.com) by 31 October 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Group working on the development of a guideline on portrayal of VTS information and data is requested to prepare an updated draft guideline as an input to VTS52.

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

Task has not commenced as awaiting the workshop in Canada in Autumn 2021.

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

Task has not commenced as awaiting completion of Task 2.2.2. However, as Task 2.2.2 is well under the way for completion, work on Task 2.2.1 can now commence on reviewing V-128 intersessionally in order to realistically seek approval at VTS52.

Action item:

That Committee participants consider participating in the intersessional group working on Task 2.2.1 Review and update Recommendation V-128 on Operational and Technical Performance of VTS Systems should contact Richard Aase (Richard.aase@kystverket.no) by 31 October 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Group working on the review and update of Recommendation V-128 on Operational and Technical Performance of VTS Systems is requested to prepare an updated draft document as an input to VTS52.

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

Task 2.2.2 is a complex task because it comprises ten separate sections, all of which must be complete before submitting for approval. Significant efforts have been made to complete this, both during formal sessions and intersessionally.

Progress were made during VTS51 on each sub-guideline. As G1111 and G1111-9 was near completion comments on the draft guidelines would be appreciated from the Committee participants. The intention is to continue progressing the guidelines intersessionally. The intersessional groups will continue to be chaired as follows:

Task No	Description	Lead	Email	Requirement
Task 2.2.2	Guideline G1111	Olli Soinen	Olli.soininen@fintraffic.fi	Nearly completed and ready for final review
Task 2.2.2	Guideline G1111-1 Core	Dmitry Rostopshin	Dmitry.rostopshin@wartsilla.com	Intersessional work needed
Task 2.2.2	Guideline G1111-2 Voice communications	Hans Verra	h.verra@portofrotterdam.com	Intersessional work needed
Task 2.2.2	Guideline G1111-3 Radar	Jen Christian Pedersen	jcp@terma.com	Intersessional work needed
Task 2.2.2	Guideline G1111-4 AIS	Karen Dunn	Karen.dunn@dfo-mpo.gc.ca	Intersessional work needed
Task 2.2.2	Guideline G1111-5 Environment Monitoring	Peter Eade	Peter.eade@vissim.no	Intersessional work needed
Task 2.2.2	Guideline G1111-6 Electro Optic	Pete Eade	Peter.eade@vissim.no	Intersessional work needed
Task 2.2.2	Guideline G1111- 7 Direction Finder	Karen Dunn	Karen.dunn@dfo-mpo.gc.ca	Intersessional work needed
Task 2.2.2	Guideline G1111-8 Long Range Sensors	Pete Eade	Peter.eade@vissim.no	Intersessional work needed

Task 2.2.2	Guideline G1111-9 Acceptance	Takuya Fukuda	Ta-fukuda@tokyo-keiki.co.jp	Nearly completed and ready for final review
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Action Item(s):

That Committee participants confirm their interest in joining an intersessional group working the various sub-annexes of G1111 by submitting an email no later than 31 October 2021 to the designated Intersessional Task Group Leader, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

Each Intersessional Group working on the various sub-annexes of G1111 is requested to prepare an updated draft guideline as an input to VTS52.

The Secretariat is requested to forward the following working papers to VTS52 for further development: WP Draft G 1111 Establishing Functional & Performance Requirements for VTS systems (VTS51-13.3.2.4); WP Draft G.1111-1 (VTS51-13.3.2.5); WP G1111-2 Producing Functional and Performance Requirements for Voice Communications (VTS51-13.3.2.6); WP G1111-3 Producing Requirements for RADAR systems (VTS51-13.3.2.7); WP G 1111-4 Producing Functional and Performance Requirements for AIS and VDES systems (VTS51-13.3.2.8); WP G 1111-5 Producing Functional and Performance Requirements for Environment Monitoring systems (VTS51-13.3.2.9); WP G 1111-6 Producing Functional and Performance Requirements for Electro Optical systems (VTS51-13.3.2.10); WP G 1111-7 Producing Functional and Performance Requirements for Radio Direction Finder systems (VTS51-13.3.2.11); WP G 1111-8 Producing Functional and Performance Requirements for Long Range Sensor system (VTS51-13.3.2.12); WP Task 2.2.2j G.1111-9 Framework for Acceptance of VTS Systems (VTS51-13.3.2.13).

That Committee participants provide comment on WP Draft G1111 Establishing Functional & Performance Requirements for VTS systems (VTS51-13.3.3.2) as input to VTS52.

That Committee participants provide comment on WP Draft G1111-9 Framework for Acceptance of VTS Systems (VTS51-13.3.2.13) as input to VTS52.

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

Excellent work has been conducted on Task 2.3.1 to date but again this must continue at VTS52. This work will be progressed intersessionally. A Liaison Note regarding a proposal to update Guideline G1088 Introduction to Preparing S-100 Product specification was developed and the Committee approved for the note to be sent to the ARM Committee for their consideration.

Action item(s):

That the Secretariat forward the working paper on develop a Product Specification under the S-100 framework for VTS (VTS51-13.3.2.2) to VTS52.

The Secretariat is requested to forward the Liaison Note regarding a proposal to update Guideline G1088 Introduction to Preparing S-100 Product specification (VTS51- 13.1.2.2) for their consideration.

That Committee participants consider participating in the intersessional group working on Task 2.3.1 Develop a Product Specification under the S-100 framework for VTS should contact Wim Smets (Wim.smets@mov.vlanderen.be) by 31 October 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Group working on developing a Product Specification under the S-100 framework for VTS is requested to prepare an updated draft document as an input to VTS52.

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

Some excellent work has been conducted on Task 2.3.2 to date but again this must continue at VTS52. This work will be progressed intersessionally.

Korea Coast Guard introduced a project about Cloud VTS Which is an example of IVEF. The contents to be developed through the project will be shared with task group. Based on Cloud VTS concept, it was agreed to partially revise existing recommendations and develop guidelines on IVEF Services.

Action item(s):

That the Secretariat forward the working paper on review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service (VTS51-13.3.2.3) to VTS52.

That Committee participants consider participating in the intersessional group working on Task 2.3.2 Review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service should contact Rene Hogendoorn (Rene.hogendoorn@saabgroup.com) by 31 October 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Group working on the review and update of Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) is requested to prepare an updated draft document as an input to VTS52.

10.7 Other matters

Additionally, the Technology Working Group was asked to review the following Input Papers:

- 10.7.1 VTS51-10.3.1 Liaison to VTS on answer to S-212 Referencing to other S-100 Product Specifications (ENAV27-12.1.2)

The WG noted the information taken task 2.3.1 into consideration.

- 10.7.2 VTS51-10.3.2 Inform paper (Cloud VTS) (Korea Coast Guard)

The information was noted.

- 10.7.3 VTS51-7.3.4 Task register proposal 2022-2026-G1111-10 producing requirement for VTS-MIS systems & VTS51 7.3.4.1 PRODUCING REQUIREMENT FOR VTS-MIS SYSTEMS (DRAFT FRAMEWORK) (China)

WG2 discussed the input papers but need more reasoning on why not include this in G1111-1. This will be further discussed at VTS52.

- 10.7.4 VTS51-3.2.3 & VTS51-3.2.3.1 Draft Rec & GL on IMT (3GPP) (ENAV)

The information was noted.

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 sessions were held over the course of the VTS51 online meeting. The Working Group focused on the following tasks:

- 3.1.1 - Develop Guideline on human factors and ergonomics in VTS
- 3.2.1 - Develop Guideline on the management of a VTS
- 3.3.1 - Review and update Recommendation V-103 on the Standards for Training and Certification of VTS Personnel and its associated Model Courses.
- 3.4.1 - Review and update Guideline 1014 on the Accreditation and Approval Process for VTS Training

- Identification of proposed tasks for 2023-2027

All input papers identified for WG3 were addressed.

In addition, the IALA NAVGUIDE (VTS section) was reviewed and a liaison note developed in consultation with the Committee Management Team.

11.1 Develop Guidance on Human Factors in VTS (Task 3.1.1)

Task Group Leader: A. Ovcharenko / J. Carson-Jackson

The Working Group reviewed VTS51-11.1.1, the working paper developed at VTS50 was noted. The work of the documents VTS51-11.1.2 and VTS51-11.1.2.1, reflecting the development of the document during the intersessional meetings, were reviewed.

A draft revised document (VTS51-13.3.3.1) was uploaded to the file-share for participants to review.

The guideline continued to develop during VTS51 and it was agreed to hold 3 intersessional meetings, with proposed dates of:

- 16 November 2021 – 1030-1130 UTC
- 11 January 2022 – 1030-1130 UTC
- 22 February 2022 – 1030-1130 UTC

These dates have been added to the IALA Dashboard Calendar.

Action items:

That Committee participants are requested to confirm their interest in joining the intersessional group reviewing the draft Guideline on Human Factors and Ergonomics in VTS by submitting an e-mail to A Ovcharenko (aleksandr.ovcharenko@wartsila.com) not later than 1 November 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Group working on reviewing the draft Guideline on Human Factors and Ergonomics in VTS is requested to prepare an updated draft document as an input to VTS52.

That the Secretariat forward the working paper IALA Guideline on Human Factors and Ergonomics in VTS (VTS51-13.3.3.1) to VTS52.

11.2 Develop Guidance on the management of a VTS (Task 3.2.1)

Task Group Leader: S Priem

The Working Group reviewed the input papers VTS51-11.2.1, the working paper developed at VTS50 was noted. The input documents VTS51-11.2.2 and VTS51-11.2.2.1 were reviewed, which noted the work carried out intersessionally.

The document was completed and approved at VTS51 for forwarding to IALA Council.

Action item:

The Secretariat forward the draft IALA Guideline on VTS Management (VTS51-13.1.3.1) to IALA Council for approval and issue on publication of the new IMO Resolution – Guidelines for Vessel Traffic Services.

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

Task Group Leader: J Carson-Jackson

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 – VTS Operator

3.3.1c – Review / update model course V-103/2

3.3.1d – Review / updated model course V-103/3

3.3.1e – Review / update model course V-103/4

3.3.1f – Review / update model course V-103/5

The work at VTS51 focused on 3.3.1b – review of V-103/1 (VTSO) and commenced the review of 3.3.1d – review of V-103/3 (VTS OJT).

Input paper VTS50-11.3.1 ‘Proposal for adding “typical Accident Case Study” subject to Model Courses V-103/3 was reviewed, noting it was provided to VTS50. It was noted that the use of case studies provides value for all IALA VTS Model Courses.

11.3.1 Task 3.3.1a – Review and split R0103(V-103)

This task has been completed.

11.3.2 Task 3.3.1b – Review and update model course V-103/1

The Working Group reviewed the input papers VTS51-11.3.1, 11.3.2, 11.3.3, 11.3.3.1, 11.3.3.2, and 11.3.3.3

The work carried out during the intersessional working group was noted and used as the basis for the work at VTS51.

As agreed at VTS50, once the work on V-103/1 is completed, work will commence on the review of V-103/3. The draft document(s) will continue to reside on the IALA File-Share.

At VTS51 a revised structure for the front section of the Model Course V-103/1 was agreed. It was agreed that this will provide the basis for the front section of the other model courses. A revised detailed competence table format was also reviewed and agreed, and a review of the revised competence tables was commenced. This work will continue through four intersessional sessions:

- Wednesday, 1 Dec 2021 – 0900-1030 UTC
- Wednesday, 15 Dec 2021 – 0900-1030 UTC
- Wednesday, 19 January 2022 – 0900-1030 UTC
- Wednesday, 2 February 2022 – 0900-1030 UTC

Action item:

That Committee participants consider participating in the intersessional group working on review and update model course V-103/1 should contact Jillian Carson-Jackson (jillian@jcjconsulting.net) by 12 November 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

The Intersessional Group working on review and update model course V-103/1 is requested to prepare an updated draft document as an input to VTS52.

That the Secretariat forward draft IALA Model Course V103/1 (VTS51-13.3.3.2) to VTS52 as a working paper.

11.4 Review and update Guideline 1017 on Assessment of Prior Learning Exemption for VTS Model Courses (Task 3.3.2)

This task has been completed.

11.5 Review and update Guideline 1014 on Accreditation of VTS Training Organizations and Approval to Deliver IALA VTS Model Courses (Task 3.4.1)

Task Group Leader: K Abercrombie

The Task Group reviewed the input papers VTS51-11.4.1, 11.4.1.1, and 11.4.2.

The review of Guideline 1014 on the Accreditation of VTS Training Organizations and Approval to Deliver IALA VTS Model Courses (VTS51-11.4.2) continued during VTS51. The revision provides a clear framework for competent authorities to:

- Accredit organizations to provide training based on IALA model courses; and
- Approve their delivery of IALA VTS model courses.

Task group participants also considered the input provided by the IALA World Wide Academy with regards to including guidance on how to approve training delivered by remote or online learning environments (VTS51-11.4.1 and VTS51-11.4.1.1).

The document was completed and approved at VTS51 for forwarding to IALA Council.

Action item:

The Secretariat is requested to forward the revised IALA Guideline on Accreditation of VTS Training Organizations and Approval to Deliver IALA Model Courses (VTS51-13.1.3.) to IALA Council for approval and issue on publication of the new IMO Resolution – Guidelines for Vessel Traffic Services.

11.6 Review of NAVGUIDE

Input paper VTS51-11.5.2 was reviewed, in conjunction with input proposed at VTS50 and noting discussions with the Secretariat and the Chair, ARM Committee, proposed input for the IALA NAVGUIDE, as provided through the IALA Secretariat, was reviewed. The text for the proposed link between the IALA NAVGUIDE and the IALA VTS Manual was reviewed and agreed.

A revised section on VTS for the NAVGUIDE was prepared (VTS51-13.1.0.1), reviewed and agreed for forwarding to the ARM Committee as they continue the coordination of the next edition of the NAVGUIDE.

Action item:

The Secretariat is requested to forward the Liaison note to ARM on the proposed revision to the IALA NAVGUIDE (VTS Section) (VTS51-13.1.0.1) to the ARM Committee.

11.7 Proposed work items for IALA Work Term 2023-2027

Building on the work commenced at VTS50, as provided in VTS51-11.5.1, the Working Group reviewed the priority items and developed task proposals for the 4 highest priorities and the revision of 2 existing IALA documents.

K Glew and K Abercrombie prepared a draft for new task proposals which were reviewed and submitted to the VTS Committee Management Team for consideration.

11.8 Presentation – VTS Communication for the future

The Working Group noted input paper VTS51-3.2.4 regarding English proficiency test. Dr. S Choi provided a presentation on the status of the development of a VTS English language test based on G1132 and consistent with IMO Res. A.918(22).

Key results of the presentation were noted, including:

- the need to refresh/retrain language during the career of the VTSSO from entry to management level in order to ensure the best standardization of communicative output in practical VTS operations.

- the result of the study that indicated IELTS Band 5 was judged insufficient for VTSOs at all levels to conduct successfully complete their duties, specifically in emergency communications.

It was agreed that further development of language testing designed for VTSOs would be beneficial. Based on discussions during the IALA Workshop on Harmonising VTS Voice Communication in Busan, 2019 and the result of the input paper VTS51-3.2.4 a draft task proposal on this item was prepared (as noted in section 11.7).

12. ANY OTHER BUSINESS

The Chair, Monica Sundklev expressed her sincere appreciation to all the 151 participants for their hard and dedicated work during these weeks. The Committee approved 2 new guidelines, updated another 2 guidelines and also approved a package of 23 documents to be aligned and ready to be in force with the new resolution on VTS after IMO Assembly meeting in December. For that astonishing accomplishment the Chair congratulated Barry Goldman for a perfectly executed achievement. Without the well-structured management and the firm lead of Commodore Goldman, the Committee may never have been so well prepared even before the governing document has been approved.

The Chair went on to state “It has also come to my attention that an era soon will come to an end and that this session will be the last for the one and only Commodore Barry Goldman, highly respective representative of the IHMA. Barry has contributed to the work of IALA in the VTS Committee since 2002, recently as Chair of WG1 and earlier also as member of the World VTS Guide Advisory Board. Although these nearly 20 years of valuable contributions, discussions and friendship has been a pleasure for all of us, this chapter has an end. You have dedicated a significant period of time to IALA to develop and quality-assure VTS guidance, not to mention the excellent work of the alignment of VTS documents to the new IMO resolution. For that we are truly thankful to you and IHMA.

We all wish you a long lasting life with lots of fun with your family and your dog and I really hope that we will be able to meet again hopefully IRL in Paris or London. Thank you Barry for your dedicated work here in IALA and all your valuable contributions throughout the years. You will be truly missed and I also wonder: who is now going to comment on all the documents that we produce”.

It was also possible to hear three very interesting presentations from Ningbo-Zhoushan VTS, from Kongsberg and of course from IALA WWA. All were very well attended. An extra presentation with active attendance were also made yesterday where Port of Rotterdam shared their views of future VTS. These presentations are available from the *VTS Dashboard* where you can find the link to the IALA YouTube Channel.

The Chair also highlighted that the reference numbering to the Model Courses have changed and they are being described in the new Style Guide. A document that begins with a C and then a number is a model course. It is commonly known that recommendations begin with an R and guidelines with a G. Output documents will be updated by the Secretariat post VTS51. Committee participants were reminded to use the new model course numbering format for future revisions.

Following the completion of work on the guidelines related to VTS VHF voice communication, the benefits of pursuing an update to the IMO Resolution A.918(22) on the Standard Marine Communication Phrases (SMCP), approved in 2002, and potentially IMO Resolution A.954(23) on the Proper use of VHF Channels at Sea from 2006 were raised. The publication of the new IMO resolution on Guidelines for VTS also necessitates consequential changes to the IMO SMCP as the document refers to the three types of VTS services. It was recognized that these IMO documents had a much wider scope than the IALA domain and that, as a first step, an input to IMO NCSR could be made to raise awareness of the new IALA guidelines amongst IMO members.

Action Item:

The Secretariat is requested to update VTS51 output documents with the new reference number for IALA Model Courses.

13. SUMMARY OF OUTPUT AND WORKING PAPERS

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

Outputs from VTS51 were approved by the Committee using the silent approval procedure. Some outputs were also raised and approved at closing plenary. The output documents and working papers are listed in Annex D.

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.

14. REVIEW OF SESSION REPORT

The draft report of the meeting (VTS51-14.1) was reviewed by the Committee at the Closing Plenary. Any comment or corrections should be sent to the Secretariat before 14 October 2021.

Action Item:

The Secretariat is requested to finalize and forward the report of VTS51 (VTS51-14.1) to the IALA Council, to note.

15. DATE AND VENUE OF NEXT MEETINGS

VTS52 is planned to be held between 4 - 8 April 2022 at IALA Headquarters, Saint Germain-en-Laye, France. The Secretariat will continue to monitor global events of the COVID-19 pandemic and advise its Members of any changes that may be instigated.

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 hard work and progress as well as all the valuable outputs that had been made during the meeting and that every participant should be satisfied for what had been accomplished.

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.

Finally, the Chair asked if there were any final comments that participants wished to make; there were none, at which she hoped to meet all once again, hopefully face-to-face, during VTS52.

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.



51st Meeting of the Vessel Traffic Services Committee (VTS51)

The 51st meeting of the **VTS Committee** will be held between 16 September – 7 October 2021 virtually.

The opening plenary will be held between 10:00 – 12:00 UTC on Thursday 16 September 2021 and the closing plenary will be held between 10:00 – 12:00 UTC on Thursday 7 October 2021.

Agenda

1. Introduction
 - 1.1. Welcome from the Secretary-General
 - 1.2. Approval of agenda
 - 1.3. Apologies
 - 1.4. Working arrangements
2. Review of action items from last meeting
 - 2.1. Review of action items from VTS50
3. Review of input papers
 - 3.1. Input papers to VTS51
 - 3.2. Input papers not related to an existing task
4. Reports from other bodies Minsu Jeon
 - 4.1. IALA
 - 4.1.1. IALA Council
 - 4.1.2. IALA Policy Advisory Panel (PAP)
 - 4.2. IMO
 - 4.3. IHO
 - 4.4. ITU
5. Reports from rapporteurs
 - 5.1. Revision of the IMO Res. A.857(20) Neil Trainor
 - 5.2. VTS questionnaire coordination group Neil Trainor
 - 5.3. e-Nav operational service description Fredrik Karlsson
 - 5.4. IALA NAVGUIDE Jillian Carson-Jackson
6. Online presentations (via webinars on specific dates and times to be announced)
 - 6.1. IALA World Wide Academy Update Kevin Gregory
 - 6.2. Realizing Industrial Collaboration and Smart Application in Ningbo-Zhoushan VTS Zhou Chi

7. Work programme (2018 - 2023)
 - 7.1. VTS Task Plan and Task Register
 - 7.2. Action plan for VTS51
 - 7.3. VTS tasks for work programme 2023 – 2027
8. Establish working groups (WG)
9. WG1 - Operations
 - 9.1. VTS implementation
 - 9.2. VTS operations
 - 9.3. VTS communications
 - 9.4. VTS Manual
 - 9.5. VTS Questionnaire
 - 9.6. Additional tasks/work during VTS51
10. WG2 - Technology
 - 10.1. VTS data and information management
 - 10.2. VTS technology
 - 10.3. Data models and data encoding
 - 10.4. Additional tasks/work during VTS51
11. WG3 - VTS training
 - 11.1. VTS implementation
 - 11.2. VTS operations
 - 11.3. Training and assessment
 - 11.4. Competency, certification and revalidation
 - 11.5. Additional tasks/work during VTS51
12. Any other business
13. Summary of output and working papers
 - 13.1. Output papers
 - 13.2. Updates to the VTS Manual
 - 13.3. Working papers
14. Review of session report
15. Date and venue of next meeting
16. Close of the meeting

ANNEX B

LIST OF PARTICIPANTS

Surname	Name	Affiliation	E-mail
AALTONEN	Matti	Finnish Transport and Communications Agency	matti.aaltonen@traficom.fi
AASE	Richard	Norwegian Coastal Administration	richard.aase@kystverket.no
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DAHLGREN	Fredrik	Swedish Maritime Administration	
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ANNEX C

LIST OF INPUT PAPERS

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

Meeting	Paper Number	Input Paper Title	Source	Allocation (All / WG) or action
VTS51-	1.2.1	Provisional Agenda	IALA Secretariat	All
VTS51-	2.1.1	VTS50 Action Items	VTS50	All
VTS51-	2.1.2	Report of VTS50	VTS50	Note
VTS51-	3.0	Input paper committee meeting template	IALA Secretariat	-
VTS51-	3.1.1	Input Paper List	IALA Secretariat	All
VTS51-	3.2.1	Liaison note to all committees on the final draft revision of MBS R1001 (ARM13-11.2.5)	ARM13	All
VTS51-	3.2.1.1	draft WP The IALA Maritime Buoyage System (ARM13-11.2.5.1)	ARM13	All
VTS51-	3.2.1.2	Marine aids to navigation-SAMPLE	ARM13	All
VTS51-	3.2.2	Input Paper - Revision of IALA Standards	Trond Ski	CMT
VTS51-	3.2.2.1	Enclosure - Report, Intersessional meeting 5 July 2021, Revision of IALA Standards	Trond Ski	CMT
VTS51-	3.2.3	Draft_IMT_(3GPP)_Reco-WG2 review-rev2 (ENAV27-12.2.3)	ENAV27	WG2, WG1
VTS51-	3.2.3.1	Draft_IMT_(3GPP)- Guideline_WG2 review-rev2 (ENAV27-12.2.4)	ENAV27	WG2, WG1
VTS51-	3.2.3.2	Draft Recommendation and Guideline on IMT (3GPP)	ENAV27	WG2, WG1
VTS51-	3.2.4	Inform paper (English Competency Test)_Korea Coast Guard (002)	Korea Coast Guard	WG3**
VTS51-	4.1.1.1	Council73 Report Final	C73	Note
VTS51-	4.2.1	Report on IMO MSC and NCSR amended	IALA Secretariat	Note
VTS51-	4.1.2.1	Standards revision	IALA Secretariat	All
VTS51-	4.1.2.1.1	structure of the standards	IALA Secretariat	All
VTS51-	4.1.2.1.2	Draft revision S1010 AtoN Planning and Service Requirements (for review 2nd half 2021)	IALA Secretariat	All
VTS51-	4.1.2.1.3	Draft revision S1020 AtoN Design and Delivery (for review 2nd half 2021)	IALA Secretariat	All
VTS51-	4.1.2.1.4	Draft revision S1030 Radionavigation Services (for review 2nd half 2021)	IALA Secretariat	All

VTS51-	4.1.2.1.5	Draft revision S1040 Vessel Traffic Services (for review 2nd half 2021)	IALA Secretariat	All
VTS51-	4.1.2.1.6	Draft revision S1050 Training and Certification (for review 2nd half 2021)	IALA Secretariat	All
VTS51-	4.1.2.1.7	Draft revision S1060 Digital Communication Technologies (for review 2nd half 2021)	IALA Secretariat	All
VTS51-	4.1.2.1.8	Draft revision S1070 Information Services (for review 2nd half 2021)	IALA Secretariat	All
VTS51-	4.3.1	Report IHO IALA Technical 5th Coordination Meeting final	IALA Secretariat	WG2, WG1
VTS51-	4.4.1	IALA Report of ITU-R WP5B meeting 10 to 21 May 2021	Stefan Bober	WG2, WG1
VTS51-	4.4.1.1	liaison-TD-0147!!MSW-E	Stefan Bober	WG2, WG1
VTS51-	4.4.1.2	R19-WP5B-C-0355!N39!MSW-E - Reply liaison statement to IALA+CIRM on rev ITU-R M1371-5	Stefan Bober	WG2, WG1
VTS51-	7.1.1	WP Updated VTS Task Plan 2018-2022 (2021-03-31)_Rev5-clean (VTS50-13.3.0.1)	VTS50	All
VTS51-	7.1.2	WP VTS Task Register 2018-2022 - Rev2 (2021-03-31) (VTS50-13.3.0.2)	VTS50	All
VTS51-	7.3.1	Input - Comment on Portrayal and Proposals for Next Work Programme	TG1.1.1.2	WG2, WG1
VTS51-	7.3.2	Task register proposal 2022-2026-Guideline on quality management system for VTS	China MSA	WG1**
VTS51-	7.3.2.1	GUIDELINE OF QUALITY MANAGEMENT SYSTEMS FOR VESSEL TRAFFIC SERVICES (DRAFT FRAMEWORK)	China MSA	WG1**
VTS51-	7.3.3	Task register proposal 2022-2026 - Guideline for VTS response to public health emergencies	China MSA	WG1**
VTS51-	7.3.3.1	GUIDELINES FOR VTS RESPONSE TO PUBLIC HEALTH EMERGENCIES (DRAFT FRAMEWORK)	China MSA	WG1**
VTS51-	7.3.4	Task register proposal 2022-2026-G1111-10 producing requirement for VTS-MIS systems	China MSA	WG2**
VTS51-	7.3.4.1	PRODUCING REQUIREMENT FOR VTS-MIS SYSTEMS(DRAFT FRAMEWORK)	China MSA	WG2**
VTS51-	9.1.1	IALA Docs Editorial Alignment - Input Paper	TG1.1.1.2	WG1 (All)
VTS51-	9.1.1.1	Draft Council Liaison Note - for VTS51 final	TG1.1.1.2	WG1 (All)
VTS51-	9.1.2	Draft Input paper - Task 1.1.1.3 - VTS in Inland Waters - clean	TG1.1.1.3	WG1 (All)
VTS51-	9.1.2.1	Draft Gnnnn - VTS in Inland Waters - final (VTS50-3.2.1.1)	TG1.1.1.3	WG1 (All)
VTS51-	9.1.3	INF - VTS Update - Revision to IMO Resolution A857(20) - final	TG1.1.1.2	WG1 (All)

VTS51-	9.1.3.1	Enclosure - Draft IMO Resolution & Draft Guideline G1089	TG1.1.1.2	WG1 (All)
VTS51-	9.1.4	WP IALA Docs Editorial Alignment - Draft Council Liaison Note (VTS50-13.3.1.1)	VTS50	WG1
VTS51-	9.1.5	WP Draft Gnnnn - VTS in Inland Waters ver9 (VTS50-13.3.1.2)	VTS50	WG1
VTS51-	9.1.6	WP Draft Guideline on Maritime Services VTS (VTS50-13.3.1.3)	VTS50	WG1
VTS51-	9.1.6.1	WP Draft Guideline on Maritime Services (VTS50-13.3.1.4)	VTS50	WG1
VTS51-	9.2.1	Input Paper - Output from TG1.2.5 - Implications of MASS from a VTS perspective	TG1.2.5	WG1
VTS51-	9.2.1.1	Input TG.1.2.5 Draft Discussion paper - Implications of MASS from a VTS perspective	TG1.2.5	WG1
VTS51-	9.2.1.2	Proposed new task - VTS Digital Communications	TG1.2.5	WG1
VTS51-	9.2.1.3	Proposed new task - MASS - Implications for IALA Guidance	TG1.2.5	WG1
VTS51-	9.2.2	Input paper on the report of IALA WS on MASS	Hideki NOGUCHI	WG1
VTS51-	9.2.2.1	Report on the IALA Workshop on marine AtoN in the autonomous world_FINAL (1)	Hideki NOGUCHI	WG1
VTS51-	9.2.3	Draft MASS Rec-WG2 review (ENAV27-12.2.1)	ENAV27	WG1
VTS51-	9.2.3.1	Draft MASS Guideline-WG2 review (ENAV27-12.2.2)	ENAV27	WG1
VTS51-	9.2.3.2	Input paper Draft Recommendation and Guideline on MASS	ENAV27	WG1
VTS51-	9.2.4	Revised G1110 Use of Decision Support Tools for VTS Personnel C73-10.4.4 (VTS50-13.1.1.3)	C73	WG1 (All)
VTS51-	9.2.5	MASS Remote Operation Centre Input paper v2	Kongsberg	WG1
VTS51-	9.2.6	Draft Guideline on how to develop a safety culture in VTS	China MSA	WG1
VTS51-	9.2.6.1	Annex Draft Guideline on how to develop a safety culture in VTS	China MSA	WG1
VTS51-	9.2.7	WP TG.2.5 Draft Guidance on the implications of MASS from a VTS perspective (VTS50-13.3.1.6)	VTS50	WG1
VTS51-	9.2.8	WP Task 1.2.6 Draft Gxxx Guideline on Safety Culture in VTS-skeleton (VTS50-13.3.1.7)	VTS50	WG1
VTS51-	9.2.9	WP TG-1.2.5 Guiding Principles (VTS50-13.3.1.5)	VTS50	WG1
VTS51-	9.6.1	WP TG-1.4.3 Future VTS - Discussion Paper	TG1.4.3	WG1
VTS51-	9.6.1.1	Input Paper - Output from TG-1.4.3 - Future VTS	TG1.4.3	WG1
VTS51-	9.6.2	WP TG-1.4.3-04 Future VTS - Discussion Paper (V0.2 - Input for Meeting 4 (VTS50-13.3.1.9)	VTS50	WG1
VTS51-	9.6.3	WP Guiding Principles - Future VTS (1.0) (VTS50-13.3.1.8)	VTS50	WG1
VTS51-	10.1.1	WP-G1105_DRAFT_Task_Group_2.1.1 20210324_updated_final (VTS50-13.3.2.1)	VTS50	WG2

VTS51-	10.2.1	Draft Input paper - Task 2.2.2.b - Producing Requirements for the Core VTS System	TG2.2.2b	WG2, WG1
VTS51-	10.2.1.1	Draft G.1111-1 Post VTS50 IG v14	TG2.2.2b	WG2, WG1
VTS51-	10.2.2	Post IG Task 2.2.2j G.1111-9 Framework for Acceptance of VTS Systems_VTS50_output-2021-08-18	TG2.2.2j	WG2
VTS51-	10.2.3	Proposal on the revised Guideline 《G1111-3》	China MSA	WG2
VTS51-	10.2.4	WP Draft G 1111 Establishing Functional & Performance Req for VTS systems (VTS50-13.3.2.2)	VTS50	WG2
VTS51-	10.2.5	WP Draft G.1111-1 for VTS50 v2_5 (VTS50-13.3.2.3)	VTS50	WG2
VTS51-	10.2.6	WP G1111-2 Producing Functional and Performance Requirements for Voice Comm VTS50-13.3.2	VTS50	WG2
VTS51-	10.2.7	WP G1111-3 Producing Requirements for RADAR systems _ VTS 50 output (VTS50-13.3.2.5)	VTS50	WG2
VTS51-	10.2.8	WP G 1111-4 Producing Functional and Performance Req for AIS and VDES (VTS50-13.3.2.6)	VTS50	WG2
VTS51-	10.2.9	WP G 1111-5 Producing Functional and Performance Req for Environment Monitoring sys (VTS50-13.3.2.7)	VTS50	WG2
VTS51-	10.2.10	WP G 1111-6 Producing Functional and Performance Req for Electro Optical sys (VTS50-13.3.2.8)	VTS50	WG2
VTS51-	10.2.11	WP G 1111-7 Producing Functional and Performance Req for RDF sys (VTS50-13.3.2.9)	VTS50	WG2
VTS51-	10.2.12	WP G 1111-8 Producing Functional and Performance Req for Long Range Sensor sys (VTS50-13.3.2.10)	VTS50	WG2
VTS51-	10.2.13	WP Task 2.2.2j G.1111-9 Framework for Acceptance of VTS Systems (VTS50-13.3.2.11)	VTS50	WG2
VTS51	10.2.14	G.1111-3 Producing Requirements for RADAR systems _ Input to VTS 51 from intersessional work	TG2.2.2c	WG2
VTS51-	10.3.1	liaison to VTS on Answer to S-212 Referencing to other S-100 Product Specifications (ENAV27-12.1.2)	ENAV27	WG2
VTS51-	10.3.2	Inform paper(Cloud VTS)_Korea Coast Guard	Korea Coast Guard	Note (WG2)
VTS51-	10.3.3	Proposal on Draft of VTS Digital Information Service Product Specification V0.6.4	China MSA	WG2
VTS51-	10.3.4	WP VTS Digital Information Service product specification V0.6.4 (VTS50-13.3.2.12)	VTS50	WG2
VTS51-	10.3.5	WP Guideline on Inter-VTS Data Exchange - draft 20210323 (VTS50-13.3.2.13)	VTS50	WG2
VTS51-	10.3.6	WP IALA Product Specification of the Inter-VTS Data Exchange Format (IVEF) - (VTS50-13.3.2.14)	VTS50	WG2

VTS51-	10.3.7	WP R0145 The Inter-VTS Exchange Format (IVEF) Service (V-145) Ed2.x - (VTS50-13.3.2.15)	VTS50	WG2
VTS51-	11.1.1	WP Draft Guideline HF_Ergonomics-VTS-WG3 review (VTS50-13.3.3.1)	VTS50	WG3
VTS51-	11.1.2	Input paper on Task 3.1.1 Guideline HF in VTS	TG3.1.1	WG3
VTS51-	11.1.2.1	Draft Guideline HF_Ergonomics-post-CG-03	TG3.1.1	WG3
VTS51-	11.2.1	WP Guideline on VTS Management - 24.03.2021 version (VTS50-13.3.3.2)	VTS50	WG3
VTS51-	11.2.2	Input paper on Task 3.2.1 Guideline on VTS Management	TG3.2.1	WG3 (All)
VTS51-	11.2.2.1	Draft Guideline on VTS Management	TG3.2.1	WG3 (All)
VTS51-	11.3.1	WP 20210325-VTS50-11.3.2.1 V-103.1 V-103_1-review (VTS50-13.3.3.6)	VTS50	WG3
VTS51-	11.3.2	WP Matrix comparing existing V103-1 content proposed by Australia (VTS50-13.3.3.6)	VTS50	WG3
VTS51-	11.3.3	Input paper on Task 3.3.1b-Revise V-103_1-VTSO	TG3.3.1	WG3
VTS51-	11.3.3.1	V-103_1-full document for ICG07	TG3.3.1	WG3
VTS51-	11.3.3.2	V-103_1-Front Section-post ICG-07	TG3.3.1	WG3
VTS51-	11.3.3.3	V-103_1-revised-module 1-post ICG07	TG3.3.1	WG3
VTS51-	11.4.1	Approval of online VTS training courses	IALA WWA	WG3 (All)
VTS51-	11.4.1.1	Revision of G1014 (with online & remote training)	IALA WWA	WG3 (All)
VTS51-	11.4.2	WP DRAFT Revision of G1014 (24 March) (VTS50-13.3.3.3)	VTS50	WG3
VTS51-	11.5.1	WP Blue Sky Thinking - future work for VTS -VTS WG3 (VTS50-13.3.3.4)	VTS50	WG3
VTS51-	11.5.2	WP Liaison Note to ARM - Navguide VTS section (VTS50-13.3.3.5)	VTS50	WG3

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

Meeting	Paper No.	Output Paper Title	Action
VTS51	13.1.0.1	Liaison note to ARM on the proposed revision to the IALA NAVGUIDE (VTS Section)	To ARM14
VTS51	13.1.0.2	Liaison Note to ARM on the MBS Review	To ARM14
VTS51	13.1.0.3	Liaison Note to PAP on IALA standards	To PAP
VTS51	13.1.1.1	Draft Council Liaison Note - for VTS51 final Rev2 and the package of 23 amended documents	To Council
VTS51	13.1.1.2	Draft Gnnnn - VTS in Inland Waters	To Council
VTS51	13.1.1.3	Updated Guideline G1110 Use of Decision Support Tools for VTS personnel	To Council
VTS51	13.1.1.4	Liaison Note to PAP on Maritime Services	To PAP
VTS51	13.1.1.5	Liaison Note regarding possible case studies - Operations and Trials of Autonomous Ships	To the MASS TF and committees
VTS51	13.1.1.6	Liaison Note regarding the discussion paper - Implications of MASS from a VTS perspective	To the MASS TF and committees
VTS51	13.1.1.7	VTS Manual updates	To the Secretariat
VTS51	13.1.2.1	Liaison Note to ARM regarding the draft guideline on the portrayal of VTS information and data	To ARM14
VTS51	13.1.2.2	Liaison Note to ARM on review and update of G1088	To ARM14
VTS51	13.1.3.1	Draft Gnnnn on VTS Management	To Council
VTS51	13.1.3.2	Revised IALA Guideline on Accreditation of VTS Training Organizations and Approval to Deliver IALA Model Courses	To Council

Working papers will remain within the Committee for further review during VTS52.

Paper Number	Working Paper Title	Action
13.3.0.1	WP updated Task Plan post VTS51	To VTS52
13.3.0.2	WP Provisional 2023 – 2027 Task Plan	To VTS52
13.3.1.1	WP draft description of Maritime Service 1- VTS	To VTS52
13.3.1.2	WP Draft Guideline on Maritime Services	To VTS52

13.3.1.3	WP Appendix 1 MS1-3	To VTS52
13.3.1.4	WP TG1.2.5 Possible case studies - Operations and Trials of Autonomous Ships (as at VTS51)	To VTS52
13.3.1.5	WP TG.1.2.5 Draft Discussion paper - Implications of MASS from a VTS perspective	To VTS52
13.3.1.6	WP TG-1.2.5 Guiding Principles	To VTS52
13.3.1.7	WP draft guideline on Safety Culture	To VTS52
13.3.1.8	WP Task 1.4.3 - Future VTS	To VTS52
13.3.1.9	WP Guiding Principles - Future VTS (1.0)	To VTS52
13.3.2.1	WP draft Guideline on the portrayal of VTS information and data	To VTS52
13.3.2.2	WP on develop a Product Specification under the S-100 framework for VTS	To VTS52
13.3.2.3	WP on review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service	To VTS52
13.3.2.4	WP Draft G 1111 Establishing Functional & Performance Requirements for VTS systems	To VTS52
13.3.2.5	WP Draft G.1111-1	To VTS52
13.3.2.6	WP G1111-2 Producing Functional and Performance Requirements for Voice Communications	To VTS52
13.3.2.7	WP G1111-3 Producing Requirements for RADAR systems	To VTS52
13.3.2.8	WP G 1111-4 Producing Functional and Performance Requirements for AIS and VDES systems	To VTS52
13.3.2.9	WP G 1111-5 Producing Functional and Performance Requirements for Environment Monitoring systems	To VTS52
13.3.2.10	WP G 1111-6 Producing Functional and Performance Requirements for Electro Optical systems	To VTS52
13.3.2.11	WP G 1111-7 Producing Functional and Performance Requirements for Radio Direction Finder systems	To VTS52
13.3.2.12	WP G 1111-8 Producing Functional and Performance Requirements for Long Range Sensor system	To VTS52
13.3.2.13	WP Task 2.2.2j G.1111-9 Framework for Acceptance of VTS Systems	To VTS52
13.3.3.1	WP IALA Guideline on Human Factors and Ergonomics in VTS	To VTS52
13.3.3.2	WP IALA Model Course V103/ 1	To VTS52

ANNEX E ACTION ITEMS

Action Items for the IALA Secretariat

1. The Secretariat is requested to forward the Liaison Note to ARM on the MBS Review (VTS51-13.1.0.2) for their consideration. 13
2. The Secretariat is requested to forward the Liaison Note to PAP on IALA standards (VTS51-13.1.0.3) for their consideration. 13
3. That the Secretariat add another reporting subject to the VTS Committee agenda called “MASS related to VTS”. 16
4. The Secretariat is requested to forward the updated Task Plan (VTS51-13.3.0.1) to VTS52. 17
5. That the Secretariat forward the Provisional 2023 – 2027 Task Plan (VTS51-13.3.0.2) to VTS52 as a working paper. 18
6. The Secretariat is requested to forward the amended covering Council Liaison note (VTS51-13.1.1.1 - Draft Council Liaison Note - for VTS51 final Rev2) and the package of 23 amended documents to Council for approval and issue on publication of the new IMO Resolution – Guidelines for Vessel Traffic Services. 19
7. The Secretariat is requested to forward the updated draft guideline (VTS51-13.1.1.2) Draft Gnnnn - VTS in Inland Waters - Rev2 to Council for approval and issue on publication of the new IMO Resolution – Guidelines for Vessel Traffic Services. 20
8. The Secretariat is requested to forward the revised and updated Guideline G1110 Use of Decision Support Tools for VTS Personnel (VTS51-13.1.1.3) to Council for approval and issue on publication of the new IMO Resolution – Guidelines for Vessel Traffic Services. 20
9. The Secretariat is requested to forward the Liaison Note to PAP on Maritime Services (VTS51-13.1.1.4) for their consideration. 20
10. The Secretariat is requested to forward the WP draft description of Maritime Service 1- VTS (VTS51-13.3.1.1), draft Guideline on Maritime Services (VTS51-13.3.1.2) and WP Appendix 1 MS1-3 (VTS51-13.3.1.3) as working papers to VTS52 for further development. 21
11. The Secretariat is requested to forward the Case Studies (VTS51-13.3.1.4 WP TG1.2.5 Possible case studies - Operations and Trials of Autonomous Ships (as at VTS51) to the other IALA Committees, VTS52 and the IALA Task Force for their information. A draft liaison note to accompany the document is at (VTS51-13.1.1.5). 23
12. The Secretariat is requested to consider placing the Case Studies VTS51-13.3.1.4 WP TG1.2.5 Possible case studies - Operations and Trials of Autonomous Ships (as at VTS51)) on the IALA website as a means to communicate information on the advent of MASS to all stakeholders. 23
13. The Secretariat is requested to forward the Discussion Paper (VTS51-13.3.1.5 WP TG.1.2.5 Draft Discussion paper - Implications of MASS from a VTS perspective) to the other IALA Committees and the IALA Task Force for their information and comment. A draft liaison note to accompany the document is at (VTS51-13.1.1.6). 23
14. The Secretariat is requested give consideration to adapting the ‘Case Studies’ template to also flag studies which may also have implications/interest for ENAV and ARM, pending their consideration of the concept. 23

15. The Secretariat is requested give consideration to expanding IALA Guideline 1107 – Planning and reporting of e-Navigation Testbeds to include MASS and in a manner that compliments the IMO Interim Guidelines for MASS Trials. 23
16. The Secretariat is requested give consideration to encourage Committee participants to engage with MASS trials being initiated in their waters with a view to involvement in the projects as appropriate. 23
17. The Secretariat is requested to forward the following documents as working papers to VTS52 for further development: VTS51-13.3.1.6 WP TG-1.2.5 Guiding Principles; VTS51-13.3.1.5 WP TG.1.2.5 Discussion paper - Implications of MASS from a VTS perspective as at VTS51. 23
18. The Secretariat is requested to forward the WP draft guideline on Safety Culture (VTS51-13.3.1.7) as a working paper to VTS52 for further development. 23
19. The Secretariat is requested to note the new proposed objectives of task 1.3.2 and highlight to Council that the VTS Committee believe that it would be more appropriate for this task to be completed as a Guideline rather than a Recommendation. 24
20. The Secretariat is requested to forward the following documents as working papers to VTS52 for further development: VTS51-13.3.1.8 WP Task 1.4.3 - Future VTS and VTS51-13.3.1.9 WP Guiding Principles - Future VTS (1.0). 25
21. The Secretariat is requested to action the updates and editorial amendments to the VTS Manual described at VTS51-13.1.1.7 VTS Manual updates pending the outcomes from the IMO Assembly regarding the ‘new’ VTS resolution and Council approval of the documents forwarded from VTS51. 26
22. That the Secretariat forward the working paper on draft IALA Guideline on the portrayal of VTS information and data (VTS51-13.3.2.1) to VTS52. 26
23. The Secretariat is requested to forward the following working papers to VTS52 for further development: WP Draft G 1111 Establishing Functional & Performance Requirements for VTS systems (VTS51-13.3.2.4); WP Draft G.1111-1 (VTS51-13.3.2.5); WP G1111-2 Producing Functional and Performance Requirements for Voice Communications (VTS51-13.3.2.6); WP G1111-3 Producing Requirements for RADAR systems (VTS51-13.3.2.7); WP G 1111-4 Producing Functional and Performance Requirements for AIS and VDES systems (VTS51-13.3.2.8); WP G 1111-5 Producing Functional and Performance Requirements for Environment Monitoring systems (VTS51-13.3.2.9); WP G 1111-6 Producing Functional and Performance Requirements for Electro Optical systems (VTS51-13.3.2.10); WP G 1111-7 Producing Functional and Performance Requirements for Radio Direction Finder systems (VTS51-13.3.2.11); WP G 1111-8 Producing Functional and Performance Requirements for Long Range Sensor system (VTS51-13.3.2.12); WP Task 2.2.2j G.1111-9 Framework for Acceptance of VTS Systems (VTS51-13.3.2.13). 28
24. That the Secretariat forward the working paper on develop a Product Specification under the S-100 framework for VTS (VTS51-13.3.2.2) to VTS52. 28
25. The Secretariat is requested to forward the Liaison Note regarding a proposal to update Guideline G1088 Introduction to Preparing S-100 Product specification (VTS51- 13.1.2.2) for their consideration. 28
26. That the Secretariat forward the working paper on review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service (VTS51-13.3.2.3) to VTS52. 29
27. That the Secretariat forward the working paper IALA Guideline on Human Factors and Ergonomics in VTS (VTS51-13.3.3.1) to VTS52. 30

28. The Secretariat forward the draft IALA Guideline on VTS Management (VTS51-13.1.3.1) to IALA Council for approval and issue on publication of the new IMO Resolution – Guidelines for Vessel Traffic Services. 30
29. That the Secretariat forward draft IALA Model Course V103/1 (VTS51-13.3.3.2) to VTS52 as a working paper. 31
30. The Secretariat is requested to forward the revised IALA Guideline on Accreditation of VTS Training Organizations and Approval to Deliver IALA Model Courses (VTS51-13.1.3.) to IALA Council for approval and issue on publication of the new IMO Resolution – Guidelines for Vessel Traffic Services. 32
31. The Secretariat is requested to forward the Liaison note to ARM on the proposed revision to the IALA NAVGUIDE (VTS Section) (VTS51-13.1.0.1) to the ARM Committee. 32
32. The Secretariat is requested to update VTS51 output documents with the new reference number for IALA Model Courses. 34
33. The Secretariat is requested to finalize and forward the report of VTS51 (VTS51-14.1) to the IALA Council, to note. 34

Action Items for Participants

34. That Committee participants share VTS51-9.1.3 and 9.1.3.1 which provides information on the changes associated with the revision to IMO Resolution A.857(20) amongst all relevant stakeholders in order that they are best prepared for the changes. 13
35. WG Chairs and Task Group Leaders are requested to e-mail any updates on the present Task Register to the VTS Vice-chair, Dirk Eckhoff (dirk.eckhoff@wsv.bund.de) by 17 December 2021 so that a consolidated version can be provided to VTS52 as input for the Committee’s consideration. 17
36. Committee participants are asked to provide proposals of new tasks for next WP in the new template format until 17 December 2021. 18
37. The Committee Management Team is requested to process the new tasks and provide an updated VTS Task Plan to VTS52. 18
38. That Committee participants are invited to join the intersessional task group 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 31 October 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 23
39. The Intersessional Group working on the development of guidance on the implications of MASS from a VTS perspective is requested to prepare an updated draft document as an input to VTS52. 23
40. That Committee participants are invited to submit comments and remarks on the WP draft guideline on Safety Culture (VTS51-13.3.1.7) to Trond Ski (trond.ski@kystverket.no) by 30 November 2021. 24
41. That Committee participants are invited to join the intersessional task group working on the Future VTS to express their interest to Neil Trainor (neil.trainor@amsa.gov.au) by 22 October 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 25

42. The Intersessional Group working on the Future VTS is requested to prepare an updated draft document as an input to VTS52. 25
43. That Committee participants consider participating in the intersessional group working on Task 2.1.1 to further develop the draft Guideline on the portrayal of VTS information and data, should contact Peter Kito (peterkito@jrcamerica.com) by 31 October 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 26
44. The Intersessional Group working on the development of a guideline on portrayal of VTS information and data is requested to prepare an updated draft guideline as an input to VTS52. 26
45. That Committee participants consider participating in the intersessional group working on Task 2.2.1 Review and update Recommendation V-128 on Operational and Technical Performance of VTS Systems should contact Richard Aase (Richard.aase@kystverket.no) by 31 October 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 27
46. The Intersessional Group working on the review and update of Recommendation V-128 on Operational and Technical Performance of VTS Systems is requested to prepare an updated draft document as an input to VTS52. 27
47. That Committee participants confirm their interest in joining an intersessional group working the various sub-annexes of G1111 by submitting an email no later than 31 October 2021 to the designated Intersessional Task Group Leader, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 28
48. Each Intersessional Group working on the various sub-annexes of G1111 is requested to prepare an updated draft guideline as an input to VTS52. 28
49. That Committee participants provide comment on WP Draft G1111 Establishing Functional & Performance Requirements for VTS systems (VTS51-13.3.3.2) as input to VTS52. 28
50. That Committee participants provide comment on WP Draft G1111-9 Framework for Acceptance of VTS Systems (VTS51-13.3.2.13) as input to VTS52. 28
51. That Committee participants consider participating in the intersessional group working on Task 2.3.1 Develop a Product Specification under the S-100 framework for VTS should contact Wim Smets (Wim.smets@mov.vlanderen.be) by 31 October 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 28
52. The Intersessional Group working on developing a Product Specification under the S-100 framework for VTS is requested to prepare an updated draft document as an input to VTS52. 28
53. That Committee participants consider participating in the intersessional group working on Task 2.3.2 Review and update Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) Service should contact Rene Hogendoorn (Rene.hogendoorn@saabgroup.com) by 31 October 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 29
54. The Intersessional Group working on the review and update of Recommendation R0145 (V-145) on the Inter-VTS Exchange Format (IVEF) is requested to prepare an updated draft document as an input to VTS52. 29
55. That Committee participants are requested to confirm their interest in joining the intersessional group reviewing the draft Guideline on Human Factors and Ergonomics in VTS by submitting an e-mail to A Ovcharenko (aleksandr.ovcharenko@wartsila.com) not later than 1 November 2021,

- noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 30
56. The Intersessional Group working on reviewing the draft Guideline on Human Factors and Ergonomics in VTS is requested to prepare an updated draft document as an input to VTS52. 30
57. That Committee participants consider participating in the intersessional group working on review and update model course V-103/1 should contact Jillian Carson-Jackson (jillian@jicconsulting.net) by 12 November 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard. 31
58. The Intersessional Group working on review and update model course V-103/1 is requested to prepare an updated draft document as an input to VTS52. 31



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