![IALA logo]

IALA VTS COMMITTEE

REPORT OF THE 50TH SESSION OF THE IALA VESSEL TRAFFIC SERVICES (VTS) COMMITTEE

10 - 31 March 2021
Virtual Meeting

Thomas Southall
Committee Secretary

31 March 2021

This page intentionally blank

Report of the 50th Session of the IALA Vessel Traffic Services (VTS) Committee

Executive Summary

The 50th meeting of the VTS Committee was held from 10 – 31 March 2021 virtually with Monica Sundklev as Chair and Dirk Eckhoff as Vice-Chair. The Secretary for the meeting was Thomas Southall.

170 Participants from 33 countries, five Sister organisations participated in VTS50. 41 participants attended for the first time.

The VTS Committee considered 93 input papers and produced 42 output papers, including working papers, from three Working Groups.

The meeting was carried out in accordance with the updated *Virtual Committee Arrangements* online. Approximately 84 meetings were arranged.

Key outputs completed included:

- New Guideline (Gxxxx) on Competencies Planning & Implementing a VTS
- Revised G1017 on Assessment for Recognition of Prior Learning in VTS Training
- Revised G1110 on Use of Decision Support Tools for VTS Personnel
- Revised G1132 on VTS Voice Communications and Phraseology
- Revised G1141 on Operational Procedures for Delivering VTS
- Revision of various VTS related IALA documentation - editorial alignment in preparation for the new VTS IMO resolution (to remain within the Committee until after VTS51)
- VTS Manual 7.1 - updates

The following liaison notes were prepared:

- Liaison Note to ARM and ENAV on Cyber Security
- Liaison Note to ARM regarding ITU matters
- Liaison note to ARM regarding the revision of MBS
- Liaison note to ARM and Secretariat on Maritime Services
- Liaison Note to ARM regarding the Ship Reporting Guideline

Overall status of the VTS Committee 2018-2022 Work Programme after VTS50:

Task	Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
				Green	Yellow	Red	
WG#1 – Operations							
1.1.1 Revision of IMO Resolution A.857(20) Guidelines on Vessel Traffic Services	45	47					**Completed** 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					**Completed** 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	50	51	■			**In Progress**
1.1.1.3 Review and update Rec V-120 to be a GL under Rec. R0127 or R0119	50	51		■			**In Progress**
1.1.2 Review and update V-119 on the Implementation of Vessel Traffic Services (R0119) (Output to be a revised Recommendation and associated Guideline),(includes task 1.1.3)	47	50	49				**Completed** R0119 - Establishment of VTS (Ed.4.0) and G1150 - Establishing, Planning and Implementing VTS (Ed.2.0) approved at C72
1.1.3 Develop a guideline on Competencies for Planning and Implementing	49	50					**Completed** *Pending approval at C73*
1.1.4 Develop a Guideline on the Provision of Local Port Services (LPS)	45						**Completed** G1142 - The Provision of Local Port Services other than VTS (Ed.1.0) approved at C68
1.2.1 Review and update V-127 on Operational Procedures for Vessel Traffic Services (Output to be a revised Recommendation and associated Guideline)	45	51					**Completed** R0127 - VTS Operations (Ed.3.0) and G1141 - Operational Procedures for Vessel Traffic Services (Ed.1.0) approved at C68 *Updated G1141 pending approval 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					**Completed** *Pending approval at C73*
1.2.3 Develop a Guideline for Promulgating the Requirements of a VTS to Mariners – A VTS Users Guide Template	45	46					**Completed** G1144 - Promulgating the Requirements of a VTS to Mariners – A VTS Users Guide Template (Ed.1.0) approved at C69
1.2.4 Develop a Guideline on Maritime Services in the context of e-Navigation relating to VTS	45	51		■			**In Progress** Merged with task 1.2.7
1.2.5 Develop a Guideline on the implications of maritime autonomous surface ships from a VTS perspective	50	51					**In Progress**
1.2.6 Develop a Guideline on how to develop a safety culture in VTS	50	51					**In Progress**
1.2.7 ~~Develop Guideline on the development and implementation of VTS related MS's other than MS 1, 2 and 3~~	~~46~~	~~48~~					**Merged with Task 1.2.4**

Task		Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
					Green	Yellow	Red	
1.2.8	Develop a IALA Reference List on IALA Documentation Relating to VTS	45						**Completed** Released Dec 2019
1.3.1	Update Guideline G1132 on VTS Voice Communication, including VTS standard Phrases/Phraseology	45	48	50				**Completed** *Pending approval at C73*
1.3.2	Develop a Recommendation on Digital information transfer between ship and shore in VTS operations (operational aspects)	51	51			Yellow		
1.4.1	Continuous update of VTS Manual	46	51	51		Green		**Ongoing** VTS Manual 2021 approved at C71. Manual now updated following each Committee meeting.
1.4.2	Develop procedures for the ongoing management and conduct of the Global VTS Questionnaire	45	46	51		Yellow		**On Hold** Pending resourcing
1.4.3	Prepare a "living document" on "Future VTS", including emerging technologies and human element	50	51			Green		**In progress**
1.4.4	~~Produce a Guideline on preparing for Zero Accident Campaign~~							**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	51		Yellow		**In Progress**
2.1.2	Develop a Recommendation and Guideline on Cyber-Security in AtoN operations (lead by ARM, all Committees via Workshop)	47	50	51		Yellow		**In Progress**
2.2.1	Review and update Recommendation V-128 on Operational and Technical Performance of VTS Systems	49	51			Green		**In Progress**
2.2.2	Review and update Guideline 1111 on Preparation of Operational and Technical Performance Requirements for VTS Systems	45	48	51		Green		**In Progress**
2.2.3	~~Develop a Guideline on Acceptance of VTS systems~~	45	46	51				**Merged with Task 2.2.2**
2.3.1	Develop a data model for digital information services for VTS	45	47	51		Green		**In Progress**
2.3.2	Review and update Recommendation V-145 on the Inter-VTS Exchange Format (IVEF) Service (Output to be a revised Recommendation and associated Guideline, including a product specification S-210))	50	51			Green		**In Progress**
WG#3 –Training								
3.1.1	Develop a Guideline on human factors and ergonomics in VTS	46	49	51		Green		**In Progress**
3.2.1	Develop a Guideline on the management of a VTS	45	49	51		Yellow		**In Progress**
3.2.2	Review, update and reformat Guideline 1045 on Staffing Level at VTS centres	45	45					**Completed** G1045 - Staffing Levels at VTS Centres and its associated spreadsheet (Ed. 1.1) approved at C68

Task		Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
					Green	**Yellow**	**Red**	
3.3.1	a. Review and split R0103 (V-103) to a Recommendation and Guideline	45	48	49		🟩		**Completed** R0103 - Training and Certification of VTS personnel (Ed.3.0) and G1156 - Recruitment, Training and Certification of VTS personnel (Ed.1.0) approved at C72
	b. Review / update Model Course 103/1 – VTS Operator	49	51			🟩		**In Progress**
	c. Review / update Model Course 103/2 – VTS Supervisor	50	51			🟩		**In Progress**
	d. Review / update Model Course103/3	50	51			🟩		**In Progress**
	e. Review / update Model Course 103/4	50	51			🟩		**In Progress**
	f. Review / update Model Course 103/5	50	51			🟩		**In Progress**
3.3.2	Review and update Guideline 1017 on Assessment for Recognition of Prior Learning in VTS Training	47	50					**Completed** *Pending approval at C73*
3.3.3	~~Produce a VTS Training Manual to complement V-103 and its model courses~~	~~48~~	~~51~~					**Task discontinued**
3.4.1	Review and update Guideline 1014 on the Accreditation and Approval Process for VTS Training	49	51			🟩		**In progress**
3.5.1	a. Develop guidance on VTS training for deck officers	45	46	47				**Completed** G1149 - VTS Training for Deck Officers (Ed.1.0) approved at C70
	b. Develop Recommendation on Marine Aids to Navigation awareness for Mariners	47	49					**Completed** R1021 - Marine Aids to Navigation Awareness for Mariners (Ed.1.0) 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

Table of Contents

Report of the 50th meeting of the IALA
Vessel Traffic Services (VTS) Committee

1. INTRODUCTION

The 50th meeting of the VTS Committee was held from 10 - 31 March 2021 virtually with Monica Sundklev as Chair and Dirk Eckhoff as Vice-Chair. The Secretary for the meeting was Thomas Southall.

170 Participants from 33 countries, five Sister organisations participated in VTS50. 41 participants attended for the first time. A breakdown of the participants is shown in the graph below.
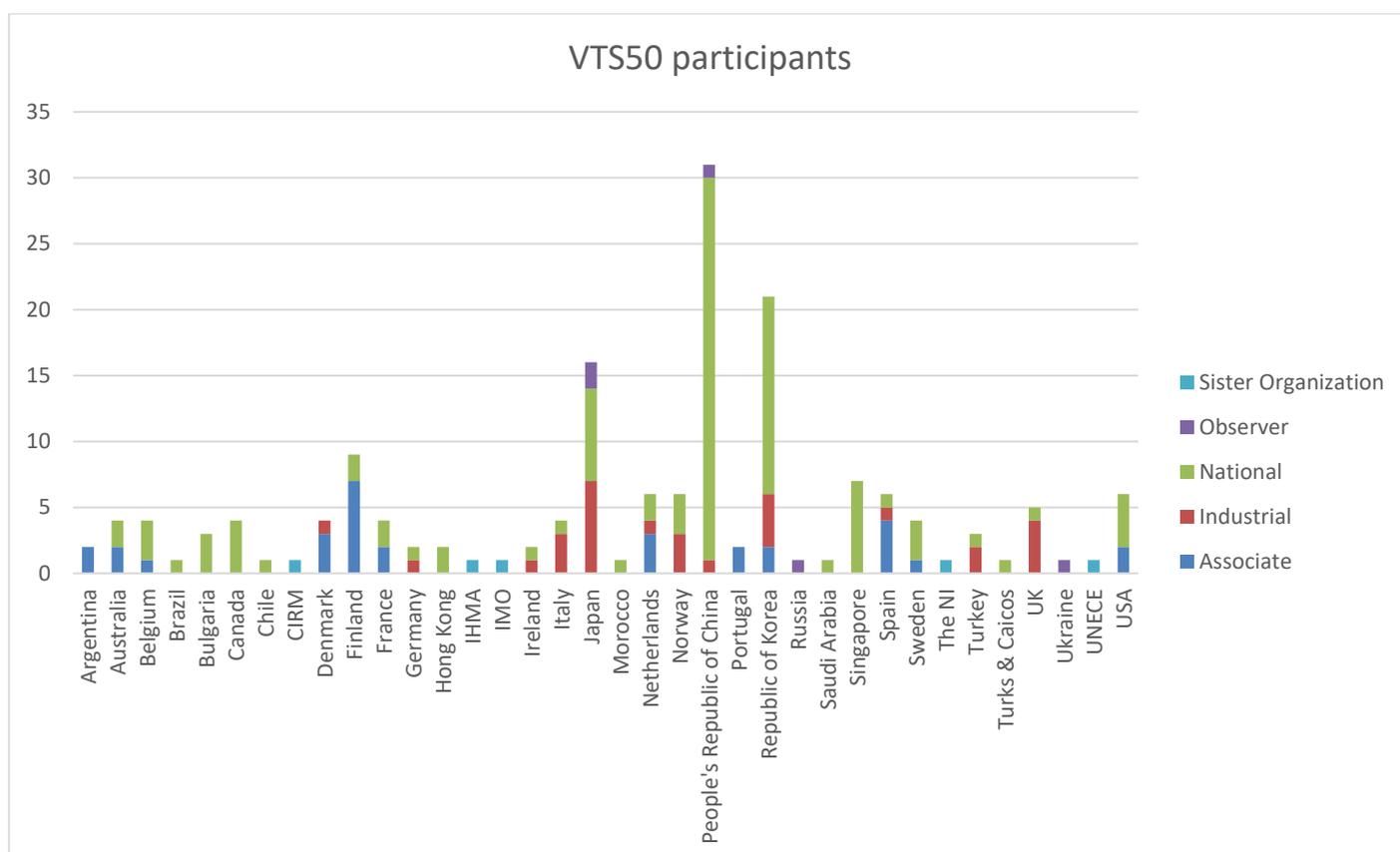
1.1   Welcome from the Chair of the VTS Committee

The Chair of the VTS Committee, Monica Sundklev welcomed all participants to the 50th 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 thanked everyone who had participated in the 13 intersessional task groups and especially to the 13 task group leaders who had devoted so much time to progress the tasks in a successful way.

The Chair also announced that the VTS Manual 2021 finally had been published and now it can be found as an electronic version on IALA web page. She thanked the editor Neil Trainor from AMSA, as well as Audrey Guinault and Tom Southall from the IALA secretariat and not to mention all those who provided photographs for all their hard work and contributions to a modern and updated Manual.

1.2   Welcome from the Secretary-General

Francis Zachariae, Secretary-General of IALA welcomed all participants to VTS50, he stated:

"Notwithstanding the COVID-19 pandemic restrictions IALA and the World-Wide Academy are on track with their respective work programmes and planned activities.

Each of the four Committees and the Legal Advisory Panel will meet remotely once again, during March and April, in accordance with established procedures. These innovative working arrangements proved remarkably effective for the meetings in the latter part of last year. In total, 546 attendees from 35 countries and sister organisations logged on, and 139 participants attended for the first time. An updated version of the arrangements will be discussed later on the agenda.

This success is a great tribute to the flexibility of the committee participants, and I would thank all of you for your tremendous efforts and work in the well-known spirit of IALA.

Even during this difficult time, you managed to finalize the VTS manual. Thank you to all involved and especially to Neil Trainor who took the heavy task of being the editor.

Face-to-face meetings remain IALA's preferred mode of operation, and the Secretariat is planning for the committee and panel meetings to take place with a physical element at the IALA Headquarters during second half of this year. A physical element because the meeting will most probably be in a new hybrid version with a combination of virtual and physical meetings. As we speak the Headquarters is being updated with new Wi-Fi and equipment for a more hybrid and virtual post pandemic method of working.

However, everything – especially long-term planning - is of course uncertain for the moment, and we have to follow the health situation very carefully. There is a risk that all meetings for the rest of 2021 will actually be virtual.

All information on the postponed 2020 IALA Symposium is available from the official website. After our Steering Group meeting last week, the Netherlands Ministry of Infrastructure and Water Management and the Secretariat have been finalizing the details of the programme together with the online registration arrangements.

I would also like to mention that on the initiative of the Netherlands and Singapore PAP has established a cross committee MASS working group. The group will examine the way forward for IALA with regard to the MASS developments.

I am pleased to report that the Minister for Maritime Affairs of France, signed the Convention on the International Organization for Marine Aids to Navigation on 27 January 2021 on behalf of the French Republic. The Convention is now open for signature by interested States during the next 12 months. Thereafter, it will be open for accession by any State that is a member of the United Nations. I am confident of speedy progress as many of the 50 States who agreed to adopt the Convention at the Diplomatic Conference held in Kuala Lumpur in February 2020 indicated their readiness to sign it. The text is also ready in the six official languages of the UN on the web site.

I would also like to inform you that the coming issue of the Bulletin will be the last printed version. Its long-established provision of important updates on IALA and WWA activities will however continue via the regularly e-mailed, electronic newsletter – the e-Bulletin. I encourage you all to send your ideas or articles to the Secretariat for the next editions.

You have a busy period ahead. I wish you good luck and thank you once again for your contribution to global safety of navigation."

1.3   Approval of the agenda

The agenda was reviewed and approved (VTS50-1.2.1).

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 VTS50 can be found here.
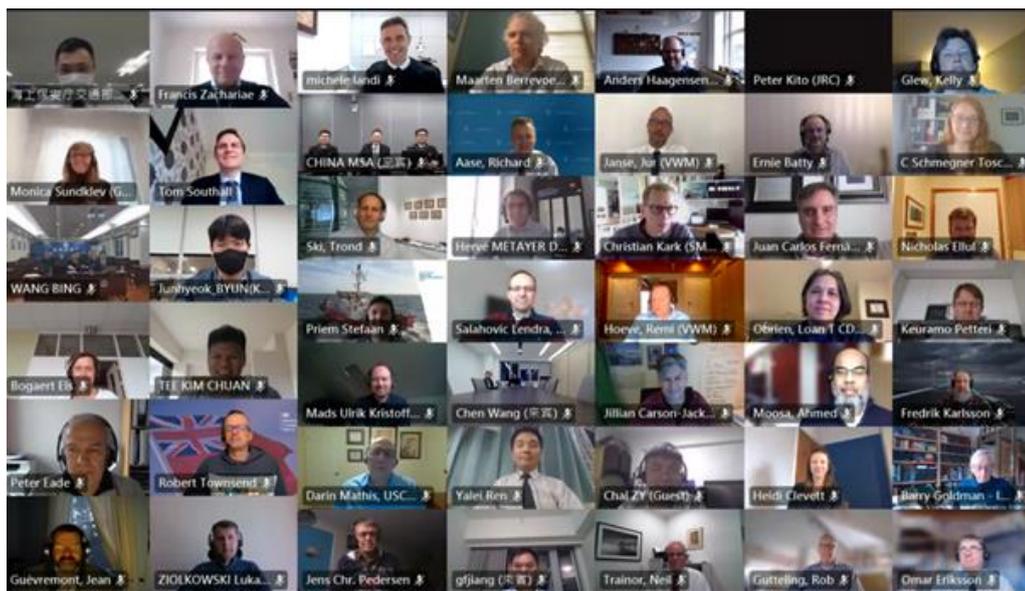
1.5 Working Arrangements

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 VTS50 Action Plan, that had been agreed by the VTS Committee Management Team to be progressed during VTS50 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 VTS50 were displayed in the *Action Plan*, which can be found here.

2. REVIEW OF ACTION ITEMS FROM VTS50

Input paper VTS50-2.1.1 refers.

The Committee Secretary confirmed that all Secretariat and participant actions from VTS50 were completed.

3. REVIEW OF INPUT PAPERS

3.1 Input papers to VTS50

Input papers were noted as listed in VTS50-3.1.1.

3.2 Input papers not related to an existing task

The Chair highlighted a number of papers, these included:

- VTS50-3.2.3 and 3.2.3.1 Cross Committee Work on ITU Matters – ENAV will establish a cross-committee Task Group to provide input to ARM13, in order that an IALA response can be finalized. Fredrik Karlsson and Richard Aase were nominated to participate.

- VTS50-3.2.7 and 3.2.7.1 papers related to a ship reporting Guideline from the ARM Committee – the Chair highlighted the presentation that ARM Task Group Leader, Fred Pot, gave to the VTS Committee and encouraged participants to join.

4. REPORTS FROM OTHER BODIES

4.1 IALA

4.1.1 IALA Council

The 72nd session of the IALA Council was held virtually from 8 to 10 December 2020 by videoconference. The Chair, Monica Sundklev, highlighted all the documents that were submitted by VTS49 and approved by Council 72. The Chair went on to report that the Council have emphasised the need for IALA to focus and coordinate its efforts on MASS issues.

Council decided not to approve the draft Guideline on Ship Reporting from a shore-based perspective from ARM Committee but to send it to both ARM and VTS for further revision (see input paper VTS50-3.2.7 and 3.2.7.1).

Finally, the Committee congratulated Singapore after it had been chosen to host the 2024 IALA Symposium.

4.1.2 IALA Policy Advisory Panel

The Chair, Monica Sundklev, reported to the Committee that the 41st session of PAP was held virtually on 3 - 5 February 2021. The current Work Programme and cross-committee cooperation on various subjects were discussed.

As directed by Council the PAP agreed to establish a proposed MASS group that will report to PAP, and that the Secretariat finalizes the terms of reference for the group. PAP also agreed that the Netherlands should provide the chair and Singapore the vice chair. One representative from each committee will be appointed by each committee chair. The Chair encouraged the VTS Committee to focus on the MASS tasks currently in the Work Programme.

The PAP were also updated on many items including:

- IALA's input to MSC103 regarding the update of IMSAS

- The future of DGNSS

- IALA S-200 development

- Maritime Resource Name (MRN)

- Arrangements for the upcoming virtual committees

- The introduction of the new IALA Style Guide

4.2 IMO

The Chair reported that whilst many IMO meetings were postponed to the end of the year, MSC 102 went ahead in November 2020. MSC 102 approved the revised resolution on guidelines for VTS A.857(20), and this would now be submitted to the IMO Assembly December 2021. The Committee noted that the IMO Secretariat had made editorial amendments post MSC102 and that IALA Secretariat would continue to liaise with them on this matter.

The Committee also noted that all IMO work on the Regulatory Scoping Exercises on MASS had been postponed during 2020.

IALA input to HTW 7 on Vessel Traffic Service training for deck officers (VTS48-10.5.1.1) has been deferred to the next HTW meeting.

In addition, the Committee noted a proposal for a new output on amendments to SOLAS chapter V and development and revision of relevant IMO instruments to introduce VHF Data Exchange System (VDES) by Japan, Norway and Singapore.

The Expert Group of Data Harmonization (EGDH) of IMO FAL Committee had a 4th meeting in October -20 developing harmonized data set for electronic transmission to be used in the FAL Compendium and this may affect ship reporting developments. Next meeting of FAL45 and EGDH5 will take place in June -21.

5. REPORTS FROM RAPPORTEURS

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

Rapporteur: Neil Trainor

Neil Trainor, AMSA, thanked the Chair for her update to the Committee on IMO matters and re-iterated her comments on the revision of IMO Res. A857(20)..

5.2 VTS questionnaire coordination group

Rapporteur: Neil Trainor

This task is currently on hold. Neil Trainor recalled that there had been a call for participants to assist and reiterated for assistance on this matter.

5.3 e-Nav operational service description

Rapporteur: Fredrik Karlsson

Frederik Karlsson, SMA, updated the Committee on matters surrounding e-Nav operational service description.

5.4 IALA NAVGUIDE

Rapporteur: Jillian Carson-Jackson in conjunction with Minsu Jeon

Jillian Carson-Jackson provided an update on the approach for the VTS section in the NAVGUIDE. As this section is only four pages within the guide and now that the VTS Manual has been published, the committee noted that it would be more appropriate to strengthen the reference to the VTS Manual in the NAVGUIDE. It was further noted that there would be amendments following the approval of the new IMO VTS Resolution.

Minsu Jeon explained that since the NAVGUIDE also will be an electronic document, there would be more time to develop the VTS section further.

5.5 Update on IALA VTS-ENAV Symposium 2021

Rapporteur: Maarten Berrevoets

On behalf of the Symposium hosts, Maarten Berrevoets, provided VTS50 with a brief update. The Symposium will take place 12 - 16 April 2021 as a virtual event. There is a five day programme broadcast as a live event from Rotterdam. The programme for the event is published on the Symposium website. VTS Committee participants were encouraged to register on the website and follow the Symposium between 11:00 – 14:00 UTC.

6. PRESENTATIONS

6.1 Ship reporting from a shore based perspective / Fred Pot

Fred Pot introduced the work of the ARM Committee regarding the proposed Ship Reporting Guideline. Video link

6.2 IALA World-Wide Academy Update / Kevin Gregory

Update on the activities of the Academy during the period of COVID-19. Video link

6.3 EMSA project for the facilitation of ship to shore reporting / Lazaros Aichmalotidis and Lukasz Ziolkowski

EMSA introduced there project for the facilitation of ship to shore reporting. Video link

6.4 Port activity application SaaS service in Finland / Olli Soininen

Finland VTS introduced the port activity application SaaS service in Finland and utilization of the IALA S-211 compliant information exchange. Video link

6.5 Remote VTS training / Dmitry Rostopshin and Jillian Carson Jackson

Dmitry Rostopshin and Jillian Carson Jackson introduced a new and innovative way of conducting VTS training remotely during the period of COVID-19. Video link

7. WORK PROGRAMME 2018-2022

7.1 VTS Task Plan and Task Register

An updated Task Plan pre-VTS50 (VTS50-7.1.1.1) was noted by the Committee. The Committee Management Team made further updates to the Task Plan (VTS50-13.3.0.1) and Task Register (VTS50-13.3.0.2) that will be forwarded to VTS51.

Action item:

*The **Secretariat** is requested to forward the updated Task Plan (VTS50-13.3.0.1) and Task Register (VTS50-13.3.0.2) to VTS51.*

7.2 Action Plan for VTS50

The Committee noted and worked in accordance with the VTS50 Action Plan, which was published on the VTS Dashboard, and can be found here.

7.3 VTS tasks for work programme 2022 – 2026

At VTS49 participants were requested to submit task proposals for the future work program. Two proposals were provided as input to VTS 50 (VTS50-7.3.1 and VTS50-7.3.2). Inspired by the drivers and trend, the WG Chairs also provided input to the future Work Programme.

Due to the postponement of the IALA Conference to 2023 the committees will have two extra sessions to work in 2022 and need to extend the task plans based on the current work program 2018 - 2022. This requires a thorough review of the work program and the task plan to reassess postponed work items as well as to consider including new tasks. The proposed new tasks will be considered by the Committee and Working Group chairs at the revision of the Committee´s present work program with the perspective to finalize new tasks within the two additional sessions of the prolonged period.

Action item:

*That **Committee Participants** are requested to provide new task proposals for the 2023-2027 Work Programme, including description in the task register template, as input to VTS51.*

7.4 IALA Standards

Task group leader: Dirk Eckhoff

PAP41 had asked the VTS Committee to review the IALA Standards relevant for VTS and submit amendments to PAP for further considerations.

The VTS Committee noted the request and started to review the Standards, but realized that it would need more time for further considerations and possible suggestions.

During VTS50 it was announced that IALA Conference be postponed until 2023 resulting in two extra sessions for the committees to continue working in accordance with the Work Programme. Therefore the VTS Committee decided to continue the work intersessionally.

Action item:

*That **Committee Participants** are invited to join the intersessional group on the review by the VTS Committee of IALA Standards and express their interest to Trond Ski (trond.ski@kystverket.no) by 15 April, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.*

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)

Just over 100 individual participants attended at least one of the many Task Group meetings formed under Working Group 1 - Operations during VTS50.

Working Group 1 progressed 11 of the 12 remaining tasks assigned under the 2018 – 2022 Work Programme. Tasks 1.1.3, 1.2.1, 1.2.2 and 1.3.1 were finalized during this session. Furthermore, task 1.1.1.2 was finalized and approved. Despite this the task is put on hold to enable further adjustments to be made at VTS51. The working group produced a total of 7 output papers and 9 working papers for the Committee Secretary to progress. Intersessional work is planned to further progress 4 of the 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 VTS50 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:

- VTS50-9.1.3 IALA Docs Editorial Alignment - Input Paper – final
- VTS50-9.1.3.1 IALA Docs Editorial Alignment - Draft Council Liaison Note - final

A package of amended documents and a covering liaison note to Council was approved by the silent approval procedure. Following a review of likely relative timings between the release of the new VTS Guideline post adoption by the IMO Assembly and the December IALA Council meeting Council 74, together with anticipated further minor amendments to the draft resolution post MSC102, it was decided to place this package on hold. This will enable any further adjustments to be made and permit the addition to any documents submitted to Council meeting C73 (June 2021) that refer or reflect IMO Resolution A.857(20) and require alignment to the new resolution.

Action item:

*The **Secretariat** is requested to forward the package of amended documents and the WP draft Council Note regarding editorial alignment with the new IMO resolution (VTS50-13.3.1.1) as a working paper to VTS51 for further development.*

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

During VTS50 the committee considered the following input papers regarding the review and update of Recommendation V-120:

- VTS50-3.2.1 Input Paper VTS in Inland Waters
- VTS50-3.2.1.1 Draft Gnnnn - VTS in Internal Waters

This new task was well supported by committee participants with inland waters experience and included representatives from UNECE. Good progress has been made in revising the current recommendation and transposing it into a guideline. The task has been slightly more complicated than originally envisaged; however, a more useful document is emerging. The task will continue into VTS51 and a core of task group members have volunteered to continue work intersessionally in order to ensure that a mature draft can be considered and the task concluded at VTS51.

Action item:

*That **Committee Participants** are invited to join the intersessional group on the review and update of Recommendation V-120 in Inland waters and express their interest to IHMA (barry.goldman@btinternet.com) by 15 April, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.*

*The **Secretariat** is requested to forward the WP draft Guideline VTS in Internal Waters (VTS50-13.3.1.2) as a working paper to VTS51 for further development.*

9.3 Task 1.1.3 - Develop guidance on training needs for those involved in the planning and implementation of a VTS

Task group leader: Neil Trainor

A review of the working paper prepared intersessionally (*VTS50-9.1.2.1 TG 1.1.3 WP - Draft Guideline XXXX Competencies for Planning and Implementing VTS*) culminated in the draft being completed with minor amendment, noting the Guideline:

- provides clear and concise guidance to ensure those responsible for the planning and implementation are competent in the practices described in Recommendation R0119 - Establishment of VTS and associated Guideline G1150 - Establishing, Planning and Implementing VTS; and
- will also assist:
  - o VTS authorities to prepare any necessary On-the-Job Training for staff deemed necessary;
  - o VTS authorities to identify possible external training needs (e.g. project management); and
  - o VTS training organisations to prepare courses upon request.

Action item(s):

*The **Secretariat** is requested to forward the Guideline on Competencies for Planning and Implementing a VTS (VTS50-13.1.1.1) to Council for approval.*

9.4 Task 1.2.1 - Review and update Guideline G1141 on Operational Procedures for Delivering VTS

Task group leader: Trond Ski

At VTS50 the committee continued the review of draft Guideline G1141 Operational Procedures for Delivering VTS (VTS50-9.2.2). At the initiative of Task Group 1.1.1.2, a review of relevant parts of Guideline G1045 (section 2.2) and Guideline G1102 (Annex C) was conducted to identify text suitable for inclusion into Guideline G1141. Furthermore, on request of Task Group 1.3.1, a review of Guideline G1132 (Chapter 7) was conducted to identify relevant text for inclusion into G1141. The review of draft guideline G1141 was completed with a restructuring of the introductory chapters and some other minor amendments, including inclusion of text from the guidelines G1045, G1102 and G1132. Chapter 7 was thus withdrawn from Guideline G1132. The task was completed and the revised Guideline will be forwarded to Council for approval.

Action item(s):

*The **Secretariat** is requested to forward the revised Guideline G1141 Operational Procedures for Delivering VTS (VTS50-13.1.1.2) to Council for approval.*

*The **Leader of Task Group 1.1.1.2** is invited to note the inclusion of relevant text from Guideline G1045 (section 2.2) and Guideline G1102 (Annex C) into the revised Guideline G1141.*

9.5 Task 1.2.2 – Update Guideline G1110 on Decision Support Tools for VTS personnel

Task group leader: Heidi Clevett

During VTS50 the Committee continued and completed the review and update of Guideline G1110 (VTS50-9.2.3) on the Use of Decision Support Tools for VTS Personnel. The Guideline has been 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 Guideline provides effective guidance on the use of decision support tools to assist VTS personnel, when considering decisions on evolving or emergency situations.

Action item(s):

*The **Secretariat** is requested to forward the revised Guideline G1110 Use of Decision Support Tools for VTS Personnel (VTS50-13.1.1.3) to Council for approval.*

9.6 Task 1.2.4 – Develop a Guideline on Maritime Services In the context of e-Navigation relating to VTS

Task group leader: Malin Dreijer

The committee commenced the adaption of the current MS1-3 (VTS50-9.2.4) to the revised IMO Resolution on Vessel Traffic Services. The Task Register was further reviewed and updated. Task 1.2.7 has now been fully merged with task 1.2.4 and can thus be deleted from the Task Register. IMO has proposed to review "Initial descriptions of maritime services in the context of e-navigation" in March - April next year. Due to this, members of the task group identified the need to complete the work initiated at VTS50 through two intersessional meetings in May. This to facilitate the work to be conducted at VTS51 and to provide an opportunity to complete the current revision of MS1-3 ahead of the announced IMO revision. The dates for the intersessional meetings, initially planned as two sessions on May 11 and May 19 0900 - 1100 UTC, will be posted on the VTS dashboard calendar.

Action items:

*That **Committee Participants** are invited to join the intersessional group on Maritime Services and express their interest to (malin.dreijer@kystverket.no) by 15 April 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.*

*The **Secretariat** is requested to forward the liaison note to ARM and Secretariat on Maritime Services (VTS50-13.1.1.4) for their consideration.*

*The **Secretariat** is requested to forward the WP draft Guideline on Maritime Services (VTS50-13.3.1.3) and WP Appendix 1 MS1-3 (VTS50-13.3.1.4) as working papers to VTS51 for further development.*

*The **Vice-chair of the VTS Committee** to delete task 1.2.7 from the Task Register as this has now been merged with task 1.2.4.*

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

Task group leader: Neil Trainor

As scheduled in the IALA's 2018 - 2022 Work Programme, work commenced on developing guidance on the implications of MASS from a VTS perspective at VTS50 by:

- Reviewing / updating the Task Register, noting the contents have not been reviewed since the 2018 - 2022 Committee Task Plan was approved by Council in December 2017. A copy of the Task Register is available at *VTS50-13.3.0.2 WP VTS Task Register 2018-2022*.

- Preparing '*Guiding Principles'* to assist drafting the guidance. These were prepared based on assumptions that:

  o MASS be required to participate in VTS in the same manner as conventional ships. That is, the same regulatory reporting requirements and obligations with regards to the issue of advice, warnings and instructions as deemed necessary.

  o The Task Group should remain cognizant of, and contribute to, the scoping exercise being progressed by PAP cross-committee Group on the implications of MASS on VTS documents (*PAP41-6.1.5.1 Impact of MASS on Marine AtoN*).

The Guiding principles 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:

  o The advent of MASS within VTS areas and their interaction with conventional ships.

  o The data and information exchange between MASS, conventional ships, VTS and allied services.

  o 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; and

    - Responding to developing unsafe situations.

- Preparing a preliminary draft of the Guidance.

It was also agreed the Task Group would continue to work intersessionally on developing the guidance for consideration at VTS51.

Action item(s):

*The **Secretariat** is requested to forward the following documents as working papers to VTS51 for further development:VTS50-13.3.1.5 WP TG-1.2.5 Guiding Principles; VTS50-13.3.1.6 WP TG 1.2.5 Draft Guidance on the implications of maritime autonomous surface ships from a VTS perspective.*

*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 15 April 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.*

*The **Vice-chair of the VTS Committee** to rename task 1.2.5 in the Task Plan to reflect the new title - Develop guidance on the Implications of Maritime Autonomous Surface Ships (MASS) from a VTS Perspective.*

9.8 Task 1.2.6 - Develop guidance on Safety Culture in VTS

Task group leader: Trond Ski

As scheduled in the 2018 - 2022 Task Plan, work commenced at VTS50 on developing guidance on Safety Culture in VTS. Recognizing that the task originated from the 2016 IALA Symposium, it was noted that the content of the Task Register had not been reviewed since 2017, lacking information on objectives, expected outcome and compelling needs. Since IALA has established guidance on several topics related to "safety culture", it was recognized that the objectives of the task would not be to develop guidance on how to develop Safety Culture, but to promote focus on the concept of safety culture and to provide links to IALA guidance already developed. It was noted that this should be reflected in the task title and the Task Register was updated accordingly. China MSA kindly provided a draft guideline skeleton to be forwarded to VTS51 as a basis for further developments on the task.

Action item(s):

*The **Secretariat** is requested to forward the WP draft guideline skeleton on Safety Culture (VTS50-13.3.1.7) as a working papers to VTS51 for further development.*

9.9 Task 1.3.1 – Review Guideline G1132 VTS VHF voice communication to include phrases/phraseology

Task group leader: Michele Landi

The Committee considered the following input papers in connection with the review and update of draft Guideline G1132:

- VTS50-9.3.1 WP Attachment 1 - VTS Communication Phrases incorporating G1132 (VTS49-12.2.1.7)
- VTS50-9.3.2 Input paper - Draft Guideline on VTS voice communication and phraseology
- VTS50-9.3.2.1 Revised G1132 - VTS Voice Communications and Phraseology (8 Feb)

The Committee commenced the review by updating the task register. It was agreed that the scope of the task is to update the existing guideline on VTS VHF Voice Communication with phrases based on key operational and unsafe situations. By this final review the draft Guideline was completed.

Action item(s):

*The **Secretariat** is requested to forward the revised Guideline G1132 VTS voice communications and phraseology (VTS50-13.1.1.5) to Council for approval.*

9.10 Task 1.3.2 - Develop a Recommendation on Digital Information Transfer between Ship and Shore in VTS Operations (Operational Aspects)

Task group leader: Malin Dreijer

As scheduled in the 2018 - 2022 Task Plan, work commenced at VTS50 on task 1.3.2 - Develop Recommendation on Digital Information Transfer between Ship and Shore in VTS Operations. Discussions identified that the Task Register had not been reviewed since 2017 and that the objectives, expected outcome and compelling needs of the task was yet to be identified. The committee decided to start populating the Task Register at VTS51.

9.11 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:

With the release of VTS Manual 2021 (the Manual), the primary means of distribution is in a digital format.

- A key reason for moving to a digital format was that the Manual could be readily updated in 'real time' to reflect new or revised IALA Standards and associated Recommendations, Guidelines and Model Courses relating to VTS, as they are approved by Council.

- The Policy Advisory Panel approved the framework for synchronising the review and update of the contents of the Manual in February 2021 (*PAP41-5.11.2.1*).

The editorial amendments to the Manual to reflect the new/ revised documents completed at VTS50 are provided at VTS50-13.2.1 VTS Manual 7.1 - updates. These include:

- New guideline on Competencies for Planning and Implementing a VTS (Task 1.1.3).

- Revised Guideline 1141 - Operational Procedures for Delivering VTS (Task 1.2.1).

- Revised Guideline 1110 - Use of Decision Support Tools for VTS Personnel (Task 1.2.2).

- Revised Guideline 1132 – VTS Voice Communications and Phraseology – incorporating both VHF Voice Communications and Phraseology (Task 1.3.1).

- Revised Guideline 1017 – Assessment for Recognition of Prior Learning in VTS Training (Task 3.3.2).

In addition, minor editorial amendments identified since the release of the Manual in February 2021 were considered and are also provided at VTS50-13.2.1 VTS Manual 7.1 - updates.

Action item(s):

*The **Secretariat** is requested to action the updates and editorial amendments to the VTS Manual described at VTS50-13.2.1 VTS Manual 7.1 after Council approval.*

9.12   Task 1.4.3 - Prepare a "living document" on "Future VTS", including emerging Technologies and Human Element

Task group leader: Neil Trainor

As scheduled in the Committees 2018-2022 Task Plan, work commenced on preparing a "living document" on "Future VTS" by:

- Reviewing / updating the Task Register.

  A copy of the Task Register is available at *VTS50-13.3.0.2 VTS Task Register 2018 - 2022*.

- Preparing 'Guiding Principles' to provide a framework for preparing a high level reference document to assist the Committee:

  o   Be cognizant of emerging practices, technologies and trends that will affect the provision of VTS.

  o   Assess and monitor the potential impact, challenges and opportunities for VTS.

  o   Strategically embrace change and, in particular, how existing VTS practices could be enhanced, potential new practices adopted.

  o   Plan for the future through, for example:

  -   Adopting future work programme tasks.

  -   Facilitating necessary changes to IALA Standards relating to VTS or the international legal and regulatory framework for VTS.

  -   Managing any practical issues and challenges in transitioning to a more proactive role for VTS in the future.

  -   Liaison/engagement with other bodies.

  -   Engaging and communicating with all stakeholders and the public.

- Preparing a preliminary draft document.

It was also agreed the Task Group would continue to work intersessionally on developing the document for consideration at VTS51.

Action item(s):

*The **Secretariat** is requested to forward the following documents as working papers to VTS51 for further development: VTS50-13.3.1.8 WP TG-1.4.3 Guiding Principles - Future VTS; VTS50-13.3.1.9 WP TG-1.4.3 Future VTS - Discussion Paper.*

*That **Committee Participants** are invited to join the intersessional task group working on preparing a "living document" on "Future VTS" and express their interest to Neil Trainor (neil.trainor@amsa.gov.au) by 15 April 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.*

9.13   Other matters

9.13.1   Liaison Note on Ship Reporting Guideline

The Committee discussed the liaison note from ARM regarding a draft Ship Reporting Guideline (VTS50-3.2.7, VTS50-3.2.7.1) and provided a supportive response to ARM to further progress this work within IALA.

Action item(s):

*The **Secretariat** is requested to forward the liaison note regarding the draft Ship Reporting Guideline (VTS50-13.1.1.6) to ARM for their consideration.*

9.13.2   Liaison Note on the revision of MBS

The Committee discussed the liaison note from ARM regarding the revision of Recommendation R1001 on the IALA Maritime Buoyage System (VTS50-3.2.4, VTS50-3.2.4.1) and provided a supportive response to ARM to further progress this work within IALA.

Action item(s):

*The **Secretariat** is requested to forward the liaison note regarding the revision of MBS (VTS50-13.1.1.7) to ARM for their consideration.*

10.   WORKING GROUP 2 – TECHNOLOGY (WG2)

Introduction

A significant number of people attended meetings led by nominated Task Group Leaders. Some of the task groups had more 20 participants at various times and some participated in more than one task group. As a result we have no accurate total number count however we would estimate 60 people.

Working Group 2 currently have 7 formal tasks in the working period 2018-2022. The following tasks were progressed at VTS50:

- Task 2.1.1 Develop a guideline on portrayal of VTS information and data

- Task 2.2.2 Review and update Guideline 1111 on preparation of Operational and Technical performance requirements for VTS Systems.

- Task 2.2.3 Develop a guideline on technical acceptance of a VTS system. Please note that this has merged into Task 2.2.2

- Task 2.3.1 Develop a Data Model for Digital Information Services for VTS

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

Seven task groups were created all working via MS Teams. Note that due to the compilation of G1111 and the various sub-Annexes, Tasks 2.2.2 and 2.2.3 will produce a total of 10 working papers all of which will be sent to Plenary as a single output document to be forwarded to VTS51. The work has been very productive in the various task groups, but we acknowledge some are struggling with the strains of global co-working due to time differences.

The working-group produced two liaison notes and 15 working papers.

10.1   Task 2.1.1 Develop a guideline on portrayal of VTS information and data

Task group leader: Peter Kito

The task group has almost completed this work but there are still some minor references that need to be reviewed and amended. This work will be undertaken intersessionally with the intention of completion in early April 2021.

Action Item(s):

That **Committee Participants** *wishing to join the intersessional group working on the development of a guideline on portrayal of VTS information and data should contact Peter Kito (neil.trainor@amsa.gov.au) by 15 April 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 VTS51.*

The **Secretariat** *is requested to forward WP-G1105_DRAFT_Task_Group_2.1.1 20210324_updated_final (VTS50-13.3.2.1) to VTS51.*

10.2 Task 2.2.2 Review and update Guideline 1111 on preparation of Operational and Technical performance requirements for VTS Systems

Task group leader: Various see table below

A total of 14 meetings were held between the various task groups working on Task 2.2.2 with an average attendance between 15 and 20. In general, steady progress has been made. WG2 continued working on the various sub-Annexes and for good order, brevity and consistency we recommend the following title changes:

- G1111 Establishing Functional & Performance Requirements for VTS Systems
- G1111-1 Producing Requirements for the Core VTS System
- G1111-2 Producing Requirements for Voice Communications
- G1111-3 Producing Requirements for RADAR
- G1111-4 Producing Requirements for AIS and VDES
- G1111-5 Producing Requirements for Environment Monitoring Systems
- G1111-6 Producing Requirements for Electro Optical Systems
- G1111-7 Producing Requirements for Radio Direction Finders
- G1111-8 Producing Requirements for Long Range Sensors
- G1111-9 Framework for Acceptance of VTS Systems

The intention is to continue progressing these tasks intersessionally. The intersessional groups will continue to be chaired by:

a.	G.1111	Olli Soininen, (olli.soininen@fintraffic.fi)
b.	G.1111-1	Steve Guest, (steve.guest@knc.kongsberg.com)
c.	G.1111-3	Jens Christian Pedersen, (jcp@terma.com)
d.	G-1111-9	Takuya Fukuda, (ta-fukuda@tokyo-keiki.co.jp)
e.	G.1111-2 & 4-8	Richard Aase (richard.aase@kystverket.no) & Robert Townsend (robert.townsend@mcga.gov.uk)

G1111 2, 4, 5, 6, 7 & 8 will be addressed via an additional task group chaired by Richard Aase and Robert Townsend to address these smaller but no less critical Annexes.

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 15 April 2021 to the designated Intersessional Group*

Leader, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

*The **Intersessional Groups** working on the various sub-annexes of G1111 are requested to prepare an updated draft guideline as input to VTS51.*

*The **Secretariat** is requested to forward the following working papers to VTS51 for further development: WP draft-10.2.3.1 Draft G 1111 Establishing Functional & Performance Requirements for VTS systems_VTS50 output (VTS50-13.3.2.2); WP Draft G.1111-1 for VTS50 v2_5 (VTS50-13.3.2.3); WP G1111-2 Producing Functional and Performance Requirements for Voice Communications (VTS50-13.3.2.4); WP G1111-3 Producing Requirements for RADAR systems _ VTS 50 output, 29 March 2021 (VTS50-13.3.2.5); WP G 1111-4 Producing Functional and Performance Requirements for AIS and VDES systems (VTS50-13.3.2.6); WP G 1111-5 Producing Functional and Performance Requirements for Environment Monitoring systems (VTS50-13.3.2.7); WP G 1111-6 Producing Functional and Performance Requirements for Electro Optical systems (VTS50-13.3.2.8); WP G 1111-7 Producing Functional and Performance Requirements for Radio Direction Finder systems (VTS50-13.3.2.9); WP G 1111-8 Producing Functional and Performance Requirements for Long Range Sensor system (VTS50-13.3.2.10); WP Task 2.2.2j G.1111-9 Framework for Acceptance of VTS Systems_VTS50_output (VTS50-13.3.2.11).*

10.3 Task 2.2.3 Develop a guideline on technical acceptance of a VTS system

This has been merged into Task 2.2.2.

10.4 Task 2.3.1 Develop a data model for digital information services for VTS

Task group leader: Wim Smets

In VTS49 a liaison note was sent to ENAV and ARM. In response a liaison note was received from ENAV and the VTS Committee wishes to thank the ENAV Committee for their feedback. This feedback however, can be interpreted in several ways, therefore a brief discussion with the author of the liaison note was held. The suggestions made in the liaison note from VTS49 were very valuable and the ENAV Committee agrees completely with the proposed strategy by the VTS Committee regarding referencing other product specifications.

In order to make more progress with this task it is necessary to carry on the work on this task intersessionally during which the following steps will be looked into:

1.   Defining which dataset(s) is/are needed

2.   Defining the agreed datasets

3.   Merge the datasets into the data model

The intersessional group will be chaired by Wim Smets (wim.smets@mow.vlaanderen.be)

Action Item(s):

*That **Committee Participants** are requested to confirm their interest in joining a intersessional group develop a data model for digital information services for VTS by submitting an email not later than 15th April 2021 to Wim Smets (wim.smets@mow.vlaanderen.be), the designated Intersessional Group Leader, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.*

*The **Intersessional Group** on developing a data model for digital information services for VTS is requested to prepare an updated guideline as an input to VTS51*

*The **Secretariat** is requested to upload the latest version of the S-212 product specification (including all annexes) to the specific area on the IALA website (https://www.iala-aism.org/technical/data-modelling/iala-s-200-development-status/s-212/). The current version on the website is from VTS47 and is outdated.*

*The **Secretariat** is requested to forward WP VTS Digital Information Service product specification V0.6.4 (VTS50-13.3.2.12) to VTS51.*

10.5 Task 2.3.2 Review and Update Recommendation R0145 (formerly V-145) on the Inter-VTS Exchange Format (IVEF) Service

Task group leader: Rene Hogendoorn

The Task commenced during VTS 50 however it needs to be further worked on intersessionally. An intersessional group will continue to further develop the output from this session and produce an input to VTS51. The output will include a product specification S-210.

The intersessional group will be chaired by Rene Hogendoorn (rene.hogendoorn@saabgroup.com)

Action Item(s):

The **Committee Participants** *are requested to confirm their interest in joining an intersessional group by submitting an email not later than 15th April 2021 to the designated Intersessional Group Leader, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.*

The **Intersessional Group** *is requested to prepare an updated guideline as an input to VTS51*

The **Secretariat** *is requested to forward WP Guideline on Inter-VTS Data Exchange - draft 20210323 (VTS50-13.3.2.13), WP IALA Product Specification of the Inter-VTS Data Exchange Format (IVEF) - draft 20210315 (VTS50-13.3.2.14), WP R0145 The Inter-VTS Exchange Format (IVEF) Service (V-145) Ed2.x - draft 20210315 (VTS50-13.3.2.15) to VTS51.*

10.6 Other matters

10.6.1 Liaison Note on Cyber Security

Task leader: Richard Aase

WG2 discussed the liaison from ARM regarding cyber security and provided a supporting response to ARM and ENAV to further progress this work within IALA.

Action item:

That the **Secretariat** *forwards the Liaison Note regarding Cyber Security (VTS50- 13.1.2.1) to ARM and ENAV for their consideration.*

10.6.2 Liaison Note to ARM for the response to ITU on the revision of ITU-R M.1371-5 (AIS navigational status)

Task group leader: Richard Aase

The Task Group, including participants from WG1, met and agreed that a Liaison Note would be sent to ARM concerning mainly the operational issues surrounding this matter and not the technical details.

Action item(s):

That the **Secretariat** *forwards the Liaison Note to ARM regarding ITU matters (VTS50- 13.1.2.2) to ARM for their consideration.*

That **Committee Participants** *are requested to join the Task Group at ARM13 to assist in finalizing the response to the ITU on the revision of ITU-R M.1371-5 (AIS navigational status).*

11. WORKING GROUP 3 – VTS PERSONNEL AND TRAINING

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 VTS50 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

- 3.3.2 - Review and update Guideline 1017 on Assessment for Recognition of Prior Learning in VTS Training

- 3.4.1 - Review and update Guideline 1014 on the Accreditation and Approval Process for VTS Training

All input papers identified for WG3 were addressed. In addition, the IALA Standards and the IALA NAVGUIDE (VTS sections) were reviewed. Looking at possible future work items, a Blue Sky Thinking session was held. The results of the brainstorming session were reviewed, prioritised and potential work items identified for further consideration.

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

Task group leader: Jillian Carson-Jackson

The Working Group reviewed VTS50-11.1.1, the draft Guideline that was developed with input from human factors experts. Further consideration was given to the overall aim of the document, and the key elements to include. The revised working document (VTS50-13.3.3.1) will be further developed through intersessional work, and then forwarded to VTS51.

It is proposed that there will be 2 sessions (to be confirmed):

- 27 April 1030-1130 UTC

- 1 June 1030-1130 UTC

The draft document will reside on the IALA FileShare. The date, time and link to join the intersessional meeting(s) will be provided on the IALA dashboard.

Action item(s):

*The **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 email to J Carson-Jackson (jillian@jcjconsulting.net) not later than 15 April 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.*

*The **Secretariat** is requested to forward WP draft Guideline on Human Factors and Ergonomics in VTS (VTS50-13.3.3.1) to VTS51 for further development.*

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

Task group leader: Stefaan Priem

The Working Group reviewed the input papers VTS50-11.2.1 and VTS50-11.2.1.1, noting the work carried out intersessionally. Progess on the content and structure of the document was made. The revised working document (VTS50-13.3.2) will be further developed through intersessional work, and then forwarded to VTS51.

The work on this document will continue through intersessional meetings. The draft document will reside on the IALA FileShare. The date, time and link to join the intersessional meeting(s) will be provided on the IALA dashboard.

Action item(s):

That Committee Participants are requested to confirm their interest in joining the intersessional group on the development of the Guideline on the management of VTS and should contact Stefaan Priem (stefaan.priem@mow.vlaanderen.be) by 15 April 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.

*The **Secretariat** is requested to forward WP Guidance on the management of a VTS (VTS50-13.3.3.2) to VTS51 for further development.*

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: Jillian Carson-Jackson

The Working Group noted the publication of IALA R0103 (V-103) and G1156.

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

- 3.3.1a – Review and restructure 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 courses V-103/3; V-103/4; V-103/5

The work at VTS50 focused on 3.3.1b. In addition, as the review of V-103/1 continues, it was noted that there would be benefit in reviewing V-103/3 (VTS OJT) before moving to V-103/2. To address this, the task was further revised to separate 3.3.1d:

- 3.3.1d – Review/update 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

Input paper VTS50-11.3.1 'Proposal for adding "typical Accident Case Study" subject to Model Courses V-103/3 was reviewed. It was noted that the use of case studies provides value for all IALA VTS Model Courses, and this will be considered in the review process.

Action item(s):

That **Committee Participants** *note the revision of the task item references for the review of V-103 model courses.*

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

This task has been completed.

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

Task group leader: Jillian Carson-Jackson

The Working Group reviewed the input papers VTS50-11.3.2, 11.3.2.1, 11.3.2.2, 11.3.3, 11.3.3.1. It was noted that 11.3.2.2 was input received from Australia and forwarded from the intersessional group work, and that Australia has also provided the same input as 11.3.3 and 11.3.3.1. As such, the document 11.3.2.2, forwarded from the intersessional group was not reviewed.

The work carried out during the intersessional group, as presented at VTS50-11.3.2.1, was reviewed and revised.

Noting the significant structural change presented in VTS50-11.3.3.1, it was agreed that the review of the model course would proceed in a stepped process:

.1 Complete the review of the working document, module realignment and content review.

.2 Review the proposed structural changes to the model course and agree a model course structure that will be suitable for use with all model courses (noting proposed structure in VTS50-11.3.3.1).

.3 Merge the agreed content from the review (point 1) with the agreed structure and consider revised content as proposed in VTS50-11.3.3.1.

Noting the scope of the work, 4 intersessional sessions are planned, with expected work to focus on V-103/1 and, as appropriate, V-103/3. The proposed dates for these intersessional sessions are:

- 21 April – 1000-1130 UTC
- 19 May – 1000-1130 UTC

- 9 June – 1000-1130 UTC
- 8 Sept – 1000-1130 UTC

As work on V-103/1 is completed, work will proceed to review of V-103/3. The draft document(s) will reside on the IALA FileShare. The date, time and link to join the intersessional meeting(s) will be provided on the IALA dashboard. Note, there may be additional intersessional meetings identified, which will be listed on the IALA dashboard.

It was noted that there is a planned VTS Training workshop to be held between VTS50 and VTS51. Participation in the workshop will be encouraged from VTS Training organizations and the focus of this workshop will be to review the draft revision of V-103/1. The timing for the workshop is being reviewed by IALA Secretariat.

Action item(s):

*That **Committee Participants** note the development process for V-103 model courses.*

*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 14 April 2021, noting the dates and times of the intersessional meetings will be published on the IALA VTS Committee Dashboard.*

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

Task group leader: Henry Heng

The Working Group reviewed the input papers VTS50-11.3.4 and 11.3.4.1. Building on the work of the intersessional group, the revised document was reviewed and finalized.

During the silent approval process the title of the guideline was revised to Assessment for recognition of prior learning in VTS training (VTS50-13.1.3.1).

Action item:

*That **Secretariat** are requested to forward the revised G1017 on Assessment for Recognition of Prior Learning in VTS Training (VTS50-13.1.3.1) to IALA Council for approval.*

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

Task group leader: Kerrie Abercrombie

The Task Group reviewed the input papers VTS50-11.4.1, 11.4.2 and 11.4.2.1. Building on the work of the intersessional task group, the review continued producing a mature document at VTS50 as a working document (VTS50-13.3.3.3). It is planned that this document will be finalized at VTS51.

Action item(s):

*The **Secretariat** is requested to forward the draft Guideline G1014 (VTS50-13.3.3.3) as a working paper to VTS51 for further development.*

*That **Committee Participants** are requested to consider the revised draft G1014 on Accreditation of VTS Training Organizations and Approval to Deliver IALA Model Courses and provide any comments to the Task Group leader (kerrie.abercrombie@amsa.gov.au) to be collated for input to VTS51.*

11.8 Draft Guideline on Competencies for Planning and Implementing VTS

WG3 supported WG1 in the development of the draft guideline, focusing on the Personnel and Training elements withing the document, including the definition of 'competence' and the competence tables.

11.9 Review of IALA Standards

Input papers VTS50-7.4.1, 7.4.1.1, 7.4.2, 7.4.3, 7.4.4, 7.4.5, 7.4.6, 7.4.7, 7.4.8 were reviewed. Comments were identified and provided to the Committee Management Team for collating and forwarding as appropriate.

1.1   Review of the NAVGUIDE

Proposed input for the IALA NAVGUIDE, as provided through the IALA Secretariat, was reviewed. The link between the IALA NAVGUIDE and the IALA VTS Manual was highlighted.

A revised section on VTS for the NAVGUIDE was prepared. The Committee was informed that the NAVGUIDE would become an electronic document and that ARM Committee would need input to the next edition of the NAVGUIDE after autumn sessions 2021. The Committee agreed to continue revising the VTS section at VTS51.

Action item:

*The **Secretariat** is requested to forward the revised WP VTS section of the IALA NAVGUIDE (VTS50-13.3.3.5) to VTS51 for further consideration.*

11.10   Proposed work items for IALA Work Programme 2022-2026

A session on 'Blue Sky Thinking' was held to identify potential work items for the work programme 2022 - 2026. The results of the brainstorming session were reviewed, prioritised and a list of potential items was developed as provided in VTS50-13.3.3.4.

Action item:

*The **Secretariat** is requested to forward the potential work items for IALA work programme 2022-2026, as provided in VTS50-13.3.3.4 to VTS51 for further consideration.*

12.   ANY OTHER BUSINESS

The Chair announced that Mr Neil Trainor of the Australian Maritime Safety Authority had been appointed to be the VTS Committee representative in the cross-committee MASS group. Neil is also task group leader for task 1.2.5 to 'develop a guideline on the implications of MASS from a VTS perspective' as well as for task 1.4.3 on 'preparing a living document on Future VTS including emerging technologies and human element' He can therefore contribute with valuable input on the progress of the VTS Committee tasks to the MASS Group.

As there is only one representatives of each committee, I have also appointed Mr Trond Ski, Chair of Working Group 1 to be a substitute in case Neil is unavailable to attend the meetings. As Chair of WG1, Trond also needs to be kept informed on the developments of the MASS group.

The Chair, Monica Sundklev, also informed that other experts may be invited to participate at the discretion of the MASS group Chair (NL). The committee wished the cross-committee MASS group good luck with their work.

13.   SUMMARY OF OUTPUT AND WORKING PAPERS

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

Most of the output from VTS50 was approved by the Committee using the silent approval procedure. The Chair thanked participants for proving very constructive comments to the documents during the silent approval which will make the documents even more clear and useful.

Some liaison notes had been finalized late but were sent out for comments which were reviewed at the closing plenary with a positive result. The output documents, including working papers forwarded to VTS51, are listed in Annex D.

17 intersessional groups will continue to develop VTS tasks by correspondence between VTS50 and VTS51

The Committee Chair then thanked the Working Group Chairs, Vice-Chairs, Task Group Leaders and all participants of the working groups for all their efforts during the session and wished good progress within the intersessional group tasks. Review of session report

The report of the meeting (VTS50-14.1) was reviewed by the Committee at the Closing Plenary.

14. DATE AND VENUE OF NEXT MEETINGS

VTS51 was planned to be held between 20 - 24 September 2021 at IALA Headquarters, Saint Germain-en-Laye, France. However, as IALA Council recently has decided that all autumn sessions should continue to be virtual, new dates for VTS51 will be announced at a later stage.

Other IALA events will be publicised on the IALA website, but the Chair mentioned the following concerning VTS:

- IALA VTS/ENAV Symposium will be held 12-16 April 2021. The sessions will be held around 11.00-14.30 UTC daily and it is a virtual event. For more information on the daily programme and other exciting events that will take place, look at the official web site iala-rotterdam2021.nl.
- IALA workshop on Marine Aids to Navigation in the Autonomous World will be held virtually on 24-28 May 2021 organized by ENAV Committee.
- IALA workshop on Cyber security will be held virtually in October-November 2021, organized by ARM Committee.

15. CLOSING OF THE MEETING

The Chair thanked all Committee Participants again for all the dedicated work and valuable progress made in all the tasks during the meeting.

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 members wished to make; there were none, at which she hoped everyone would stay safe and healthy and to meet all once again during VTS51.

16. LIST OF ANNEXES

1   Agenda

    A copy of the agenda is at Annex A.

2   Participants list

    A list of participants is at Annex B.

3   Input Papers

    A list of input papers is at Annex C.

4   Output and Working papers

    A list of output and working papers is at Annex D.

5   Action Items

    A list of action items is at Annex E.

50th Meeting of the Vessel Traffic Services Committee (VTS50)

The 50th meeting of the **VTS Committee** will be held between 10 March – 31 March 2021 virtually.

The opening plenary will commence at 1100 – 1300 UTC on Wednesday 10 March 2021 and the closing plenary will begin at 1000 – 1200 UTC on Wednesday 31 March 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 VTS49

3.   Review of input papers

    3.1.   Input papers to VTS50

    3.2.   Input papers not related to an existing task

4.   Reports from other bodies

    4.1.   IALA

      4.1.1. IALA Council

      4.1.2. IALA Policy Advisory Panel (PAP)

    4.2.   IMO

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

    5.5.   Update on IALA VTS-ENAV Symposium 2020   Maarten Berrevoets

6.   Online presentations (via webinars on specific dates and times to be announced)

7.   Work programme (2018 - 2022)

    7.1.   VTS Task Plan and Task Register

    7.2.   Action plan for VTS50

    7.3.   VTS tasks for work programme 2022 – 2026

    7.4.   IALA Standards

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 VTS50

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 VTS50

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 VTS50

12.   Any other business

13.   Summary of output and working papers

    13.1.   Output papers (agreed by silent approval)

    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 Communication Agency	matti.aaltonen@traficom.fi
AARNIO	Kalle	Vessel Traffic Services Finland Ltd	kalle.aarnio@fintraffic.fi
AASE	Richard	Norwegian Coastal Administration	richard.aase@kystverket.no
ABERCROMBIE	Kerrie	Australian Maritime Safety Authority	kerrie.abercrombie@amsa.gov.au
AHN	Byeong-ok	Korea Coast Guard under MOF	boahn528@naver.com
AICHMALOTIDIS	Lazaros	EMSA - European Maritime Safety Agency	Lazaros.AICHMALOTIDIS@emsa.europa.eu
ALKABIR	Mutaz	Havelsan AS	malkabir@havelsan.com.tr
ALMUFAWEZ	Omar	Saudi Ports Authority – MAWANI	a.mafoz01@mawani.gov.sa
ALVAREZ MATIAS	Fernando	E.P.E. Sociedad de Salvamento y Seguridad Maritima (SASEMAR)	fernandoam@centrojovellanos.es
ARRIAGADA	Henry	Armada de Chile, Dirección General del Territorio Marítimo y Marina Mercante - DIRECTEMAR	harriagada@directemar.cl
ARROYO	Jorge	US Coast Guard	jorge.arroyo.uscg@gmail.com
ATANASOV	Grisha	Bulgarian Ports Infrastructure Company	g.atanasov@bgports.bg
BATTY	Ernest	IMIS Global Limited	
BERGMANN	Michael	Comité International Radio Maritime	michael.bergmann@bergmann-marine.com
BIJLSMA	Rodrigue	Port of Antwerp Authority /Havenbedrijf Antwerpen	Rodrigue.Bijlsma@portofantwerp.com
BOGAERT	Els	Agency for Maritime Services and Coast - Flemish Government	els.bogaert@mow.vlaanderen.be
BRODSKIY	Eugeny	UNECE - The Baltic-Baltic Waterway	
BYUN	Junhyeok	Korea Coast Guard under MOF	byunjh0l@korea.kr
CAIRNS	William	American Pilot's Association Inc	bcairns@americanpilots.org
CAMPBELL	Colin	US Coast Guard	
CAO	Shenyu	China Maritime Safety Administration	
CARSON-JACKSON	Jillian	Nautical Institute	jillian@jcjconsulting.net
CHA	Jaegwon	Korea Coast Guard under MOF	cjg2080@korea.kr
CHEN	Wang	China Maritime Safety Administration	2634543@qq.com
CHENG	Chang	China Maritime Safety Administration	greatwallccgw@qq.com

Surname	Name	Affiliation	E-mail
CHIEW	Nicholas	Maritime and Port Authority of Singapore	Nicholas_chiew@mpa.gov.sg
CHOI	Gyeong-sik	Ministry of Oceans and Fisheries	vts@korea.kr
CLEVETT	Heidi	Maritime Coast Guard Agency	Heidi.clevett@mcga.gov.uk
DAHLGREN	Fredrik	Swedish Maritime Administration	fredrik.dahlgren@sjofartsverket.se
DREIJER	Malin	Norwegian Coastal Administration	malin.dreijer@kystverket.no
DRENTH	Martijn	Dutch Pilots' Corporation	m.drenth@loodswezen.nl
DUNN	Karen	Canadian Coast Guard	kldunn1013@gmail.com
EADE	Peter	VisSim AS	
ECKHOFF	Dirk	Federal Waterways & Shipping Administration	
ELLUL	Nicholas	Victorian Regional Channels Authority	nellul@vrca.vic.gov.au
FAN	Xiwei	China Maritime Safety Administration	
FEBBO	Domenico	ELMAN S.r.l.	domenico.febbo@elmansrl.com
FENG	Xiao	China Maritime Safety Administration	fengxiao@msa.gov.cn
FIORINI	Michele	Leonardo s.p.a	michele.fiorini@leonardocompany.com
FUKUDA	Takuya	Tokyo Keiki Inc.	ta-fukuda@tokyo-keiki.co.jp
GARCÍA	Lorena	Prefectura Naval Argentina	lagpsc@hotmail.com
GARCIA DAROCA	Carlos	ESSP SAS	carlos.daroca@essp-sas.eu
GLADKYH	Igor	UNECE - NU "OMA"	gladkykh958@gmail.com
GLEW	Kelly	Canadian Coast Guard	kelly.glew@dfo-mpo.gc.ca
GOLDMAN	Barry	International Harbour Masters Association (IHMA)	barry.goldman@btinternet.com
GUEST	Steve	Kongsberg Norcontrol AS	Steve.guest@knc.kongsberg.com
GUEVREMONT	Jean	Canadian Coast Guard	jean.guevremont@dfo-mpo.gc.ca
GUTTELING	Rob	Port of Rotterdam Authority	rj.gutteling@portofrotterdam.com
HAAGENSEN	Anders	Defence Command Denmark	haagensen001@gmail.com
HALTTUNEN	Mika	Vessel Traffic Services Finland Ltd	
HANSEN	Dorte Olbaek	Defence Command Denmark	3e-soe-st103@mil.dk
HARDAKER	Steven	Maritime Safety Queensland	
HAUPTFLEISCH	Werner	IMIS Global Limited	
HENG	Fok Yong Henry	Maritime and Port Authority of Singapore	Henry_Heng@mpa.gov.sg
HOARAU	Nicolas	Direction des Affaires Maritimes - Cross Gris-Nez	
HOEVE	Jan Remi	Ministry of Infrastructure and Water Management	remi.hoeve@rws.nl
HOGENDOORN	René	SAAB AB Transpondertech	rene.hogendoorn@saabgroup.com

Surname	Name	Affiliation	E-mail
HORI	Seigo	Japan Coast Guard	horiseigo118@gmail.com
HORIE	Yushu	TST Corporation	yhorie@toyoshingo.co.jp
HUR	Hak-Sun	Korea Coast Guard under MOF	hhs5047@korea.kr
IINO	Atsuki	Japan Coast Guard	Iinoatsuki118@gmail.com
IVANOVA	Victoria	UNECE (United Nations Economic Commission for Europe)	victoria.ivanova@un.org
JANSE	Jur	Ministry of Infrastructure and Water Management	jur.janse@rws.nl
JEONG	Sun-mi	Korea Coast Guard under MOF	sunmi2525@korea.kr
JIA	Rucun	China Maritime Safety Administration	rucun.jia@163.com
JIANG	Guifu	Marine Department HKSAR, Hong Kong, China	
JIN	Jialong	CSIC PRIDe (Nanjing) Atmospheric and Oceanic Information System	gallon_king@163.com
JOHNSON	Rodman	Ministry of Immigration, Citizenship, Labour & Employment Services	RAJohnson@gov.tc
JORGENSEN	Oeystein	Kongsberg Norcontrol AS	: oystein.jorgensen@knc.kongsberg.com
KANG	Yun-Ho	Korea Coast Guard under MOF	outflanker@korea.kr
KARK	Christian	Swedish Maritime Administration	christian.kark@sjofartsverket.se
KARLSSON	Fredrik	Swedish Maritime Administration	fredrik.karlsson@sjofartsverket.se
KEURAMO	Petteri	Vessel Traffic Services Finland Ltd	petteri.keuramo@fintraffic.fi
KIM	HyeJin	Korea Research Institute of Ships & Ocean Engineering (KRISO)	hjk@kriso.re.kr
KIROV	Nikola	Bulgarian Ports Infrastructure Company	
KITO	Peter	Japan Radio Co. Ltd	peterkito@jrcamerica.com
KIZILELMA	Abdullah	Directorate General of Coastal Safety	abdullahkizilelma@hotmail.com
KOUSSA	Bourbeur	Chef de Département Capitainerie, Sûreté, Sécurité et Environnement Morocco	KOUSSA@anp.org.ma
KRISTOFFERSEN	Mads Ulrik	Terma A/S	muk@terma.com
LAAKSONEN	Rami	Vessel Traffic Services Finland Ltd	rami.laaksonen@fintraffic.fi
LANDI	Michele	Italian Coast Guard	michele.landi@mit.gov.it
LEE	Jae Bong	Global Control Systems Corporation	jblee@gcsc.co.kr
LEE	Seung-min	Korea Coast Guard under MOF	seungmin421@korea.kr

Surname	Name	Affiliation	E-mail
LEE	JiYeon	Korea Coast Guard under MOF	happylyj@korea.kr
LEOW	Kelvin	Maritime and Port Authority of Singapore	Kelvin_LEOW@mpa.gov.sg
LI	Peng	China Maritime Safety Administration	
LI	Xiang	China Maritime Safety Administration	gxmsalixiang@163.com
LIANG	Chao	China Maritime Safety Administration	743454011@qq.com
LIM	Ho-chan	Korea Coast Guard under MOF	gooksu3@korea.kr
LIU	Jinkai	China Maritime Safety Administration	Goldenk@126.com
LIU	Lei	China Maritime Safety Administration	liuleimsa@163.com
LOPEZ	Rodolfo Omar	Prefectura Naval Argentina	or_lopez40@outlook.com
MA	Chunhua	China Maritime Safety Administration	
MAAGARD HANSEN	Michael	Svendborg International Maritime Academy (SIMAC)	mmh@simac.dk
MAOWEN	Xu	China Maritime Safety Administration	505092943@qq.com
MARTIKAINEN	Tuomas	Finnish Transport Infrastructure Agency	tuomas.martikainen@vayla.fi
MARUMOTO	Osamu	International Maritime Organisation (IMO)	
MATHIS	Darin	US Coast Guard	darin.e.mathis@uscg.mil
METAYER	Hervé	Direction des Affaires Maritimes	herve.metayer@developpement-durable.gouv.fr
MEYER	Rhyno	IMIS Global Limited	
MINGOT	Pierre	CEREMA	pierre.mingot@cerema.fr
MOOSA	Ahmed	Hensoldt UK	ahmed.moosa@hensoldt.net
MORIN	Marc-André	Canadian Coast Guard	marc-andre.morin@dfo-mpo.gc.ca
NAKAGAMI	Kazuya	Japan Coast Guard	kazu.nakagami118@gmail.com
NAKAI	Yasuko	TST Corporation	ynakai@toyoshingo.co.jp
NAKAJIMA	Tomoya	Japan Coast Guard	tomoya.nakajima118@gmail.com
NASONE	Bruno	CEREMA	
NISHIMURA	Koichi	TST Corporation	knishimura@toyoshingo.co.jp
NOGUCHI	Hideki	Japan Coast Guard	hideki.noguchi@gmail.com
NYRHILA	Mika	Vessel Traffic Services Finland Ltd	
OBRIEN	Loan	US Coast Guard	loanobrien@gmail.com
OLIVEIRA	Antonio Carlos	Diretoria de Hidrografia e Navegação of the Brazilian Navy, Brazil	acarlosoliv@yahoo.com.br
PARK	Sung-yong	Ministry of Oceans and Fisheries	momaf8530@korea.kr
PARK	Jong Yeon	Global Control Systems Corporation	jypark@gcsc.co.kr

Surname	Name	Affiliation	E-mail
PEDERSEN	Jens Christian	Terma A/S	jcp@terma.com
POON	Ka Tik	Marine Department, HKSAR	smovtc@mardep.gov.hk
POT	Fred W.	BM Bergmann-Marine	fred.pot@bergmann-marine.com
PRIEM	Stefaan	Agency for Maritime Services and Coast - Shipping Assistance Division	
QI	Qun	China Maritime Safety Administration	
REN	Yalei	China Maritime Safety Administration	renyalei@shmsa.gov.cn
ROJO DIAZ	Raquel	E.P.E. Sociedad de Salvamento y Seguridad Maritima (SASEMAR)	raquelrd@sasemar.es
ROMANDINI	Nazzareno	ICS Technologies S.r.l.	nazzareno.romandini@xtechnologies.it
ROSTOPSHIN	Dmitry	Wärtsilä	rost@transas.com
SAITO	Naoki	Nippon Kaiji Kyokai (ClassNK)	
SALAHOVIC	Admir	Indra Sistemas S.A.	admir@indra.es
SALINAS	Carlos	E.P.E. Sociedad de Salvamento y Seguridad Maritima (SASEMAR)	
SCHMEGNER TOSCO	Catriona	Commissioners of Irish Lights	catriona.schmegner@irishlights.ie
SHANG	Guanlei	RIZHAO MSA	
SHIINA	Akiko	TST Corporation	ashiina@toyoshingo.co.jp
SIM	Jae-jin	Korea Coast Guard under MOF	gazggin@korea.kr
SKI	Trond	Norwegian Coastal Administration	trond.ski@kystverket.no
SMETS	Wim	Agency for Maritime Services and Coast - Shipping Assistance Division	wim.smets@mow.vlaanderen.be
SNG	Henry	Maritime and Port Authority of Singapore	Henry_SNG@mpa.gov.sg
SOBOTT	Toni	Finnish Transport Infrastructure Agency	
SON	Chul	Korea Coast Guard under MOF	jbhcom5@hanmail.net
SUN	Xing	China Maritime Safety Administration	
SUNDKLEV	Monica	Swedish Transport Agency	monica.sundklev@transportstyrelsen.se
SUPIAN	Nisham Muhammad	Maritime and Port Authority of Singapore	Nisham_supian@mpa.gov.sg
SVANTESSON	Marco	Swedish Maritime Administration	Marco.Svantesson@Sjofartsverket.se
TAKAHASHI	Akihiko	Japan Radio Co. Ltd	Takahashi.akihiko@jrc.co.jp
TAKASA	Go	Japan Coast Guard	gotasaka392@gmail.com
TALJA	Sari	Vessel Traffic Services Finland Ltd	sari.talja@vtsfinland.fi

Surname	Name	Affiliation	E-mail
TANI	Mariko	Nippon Kaiji Kyokai (ClassNK)	
TEE	Kim Chuan	Maritime and Port Authority of Singapore	Tee_kim_chuan@mpa.gov.sg
TEO	Tze Kern	Maritime and Port Authority of Singapore	Teo_Tze_Kern@mpa.gov.sg
TODOROV	Milen	Bulgarian Ports Infrastructure Company	m.todorov@bgports.bg
TORTOSA	Enrique	Puertos del Estado	
TRAINOR	Neil	Australian Maritime Safety Authority	neil.trainor@amsa.gov.au
TURHANGIL	Huseyin Cenk	Havelsan AS	hturhangil@havelsan.com.tr
VERRA	Hans	Port of Rotterdam Authority	
VOGELE	Uwe	In-Innovative Navigation GmbH	uwe.voegele@innovative-navigation.de
WANG	Lei	China Maritime Safety Administration	171868088@qq.com
WANG	Wei	China Maritime Safety Administration	wangwei@sd.msa.gov.cn
WEI	Liu	China Maritime Safety Administration - Shanghai	liuwei@shmsa.gov.cn
WU	Jin	China Maritime Safety Administration	13825086995@139.com
XIAOHUI	Li	China Maritime Safety Administration	lxhdmu@126.com
XINLI	lv	China Maritime Safety Administration	
XU	Yuncong	China Maritime Safety Administration	
YAMANOUCHI	Saori	Japan Coast Guard	bread1with2honey3@gmail.com
YANG	Wenbin	China Maritime Safety Administration	
YANG	Seungweon	GMT Cybernetics Co. Ltd.	ysw@gmtc.kr
YANG	Seoyonwon	GMT Cybernetics Co. Ltd	yonjjang@gmtc.kr
YI	Congbo	China Maritime Safety Administration	252358087@qq.com
YU	Seongsang	Korean Register of Shipping	yss@krs.co.kr
YUAN MING	Hu	China Maritime Safety Administration	huyuanming@shmsa.gov.cn
YUANHANG	Li	China Maritime Safety Administration	sailingli@yeah.net
ZHANG	Hanqing	China Maritime Safety Administration	908586877@qq.com
ZHANG	Jinju	China Maritime Safety Administration	794035984@qq.com
ZIOLKOWSKI	Lukasz	European Maritime Safety Agency (EMSA)	Lukasz.ZIOLKOWSKI@emsa.europa.eu

ANNEX C LIST OF INPUT PAPERS

All papers are posted on the Committee section of the IALA website

Meeting	Agenda Item	Input Paper Number and Title	Source	Allocation (All / WG) or action
VTS50-	1.2.1	Provisional Agenda 110221	IALA Secretariat	All
VTS50-	1.4.1	IALA Virtual Committee Working Arrangements Feb 2021	IALA Secretariat	All
VTS50-	1.4.2	IALA Style Guide Ed 1.0 January 2021	IALA Secretariat	All
VTS50-	2.1.1	VTS49 Action Items	IALA Secretariat	All
VTS50-	2.1.1.1	Report of VTS49	IALA Secretariat	All
VTS50-	3.0	Input paper template	IALA Secretariat	All
VTS50-	3.1.1	Input Papers List 150221	IALA Secretariat	All
VTS50-	3.2.1	Input Paper VTS in Inland Waters	IHMA	WG1
VTS50-	3.2.1.1	Draft Gnnnn - VTS in Internal Waters	IHMA	WG1
VTS50-	3.2.2	Report from Int.sess. Group on the review of IMSAS Manual	Chair	All - Note
VTS50-	3.2.3	Cross-committee work on ITU matters (PAP41-4.4.1)	PAP41	WG2 / 1
VTS50-	3.2.3.1	Liaison to IMO IALA CIRM on revision Rec ITU-R M1371-5 (PAP41-4.4.1.1)	PAP41	WG2 / 1
VTS50-	3.2.4	ARM Liaison note to other committees regarding revision of MBS R1001	ARM12	WG1
VTS50-	3.2.4.1	Draft R1001 Ed1 The IALA Maritime Buoyage System	ARM12	WG1
VTS50-	3.2.5	ARM (C72-11.2.6) Draft Guideline on Ship Reporting from a shore-based perspective	C72	WG1
VTS50-	3.2.6	IALA Strategic Vision 2018-2026	IALA Secretariat	All – Note
VTS50-	3.2.6.1	IALA Current drivers and trends ed1.2	IALA Secretariat	All – Note
VTS50-	3.2.6.2	IALA Position Document on the Development of Marine AtoN Services 2019	IALA Secretariat	All – Note
VTS50-	3.2.7	ARM Liaison Note on Ship Reporting Guideline v1.3	ARM CMT	WG1
VTS50-	3.2.7.1	Guideline on Ship Reporting from a shore-based perspective v0.2.4	ARM CMT	WG1
VTS50-	3.2.8	Technical documents Catalogue 12 Fev 2021 OK	IALA Secretariat	All
VTS50-	4.1.1.1	Report Council 72 Final	C72	All – Note
VTS50-	4.1.2.1	Report of PAP41	PAP41	All – Note
VTS50-	7.1.1	WP VTS Task Plan 2018-2022 (2020-10-16) (VTS49-12.2.0.3)	VTS49	All – Note
VTS50-	7.1.1.1	Updated VTS Task Plan 2018-2022 (2021-02-11)_Rev1	VTS CMT	All
VTS50-	7.1.2	WP VTS Task Register 2018-2022 (2020-10-16) (VTS49-12.2.0.4)	VTS49	All – Note

					WG Chairs to update
VTS50-	7.1.3	Committee Work Programme for 2018-2022 (PAP41-5.9.1.1)	PAP41	All – Note	
VTS50-	7.1.4	Cross-committee Work 1st half 2021	IALA Secretariat	All – Note	
VTS50	7.3.1	Task register proposal 2022-2026 - Guideline for VTS response to public health emergencies (China MSA)	China MSA	All	
VTS50-	7.3.2	Proposed new task - Guidance for establishing a compliance and enforcement framework for participating ships	AMSA	All	
VTS50-	7.4.1	WP Input paper on Revision of IALA Standards (VTS49-12.2.0.2)	VTS49	All	
VTS50-	7.4.1.1	WP Annex to Revision of Standards-S1040 Vessel Traffic Services-Comments-DE (VTS49-12.2.0.2.1)	VTS49	All	
VTS50-	7.4.2	Draft revision S1010 AtoN Planning & Service Requirements	IALA Secretariat	All	
VTS50-	7.4.3	Draft revision S1020 AtoN Design and Delivery	IALA Secretariat	All	
VTS50-	7.4.4	Draft revision S1030 Radionavigation Services	IALA Secretariat	All	
VTS50-	7.4.5	Draft revision S1040 Vessel Traffic Services	IALA Secretariat	All	
VTS50-	7.4.6	Draft revision S1050 Training and Certification	IALA Secretariat	All	
VTS50-	7.4.7	Draft revision S1060 Digital Communication Technologies	IALA Secretariat	All	
VTS50-	7.4.8	Draft revision S1070 Information Services	IALA Secretariat	All	
VTS50-	9.1.1	WP TG 1.1.3 WP - Guiding Principles Training Needs for Planning and Implementing VTS (V0.1) (VTS49-12.2.1.1)	VTS49	WG1	
VTS50-	9.1.1.1	WP - Draft Guideline XXXX Training Needs for Planning and Implementing VTS (VTS49-12.2.1.2)	VTS49	WG1	
VTS50-	9.1.2	Input Paper - Output from CG1.1.3 - Competencies for Planning and Implementing VTS	Intersessional Group 1.1.3	WG1	
VTS50-	9.1.2.1	TG 1.1.3 WP - Draft Guideline XXXX Competencies for Planning and Implementing VTS	Intersessional Group 1.1.3	WG1	
VTS50-	9.1.3	IALA Docs Editorial Alignment - Input Paper - final	Intersessional Group 1.1.1.2	WG1	
VTS50-	9.1.3.1	IALA Docs Editorial Alignment - Draft Council Liaison Note – final	Intersessional Group 1.1.1.2	WG1	
VTS50-	9.2.1	WP NL Paper on the Impact of MASS on VTS (VTS49-12.2.0.1)	VTS49	WG1	
VTS50-	9.2.2	WP_Task1.2.1 Guideline G1141, Operational Procedures for Delivering VTS (VTS49-12.2.1.3)	VTS49	WG1	
VTS50-	9.2.3	WP 1110 Ed.1 Use of Decision Support Tools for VTS Personnel (VTS49-12.2.1.4)	VTS49	WG1	
VTS50-	9.2.4	WP Draft Guideline on Maritime Services (VTS49-12.2.1.5)	VTS49	WG1	

VTS50-	9.2.4.1	WP Draft Guideline on Maritime Services (VTS49-12.2.1.6)	VTS49	WG1
VTS50-	9.2.5	Draft Guideline on the implications of maritime autonomous surface ships from a VTS perspective	China MSA	WG1
VTS50-	9.2.5.1	Annex - Draft Guideline on the implications of maritime autonomous surface ships from a VTS perspective Draft Framework）	China MSA	WG1
VTS50-	9.2.6	WP Scoping exercise on the implications of MASS on VTS documents (VTS49-12.2.1.8)	VTS49	WG1
VTS50-	9.3.1	WP Attachment 1 - VTS Communication Phrases incorporating G1132 (VTS49-12.2.1.7)	VTS49	WG1
VTS50-	9.3.2	Input paper - Draft Guideline on VTS voice communication and phraseology	Intersessional Group 1.3.1	WG1
VTS50-	9.3.2.1	Revised G1132 - VTS Communications (8 Feb)	Intersessional Group 1.3.1	WG1
VTS50-	9.4.1	IALA VTS Manual 2021 Edition 7	Secretariat	All
VTS50-	9.6.1	WP Proposal on the technology of Integration between ultra-range CCTV and VTS (VTS49-12.2.1.9)	VTS49	WG1 (and 2)
VTS50-	9.6.2	Suggestions on the establishment of public communication network +VDES fusion communication mode	China MSA	WG1 (and 2)
VTS50-	9.6.3	Guiding Principles - Future VTS (1.0)	AMSA	WG1
VTS50-	10.1.1	WP-G1105 SHORE-SIDE PORTRAYAL ENSURING HARMONISATION WITH e-NAVIGATION RELATED INFORMATION_Task_Group_2.1.1 (VTS49-12.2.2.1)	VTS49	WG2
VTS50-	10.1.2	Proposal on Revising the IALA Guideline 1105	China MSA	WG2
VTS50-	10.2.1	WP G1111 Preparation of Operational and Technical Performance Requirements (VTS49-12.2.2.2)	VTS49	WG2
VTS50-	10.2.2	WP Task 2.2.3 Draft Guideline on Acceptance of VTS Systems (VTS49-12.2.2.3)	VTS49	WG2
VTS50-	10.2.3	Draft Input Paper G. 1111	Intersessional Group 2.2.2	WG2
VTS50-	10.2.3.1	Draft G 1111 Establishing Functional and Performance Requirements for VTS systems	Intersessional Group 2.2.2	WG2
VTS50-	10.2.4	Report of the February 2021 Guideline on Acceptance of VTS Systems intersessional meeting	Intersessional Group 2.2.3	WG2
VTS50-	10.2.4.1	Draft Guideline on Acceptance of VTS Systems-2021-02-10-1800	Intersessional Group 2.2.3	WG2
~~VTS50-~~	~~10.2.5~~	~~Draft Input Paper G. 1111~~	~~Intersessional Group 2.2.2~~	Withdrawn owing to duplication - in VTS50-10.2.3
~~VTS50-~~	~~10.2.5.1~~	~~Draft G 1111 Establishing Functional and Performance Requirements for VTS systems~~	~~Intersessional Group 2.2.2~~	
VTS50-	10.2.6	Input paper Draft G.1111-1 v2	Intersessional Group 2.2.2-1	WG2
VTS50-	10.2.6.1	Draft G.1111-1 for VTS50 v2	Intersessional Group 2.2.2-1	WG2
VTS50-	10.2.7	Input paper Draft G.1111-3	Intersessional Group 2.2.2-3	WG2

VTS50-	10.2.7.1	G.1111-3 Producing Functional and Performance Requirements for RADAR systems _ input to VTS 50	Intersessional Group 2.2.2-3	WG2
VTS50-	10.2.8	Input paper (G-1111 - MMSI)	Peter Eade	WG2
VTS50-	10.2.9	The On-Site Acceptance Content And Method Of Vessel Traffic Service System (China MSA)	China MSA	WG2
VTS50-	10.3.1	WP VTS Digital Information Service product specification V0.6.3 (VTS49-12.2.2.4)	VTS49	WG2
VTS50-	10.3.2	VTS50-10.3.2 Proposal on Draft of VTS Digital Information Service Product Specification V0.6.3	China MSA	WG2
VTS50-	10.4.1	Liaison note Cyber Security (ENAV26-12.1.2)	ENAV26	WG2 and other WGs
VTS50-	11.1.1	WP Draft Guideline HF_Ergonomics-VTS-WG3 review (VTS49-12.2.3.1)	VTS49	WG3
VTS50-	11.2.1	Input paper on Guideline on VTS Management	Intersessional Group 3.2.1	WG3
VTS50-	11.2.1.1	Guideline on VTS Management	Intersessional Group 3.2.1	WG3
VTS50-	11.3.1	Proposal for adding "Typical Accident Cases Study" subject into Model CourseV-103-3	China MSA	WG3
VTS50-	11.3.2	Input paper on V-103_1 review	Intersessional Group 3.3.1	WG3
VTS50-	11.3.2.1	V-103.1 V-103_1-review-Prep-VTS50	Intersessional Group 3.3.1	WG3
VTS50-	11.3.2.2	V-103.1 V-103_1-review-prep-ICG-02_Aus-Input	Intersessional Group 3.3.1	WG3
VTS50-	11.3.3	Review of Model Course V-103-1 VTS operator training	AMSA	WG3
VTS50-	11.3.3.1	V-103.1 VTS Operator-rev-prep-ICG-02_KA edits (2 Feb)	AMSA	WG3
VTS50-	11.3.4	Input paper on Guideline on ASSESSMENT OF PRIOR LEARNING EXEMPTION FOR VTS MODEL COURSES	Intersessional Group 3.3.2	WG3
VTS50-	11.3.4.1	ver 5 - IALA Guideline 1017 draft	Intersessional Group 3.3.2	WG3
VTS50-	11.4.1	WP DRAFT Revision of G1014 (1 Oct) (VTS49-12.2.3.2)	VTS49	WG3
VTS50-	11.4.2	Report from intersessional group revising G1014	Intersessional Group 3.4.1	WG3
VTS50-	11.4.2.1	Enclosure Task 3.4.1 DRAFT Revision of G1014 (3 Feb)	Intersessional Group 3.4.1	WG3

ANNEX D   LIST OF OUTPUT DOCUMENTS AND WORKING PAPERS

Output documents are submitted for review/action by a body other than the Committee initiating the document.

Meeting	Agenda Item	Output Paper Title	Source	Action
VTS50-	13.1.1.1	Guideline on Competencies - Planning and Implementing VTS	VTS50	To Council
VTS50-	13.1.1.2	Revised Guideline G1141 Operational Procedures for Delivering VTS	VTS50	To Council
VTS50-	13.1.1.3	Revised Guideline G1110 Decision Support Tools	VTS50	To Council
VTS50-	13.1.1.4	Liaison Note to ARM and Secretariat on Maritime Services	VTS50	To ARM13 and Secretariat
VTS50-	13.1.1.5	Revised Guideline G1132 VTS voice communication and phraseology	VTS50	To Council
VTS50-	13.1.1.6	Liaison Note to ARM regarding the Ship Reporting Guideline	VTS50	To ARM13
VTS50-	13.1.1.7	Liaison Note regarding the revision of MBS	VTS50	To ARM13
VTS50-	13.1.2.1	Liaison Note to ARM ENAV on Cyber Security	VTS50	To ARM and ENAV
VTS50-	13.1.2.2	Liaison Note to ARM regarding ITU matters	VTS50	To ARM13
VTS50-	13.1.3.1	Revised G1017 on Assessment of Prior Learning Exemption for VTS Model Courses	VTS50	To Council
VTS50-	13.2.1	VTS Manual 7.1 - updates	VTS50	To Council and Secretariat
VTS50-	14.1	Report of the 50th Session of the VTS Committee	VTS50	To Council

Working papers will remain within the Committee for further review during VTS51.

Meeting	Agenda Item	Output Paper Title	Source	Action
VTS50-	13.3.0.1	WP Updated Task Plan post-VTS50	VTS50	VTS51
VTS50-	13.3.0.2	WP Post VTS50 Task Register	VTS50	VTS51
VTS50-	13.3.1.1	WP Draft Council Note regarding editorial alignment with the new IMO resolution plus package of documents	VTS50	VTS51
VTS50-	13.3.1.2	WP Draft Guideline VTS in Internal Waters	VTS50	VTS51
VTS50-	13.3.1.3	WP Draft Guideline on Maritime Services	VTS50	VTS51
VTS50-	13.3.1.4	WP Appendix 1 MS1-3	VTS50	VTS51
VTS50-	13.3.1.5	WP TG-1.2.5 Guiding Principles	VTS50	VTS51
VTS50-	13.3.1.6	WP TG 1.2.5 Draft Guidance on the implications of maritime autonomous surface ships from a VTS perspective	VTS50	VTS51
VTS50-	13.3.1.7	WP draft guideline skeleton on Safety Culture	VTS50	VTS51
VTS50-	13.3.1.8	WP TG-1.4.3 Guiding Principles - Future VTS	VTS50	VTS51
VTS50-	13.3.1.9	WP TG-1.4.3 Future VTS - Discussion Paper	VTS50	VTS51
VTS50-	13.3.2.1	WP-G1105_DRAFT_Task_Group_2.1.1 20210324_updated_final	VTS50	VTS51
VTS50-	13.3.2.2	WP draft-10.2.3.1 Draft G 1111 Establishing Functional & Performance Requirements for VTS systems_VTS50 output	VTS50	VTS51
VTS50-	13.3.2.3	WP Draft G.1111-1 for VTS50 v2_5	VTS50	VTS51
VTS50-	13.3.2.4	WP G1111-2 Producing Functional and Performance Requirements for Voice Communications	VTS50	VTS51
VTS50-	13.3.2.5	WP G1111-3 Producing Requirements for RADAR systems _ VTS 50 output, 29 March 2021	VTS50	VTS51
VTS50-	13.3.2.6	WP G 1111-4 Producing Functional and Performance Requirements for AIS and VDES systems	VTS50	VTS51
VTS50-	13.3.2.7	WP G 1111-5 Producing Functional and Performance Requirements for Environment Monitoring systems	VTS50	VTS51
VTS50-	13.3.2.8	WP G 1111-6 Producing Functional and Performance Requirements for Electro Optical systems	VTS50	VTS51
VTS50-	13.3.2.9	WP G 1111-7 Producing Functional and Performance Requirements for Radio Direction Finder systems	VTS50	VTS51
VTS50-	13.3.2.10	WP G 1111-8 Producing Functional and Performance Requirements for Long Range Sensor system	VTS50	VTS51
VTS50-	13.3.2.11	WP Task 2.2.2j G.1111-9 Framework for Acceptance of VTS Systems_VTS50_output	VTS50	VTS51
VTS50-	13.3.2.12	WP VTS Digital Information Service product specification V0.6.4	VTS50	VTS51
VTS50-	13.3.2.13	WP Guideline on Inter-VTS Data Exchange - draft 20210323	VTS50	VTS51
VTS50-	13.3.2.14	WP IALA Product Specification of the Inter-VTS Data Exchange Format (IVEF) - draft 20210315	VTS50	VTS51
VTS50-	13.3.2.15	WP R0145 The Inter-VTS Exchange Format (IVEF) Service (V-145) Ed2.x - draft 20210315	VTS50	VTS51
VTS50-	13.3.3.1	WP draft Guideline on Human Factors and Ergonomics in VTS	VTS50	VTS51
VTS50-	13.3.3.2	WP Guidance on the management of a VTS	VTS50	VTS51
VTS50-	13.3.3.3	WP Guideline 1014 on Accreditation of VTS Training Organizations and Approval to Deliver IALA Model Courses	VTS50	VTS51
VTS50-	13.3.3.4	WP 'Blue Sky Thinking' on work items for the work programme 2022 - 2026	VTS50	VTS51
VTS50-	13.3.3.5	Revised NAVGUIDE Chap 5- VTS	VTS50	VTS51
VTS50-	13.3.3.6	WP V-103_1-review-Prep-VTS50- KA comments added	VTS50	VTS51
VTS50-	13.3.3.7	WP Matrix comparing existing V103-1 course with that content proposed by Australia	VTS50	VTS51

ANNEX E   ACTION ITEMS

Action Items for the IALA Secretariat

1. The **Secretariat** is requested to forward the updated Task Plan (VTS50-13.3.0.1) and Task Register (VTS50-13.3.0.2) to VTS51.   15

2. The **Secretariat** is requested to forward the package of amended documents and the WP draft Council Note regarding editorial alignment with the new IMO resolution (VTS50-13.3.1.1) as a working paper to VTS51 for further development.   17

3. The **Secretariat** is requested to forward the WP draft Guideline VTS in Internal Waters (VTS50-13.3.1.2) as a working paper to VTS51 for further development.   17

4. The **Secretariat** is requested to forward the Guideline on Competencies for Planning and Implementing a VTS (VTS50-13.1.1.1) to Council for approval.   17

5. The **Secretariat** is requested to forward the revised Guideline G1141 Operational Procedures for Delivering VTS (VTS50-13.1.1.2) to Council for approval.   18

6. The **Secretariat** is requested to forward the revised Guideline G1110 Use of Decision Support Tools for VTS Personnel (VTS50-13.1.1.3) to Council for approval.   18

7. The **Secretariat** is requested to forward the liaison note to ARM and Secretariat on Maritime Services (VTS50-13.1.1.4) for their consideration.   18

8. The **Secretariat** is requested to forward the WP draft Guideline on Maritime Services (VTS50-13.3.1.3) and WP Appendix 1 MS1-3 (VTS50-13.3.1.4) as working papers to VTS51 for further development.   18

9. The **Secretariat** is requested to forward the following documents as working papers to VTS51 for further development:VTS50-13.3.1.5 WP TG-1.2.5 Guiding Principles; VTS50-13.3.1.6 WP TG 1.2.5 Draft Guidance on the implications of maritime autonomous surface ships from a VTS perspective.   19

10. The **Secretariat** is requested to forward the WP draft guideline skeleton on Safety Culture (VTS50-13.3.1.7) as a working papers to VTS51 for further development.   20

11. The **Secretariat** is requested to forward the revised Guideline G1132 VTS voice communications and phraseology (VTS50-13.1.1.5) to Council for approval.   20

12. The **Secretariat** is requested to action the updates and editorial amendments to the VTS Manual described at VTS50-13.2.1 VTS Manual 7.1 after Council approval.   21

13. The **Secretariat** is requested to forward the following documents as working papers to VTS51 for further development: VTS50-13.3.1.8 WP TG-1.4.3 Guiding Principles - Future VTS; VTS50-13.3.1.9 WP TG-1.4.3 Future VTS - Discussion Paper.   22

14. The **Secretariat** is requested to forward the liaison note regarding the draft Ship Reporting Guideline (VTS50-13.1.1.6) to ARM for their consideration.   22

15. The **Secretariat** is requested to forward the liaison note regarding the revision of MBS (VTS50-13.1.1.7) to ARM for their consideration.   22

16. The **Secretariat** is requested to forward WP-G1105_DRAFT_Task_Group_2.1.1 20210324_updated_final (VTS50-13.3.2.1) to VTS51.   23

17. The **Secretariat** is requested to forward the following working papers to VTS51 for further development: WP draft-10.2.3.1 Draft G 1111 Establishing Functional & Performance Requirements for VTS systems_VTS50 output (VTS50-13.3.2.2); WP Draft G.1111-1 for VTS50 v2_5 (VTS50-13.3.2.3); WP G1111-2 Producing Functional and Performance Requirements for Voice Communications (VTS50-13.3.2.4); WP G1111-3 Producing Requirements for RADAR systems _ VTS 50 output, 29 March 2021 (VTS50-13.3.2.5); WP G 1111-4 Producing Functional and Performance Requirements for AIS and VDES systems (VTS50-13.3.2.6); WP G 1111-5 Producing Functional and Performance Requirements for Environment Monitoring systems (VTS50-13.3.2.7); WP G 1111-6 Producing Functional and Performance Requirements for Electro Optical systems (VTS50-13.3.2.8); WP G 1111-7 Producing Functional and Performance Requirements for Radio Direction Finder systems (VTS50-13.3.2.9); WP G 1111-8 Producing Functional and Performance Requirements for Long Range Sensor system (VTS50-13.3.2.10); WP Task 2.2.2j G.1111-9 Framework for Acceptance of VTS Systems_VTS50_output (VTS50-13.3.2.11).   24

Action Items for Participants

10, rue des Gaudines – 78100 Saint Germain en Laye, France
Tel. +33 (0) 1 34 51 70 01 – Fax +33 (0) 1 34 51 82 05 – contact@iala-aism.org
www.iala-aism.org

International Association of Marine Aids to Navigation and Lighthouse Authorities
Association Internationale de Signalisation Maritime