



IALA VTS COMMITTEE

REPORT OF THE 46TH SESSION OF THE IALA VESSEL TRAFFIC SERVICES (VTS) COMMITTEE

25 February to 1 March 2019
Westin Chosun Hotel
Busan, Republic of Korea

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1 March 2019

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Report of the 46th Session of the IALA Vessel Traffic Services (VTS) Committee

Executive Summary

The 46th Session of the VTS Committee was held at the Westin Chosun Hotel in Busan, Republic of Korea between the 25 February and 1 March 2019. The meeting was hosted by the Korea Coast Guard who also arranged a technical tour and social programme.

101 Participants from 25 countries, 3 Sister organisations and 4 observers participated in VTS46.

This was the second meeting for the 2018-2022 Work Programme and the VTS Committee considered 55 input papers and produced seven output papers of three Working Groups.

Key outputs included:

- **Guideline on promulgating the requirements of a VTS to mariners** - The draft *Guideline on Promulgating the Requirements of a VTS to Mariners, a VTS Users Guide Template* (Task 1.2.3) was completed and forwarded to Council for approval.
- **Revision of IMO Guidelines for Vessel Traffic Services** – Based on the input from the Correspondence Group (Revision of IMO Guidelines for VTS) and advice from the IMO Secretariat, significant progress was made with regards to the revision of IMO Resolution A.857(20) Guidelines for Vessel Traffic Services (Task 1.1.1).

The Committee is of the view that it is now a mature document and, noting the *Seminar on the Revision of the IMO Resolution A.857(20) Guidelines for Vessel Traffic Services* in June 2019, the preliminary draft will be completed at VTS47 for submission to the IMO for its consideration during the 2019-2020 biennium.

The Committee was very grateful for the valuable input provided by a representative from the IMO Secretariat.

The following liaison notes were prepared:

- To Council to:
 - Note the progress by the VTS Committee in preparing the draft revision of IMO Resolution A.857(20) Guidelines for Vessel Traffic Services for input to NCSR 7 in late 2019 for its consideration during the 2019-2020 biennium.
 - Approve the draft revision as input to the *Seminar on the Revision of the IMO Resolution A.857(20) Guidelines for Vessel Traffic Services* in June 2019 (VTS46-13.2.5).
 - Forward the draft revision to Council members seeking preliminary support from potential co-sponsors to the submission to NCSR 7 following VTS47 in September.
- To Council to approve an input paper to MSC101, requesting the Committee to:
 - Note the tasks being undertaken by IALA and the progress made with the revision of the Guidelines for VTS; and
 - Invite interested Member States and international organisations to participate in the “*IALA Seminar on the revision of Guidelines for vessel traffic services (resolution A.857(20))*” to be held in June 2019.
- To ENAV23 on ‘reach out for new technologies’; and
- To the ENAV and ARM Committees on the review of the draft guideline on Maritime Services in the context of E-navigation.



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Overall status of the VTS Committee 2018-2022 Work Programme after VTS46:

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					
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)	47	50					
1.1.3	Develop a Guideline on training needs for those involved in the planning and implementation of a VTS	48	49					To Council to note task name change
1.1.4	Develop Guideline on the Provision of Local Port Services (LPS)	45						Completed G1142
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					Split into R0127 and G1141 completed GL Revision ongoing
1.2.2	Update Guideline 1110 on Decision Support Tools for VTS Personnel (take into account emerging concepts and technologies)	49	50					
1.2.3	Develop a Guideline for Promulgating the Requirements of a VTS to Mariners – A VTS Users Guide Template	45	46					To Council for approval
1.2.4	Develop Guideline on Maritime Services in the context of e-Navigation relating to VTS	45	50					To Council to note task name change
1.2.5	Develop a Guideline on the implications of maritime autonomous surface ships from a VTS perspective	50	51					
1.2.6	Develop Guideline on how to develop a safety culture in VTS	50	51					
1.2.7	Develop Guideline on the development and implementation of VTS related MS's other than MS 1, 2 and 3	46	48					
1.2.8	Develop a IALA Reference List on IALA Documentation Relating to VTS	45						Completed Continued update by Sec.
1.3.1	Develop Guideline on VTS Voice Communications, Phrases/Phraseology	45	48					
1.3.2	Develop Recommendation on Digital information transfer between ship and shore in VTS operations (Operational aspects)	50	51					
1.4.1	Update and publish the VTS Manual and develop related procedures for its future management	46	48					Coord Group established
1.4.2	Develop procedures for the ongoing management and conduct of the Global VTS Questionnaire	45	46					Coord Group established
1.4.3	Prepare a “living document” on “Future VTS”, including emerging technologies and human element	49	51					

Task		Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
					Green	Yellow	Red	
1.4.4	Produce a Guideline on preparing for Zero Accident Campaign							On hold pending IMO decision Note to Council: No IMO response. Task discontinued
WG#2 – Technology								
2.1.1	Develop Guideline on the portrayal of VTS information and data(both operational and technical aspects).	45	48					
2.1.2	Develop Recommendation on Cyber-Security (lead ENG, all Committees via Workshop)	47	50					
2.2.1	Review and update Recommendation V-128 on Operational and Technical Performance of VTS Systems	48	51					
2.2.2	Review and update Guideline 1111 on Preparation of Operational and Technical Performance Requirements for VTS Systems	45	48					
2.2.3	Develop Guidance on the technical acceptance of a VTS system	45	46	48				Split into one general GL and one specific GL on radar etc.
2.3.1	Provide input to data models for digital information services for VTS	45	47					Extension possible due to uncertainties on data modelling task and dependencies on other tasks
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)	48	51					
WG#3 –Training								
3.1.1	Develop Guideline on human factors and ergonomics in VTS	46	49					
3.2.1	Develop Guideline on the management of a VTS	45	49					
3.2.2	Review, update and reformat Guideline 1045 on Staffing Level at VTS centres	45	47					Completed at VTS45
3.3.1	Review and update V-103 on the Standards for Training and Certification of VTS Personnel and its associated Model Courses.	45	48					
3.3.2	Review and update Guideline 1017 on Assessment of Training Requirements for Existing VTS Personnel, Candidate VTS Operators, Revalidation of VTS Operator Certificates	47	50					
3.3.3	Produce a VTS Training Manual to complement V-103 and its model courses	48	51					

Task		Start Session	Planned End Session	Revised End Session	Progress Indicator			Status Overview
					Green	Yellow	Red	
3.4.1	Review and update Guideline 1014 on the Accreditation and Approval Process for VTS Training	48	51					
3.5.1	Develop guidance on VTS awareness for navigating officers	45	46	47				

Legend:

Green – progress as planned

Yellow – task needs more time, target time prolonged

Red – task needs more time, target time prolonged

Blank – task not started

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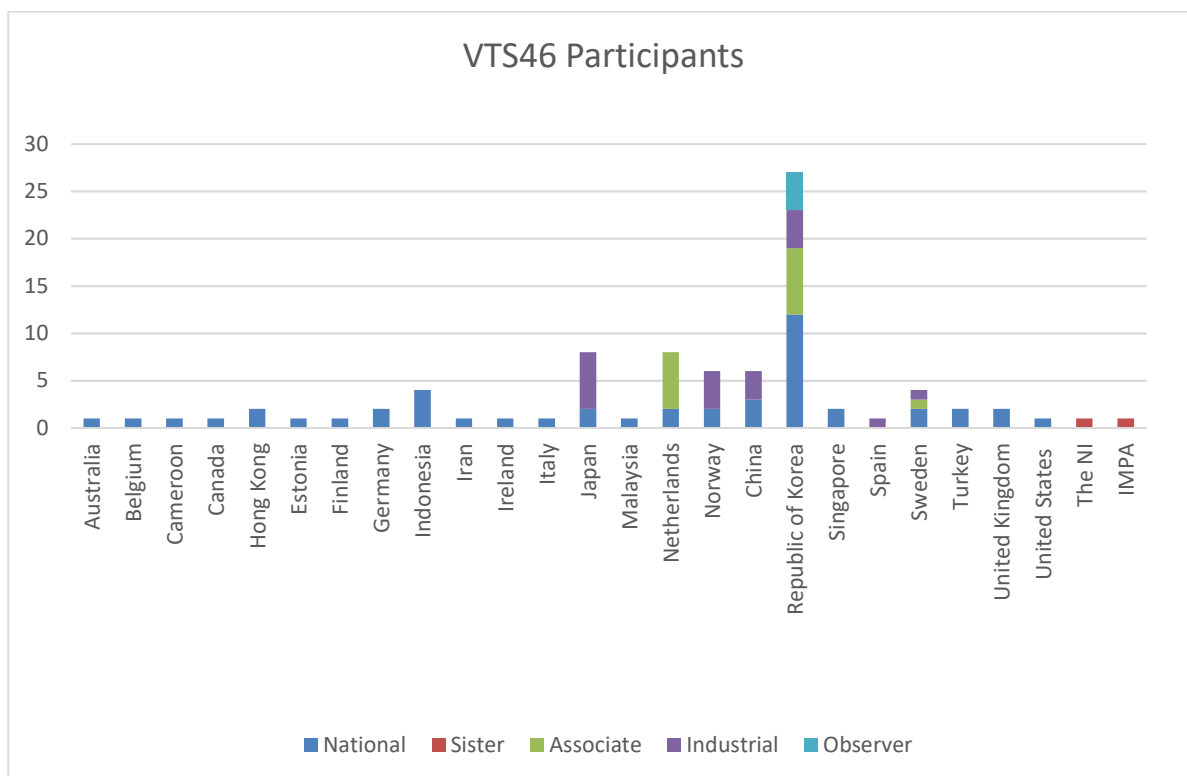
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Report of the 46th meeting of the IALA Vessel Traffic Services (VTS) Committee

1. INTRODUCTION

The 46th meeting of the VTS Committee was held from 25 February to 1 March 2019 at IALA with Monica Sundklev as Chair and Dirk Eckhoff as Vice-Chair. The Secretaries for the meeting were Thomas Southall and Kevin Gregory.

101 Participants from 25 countries, 3 Sister organisations and 4 observers participated in VTS46.



1.1 Administrative announcements

The Korea Coastguard carried out the safety and administration brief.

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 following statement on the IALA General Data Protection Policy was made by the Chair of the Committee:

IALA is a European organization and as such IALA needs to comply with the General Data Protection Regulations of the European Union and that is being done through an IALA policy. In the report of this meeting, IALA will include a list of participants with their contact information. Any participant who wishes to remove their personal information from the participants' list should advise the Committee Secretary as soon as possible.

1.2 Welcome from the VTS Committee Chair

Monica Sundklev introduced herself as the Chair of the VTS Committee and also introduced Dirk Eckhoff as the Vice-Chair and Thomas Southall and Kevin Gregory as the Committee Secretaries. The Chair welcomed all participants to VTS46, especially those that were attending for the first time and those that had travelled a long distance to be present. The Chair thanked the Korea Coast Guard for hosting the meeting and hoped that the result of this week would be as positive as it had been last week at the workshop on Harmonising VTS Voice Communication.



1.2.1 Opening Ceremony

The Korea Coastguard organised an opening ceremony for VTS46 which included a cultural performance by the Busan High School of Arts. The school gave two impressive performances 'Choripong' and 'Taepyeongmu' which were appreciated by all participants.

The Korea Coastguard Commissioner, Hyun-bai Cho, thanked participants for gracing the event with their presence and that it was an honour for VTS46 to be held in Busan. VTS in Korea plays a big role in maritime safety with the first VTS Centre being opened in 1993. As of 2019, there are 20 operational VTS Centres in Korea. The Commissioner noted that Korea is pleased to support IALA in its mission and fully supports its efforts to change its status to an Inter-Governmental Organization which will further expand its influence. The Commissioner reaffirmed Korea's support for the VTS Committee and, in particular, its active support for the review of IMO Resolution A.857(20). The Commissioner was hopeful for successful results in each agenda item, especially with so many VTS professionals being in active discussion together.

The President of Korea Institute of Maritime and Fisheries Technology (KIMFT), Dong-Jae Lee, welcomed all participants to Busan and reflected on a very successful workshop on Harmonising VTS Voice Communication. The President expressed his gratitude to the IALA Secretary-General, IALA members and workshop participants for their active participation and to his KIMFT and Korea Coastguard colleagues for their hard work in preparing for the workshop and the VTS Committee. In depth, discussions will take place at VTS46 on operations, technology and training reflecting that VTS is the most efficient and safest tool to connect ships and ports. The discussions that will be held this week will have a huge impact on these areas. Efficient port operations are a necessity, the importance of VTS is evermore increasing. Korea and KIMFT will do their best to support this work.

The Director General of Busan Metropolitan City, Byung Cheol Bae, reflected on the important role of IALA in unifying marine aids to navigation worldwide. Busan is a thriving global maritime city and fully supports safe navigation and vessel safety and, as such is very pleased to host VTS46 in Busan. There are many institutions related to maritime and fishery affairs which together have fostered an innovation cluster helping to bring peace and prosperity on Korean peninsula to connect the continent and ocean.

The IALA Deputy Secretary-General – Omar Frits Eriksson welcomed everyone to Korea and Busan. Korea is strong supporter of IALA and is a current Council Member holding the Presidency. Korea actively participates and is a driving force in all Technical Committees. Hosting last week's workshop and the VTS Committee clearly demonstrates their support for IALA, the growing maritime significance of the Asia Pacific region and prominent role of Korea in shipping. Korea is highly dependant on maritime resources for its people and shipping for its economy. Korea has taken a leading role in the maritime sector, particularly in e-Navigation and VTS. Korea is truly a front runner in the development of contemporary and future maritime technology. The Deputy Secretary General thanked all members for joining the Committee, for some it is far away from home with long journeys involved to contribute to the work of the Committee. Global harmonisation of marine aids to navigation, including VTS is the principle aim of IALA. The work of the VTS Committee is critical to meeting this goal. The Deputy Secretary General encouraged all participants to actively use every opportunity to network during the week to share their professional knowledge and experience.

1.3 Approval of the agenda

The agenda was reviewed and approved (VTS46-1.3.1).

1.4 Introductions and apologies

The Chair welcomed the new participants of the Committee. The apologies for absence that had been received by the Secretariat were noted (see Annex B).

1.5 Programme for the week

The Chair explained the programme for the week (VTS46-1.5.1) which was adopted. Information was provided to the Committee participants with respect to the technical tour (to Busan VTS and a Korea Coast Guard vessel) and the Committee dinner.

2. REVIEW OF ACTION ITEMS FROM VTS45

Input paper VTS46-2.1.1 refers.

The Committee Secretary confirmed that all Secretariat actions from VTS45 were completed. The Committee noted that the feedback from the forthcoming Legal Advisory Panel (related to action item 3 - seeking the consideration of LAP on VTS beyond traditional boundaries (VTS45-12.1.10)) would be important in the finalisation of the review of the proposed revision of IMO Resolution A.857(20).

All action items for Committee Participants were completed and the Chair thanked members for the contributions to the various inter-sessional activities.

The report of VTS45 (VTS46-2.2.1) was noted.

3. REVIEW OF INPUT PAPERS

Input papers are numbered in line with the agenda.

The Committee noted comment from the National Member of the Netherlands related to the newly-formed working group (WG 3) of the ENAV Committee which will deal with emerging digital technologies (VTS46-3.2.2).

The Committee noted the liaison note from ENG8 regarding the use of Recommendation E-111 on Port Traffic Signals (VTS46-3.2.1). Committee members were requested to provide feedback to the Committee Secretary with respect to the use of the Recommendation – no feedback was received.

Action item:

*The **Committee Secretary** is to inform the forthcoming ENG Committee meeting that no feedback was received from VTS Committee members with respect to the use of Recommendation E-111 on Port Traffic Signals.*

4. REPORTS FROM OTHER BODIES

4.1 IALA

4.1.1 IALA Council 68

The Committee noted the Council report of the 68th Session which was held in December 2018, paper VTS46-4.1.1 refers.

The Chair provided a brief summary of the report and highlighted the comments made with respect to the work on the review of IMO Resolution A.857(20). The Chair also confirmed that all VTS Committee related documentation submitted to Council had been approved.

4.1.2 IALA Policy Advisory Panel

The 37th meeting of the Policy Advisory Panel was held between the 12 and 13 February 2019. In view of the short time interval between the meeting and the VTS Committee, the final report was not yet available. There were no matters of major significance arising from PAP37 for the VTS Committee to note.

4.1.3 IALA Workshop on the Harmonisation of VTS Voice Communication

The Committee noted the conclusions of the workshop on Harmonising VTS Voice Communication (VTS46-4.1.3.2) and noted that the outcomes of the workshop will be great value to Working Group 1 in the execution of the tasks related to this matter.

4.2 IMO

Input papers VTS46-4.2.1.1 (IMO Council 121) and VTS46-4.2.3.1 (NCSR6) were noted by the Committee. The Chair drew the Committees attention to the documents submitted by IALA to NCSR6 which included an information paper on the progress made with the review of IMO Resolution A.857(20) and referred to the decision with regard to Maritime Services in the context of e-Navigation.

4.3 IHO

No papers were received for this agenda item.

4.4 WMO

No papers were received for this agenda item.

5. REPORTS FROM RAPPORTEURS

5.1 Correspondence Group on the revision of IMO Resolution A.857(20)

Rapporteur: Neil Trainor

Input paper VTS46-5.1.1, VTS46-5.1.2, VTS46-5.1.3, VTS46-5.1.4, VTS46-5.1.5 refer.

The rapporteur reported that 31 Committee members from 20 organisations, representing Competent Authorities, VTS Authorities, sister organisations and industrial members, have participated in the Correspondence Group (via teleconference) since its formation. Outcomes from the Correspondence Group for the Committee's consideration at VTS46 include:

- Version 2 of the revised/new resolution for VTS.
- Revised '*Guiding Principles*' for drafting the Revised/New Resolution for VTS.
- Updated Work programme for completing the revision of resolution A.857(20).
- Report from Correspondence Group (revision of A.857(20)) to VTS46.

The Chair thanked Neil Trainor and all correspondence group participants for their active participation and commitment to the revision of IMO Resolution A.857(20) and it was pleasing to note the consensus and positive progress that had been achieved.

5.2 Coordination Group on the IALA VTS Questionnaire

Rapporteur: Neil Trainor

Input paper VTS46-8.4.1 refers.

It was considered that it would be the preferred solution for IALA to host the software application and database for the VTS questionnaire. It may also be advantageous to operate the same type of application / database for both the VTS and AtoN questionnaires. A decision is required as to whether the VTS questionnaire should be re-run on a similar basis to the previous version or whether the format and/or content of the questions should be amended.

The last VTS questionnaire which was conducted in 2016 returned some 400 responses therefore, there may be advantages in using the same or similar questions in the next questionnaire to monitor for any changes. Alternately, a change to the format and content of the questionnaire may give some useful information to inform the work of the VTS Committee into the future, especially taking into account the current process of revising IMO Resolution A.857(20).

5.3 VTS Manual Coordination Group

Rapporteur: Neil Trainor

The VTS Manual Coordination Group held one preliminary meeting before VTS46. Refer to section 8.4 of this report.

6. PRESENTATIONS

The presentations are listed in Annex D.

6.1 Status of VTS operation and direction of VTS development in Korea

Paper VTS46-6.1 (presentation) refers.

The presentation was made by Kim Young Sup and gave a comprehensive and informative overview of the Korea Coastguard and its current and future activities related to VTS operations and development in both the port and coastal environments.

6.2 Voyage exchange between ship and VTS

Paper VTS46-6.2 (presentation) refers.

The presentation was given by Fredrik Karlsson and gave an overview and practical examples and benefits of the exchange of voyage related data between ships and VTS. In particular, the safety and environmental efficiency benefits of such exchanges were highlighted.

6.3 IALA World-Wide Academy

Paper VTS46-6.3 (presentation) refers.

The presentation was given by Kevin Gregory and gave an overview of the activities of the IALA World-Wide Academy related to VTS. It was emphasised that the World-Wide Academy is an integral part of the IALA Secretariat and that a large part of its mission was to promote the work of the VTS Committee. An update was provided on the IALA World-Wide Academy activities related to education and training, capacity building and research and development in the VTS domain.

6.4 IALA Workshop on the Initial Operating Capability Phase for e-Navigation Services

Paper VTS46-6.4 (presentation) refers.

Jillian Carson-Jackson and Ryan Sim provided a presentation on the forthcoming IALA Workshop on the Initial Operating Capability Phase for e-Navigation Services which will be held in Singapore between the 8 and 10 April, the week after ENAV23. The concept, format and structure of the workshop was explained and Committee members were encouraged to attend.

The workshop will coincide with the Singapore Maritime Week and is kindly hosted by the Maritime and Port Authority of Singapore.

6.5 IALA Symposium 2020

Paper VTS46-6.5 (presentation) refers.

Pieter Paap provided Committee members with an update on the IALA Symposium which will be held in Rotterdam, the Netherlands, between the 25 and 29 May 2020. The Symposium will cover both VTS and e-Navigation topics. The structure and preliminary programme for the Symposium was introduced.

7. WORK PROGRAMME 2018-2022

The Committee reviewed the Council approved work plan (VTS46-7.3), the VTS Committee task plan and task register (VTS46-7.1 and VTS46-7.2). The Committee considered whether to bring forward the task 1.2.5 (develop a Guideline on the implications of maritime autonomous surface ships (MASS) from a VTS perspective) and 2.1.2 (develop a Recommendation on Cyber-Security). It was agreed to leave the current work schedule unchanged.

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. A list of working group participants is at Annex C. The Vice-Chairs of Working Group 1 and Working Group 3 could not attend VTS46. The Chairs of these Working Groups were assisted by other experienced Committee members as appropriate.

Working Group (WG)	Working Group Chair / Vice-Chair
WG1 – Operations	Trond Ski (Chair)
WG2 – Technology	Robert Townsend (Chair) Richard Aase (Vice-Chair)
WG3 – VTS Training	Lilian Biber-Klever (Chair)

9. WORKING GROUP 1 – OPERATIONS (WG1)

Thirty-six participants joined Working Group 1 - Operations at VTS46.

At VTS46 Working Group 1 progressed three of the 12 remaining tasks assigned under the 2018 – 2022 work programme. According to the IALA VTS task plan, Working Group 1 finalised one of these tasks during the meeting.

9.1 Task 1.1.1 Revision of IMO Resolution A.857(20) Guidelines for Vessel Traffic Services

VTS45 established a Correspondence Group to progress Task 1.1.1. The Correspondence Group have made significant progress with regards to the revision of IMO Resolution A.857(20) Guidelines on vessel traffic services. During VTS46 members were requested to note the report from the Correspondence Group (Input paper - VTS46-5.1.2) and its associated input documents as submitted to the Committee for its consideration. These included:

- Input paper - VTS46-5.1.3 Revised New Resolution - Version 2
- Input paper - VTS46-5.1.4 'Guiding Principles' for drafting the Revised/New Resolution for VTS
- Input paper - VTS46-5.1.5 Work programme for completing the revision of resolution A.857(20)

Following a brief overview of the input documents at opening plenary, members were requested to provide any comments to the Chair of the Correspondence Group by the close of Committee business on Tuesday for collation and further review by members of the correspondence group participating at VTS46.

Based on the comments provided, advice from the IMO Secretariat, and the input documents from the Correspondence Group (Revision of IMO Guidelines for VTS), significant progress was made with regards to the revision of the IMO Guidelines for Vessel Traffic Services (Task 1.1.1).

The draft revision is considered to now be mature document and, noting the *Seminar on the Revision of the IMO Resolution A.857(20) Guidelines for Vessel Traffic Services* in June 2019, this task is on schedule for completing the preliminary draft at VTS47 for submission to the IMO for its consideration during the 2019-2020 biennium.

In addition, some minor changes to the 'Guiding Principles' for drafting the Revised/New Resolution for VTS guiding principles and Work programme for completing the revision of resolution A.857(20) were noted.

In concluding task 1.1.1 at VTS46 it was agreed that liaison note to Council be prepared to:

- Note the progress by the VTS Committee in preparing the draft revision of IMO Resolution A.857(20) Guidelines for Vessel Traffic Services for input to NCSR 7 in late 2019 for its consideration during the 2019-2020 biennium.
- Approve the draft revision as an input document to the *Seminar on the Revision of the IMO Resolution A.857(20) Guidelines for Vessel Traffic Services* in June 2019 (VTS46-13.2.5).
- Forward the draft revision to Council members seeking preliminary support from potential co-sponsors to the submission to NCSR 7 following VTS47 in September.

Noting that the Work Programme for completing the revision includes informing MSC about IALA's coordinating role in preparing a revised/new resolution for submission to the IMO in late 2019 it was also agreed that a Liaison be prepared to Council to approve an input paper to MSC101, requesting the Committee to:

- Note the tasks being undertaken by IALA and the progress made with the revision of the Guidelines for VTS; and
- Invite interested Member States and international organisations to participate in the "*IALA Seminar on the revision of Guidelines for vessel traffic services (resolution A.857(20))*" to be held in June 2019.

It was also agreed that the Correspondence Group be continued to collate any further comments from Committee members on the revised draft for consideration at the June Seminar.

In completing its tasks associated with the revision, the Committee expressed its thanks to the IMO Secretariat for their active engagement and advice in this task.

Action items:

Committee Members are invited to forward any further comments on revision 2.3.1 of the draft new resolution (VTS46-13.2.5) to Neil Trainor (neil.trainor@amsa.gov.au) for collation and consideration by the correspondence Group for input to the June Seminar.

The **IALA Secretariat** is requested to forward the liaison note to Council informing them of the progress made at VTS46 regarding the revision of the resolution, seeking approval to use the revised draft (VTS46-13.2.5) as input to the Seminar on the Revision of the IMO Resolution A.857(20) for Vessel Traffic Services and requesting that the draft revision be forwarded to Council members seeking preliminary support from potential co-sponsors to the submission to NCSR 7 following VTS47 in September;

The **IALA Secretariat** is requested to forward the liaison note to Council to approve the input paper to MSC101, requesting the Committee to:

- Note the tasks being undertaken by IALA and the progress made with the revision of the Guidelines for VTS; and
- Invite interested Member States and international organisations to participate in the “IALA Seminar on the revision of Guidelines for vessel traffic services (resolution A.857(20))” to be held in June 2019

The **Committee Secretary** is requested to forward the working documents on the Work Programme for completing the revised/new resolution for VTS (VTS46-5.1.5), Guiding principles for drafting the revised/new resolution for VTS (VTS46-5.1.4) and the revised draft resolution for VTS (VTS46-13.2.6) to VTS47 for further development.

9.2 Task 1.2.1 Review and update V-127 on Operational Procedures for Vessel Traffic Services

During VTS45 Recommendation V-127 was split into Recommendation “R0127 VTS Operations” and Guideline “G1141 Operational Procedures for VTS”. Council 68 approved Recommendation R0127 at 14 December 2018. The revision of Guideline G1141 will commence at VTS47.

9.3 Task 1.2.3 Develop a Guideline for Promulgating the Requirements of a VTS to Mariners – A VTS Users Guide Template

Under this task, Working Group 1 reviewed the following input papers:

- Working Group 1 working paper from VTS45, VTS User Guide template task 1.2.3. (VTS46-8.2.4/ VTS45-12.2.2).
- Revision statement of “VTS Users Guide Template” from MSA China (VTS46-8.2.4.1).
- MSA China Updated Draft Guideline for Promulgating the Requirements of a VTS to Mariners. (VTS46-8.2.4.2)
- AMSA Input paper - Promulgating VTS info to Mariners. (VTS46-8.2.4.3).

As planned, the Working Group finalised task 1.2.3 at VTS46. During the session, the Working Group made considerable progress on the VTS45 working paper. Several inputs and comments were received from a number of VTS46 participants. Based on these inputs and the input documents, various changes were made to the draft guideline. Working Group 1 would like to note that the guideline is based on the present Resolution A.857(20). A future revision of the Resolution will require this guideline to be reviewed. After discussion it was highlighted that it may be of use for this documentation to be brought to the attention of producers of relevant nautical publications. The UK Maritime and Coastguard Agency representative to the VTS Committee volunteered to bring this to the attention of UKHO if the document is approved by IALA Council.

Action items:

The **IALA Secretariat** is requested to forward the developed Guideline on Promulgating the Requirements of a VTS to Mariners – A VTS Users Guide Template (VTS46-13.2.3) to Council for approval.

That **Muhammad Shahid Khan** is requested to bring the Guideline on Promulgating the Requirements of a VTS to Mariners – A VTS Users Guide Template (VTS46-13.2.3) to the attention of the UK Hydrographic Office if the document is approved by Council.

9.4 Task 1.2.4 Develop Guideline on Maritime Service Portfolios for VTS

The Working Group reviewed Maritime Services 1, 2 and 3 of the draft Guideline Maritime Services (VTS46-8.2.1). During the meeting, a representative from the IMO Secretariat provided an output document from NCSR6 which included the draft MSC circular (Initial descriptions of Maritime Services in the context of e-navigation). The Working Group were of the opinion that the guideline should be in line with the relevant IMO document as far as practicable. The Working Group has revised parts of the text of the IALA Guideline on Maritime Services (working paper VTS46-13.3.1) and merged the three appendices into one appendix. Input has also been provided by Working Group 2 on the Appendix 1 MS1-3, Information requirements.

The Working Group agreed to provide comments and proposals, in accordance with a request of NCSR6, for changes if any to NCSR7 for finalization with the aim for approval by MSC. Therefore, the Working Group wants the overall content of MS1-3 to be preliminary finalized by the VTS committee so that Working Group 1 can continue the revision of the “Appendix 1, MS1-3 Information Requirements”. Consideration should be made at VTS47 to whether it is necessary to revise the task register regarding the IALA VTS Manual on MS 1, 2 and 3. Changes to the IALA VTS Manual should be handled in accordance with task 1.4.1 “Update and publish the VTS Manual and develop related procedures for its future management”.

In the view of Working Group 1, the output paper of MS 1, 2 and 3 is finalized for now and the Committee can therefore hand it over to ARM and ENAV Committees, to note and provide inputs to VTS47 on the appendix 1 “MS 1-3 information requirements”.

Working Group 1 wished to rename task 1.2.4 in the task plan to read “Develop a Guideline on Maritime Services in the context of e-Navigation relating to VTS” and the Committee agreed with this action.

Action items:

*The **Committee Secretary** is requested to forward the Liaison Note to ENAV23 and ARM9 (VTS46-13.2.7) and the associated draft IALA Guideline “Maritime Service Portfolios Digitising Maritime Services” and its associated appendix 1 “MS 1-3 information requirements” to note and provide input to VTS47.*

*The **Committee Secretary** is requested to forward the draft Guideline on Maritime Services for VTS (VTS46-13.3.1) with Appendix 1 “Information requirements” as a working paper to VTS47 for further development.*

*The **Committee Secretary** is requested to note the request to rename task 1.2.4 to ‘Develop a Guideline on Maritime Services in the context of e-Navigation relating to VTS’ and to take action as appropriate.*

9.5 Task 1.3.1 Develop Guideline on VTS Voice Communications, Phrases/Phraseology

Under this task, the Working Group reviewed the following input papers:

- Cover note on Workshop on VTS Voice Communication (VTS46-4.1.3.1).
- Conclusions of the IALA Workshop on Harmonizing VTS Voice Communication (VTS46-4.1.3.2).
- VTS Voice Communications Workshop WG1 Results (VTS46-4.1.3.3).
- VTS Communications Workshop WG2 Results (VTS46-4.1.3.4).
- WP WG1 Draft Guideline on VTS Voice Communication phraseology task 1.3.1 (VTS46-8.3.1/ VTS45-12.2.3).
- AMSA Input Paper - Draft Guideline on VTS Phraseology - Cover Note (VTS46-8.3.2).
- AMSA Input Paper - Draft Guideline on VTS Phraseology (VTS46-8.3.3).
- AMSA Input Paper - Draft Guideline on VTS Phraseology - Task Register (VTS46-8.3.4).

The Working Group continued to draft the guideline on VTS Voice Communications Phrases/Phraseology, that introduce key words and standardized phraseology based on common scenarios to support clear and concise information exchange. The working group has considered the input coming from the Workshop on Harmonizing VTS Voice Communication, which was held in Busan between 19 and 23 February, and from the Australian Maritime Safety Authority (AMSA) as working papers. The mentioned input papers have been highly valuable documents for the preparation of the phraseology. The work will continue at the next session.

Action items:

The **Committee Secretary** is requested to forward the draft Guideline on VTS Voice Communications - Phrases/Phraseology (VTS46-13.3.2) as working paper to VTS47 for further development.

9.6 Task 1.4.1 Update and publish the VTS Manual and develop related procedures for its future management

The VTS Committee agreed at VTS45 to establish a Coordination Group to coordinate the preparation for a new edition of the VTS Manual and to progress task 1.4.1 “Update and publish the VTS Manual and develop related procedures for its future management”.

The Coordination Group revised the terms of reference for the preparation of the VTS Manual. The aim is to make the Manual smaller and to prevent it from becoming out of date by referencing IALA Standards, Recommendations and Guidelines. It was agreed that the future Manual will be in electronic format and hosted on the IALA website.

9.7 Task 1.4.2 Develop procedures for the ongoing management and conduct of the Global VTS Questionnaire

At VTS45 it was agreed to implement a Coordination Group to prepare for the effective conduct of the 2020 IALA VTS Questionnaire. The Coordination Group and IALA Deputy Secretary General met during VTS 46 and it was agreed that the database and web application will be hosted on IALA servers and a database and web expert would be sought from within the VTS Committee. No volunteers to be the VTS Questionnaire database and web expert were forthcoming at plenary.

Action item;

That **Committee Members** are requested to identify a database and web expert to manage the technical aspects of the database of the IALA VTS Questionnaire by 1 April 2019.

That **Neil Trainor** is requested to provide the technical details of the existing IALA VTS Questionnaire to the IALA Secretariat.

9.8 Task 1.4.4 Produce a Guideline on preparing for Zero Accident Campaign

At VTS46 it was decided that task 1.4.4 “Produce a Guideline on preparing for Zero Accident Campaign” be discontinued as there was no response from IMO.

9.9 Task 1.1.3 Develop Model Course on planning, implementing, operating and managing VTS in Developing countries

At VTS46 some members of Working Group 1 considered the actions requested by the IALA Secretariat through input paper VTS46-8.1.1 “Scope of VTS implementation Model Course or Guideline”. Working Group 1 had no comments to the suggested scope of the Model Course or Guideline. Working Group 1 did however consider that the task should be renamed to “Develop a Guideline on training needs for those involved in the planning and implementation of a VTS”. This approach would cover the scope of the task and promote a more flexible and easy usage of the guidance related to the identification and management of such training needs.

According to the VTS Committee Task Plan, Working Group 1 will start progressing task 1.1.3 at VTS48. Working Group 1 would like to request WWA to forward any input on the subject as an input paper before VTS48.

Action items:

The **Committee Secretary** is requested to note the working group’s considerations of the need to rename task 1.1.3 and progress these considerations as deemed appropriate.

The **World-Wide Academy** is requested to forward any possible input regarding task 1.1.3 to VTS48.

10. WORKING GROUP 2 – TECHNOLOGY (WG2)

10.1 Introduction

23 people joined the Working Group.

Working Group 2 has seven formal tasks in the work period 2018-2022. The following tasks were progressed at VTS 46:

- 2.1.1 Develop a guideline on portrayal of VTS information and data.
- 2.2.2 Review and update Guideline 1111 on preparation of Operational and Technical performance requirements for VTS Systems.
- 2.2.3 Develop a guideline on technical acceptance of a VTS system.
- 2.3.1 Develop a Data Model for Digital Information Services for VTS.

Additionally, the Working Group had one paper to review and comment upon:

- VTS46-3.2.2 Liaison note from ENAV22 - reach out for emerging tech.

After presenting the tasks, the Working Group discussed the approach to the management of these tasks and agreed a plan for the week. Essentially, four sub-groups were created along similar lines to the previous sessions.

The work group produced one liaison note and seven working documents.

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

Progress made in VTS45 was put on hold, due to the emergence of an existing guideline G1105 (Shoreside portrayal ensuring harmonisation with ENAV related information) which already covers much of the requirements of task 2.1.1. Therefore, in order to prevent any duplication of work, a gap analysis was undertaken. The findings will be incorporated into G1105 and G1111 as appropriate during VTS47.

Action Item:

*The **Committee Secretary** is requested to forward the draft guideline G1105 (VTS46-13.3.3) and GAP analysis (VTS46-13.3.4) to next session as working papers.*

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

At the commencement of VTS46 it was decided that the input working paper was too long and detailed. Working Group 1 and Working Group 2 agreed to the proposal submitted by IHMA to remove references to Basic, Standard and Advanced. For consistency Working Group 2 also removed these references throughout the document. Ongoing work will be undertaken to reduce the size of the document.

Action Item:

*The **Committee Secretary** is requested to forward the draft Guideline 1111 (VTS46-13.3.5) as working paper to VTS47.*

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

This task has taken numerous sessions and is due for completion however it is a complex task. At the commencement of VTS46 it was decided that the input working paper is too long. Accordingly, we have restructured it, reducing it in size by creating a generic document that covers VTS system verification and validation. At the same time, we acknowledge that some subsystems may require a bespoke guideline. As a result, multiple guidelines may be required, including the work already undertaken for radar. The VTS Committee agreed to change the task name to 'Develop Guidance for Acceptance of VTS Systems'.

Action Item:

The **Committee Secretary** is requested to forward the two working documents on the technical acceptance of a VTS (VTS46-13.3.6) and technical acceptance of radar (VTS46-13.3.7) as working papers to VTS47.

The **Committee Secretary** is requested to note the VTS Committee's request to rename task 2.2.3 to 'Develop Guidance for Acceptance of VTS Systems' and progress the request as appropriate.

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

Discussions were held with several members in the Committee. Existing standards were evaluated and information from Working Group 1 on Maritime Services considered. The Working Group started to define categories which will be taken into next session to be populated and expanded. It was suggested to retitle the task to "provide input to data models for digital information services for VTS".

Action Item:

The **Committee Secretary** is requested to forward the working document on provide input to data models for digital information services for VTS (VTS46-13.3.8), and category spreadsheet (VTS46-13.3.9) as working papers to VTS47.

The **Committee Secretary** is requested to note the change of title to 'provide input to data models for digital information services for VTS'.

10.5 Liaison note from ENAV22 - reach out for emerging tech

Jillian Carson-Jackson (Chair WG3 of ENAV) presented the liaison note on emerging technologies and held a brainstorming session on that topic. Working Group 2 discussed and coordinated the comments within the Committee. The VTS Committee agreed and provided a response to the liaison note (VTS46-3.2.2), to be sent to ENAV.

Jillian Carson-Jackson raised the subject on aligning guideline G1111 with G1128, G1113 and G1114. Working Group 2 welcomed the subject, and will take this into consideration in the ongoing work on Task 2.2.2.

Action Item:

The **Committee Secretary** is requested to forward the liaison note (VTS46-13.2.2) on reach out for emerging technologies to ENAV.

10.6 GPS Roll over – 6 to 7 April 2019

A short discussion on the GPS week roll over which will happen between the 6 and 7 April was held and it was agreed to post an IALA news item on that subject with links to relevant websites.

Action Item:

The **IALA Secretariat** is requested to publish a news item concerning the GPS Rollover as a news item on the IALA website.

10.7 Miscellaneous

The task register has been updated, discussed in the Working Group, and forwarded to Committee Chair and Vice-Chair.

11. WORKING GROUP 3 – VTS TRAINING (WG3)

11.1 Task 3.1.1 Develop Guidance on Human Factors in VTS

The Working Group progressed this task and a sub-group was formed which produced some valuable content regarding the aims and objectives and target group of the document. Additionally, the current content was

reviewed and improved where necessary. The input from this sub-group will be integrated in the current document between meetings for further processing and review at VTS47. For the moment this document is still a working paper.

Action item:

*The **Chair of Working Group 3** is requested to integrate the work of the subgroup into the current working paper and to forward this to the IALA secretariat to be available for further processing at VTS47.*

11.2 Task 3.2.1 Develop guideline on the management of a VTS

This task was not continued since the task leader was not present. It was decided that the task would be discussed inter-sessionally and a proposal on how to move forward would be presented before or the latest at VTS47.

Action item:

*The **Chair of Working Group 3** is requested to prepare a paper on the continuation of this topic and its consequences for the work in the working group.*

11.3 Task 3.2.2 Review, Update and Reformat Guideline 1045 on Staffing level at VTS centres

During VTS45, Working Group 3 decided on the formula which was updated and agreed. The Working Group reviewed the Guideline in its entirety which was agreed at plenary at VTS45. The revised document is published on the IALA website. Task completed.

11.4 Task 3.3.1 Review and update Recommendation V-103 on the Standards for Training and Certification of VTS Personnel and associated Model Courses

The Working Group progressed this work programme item. A sub-group considered several issues in the current Model Course V-103/1 to decide if the concepts of this document could be updated. Furthermore, it was decided that a new framework should be considered with regard to the current tasks of contemporary VTS. Several items were considered for review and further processing of the document.

Action Item:

*The **Chair of Working Group 3** is requested to integrate the work of the subgroup into the current working paper and to forward this to the IALA secretariat to be available for further processing at VTS47.*

11.5 Task 3.5.1 Develop guidance on VTS Awareness for Navigating Officers

Working Group 3 reviewed the working document on guidance on VTS awareness for navigating officers. Several changes were made to make it a more comprehensive document. Whilst the Committee recognised that significant progress had been made with the task it was determined that further work was required to finalise several sections.

Following discussion in plenary as regards to the title of the proposed Guideline the IMO Secretariat advised that Navigating Officers should be replaced by Deck Officers to be in line with SOLAS and STCW Conventions.

Action Item:

*The **Committee Secretary** is requested to forward the draft IALA Guideline on VTS awareness for navigating officers (document VTS46-13.2.1) as a working paper to VTS47.*

Committee Members are requested to provide comments on the draft Guideline as input to VTS47 to enable the document to be finalised.

11.6 Task 1.3.1 Develop Guidance on VTS Voice Communications, Phrases/Phraseology

This is a component of, and one output from Task 1.3.1 and also reflects the results of the Workshop on VTS VHF voice communication held in Busan Korea, the week before VTS46. A subgroup of Working Group 3 was requested to develop strategies for teaching standard communication in English.

Action item:

The **Chair of Working Group 3** is requested to integrate the work of the subgroup into the current working paper and to forward this to the IALA secretariat to be available for further processing at VTS47.

11.7 Rebranded IALA model courses V-103/1, V-103/2, V-103/3 and V-103/4

The Working Group compared the rebranded documents with the currently published. Model courses V-103/1 and V-103/2 were reviewed and comments were made in track change. Model course V-103/3 requires some minor modifications to the numbering and V-103/4 is ready for publication.

Action Item:

The **IALA Secretariat** is requested to finalise the rebranded VTS model courses and publish them.

12. WORK PROGRAMME (2018 – 2022)

Input paper VTS46-7.1 shows the list of tasks derived from the Council approved work programme 2018 – 2022. An extended description of all tasks is in the first draft of the VTS Task Register, VTS46-7.2. Both documents were reviewed, amended and updated during the meeting and will be used for future VTS Committee meetings. It is not needed to get Council approval for updates of the Task List and Task Register. New editions of both documents are working documents and will be forwarded to VTS47 for further use and development. An overall status report of the tasks can be found in the executive summary.

Action item:

The **Committee Secretary** is requested to forward the VTS Task List (2018 – 2022) (VTS46-7.1) and the Task Register (2018 – 2022) (VTS46-7.2) as working papers to VTS47.

13. REVIEW OF OUTPUT AND WORKING PAPERS

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

The output documents listed at Annex E were reviewed and agreed.

The Committee Chair then thanked the Working Group Chairs, Vice-Chairs and participants of the working groups for all their efforts during the week.

14. ANY OTHER BUSINESS

14.1 Nomination of NAVGUIDE coordinator

In preparation for the forthcoming review of the IALA NAVGUIDE which is due for publication in 2022, Jillian Carson-Jackson has volunteered to coordinate the review of the VTS related elements of the document.

14.2 Farewell

The Committee Chair thanked Takashi Tanaka on his last VTS Committee meeting for his contributions and extended members warm wishes for the future.

The Committee Chair, on behalf of the VTS Committee as a whole, noted that this was Pieter Paap's last VTS Committee meeting. The Chair thanked him for his long service and valuable contributions to the VTS Committee and IALA as a whole. Also René Hagendoorn made a special tribute to Pieter noting his participation in several IALA Committees where he started about 30 years ago, contributing both professionally and socially. The Committee wished Pieter a long and happy retirement.

15. REVIEW OF SESSION REPORT

The report of the meeting (VTS46-14.1) was reviewed by the Committee on 1 March 2019. The report was agreed to in principle and will be open to comment until 8 March 2019.

Action Item:

The **IALA Secretariat** is requested to forward the report of VTS46 (VTS46-14.1) to the IALA Council, to note after 8 March 2019.

16. DATE AND VENUE OF NEXT MEETINGS

VTS47 will be held between 23 and 27 September at IALA Headquarters, Saint Germain-en-Laye, France.

Committee participants were reminded of the following IALA events:

- The IALA Workshop on the Initial Operating Capability Phase for e-Navigation Services to be held between the 8 and 10 April in Singapore.
- The IALA Seminar on the Revision of the IMO Resolution for Vessel Traffic Services to be held between the 24 and 28 June at IALA Headquarters, Saint Germain-en-Laye, France.
- The combined VTS and ENAV Symposium to be held between the 25 and 29 May 2020 in Rotterdam, the Netherlands. Registration and call for papers will be open soon via the symposium website - www.iala-rotterdam2020.nl

Other IALA events will be publicised on the IALA website.

17. CLOSING OF THE MEETING

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

The Chair then paid tribute to the host team of Korea Coast Guard, for their services and friendliness during the week. The Korea Coast Guard team were given special appreciation from the whole VTS Committee.

Finally, the Chair asked if there were any final comments that members wished to make; there were none, at which she hoped to meet all once again during VTS47. She wished everyone a pleasant stay and safe journey home.

18. LIST OF ANNEXES

- 1 Agenda
A copy of the agenda is at Annex A.
- 2 Participants
A list of participants is at Annex B.
- 3 Working Group Participants
A list of working group participants is at Annex C.
- 4 Input Papers
A list of input papers is at Annex D.
- 5 Output and Working papers
A list of output and working papers is at Annex E.
- 6 Action Items
A list of action items is at Annex F.



46th Meeting of the Vessel Traffic Services Committee (VTS46)

The 46th meeting of the **VTS Committee** will be held from 25 February – 1 March 2019, at the Westin Chosun Hotel, Busan, Republic of Korea.

Committee Chair, Vice-Chair and Working Group Chairpersons are requested to meet at 0900 on Monday 25 February.

The opening plenary will commence at 1330 on Monday 25 February 2019, and the closing plenary will end at approximately 1300 on Friday 1 March.

There will be an Opening Ceremony between 1330-1410 including speeches from:

- Korean Coastguard Commissioner – Hyun-bai Cho
- Vice Mayor of Busan City – Jae-su Yu
- IALA Deputy Secretary-General – Omar Frits Eriksson

Agenda

1. Introduction
 - 1.1. Administration and Safety Briefing
 - 1.2. Welcome from the VTS Committee Chair
 - 1.3. Approval of agenda
 - 1.4. Apologies and introductions
 - 1.5. Programme for the week
2. Review of action items from last meeting
 - 2.1. Review of action items from VTS45
 - 2.2. Final Report from VTS45 - for reference
3. Review of input papers
 - 3.1. Review of input papers to VTS 46
 - 3.2. General input papers for action/allocation
4. Reports from other bodies:
 - 4.1. IALA
 - 4.1.1. IALA Council 68
 - 4.1.2. IALA Policy Advisory Panel (PAP) 37
 - 4.1.3. IALA Workshop on Harmonization on VTS Voice Communication
 - 4.2. IMO
 - 4.2.1. IMO Council 121
 - 4.2.2. IMO MSC 100
 - 4.2.3. IMO NCSR 6
 - 4.3. IHO
 - 4.4. WMO

5. Reports from rapporteurs
 - 5.1. Correspondence Group on revision of the IMO Res.A.857(20) Neil Trainor
 - 5.2. Coordination Group on the VTS Questionnaire Neil Trainor
 - 5.3. VTS Manual Coordination Group Neil Trainor
6. Presentations
 - 6.1. Status of VTS Operation and Direction of VTS Development Korea Coastguard
 - 6.2. Voyage Exchange Between Ship and VTS Fredrik Karlsson
 - 6.3. IALA World-Wide Academy Kevin Gregory
7. Work Programme (2018 - 2022)
8. WG1 - Operations
 - 8.1. VTS Implementation
 - 8.2. VTS Operations
 - 8.3. VTS Communications
 - 8.4. VTS Manual and VTS Questionnaire
 - 8.5. IALA Questionnaire
9. WG2 - Technology
 - 9.1. VTS Data and Information Management
 - 9.2. VTS Technology
 - 9.3. Data Models and Data Encoding
10. WG3 - VTS Training
 - 10.1. VTS Implementation
 - 10.2. VTS Operations
 - 10.3. Training and Assessment
 - 10.4. Competency, certification and revalidation
11. Any Other Business
 - 11.1. Update on IALA VTS-ENAV Symposium 2020
 - 11.2. Information on IALA Workshop on Initial Operating Capability (IOC) Phase for e-Navigation Services (Singapore 8 – 10 April 2019)
12. Establish Working Groups
13. Review of output and working papers
 - 13.1. Working Group reports
 - 13.2. Output papers
 - 13.3. Working papers
14. Review of session report
15. Date and venue of next meeting
16. Close of the meeting

ANNEX B
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Apologies for absence

The following apologies for absence were received by the IALA Secretariat before VTS46:

Name	Organization
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Annette Svendsen	Terma A/S
Barbara Magro	Italian Coast Guard
Els Bogaert	Agency for Maritime Services and Coast
Barry Goldman	International Harbour Masters Association
Jens Christian Pedersen	Terma A/S
Juan Carlos Salinas	SASEMAR
Martijn Drenth	Dutch Pilots' Corporation
Niels Jacob Mygind	Defence Command Denmark

ANNEX C WORKING GROUP PARTICIPANTS

Working Group 1 Operations

Chair – Trond Ski – Norwegian Coastal Administration

	Members	Organisation / Country
1	Neil Trainor	Australia Maritime Safety Authority
2	Jin Shengli	China Maritime Safety Administration
3	Liu Wei	China Maritime Safety Administration
4	Wang Wei	China Maritime Safety Administration
5	Revo Rizki Aditiya	Directorate General of Sea Transportation / Indonesia
6	Jüri Ehandi	Estonian Maritime Administration
7	Gerhard Müller-Hagen	Federal Waterways & Shipping Administration / Germany
8	Tuomas Martikainen	Finnish Transport Infrastructure Agency
9	Michele Landi	Italian Coastguard
10	Takashi Tanaka	Japan Coast Guard
11	Seung Hee Choi	KIMFT / Korea
12	Sun Hyun Park	KIMFT / Korea
13	Soemgyeol Elly Lee	KIMFT / Korea
14	Evan Frendo	KIMFT / United Kingdom
15	Larry Yin	KIMFT / United States of America
16	Shi Ryang Ryu	Korea Coast Guard
17	Yoon Ho Kang	Korea Coast Guard
18	Jung Sunmi	Korea Coast Guard
19	Haksum Hur	Korea Coast Guard
20	Shim Jae Jin	Korea Coast Guard
21	Ji Yeon Lee	Korea Coast Guard
22	Hung Fai Tang	Marine Department / Hong Kong
23	Rosli B Ahmad	Marine Department of Malaysia
24	Muhammad Shadid Khan	Maritime and Coastguard Agency / United Kingdom
25	Teo Tze Kern	Maritime and Port Authority of Singapore
26	Jan Remi Hoeve	Ministry of Infrastructure and Water Management / Netherlands
27	Pieter Paap	Ministry of Infrastructure and Water Management / Netherlands
28	So Yeong Lee	Mokpo National Maritime University / Korea
29	Jialong Jin	Nanjing Marine Radar Research Institute / China
30	Trond Ski (Working Group Chair)	Norwegian Coastal Administration
31	Malin Dreijer	Norwegian Coastal Administration

32	Rob Gutteling	Port of Rotterdam / Netherlands
33	Fredrik Karlsson	Swedish Maritime Administration
34	Marco Svantesson	Swedish Maritime Administration
35	Yushu Horie	TST Corporation / Japan

Working Group 2 Technology

Chair – Robert Townsend – Maritime and Coastguard Agency – United Kingdom

Vice-Chair – Richard Aase – Norwegian Coastal Administration

	Members	Organisation / Country
1	Serge Deschamps	Canadian Coast Guard
2	Diesel Chun	GMT / Korea
3	Admir Salahovic	Indra / Spain
4	Robert McCabe	Irish Lights
5	Hidenobu Arai	Japan Radio Company
6	Masami Kan	Japan Radio Company
7	Steve Guest	Kongsberg / Norway
8	Geong Gang Yu	KR / Korea
9	Hye Jin Kim	KRISO / Korea
10	Jae Yong Oh	KRISO / Korea
11	Robert Townsend (Chair)	Maritime & Coastguard Agency / United Kingdom
12	Ryan Sim	Maritime and Port Authority of Singapore
13	Jin Gee Jeon	Ministry of Oceans and Fisheries / Korea
14	Jinfeng Xia	Nanjing Marine Radar Research Institute / China
15	Kun Xu	Nanjing Marine Radar Research Institute / China
16	Richard Aase (Vice-Chair)	Norwegian Coastal Administration / Norway
17	Hans Verra	Port of Rotterdam / Netherlands
18	Rene Hogendoorn	Saab Technologies / Netherlands
19	Wim Smets	Shipping Assistance Division / Belgium
20	Takuya Fukuda	Tokyo Keiki / Japan
21	Loan O'Brien	United States Coast Guard
22	Peter Eade	VISSIM / Norway
23	Dimitry Rostopshin	Wartsila / Ireland

Working Group 3 VTS Training

Chair – Lilian Biber – NNVO - Netherlands

	Members	Organisation / Country
1	Wang Wei	China Maritime Safety Administration
2	Abdullah Kizilelma	Directorate General of Coastal Safety / Turkey
3	Ulaş Emiroğlu	Directorate General of Coastal Safety / Turkey
4	Caroline Veronica	Directorate General of Sea Transportation / Indonesia
5	Byung Ok Ahn	Global Control Systems Corporation / Korea
6	Hochan Yim	Korea Coast Guard
7	Wai Keungi Tang	Marine Department / Hong Kong
8	Eduard Verbeek	Netherlands Pilot Cooperation
9	Lilian Biber (Chair)	NNVO / Netherlands
10	Wim Van 't Padje	STC T&C / Netherlands
11	Fredrik Dahlgren	Swedish Maritime Administration
12	Jillian Carson-Jackson	The Nautical Institute / Australia
13	Peter Pratley	TST Corporation / Japan
14	Koichi Nishimura	TST Corporation / Japan

ANNEX D LIST OF INPUT PAPERS

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

Meeting	Agenda Item	Input Paper Title	Source
VTS46-	1.3.1	Provisional Agenda	IALA Secretariat
VTS46-	1.4.1	Apologies for Absence	IALA Secretariat
VTS46-	1.5.1	VTS46 - programme for the week 20190116	IALA Secretariat
VTS46-	3.0.1	VTS46 - list of input and worked papers	IALA Secretariat
VTS46-	3.2.1	Liaison Note from ENG8 on E-111 Port Traffic Signals (ENG8-12.1.19)	ENG8
VTS46-	3.2.2	Liaison note from ENAV - reach out for emerging tech (ENAV22-12.1.13)	ENAV22
VTS46-	2.1.1	VTS45 Action Items	IALA Secretariat
VTS46-	2.2.1	Report of VTS45	IALA Secretariat
VTS46-	4.1.1	Report of Council68	IALA Secretariat
VTS46-	4.1.3.1	Cover note on Workshop on VTS Voice Communication	Vice-Chair
VTS46-	4.1.3.2	Conclusions of the IALA Workshop on Harmonizing VTS Voice Communication	Vice-Chair
VTS46-	4.1.3.3	VTS Communications Workshop WG1 results	Vice-Chair
VTS46-	4.1.3.4	VTS Communications Workshop WG2 results	Vice-Chair
VTS46-	4.2.1.1	Summary report of IMO Council 121	IALA Secretariat
VTS46-	4.2.3.1	Report on IMO NCSR6	IALA Secretariat
VTS46-	5.1.1	Cover note - Report from IALA Correspondence Group (A.857 Revision) to VTS46	Correspondence Group
VTS46-	5.1.2	Report from IALA Correspondence Group (A.857 Revision) to VTS46	Correspondence Group
VTS46-	5.1.3	Revised-New Resolution - Version 2	Correspondence Group
VTS46-	5.1.4	Guiding Principles for drafting the revised-new resolution A.857(20)	Correspondence Group
VTS46-	5.1.5	Work programme for completing the revision of resolution A.857(20)	Correspondence Group
VTS46-	7.1	VTS Task Plan 2018-2022 20181001	IALA Secretariat
VTS46-	7.2	VTS Task Register 2018-2022 20181004	IALA Secretariat
VTS46-	7.3	Council 68 approved work plan	IALA Secretariat
VTS46-	8.1.1	Develop a Model Course on planning, implementing, operating and managing a VTS	IALA Secretariat
VTS46-	8.2.1	WP WG1 Draft Guideline on Maritime Services 20181004 rev2 (VTS45-12.2.13)	VTS45 WG1

VTS46-	8.2.2	Not issued	
VTS46-	8.2.3	Not issued	
VTS46-	8.2.4	WP WG1 Guidelines for promulgating the requirements of a VTS to mariners – A VTS Users Guide template (VTS45-12.2.2)	VTS45 WG1
VTS46-	8.2.4.1	Revision statement of “VTS Users Guide Template” (Edition 1.2)	MSA China
VTS46-	8.2.4.2	MSA China Updated draft Guideline for Promulgating the Requirements of a VTS to Mariners (Edition 1.2)	MSA China
VTS46-	8.2.4.3	Input paper - Promulgating VTS info to Mariners	AMSA
VTS46-	8.2.5	Paper moved to 8.3.1	
VTS46-	8.2.6	WP WG1 First draft of revised IMO Resolution - Guideline for VTS	VTS45 WG1
VTS46-	8.2.7	WP WG1 work programme for completing the revision of IMO Resolution A.857(20) (VTS45-12.2.12)	VTS45 WG1
VTS46-	8.2.8	WP WG1 Guiding principles for the revision of IMO Resolution A.857(20) (VTS45-12.2.14)	VTS45 WG1
VTS46-	8.3.1	WP WG1 Draft Guideline on VTS voice communication phrases/phraseology (VTS45-12.2.3)	VTS45 WG1
VTS46-	8.3.2	AMSA Input Paper - Draft Guideline on VTS Phraseology - Cover Note	AMSA
VTS46-	8.3.3	AMSA Input Paper - Draft Guideline on VTS Phraseology	AMSA
VTS46-	8.3.4	AMSA Input Paper - Draft Guideline on VTS Phraseology	AMSA
VTS46-	8.4.1	Report from the Coordination Group for the 2020 IALA VTS Questionnaire	IALA Secretariat
VTS46-	8.5.1	Report on the IALA questionnaire 2017	IALA Secretariat
VTS46-	8.5.2	Report of the IALA Questionnaire 2017	IALA Secretariat
VTS46-	9.2.1	WP WG2 VTS Information and Data Portrayal Guideline worksheet (VTS45-12.2.4)	VTS45 WG2
VTS46-	9.2.2	WP WG2 G1111 Ed.1 Preparation of Operational and Technical Performance Requirements for VTS Systems May2015-rev3 (VTS45-12.2.5)	VTS45 WG2
VTS46-	9.2.3	WP WG2 (VTS45-9.2.1) Task 2.2.1 Draft Guideline on Acceptance of VTS Systems - VTS45 output document (VTS45-9.2.1)	VTS45 WG2
VTS46-	9.3.1	WP WG2 Report of WG reviewing S211 during VTS45(VTS45-12.2.7)	VTS45 WG2
VTS46-	10.2.1	WP WG3 The Human Factor in VTS (VTS45-12.2.8)	VTS45 WG3
VTS46-	10.3.1	WP WG3 Guideline on VTS Awareness for Navigating Officers (VTS45-12.2.11)	VTS45 WG3
VTS46-	10.3.2	WP WG3 Draft guideline managing a VTS - getting started (VTS45-12.2.9)	VTS45 WG3

VTS46-	10.3.3	WP WG3 VTS Management Questionnaire (VTS45-12.2.10)	IALA Secretariat
VTS46-	10.4.1	Rebranded IALA VTS Model Courses	IALA Secretariat
VTS46-	10.4.2	Rebranded IALA V-103/1 VTS Operator Course	IALA Secretariat
VTS46-	10.4.3	Rebranded IALA V-103/2 VTS Supervisor Course	IALA Secretariat
VTS46-	10.4.4	Rebranded IALA V-103/3 VTS On-the-Job Training Course	IALA Secretariat
VTS46-	10.4.5	Rebranded IALA V-103/4 VTS On-the-Job Training Instructor Course	IALA Secretariat

Presentations given by rapporteurs and presenters

Presentations are posted on the Committee section of the IALA website

Document number	Title
VTS46-6.1	Status of VTS Operation and Direction of VTS Development
VTS46-6.2	Voyage Exchange Between Ship and VTS
VTS46-6.3	IALA World-Wide Academy
VTS46-6.4	IALA Workshop on the Initial Operating Capability Phase for e-Navigation Services
VTS46-6.5	IALA Symposium 2020

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

Meeting	Agenda Item	Output Paper Title	Action
VTS46-	13.2.1	Document withdrawn – now working paper VTS46-13.3.10	N/A
VTS46-	13.2.2	Draft Liaison Note to ENAV Committee on developing technologies	To ENAV23
VTS46-	13.2.3	Draft Guideline for Promulgating the Requirements of a VTS To Mariners a VTS Users Guide Template	To Council
VTS46-	13.2.4	Liaison Note to Council re A.857(20)	To Council
VTS46-	13.2.5	Draft Revised Resolution - Guidelines for VTS	To Council
VTS46-	13.2.6	Draft MSC input paper resolution A.857(20) MSC 102-23	To Council
VTS56-	13.2.6.1	Liaison Note to Council re IMO MSC input paper	To Council
VTS46-	13.2.7	Liaison Note to ENAV and ARM	ENAV and ARM

Working papers will remain within the Committee for further review during **VTS47**.

Meeting	Agenda Item	Working Paper Title
VTS46-	13.3.1	WP WG1 Draft Guideline on Maritime Services (VTS46-8.2.1)
VTS46-	13.3.1.1	Appendix 1 MS 1-3_merged revised WG 1 VTS46
VTS46-	13.3.2	WP WG1 draft Guideline on VTS Voice Communications Phrases & Phraseology task 1.3.1
VTS46-	13.3.3	1105 Ed.1 Shore-side portrayal ensuring harmonisation with e-Navigation related information December 2013 rev1
VTS46-	13.3.4	Gap analysis G1105
VTS46-	13.3.5	WP WG2 1111 Ed.1 Preparation of Operational and Technical Performance Requirements for VTS Systems (VTS46-9.2.2)
VTS46-	13.3.6	WG2 Task 2.2.3 Draft Guideline on Acceptance of VTS Systems-draft output for VTS47
VTS46-	13.3.7	Draft Guideline on Acceptance of VTS Systems Complex Sub Systems
VTS46-	13.3.8	WG2 Report on task 231 during VTS46 (VTS46-9.3.1)
VTS46-	13.3.9	WP WG2 Report on task 231 during VTS46 (VTS46-9.3.1) ANNEX A
VTS46-	13.3.10	Draft Guideline on VTS awareness for navigation officers

Action Items for the IALA Secretariat

1. The **Committee Secretary** is to inform the forthcoming ENG Committee meeting that no feedback was received from VTS Committee members with respect to the use of Recommendation E-111 on Port Traffic Signals. 12
2. The **IALA Secretariat** is requested to forward the liaison note to Council informing them of the progress made at VTS46 regarding the revision of the resolution, seeking approval to use the revised draft (VTS46-13.2.5) as input to the Seminar on the Revision of the IMO Resolution A.857(20) for Vessel Traffic Services and requesting that the draft revision be forwarded to Council members seeking preliminary support from potential co-sponsors to the submission to NCSR 7 following VTS47 in September; 17
3. The **IALA Secretariat** is requested to forward the liaison note to Council to approve the input paper to MSC101, requesting the Committee to: 17
4. • Note the tasks being undertaken by IALA and the progress made with the revision of the Guidelines for VTS; and 17
5. • Invite interested Member States and international organisations to participate in the “IALA Seminar on the revision of Guidelines for vessel traffic services (resolution A.857(20))” to be held in June 2019 17
6. The **Committee Secretary** is requested to forward the working documents on the Work Programme for completing the revised/new resolution for VTS (VTS46-5.1.5), Guiding principles for drafting the revised/new resolution for VTS (VTS46-5.1.4) and the revised draft resolution for VTS (VTS46-13.2.6) to VTS47 for further development. 17
7. The **IALA Secretariat** is requested to forward the developed Guideline on Promulgating the Requirements of a VTS to Mariners – A VTS Users Guide Template (VTS46-13.2.3) to Council for approval. 17
8. The **Committee Secretary** is requested to forward the Liaison Note to ENAV23 and ARM9 (VTS46-13.2.7) and the associated draft IALA Guideline “Maritime Service Portfolios Digitising Maritime Services” and its associated appendix 1 “MS 1-3 information requirements” to note and provide input to VTS47. 18
9. The **Committee Secretary** is requested to forward the draft Guideline on Maritime Services for VTS (VTS46-13.3.1) with Appendix 1 “Information requirements” as a working paper to VTS47 for further development. 18
10. The **Committee Secretary** is requested to note the request to rename task 1.2.4 to ‘Develop a Guideline on Maritime Services in the context of e-Navigation relating to VTS’ and to take action as appropriate. 18
11. The **Committee Secretary** is requested to forward the draft Guideline on VTS Voice Communications - Phrases/ Phraseology (VTS46-13.3.2) as working paper to VTS47 for further development. 19
12. The **Committee Secretary** is requested to forward the draft guideline G1105 (VTS46-13.3.3) and GAP analysis (VTS46-13.3.4) to next session as working papers. 20
13. The **Committee Secretary** is requested to forward the draft Guideline 1111 (VTS46-13.3.5) as working paper to VTS47. 20
14. The **Committee Secretary** is requested to forward the two working documents on the technical acceptance of a VTS (VTS46-13.3.6) and technical acceptance of radar (VTS46-13.3.7) as working papers to VTS47. 21
15. The **Committee Secretary** is requested to note the VTS Committee’s request to rename task 2.2.3 to ‘Develop Guidance for Acceptance of VTS Systems’ and progress the request as appropriate. 21
16. The **Committee Secretary** is requested to forward the working document on provide input to data models for digital information services for VTS (VTS46-13.3.8), and category spreadsheet (VTS46-13.3.9) as working papers to VTS47. 21
17. The **Committee Secretary** is requested to note the change of title to ‘provide input to data models for digital information services for VTS’. 21

18. The **Committee Secretary** is requested to forward the liaison note (VTS46-13.2.2) on reach out for emerging technologies to ENAV. 21
19. The **IALA Secretariat** is requested to publish a news item concerning the GPS Rollover as a news item on the IALA website. 21
20. The **Committee Secretary** is requested to forward the draft IALA Guideline on VTS awareness for navigating officers (document VTS46-13.2.1) as a working paper to VTS47. 22
21. The **IALA Secretariat** is requested to finalise the rebranded VTS model courses and publish them. 23
22. The **Committee Secretary** is requested to forward the VTS Task List (2018 – 2022) (VTS46-7.1) and the Task Register (2018 – 2022) (VTS46-7.2) as working papers to VTS47. 23
23. The **IALA Secretariat** is requested to forward the report of VTS46 (VTS46-14.1) to the IALA Council, to note after 8 March 2019. 24

Action Items for Participants

24. That **Committee Members** are invited to forward any further comments on revision 2.3.1 of the draft new resolution (VTS46-13.2.5) to Neil Trainor (neil.trainor@amsa.gov.au) for collation and consideration by the correspondence Group for input to the June Seminar. 17
25. That **Muhammad Shahid Khan** is requested to bring the Guideline on Promulgating the Requirements of a VTS to Mariners – A VTS Users Guide Template (VTS46-13.2.3) to the attention of the UK Hydrographic Office if the document is approved by Council. 17
26. That **Committee Members** are requested to identify a database and web expert to manage the technical aspects of the database of the IALA VTS Questionnaire by 1 April 2019. 19
27. The **Chair of Working Group 3** is requested to integrate the work of the subgroup into the current working paper and to forward this to the IALA secretariat to be available for further processing at VTS47. 22
28. The **Chair of Working Group 3** is requested to prepare a paper on the continuation of this topic and its consequences for the work in the working group. 22
29. The **Chair of Working Group 3** is requested to integrate the work of the subgroup into the current working paper and to forward this to the IALA secretariat to be available for further processing at VTS47. 22



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