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VMS SMALL WORKING GROUP (SWG)
REPORT TO WCPFC17

Submitted by VMS-SWG Co-Chairs

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1. Background to the VMS SWG

WCPFC16 established the VMS SWG to develop recommendations for TCC16's consideration that "address VMS data gaps and improve the number of vessels reporting to the Commission VMS" (para 543, WCPFC16 Summary Report). The SWG is co-chaired by the USA (Terry Boone) and Australia (Viv Fernandes).

During 2020, the SWG has been operating effectively through email correspondence. The co-chairs proposed to conduct the SWG electronically due to the busy annual meeting schedule and the uncertainty regarding international travel restrictions caused by COVID-19.

2. Overview of SWG's work in 2020

Throughout this year, the SWG has considered existing VMS data gaps in the Commission and potential solutions to address those gaps. A chronology of the SWG's work prior to TCC16 is provided below. The referenced documents are available on the VMS SWG page on the WCPFC website (https://www.wcpfc.int/2020_vms-swg).

Date	Description
February 2020	WCPFC Circular distributed calling for nominations for SWG participants.
March 2020	WCPFC Secretariat posted a VMS Background Paper in relation to the Commission VMS and covering a range of VMS updates and issues relevant to the work of the SWG.
March 2020	Co-chairs distributed VMS SWG Concept Paper to SWG participants for comment.
April 2020	SWG participants provided comments on the draft Concept Paper.
May 2020	Co-chairs distributed a revised Concept Paper (v2) based on comments and feedback from SWG participants.
June 2020	SWG participants provided comments on the revised draft Concept Paper (v2).
August 2020	Co-chairs distributed a Status Update document outlining the range of participants' positions on the range of VMS options discussed to date.
September 2020	VMS SWG report to TCC16.
September 2020	TCC16 (see below update on TCC16 outcomes relevant to the SWG).
October/November 2020	Preparation of report to WCPFC17 and SWG's information exchange regarding MTU unit approval (SRT VMS 100S).

<u>TCC16</u>

TCC16 made three recommendations relating to the work of the VMS SWG:

1. *'TCC16 recommended that WCPFC17 task the VMS SWG to consider approaches to address challenges identified for the following obligation:*
   - *CMM 2014-02 para 9(a) VMS SSP 2.8: in relation to the interpretation and link between data gaps in year (x) and ALC activation ahead of TCC in year (x + 1).'* (para 91, TCC16 Draft Summary Report))

2. '*TCC16 recommends that WCPFC17 continue the work of the VMS SWG in 2021 and develop recommendations for TCC17's consideration to address VMS data gaps and improve the number of vessels reporting to the Commission*' (para 172, TCC16 Draft Summary Report)

3. '*TCC16 noted TCC16-2020-15 and recommended that discussions amongst interested CCMs, the Secretariat and other technical experts occur through the VMS SWG, and that consideration be given to advancing the issues identified in TCC16-2020-15 for WCPFC17'* (para 230, TCC16 Draft Summary Report)

<u>MTU approval</u>

The third recommendation above tasked the VMS SWG to continue work prior to WCPFC17. The Secretariat's Working Paper 15, *Recommendations related to the WCPFC Approved ALC/MTU list* (TCC16-2020-15), includes consideration of the approval of the SRT Marine Systems' VMS-100S unit. The Secretariat's assessment of the SRT VMS-100S unit was that it '*meets the minimum standards for the Commission VMS as set out in Annex 1 of CMM 2014-02 (or its successor measure) and WCPFC SSPs, as relevant, and has the ability to successfully report to the Commission VMS through the SAT-Trak Comm System*' (para 7, TCC16-2020-15). Therefore, the Secretariat recommended the addition of the unit to the WCPFC approved ALC/MTU list. During TCC16, CCMs indicated that further discussion and information sharing was needed regarding this unit thus leading to the TCC16 recommendation outlined above (to continue work in the lead up to WCPFC17).

To progress this work prior to WCPFC17, the following steps were taken:

- Online Discussion Forum
  - The Secretariat reopened the TCC16 online discussion forum to facilitate the SWG's consideration of ALC/MTU approvals.
  - The co-chairs' encouraged participants to use this platform to exchange information or questions in relation to the SRT VMS-100S unit in the lead up to WCPFC17. At the time of drafting this report, no participants had utilised this platform.
- Information paper
  - SRT Marine Systems has prepared an information paper regarding its VMS-100S unit. The paper seeks to address some of the questions raised by participants during TCC16 (and previously raised in the Online Discussion Forum).
  - This information paper is available on the VMS SWG webpage (https://www.wcpfc.int/2020_vms-swg)
- Further operational testing

> o In addition to the operational testing of the VMS-100S unit that was conducted by SRT (see information paper), one CCM has offered to test the unit and is currently trying to coordinate this with SRT. At time of writing this report, the CCM's operational testing had not concluded.

Due to the operational testing not yet being completed at the time of drafting this report, the SWG had not exchanged any specific views on the SRT VMS-100S unit. Pending any further updates regarding the unit, WCPFC17 may wish to consider agreeing to a 2021 intersessional process for approval of the unit if it satisfies CCMs' concerns following the conclusion of operational testing and other information exchange.

3. Possible solutions grouped into five categories

To assist the SWG's development of targeted recommendations, the co-chairs used the below first four categories in their draft concept paper to frame potential solutions to VMS data gap issues. The co-chairs intend to continue to use these categories in addition to an 'analysis' category to group possible options and future work to address the VMS data gap issues (noting that some options may cover more than one category). This categorisation may assist in sequencing and, if relevant, resourcing the work appropriately.

A. **"Technical":** Aspects / issues which may require new technical work by the Secretariat, CCMs and/or their technical service providers (e.g. software adjustments).
B. **"Regulatory":** Changes that may be needed to WCPFC rules or regulations (e.g. CMM(s), rules, SOPs, SSPs, etc.).
C. **"Administrative":** Changes to VMS administrative processes that may be needed either at the CCM or Secretariat (or their service providers) level.
D. **"VMS Compliance Monitoring & Assessment":** Potential methods or approaches to improve CCMs' ability to effectively monitor and assess VMS compliance.
E. **"Analysis":** Analysis of existing systems or processes to better understand the source of VMS data gaps.

4. Issues to be considered by VMS SWG

The VMS SWG now has a comprehensive list of issues to address. These issues have been sourced from:

a) The various versions of the co-chairs' concept papers and participants' respective comments and positions on these issues;
b) Participants' comments in response to the Secretariat's VMS Background Paper; and
c) TCC16 discussion, consideration and recommendations (including information exchanged via the online discussion forum).

The below table outlines the list of issues for the VMS SWG to address (including some that the SWG has already considered and/or prefer not to pursue). The table includes the SWG's proposed option/approach, and status of consideration.

Issue	Source	Proposed Option and Categorisation	Status and Proposed Approach

1. Disparity between CCM-held and Secretariat-held VMS data	Co-chairs' Concept Paper	Recommend that the Commission designate other organization(s) through which it may receive VMS information (e.g. CCM's FMCs, their VMS software service providers, or their MCSP), similar to the way FFA VMS positions work currently.
		
		Regulatory
			No consensus between SWG participants to pursue this Proposed Option. However, some participants note the importance of further understanding potential issues relating to VMS data integrity, independence and security**.**
			
			VMS SWG to instead focus on other Options to address VMS data gaps through exploring:
			   a) Other options outlined in the Concept Paper; and
			   b) Issues, including those highlighted in the WCPFC Secretariat's Background VMS Paper.

2. Data gaps relating to delays associated with establishing manual reporting	Co-chairs' Concept Paper	The co-chairs proposed three options to address this issue. Option 1 is dependent on support for the proposed option for Issue 1 above. Noting that there is no consensus to support the proposed option for issue 1 (designation of 'other organizations'), the SWG is not pursuing option 1. Option 3 is a standalone option (technical/administrative) to improve inputting of submitted manual reports. *1. If participants <u>support</u> designation of 'other organizations' to receive VMS info* - Adopt procedures to allow for temporary reporting via AIS in the event of VMS non-reporting - Remove requirement for Secretariat to 'exhaust all reasonable steps' to re-establish connection *2. If participants <u>do not support</u> designation of 'other organizations' to receive VMS info* - Adopt procedures to allow for temporary reporting via AIS in the event of VMS non-reporting. **Regulatory** *3. Standalone option* - Automate input of manual reports into the Commission VMS. **Technical / Administrative**	**No consensus** to allow AIS data to be used as a temporary reporting solution, in the event of VMS failure at sea, to address manual reporting VMS gaps **Some participants** supported tasking the WCPFC Secretariat to develop (or commission) a feasibility study regarding the potential use of AIS data to address any existing data gaps and to supplement the Commission's existing data sets for consideration by TCC. However, **no consensus** reached at this stage on this approach. **General agreement** that manual reports submitted to the WCPFC Secretariat should be (ideally automatically) integrated into the Commission VMS through technical solutions. **Recommend** the WCPFC Secretariat is tasked to identify (or commission external support to identify) some suggested options to implement the necessary steps to facilitate automatic integration of VMS manual reports in to the

			Commission VMS, and to present these in a paper for consideration by TCC, and include the feasibility and costs of the options. Some participants have suggested incorporating a regulatory requirement for vessels to carry a secondary (i.e. back up) MTU for use in the case of primary unit failure.
3. Issues regarding compliance review of CCMs' VMS obligations (particularly data gaps)	Co-chairs' Concept Paper	Operationalize and utilize an automated web-accessible report as a tool for mutual (flag CCM & Secretariat) ongoing compliance monitoring (rather than once/year compliance monitoring). **Administrative / VMS Compliance Monitoring & Assessment** Consider how the above tool can be used to help the flag CCM and Secretariat (automatically) focus on vessels. **Technical / VMS Compliance Monitoring & Assessment** <u>Note</u>: This proposed option does not seek to focus the Compliance Monitoring Scheme on vessel-level scrutiny. Instead, it seeks to improve the transparency of VMS reporting to assist flag CCMs in meeting and demonstrating compliance with VMS reporting obligations.	**General agreement** and support for the continued use and development of the VRST to facilitate CCM compliance monitoring and transparency of VMS reporting status for CCMs' flagged vessels. **Recommend** that the Secretariat: - Continue to work with CCMs to develop and refine the VRST to best assist CCMs and the Secretariat's communication and understanding of VMS compliance. Further consideration required as to the VRST's role in compliance monitoring; - Engage with CCMs (through a paper or otherwise) to seek CCM feedback on the VRST, including any suggested enhancements to improve the tool in relation to efficiency, communication channels and any limitations of the tool. **Recommend** that TCC prioritise the development of audit points regarding VMS obligations in the Compliance Monitoring Scheme (as contemplated under 'future work' outlined in CMM 2019-06).
4. MTU approval - ORBCOMM ST6100 and Skywave IDP-690 gateway issue	TCC16-2020-15	Task the WCPFC Secretariat, relevant flag CCMs and Trackwell to expedite work to develop a VMS Gateway between ORBCOMM/Skywave for ORBCOMM ST6100 and Skywave IDP-690 services. If no sustainable gateway can be	**General support** to task the WCPFC Secretariat to expedite work to develop necessary VMS Gateways for these particular units. However, plenary discussions at TCC16 also revealed a need for the SWG to consider the MTU approval

		established then potentially recommend units for delisting. **Technical**	process more generally, to try to ameliorate data gaps like the one highlighted by this issue (see Issue #13, below).
5. MTU approval - SRT VMS-100S unit	TCC16-2020-15	Seek more clarity on the pathway of the position data reported from the SRT VMS-100S unit installed on a fishing vessel to the WCPFC VMS in line with the following TCC recommendation: *'TCC16 noted TCC16-2020-15 and recommended that discussions amongst interested CCMs, the Secretariat and other technical experts occur through the VMS SWG, and that consideration be given to advancing the issues identified in TCC16-2020-15 for WCPFC17'.* **Administrative**	Ongoing exchange of information to determine whether the unit meets CMM 2014-02 Annex 1 requirements. If no final decision made by WCPFC17, then the SWG may continue to facilitate constructive information exchange on the unit and provide input to TCC17.
6. Use of FFA Good Standing Information	WCPFC Secretariat Background Paper	Task and appropriately resource the WCPFC Secretariat to: a) automate the process of identifying vessels that have recently lost FFA Good Standing, and b) take the necessary steps to ensure any vessels that have recently lost FFA Good Standing are reporting to the WCPFC VMS. **Technical** This may be supported by potential efforts to further enhance the new WCPFC VRST tool and/or its associated processes used by flag CCMs, the WCPFC Secretariat and where appropriate the FFA Secretariat.	**General support** from VMS SWG.
7. WCPFC Secretariat engagement with FFA Secretariat	WCPFC Secretariat Background Paper	Support the WCPFC Secretariat to continue close engagement with FFA Secretariat (as WCPFC VMS service provider) to address potential VMS data gaps including by: • FFA Secretariat ensuring that the current list of Good Standing vessels continues to be made available through the existing application programming interface (API) technical solution that supports the VRST tool, and so that the WCPFC Secretariat has automated access to the list for cross checking purposes; and • FFA Secretariat following up on any query from the WCPFC Secretariat regarding FFA VMS and MTU/ALC unit troubleshooting.	**General support** from VMS SWG, noting that the engagement between WCPFC and FFA Secretariat's is strong and continues progress to address potential VMS data gaps.

		Administrative	
8. CCM's use and uptake of available VMS tools	WCPFC Secretariat Background Paper	Consider whether flag CCMs should regularly utilise the tools made available by the WCPFC Secretariat such as the 'VRST' to check for any VTAF or other data gaps and to proactively work with the WCPFC Secretariat to address gaps identified. **Administrative / Analysis**	**General support** for increased CCM use of, and engagement with, the VRST. However, ongoing information exchange, analysis and consideration required to determine the full extent of its use, including its evolving role within the Commission's processes.
9. WCPFC Secretariat engagement with flag CCMs on VMS non-reporting matters	WCPFC Secretariat Background Paper	Consider whether flag CCMs, should be requested to officially advise the WCPFC Secretariat of contact points for matters related to the WCPFC VMS reporting, and to keep the Secretariat informed of any changes to these contacts. **Administrative**	**General support** from VMS SWG.
10. Difficulties in WCPFC Secretariat establishing Contracts with MCSPs/Gateways	WCPFC Secretariat Background Paper	Task the WCPFC Secretariat to provide any additional information as to the obstacles to establishing contracts with the four MCSPs without existing contracts. **Analysis** Task the WCPFC Secretariat to establish contracts with the four MCSPs without existing contracts. **Administrative**	**General support** from the VMS SWG, with a need to clarify the relationship between MCSP, Gateways and VMS service providers to facilitate any necessary improvements.
11. Audit of WCPFC VMS system	WCPFC Secretariat Background Paper	Conduct an audit of the current WCPFC VMS system (similar to the audit carried out in 2011). Among other things, this may also assist in better identifying potential weaknesses and opportunities to improve the current system. **Analysis**	**No consensus** within SWG for conducting an audit. Pending the outcomes of the other work areas, the SWG can consider this in more detail in the future if deemed necessary.
12. Vessels active on MTU register but not reporting to Commission VMS	WCPFC Secretariat Background Paper	Request the WCPFC Secretariat provide input on: • Whether this problem appears to be specific to, or more prevalent with, particular MTU types? • Whether there appears to be a relationship between how often MTUs are audited by flag CCMs and the flag CCM's VMS data reliability? • Whether there are any trends that can be observed in the completeness of the Secretariat's records of WCPFC VMS reporting due to the implementation of the annual	**General support** for this analysis from the WCPFC Secretariat, including support for the Secretariat to also provide advice regarding: - whether other service providers could address this issue and information on how other RFMOs deal with this problem; and - whether there are any differences between FFA VMS and WCPFC VMS in terms of frequency of VMS data gaps, and in terms of technical/operational aspects.

		processes under the Compliance Monitoring Scheme (e.g., the pre-CMR and/or post-CMR percentage of flag CCM's VMS days not reporting to the WCPFC VMS)? **Analysis**	
13. MTU testing process	TCC16 discussion (see item #4 above)	Some CCMs requested that the VMS SWG review the VMS SOPs and update to more clearly explain: - the necessary steps the Secretariat needs to undertake when making the assessment to confirm that an MTU meets the minimum standards (as set out in Annex 1 of CMM 2014-02 and the VMS SSPs); and - that it has the ability to successfully report to the Commission VMS. **Analysis / Regulatory**	**General support** from VMS SWG to consider the utility of any testing component within the MTU approval process in more detail, including through providing any recommendations regarding potentially amending the existing VMS SOPs.
14. **CMM 2014-02 para 9(a) VMS SSP 2.8**: in relation to the interpretation and link between data gaps in year (x) and ALC activation ahead of TCC in year (x + 1).	TCC16 recommendation	No proposed options discussed by the SWG as yet. This is a TCC16 recommendation based on ongoing difficulties to assess this obligation as part of the CMS. VMS SSP 2.8: *The Secretariat will administer Commission VMS database. For each fishing vessel required to report to the Commission VMS the flag CCM will submit all necessary data to complete its data file in the Commission's VMS database. This data will include the name of the vessel, unique vessel identification number (UVI)2, radio call sign, length, gross registered tonnage, power of engine expressed in kilowatts/horsepower, types of fishing gear(s) used as well as the make, model, unique network identifier (user ID) and equipment identifier (manufacturer's serial number) of the ALC that vessel will be using to fulfil its Commission VMS reporting requirements.*	**TCC16 recommendation** for VMS SWG to consider this issue. Issues in repeated years within the CMS process reviewing CCMs' compliance with this obligation. Pending the Commission's support, SWG to consider implementation of this obligation and any recommended improvements and clarifications.

5. Work plan

Pending WCPFC17's endorsement for the SWG to continue its work into 2021 (aligned to the above work areas), the VMS SWG proposes to progress these areas in 2021 and provide recommendations to TCC17. The co-chairs will prepare a more detailed work plan following WCPFC17's consideration of this report and review of any associated WCPFC17 recommendations.

6. Recommendations

The VMS SWG recommends that WCPFC17 supports the TCC16 recommendation to continue the work of the SWG as follows:

> *WCPFC17 recommends to continue the work of the VMS SWG in 2021 to develop recommendations for TCC17's consideration to address VMS data gaps and improve the number of vessels reporting to the Commission VMS.*