**VMS Small Working Group (SWG)**

**Update Paper**

16 March 2021

1. **Area of Focus**

In the VMS SWG report to WCPFC17 ([WCPFC17-2020-VMS-SWG](https://www.wcpfc.int/doc/wcpfc17-2020-vms-swg/vms-swg-report-wcpfc17)), the co-chairs outlined a comprehensive list of issues to be considered by the SWG. The report outlined the SWG’s proposed approach to each issue, as well as the status of the SWG’s consideration of each. These issues were sourced from:

1. The various versions of the co-chairs’ concept papers in 2020 and participants’ respective comments and positions on these issues;
2. Participants’ comments in response to the Secretariat’s VMS Background Paper ([Sect\_March2020](https://www.wcpfc.int/doc/sectmarch2020/secretariat-submission-vms-swg-co-chairs)); and
3. TCC16 discussion, consideration and recommendations (including information exchanged via the online discussion forum).

This paper groups the issues to be addressed into six overarching issues:

1. Disparity between CCM-held and Secretariat-held VMS data;
2. Data gaps from VMS failure;
3. CCM’s use of the VRST;
4. ALC/MTU approval;
5. Assessing compliance with CMM 2014-02 para 9(a) VMS SSP 2.8; and
6. Review of Commission VMS.

Proposed approaches that did not have general agreement from most participants shall not be pursued by the SWG. The purpose of this paper is to table the proposed options/approaches that have general agreement from participants, as well as new options which are yet to be fully considered in this SWG forum.

1. **Framework for possible options/approaches**

To assist the SWG’s development of targeted recommendations, five categories have been used to group possible options and future work to address 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 their VMS compliance.

E. **“Analysis”**: Analysis of existing systems or processes to better understand the source of VMS data gaps.

1. **Issues and proposed options/approaches**

**Issue 1**: **Disparity between CCM-held and Secretariat-held VMS data[[1]](#footnote-2)**.

These persistent gaps may be symptomatic of the difficulty and inefficiency CCMs and the Secretariat currently experience trying to manage vessels reporting separately to CCMs’ Fisheries Monitoring Centers (FMCs) as well as the Commission VMS. CCMs advise that vessel VMS reporting to CCMs’ FMCs is significantly more reliable than it is to the Commission VMS.

During SWG discussions during 2020, participants did not support designating any other organization(s) (similar to FFA as VMS service provider) to receive VMS information. However, some participants suggested flag States explore utilising direct simultaneous reporting as an approach to reducing inconsistency between CCM-held and Secretariat-held VMS data whilst not compromising the reliability and accuracy of the Commission VMS data.

A direct simultaneous reporting approach involves the satellite service provider (aka, “mobile communication service provider”, or “MCSP”) transmitting a single VMS data feed for each vessel to both the Commission VMS and the flag State FMC. Through utilising a single feed (with a split forwarding system from the MCSP simultaneously to the Commission VMS and flag State VMS), it greatly reduces the number of discrepancies between CCM-held and Secretariat-held data. Requiring the MCSP to forward the VMS data feed to the Secretariat and the flag State FMC simultaneously also limits concerns regarding data tampering. A direct simultaneous reporting approach should not pose significant additional cost burden to the flag State or Secretariat, while offering the potential to reduce administrative burden from data reconciliation.

A direct simultaneous reporting framework is consistent with Article 24(8) of the Convention: *“The Commission, directly, and simultaneously with the flag State where the flag State so requires, or through such other organization designated by the Commission, shall receive information from the vessel monitoring system in accordance with the procedures adopted by the Commission.”*

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| **Proposed Option**  | **Status of SWG Consideration**  | **Proposed Approach**  |
| Flag States utilise a direct simultaneous reporting framework. **Technical / Administrative** | This is a new proposed option and the co-chairs are seeking participants’ position on flag States’ utilisation of direct simultaneous reporting to the Commission VMS.  | Pending participants’ support, recommend exploring ways how direct simultaneous reporting could be implemented.  |

**Issue 2. Data gaps from VMS failure.**

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| **Proposed Option**  | **Status of SWG Consideration**  | **Proposed Approach**  |
| Automate input of manual reports into the Commission VMS. **Technical / Administrative** | There was general agreement amongst SWG participants that manual reports submitted to the WCPFC Secretariat should be (ideally automatically) integrated into the Commission VMS through technical solutions. | Recommend tasking the WCPFC Secretariat 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 including the feasibility and estimated costs of the options |
| Useability of AIS data. **Technical/ Analysis**  | There is a clear lack of consensus amongst SWG participants on implementing AIS as a temporary reporting solution. However, a number of participants have queried the feasibility of using AIS data to supplement/ support the Commission’s VMS.  | Recommend tasking the Secretariat to conduct a feasibility study regarding the use of AIS data to supplement/ support the Commission’s VMS. Encourage CCMs who may currently use AIS data to supplement/support their FMC’s VMS and/or interested NGOs to document their relevant experience, “lessons learned” (good and bad) and suggestions in delegation papers or info papers to TCC17. |
| Requirement for vessels to carry a secondary (i.e. back up) ALC/MTU for use in the case of primary unit failure. **Regulatory / Administrative** | This option was proposed by some participants of the SWG, however, it has not yet been tabled as a proposed option in a VMS SWG paper. The co-chairs are seeking to gauge whether there is general agreement for this proposed option.  | Pending participants’ support, recommend a change to the Commission’s VMS rules or consider options to incentivise vessels to carry a backup ALC/MTU.  |

**Issue 3. CCM’s use of the VRST**

There appears to be benefit in the VMS SWG collating feedback to the WCPFC Secretariat, based on CCM’s use of the vessel reporting status tool (VRST) i.e. preparing a consolidated list of improvements/enhancements that could be made to the tool. The co-chairs have identified a number of possible enhancements that could be made to the VRST and related processes. Participants are requested to provide feedback on their experience using the VRST.

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| **Proposed Option**  | **Status of SWG Consideration**  | **Proposed Approach**  |
| Utilise the VRST as a tool for mutual (flag CCM & Secretariat) ongoing compliance monitoring (rather than once/year compliance monitoring). **Technical/ Administrative** **/ VMS Compliance Monitoring & Assessment** | Clear support amongst SWG participants for the continued use and development of the VRST to facilitate CCM compliance monitoring and transparency of VMS reporting status for CCMs’ flagged vessels. The Secretariat has communicated that it would like CCM feedback to further refine and develop the tool. No agreement to use directly in Commission’s compliance assessment work, however, there was support for flag States to utilise this tool in their own flag State monitoring processes.  | Pending feasibility and cost inputs from the Secretariat and their service provider, the co-chairs suggest the following initial options for VRST enhancement based on the SWG’s discussions to date, including at TCC16:A) provide greater than 14 days of VMS status data (perhaps “current month”, like FFA’s equivalent); B) archive older VMS status data, while maintaining easy access (e.g., “current month” interface and “past months” repository)C) automate feature indicating vessel’s most-recent port status (“in” or “out”)D…) [additional items *based on participants’ feedback*] Recommend that the Secretariat: * Work with their VMS Service Provider (and/or others) to implement the suggested enhancements to the VRST.
* Work with CCMs and their Service Provider to harmonise flag State (and FFA) methods of automatically accounting for all vessels’ daily VMS status

Recommend that TCC (if / after VRST enhancements are completed):* Consider amending Section 5, para 4 of the VMS SSPs to operationalise use of the VRST as the Secretariat’s and flag States’ primary / default method of reconciling ALC reporting status (automatically highlighting to the Secretariat and Member FMC vessels which are not reporting reliably to the Commission VMS, and if feasible to automate, to the Member FMC VMS)
* Consider requesting the WCPFC Secretariat and FFA Secretariat continue work to harmonise their technical and administrative methods of monitoring vessel ALC daily reporting status with a goal of automatically highlighting and triggering action by appropriate authorities when vessels should be reporting to each system, but are not.
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**Issue 4. ALC/MTU Approval**

1. Approval of the SRT Marine Systems’ VMS-100S unit

In the TCC16 Working Paper 15, *Recommendations related to the WCPFC Approved ALC/MTU list (TCC16-2020-15)*, 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:

*‘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’*

Since TCC16, SRT has produced and distributed an information paper and SRT and Japan have been engaging to complete Japan’s operational testing of the VMS-100S unit. At the time of drafting this paper, the operational testing was not complete. The co-chairs understand that this testing is due for completion prior to TCC17.

1. Approval of ORBCOMM ST6100, SKYWAVE IDP-690

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| **Proposed Option**  | **Status of SWG Consideration**  | **Proposed Approach**  |
| Recommend delisting ORBCOMM ST6100 and SKYWAVE IDP-690 MTU units. **Administrative** | There was general support amongst SWG participants to task the WCPFC Secretariat to expedite work to develop necessary VMS Gateways for these particular units. However, it appears that the Secretariat and flag State may have exhausted all reasonable means to get the vendor to address this issue. | Paragraph 2.7 of the VMS SSPs already outlines steps for ensuring an MTU/ALC ‘*has the ability to successfully report to the Commission VMS*’, and specifically includes reference to the FFA methodology for type approval. This methodology includes testing the operational gateway with an MCSP. Therefore, recommend TCC17 consider delisting these units, since under current WCPFC type approval standards and processes, the units would not be approved. This issue has remained for several years now, and the units appear to be incapable of reliably reporting to the Commission VMS.  |

**Issue 5. Assessing compliance with CMM 2014-02 para 9(a), VMS SSP 2.8**

CMM 2014-02 para 9(a):

*9. Obligation of CCMs*

*(a) Each flag CCM shall ensure that fishing vessels on the high seas in the Convention Area comply with the requirements established by the Commission for the purposes of the Commission VMS and are equipped with ALCs that shall communicate such data as determined by the Commission.*

 VMS SSP, para 2.8:

*“The Secretariat will administer a 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), 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 noted that with respect to CMM 2014-02 para 9(a) and VMS SSPs paragraph 2.8, the Secretariat’s assessment of compliance was based on past practice. TCC16 recommended that consideration be given to how this obligation should be assessed in future when the audit points are considered as part of the Future Work to enhance the CMS.

The steps required between flag State VTAF submission to the Secretariat and the Secretariat’s activation of the MTU/ALC are not clear. More transparency is needed to determine whether an identified compliance issue under this obligation is the result of a flag State’s non-compliance, difficulties with the Secretariat’s administrative processes, or some other factor.

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| **Proposed Option**  | **Status of SWG Consideration**  | **Proposed Approach**  |
| Support ways to enhance the Secretariat’s administrative processes and facilitate a more transparent process**Administrative**   | The three proposed options are yet to be considered by the SWG. | The co-chairs will determine a proposed approach based on SWG participants’ inputs on / response to the proposed options (including any specific suggestions or comments regarding each option).SWG participants to provide specific feedback. |
| Amend the obligation. **Legislative** |
| Develop audit points to assess compliance with the obligation. **Regulatory**  |

**Issue 6. Review of Commission VMS**

During discussions in 2020, participants considered that now was not an appropriate time to audit the Commission VMS. Therefore, the co-chairs propose that it would be useful to conduct an audit once the SWG recommendations have had sufficient time to be implemented (e.g. 1-2 years after the recommendations are adopted). The last audit was conducted in 2011 so an audit in 2022/2023 may be timely.

In addition, some participants suggested that certain analyses would be useful to inform the Commission’s consideration of VMS issues.

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| **Proposed Option**  | **Status of SWG Consideration**  | **Proposed Approach**  |
| Request the WCPFC Secretariat consider conducting any useful analyses to assist in identifying VMS data gaps or related issues. **Analysis**  | General support from SWG participants. | Recommend the WCPFC Secretariat consider including the following issues in its VMS Annual Report: * 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 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)?
* Whether other service providers could address this issue and information on how other RFMOs deal with this problem?
* 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?
* [*Any additional analyses based on SWG participants’ feedback?*]
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| Recommend an audit of the Commission VMS be conducted at an appropriate time**Analysis** | Yet to be considered specifically by SWG participants. | Recommend that the Commission VMS be audited, with a focus on potential VMS data gaps, once any agreed SWG recommendations have had sufficient time to be implemented (e.g. 1-2 years after the recommendations are adopted). |

1. The disparity between the number of position reports received from a Member’s vessels by the Commission VMS and the number of position reports received from these vessels by a Member’s FMC. [↑](#footnote-ref-2)