TECHNICAL AND COMPLIANCE COMMITTEE
Sixteenth Regular Session
Electronic Meeting
23 – 29 September 2020

TCC16 ONLINE DISCUSSION FORUM SUMMARY

WCPFC-TCC16-2020-21
21 September 2020

Introduction

1. The Online Discussion Forum (ODF) was established to support the 16th Regular Session of the Technical and Compliance Committee. In Circular 2020/88, it was proposed that prior to the formal commencement of plenary, TCC participants would make use of a TCC16 ODF in place of the regular TCC break-out sessions, to address outstanding issues and help identify recommendations for consideration by plenary via Zoom. The use of the ODF could replicate the work that is regularly undertaken at TCC outside of plenary (e.g., consideration of CNM status, consideration of the work of the SWG, and development of the TCC workplan).

2. **WCPFC-TCC16-2020-ODF_rev1** contains the provisional list of proposed ODF topics for TCC16. Each ODF topic was opened for discussions as the relevant papers were posted to the TCC16 meeting website commencing Tuesday 1 September (Pohnpei time).[1] CCMs were invited to propose other topics (e.g., questions related to the range of annual reports prepared by the Secretariat). All TCC16 ODF topics were closed at 12h00 on Friday 18 September 2020 (Pohnpei time).

3. During the TCC HoD meeting held on 5th September it was generally accepted that the online discussion forum would be useful for exchanging information and for responding to questions, but that it was not an appropriate forum to conduct negotiations and taking decisions, especially on substantive issues. The purpose of this TCC16 ODF Summary paper is to serve as a background and reference document informing the relevant TCC16 plenary deliberations.

Topic A: Annual Report of the Executive Director - overview report of the WCPFC MCS and Compliance Programmes

Background

Supporting paper: TCC16-2020-05: *Executive Directors Overview Report of the WCPFC MCS and Compliance Programmes*
Purpose: This paper presents the Executive Director's Overview Report of the WCPFC Monitoring, Control and Surveillance (MCS) and Compliance Programmes. The report provides a consolidated overview of the key issues and challenges confronting each of the compliance tools and programmes that constitute the Commission's integrated MCS and Compliance programme. The details of each of the compliance tools and programmes are the subject of other working

[1] The following topics were listed in TCC16-2020-ODF_rev1 but not included in the online forum:
Topic G: Continue the Development of Standards, Specifications and Procedures for e-Technologies; and
Topic I: Update of TCC Workplan.

papers. The structure of the Report reflects the priorities and their order of significance as contained in the TCC Workplan 2019–2021.
Virtual eTCC16 Meeting: TCC16 Provisional Agenda 2
Recommendations in supporting paper: **TCC16-2020-05:** TCC16 is invited to note the report.

Key Questions and Comments:

4. There was no discussion under this topic.

Topic B: Cooperating Non-Member Requests for 2021

Topic B_CNM Financial Contributions

Background

Supporting paper: TCC16-2020-07_rev1. Secretariat. *CNM requests in 2020*
Virtual eTCC16 Meeting: TCC16 Provisional Agenda 4
Purpose: For CNM SWG participants to ask specific questions related to financial contributions of CNMs

Key Questions and Comments:

5. The USA requested an update on the status of CNM contributions for 2020.
   - **Reply:** The Secretariat stated that no additional payments had been made since TCC16-2020-07_rev1 was prepared (31 August 2020).

Topic B_KP: Democratic Peoples Republic of Korea - application for CNM status in 2021

Background

Supporting paper: TCC16-2020-07_rev1 *CNM requests in 2020*
Purpose: To enable CNM SWG participants to ask specific questions related to an individual CNM application or any relevant compliance issues
Virtual eTCC16 Meeting: TCC16 Provisional Agenda 4
CNM Applicant: Democratic Peoples Republic of Korea
Date request for CNM Status was received: 21 June 2020 (received prior to the deadline. Note that applicant is not a CNM in 2020)

Key Questions and Comments:

6. The United States raised the following questions.

(i) **Question:** Can the Secretariat confirm whether DPRK ever provided accrued financial contributions they previously committed to pay (2012–2014) as a CNM?

- **Reply:** The Secretariat stated that the DPRK's obligations were $10,710 for 2012, $13,040 for 2013, and $13,275 for 2014, totaling $37,025; no payments were received.

(ii) **Question:** To what degree has DPRK provided the following:
d. full data on its historical fisheries in the Convention Area, including nominal catches, number/type of vessels, name of fishing vessels, fishing effort and fishing areas;
e. all the data and information members of the Commission are required to submit, in accordance with the recommendations adopted by the Commission; details of its current fishing presence in the Convention Area, including the number of its vessels and their characteristics; results from research programmes it has conducted in the Convention Area.

- **Reply:** The Secretariat posted the following summary of historical DPRK applications for CNM status:

Year of Application (for 'x' year)	Received on time/late (Due end of July each year)	WCPFC decision	Required data provided (based on relevant TCC recommendation/WCPFC decision)
2010 (for 2011)	On time - first application	Not approved (WCPFC7)	
2011 (for 2012)	3 August 2011 Late	Approved (WCPFC8)	- Some data missing but additional data provided on request - No annual reports provided
2012 (for 2013)	4 September 2012 Late	Approved (WCPFC9)	- Some data missing but additional data provided on request - No annual reports provided
2013 (for 2014)	6 September 2013 Late	Approved (WCPFC10)	- Some data missing but information provided to indicate data and the 3 years of payment to be made during visit to office - No annual reports provided
2014 (for 2015)	9 October 2014 Late (after TCC10)	Not accepted (WCPFC11)	- Some data provided - No annual reports provided - Given lateness of application and lack of template, this was not considered. Hence no additional information requested

- The Secretariat noted that requests for missing data differ slightly from year to year but relate to catch, catch and effort and operational information. More specifically catch by species by year for operations within the Convention area, aggregate catch and effort by species, fish size data, vessel and gear-related information and aspects of information from the template to be completed by CNMs as part of the application process.
- SPC stated that a useful first step for DPRK to satisfy the data provision obligations would be the submission of historical annual catch estimates for the WCPFC key species by gear. This information would be a useful summary for WCPFC to understand the extent/history of activities by their fleets.

Topic B_PA Panama - application for CNM status in 2021

Background

Supporting paper: TCC16-2020-07_rev1 1 CNM requests in 2020
Virtual eTCC16 Meeting: TCC16 Provisional Agenda 4
CNM Applicant: Panama.
Date request for CNM Status was received: 13 July 2020 (received prior to the deadline)
Purpose: For CNM SWG participants to ask specific questions related to an individual CNM application or any relevant compliance issues

Key Questions and Comments:

7. The Pew Charitable Trust offered a comment that it stated pertains to all CNM applications, while noting that Panama provides the starkest example of the issue. Application for and subsequent granting of CNM status to countries with a record of non-compliance raises the question of why bother with assessing compliance at all of there is little or no consequence of non-compliance? The 2019 final compliance

monitoring report (WCPFC16-2019-fCMR_adopted) assessed the compliance of Panama against 27 CMM paragraphs; 10 of these were found to be non-compliant, but more concerning is that 9 were priority non-compliant (i.e. one third of all relevant CMM obligations). Panama is primarily a transshipping flag and of the 9 assessed obligations under CMM 2009-06 only 3 were compliant while 5 were priority non-compliant, in 1 case for the 7th year. Pew stated that given the limited transparency of the compliance process within WCPFC, this sends a message that the compliance regime more generally does not incentivize compliance. Pew emphasised the need to progress the CMS review, including responses to non-compliance, guidelines for observer participation, and the development of the risk-based assessment framework.

Topic B: Other issues

The following additional issues were included in the TCC16 ODF under Topic B, but received no comments or questions**:**

- CNM data and reporting
- Applications for CNM status in 2021 for the following states:
    - Bahamas
    - Curacao
    - Ecuador
    - El Salvador
    - Liberia
    - Nicaragua
    - Thailand
    - Vietnam

Topic C: Enhancing the Compliance Monitoring Scheme (CMS)

Topic C1: Update on Streamlining of Annual Reporting Initiatives

Background

Supporting paper: TCC16-2020-10. Secretariat and SPC-OFP. *Update on Streamlining of Annual Reporting Paper*

Purpose: To provide update on two streamlining annual reporting initiatives first implemented in 2020. The update was initially provided to SC16 as SC16-2020-GN-IP-07. First, the Commission approved the trial of WCPFC Annual Catch and Effort Estimate (ACE) Tables to allow CCMs, through SC and TCC, to explore a streamlining suggestion for the Annual Report Part 1. Second, the Secretariat incorporated some streamlining suggestions when it prepared the Annual Report Part 2 online interface used in 2020, including the "hold on file" of CCMs responses to implementation-type obligations that applied in prior years.

Virtual eTCC16 Meeting: TCC16 Provisional Agenda 5.3(a)

Recommendations in supporting paper: TCC16-2020-10 invites TCC16 to

i. note the updates on streamlining of annual reporting requirements implemented in 2020 that were provided in the enclosed paper;

ii. note that the enclosed paper has reviewed the experiences and outcomes of the trial ACE Tables and has provided information that the cost and resources implications of this trial were modest;

iii. support the SC16 recommendation to WCPFC17 that the approach of publishing the ACE tables based on the April 30 Scientific Data submissions and subsequent updates and revisions from CCMs is continued;

iv. support the SC16 recommendation to WCPFC17 that the Scientific Services Provider is tasked to review the feasibility of expanding the ACE Tables, to include additional estimates of effort

where it is practicable to be derived based on the April 30 scientific data submissions from CCMs and provide an update to SC17; and
v. consider recommending that the Scientific Services Provider is tasked to review the feasibility of expanding the ACE Tables, to include estimates of annual area-based CMM quantitative limits where it is practicable for the estimate to be derived based on the April 30 scientific data submissions from CCMs and to provide an update to TCC17.

Key Questions and Comments:

8. The Ocean Foundation and The Pew Charitable Trusts commented that reducing the burden on CCMs with respect to reporting for data and science, without impacting the quantity or quality of that data, can help the Commission better fulfill its objectives. They stressed the importance of ensuring data previously reported in the public domain is not lost, stating that promoting transparency is crucial for members and others to understand the impacts of fishing in the region. Second, they asked CCMs and the Secretariat to consider how to make data more accessible and publicly available, noting that there may be information reported in the non-public domain that can be made available without violating confidentiality. For example, the annual report on port inspections (TCC16-2020-RP07) summarizes implementation by CCMs of provisions of CMM 2017-02 as follows: 'approximately half' do not implement them, while 'others' do or are prepared to do (paragraph 5). It contains Table 1 listing the number of requests for flag CCM investigations resulting from port inspection activities undertaken by CCMs.

(i) **Question:** The Ocean Foundation and The Pew Charitable Trusts inquired if additional details and identifying information could be added to promote greater understanding on the status of port inspections in the region – such as how many vessels falling under the scope of CMM 2017-02 visit CCMs' ports; why port inspections are or are not being carried out; barriers to undertaking port inspections; and results of inspections, especially those where vessels were suspected of engaging IUU fishing activities?

(ii) The Ocean Foundation and The Pew Charitable Trusts noted that exchanging information is critical in keeping IUU-caught product out of ports across the region, and in the fight against IUU fishing more broadly; it could help the Commission develop the funding support mechanism to assist SIDS in carrying out inspections (paragraph 25 of CMM 2017-02), target assistance efforts, and facilitate a review of what's working, and what could be improved, in the measure.

9. The United States acknowledged the work done by SPC and the Secretariat in developing the ACE tables, and stated the tables could serve as a useful tool. However, as expressed in the its response to the Secretariat questionnaire, the USA stated that valuable fisheries data included in the Annual Report Part 1 have been lost in the current form of the ACE tables, and for this reason, the USA does not support having the ACE Tables serve as a replacement for Annual Report Part 1.

10. Palau, on behalf of PNA members, noted that paper TCC16-2020-10 and the survey provided very valuable feedback on the trial use of Annual Catch and Effort Estimate (ACE) online tables and Part 2 streamlining. PNA members acknowledged the efforts by SPC to make the ACE Tables available and by CCMs to made the trial successful. They stated that the survey responses indicate very strong support among CCMs for the development of the ACE tables as an alternative to reporting these data in Part 1 Reports. Providing the data in this way is more valuable to most CCMs, and reduces the reporting burden, which is particularly important to small administration like Palau. On that basis PNA members support the further development of the ACE Tables as an alternative to reporting this data in Part 1 Reports, and support the Secretariat's suggestion in the paper to expand the ACE Tables, where practicable, to include estimates of annual specific area-based CMM quantitative limits. This will also remove the need for reporting these data in Part 1 Reports. Regarding streamlining of Part 2 reporting, PNA members greatly appreciate the effort by the Secretariat to develop the List approach for Part 2 reporting. It is clear that this has been a valuable step to in streamlining reporting and reducing the burden on small administrations. PNA members stated that they support the recommendations.

Topic C2: Explore feasibility and costs of suggestions from CCMs to facilitate improvements to the online Compliance Case File System

Background

Supporting paper: TCC16-2020-12. Secretariat. *Review of the WCPFC online compliance case file system*

Purpose: to present the findings of the review of the WCPFC online compliance case file system (CCFS) commissioned by the Secretariat in 2020. The report of the review (Review Report) is attached to the paper.

Virtual eTCC16 Meeting: TCC16 Provisional Agenda 5.3(b)

Recommendations in supporting paper: TCC16-2020-12 invites TCC16 to

i. note the findings and recommendations of the Review of the WCPFC online Compliance Case File System which confirmed a widespread desire among CCMs to have the CCFS enhanced to better meet their needs;

ii. consider tasking the Secretariat, subject to available budget, to prioritize in its work planning for 2021 to implement recommendations 1, 2 and 3 of the Review Report as follows:

a) undertake the ten actions identified in Table 1 of the Review Report to enhance the CCFS, to automatically notify people within the CCM when a single case is created or updated, make the CCFS easier to use, allow CCMs to browse a single list containing all cases, enhance the aggregated summary tables produced by the CCFS, improve communication with CCMs regarding which internet browsers the CCFS works best on, improve the CCFS quick guide and offer CCFS training to CCMs;

b) undertake the one action contained in Table 1 of the Review Report to implement a proof of concept online graph / table creation tool for CCFS data; and

c) undertake the three actions contained in Table 1 of the Review Report to clarify CCM expectations, investigate realistic options, and if possible produce a proof of concept of a tool which would allow CCMs to bulk upload comments that they had drafted offline;

iii. note that the Review Report provides an approximate cost estimate of $50,000 for the Secretariat to implement its recommendations 1, 2 and 3; and

iv. consider recommending a process with a view to facilitate the review and formulation of guidance to the Secretariat on:

a) The case Status / Outcome ontology used in the CCFS (refer page 31 of the Review Report);

b) The level of aggregation at which Article 25-2 alleged infringements are recorded in the CCFS (refer page 32 of the Review Report);and

c) The range of questions that they want aggregated summary tables (as contained in the Summary Tables of Flag CCM Responses document produced each year at TCC) to address (refer page 30 of the Review Report).

Key Questions and Comments:

11. The United States supported the Secretariat's recommended improvements to the compliance case file system, particularly the improvements included in Recommendation 1.

Topic C3: Continuation of Compliance Monitoring Scheme Intersessional Working Group to progress the CMS Future work tasks in 2021

Background

Virtual eTCC16 Meeting: TCC16 Provisional Agenda 5.3 (c.)
Excerpt from CMM 2019-06 Conservation and Management Measure for Compliance Monitoring Scheme to provide the list of workplan elements for the CMS Future work tasks:

Section IX – Future Work

46. The Commission hereby commits to a multi-year workplan of tasks to enhance the CMS, with the aim of making it more efficient and effective by streamlining processes. This workplan should include the development of guidelines and operating procedures to support the implementation of the Compliance Monitoring Scheme, and shall include inter alia :

During 2020

(i) the development of audit points to clarify the Commission obligations assessed under the CMS, as well as the development of a checklist to be used by the proponents of any proposal to include a list of potential audit points for the consideration of the Commission;

(ii) explore investment in technology solutions to facilitate improvements to the compliance case file system.

During 2020-2021

(iii) the development of a risk-based assessment framework to inform compliance assessments and ensure obligations are meeting the objectives of the Commission;

(iv) the development of corrective actions to encourage and incentivise CCMs' compliance with the Commission's obligations, where non-compliance is identified;

(v) the development of the guidelines for participation of observers in closed meetings of the Commission and its subsidiary bodies which consider the Compliance Monitoring Report.

47. TCC shall consider any workplan and resourcing requirements to facilitate the work of the Secretariat in this regard.

Section X – Application and review

48. This measure may be reviewed and enhanced in 2020 as determined by progress with the future work in Section IX, or other refinements and adjustments needed.

Key Questions and Comments:

12. The International Seafood Sustainability Foundation (ISSF) stated it has been pleased to participate in the CMS IWG to date, including contributing to the development of audit points as part of that participation in 2019. ISSF stated that the development of audit points is important for promoting clarity and consistent understandings regarding Commission obligations assessed under the CMS. The development of a checklist of potential audit points for future new CMMs is a key part of this work. ISSF stated it looks forward to continuing to participate as an observer organization in the ongoing work of the IWG. As such, ISSF urged the CMS IWG to accelerate its work early in 2021 to progress the items in CMM 2019-06, such as the risk-based assessment framework, refinement of the audit points and development of guidelines and procedures for the participation of observers in closed meetings of the Commission and TCC that consider the Compliance Monitoring Report. Further, it also suggested that the Commission task the IWG to consider options for more strategic presentation or targeted summaries of data and information, which could promote consistency, transparency and fairness in the review of the material and the resulting final Report, as well as in identifying key issues and trends. ISSF referenced the IOTC's method of presenting compliance reports for CPCs as a useful example.

13. The United States stated it would like to see the work identified in the CMS future workplan progress through the remainder of 2020 and into 2021, and that it would be useful for the SWG to convene in the margins of TCC16 to determine how this work will progress intersessionally. Given the number of tasks the SWG is charged with advancing, the USA indicated it would be beneficial to nominate one or two leads for each element of the workplan, who could then lead the charge in progressing this work.

Topic C4: List of obligations to be assessed in the Compliance Monitoring Scheme in 2021 (U.S. Proposal)

Background

Supporting paper: TCC16-2020-DP02. United States. *List of obligations to be assessed in the Compliance Monitoring Scheme in 2021*

Purpose: The Commission tasked TCC (in WCPFC16 Summary Report, paragraph 572) as follows:

> *The Commission noted that this is the third time the list of obligations is being rolled over and tasked the TCC16 to recommend a proposed list of obligations to be assessed in 2021 (covering 2020 activities) for consideration at WCPFC17 in 2020*.

Virtual eTCC16 Meeting: TCC16 Provisional Agenda 5.4

Recommendations in supporting paper: To help inform the WCPFC16 task at TCC16, the United States has proposed in the paper a list of obligations to be assessed in 2021. This proposal takes into consideration paragraph 6 of CMM 2019-06, as well as the need to moderate the workload of TCC and the Commission.

Key Questions and Comments:

14. The United States noted that, as expressed at WCPFC16, it believes that consideration should be given to those CMMs that have not been reviewed for 3 years or more. The USA welcomed CCMs' feedback on whether this is an agreeable way to begin incorporating those CMMs into the list of obligations to be assessed in 2021. The USA stated its hope that continued work on the development of a risk-based assessment will help in incorporating additional CMMs in lists of obligations to be assessed in future years.

15. Birdlife International requested that the seabird bycatch measure be included in the proposed assessment of the Compliance Monitoring Scheme. As per obligations outlined in the Compliance Monitoring Scheme:

> *Each year, the Commission shall update what obligations shall be assessed in the following year using a risk-based approach, once developed and agreed. Until this risk-based approach is developed, the Commission shall take into account the following factors in considering the obligations to be assessed in the following year:*
>
> Specifically relating to*:*
> *(ii) evidence of a high percentage of non-compliance or persistent noncompliance by CCMs with specific obligations for multiple years* (WCPFC-TCC16-2020-OP01_rev1 submitted to the TCC demonstrates ongoing non-compliance of seabird bycatch mitigation measures); and
> *(iv) the potential risks posed by non-compliance*

(i) Birdlife International stated that both WCPFC-TCC16-2020-OP01_rev1 and TCC16-2020-RP02 show very high bycatch rates for seabirds for some fishing entities, of note are 2 vessels that reported 785 birds - these numbers are extremely concerning and provide evidence for the ongoing declines of seabirds caused by fisheries bycatch.

(ii) New reporting requirements are in force for seabird bycatch under CMM 2018-03, and therefore it would be prudent to include seabird bycatch mitigation measures in the CMS assessment.

Topic D: Technical and Compliance matters arising under intersessional decisions in response to COVID-19

Background

Supporting papers:

TCC16-2020-14. Secretariat. *COVID-19 related intersessional decisions*

Circ 2020/97. FFA Fisheries COVID-19 Protocols Steering Committee. *FFA COVID-19 Operating Protocols for the Fishing Sector in the Pacific - minimising the risk of transmitting COVID-19 in the fisheries sector at sea and in ports tin the Pacific*
Purpose: TCC16-2020-14 responds to the tasking in the COVID-19 Decision contained in Circular No. 2020/71 that the Secretariat prepare a note for the consideration of TCC particularly on the measures taken to prevent the spread of the COVID-19 on fishing vessels and on travel and port entry restrictions in CCMs. In WCPFC Circular 2020/97 the FFA provided the COVID-19 Operating Protocols for the Fishing Sector in the Pacific developed collaboratively (led by Australia and informed by technical experts from PNAO, SPC and FFA). The Protocols aim to assist and guide the fishing sector, flag, port and coastal States governments to manage the risks of COVID-19 transmission in fishing operations. Related to this is the critical need for information sharing during this time to effectively implement these Protocols and enable the tracing and analysis of vessels that may carry a higher risk of COVID-19 transmission. It is intended that FFA will seek support from the WCPFC Secretariat and CCMs to facilitate cooperative communication on activities specific to COVID-19 risk mitigation on CCM vessels operating in the WCPFC area and Ports.
Virtual eTCC16 Meeting: TCC16 Provisional Agenda 6
Recommendations in supporting papers:
TCC16 is invited to note and discuss the papers

Key Questions and Comments:

16. The United States supported the extraordinary intersessional decisions taken in response to COVID-19, especially where Article 30 of the Convention was taken into consideration and the safety of ROP observers was prioritized. As the Commission continues prioritizing the safety of ROP observers, the United States is concerned about the lack of observer coverage for both scientific and compliance purposes, and would appreciate further discussion by the Commission about additional MCS measures being implemented by CCMs. The United States noted the sobering results of the survey on the situations of ROP observers impacted by the pandemic (TCC16-2020-14, paragraphs 58-61), including the large number of observers who are unemployed, as well as those who are still struggling, for a variety of reasons, to be repatriated. The United States acknowledged the challenges and risks associated with repatriating observers across the Pacific, while maintaining the safety of the observer and SIDS populations; in particular, the United States thanked American Samoa for providing a COVID-free safe haven for FFA observers during their repatriation from U.S.-flagged purse seine vessels, stating that the expeditious and complete repatriation of FFA observers from U.S.-flagged purse seine vessels via American Samoa is a testament to regional cooperation in a crisis.

Topic E: Support efforts by CCMs and Secretariat to continue technical work intersessionally to optimize TCC's efficiency evaluating CCM's VMS Compliance (TCC Workplan 2019-2021) & to address the VMS Gap & improve the # of vessels reporting to VMS

Background

Supporting papers: TCC16-2020-16. VMS SWG Co-Chairs. *VMS Small Working Group (SWG) Status Report;* TCC16-2020-RP01. Secretariat. *Annual Report on the Commission VMS*
Purpose: The VMS SWG has been working consistently throughout 2020 to respond to its tasking from WCPFC16. As a result of the impacts of COVID-19 and the complexity of addressing the Commission VMS data gaps, the SWG requires further time to refine its recommendations to TCC. The co-chairs propose that the SWG seek only a procedural recommendation from TCC16.
Virtual eTCC16 Meeting: TCC16 Provisional Agenda 7.1
Recommendation in supporting paper:
TCC16 recommends that the VMS SWG continue its work in 2021 and develop recommendations for TCC17's consideration to address VMS data gaps and improve the number of vessels reporting to the Commission VMS.

Key Questions and Comments:

17. The United States noted that the additional information provided in this year's annual report on the Commission VMS may be of value to future work of the Commission.

- **Reply**: The VMS SWG Co-chair (Australia) inquired if the USA could detail particular areas of potential future work outlined in the annual report that may be valuable? Currently, the VMS SWG update (Working Paper 16) outlines some potential areas of future work to assist in addressing VMS data gaps. It would be useful to know if these capture the points raised in the annual report (e.g. regarding the VRST) or whether the VMS SWG would benefit from including these areas in future discussions.
    - **Reply:** The USA stated that it is particularly interested in highlighting the "hard data" provided in the report that can help guide the VMS SWG work analyzing the factors contributing to VMS data gaps. The Secretariat's *Annual Report on the Commission VMS*, paragraph 30 (and related Table 7) provides a summary of outcomes of investigations of alleged VMS violations. Based on these data, nearly 80% of suspected VMS violations are found by the flag State to not be verifiable using flag State VMS data - meaning these perceived violations stem from a gap between the data resident in the flag State (or FMC VMS) and the data held in the Commission VMS. Identifying a combination of best practices and methods to address this issue has potential to ameliorate the VMS data gaps responsible for nearly 80% of suspected VMS violations in this year's report.

      Other sections of the Secretariat's Annual Report that are also of "hard data" interest include:
        - The number of MTU audits by VMS type for potential correlation with VMS gaps (paragraph 27 & related Table 5).
        - The relative number of MTU audits & number of vessels fished on high seas for potential correlation with VMS gaps (paragraph 29 & related Table 6).
        - The live VRST tool for potential CCM use for ongoing VMS compliance (37 ii).

Topic F: Develop improved mechanisms for the flow of observer information from ROP providers to CCMs needing such information for their investigations

Background

Supporting papers:
TCC16-2020-17 (tbc)
TCC16-2020-RP02. Secretariat. *Annual Report for the Regional Observer Programme*.
Purpose: The TCC Observer WG has been working since TCC15 under the following instructions as endorsed by WCPFC16 (Summary Report, para. 258).

> *TCC15 agreed that the group's work continue, and that as part of the tasks identified by the Commission in paragraph 364 of the report of WCPFC15, the group consider in particular: (a)* ***improvements to the tracking of observer report requests and responses*** *in order to better identify impediments to the flow of observer reports; and (b)* ***methods to filter out "false positive " and de minimis violations*** *to reduce the number of observer report requests and the associated workloads for ROP Providers and CCMs.*

Virtual eTCC16 Meeting: TCC16 Provisional Agenda 7.2

Key Questions and Comments:

18. The United States noted with concern the conclusion in paragraph 43 of TCC16-2020-RP02 that the summary counts of alleged infringement cases based on ROP observer data and notified for flag CCM investigation confirm that some CCMs appear to have issues with obtaining the ROP observer report necessary to complete their flag CCM investigations of alleged infringements. The United States also noted the reference to the joint work of SPC and FFA to develop training courses and a set of minimum data fields for Pacific Island observer programme observers to collect data while on carrier vessels (TCC16-2020-RP02, para. 11). The USA looked forward to hearing about that work as it progresses, and hopefully to using it to inform TCC's high-priority task of developing observer protocols, data forms, and the database needed to better monitor transshipments at sea.

19. SPREP commented on TCC16-2020-RP02, stating that it finds the Annual Report a very useful summary particularly in relation to observed bycatch of Species of Special Interest. In SPREP's view, the report raises a number of concerns, especially regarding interactions with whale sharks and cetaceans.

(i) There appears to have been a sharp jump in the number of interactions with whale sharks in 2019 that was mirrored in the number of interactions with cetacean interactions, which also increased markedly. Outcomes for whale sharks from such interactions are reportedly poor, with only one-third of encircled whale sharks escaping or being released alive and apparently healthy. Reported infringements for whale sharks and cetaceans have increased every year since 2016 from 31 to 371 in 2019 (as shown in Annex A/ Table I). This suggests that there has been poor compliance with these CMMs in recent years, but there is apparently little focus on this issue by TCC. Neither CMM is included among the obligations that were assessed last year through the CMR process or are proposed to be assessed in 2021. The Commission does not have a stock assessment for whale sharks in the WCPO, but we do know the species has been assessed by the IUCN as Vulnerable and whale sharks are listed on Appendix 1 of the Convention on Migratory Species. We also do not know how well these animals cope with any interaction, including the impacts of myopathy on future survival. Similarly, for cetaceans we have little knowledge of the impact of the long term impacts of interactions with purse seiners on their local, national and regional populations.

(ii) **Question.** Are there any insights from the observer reports about the reasons for this increase?

(iii) SPREP suggested TCC should consider new tools or technology that could be used to determine more accurately the presence of whale sharks or cetaceans before a set is made – e.g. using active (sonar) or passive (hydrophones) acoustics to improve the chances of detecting dolphins or whales.

There are established protocols for the use of air guns in marine oil and gas exploration that could perhaps be adapted.

Topic H: Continuation of IWG to Review CMM 2009-06 in 2021

Background

Supporting paper: TCC16-2020-19 * *Transhipment IWG Status Report to TCC16**
Purpose: To provide a status report to TCC16 on the progress of the IWG to Review CMM 2009-06 (TS-IWG)
Virtual eTCC16 Meeting: TCC16 Provisional Agenda 7.4
Recommendations in supporting paper: TCC16-2020-19
TCC16 is invited to recommend the Commission seek a nomination for a TS-IWG co-Chair at WCPFC17 and that it reaffirm its tasking of the TS-IWG to continue and complete its work.

Key Questions and Comments:

20. The United States expressed its strong support for the continued work of the transshipment IWG through the remainder of 2020 and into 2021, and noted that it provided a voluntary contribution of $74,000 in 2019 to support an analysis of the effectiveness of CMM 2009-06. The USA stated it looks forward to the realization of this work.

21. The International Seafood Sustainability Foundation (ISSF) strongly supported the continued work of the TS-IWG so it may complete its work in 2021. ISSF suggested that TCC recommend that the Commission direct the TS-IWG to conclude its Scope of Work for the analysis of transshipment information within Q1 of 2021 so that the study can be completed and inform the TS-IWG's review of CMM 2009-06. The TS-IWG should then present proposals to the Commission in 2021, including amendments to the CMM to strengthen both the measure and its implementation. ISSF stated it looks forward to continuing to work with the TS-IWG to strengthen the measure and ensure at-sea transshipment is well managed, such as with respect to the time frames for seeking authorization to transship at sea from the flag State, deadlines for submitting t-docs, extension of the measure to bunkering vessels, observer reporting, data sharing, the use of both AIS and VMS, and clear criteria for flag State authorization of at-sea transshipment. Both ISSF and the NGO Tuna Forum have developed recommendations to strengthen the regulation and monitoring of at-sea transshipment:

- ISSF: https://iss-foundation.org/knowledge-tools/technical-and-meeting-reports/download-info/issf-2020-03-transshipment-strengthening-tuna-rfmo-transshipment-regulations
- NGO Tuna Forum: https://ngotunaforum.org/at-sea-transshipment-best-practices

Topic J: Recommendations related to the WCPFC Approved ALC/MTU List (VMS SSPs Section 2.7)

Background

Supporting paper: TCC16-2020-15. Secretariat. *Recommendations related to the WCPFC Approved ALC/MTU List*
Purpose: To present for consideration by TCC16, recommendations from the Secretariat related to the WCPFC Approved ALC/MTU list.
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Recommendations in supporting paper:
TCC16 is invited to

a. note the Secretariats Assessment of the SRT VMS-100ALC/MTU provided in paragraph 7 of this paper;
b. consider recommending to the Commission the addition of the SRT VMS-100 ALC to the WCPFC approved ALC/MTU list;

c. note the Secretariats Assessment of the Skywave IDP-690 and ORBCOMM ST6100 ALC/MTU units provided in paragraph 11 of this paper;
d. consider recommending to the Commission the removal of Skywave IDP-690 and ORBCOMM ST6100 units from the list of Approved ALC/MTU,noting that these two MTUs do not have an ability to successfully report to the Commission VMS; and
e. note that if TCC recommends and the Commission approves that the Skywave IDP-690 and ORBCOMM ST6100 units are removed from the list of Approved ALC/MTUs, that in accordance with the VMS SSPs flag CCMs are to ensure that their fishing vessels replace non-type approved ALC/MTUs with approved ALC/MTUs by the next replacement of the ALC/MTU, but no later than three years after the Commission's decision.

Key Questions and Comments:

22. The United States supported TCC's approval of listing the SRT VMS-100 ALC, and supported de-listing both the Skywave IDP-690 and ORBCOMM ST6100 ALCs.

23. WWF made the following comments.

(i) It supported the recommendation of the WCPFC Secretariat and the USA delegation to approve the SRT VMS-100ALC/MTU for inclusion on the WCPFC Approved ALC/MTU list. WFF stated that it was curious that this would not be simply a pro forma step, given that the unit:

• Meets the minimum standards as described in Annex 1 of CMM 2014-02;
• Was recommended by another CCM in an effort to better integrate electronic systems and associated reporting;
• Is produced by a reputable company in operation since 1987;
• Is internationally certified and provides reliable and continuous tracking and monitoring of any fishing vessel type or size in real time without coverage gaps or range limitation;
• Possesses wireless data transmission capability that supports WCPFC aspirations toward Electronic Reporting; and
• Is anti-tamper, anti-spoof, and carries encryption options to ensure data integrity and reliability.

(ii) WWF further stated that the Philippines should be applauded for seeking approval for this unit as part of their Integrated Marine Environment Monitoring System (IMEMS) because it would provide enhanced vessel safety in addition to more comprehensive and transparent information on fishing activity. WWF also observed that a cynic might suggest that, rather than technical concerns, the opposition levied against inclusion of the SRT VMS-100 is related to the fact that it uses a combination of AIS and VMS technology to continuously transmit vessel position. Such a combination of features in a single, tamper-proof unit where one signal could not be shut off without shutting off the other signal could be a very useful example of how AIS and VMS signals could be compared side by side in a controlled setting. This could verify and demonstrate the reliability of AIS compared to VMS when it is not subject to deliberate and fraudulent manipulation of the AIS signal for nefarious purposes.

(iii) WWF also supported the removal of the Skywave IDP-690 and ORBCOMM ST6100 units from the list of Approved ALC/MTUs, for the reason that the two MTUs fail to successfully report to the Commission VMS and, moreover, the service provider has made no effort to correct this discrepancy. However, WWF also reiterated its concerns that 3 years is far too long to allow a vessel to fail to properly report VMS positions after it is determined that a unit does not meet the basic functionality requirements agreed by the WCPFC. In effect, as evidenced by this particular instance, it can be as many as 2–3 years after an ALC/MTU fails before it is even raised at the TCC and then another 3 years before it is required to be removed from a vessel, meaning that a vessel could be operating for up to 6 years in non-compliance with no consequence. The excuse that it

takes 3 years for vessels to replace the ALC/MTUs because of operational constraints is disingenuous at best because vessels are perfectly able to re-provision and repair engines or even other sophisticated electronics necessary for fishing operations at sea. Moreover, most modern ALC/MTUs may be easily replaced and are often compatible with existing systems, consisting of only a power supply and antennae connection, which effectively makes them "plug and play." Therefore, Commission members need to stop pretending that there is a legitimate constraint to replacing faulty ALC/MTUs within a year when they occur.

24. Japan raised the following regarding the proposed MTU SRT's VMS-100.

(i) Japan noted its prior communications (in February 2020) with the representative for SRT VMS-100 MTU, through the Secretariat, about technical details of the system, during which it was provided with the following explanations a) and b):

a) The difference between SRT's VMS-100 and other standard AIS unit is SRT's propriety application SAT-Trak. The SRT VMS-100 uses a combination of AIS and SAT-Trak technology to transmit vessels GPS position. VMS-100 is an AIS Class B transceiver with integrated SAT-Trak technology. It uses AIS equipped satellites. Due to the way the AIS system is required to operate as defined in the relevant ITU and IEC specifications, detection and decoding of transmissions from vessel transceivers by AIS satellite systems (S-AIS) is problematic with the problems significantly worsened when large numbers of AIS transceivers are deployed in a single region. As such S-AIS services typically only detect a small percentage of possible transmissions.

b) SAT-Trak is an advanced technology that significantly enhances the detection of AIS transmissions by satellites. SAT-Trak is an entirely transceiver based technology embedded in the VMS-100 MTU and can be optimized for any AIS transceiver type and configured to any AIS satellite constellation. SAT-Trak is a configurable technology which resides entirely in the AIS transceiver and works to dynamically overcome these issues. The result is a dramatic increase in the percentage of transmissions that an AIS equipped satellite will successfully detect. SAT-Trak achieves this by dynamically changing certain technical transmit parameters within the transceiver and messaging to condition and optimize the transmission for detection and decoding by the AIS satellite. Thereby improving the number of transmissions that the satellite will successfully receive and decode and thus the number of vessel targets that are seen and the frequency with which each is seen.

(ii) Japan stated that concerning a) above, it fully agreed that when an AIS system is operated as defined in the relevant ITU and IEC specifications, the S-AIS services typically only detect a small percentage of possible transmission.

(iii) Concerning b) above, which explains how VMS-100 improves the percentage, Japan stated its understanding that SAT-Trak changes certain technical transmit parameters within the transceiver and messaging to condition, which improves the reception rate at the AIS satellites. Japan expressed that its concern is that: "When the "technical transmit parameters" are changed, does the AIS unit still meet the relevant ITU and IEC specifications?" Any AIS transmission must meet such international specifications, and if an MTU transmits outside such specifications it should not be approved by WCPFC. To verify this aspect, Japan requested more detailed technical explanations on how the SAT-Trak changes the transmit parameters.

- **Reply:** The Secretariat stated that SAT-Trak is the marketing name given for a system approach for optimising AIS for VMS applications. It includes a suite of components working together as listed below (a-c).

(a) The Secretariat stated that AIS uses a TDMA (Time Division Multiple Access) radio transmit scheme as defined by the ITU. SAT-Trak uses SOTDMA (Self Organising Time Division Multiple Access) as defined in the relevant ITU and IEC AIS standard specifications. SOTDMA means that the VMS-100 reserves an exclusive transmission slot/channel immediately prior to every transmission to ensure a clear and free transmission. Using SOTDMA does not change the IEC/ITU transmit parameters, it is simply optimising and prioritising the transmission within the AIS system to ensure transmit reliability.

- **Reply**: Japan stated that, concerning SOTDMA, yes, it will "ensure a clear and free transmission", but it is only for surrounding area of the ship, within a distance of 30 to 40 nautical miles. AIS was originally designed to work with this range for collision avoidance. However, at satellites level, SOTDMA does not ensure at all "a clear and free transmission", because a satellite receives all AIS signals from its footprint of 5000km diameter. SOTDMA can never avoid interference for reception by satellites with an AIS transmission from a region over 40 nautical miles. Nevertheless, SOTDMA is known to improve the performance of class B AIS, increasing the number of transmissions over conventional class B AIS using CSTDMA. As a result, reception at satellites might be also a little improved. However, SOTDMA is the technique used by conventional class A AIS. The performance of SOTDMA class B AIS can never be better than class A AIS.
  It is well known that even class A AIS transmissions are not stably received by satellites.

(b) The Secretariat stated that the AIS ITU RF specifications provide a range of minimum radio frequency parameters for AIS transmissions – all of which must be compliant for certification. One of the most important in any radio system is the transmit mask which relates to adjacent channel and other issues. The transmissions of the VMS-100 have been significantly refined to be well within the minimum required parameters as defined by the IEC/ITU AIS RF standards – this is fully compliant to the ITU/IEC standards. This significantly signal refinement reduces adjacent channel friction/interference and thus reduces transmission corruption which is especially relevant when transmissions are travelling extended distances (into space) and thus increases successful reception.

- **Reply**: Japan stated that "the transmit mask to reduce adjacent channel friction/interference" will contribute to a better performance of transmissions using adjacent channels. But it is not relevant with reception rate by satellites of its own transmissions. Japan stated that consequently, it is of the view that those two points do not explain "a dramatic increase in the percentage" of the VMS-100 transmissions received by satellites. As technical common sense, we cannot expect stable reception by satellites of AIS transmissions as long as the AIS messages are transmitted in accordance with IEC/ITU standards.

(c) The Secretariat stated that the precisely managed installation and specific antenna used by the VMS-100 ensures optimum transmission performance, in particularly for satellite communication. Transmissions are relayed by multiple different AIS satellite constellations, which ensure overlapped continuous coverage globally – no single satellite constellation is relied upon. Data from all these sources is fused into a single optimise data stream. All the AIS transmissions from the VMS-100 are fully compliant with the IEC/ITU AIS standards. In case of changes in the IEC/ITU AIS standards in the future, the changes will be an improvement and existing solutions will remain compliant as it has been the case since the beginning of AIS.

25. **Questions:** Japan, following its replies to the Secretariat's comments in 16 (iii) (a) and (b) above, posed the following additional questions:

(i) Does VMS-100 transmit with conventional AIS frequencies (AIS1 161.975MHz and AIS2 162.025MHz)?
Reply
(ii) Does it transmit with what power? (2W for normal class B, 12.5W for class A, 5W for some new SOTDMA class B)
(iii) Does it transmit position data with usual AIS messages? (message 18 for class B)

Japan suggested that, in light of the scheduled closure of the TCC16 ODF, the discussion could be continued via email to enable its technical concerns to be resolved before or during TCC.

***Reply**: On 21 September 2020 (subsequent to the official close of the TCC16 ODF), the Secretariat provided to Japan the following replies to their three questions, and this was shared in the TCC16 ODF:.*

(i) Channel 87 (161.975 MHz) and AIS 2 - Channel 88B (162.025 MHz) with remote frequency assignment capability.
(ii) 5W
(iii) AIS Class B

26. The Philippines supported the intention to include the SRT VMS-100 in the WCPFC Approved list of ALC/MTUs since the unit met the standards for the Commission VMS as set out in Annex 1 of CMM 2014-02 and the WCPFC VMS Standards, Specifications and Procedures (SSPs). The Philippines noted that the SRT VMS-100 has the ability to successfully report to the Commission VMS. The Philippines is seriously pursuing its commitments as a flag state. Thus, a four-year Integrated Marine Environment Monitoring System (IMEMS) Project was implemented with the aim to upgrade the vessel monitoring system for Philippine-flagged fishing vessels utilizing advanced technology, such as the impressive performance of the SRT VMS-100 in tracking and reporting vessel activity within and beyond national jurisdiction. The inclusion of the SRT VMS-100 in the WCPFC approved list of ALC/MTUs will greatly boost the accomplishment of the project vision and objectives.

27. The FFA Secretariat sought the following clarifications on the proposal for the SRT-VMS-100.

(i) **Question:** The letter from Philippines Bureau of Fisheries and Aquatic Resources (BFAR) (circulated with WCPFC Secretariat Circular 2020/02) indicates the MTU model as VMS-100. The accompanied accreditation letter dated 11-Jun-19 from the SRT Marine Systems and the Product Data sheet indicate the MTU model as VMS-100S. It is not clear if the two are different models. Can it be clarified which is the correct model?

- **Reply**: The Secretariat stated that the VMS-100 stated in the letter from the Philippines is the same unit mentioned in the data product sheet.

(ii) **Question:** As noted from the SRT Marine System's product data sheet, the SRT-VMS-100S device uses multiple routing two-way communication terrestrial and satellite technology options to enable the exchange of data between the vessel and the monitoring centre as well as surveillance vessels and aircraft. It can be determined that the position data can also be widely distributed from the unit. It is not known whether a physical test was conducted for this unit to determine whether the position data generated from this unit is only sent via the satellite to the monitoring authority, and not to multiple receivers including terrestrial AIS receivers. Can some clarification be provided on this?

- **Reply:** The Secretariat stated that it did not conduct physical testing of the MTU but checked that the unit met the requirements in Annex 1 of the measure. A unit was placed on a vessel operating in HSP1 which also has a Halios unit. Testing of reception and processing of the position reports was conducted by TrackWell.

Topic K: Other Topics

Topic K1: Safety Concerns on the Size Requirement of the High Seas Boarding and Inspection Pennant (U.S. Proposal)

Background

Supporting paper: TCC16-2020-DP01. United States. *Safety Concerns on the Size Requirement of the High Seas Boarding and Inspection Pennant*

Purpose: To address the potential safety hazards described in the paper, the United States proposes that TCC16 recommend to the Commission a minimum pennant size requirement for boarding vessels.

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Recommendations in supporting paper: To address the potential safety hazards described in the paper, the United States proposes that TCC16 recommend to the Commission a minimum pennant size requirement for boarding vessels: 44 centimeters (cm) by 66 cm (height by length). This is smaller than the current requirement of 94 cm by 213 cm and would increase safety by improving visibility of boarding vessel look-outs and operators. The North Pacific Fisheries Commission has adopted the 44 cm by 66 cm size requirement for its boarding vessels.

Questions and Comments:

28. There was no discussion under this topic.