



**TECHNICAL AND COMPLIANCE COMMITTEE**  
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**ANNUAL REPORT ON THE COMMISSION VMS**

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**WCPFC-TCC16-2020-RP01**  
**2 September 2020**

**Paper prepared by the Secretariat**

**Purpose**

1. The purpose of this paper is to present the Annual Report of the Commission VMS for the consideration of TCC16.

**Introduction**

2. The Annual Report for the Commission VMS is prepared in accordance with the requirements paragraphs 7.3.9 and 7.3.10 of the VMS SSPs.
3. The Annual Report is structured as follows:
  - Background and Introduction
    - SLA with FFA
    - Contracts with MCSPs
  - Commission VMS database
  - List of WCPFC Approved MTUs/ALCs
  - VMS Audit Report
  - Manual Position reporting
  - CCM access to WCPFC VMS data including related reports
    - Users of WCPFC Trackwell System and Provision of High Seas VMS Data in support of MCS Activities
    - VMS Reporting Status tool - Update on tasking from WCPFC14
  - Security and Integrity of the Commission VMS
  - Review of VMS implementation by applicable CCMs under the Compliance Monitoring Scheme (CMS) 2013 - 2018
  - Administrative notes
  - Recommendations

**Background and Introduction**

4. Article 24(8) of the Convention obliges each Member of the Commission to require its fishing vessels that fish for highly migratory stocks on the high seas of the Convention Area to use an ALC/MTU which meets agreed WCPFC Standards, Specifications and Procedures, while in these areas. In implementing this requirement, the Commission adopted CMM 2014-02 Commission Vessel Monitoring System Conservation and Management Measure, a set of Standards,

Specifications and Procedures (SSPs) which were initially approved in 2008 (WCPFC5) and modified in 2016 (WCPFC13), and an updated set of Standard Operating Procedures (SOPs) approved in 2018 (WCPFC15).

5. Additionally, in 2012 (WCPFC9) the Commission adopted a Statement of Purpose and Principles for the Commission VMS. The Statement stated the purpose of the Commission VMS is “to cost-effectively monitor the activities of fishing vessels authorized by flag States to fish for highly migratory fish species in the Convention Area in areas beyond jurisdiction of the Flag States. Data collected by the Commission VMS will be securely stored and used by the Commission and its Members, Cooperating Non-Members, and Participating Territories (CCMs) to achieve compliance with Conservation and Management Measures (CMMs), fisheries scientific analysis and sound fisheries management decision-making in the Convention Area.”
6. The Commission VMS primarily covers high seas waters of the Convention Area. WCPFC9 agreed to a decision related to the application of the Commission VMS solely to waters under the jurisdiction of Members and to complement and support Members’ national VMS. Since the “Flick the Switch” proposal was approved at WCPFC9 eleven CCMs have provided letters of notification for the Commission VMS to cover their EEZ. Since 8 April 2016, to date no additional CCMs waters have been included in the coverage of the Commission VMS.<sup>1</sup>
7. The approved structure of the Commission VMS system allows vessels to report to the WCPFC through two ways: i) directly to the Commission VMS, or ii) to the WCPFC through the FFA VMS. There are several contracts that the Secretariat maintains to facilitate the necessary arrangements for the Commission VMS. These are described in the paragraphs below.

#### Service Level Agreement with FFA

8. Paragraph 7.3.3 of the SSPs requires, in part, the Secretariat to develop and manage a service level agreement (SLA) with the FFA for provision of VMS services. This SLA was signed by the Secretariats of the WCPFC and FFA in early December 2008, and the Commission VMS became operational in April 2009. VMS service is provided through the SLA with FFA and since 30 June 2016, the service provider has been TrackWell.
9. In March 2020, the Secretariat has noticed occasional VMS reporting anomalies whereby Inmarsat C MTUs may have been incorrectly matched to vessels within the Commission VMS. In February 2020, WCPFC Trackwell was requested to i) increase the frequency of updates between WCPFC databases to greater than once per day, and ii) ensure that MTU Register data is being correctly interpreted by Trackwell in the Commission VMS, particularly for Inmarsat C MTUs. TrackWell has increased the frequency updates from WCPFC databases to hourly, and the fields being read by TrackWell from the MTU Register in Pohnpei were expanded to include those that are necessary to support the Commission VMS.
10. Since early 2020, the FFA Secretariat has enabled an *application programming interface* (API) technical solution so that the WCPFC Secretariat has automated access to the current list of FFA Good Standing vessels for cross checking purposes and use in the online VMS Reporting Status tool.
11. The Secretariat presently has no matters of note to raise for TCC’s attention with respect to the SLA with the FFA.

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<sup>1</sup> The list of CCMs who have approved for their EEZ to be covered by the WCPFC VMS is provided at this link <https://www.wcpfc.int/vessel-monitoring-system>

## Contracts with Mobile Communications Service Providers

12. Paragraph 7.3.5 of the SSPs requires the WCPFC Secretariat to enter into, and to maintain, direct contracts with mobile communications service providers for the provision of position (and other) data from the MTUs/ALCs that are activated to report directly to the Commission VMS. For this purpose, the WCPFC Secretariat has contracts with:
- SpeedCast (formerly Satcomms Australia) – for Inmarsat C, D+ and Faria watchdog Iridium services;
  - Collecte Localisation Satelites (CLS) – for Argos and Halios/Iridium services; and
  - Vizada – an operational agreement for Inmarsat C DNID management.
13. Although VMS Gateways are established with WCPFC Trackwell to support the receipt of VMS data, to date the Secretariat has not established contracts with the following four Mobile Communications Service Providers:
- MetOcean – for iTrac10101B (I Trac II) services;
  - Rom Communications – for RomTrax Wifi services;
  - SASCO – for BB3 and BB5 services; and
  - SkyMate Inc. – for SkyMate I1500 and m1600 services.
- This means that technically VMS transmissions can be received by WCPFC Trackwell, but the Secretariat presently does not have an arrangement to be charged for VMS airtime services from the relevant WCPFC Approved MTU/ALCs. To date any relevant charges for VMS activation and airtime from these MTU/ALCs have been covered by the relevant flag CCMs.
14. On 2 March 2020, CCMs were advised of a technical issue between Collecte Localisation Satelites (CLS) and WCPFC TrackWell with the Gateway for Halios/Iridium services (WCPFC Circular 2020/12). This technical issue occurred on 12 February 2020, and prevented LEO, Thorium TST-100, CLS TRITON and CLS TRITON ADV MTU/ALCs from transmitting positions to the Commission VMS. The technical issue was resolved on 6 March 2020 Pohnpei time, and VMS data from the period 12 February – 6 March 2020 was backloaded into WCPFC TrackWell VMS. The Secretariat, working with WCPFC Trackwell, has taken the necessary steps to ensure to prevent this technical issue from reoccurring. The issue arose when the number of MTUs which data was requested far exceeded the 1,000 vessels limit. TrackWell system was requesting and fetching data for all Halios MTU in their system and not only active Halios units on WCPFC MTU register which is less than 600. As was explained in paragraph 9 (above), corrective action has been taken to ensure that TrackWell only retrieves data for Halios units that are currently listed as Active on the WCPFC MTU Register in Pohnpei.
15. The Secretariat presently has no other matters of note to raise for TCC’s attention with respect to the contracts with Mobile Communication Service Providers.

## **Commission VMS database**

16. Paragraph 2.8 of the SSPs requires the Secretariat to administer a Commission VMS database. It states that:

*“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 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.”*

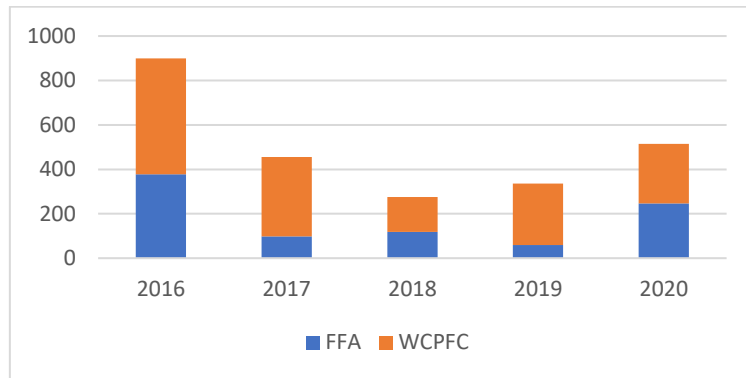
17. To facilitate the submission of necessary vessel tracking data for each fishing vessel required to report to the Commission VMS, the Secretariat has provided for flag CCMs use a guideline Vessel Tracking Agreement (VTAF) form. VTAF forms (MS Excel, pdf, word format) are available on the WCPFC website: <https://www.wcpfc.int/vessel-monitoring-system>.
18. Some general statistics on the Commission VMS over time are provided in the following charts (Figures 1-3) below. Some summary information by flag reporting through different MCSPs is shown in **Table 1** below. As at 31 July 2020, there were 2,669 vessels that were considered to be activated to report to the Commission this represents 67% of all “Active” vessels on the WCPFC Record of Fishing Vessels.

**Table 1. Number of vessels by CCMs activated to report through different MCSPs.**

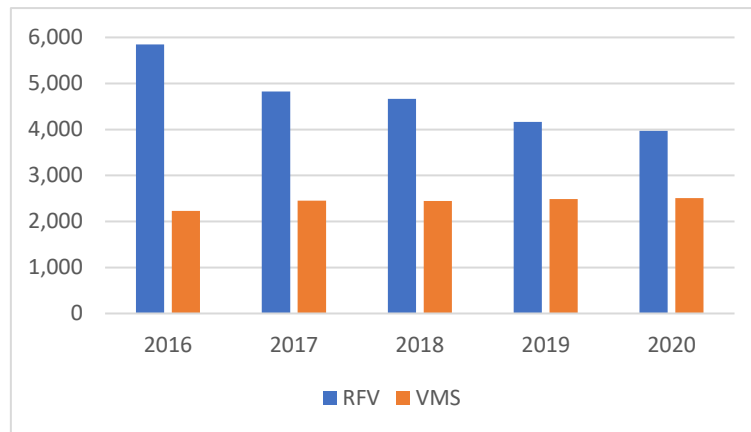
Flag CCM	FFA VMS	CLS	MetOcean Telematics	Rom Comm	SASCO	SkyMate Inc.	Skywave <sup>2</sup>	Speed Cast	Total
AU								41	41
CA		1	1	2	2				6
CN	310	37						79	426
CK	23							1	24
CU	2								2
EC	5								5
EU	4							13	17
FJ	63							1	64
FM	41								41
ID		1							1
JP	120	83						353	556
KI	12								12
KR	138	7						4	149
LR	1	1							2
MH	18								18
NR	16								16
NC								7	7
NI									
NZ	1							3	4
PN	87	14						8	109
PH	55	219						3	277
PG	12								12
PF									
SB	10								10
SV	2								2
TH									
TO									
TW	134	193					23	252	602
TV	2								2
US	24	133				38		4	199
VU	35	28						1	64
<b>TOTAL</b>	<b>1,115</b>	<b>717</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>38</b>	<b>23</b>	<b>770</b>	<b>2,669</b>

<sup>2</sup> Note that the Skywave data in this table refers to a semi-automated email forwarding, that has been enabled by WCPFC TrackWell to receive position data for Skywave IDP-690 from one CCMs VMS Service Provider. However, the Secretariat views this interim solution as akin to a VMS manual position report service from a CCM, that although directly received by WCPFC Trackwell, is not considered to be a formal VMS Gateway consistent with CMM 2014-02 para 7(a).

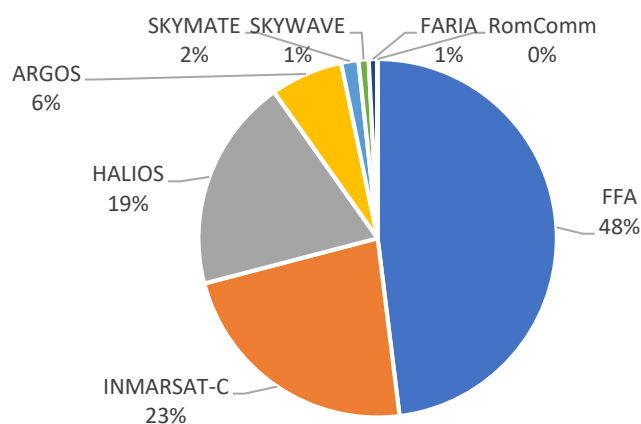
**Figure 1. Vessel activations by year as of 31 July 2020.**



**Figure 2. Number of VMS vessels reporting against RFV, as of 31 July 2020.**



**Figure 3. The percentage of vessels currently reporting by Channel on the Commission VMS, as of 31 July 2020.<sup>3</sup>**



19. Table 2 below lists the number of vessels with an “Active” status on the WCPFC Record of Fishing Vessels (Vessel count), information available to the Secretariat on count of FFA good

<sup>3</sup> Refer to footnote 2

standing status (FFA Good Standing Cnt) and reported by the flag CCM as fished beyond its national jurisdiction (Fished Cnt).

**Table 2. Summary of the number of vessels by flag for which the Secretariat has VTAF data (VTAF record Cnt) in 2019 and 2020 and received position reports in areas covered by the Commission VMS (VMS Tracked Cnt). As at 11 August 2020.**

CCM	2019						2020				
	Vessel Count	Fished Cnt	Did Not Fish Cnt	VTAF Recorded Cnt	FFA Good Standing Cnt	VMS Tracked Cnt	Vessel Count	VTAF Recorded Cnt	FFA Good Standing Cnt	VMS Tracked Cnt	
AU	54	4	50	41	0	38	55	41	0	33	
CA	16	0	16	6	0	0	5	5	0	0	
CK	26	19	7	14	22	23	25	14	20	19	
CN	648	386	262	390	293	395	646	398	287	373	
CW							6	0	0	1	
EC	7	5	2	7	5	5	7	7	5	5	
EU	79	5	74	18	4	6	77	18	4	5	
FJ	72	37	35	13	60	35	70	13	57	33	
FM	41	40	1	22	40	38	42	22	41	35	
ID	22	0	22	1	0	0	22	1	0	0	
JP	803	548	255	555	129	351	772	557	118	354	
KI	18	14	4	10	14	14	12	9	12	12	
KR	217	160	57	140	154	160	218	142	149	155	
LR	27	3	24	6	7	9	20	3	4	5	
MH	16	16	0	6	13	16	16	6	13	16	
NC	19	0	19	7	0	0	22	7	0	5	
NI	1	0	1	0	0	0	1	0	0	0	
NR	11	11	0	3	10	11	16	4	15	16	
NZ	4	4	0	4	1	4	4	4	1	4	
PA	166	87	79	98	87	100	158	100	76	91	
PF	78	0	78	0	0	0	80	0	0	0	
PG	35	24	11	10	24	21	26	8	16	10	
PH	432	307	125	214	58	258	337	220	56	179	
SB	11	5	6	0	10	10	11	0	10	10	
SV	4	2	2	3	2	2	4	3	2	2	
TH	6	0	6	1	0	0	5	1	0	0	
TO	1	0	1	0	0	0	1	0	0	0	
TV	4	2	2	4	2	2	4	4	2	2	
TW	1,070	646	424	623	177	504	1,054	627	164	489	
US	221	183	38	178	32	199	212	177	27	183	
VU	77	73	4	63	39	74	75	63	37	73	
Grand Total	4,164	2,581	1,605	2,437	1,183	2,275	3,991	2,454	1,116	2,110	

20. Table 3 below provides a count of vessels on the RFV by vessel type that report to the Commission VMS directly or through the FFA VMS.

**Table 3. Count of vessels on the RFV by vessel type that reported to the Commission VMS, through the FFA VMS and directly activate to report to the WCPFC VMS as at 31 July 2020.**

Vessel Type	2016		2017		2018		2019		2020	
	Direct	FFA	Direct	FFA	Direct	FFA	Direct	FFA	Direct	FFA
Longline	723	754	824	779	851	788	898	791	953	773
Purse Seine	44	259	50	263	47	244	52	246	45	243
Carrier	58	190	91	182	84	172	88	152	101	138
Bunker		35		34		34	1	30	1	28
Troll	5	1	8	1	11		12		11	
Pole & Line	39	24	49	26	53	25	53	24	55	22
Other	98	1	141	1	136	1	139	2	136	1
<b>Total</b>	<b>967</b>	<b>1,264</b>	<b>1,163</b>	<b>1,286</b>	<b>1,182</b>	<b>1,264</b>	<b>1,243</b>	<b>1,245</b>	<b>1,302</b>	<b>1,205</b>

## List of WCPFC Approved MTUs/ALCs

21. Since TCC15 (September 2019), three new MTUs have since been added through the intersessional process in the VMS SSPs to the List of WCPFC Approved MTUs/ALCs. The additional units and date of when they became effective are:
- SKYMATE m1600 - effective 11 September 2019
  - Insight X2 EMTU – effective 3 June 2020
  - iFleetONE – effective 16 July 2020
22. In February 2020 the inclusion of SRT VMS-100 on the WCPFC Approved MTU List was deferred for consideration by TCC16. At the time of writing, due to delays in WCPFC Trackwell in receiving necessary technical information from the ALC/MTU manufacturer, the Secretariat considers that a VMS Gateway consistent with CMM 2014-02 para 7(a) has not been established between WCPFC Trackwell and ORBCOMM/Skywave for ORBCOMM ST6100 and Skywave IDP-690 services. Further details are provided in *Recommendations related to the WCPFC Approved ALC/MTU List (TCC16-2020-15)*
23. The complete list of approved MTUs as of 16 July 2020 is appended in Annex 1.

### Update on FVT, MAR GE, MAR GE V2 and MAR GE V3 phase out

24. At the WCPFC14, the Commission agreed that “CCMs shall ensure that vessels flying their flag do not purchase, install or transfer the following VMS units: **FVT, MAR GE, MAR GE V2, and MAR GE V3** (all Argos units) and that they be removed from the WCPFC approved ALC/MTU list. The Commission further agreed that existing units on vessels shall be allowed to continue to operate for 5 years (until 1 January 2023). CCMs whose vessels use these models shall provide a list of vessels that are using the units to the Secretariat and shall update the list annually” (WCPFC14 Summary Report paragraph 424).
25. In November 2019, Japan provided an updated list of their 93 flag vessels equipped with Argos MTUs. Other CCMs have provided relevant MTU updates on a case by case basis in relation to these MTU units. Where additional **FVT, MAR GE, MAR GE V2, and MAR GE V3** activations have been requested, the Secretariat has sought confirmation that the installation date predates the WCPFC14 decision before updating the WCPFC MTU Register records.
26. A summary of the current status of the phase out of **FVT, MAR GE, MAR GE V2 and MAR GE V3** ALC units is shown in **Table 4** below.

**Table 4: Analysis of the current status of the phase out by CCMs of FVT, MAR GE, MAR GE V2 and MAR GE V3 ALC units – as at 11 August 2020**

CCM	Vessel Type	Count of vessels on the RFV with an “active” MTU unit of this type (count of vessels CCM advised “fished” in 2019)			
		FVT	MAR GE	MAR GE V2	MAR GE V3
China	Longliner				11 (0)
Indonesia	Pole and Line		1 (0)		
Japan	Longliner		16 (20)	53 (57)	5 (5)
Korea (Republic of)	Longliner		1 (0)		
Liberia	Fish Carrier			1 (0)	
Panama	Fish Carrier		1 (0)		
Philippines	Fish Carrier				1 (1)
Philippines	Support Vessel		2 (2)	45 (46)	42 (41)
Chinese Taipei	Longliner			8 (8)	
Vanuatu	Longliner		1 (1)		
	<b>Total = 188</b>		<b>22</b>	<b>107</b>	<b>59</b>

## VMS Audit Report

27. Paragraphs 2.9 and 2.13 of the SSPs state that CCMs are to carry out a periodic audit of a representative sample of installed ALCs. The results of these audits are to be provided to the Commission by CCMs in the Part 2 Annual Report to the Commission (WCPFC VMS SSPs 7.2.2). Since 2013, the WCPFC Secretariat has provided CCMs with an electronic facility to report their MTU audit inspection results as shown in **Table 5** below.

**Table 5. Number of MTU audits by type from 2014 to 31 July 2020.**

MTU Type	2014	2015	2016	2017	2018	2019	2020
750VMS [Faria - Watchdog]	5	5	29	40	48	22	
750VMS SB [Faria - Watchdog]	9	45	16	20	17	48	
750VMS W/VTerm [Faria - Watchdog]	168	44	2	7	38	2	
BB5 [SASCO]							
CLS TRITON [CLS OROLIA]			1	4	46	68	
CLS TRITON ADV [CLS OROLIA]				9	35	82	3
ELB 2000 [SATLINK]							
ELB2004 [SATLINK]					2		
FELCOM10 [Furuno]			7				
FELCOM12 [Furuno]	3		6	1	1		
FELCOM15 [Furuno]	5	1					
FELCOM16 [Furuno]	269	257	217	237	201	167	9
FELCOM18 [Furuno]				1			
FELCOM19 [Furuno]		1	3	15	14	13	2
H1622D [Sailor]	1						
iTrac101B (i Trac II) [MetOcean Telematics]							
JUE-75C [JRC]	1						
JUE-95VM [JRC]	36	43	45	63	61	33	3
JUE-85 [JRC]							
JUE-87 [JRC]							
JUE-95C [JRC]							
JUE-95VM [JRC]							
LEO [CLS ELTA]	6	138	132	136	149	134	2
NERA MINI-C [SATLINK]							
ORBCOMM ST6100 [ORBCOMM/Skywave]							
RomTrax Wifi [Rom Communications]							
RSS405A [Anritsu]	5	2					
Sailor 3027D [Thrane & Thrane]	2	22	1	1	4	1	
Sailor 6140 [Thrane & Thrane]	65	70	114	119	205	184	
Sailor 6150 [Thrane & Thrane]	19	34	37	74	92	80	
SKYMATE I1500 VMS [SkyMate Inc.]				2	5	19	
SKYMATE m1600 [SkyMate Inc.]						9	7
Skywave IDP-690 [ORBCOMM/Skywave]					3	18	
Thorium TST-100 [CLS KENWOOD]	104	126	71	83	214	139	2
TNL 7001 [Trimble]	1	2					
TNL 8001 [Trimble]							
TNL7005 [Trimble]							
TT-3020C [Thrane & Thrane]	2	2					



MTU Type	2014	2015	2016	2017	2018	2019	2020
TT-3022D [Thrane & Thrane]	75	99	36	25	15	4	
TT-3026 [Thrane & Thrane]	9	12	4	3		1	
TT-3026D [Thrane & Thrane]	33	31	19	7	1		
TT-3026S [Thrane & Thrane]	57	67	53	20	20	22	
TT-3027M [Thrane & Thrane]		30	27	19	11	2	
TT-3027S [Thrane & Thrane]		1	1	2	3		
TT-3062D [Thrane & Thrane]	2	2		5	1		

**\*\* MTUs to be PHASED OUT BY JANUARY 2023**

FVT [CLS SEIMAC]	11						
MAR GE [CLS SERPE-IESM]	5	5	4		11		
MAR GE V2 [CLS MARTEC SERPE-IESM]	22	25	25	2	40	1	
MAR GE V3 [CLS MARTEC SERPE-IESM]			44	8	47	1	8

28. The Secretariat has undertaken an analysis of the WCPFC MTU Register records compared to the MTU Audit reporting. There is a total of 1,048 of MTU Register records from fourteen CCMs that have not had a MTU Audit Report submitted to the Secretariat through the MTU Audit Inspections list. This list of relevant ALC/MTUs is appended in Annex 2.

29. All CCMs that have vessels that were reported to have “fished” beyond its national jurisdiction in 2019 have carried out and reported MTU/ALC audit inspections from 2014 - 2020 for some of their flag vessels as shown in **Table 6** below.

**Table 6. List of flag CCMs and number of MTU audits undertaken, compared to the count of vessels that the flag CCM advised fished in the Convention Area beyond its flag CCMs jurisdiction during 2018 as at 6 August 2020**

Flag	Active on RFV in 2019	"Fished" in 2019	2014	2015	2016	2017	2018	2019	2020
Australia	54	3	1	52					
Canada	16		2	2		1	2	1	
Cook Islands	26	19	8	13	11	6	17	24	
China	648	386	215	346	348	303	298	311	8
Ecuador	7	5		3	2	3	5	4	3
European Union	79	5	6	4	3	2	1	2	
Fiji	72	36	67	55	35	50	58		
Federated States of Micronesia	41	40	30	35	23	34	39	39	2
French Polynesia	78								
Indonesia	22								
Japan	803	548	105	99	114	165	141	98	9
Kiribati	18	14	20	21	13	16	10	5	
Korea (Republic of)	217	158	112	49	33	68	82	112	5
Liberia	27	3		1	3	4		6	
Marshall Islands	16	16	11	11	11	11	14	12	
New Caledonia	19		17			4	7		

Flag	Active on RFV in 2019	"Fished" in 2019	2014	2015	2016	2017	2018	2019	2020
Nauru	11	11	3	1	2	2	2	10	1
New Zealand	4	4	3	2	2	1	2	2	
Panama	166	87	20	10	14	4	9		
Papua New Guinea	35	24	7	11	1	5	19	20	
Philippines	432	306	118	142	132	30	232	1	
Solomon Islands	11	5		3	4	9	11	9	
El Salvador	4	2	4	2	2	3	1	1	1
Thailand	6								
Tonga	1								
Tuvalu	4	2	1	2	1	8	2	2	
Chinese Taipei	1070	646	5	7	17	34	161	157	
United States of America	221	183	154	151	100	108	113	107	7
Vanuatu	77	73	6	42	22	32	31	42	

30. Table 7 below provides a summary of the aerial surveillance, High Seas Boarding and Inspection and other remote MCS activities where Article 25 requests for investigation related to VMS violations were noted since 1 January 2014. Of note in 2019, there were twenty-four (24) instances where Article 25(2) requests for investigation related to VMS violations were noted, and from 1 January to 31 July 2020 there were none (0). The outcomes of most flag CCM investigations in 2019/20 to date, were that the flag CCM advised that their review of the evidence did not support a finding of a violation by the vessels, twenty-three (23) advised of some sort of Infraction.

**Table 7. Summary of outcome of flag CCM investigations of alleged infringements that were notified to WCPFC as Article 25(2) matters, based on aerial surveillance, HSBI or other remote surveillance based MCS activities (covering the period 1 January 2015 – 30 July 2020)**

C_Case_Obligation_Count Row Labels	Column Labels				Grand Total	
	⊕ Flag CCM Notified	⊖ Flag CCM Investigation Completed	Infraction - no sanction	Infraction - sanction		Infraction - warning
⊖ CMM 2011-02 9a					1	1
⊕ 2014					1	1
⊖ CMM 2014-02 7d VMS SSPs 2.7				1	4	5
⊕ 2017					1	1
⊕ 2018				1	2	3
⊕ 2019					1	1
⊖ CMM 2014-02 9a	5	3		9	10	78
⊕ 2015		1		1	1	5
⊕ 2016				5	1	11
⊕ 2017	2				2	17
⊕ 2018	2	2		3	4	25
⊕ 2019	1				2	20
⊖ CMM 2014-02 9a VMS SSPs 2.8						1
⊕ 2018						1
Grand Total	5	3		10	10	84

## Manual Position Reporting

31. The Secretariat maintains a log of all vessels placed on manual reporting as required by the SSPs on VMS. The manual reports are also entered in the Commission VMS database as shown in Table 8 below.

**Table 8. Number of vessels by flag that provided manual position report (August 2019 – July 2020)**

CCM (Flag)	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
China	4	5	3		2					7	9	4
EU - Spain									1	1		
Federated States of Micronesia											1	1
Japan	4	2	2	2	1	3			1		1	
Kiribati					1	1						
Korea			1									
Panama										1		
Philippines			1	3	4	10	3	2	3	3	1	
<b>Total</b>	<b>8</b>	<b>7</b>	<b>7</b>	<b>5</b>	<b>8</b>	<b>14</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>12</b>	<b>12</b>	<b>5</b>

## CCM access to WCPFC VMS data including related reports

32. The main way for authorized CCM users to access WCPFC VMS data is by logging into the WCPFC Trackwell VMS system. The WCPFC also arranges for the WCPFC Trackwell VMS system to regularly send to specified email address/es txt files containing the WCPFC VMS data that they are permitted to view in Trackwell. The Secretariat and at least two CCM users presently use an *Application Programming Interface* (API) to source WCPFC VMS data from WCPFC Trackwell VMS system. The WCPFC also provides certain reports that are accessible by all authorized CCM users through the CCM portal on the WCPFC website.

### *Users of WCPFC Trackwell System and Provision of High Seas VMS Data in support of MCS Activities*

33. Flag CCMs have access to their flagged vessels through WCPFC Trackwell VMS. As per the WCPFC9 decision, authorised MCS entities of CCMs may request coverage by the Commission VMS of their national waters under Article 24(8) decision, and once enabled can view through their WCPFC Trackwell login the relevant data for all vessels reporting to the Commission VMS when within their EEZ/s.

34. In terms of high seas VMS access, Authorised MCS entities of other CCMs may request to access certain WCPFC VMS data through non-public domain data requests pursuant to paragraphs 19 - 25 of the *2009 Rules and Procedures for the Protection, Access to, and Dissemination of High Seas Non-Public Domain Data and Information Compiled by the Commission for the Purpose of Monitoring, Control or Surveillance (MCS) Activities and the Access to and Dissemination of High Seas VMS Data for Scientific Purposes* (Data RaP 2009).

35. Seventeen (17) CCMs have requested access to 100nm high seas buffer, some on an ongoing basis, and others for the purposes of specific MCS activities. Access to the EHSP-SMA Commission VMS data has been provided to the adjacent CCMs: Cook Islands, French Polynesia

and Kiribati. Some FFA members have nominated the FFA Regional Fisheries Surveillance Centre in Honiara, Solomon Islands, as one of their MCS entities to receive Commission VMS data on their behalf.

36. There are now 136 users from 36 CCMs, however only 30 users from 13 CCMs are actively using the system. The list of CCMs with user logins to the Commission VMS is provided in **TCC16-2020-RP10\_Annex 3**. A breakdown of when user accounts were created are shown below in **Table 9**.

**Table 9. Number of VMS Users by CCMs and year user account was created**

CCM / approved user	2016	2017	2018	2019	2020	Total	Current Users
Australia	3		7	4	4	18	11
Canada	1		5	1		7	6
China	5				1	6	6
Cook Islands	2	1				3	3
Ecuador	1					1	1
El Salvador	1					1	1
European Union	9			1		10	10
Fiji	1					1	1
France	6	1	1			8	8
Federated States of Micronesia	6					6	4
Indonesia	10					10	10
Japan	5					5	5
Kiribati	1					1	1
Korea	9					9	9
Liberia	1					1	1
Mexico	1					1	1
Marshall Islands	1					1	1
Nauru	1		1			2	2
New Caledonia	10				1	11	11
New Zealand	19	11	5	9	2	46	18
Niue	1					1	1
Panama	1					1	1
Palau	2					2	2
Papua New Guinea	1					1	1
Philippines	12					12	6
Samoa	1		1			2	1
Solomon Islands	1					1	1
Thailand	1					1	1
Tokelau	1					1	1
Tonga	1					1	1
Tuvalu	1					1	1
Chinese Taipei	4					4	4
United States	5	1		1		7	6
Vietnam	1					1	1
Vanuatu	6					6	6
	<b>132</b>	<b>14</b>	<b>20</b>	<b>16</b>	<b>8</b>	<b>190</b>	<b>144</b>

*VMS Reporting Status tool - Update on tasking from WCPFC14*

37. The VMS reporting status tool is presently live and available to all authorized users of CCMs at this link: <https://www.wcpfc.int/ccm-vessel-monitoring-system>. There are two parts to the VMS Reporting Status tool:

- i. "All Vessels" VMS Reporting Status report which is accessible by all authorized CCM users provides some general information about VMS reporting status for each vessel in the Record of Fishing Vessels; and
- ii. The "CCM Vessels" VMS Reporting Status report which provides relevant flag CCMs with more detailed information for their vessels.

CCMs are also able to download a copy of the relevant report in CSV format.

38. The "All Vessels" VMS Reporting Status report has been available since 2017. From 2018, and in response to a task that the Secretariat provide additional functionality in its "Commission VMS reporting status tool" for individual flag CCMs, the Secretariat has been manually generated MS Excel files as monthly reports that are periodically posted through each CCMs portal on the WCPFC website. These annual summary information from these monthly files has been a source of information that is used by the Technical and Compliance Committee when considering the draft Compliance Monitoring Report. The Secretariat had considered the manual MS Excel files to be an interim delivery of the WCPFC14 task, until the automated "CCM Vessels" VMS Reporting Status report could be completed.<sup>4</sup>

39. On 3 April 2020, the Secretariat is pleased to have completed the delivery for all flag CCMs of an automated solution in response to the WCPFC14 task, as a "CCM Vessels" VMS Reporting Status report. The "CCM Vessels" VMS Reporting Status report is delivered to relevant flag CCMs through their CCM portal, and provides CCMs with a daily snap-shot of whether each of their vessels on the Record of Fishing Vessels is expected to be meeting its Commission VMS requirements through the FFA VMS (based on FFA Good Standing List) or if not whether WCPFC has completed the necessary steps to activate the vessels MTU to report to the Commission VMS, and if so provide a generic vessel status for each of their vessels and a daily VMS-reporting status (how many position reports are transmitted by each vessel each day for the past 14 days). Authorised CCM users are also able to access "CCM Vessels" VMS Reporting Status report for their flagged vessels on the secure section of the WCPFC website: <https://www.wcpfc.int/ccm-vessel-monitoring-system>

40. The successful delivery of the automated "CCM Vessels" VMS Reporting Status report involved collaborative work over an extended period of time and required the development of new WCPFC IT infrastructure to support its delivery as an automated solution. The development was led by the Secretariat with support from WCPFC IT contractors, Eighty Options and Taz-E. The Secretariat is also grateful to the FFA Secretariat and to WCPFC Trackwell for their assistance in working with the WCPFC to establish *Application Programming Interface* (API) technical solutions that provide automated delivery of FFA Good Standing data and other WCPFC VMS data-related APIs for the online VMS Reporting Status Tool.

## Security and Integrity of the Commission VMS

41. VMS SSP 6.10 requires the integrity of the Secretariat's VMS data will be verified annually by qualified personnel exterior to the Commission Secretariat staff. Deloitte Touche Tohmatsu Limited has been contracted in late 2019 to carry out the audit and the results of the audited will be posted as secure CCM paper **WCPFC-TCC16-2020-RP09**

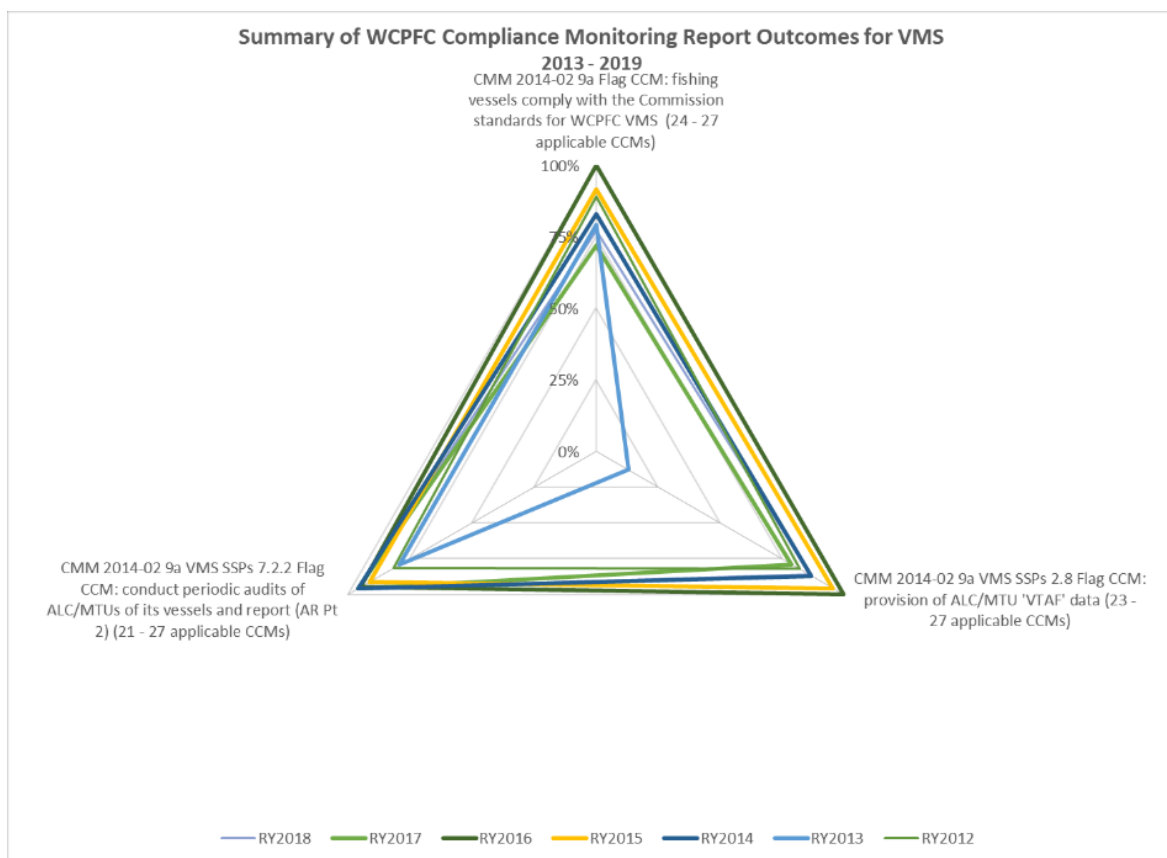
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<sup>4</sup> In December 2017, the Commission at WCPFC14 tasked the Secretariat to deliver in a web-based exportable matrix additional functionality in its "Commission VMS reporting status tool" and provides CCMs with each of their vessel's daily VMS-reporting status (how many position reports are transmitted by each vessel on each date) and determine and display a generic vessel status ("in port" or "at sea", for example). (TCC13 Summary Report paragraph 142).

## Review of VMS implementation by applicable CCMs under the Compliance Monitoring Scheme (CMS) 2013 - 2018

42. Figure 4 below provides an overview of the outcome of the evaluation of VMS-related provisions under the CMS over recent years. The Commission has reviewed the VMS related provisions annually since 2013 for the Reporting Year 2013 (RY2012) to 2019 (RY2018) but has focused on a smaller list of obligations in recent years. Figure 4 shows general and incremental improvements in the reported outcomes in CMS for applicable CCMs of Commission VMS implementation under CMM 2014-02 or its earlier iteration.

**Figure 4**



### Administrative notes

43. General information on the WCPFC VMS, including copies of VTAF forms, are publicly available at this link: <https://www.wcpfc.int/vessel-monitoring-system>. This includes an updated guideline on WCPFC VMS requirements as at the first quarter of 2018 (as requested by TCC13 Summary Report paragraph 143)

44. In March 2020, the Secretariat prepared a paper for the VMS-SWG providing an overview of the background to the Commission VMS and the status of associated IT tools for CCMs use when accessing or viewing WCPFC VMS data. The paper also documents the Secretariat's current work activities to address the VMS data gap with the objective to improve the number of vessels reporting to the Commission VMS. A copy of the paper prepared by the Secretariat can be accessed from the VMS-SWG webpage: [https://www.wcpfc.int/2020\\_vms-swg](https://www.wcpfc.int/2020_vms-swg)

45. The Commission VMS currently displays EEZ coordinates that were consistent with the version used by the Forum Fisheries Agency for their VMS system in the past, and as modified by notifications from WCPFC Members as per the WCPFC9 Convention Article 24(8) decision. The Secretariat understand that FFA and SPC have recently implemented Marine Regions v10 boundary information. The Secretariat has received Marine Regions v11, and is presently considering whether to also implement updated Marine boundaries into the Commission VMS.

46. All authorized users of CCMs may access the VMS Reporting Status tool at this link: <https://www.wcpfc.int/ccm-vessel-monitoring-system>

47. To assist the Secretariat with keeping track of VMS-related correspondence, please send VMS-related emails with cc to VMSHelpdesk@wcpfc.int

### **Recommendations**

48. TCC16 is invited to note the report and discuss the activities of the Commission VMS.

**WCPFC Approved List of ALC/MTUs as at 16 July 2020**Also published at: <https://www.wcpfc.int/doc/wcpfc-approved-list-current>

<b>Model / Approved MTU Type</b>	<b>Manufacturer</b>	<b>Comm System</b>	<b>Service Provider</b>
iFleetONE	Addvalue	INMARSAT BGAN	Addvalue
RSS405A	Anritsu	INMARSAT STDC	Speedcast
LEO	CLS ELTA	HALIOS	CLS
Thorium TST-100	CLS KENWOOD	HALIOS	CLS
750VMS	Faria - Watchdog	FARIA_WATCHDOG	Speedcast
750VMS SB	Faria - Watchdog	FARIA_WATCHDOG	Speedcast
750VMS W/VTerm	Faria - Watchdog	FARIA_WATCHDOG	Speedcast
FELCOM10	Furuno	INMARSAT STDC	Speedcast
FELCOM12	Furuno	INMARSAT STDC	Speedcast
FELCOM15	Furuno	INMARSAT STDC	Speedcast
FELCOM16	Furuno	INMARSAT STDC	Speedcast
FELCOM18	Furuno	INMARSAT STDC	Speedcast
FELCOM19	Furuno	INMARSAT STDC	Speedcast
JUE-310B	JRC	INMARSAT-B	Speedcast
JUE-75C	JRC	INMARSAT STDC	Speedcast
JUE-75C-FFA	JRC	INMARSAT STDC	Speedcast
JUE-85	JRC	INMARSAT STDC	Speedcast
JUE-87	JRC	INMARSAT STDC	Speedcast
JUE-95C	JRC	INMARSAT STDC	Speedcast
JUE-95VM	JRC	INMARSAT STDC	Speedcast
iTrac101B (i Trac II)	MetOcean Telematics	Iridium SBD	MetOcean Telematics
Insight X2 EMTU	Nautic Alert	IRIDIUM	Nautic Alert
ORBCOMM ST6100	ORBCOMM/Skywave	INMARSAT ISATDATA PRO	Skywave
Skywave IDP-690	ORBCOMM/Skywave	INMARSAT ISATDATA PRO	Skywave
DMR-800 D/D2	PT. SOG Indonesia	INMARSAT-D	Speedcast
RomTrax Wifi	Rom Communications	Iridium SBD	Rom Communications
H1622D	Sailor	INMARSAT STDC	Speedcast
BB3	SASCO	Iridium (mini LEO)	SASCO
BB5	SASCO	Iridium (mini LEO)	SASCO
ELB 2000	SATLINK	INMARSAT STDC	Speedcast
ELB2004	SATLINK	INMARSAT STDC	Speedcast
NERA MINI-C	SATLINK	INMARSAT STDC	Speedcast
SKYMATE II500 VMS	SkyMate Inc.	SKYMATE-WCPFC	SkyMate Inc.
SKYMATE m1600	SkyMate Inc.	SKYMATE-WCPFC	SkyMate Inc.
Sailor 3027D	Thrane & Thrane	INMARSAT STDC	Speedcast
Sailor 6140	Thrane & Thrane	INMARSAT STDC	Speedcast
Sailor 6150	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3020C	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3022D	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3026	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3026D	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3026S	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3027M	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3027S	Thrane & Thrane	INMARSAT STDC	Speedcast
TT-3062D	Thrane & Thrane	INMARSAT STDC	Speedcast
TNL 7001	Trimble	INMARSAT STDC	Speedcast
TNL 7002	Trimble	INMARSAT STDC	Speedcast
TNL 8001	Trimble	INMARSAT STDC	Speedcast
TNL7005	Trimble	INMARSAT STDC	Speedcast



**Number of vessels by with current ACTIVE MTUs that have not had a MTU Audit Report submitted to the Secretariat through the MTU Audit Inspections list .**

<b>Approved MTU Type</b>	<b>Number of Vessels</b>
750VMS [Faria - Watchdog]	8
750VMS SB [Faria - Watchdog]	9
BB5 [SASCO]	2
CLS TRITON [CLS OROLIA]	37
CLS TRITON ADV [CLS OROLIA]	104
ELB 2000 [SATLINK]	6
ELB2004 [SATLINK]	2
FELCOM12 [Furuno]	14
FELCOM15 [Furuno]	13
FELCOM16 [Furuno]	218
FELCOM18 [Furuno]	14
FELCOM19 [Furuno]	25
FVT [CLS SEIMAC]	1
iTrac101B (i Trac II) [MetOcean Telematics]	1
JUE-75C [JRC]	7
JUE-75C-FFA [JRC]	1
JUE-85 [JRC]	7
JUE-87 [JRC]	5
JUE-95C [JRC]	1
JUE-95VM [JRC]	55
LEO [CLS ELTA]	71
MAR GE [CLS SERPE-IESM]	20
MAR GE V2 [CLS MARTEC SERPE-IESM]	62
MAR GE V3 [CLS MARTEC SERPE-IESM]	16
NERA MINI-C [SATLINK]	1
RomTrax Wifi [Rom Communications]	1
RSS405A [Anritsu]	1
Sailor 3027D [Thrane & Thrane]	4
Sailor 6140 [Thrane & Thrane]	136
Sailor 6150 [Thrane & Thrane]	30
SKYMATE II500 VMS [SkyMate Inc.]	1
Skywave IDP-690 [ORBCOMM/Skywave]	7
Thorium TST-100 [CLS KENWOOD]	37
TNL 7001 [Trimble]	2
TNL 8001 [Trimble]	1
TNL7005 [Trimble]	2
TT-3020C [Thrane & Thrane]	4
TT-3022D [Thrane & Thrane]	50
TT-3026 [Thrane & Thrane]	10
TT-3026D [Thrane & Thrane]	7
TT-3026S [Thrane & Thrane]	54
TT-3027S [Thrane & Thrane]	1
<b>Total</b>	<b>1,048</b>