



**TECHNICAL AND COMPLIANCE COMMITTEE**

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**ANNUAL REPORT ON THE COMMISSION VMS**

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**WCPFC-TCC17-2021-RP01**

**16 September 2021**

**Paper prepared by the Secretariat**

**Purpose**

1. The purpose of this paper is to present the Annual Report of the Commission Vessel Monitoring System (VMS) for the consideration of TCC17.

**Introduction**

2. The Annual Report for the Commission VMS is prepared in accordance with the VMS Standards, Specifications and Procedures (SSPs) requirements paragraphs 7.3.9 and 7.3.10.
3. The paper is structured as follows:
  - Background and Introduction
    - SLA with FFA
    - Contracts with MCSPs
  - Commission VMS database
  - List of WCPFC Approved MTUs/ALCs
    - Update on FVT, MAR GE, MAR GE V2 and MAR GE V3 phase out
  - 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
    - Reporting on Secretariat processes to identify and follow-up on VMS reporting issues
  - Security and Integrity of the Commission VMS
  - Review of VMS implementation by applicable CCMs under the Compliance Monitoring Scheme (CMS) 2013 - 2019
  - 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. To implement this requirement, the Commission has 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 that were most recently modified in 2016 (WCPFC13), and an updated set of Standard Operating Procedures (SOPs) were approved in 2018 (WCPFC15).

5. Additionally, in 2012 (WCPFC9) the Commission adopted a Statement of Purpose and Principles for the Commission VMS. The stated 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 State. 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 twelve CCMs - have provided letters of notification for the Commission VMS to cover their EEZ. The Secretariat has recently received an application from Papua New Guinea to include waters under its national jurisdiction, which will take effect as specified.<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 Service Level Agreement 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

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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>

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 Service Level Agreement with the FFA.

#### 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 Satellites (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;
- SkyMate Inc. – for SkyMate I1500 and m1600 services; and
- Orbcomm for IDP690 and ST1600.

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. The following MCSPs provide direct/simultaneous reporting to their primary client and WCPFC VMS:

- MetOcean – for iTrac10101B (I Trac II) services;
- Rom Communications – for RomTrax Wifi services;
- SASCO – for BB3 and BB5 services;
- SkyMate Inc. – for SkyMate I1500 and m1600 services; and
- Orbcomm (Australia) – for ST1600.

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 well as the make, model, unique network identifier (user ID) and equipment*

*identifier (manufacturer's serial number) of the ALC that vessel will be using to fulfil its Commission VMS reporting requirements."*

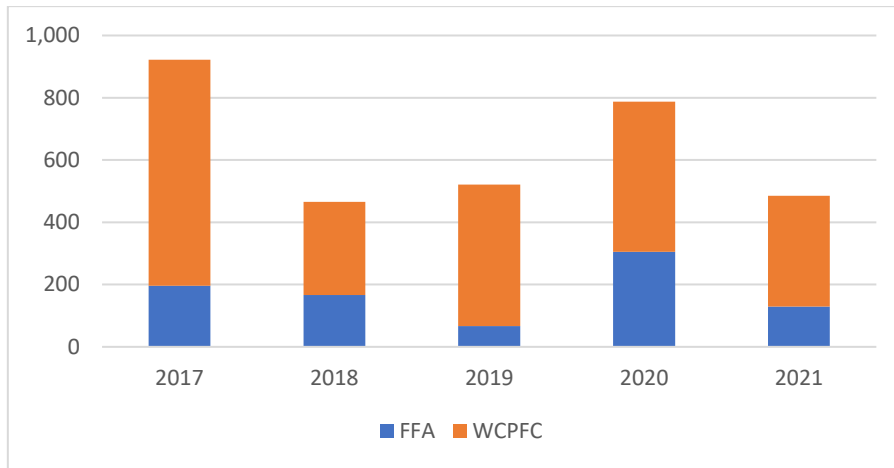
17. To facilitate the submission of necessary vessel tracking data for each fishing vessel required to report to the Commission VMS, the Secretariat has provided for flag CCMs use a guideline Vessel Tracking Agreement (VTAF) form. VTAF forms (MS Excel, pdf, word format) are available on the WCPFC website: <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.

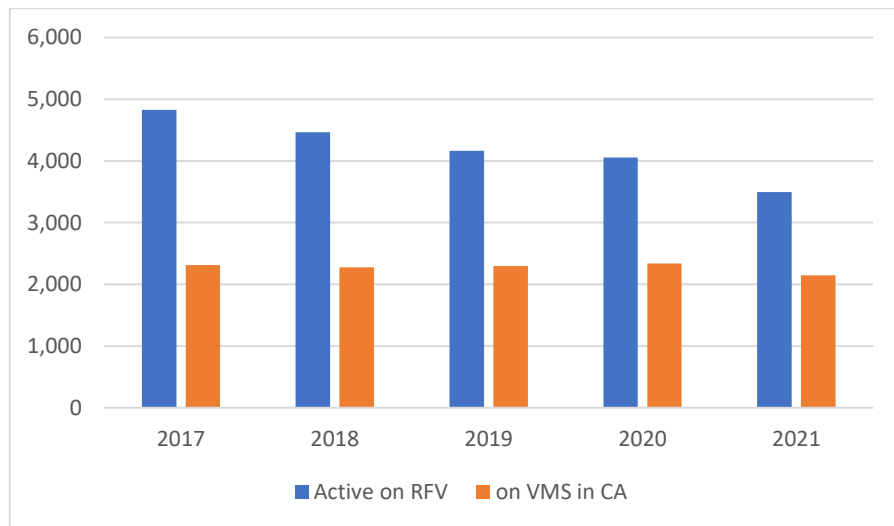
**Table 1. Number of vessels by CCMs activated to report through different MCSPs.**

Flag CCM	Add-value	FFA VMS	CLS	MetOcean Telematics	Rom Comm	SASCO	SkyMate Inc.	Orbcomm / Skywave	SpeedCast	Total
AU								2	35	37
CA			1	1	2	2				6
CN	3	272	84						81	437
CK		19								19
CW			6							6
EC		5								5
EU		5	1						18	24
FJ		50							1	51
FM		43								43
ID										0
JP		103	81						357	541
KI		11								11
KR		81	25						4	110
LR										
MH		12								12
NR		21								21
NC									4	4
NI										
NZ		1							2	3
PN		95	20						20	135
PH		44	231						6	281
PG		13								13
PF										
SB		12								12
SV		2								2
TH										
TO										
TW		98	230					32	231	591
TV		7								7
US		13	138				53		3	207
VU		24	38							62
<b>TOTAL</b>	<b>3</b>	<b>931</b>	<b>855</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>53</b>	<b>34</b>	<b>762</b>	<b>2640</b>

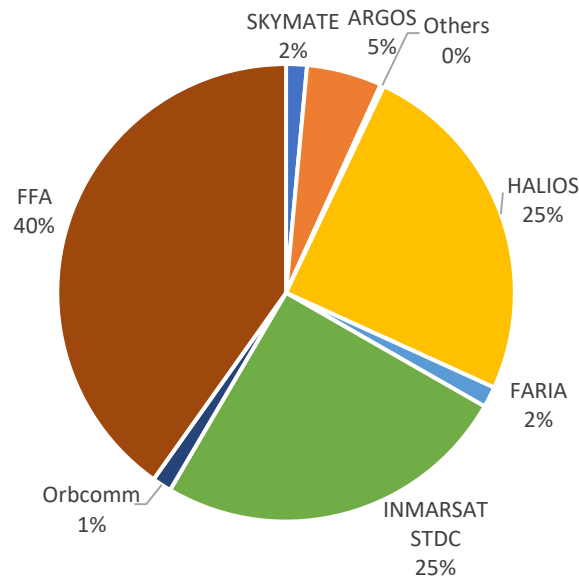
**Figure 1. Vessel MTU activations by year as of 31 July 2021.**



**Figure 2. Number of VMS vessels reporting in the Convention Area against RFV, as of 31 July 2021.**



**Figure 3. The percentage of vessels currently reporting by Channel on the Commission VMS as of 31 July 2021**



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 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 2020 and 2021 and received position reports in areas covered by the Commission VMS (VMS Tracked Cnt). As at 27 July 2021.**

CCM	2020						2021			
	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	56	4	52	37	0	36	54	37	0	38
CA	6	0	6	5	0	1	6	5	0	1
CK	25	19	6	12	20	20	22	12	18	18
CN	658	377	281	390	290	397	607	399	256	382
CW	6	1	5	6	0	1	8	7	0	3
EC	7	4	3	7	5	5	7	7	5	5
EU	85	5	80	20	5	6	88	22	5	10
FJ	70	34	36	13	57	35	69	13	48	21
FM	43	42	1	22	41	37	46	23	43	40
ID	22	0	22	1	0	0	26	1	0	0
JP	786	431	335	537	118	430	756	540	97	390
KI	12	12	0	9	12	12	12	9	11	12
KR	221	159	62	126	151	160	204	126	127	150
LR	22	2	20	4	4	5	12	1	0	0
MH	16	15	1	5	13	16	15	5	12	14
NC	24	0	24	5	0	7	22	4	0	4
NI	1	0	1	0	0	0	1	0	0	0
NR	16	16	0	4	15	16	21	4	21	21
NZ	4	2	2	3	1	4	4	3	1	4
PA	167	73	94	112	82	110	170	113	71	110
PF	82	0	82	0	0	0	83	0	0	0
PG	26	23	3	8	16	13	19	7	13	8
PH	344	249	95	252	56	221	344	253	43	209
SB	11	3	8	0	10	10	9	0	8	5
SV	4	2	2	3	2	2	4	3	2	2
TH	5	0	5	1	0	0	5	1	0	0
TO	1	0	1	0	0	0	1	0	0	0
TV	6	4	2	3	4	4	8	3	7	6
TW	1,058	607	451	617	164	507	668	617	95	421
US	214	183	31	177	27	187	209	179	24	188
VU	77	71	6	66	37	74	71	66	28	62
<b>Grand Total</b>	<b>4,056</b>	<b>2,338</b>	<b>1,717</b>	<b>2,445</b>	<b>1,130</b>	<b>2,316</b>	<b>3556</b>	<b>2460</b>	<b>935</b>	<b>2124</b>

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 2021.**

Vessel Type	2017		2018		2019		2020		2021	
	Direct	FFA	Direct	FFA	Direct	FFA	Direct	FFA	Direct	FFA
Longline	632	800	594	807	572	808	626	812	549	681
Purse Seine	80	253	78	250	84	256	77	248	73	243
Carrier	99	153	93	149	88	159	102	148	113	139
Bunker		29		29	1	32	2	34	3	32
Troll	12	1	7		6		10		12	
Pole & Line	44	26	43	24	43	24	50	22	46	22
Other	131		122	1	127	1	118	2	116	3
<b>Total</b>	<b>998</b>	<b>1,262</b>	<b>937</b>	<b>1,260</b>	<b>921</b>	<b>1,280</b>	<b>985</b>	<b>1,266</b>	<b>912</b>	<b>1,120</b>

### List of WCPFC Approved MTUs/ALCs

21. Since TCC16 (September 2020), no new MTUs have been added through the intersessional process in the VMS SSPs to the List of WCPFC Approved MTUs/ALCs. Three currently are undergoing testing and review:
  - Satlink ELB 2020
  - Oriola
  - SRT VMS 100Si
  
22. The inclusion of SRT VMS-100 on the WCPFC Approved MTU List was deferred by TCC16 and Japan requested to independently test the MTU. Bench testing has been completed and an MTU has been installed on a fishing vessel for sea trials. The aim of these tests was to verify - (i) position reports were correctly delivered from SRT, (ii) transmission frequencies and (iii) types of transmitting AIS messages. On completion of testing, Japan will report back to TCC on its findings and further considerations by TCC.
  
23. Orbcomm MTUs communicate with the Commissions VMS through Orbcomm service providers. TrackWell currently receives data from Orbcomm MTUs in use on Australian and Chinese Taipei vessels. If any additional CCMs were to authorize their vessels to use Orbcomm MTUs, consultation with WCPFC and TrackWell is necessary to establish communication channel arrangements between the Orbcomm service provider in-country and WCPFC TrackWell, before the vessels can be activated to report to the WCPFC VMS.
  
24. The complete list of approved MTUs as of 31 July 2021 is appended in Annex 1.

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

25. At 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).
  
26. In November 2020, Japan provided an updated list of their 74 flag vessels equipped with Argos MTUs, and to date the number of Japanese vessels carrying Argos MTU has been

reduced to 69.<sup>2</sup> Other CCMs have provided relevant MTU updates on a case by case basis in relation to these MTU units. Where additions **FVT**, **MAR GE**, **MAR GE V2**, and **MAR GE V3** have been requested, the Secretariat has sought confirmation that the installation date predates the WCPFC14 decision before updating the WCPFC MTU Register records.

27. 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 31 July 2021**

CCM	Vessel Type	Count of vessels on the RFV with an “active” MTU unit of this type (count of vessels CCM advised “fished” in 2020)			
		FVT	MAR GE	MAR GE V2	MAR GE V3
China	Longliner				3
Japan	Longliner		13 (4)	52 (5)	5
Philippines	Fish Carrier				1 (1)
Philippines	Support Vessel		2 (2)	45 (38)	44 (39)
Chinese Taipei	Longliner			3 (2)	
Vanuatu	Longliner		1 (1)		
	<b>Total = 169</b>		<b>16</b>	<b>100</b>	<b>53</b>

### VMS Audit Report

28. 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 2021.**

MTU Type	2015	2016	2017	2018	2019	2020	2021
750VMS [Faria - Watchdog]	5	29	40	48	22	27	
750VMS SB [Faria - Watchdog]	45	16	20	17	48	28	12
750VMS W/VTerm [Faria - Watchdog]	44	2	7	38	2		
CLS TRITON [CLS OROLIA]		1	4	46	87	71	3
CLS TRITON ADV [CLS OROLIA]			9	35	141	137	8
ELB 2000 [SATLINK]						3	
ELB2004 [SATLINK]				2		1	
FELCOM10 [Furuno]		7				1	
FELCOM12 [Furuno]		6	1	1			
FELCOM15 [Furuno]	1						
FELCOM16 [Furuno]	257	217	237	201	173	128	6
FELCOM18 [Furuno]			1				
FELCOM19 [Furuno]	1	3	15	14	14	18	1
iFleetONE [Addvalue]						1	
JUE-95VM [JRC]	43	45	63	61	33	35	
LEO [CLS ELTA]	138	132	136	149	152	51	3
RSS405A [Anritsu]	2						
Sailor 3027D [Thrane & Thrane]	22	1	1	4	1	1	
Sailor 6140 [Thrane & Thrane]	70	114	119	205	185	143	1

<sup>2</sup> The report was reconfirmed on 27<sup>th</sup> January 2021



Sailor 6150 [Thrane & Thrane]	34	37	74	92	80	84	4
SKYMATE I1500 VMS [SkyMate Inc.]			2	5	19		
SKYMATE m1600 [SkyMate Inc.]					9	8	
Skywave IDP-690 [ORBCOMM/Skywave]				3	18	12	
Thorium TST-100 [CLS KENWOOD]	126	71	83	214	197	159	17
TNL 7001 [Trimble]	2						
TT-3020C [Thrane & Thrane]	2						
TT-3022D [Thrane & Thrane]	99	36	25	15	4	4	
TT-3026 [Thrane & Thrane]	12	4	3		1		
TT-3026D [Thrane & Thrane]	31	19	7	1			
TT-3026S [Thrane & Thrane]	67	53	20	20	22	12	
TT-3027M [Thrane & Thrane]	30	27	19	11	2		
TT-3027S [Thrane & Thrane]	1	1	2	3		1	
TT-3062D [Thrane & Thrane]	2		5	1			

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

MTU Type	2015	2016	2017	2018	2019	2020	2021
MAR GE [CLS SERPE-IESM]	5	4		11	3	7	
MAR GE V2 [CLS MARTEC SERPE-IESM]	25	25	2	40	34	39	
MAR GE V3 [CLS MARTEC SERPE-IESM]		44	8	50	24	39	9

29. In 2020 there were 2,346 vessels that reported to have fished beyond their national waters in the Convention Area. 756 of these have not had an MTU Audit Report submitted. The list of relevant ALC/MTUs is appended in Annex 2.

30. 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 2020 as at 31 July 2021**

Flag	Active on RFV in 2020	"Fished" in 2020	2015	2016	2017	2018	2019	2020	2021
Australia	56	4	52			1			
Canada	6		2		1	2	1	1	1
Cook Islands	25	19	14	11	7	17	25	19	
China	658	377	346	348	303	305	315	304	19
Curacao	6	1					2	2	
Ecuador	7	4	3	2	3	5	4	5	3
European Union	85	5	4	3	2	1	2	2	
Fiji	70	34	55	35	50	58		5	
Federated States of Micronesia	43	42	36	22	32	41	40	35	
Indonesia	22								
Japan	786	440	99	113	167	155	104	102	
Kiribati	12	12	19	13	14	14	9	7	
Korea (Republic of)	221	159	46	29	63	83	123	57	15
Liberia	22	2			3		5		3
Marshall Islands	16	15	10	10	9	11	17	13	

New Caledonia	24				4	6			
Nicaragua	1								
Nauru	16	16	8	3	4	9	11	16	1
New Zealand	4	2	2	2	1	2	2	2	
Panama	167	73	12	18	8	12	7	10	
French Polynesia	82								
Papua New Guinea	26	23	3		3	11	20		3
Philippines	344	248	142	134	30	235	207	240	14
Solomon Islands	11	3	3	4	9	11	9	8	
El Salvador	4	2	2	2	3	1	1	2	2
Thailand	5								
Tonga	1								
Tuvalu	6	4	6	5	13	2	9	5	
Chinese Taipei	1058	605	7	17	34	160	177	128	1
United States of America	214	183	151	100	108	113	139	24	2
Vanuatu	77	71	42	22	32	32	42	23	

31. 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 2016. Of note in 2020, there were no instances where Article 25(2) requests for investigation related to VMS violations were noted, and from 1 January to 31 July 2021 there were two (2).

**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 2016 – 1 July 2021)**

	NEW CASE	Investigation IN PROGRESS	Investigation COMPLETED				Grand Total
			No infraction	Infraction - no sanction	Infraction - warning	Infraction - sanction	
Operational requirements for fishing vessels							
CMM 2014-02 04							
2021	2	0	0	0	0	0	2
CMM 2014-02 7d VMS SSPs 2.7							
2017	0	0	1	0	0	0	1
2018	0	0	2	0	0	1	3
2019	0	0	1	0	0	0	1
CMM 2014-02 9a							
2016	0	0	11	0	1	5	17
2017	2	0	17	0	2	0	21
2018	2	0	25	2	4	3	36
2019	0	0	20	0	2	1	23
2020	0	0	1	0	0	0	1
2021	1	1	0	0	0	0	2
CMM 2014-02 9a VMS SSPs 2.8							
2018	0	0	1	0	0	0	1
<b>Grand Total</b>	<b>7</b>	<b>1</b>	<b>79</b>	<b>2</b>	<b>9</b>	<b>10</b>	<b>108</b>

## Manual Position Reporting

32. 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.

33. The Secretariat is developing a framework to automate the integration of VMS manual report based on the common North Atlantic Format (NAF). In this framework, VMS manual report would be submitted by CCMs to the Commission VMS via email. Correctly formatted data received would then automatically be integrated into the Commission VMS.

**Table 8. Number of vessels by flag that provided manual position report (August 2020 – 1 July 2021)**

CCM (Flag)	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
China	6	4	2	3	4	3	2	2	6	8	5	4
European Union						1						
Philippines	2	1	5	4	3	1	3	7	1		2	
Vanuatu	2	2	2									
Chinese Taipei			2									
Korea			1					1				1
Panama			1									
<b>Total</b>	<b>10</b>	<b>7</b>	<b>13</b>	<b>7</b>	<b>7</b>	<b>5</b>	<b>5</b>	<b>10</b>	<b>7</b>	<b>8</b>	<b>7</b>	<b>5</b>

### CCM access to WCPFC VMS data including related reports

34. 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*

35. Flag CCMs have access to their flagged vessels through WCPFC Trackwell VMS. As per 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.

36. 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).

37. 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.

38. There are now 161 users from 35 CCMs, however only 45 users from 12 CCMs are actively using the system. 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	2021	Total	Current Users
Australia	3		7	4	5	4	23	15
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		3		11	6
Federated States of Micronesia	5						5	4
Indonesia	10						10	10
Japan	5						5	5
Kiribati	1						1	1
Korea	9						9	9
Liberia	1						1	1
Marshall Islands	1						1	1
New Caledonia	12						12	12
Niue	1						1	1
Nauru	1		1				2	2
New Zealand	19	11	5	9	5	11	60	32
Panama	1						1	1
Philippines	12						12	6
Palau	2						2	2
Papua New Guinea	1						1	1
Samoa	1						1	1
Solomon Islands	1						1	1
Thailand	1						1	1
Tokelau	2						2	2
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>Total</b>	<b>133</b>	<b>14</b>	<b>19</b>	<b>16</b>	<b>14</b>	<b>15</b>	<b>211</b>	<b>161</b>

*VMS Reporting Status tool (VRST)*

39. The VMS reporting status tool is presently live and available to all authorized users of CCMs at this link: <https://vrst.reports.wcpfc.int> There are four parts to the VMS Reporting Status tool:

- i. **“Information”** provides background of each component of the VRST;
- ii. **"All Vessels"** VMS Reporting Status Tool report provides the latest WCPFC VMS reporting status for every vessel on the Record of Fishing Vessels.;
- iii. The **"CCM Vessels"** VMS Reporting Status report lists only vessels flagged to the CCM associated with the currently logged in user. It provides CCMs with a daily snapshot of whether each of their vessels on the Record of Fishing Vessels is expected to be meeting its Commission VMS requirements either through the FFA VMS (based on FFA Good Standing List) or whether WCPFC has

completed the necessary steps to activate the vessels MTU to report to the Commission VMS. For vessels reporting to the Commission VMS, a generic vessel status is provided and a daily VMS-reporting status (how many position reports are transmitted by each vessel each day for the past 14 days); and

- iv. The “**Non Reporting Vessels**” report is a subset of the CCM Vessels report providing a list of vessels expected to be reporting to the WCPFC VMS but where their status indicates VMS data is not being received. For each vessel that is not reporting to the WCPFC VMS, authorized users are able to update the status to In Port or Outside the Convention Area and the date the status took effect. When VMS data is received by the WCPFC VMS, the status will be automatically reset.

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

*Reporting on Secretariat processes to identify and follow-up on VMS reporting issues*

41. Since March 2021, the Secretariat has implemented a workflow that tracks where the Secretariat have identified issues and have worked to resolve these issues related to the VMS reporting status of a vessel. The source of the issues may range from:

- i. CCM query – follow up on a query raised by a CCM about a vessel’s reporting status.
- ii. FFA vs WCPFC MTU – If a vessel that has its MTU activated to report directly to WCPFC VMS is subsequently listed on the FFA Good Standing List, or if a vessel that was on the FFA Good Standing List is de-listed, VMS staff will take necessary steps to update the MTU Register accordingly. This is to avoid duplicate reporting by a vessel.
- iii. HSBI –a notification is received that a vessel has been inspected through the High Seas Boarding and Inspection Scheme and/or a VMS-related issue is raised by a member conducting HSBI
- iv. Transshipment Advice (TSER) – a high seas transshipment notification is received by the Secretariat but the vessels is not reporting to WCPFC VMS
- v. Vessel Not Reporting – a vessel has stopped reporting.
- vi. Vessel Reporting Status (VRST) – if there is another MTU-related issue identified from VRST, that is not related to non-reporting.
- vii. WCPFC Vessel on MTU Register – there is a difference between the WCPFC MTU Register active MTU and the channel that TrackWell has recorded the receipt of the WCPFC VMS data.

42. Table 10 below show the count of vessels with MTU-related issues that the WCPFC VMS staff have worked through to resolve from 11th March to 20 August 2021. The Table provides a breakdown by MTU type in relation to WCPFC VMS vessel operations.

**Table 10. VMS related issues by MTU type from 11 March - 20 August 2021**

Approved MTU Type	CCM query	FFA vs WCPFC MTU	HSBI	Transshipment Advice (TSER)	Vessel Not Reporting	Vessel Reporting Status (VRST)	WCPFC Vessel on MTU Register	Total
750VMS [Faria - Watchdog]		3			3			6
750VMS SB [Faria - Watchdog]		1		4	1			6
CLS TRITON [CLS OROLIA]		11		2	10			23
CLS TRITON ADV [CLS OROLIA]		69	2	16	46	2	4	139
ELB 2000 [SATLINK]	1	1						2
ELB2004 [SATLINK]	1				1		2	
FELCOM12 [Furuno]	1	1	1		1			4
FELCOM15 [Furuno]		3			2			5
FELCOM16 [Furuno]	2	66		3	21	1		93
FELCOM18 [Furuno]					1			1
FELCOM19 [Furuno]	1	2						3
FVT [CLS SEIMAC]		2			3			5
iFleetONE [Addvalue]					1			1
JUE-75C-FFA [JRC]		2						2
JUE-85 [JRC]					1			1
JUE-87 [JRC]				1				1
JUE-95VM [JRC]	5	14	2				3	24
LEO [CLS ELTA]		7	2	7	44	2		62
MAR GE [CLS SERPE-IESM]	1	3						4
MAR GE V2 [CLS MARTEC SERPE-IESM]	1	8		1	22	1	2	35
MAR GE V3 [CLS MARTEC SERPE-IESM]					6			6
ORBCOMM ST6100 [ORBCOMM/Skywave]					1			1
RomTrax Wifi [Rom Communications]					1			1
RSS405A [Anritsu]		1						1
Sailor 3027D [Thrane & Thrane]	1	1			5	3		10
Sailor 6140 [Thrane & Thrane]	10	71	4	27	98	2	1	213
Sailor 6150 [Thrane & Thrane]		7		3	10	1		21
SKYMATE I1500 VMS [SkyMate Inc.]					1			1
Skywave IDP-690 [ORBCOMM/Skywave]		3			2		1	6
Thorium TST-100 [CLS KENWOOD]		27		9	19			55
TNL 7001 [Trimble]		6		1	3			10

Approved MTU Type	CCM query	FFA vs WCPFC MTU	HSBI	Transshipment Advice (TSER)	Vessel Not Reporting	Vessel Reporting Status (VRST)	WCPFC Vessel on MTU Register	Total
TNL 7002 [Trimble]					1			1
TNL 8001 [Trimble]	3							3
TNL7005 [Trimble]					1			1
TT-3020C [Thrane & Thrane]	1				5			6
TT-3022D [Thrane & Thrane]		21	1	8	56	9	4	99
TT-3026 [Thrane & Thrane]		3			14		1	18
TT-3026S [Thrane & Thrane]		23	15	15	53		3	109
TT-3027M [Thrane & Thrane]		3		1	1			5
TT-3027S [Thrane & Thrane]			1					1
TT-3062D [Thrane & Thrane]				1	1			2
<b>Total</b>	<b>28</b>	<b>359</b>	<b>28</b>	<b>99</b>	<b>435</b>	<b>21</b>	<b>19</b>	<b>989</b>

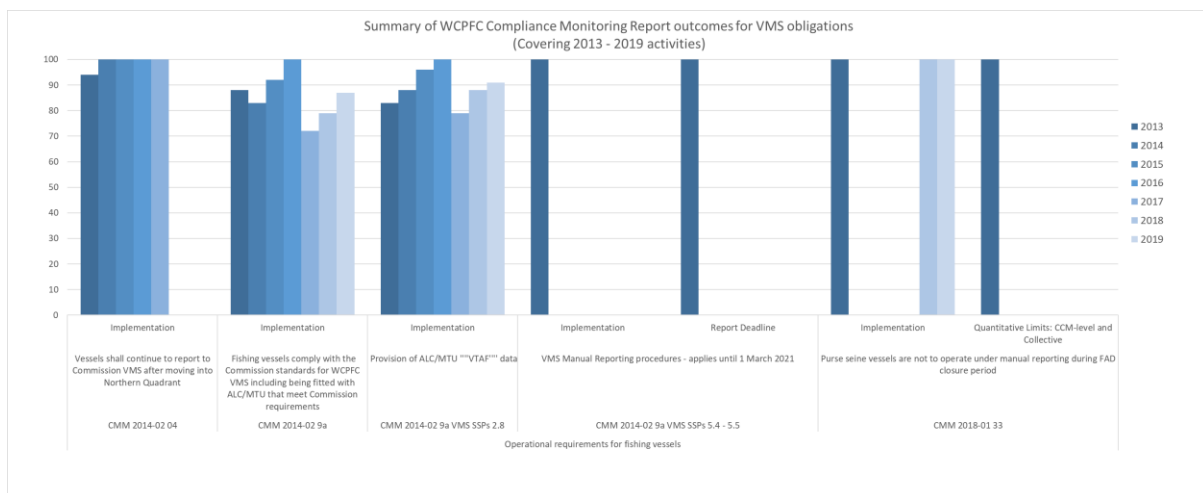
## Security and Integrity of the Commission VMS

43. 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 to carry out the audit. The audit for 2021 is in progress and working around the constraints of COVID-19 is expected to be completed in the coming months.

## Review of VMS implementation by applicable CCMs under the Compliance Monitoring Scheme (CMS) 2013 - 2019

44. 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 2014 for reporting year 2013 to 2019. 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

45. 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)

46. During 2021, the Secretariat worked with the VMS-SWG co-chairs to develop a revised set of Standard Operating Procedures for consideration through the VMS-SWG. Further updates will be provided by the VMS-SWG co-chairs to TCC17. General information from the VMS-SWG can be accessed from the VMS-SWG webpage: [https://www.wcpfc.int/2020\\_vms-swg](https://www.wcpfc.int/2020_vms-swg).

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

## Recommendations

48. TCC17 is invited to note the report and discuss the activities of the Commission VMS.



## WCPFC Approved List of ALC/MTU as at 31 July 2021

Model / Approved MTU Type	Manufacturer	Comm System	Service Provider
iFleetONE	Addvalue	INMARSAT BGAN	Addvalue
RSS405A	Anritsu	INMARSAT STDC	Speedcast
LEO	CLS ELTA	HALIOS	CLS
Thorium TST-100	CLS KENWOOD	HALIOS	CLS
CLS TRITON	CLS OROLIA	HALIOS	CLS
CLS TRITON ADV	CLS OROLIA	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	PTSOG	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 I1500 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 that Fished in 2020 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]	5
750VMS SB [Faria - Watchdog]	7
CLS TRITON [CLS OROLIA]	20
CLS TRITON ADV [CLS OROLIA]	95
FELCOM12 [Furuno]	2
FELCOM15 [Furuno]	7
FELCOM16 [Furuno]	176
FELCOM18 [Furuno]	12
FELCOM19 [Furuno]	31
JUE-75C [JRC]	6
JUE-75C-FFA [JRC]	1
JUE-85 [JRC]	3
JUE-87 [JRC]	4
JUE-95VM [JRC]	39
LEO [CLS ELTA]	55
MAR GE [CLS SERPE-IESM]	5
MAR GE V2 [CLS MARTEC SERPE-IESM]	8
MAR GE V3 [CLS MARTEC SERPE-IESM]	1
Sailor 3027D [Thrane & Thrane]	2
Sailor 6140 [Thrane & Thrane]	93
Sailor 6150 [Thrane & Thrane]	18
Skywave IDP-690 [ORBCOMM/Skywave]	6
Thorium TST-100 [CLS KENWOOD]	37
TNL 8001 [Trimble]	1
TNL7005 [Trimble]	1
TT-3020C [Thrane & Thrane]	2
TT-3022D [Thrane & Thrane]	25
TT-3026 [Thrane & Thrane]	5
TT-3026D [Thrane & Thrane]	2
TT-3026S [Thrane & Thrane]	31
TT-3062D [Thrane & Thrane]	2
FFA VMS - no VTAFs	54
<b>Total</b>	<b>756</b>