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VESSEL MONITORING SYSTEM IN INDONESIA

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Paper by Indonesia

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1. Background

WCPFC5 adopted the Standards Specifications and Procedures (SSPs) for the fishing vessel monitoring system (VMS) of the Western and Central Pacific Fisheries Commission (WCPFC). WCPFC14 noted that the Secretariat had repeatedly recommended that Argos units be removed from the list of approved ALC/MTU types. The justification for the removal of the four Argos units was clear. These units were providing position reports greater than 90 minutes after being sent from the MTU, and therefore do not meet Annex 1 CMM 2014-02 requirements. In some cases, reporting delays can be up to 14 hours. This delay was considered unacceptable.

Indonesia confirmed at the WCPFC14 meeting that some vessels are still using Argos units, as well as another type of MTU that was not in the WCPFC approved list. It is not easy to replace VMS systems for a country the size of Indonesia, which require replacement costs. In Indonesia, it is still being decided whether the replacement costs would be covered by the Government or by the fishing industry and fishers, which remain a challenge that must be addressed.

Therefore, at the WCPFC14 meeting, the Commission agreed that CCMs shall ensure 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.

In order to meet the WCPFC requirements on the Standards Specifications and Procedures (SSPs) VMS, and the WCPFC approved ALC/MTU list and VMS reporting, Indonesia would like to provide information on the status of Vessel Monitoring Systems in Indonesia, and progress to comply with these requirements.

2. National Legal Basis

In Indonesia, *Law No. 31 year 2004* on Fisheries as amended by *Law No. 45 year 2009* mandates that in order to support fish resource management policies, the Minister stipulates a vessel monitoring system (VMS). The official entry into force of the application of VMS in Indonesia, was the signing of *Ministerial Decree No. 29/MEN/2003* concerning the implementation of *Fishing Vessel Monitoring Systems.*

VMS in Indonesia is generally intended for all vessels with fishing licenses that are issued by the Central Government. Based on *Ministerial Regulation No. 30 year 2012,* on fishing business in Indonesian fisheries management areas, and *Ministerial Regulation No. 12 year 2012,* on fishing business in high seas, which stipulate that all fishing vessels above 30 gross tonnage (GT) or 15 meters in length, and all vessels fishing in the high seas, must be issued an operating license by the Central Government. Regulations related to the license system are outlined in *Ministerial Regulation No. 10 year 2013* on Fishing Vessel Monitoring System, as amended by *Ministerial Regulation*

No. 42 year 2015, and *Ministerial Regulation No. 10 year 2019*, where the VMS must be installed on fishing vessels with sizes above 30 GT or 15 meters in length, and overall for those vessels who fish in the high seas.

2.1. Transmitter/MTU

Requirements must be met by the transmitter or Mobile Transceiver/Transmitter Unit (MTU). For Indonesian fishing vessels this means compatibility and ability to integrate with the system in the Control Center, has global satellite coverage, has an MTU identity number, provides vessel position data at least every one-hour continuously, equipped with security in the form of a seal, and has an MTU tools certificate.

2.2. MTU Service Provider

The provider for the transmitter/MTU must be able to provide vessel position data at least every one-hour continuously to the administrator (Ministry of Marine Affairs and Fisheries, via Control Center/PUSDAL), submits data according to the specified format by the administrator, prohibited from sending data where the MTU position has been altered and received by the satellite, prohibited from using and issuing duplicate MTU identity numbers, prohibited to give and/or share data in any form to other parties without the approval of the administrator, and administrative sanctions will be imposed on providers who do not carry out their obligations.

2.3. MTU user (fishing vessel owner)

MTU installment is obligated to (i) fishing vessels above 30 GT that have a fishing license to operate in Indonesian fisheries management areas or (ii) each vessel above 30 GT or at least 15 meters in length that have a fishing license to operate in the high seas. MTU users must activate the transmitter continuously. MTU users are required to register with the Directorate General of Surveillance and monitored by Control Center/PUSDAL, which will then be issued with a *Transmission Activation Certificate* (SKAT) with a validity period of 1 (one) year and must be carried onboard. Administrative sanctions will be imposed on fishing vessels which do not activate MTU continuously, except if the MTU is damaged and the captain records the vessel's position manually every 1 (one) hour and reports it to the Directorate General of Surveillance at the time of at port, docking ship, not operating, and force majeure.

2.4. MTU Administrator (Directorate General of Surveillance)

The MTU Administrator has the obligation to provide and operate the vessel monitoring system, compile the standard operating procedures for VMS, monitoring fishing vessels, examination on MTU users who do not activate MTU and the ones that will extend SKAT, examination of MTUs that are installed on fishing vessels before registration, evaluate the VMS data and results, annual evaluation on providers, and report each evaluation to the Minister.

3. Implementation of VMS in Indonesia compatible with the WCPFC requirements

Indonesia recognizes the importance of VMS to be compatible with the WCPFC standards. In principle, Indonesia is in its best effort to have its VMS implementation to

fully comply with the Standards Specifications and Procedures (SSPs) adopted by WCPFC.

Currently, Indonesian vessels fishing in the Archipelagic Waters (FMA 713, 714 and 715) are using seven types of transmitter/MTU as listed in **Table 1**. While in WCPFC Convention Areas within Indonesia (FMA 716 and 717), are using five types of transmitters as listed in **Table 2**. All MTUs in Indonesia provide transmission, or ping, every 1 (one) hour.

From the five types of MTUs listed in Table 2, two are already listed in the WCPFC approved ALC/MTU list, DMR 800 D and SKYWAVE IDP 690. To comply with the WCPFC requirement on the WCPFC approved ALC/MTU list and VMS reporting, Indonesia is in process to shift the current unlisted providers to the ones that complies with the requirement.

Currently, there are vessels that are using Argos transmitter (MARGE-V2) and VELA transmitter that are not listed in the WCPFC approved ALC/MTU list. In 2017, the Ministry of Marine Affairs and Fisheries already informed this issue to the company, Argos Indonesia, PT., which then they responded by proposing new type of transmitter in accordance with the WCPFC approved ALC/MTU list.

This year, CLS Argos is conducting a trial using a new device named TRITON, manufactured by Orolia and using Iridium as its communication system. The trial will be expected to be done by the end of December 2019, so it can be applied on 2020. This device will replace VELA and MARGE V2. As for DMR 800, it will be replaced by ST6100 and its decision of replacement is in process of legalization.

4. VMS Data Sharing and Confidentiality

Related to the need of direct access of Indonesian VMS data by the WCPFC Secretariat, according to Indonesian national regulations, VMS data used by Indonesian fishing vessels belong to the Directorate General of Surveillance, and is confidential. An exception for direct access can be made in the interest of examining criminal cases. However, Indonesia does already have a technical arrangement with Global Fishing Watch (http://globalfishingwatch.org), to open the access and make Indonesian VMS data public. Therefore, in order to further support compliance with the WCPFC requirement to have a direct access of Indonesia VMS data, by the WCPFC Secretariat, Indonesia proposes to have a memorandum of understanding (MOU) between the Government of Indonesia and the Secretariat of WCPFC, regarding the technical arrangement for VMS data access and its confidentiality.

Indonesia also proposes to have a technical assistance from the WCPFC to address the gap, particularly related to data sharing schemes that are suitable to the needs of both parties.

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Annex. Technical Information on Transmitter/MTU of Vessel Monitoring System in Indonesia

Table 1. Transmitter/MTU used by fishing vessels with license to fish in FMA 713, 714, 715 (Indonesian Archipelagic Waters)

Model MTU Type	Manufacturer	Comm System	Provider	Ping Time	Delay Reporting	WCPFC approved ALC/MTU list	Note
BLUETRAKER	EMA	IRRIDIUM	GEOSAT	Every 1 hour	No delay	Not listed	Compatible and will be proposed to be listed in the WCPFC MTU list
DMR 800 D	ORBCOMM	INMARSAT	SOG	Every 1 hour	No delay	Not listed	Will be replaced with ST6100 approximately in 2020-2021
IDP 690	ORBCOMM	INMARSAT	SOG	Every 1 hour	No delay	Listed	Compatible
MARGE V2	KANNAD	CLS	CLS	Every 1 hour	82 minutes	Listed	Will be replaced with TRITON approximately in 2020-2021
SKYWAVE IDP 690	ORBCOMM	INMARSAT	MSP	Every 1 hour	No delay	Listed	Compatible
SKYWAVE IDP 680	ORBCOMM	INMARSAT	SISFO	Every 1 hour	No delay	Not listed	Compatible and will be proposed to be listed in the WCPFC MTU list
VELA	NSR MARINE	CLS	CLS	Every 1 hour	82 minutes	Not listed	Will be replaced with TRITON approximately in 2020-2021

Table 2. Transmitter/MTU used by fishing vessels with license to fish in FMA 716 and 717

Model MTU Type	Manufacturer	Comm System	Provider	Ping Time	Delay Reporting	WCPFC approved ALC/MTU list	Note
BLUETRAKER	EMA	IRRIDIUM	GEOSAT	Every 1 hour	No delay	Not listed	Compatible and will be proposed to be listed in the WCPFC MTU list
DMR 800 D	ORBCOMM	INMARSAT	SOG	Every 1 hour	No delay	Not listed	Will be replaced with ST6100 approximately in 2020-2021
MARGE V2	KANNAD	CLS	CLS	Every 1 hour	82 minutes	Listed	Will be replaced with TRITON approximately in 2020-2021
SKYWAVE IDP 690	ORBCOMM	INMARSAT	MSP	Every 1 hour	No delay	Listed	Compatible
VELA	NSR MARINE	CLS	CLS	Every 1 hour	82 minutes	Not listed	Will be replaced with TRITON approximately in 2020-2021