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EXPLANATORY NOTE

OBSERVATIONS ON POSSIBLE DEFICIENCIES IN THE MANDATORY VMS FIELDS REQUIRED BY REC. 07-08

(Submitted by the IMM Working Group)

In accordance with the paragraph 105 of the *Recommendation by ICCAT Amending the Recommendation 18-02 Establishing a Multi-Annual Management Plan for Bluefin Tuna in the Eastern Atlantic and the Mediterranean* (Rec. 19-04), the CPCs shall implement a vessel monitoring system for their fishing vessels with a length equal to or greater than 15 m, in accordance with the recommendations by ICCAT concerning:

- Minimum Standards for Vessel Monitoring Systems in the ICCAT Convention Area (Rec. 18-10) and,
- Data Exchange Format and Protocol in relation to the Vessel Monitoring System (VMS) for the Bluefin Tuna Fishery in the ICCAT Convention Area (Rec. 07-08).

Since this last decade, the number of VMS messages has continued to grow (an increase of 65% since 2008) and the technology or software to manage them has been improving and advancing. The North Atlantic Format (NAF) as a reference standard, is used for the communication of VMS messages by fishing vessels.

In accordance with the data exchange format set out in Annex 2 of the Rec. 07-08, the fisheries standard for electronic data transmission requires a list of mandatory field for the content of the VMS messages. Even if the message is standardized, the content of the message is currently limited and there are few fields to identify directly the flag of the vessel and the origin of the message. This lack generates additional manual work by the Secretariat in order to cross-reference information where the only mandatory field to identify the vessel is the Radio Call Sign Number (RC).

The Secretariat considers that some other fields, from among the available fields in a NAF-formatted message, besides the Radio Call Sign (RC) could be included as mandatory fields in order to identify the vessel and the flag CPC/Member state, these include:

Field-code	Data-element	Syntax	Contents	Examples
FR	From	Char*3	3-Alpha code (ISO-3166)	//FR/ISL//
FS	Flag State	Char*3	3-Alpha code (ISO-3166)	//FS/NLD//
IR	Internal reference number	Char*3 Num*9	3-Alpha code (ISO-3166) 0-999999999	//IR/DEU009876//
RC*	Radio call sign	Char*7	IRCS	//RC/MGDD4//
XR	External registration	Char*14	ISO 8859.1 characters	//XR/3CO2399//

The effort could be done without additional costs or technical impact and the Commission may therefore wish to consider amending Rec. 07-08 to include these additional fields in order to facilitate vessel identification. These have been incorporated into the attached "Draft Recommendation by ICCAT Amending the Recommendation 07-08 Concerning Data Exchange Format and Protocol in Relation to the Vessel Monitoring System (VMS) for the Bluefin Tuna Fishery in the ICCAT Convention Area".

DRAFT RECOMMENDATION BY ICCAT AMENDING THE RECOMMENDATION 07-08 CONCERNING DATA EXCHANGE FORMAT AND PROTOCOL IN RELATION TO THE VESSEL MONITORING SYSTEM (VMS) FOR THE BLUEFIN TUNA FISHERY IN THE ICCAT CONVENTION AREA

(Submitted by the IMM Working Group)

IN ACCORDANCE WITH paragraph 105 of the *Recommendation by ICCAT Amending the Recommendation 18-02 Establishing a Multi-annual Management Plan for Bluefin Tuna in the Eastern Atlantic and the Mediterranean* (Rec. 19-04[1]);

THE INTERNATIONAL COMMISSION FOR THE CONSERVATION OF ATLANTIC TUNAS (ICCAT) RECOMMEMDS THAT:

1. Each flag Contracting Party, Cooperating non-Contracting Party, Entity or Fishing Entity (hereinafter referred to as "CPCs") shall implement a vessel monitoring system (VMS) for its bluefin tuna fishing vessels referred to in paragraph 105 of the *Recommendation by ICCAT Amending the Recommendation 18-02 Establishing a Multi-annual Management Plan for Bluefin Tuna in the Eastern Atlantic and the Mediterranean* (Rec. 19-04)[1], in accordance with the *Recommendation by ICCAT Concerning Minimum Standards for Vessel Monitoring Systems in the ICCAT Convention Area* (Rec. 18-10)[2].

2. The autonomous system referred to in paragraph 1(a) of the *Recommendation by ICCAT Concerning Minimum Standards for Vessel Monitoring Systems in the ICCAT Convention Area* (Rec. 18-10[2]) shall be in conformity with the specifications and schedule set out in **Annex 1**.

3. Each CPC shall communicate electronically the messages pursuant to paragraph 1 here above to the ICCAT Secretariat. In the event of technical malfunction, the messages shall however be transmitted electronically to the ICCAT Secretariat within 24 hours of receipt.

4. The CPCs shall transmit the messages to the ICCAT Secretariat every at least once every hour for purse seine vessels and at least once every two hours for all other vessels in accordance with paragraph 3 of the Recommendation 18-10 when operating in the ICCAT Convention area. The messages should be sequentially numbered (with a unique identifier) in order to avoid duplication.

5. Each CPC shall ensure that the messages transmitted by their corresponding Fishing Monitoring Centre (hereinafter referred to as "FMCs") to the ICCAT Secretariat shall be in accordance with the data exchange format set out in **Annex 2**.

6. CPCs engaged in inspection at sea operations in the Convention area in accordance with the ICCAT Scheme of Joint International Inspection referred to in paragraphs 109 to 112 of the *Recommendation by ICCAT Amending the Recommendation 18-02 Establishing a Multi-annual Management Plan for Bluefin Tuna in the Eastern Atlantic and the Mediterranean* (Rec. 19-04[1]) shall request the ICCAT Secretariat to make available the messages received under paragraph 3 of this Recommendation.

7. CPCs shall take the necessary measures to assure that all messages shall be treated in a confidential manner, and be limited for the inspection at sea operations referred to in paragraph 6. The ICCAT Secretariat shall ensure the confidential treatment of the messages received. Data three years old or more shall be available to the SCRS for scientific purposes, given due consideration of data confidentiality.

[1] Recommendation 06-05 was replaced by Recommendation 14-04, later by Rec. 17-07 and by Rec. 18-02 and currently by Rec. 19-04.
[2] Recommendation 03-14 was replaced by Recommendation 14-09, which was replaced by Rec. 18-10.

Annex 1

1. Each CPC shall establish and operate fishing monitoring centres, hereinafter referred to as "FMC", which shall monitor the fishing activities of vessels flying their flags. The FMC shall be equipped with computer hardware and software enabling automatic data processing and electronic data transmission. Each CPC shall provide for back-up and recovery procedures in case of system failures.

2. The CPC of the vessel shall take the necessary measures to ensure that the data received from its fishing vessels to which VMS applies are recorded in computer readable form for a period of three years.

3. The satellite tracking devices installed on board the fishing vessels shall ensure the automatic transmission to the FMC of the flag CPC, at all applicable times.

4. Each CPC shall take the necessary measures to ensure that its FMC receives the requested VMS data.

Format for the Communication of VMS messages by fishing vessels

A. Content of the position message

Data element	Field code	Mandatory /optional	Remarks
Start record	SR	M	Message detail; indicates start of record
Address	AD	M	Destination: ICCAT
Sequence No.	SQ	M[1]	Message detail; message serial number in current year
Type of message	TM[2]	M	Message detail; "POS" as Position message to be communicated by VMS or other means by vessels with a defective satellite tracking device
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Trip No.	TN	O	Activity detail; fishing trip serial number in current year
From	FR	M	Origin of the VMS messages detail: country alpha code
Flag State	FS	M	Origin of the VMS messages detail: flag state code
Internal Reference Number	IR	O	Vessel registration detail; internal reference of the vessel
Vessel name	NA	O	Vessel registration detail; name of the vessel
Contracting Party internal reference No.	IR	O	Vessel registration detail. Unique Contracting Party vessel number as flag State 3-alpha country code followed by number
External registration No.	XR	O	Vessel registration detail; the side number of the vessel or IMO number in the absence of a side number
Latitude	LA	M[3]	Activity detail; position at time of transmission
Longitude	LO	M[3]	Activity detail; position at time of transmission
Latitude (decimal)	LT	M[4]	Activity detail; position at time of transmission
Longitude (decimal)	LG	M[4]	Activity detail; position at time of transmission
Date	DA	M	Message detail; date of transmission
Time	TI	M	Message detail; time of transmission
End of record	ER	M	System detail; indicates end of the record

[1] Optional in case of a VMS message.
[2] Type of message shall be "ENT" for the first VMS message from the Convention area as detected by the FMC of the Contracting Party.
Type of message shall be "EXI" for the first VMS message from outside the Convention area as detected by the FMC of the Contracting Party, and the values for latitude and Longitude are, in this type of message, optional.
Type of message shall be "MAN" for reports communicated by vessels with a defective satellite tracking device.
[3] Mandatory for manual messages.
[4] Mandatory for VMS messages.

B. Structure of the position message:

Each data transmission is structured as follows:

- Double slash (//) and the characters "SR" indicate the start of a message.
- A double slash (//) and field code indicate the start of a data element.
- A single slash (/) separates the field code and the data.
- Pairs of data are separated by space.
- The characters "ER" and a double slash (//) indicate the end of a record.