

Northwest Atlantic



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## **Harmonization of Fishery Reporting Formats used by NAFO and NEAFC**

Paper presented by  
Iceland and Denmark (in respect of Greenland and Faroe Islands) and Norway

### **PROPOSAL**

#### **Background:**

At the STACTIC meeting in June 2003 it was agreed to establish an informal working group to compare the message system in NAFO and NEAFC and locate possible differences between the two systems. A report on the findings was presented during the Annual meeting in September 2003 and is available in STACTIC Working Paper 03/14.

Some of the findings have been taken incorporated in the latest version of the CEM (NAFO/FC Doc. 04/1) but there are still some items that need to be corrected and inserted.

The following proposal deals with the VMS message format in Annex IX and the format for communication of catches and reports by fishing vessels in Annex X. Additionally a new Annex is proposed for clarification of the message system.

The proposed changes and amendments are based on harmonization, in order to make the messages and reports short and compact and for reasons of clarity.

#### **Annex IX VMS Data Format**

The current template can only handle automatic VMS position reports. Following the recent changes to the message system where the Entry report was renamed as Catch on Entry and Exit as to Catch on Exit and the first positions detected either inside or outside the Regulatory Area transmitted as Entry and Exit accordingly, these could be taken into the same message template. Additionally, manual position reports could also be dealt with in the same template.

This can be achieved by giving option for different codes for type of message and two different formats for latitude and longitude, one for decimal degrees and the other for degrees and minutes.

The following changes are proposed:

1. Sequence Number (SQ) to be set as mandatory with a footnote (1) making it optional in case of a VMS message. By this, manual position report from vessels with a defective satellite tracking system will be sequentially numbered as other messages.
2. As it is proposed to use this template for other messages, the Type of Message is proposed to have a footnote (4) where the other types of messages are listed:

Position	=	POS
Entry	=	ENT
Exit	=	EXI
Manual position	=	MAN

3. In the current template, the data element Vessel Name and External Registration Number are set as mandatory. It is proposed to change these to optional. There is no need to transmit these every time a position is forwarded since this information is already registered in the databases by the notification message (NOT).
4. It is proposed to include the two existing data elements for position in the template. The LT/LG (decimal degree) to be used for automatic VMS messages (footnote 3). LA/LO (degrees and minutes) to be used for manual messages (footnote 2).

Current template includes the data elements Record Date (RD), Record Time (RT) and Record Number (RN). These elements are not found in the templates for communication of catches in Annex X. These are relevant there as well.

The data elements RD, RT and RN are the, date, time and sequence number from the relevant Contracting Party and are to be inserted into the messages and reports received from fishing vessels. It will therefore be proposed to list and describe these separately together with general information on the message format in a new Annex. (See # ??)

## New Annex IX

The following template and notes are proposed for the VMS Data Format:

<b>Data Element:</b>	<b>Field Code:</b>	<b>Mandatory / Optional</b>	<b>Remarks:</b>
Start record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination; "XNW" for NAFO
Sequence Number	SQ	M <sup>1</sup>	Message detail; message serial number in current year
Type of Message	TM <sup>4</sup>	M	Message detail; message type, "POS" as Position report/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 Number	TN	O	Activity detail; fishing trip serial number in current year
Vessel Name	NA	O	Vessel registration detail; name of the vessel
Contracting Party Internal Reference Number	IR	O	Vessel registration detail. Unique Contracting Party vessel number as ISO-3 flag state code followed by number
External Registration Number	XR	O	Vessel registration detail; the side number of the vessel
Latitude	LA	M <sup>2</sup>	Activity detail; position at time of transmission
Longitude	LO	M <sup>2</sup>	Activity detail; position at time of transmission
Latitude (decimal)	LT	M <sup>3</sup>	Activity detail; position at time of transmission
Longitude (decimal)	LG	M <sup>3</sup>	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

<sup>1</sup> Optional in case of a VMS message

<sup>2</sup> Mandatory for manual messages

<sup>3</sup> Mandatory for VMS messages

<sup>4</sup> Type of message shall be "ENT" for the first VMS message from the Regulatory Area as detected by the FMC of the Contracting Party.

Type of message shall be "EXI" for the first VMS message from outside the Regulatory 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 in accordance with Article 21 (5).

**Annex X**  
**Format for communication of catches and reports by fishing vessels**

Following changes are proposed to Annex X

**ENTRY report**

5. Delete template 2) “ENTRY” report and use the template in Annex IX instead. At the same time the data elements Vessel Name (NA) and External Registration Number (XR) will be optional (see point 3)

**TRANSHIPMENT report**

6. Change heading for 3) “TRANSHIPMENT” report to read as:
  - 2) “TRANSHIPMENT” report
7. Change data element Master Name (MA) in the Transshipment report to be optional. This information is already being transmitted in the Catch on Entry (COE) report.
8. Make the data elements Latitude (LA) and Longitude (LO) optional by a footnote; Optional if the vessel is subject to satellite tracking in accordance with Article 21 (1).

**Catch on EXIT report**

9. Change the heading for “Catch on EXIT” report to read as:
  - 3) “Catch on EXIT” report
10. Make the data element Master Name (MA) as optional.
11. Make the data elements Latitude (LA) and Longitude (LO) optional by a footnote; Optional if the vessel is subject to satellite tracking in accordance with Article 21 (1)
12. In the remarks column for the data element Catch (CA) is a reference to the last Catch report. The only Catch report is the CAX report in the Pilot Project so the reference must be to the CAX report .”...commencement of fishing in the R.A., or last Catch report (CAX) if such a report is sent according to the Pilot Project, in pairs as needed”.
13. In this template is a data element “Days Fished” (DF). This appears to be new and probably taken directly from the NEAFC system. There is no reference to this data element in older NAFO document. There is no real use for this data element since the number of days in the area will automatically be calculated from the day of entry, this should either be made optional or simply deleted.

**EXIT report**

14. Delete template 5) “EXIT” report and use the template in Annex IX instead. At the same time the data elements Vessel Name (NA) and External Registration Number (XR) will be optional (see point 3).

**New Annex**

15. It is proposed to add a new Annex to list “**Data Exchange Format and Protocols**”. The purpose of this Annex is to explain the structure of the data exchange format and to list or make reference to agreed communication protocols. Show template for Return messages (RET) with its error codes and list all data elements from the North Atlantic Format which are used in reports and messages in the NAFO Regulatory Area with explanation on the content and size of each.

**Annex XXIII**  
**Data Exchange Format and Protocols**

**A. Data transmission format**

Each data transmission is structured as follows:

1. Data characters in accordance with ISO 8859.1
2. 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 (“//”) at the end indicates the end of a record.

**B. Data exchange protocols**

Authorised data exchange protocols for electronic transmission of reports and messages between Contracting Parties and the Secretary shall be in accordance with Annex XX, Rules on Confidentiality.

**New Annex...**  
**C. Format for electronic exchange of fisheries monitoring information**  
**(The North Atlantic Format)**

Category	Data Element	Field code	Type	Contents	Definitions
<b>System</b>	Start Record	SR			Indicates start of the record
<b>Details</b>	End Record	ER			Indicates end of the record
	Return Status	RS	Char*3	Codes	ACK / NAK = Acknowledged / Not Acknowledged
	Return Error Number	RE	Num*3	001 – 999	Codes indicating errors as received at operation centre, see Annex XXIII D2
<b>Message</b>	Address destination	AD	Char*3	ISO-3166 Address	Address of the party receiving the message, “XNW” for NAFO
<b>Details</b>	From	FR	Char*3	ISO-3166 Address	Address of the transmitting party, (Contracting Party)
	Type of Message	TM	Char*3	Code	Code for the message type as
	Sequence Number	SQ	Num*6	NNNNNN	Message serial number
	Record Number	RN	Num*6	NNNNNN	Serial number of the record in the relevant year
	Record Date	RD	Num*8	YYYYMMDD	Year, month and date
	Record Time	RT	Num*4	HHMM	Hours and minutes in UTC
	Date	DA	Num*8	YYYYMMDD	Year, month and date
	Time	TI	Num*4	HHMM	Hours and minutes in UTC
<b>Vessel</b>	Radio Call Sign	RC	Char*7	IRCS Code	International Radio Call Sign of the vessel
<b>Registration</b>	Vessel name	NA	Char*30		Name of the vessel
<b>Details</b>	Ext. registration	XR	Char*14		Side Number of the vessel
	Flag State	FS	Char*3	ISO-3166	State of registration
	Contracting Party internal ref. number	IR	Char*3 Num*9	ISO-3166 +max. 9N	Unique vessel number attributed by the flag State pursuant to registration
	Port Name	PO	Char*20		Port of registration of the vessel/homeport
	Vessel Owner	VO	Char*60		Name and address of the vessel owner
	Vessel Charterer	VC	Char*60		Name and address of the vessel charterer
<b>Vessel Character. Details</b>	Vessel capacity unit	VT	Char*2 Num*4	“OC”/“LC” Tonnage	According to: “OC” OSLO 1947 Convention / “LC” LONDON ICTM-69 Capacity of the vessel in metric tons
	Vessel Power unit	VP	Char*2 Num*5	0-99999	Indication of which measurement unit applies "HP" or "KW" Total main engine power
	Vessel Length	VL	Char*2 Num*3	“OA”/“PP” Length in meters	Unit “OA” length overall, “PP” length between perpendiculars Total length of the vessel in meters, rounded to the nearest whole meter
	Vessel Type	TP	Char*3	Code	As listed in Annex V.A.
	Fishing Gear	GE	Char&3	FAO Code	International Standard Statistical Classification of the Fishing Gear as Annex VI
	Limited Authorization	LU	Char*3	Yes or No	Yes or No to indicate whether a limited authorization is valid or not

Category	Data Element	Field code	Type	Contents	Definitions
<b>Activity Details</b>	Latitude	LA	Char*5	NDDMM *WGS-84)	e.g. //LA/N6235 = 62°35' North
	Longitude	LO	Char*6	E/WDDMM (WGS-84)	e.g. //LO/W02134 = 21°34' West
	Latitude (decimal)	LT	Char*7	+/-DD.ddd	Value negative if latitude is in the southern hemisphere <sup>1</sup> (WGS84)
	Longitude (decimal)	LG	Char*8	+/-DDD.ddd	Value negative if longitude is in the western hemisphere <sup>1</sup> (WGS84)
	Trip Number	TN	Num*3	001-999	Number of the fishing trip in current year
	Catch	CA	Char*3 Num*7	FAO species code 0-9999999	The cumulative catch retained on board by species, in kilogram live weight rounded to the nearest 100 Kg since the vessel entered the R.A. or since the last CAX report if such a report is sent, in pairs as needed.
Quantity onboard	OB	Char*3 Num*7	FAO species Codes 0-9999999	Quantity onboard the vessel by species in kilograms live weight rounded to the nearest 100 Kg, in pairs as needed	
Transferred species	KG	Char*3 Num*7	FAO species Codes 0-9999999	Information concerning the quantities transferred between vessels by species in kilograms live weight rounded to the nearest 100 Kg. whilst operating in the R.A.	
Relevant Area	RA	Char*6	ICES/NAFO Codes	Code for the relevant fishing area	
Directed Species	DS	Char*3	FAO species codes	Code for the species the vessel is targeting. Allow for several species, separated by a space. E.g. //DS/species species species//	
Transhipped From	TF	Char*7	IRCS Code	International Radio Call Sign of the donor vessel	
Transhipped To	TT	Char*7	IRCS Code	International Radio Call Sign of the receiving vessel	
Master Name	MA	Char*30		Name of the vessels master	
<b>Pilot Project</b>	Apparent Infringement	AF	Char*1	Y or N	For onboard observer to report his observations
	Discard	RJ	Char*3 Num*7	FAO Species Code 0 - 9999999	Detailed information regarding discard in kilograms live weight, in pairs as needed.
	Undersize	US	Char*3 Num*7	FAO Species Code 0 - 9999999	Detailed information regarding undersize catch in kilograms live weight, in pairs as needed.
	Daily catch	CA	Char*3 Num*7	FAO species code 0-9999999	The cumulative catch retained on board by species, in kilogram live weight rounded to the nearest 100 Kg since the vessel entered the R.A. or since the last CAX report if such a report has been sent, in pairs as needed.
	Mesh Size	ME	Num*3	0 – 999	Average mesh size in millimetres
	Production	PR	Char*3	Code	Code for the production Annex XXI (c)
	Log Book	LB	Char*1	Y or N	For onboard observer to approve the entries in the vessels log book
	Hails	HA	Char*1	Y or N	For onboard observer to approve the hails sent from the vessel
	Observer Name	ON	Char*30	Text	Name of the onboard observer
	Free Text	MS	Char*255	Text	Activity detail; for further comments by observer

<sup>1</sup> The plus sign (+) does not need to be transmitted; leading zeros can be omitted.

**D. 1) Structure of reports and messages as laid down in Annex IX and Annex X when forwarded by Contracting Parties to the Secretary.**

Where appropriate, each Contracting Party shall retransmit to the Secretary reports and messages received from its vessels in accordance with Articles 21 and 22; subject to the following amendments:

- the address (AD) shall be replaced by the address of the Secretary (XNW)
- the data elements “record date” (RD), “record time” (RT), “record number” (RN) and “from” (FR) shall be inserted.

**D. 2) Return messages.**

If a Contracting Party so requests, the Secretary shall send a return message every time an electronic transmission of a report or message is received.

Return message format:

Data Element	Field Code	Mandatory/Optional	Remarks
Start Record	SR	M	System detail; indicates start of record
Address	AD	M	Message detail; destination, Contracting Party sending the report
From	FR	M	Message detail; XNW is NAFO (who is sending the return message)
Type of message	TM	M	Message detail; message type RET for return message
Return Status	RS	M	Reporting detail; code showing whether the report/message is acknowledged or not (ACK or NAK)
Return error number	RE	O	Reporting detail; number showing the type of error: report/message unreadable (101), inconsistent data (102), sequence error (103)
Record number	RN	M	Reporting detail; record number of the report/message which is received
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



### E. Types of reports and messages

Annex	Provisions	Code	Message / report	Remarks
IV. A	Article 15	NOT	Notification	Notification of authorised fishing vessels
IX	Article 21(1)	ENT POS EXI	Entry Position Exit	VMS messages
	Article 21 (5)	MAN	Manual position	Reports transmitted by fishing vessels with a defective satellite tracking device to the Contracting Party
X	Article 22 (1a)	COE	Catch on Entry	Report transmitted by fishing vessels, prior to entering the R.A.
	Article 22 (1c)	TRA	Transhipment	Report on quantities on-loaded or off-loaded in the R.A.,
	Article 22 (1b)	COX	Catch on Exit	Report transmitted by fishing vessels, prior to leaving the R.A.
	Article 21 (1) Article 22 (2)	RET	Return	Automatic electronic message pursuant to reception of records
XXI (a)	1	CAX	Catch	Daily Catch report in Pilot Project
	2	OBR	Observer	Daily Observer report in Pilot Project

In the message template in Annex XXI (a) for the Observer report is a data element “Production” and in the Remarks column “code for the production”. There is no reference to where the codes are to be found. Therefore the following addition to Annex XXI is proposed.

#### Annex XXI (c)

#### Product form codes

Code	Product form
A	Round – Frozen
B	Round – Frozen (Cooked)
C	Gutted Head on – Frozen
D	Gutted Head Off - Frozen
E	Gutted Head Off – Trimmed – Frozen
F	Skinless Fillets – Frozen
G	Skin on Fillets - Frozen
H	Salted Fish
I	Pickled Fish
J	Canned Products
K	Oil
L	Meal Produced from Round Fish
M	Meal Produced from Offal
N	Other (Specify)