

**Agreed Record of Conclusions of Fisheries Consultations between Norway and Iceland  
on Electronic Exchange of catch and activity data**

**Hafnarfjörður, 10 June 2013**

- 1 An Icelandic Delegation headed by Elin Kristjana Sighvatsdóttir and a Norwegian Delegation headed by Thord Mosen met in Hafnarfjörður 6<sup>th</sup> of June 2013 to consult on electronic exchange of catch and activity data from vessels flying Norwegian or Icelandic flags and to revise the Agreed Record between Norway and Iceland on Electronic Exchange of catch and activity data signed 23 August 2011. This was a continuation of previous meetings.
- 2 The Delegations agreed to recommend to their respective authorities to implement the provisions related to electronic exchange of catch and activity data between Norway and Iceland as outlined in this Agreed Record.
- 3 The Delegations agreed that catch and activity data for all fishing vessels flying the flag of Norway or Iceland when fishing in each other waters<sup>1</sup> shall be exchanged electronically between the parties as outlined in this Agreed Record. The Delegations agreed that from 1 January 2014 the system will be mandatory for these fishing vessels and in line with regulatory environment in both countries.
- 4 The Delegations agreed that the fishing vessels mentioned in point 3, should report by using flag state paper logbooks and accompanying manual catch and activity reports until 1 January 2014 and at the same time selected vessels shall as required report electronically as outlined in this Agreed Record. The period until January 2014 of dual reporting will be used for implementing and testing the system outlined in this Agreed Record against the old paper driven system.

Until 1 January 2014 the logbook and catch and activity reports will be in force. From January 2014 electronic reporting of catch and activity data as outlined in this agreed record, will be in force.

- 5 The Delegations agreed that coastal state Fishing Monitoring Centre (FMC) can if needed, request catch and activity data from the vessels mentioned in point 3 from flag state FMC.
- 6 The Delegations also agreed that the Parties should cooperate to ensure that harmonised ERS schemes are established in the North Atlantic regional organisations (NEAFC and NAFO).

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<sup>1</sup> Norwegian vessels in Icelandic waters and Icelandic vessels in Norwegian waters.



## 7 COMMON PRINCIPLES WHEN EXCHANGING DATA BETWEEN FMCs

- 7.1 Reports must be forwarded in accordance with the flag state principles, meaning that catch and activity data must be submitted by the master to the flag state of the vessel.
- 7.2 All reports outlined in Annex I of this Agreed Record shall be forwarded by the flag state FMC to the coastal state FMC without undue delay (pushed). Reports shall be based on the reports given by the vessel to its flag state FMC. If special manual handling at the FMC is needed, the reports shall have a special FM marking indicating that manual handling as described in this agreed record has taken place, cf Appendix 5. This may indicate that the report has been changed by the FMC. Reports with FM marking will be handled differently (see articles 9.12, 12.1, 14 and Appendix 5 of Annex 1).
- 7.3 Additional catch and activity data shall be made available to the parties by using the pull principle. Procedures for pulling data will be further elaborated.
- 7.4 The International radio call sign (RC) shall be the main identification of the vessel in the reports exchanged between FMCs.
- 7.5 All recorded date and time elements in the reports should be given in UTC time. All time limits set out in point 9 shall depend on the timing of the report from the vessel (i.e. Date (DA) and Time (TI) data elements set out in Header Data Elements in Annex I).
- 7.6 All reports sent by the master of the vessel shall contain a valid sequence number (SQ) as described in Annex IV of this Agreed Record. The SQ data element will be used to identify correct sequence of ERS reports sent from the vessel to the FMC. The SQ number will also be used to help identify if the FMC's are possibly missing reports which have been sent from the vessel. However the SQ data element shall not be used for automatic validation resulting in reports being not acknowledged (NAK) or acknowledged with warnings. Corrupt or missing SQ pointing to possibly missing messages will be acted upon manually between the FMC's.
- 7.7 The flag state FMC will add Header data elements to the ones already sent by the vessel as specified in Annex I to all reports before forwarding them to the coastal state FMC.
- 7.8 Both flag state FMC and coastal state FMC shall automatically issue a RET (return) message for every report received, as defined in Appendix 1 Annex 1. However the RET message from the coastal state FMC will be conclusive with regard to the status of the report. If the report is received by the coastal state FMC without errors, the RET message will have the return status ACK (acknowledged). If the report is received with errors, the RET message will have the return status NAK (not acknowledged).
  - 7.8.1 An electronic report sent in accordance with this Agreed Record is considered not to be received if the originator does not receive a RET message from the coastal state FMC or the RET message from the coastal state FMC has the return status NAK. Acknowledged return only from flag state FMC is not sufficient.
  - 7.8.2 If the report is not confirmed by a return message or the return message has the return

status NAK, the master of the vessel must send the report again to the coastal state FMC via the flag state's FMC. The master of the vessel is responsible to contact flag state FMC if the reporting requirement can not be fulfilled by master of the vessel and act in line with instructions from flag state FMC.

- 7.8.3 If the RET message from coastal state FMC has the return status ACK, this is confirmation that the report has been received by the coastal state FMC, and that the format and mandatory fields have been checked and approved. Return status ACK does not indicate that the report otherwise has been checked for compliance with the legislation and for factual accuracy. If the RET message has the return status ACK with a warning the report has been acknowledged by the coastal state FMC. However, the warning will indicate an error that could lead to enforcement.
- 7.9 The RN field of a RET message shall be copied from the report checked. If the SQ field is used in the report this SQ shall also be copied from the report checked to the RET message. Similarly the RX field should be copied from the report into the RET message for cancellations or corrections.
- 7.10 Only acknowledged reports, with return status ACK may be corrected or cancelled. If an FMC receives a correction for a report from another FMC this correction shall have a new RN (Record number). In addition the report should include the RN of the report to be corrected. The report with the most recent RN that is acknowledged (ACK) by the coastal state is the valid report.
- 7.11 The flag state FMC shall monitor the reporting of vessels carrying its flag when in the waters of the other party. Furthermore, the parties shall cooperate with the view to secure complete ERS data and avoid duplications. To this end, the delegations agreed that monitoring implies that both parties should have access to 24/7 FMC as long as fishing vessel from either party are conducting fishing operations in the waters of the other party.

## 8 ROUTING OF ELECTRONIC REPORTS

- 8.1 Norwegian vessels shall send their electronic reports to the Norwegian FMC which shall forward the reports to the Icelandic FMC. The Icelandic FMC shall send the correct RET message back to the Norwegian FMC, meaning that it is this RET message that decides the status of the RET message. Thereafter the Norwegian FMC shall forward the RET message from the Icelandic FMC to the Norwegian vessel without undue delay.

NOR vessel <=> Norwegian FMC <=> Icelandic FMC

- 8.2 Icelandic vessels shall send their electronic reports to the Icelandic FMC which shall forward the reports to the Norwegian FMC. The Icelandic FMC shall send the correct RET message back to the Norwegian FMC, meaning that it is this RET message that decides the status of the RET message. Thereafter the Icelandic FMC shall forward the RET message from the Norwegian FMC to the Icelandic vessel without undue delay.

Icelandic vessel <=> Icelandic FMC <=> Norwegian FMC

8.3 Where additional prior authorisation is required, this shall be handled in accordance with the legislation of the coastal state.

## 9 CATCH AND ACTIVITY REPORTS

9.1 Electronic reports required under this reporting scheme (DEP, DCA, COE, TRA, POR, CON, COX, RET and AUD) shall be sent using the formats specified in Annex I.

9.2 The Master of a vessel going to fish in the waters of the other party shall send the electronic reports as required one by one in accordance with time limits given in this Agreed Record.

### 9.3 Catch on Entry report (COE)

9.3.1 The COE report indicates that the vessel is entering the waters of the other party to conduct fishing operations.

9.3.2 The Master of a vessel intending to fish in the waters of the other party shall send a COE report at the earliest 12 hours and at the latest 2 hours before crossing the border.

9.3.3 The Master of any vessel that has been granted a license for fishing in the Norwegian Economic Zone north of 62°N shall send a COE report, at the earliest 24 hours and at the latest 12 hours prior to starting fishing operations in the zone.

9.3.4 The report may be cancelled before crossing the border and fishing activity commences. If the vessel has continued or commenced fishing activities or taken part in transshipment after the COE report has been sent and before crossing the border, the OB data element in COE report shall be corrected by correcting previous COE report before the vessel crosses the border. It is only the OB data element that may be corrected in these cases.

### 9.4 Detailed catch and activity report (DCA)

9.4.1 The DCA report gives detailed catch and activity data from vessels fishing in the waters of the other party.

9.4.2 After a COE report or a departure report (DEP) has been sent the master of the vessel shall send a DCA report at least once every day before 23.59 UTC. The requirement to send a DCA report includes the same day the COE report or the DEP report is sent.

9.4.3 The DCA report shall also be sent prior to a:

- Catch on Exit (COX) report, including the same day as the COX report will be sent
- Control Point/Area (CON) report when leaving the waters of the Coastal State
- Inspection at sea



- Port report (POR) , including the same day as the POR report will be sent

9.4.4 The DCA report can be corrected until 12.00 UTC the day after it has been sent. It is not allowed to correct a DCA report after a COX or POR report has been sent.

9.4.5 Vessels that are fishing with gill nets or long-lines may provide the information specified in block B of the DCA report per day (24 hour period).

#### 9.5 **Port report (POR)**

9.5.1 The POR report indicates that the vessel has ended the fishing activities in the waters of the other party and that it is entering a port of the other party.

9.5.2 When entering a Norwegian port the master of an Icelandic vessel shall send a port report (POR) at the latest 2 hours before entering the port. When entering an Iceland port the master of a Norwegian vessel shall send a port report (POR) at the latest 4 hours before entering the port.

9.5.3 If the vessel leaves port and plans to exit the waters under the jurisdiction of the other party with no intention to fish there are no reporting requirements following this Agreed Record.

9.5.4 This report may not be corrected but may be cancelled before entering port, port as defined in national legislation.

#### 9.6 **Departure report (DEP)**

9.6.1 The DEP report indicates that the vessel is leaving the port of the other party and that the vessel will conduct fishing activity in the waters of the other party.

9.6.2 The master of a vessel shall send a DEP report before or at the latest 2 hours after departing the port. In any case the DEP report shall be sent before fishing activity commence.

9.6.3 This report may not be corrected but may be cancelled before fishing activity commences.

#### 9.7 **Transshipment report (TRA)**

9.7.1 The TRA report indicates that a vessel plans to or has taken part in transshipment.

9.7.2 When taking part in transshipment the master of a vessel shall send a TRA report. The donor vessel shall send a TRA report no later than 24 hours before the transshipment takes place, receiving vessel shall send this report no later than 1 hour after transshipment is completed.

9.7.3 Transshipment is not allowed in IEEZ.

9.7.4 This report may not be corrected but may be cancelled before the transshipment has commenced.



## 9.8 Catch on Exit report (COX)

- 9.8.1 The COX report indicates that the vessel has ended the fishing activities in the waters of the other party and that it is exiting the waters of the other party.
- 9.8.2 Before Norwegian vessel exits Icelandic waters the COX report shall according to current regulation be sent no more than eight hours and no less than two hours before crossing the border and before arrival at a control point. The COX report shall be sent before the CON report.
- 9.8.3 Before Icelandic vessel exits Norwegian waters the master of the vessel shall send a COX report. If the vessel is to report for control, the COX report shall be sent at the latest before arrival at the control point.
- 9.8.4 This report may be cancelled before crossing the border but may not be corrected.

## 9.9 Control point/area report (CON)

- 9.9.1 Where applicable the master of a vessel shall send a CON report in accordance with time limits given by the other party.
- 9.9.2 Vessels currently in IEEZ shall send CON reports, according to current regulation no later than two hours and no more than six hours before arriving at the control point.
- 9.9.3 This report may not be corrected but may be cancelled before arriving at the control point.
- 9.10 The Parties may after consultations decide on different time-limits than the above mentioned if this is found appropriate for management or control purposes for specific fisheries.
- 9.11 If a report is marked by using the FM (FMC marking) data element in the header fields and the data content is correct the reports should not be rejected due to time limits set out in point 8.2 – 8.10.

## 10 CONTACT POINT FOR ERS AT THE FMCs

- 10.1 The single ERS contact point list is given in Annex III. If the single contact point is changed this should be notified to the other FMC.

## 11 FORMATS FOR DATA EXCHANGE BETWEEN FMCs

- 11.1 Data exchange between the FMCs must be conducted by using the reports with names and data elements as described in Annex I. Data exchange format between the vessel and the flag State shall be established by the flag state authorities.
- 11.2 Pushing of these reports between the FMCs shall be done using XML and Web Services. Changes in the exchange format must be agreed on between the parties exchanging data at least 6 months before the start date of new versions. During the first 6 months after implementation such changes may be agreed upon and introduced by the

parties within a shorter time limit.

### 11.3 Requirements for the XML reports

11.3.1 The data exchange shall be done using Web Services and HTTPS data exchange protocol.

11.3.2 The common agreed WSDL defines the contract for the operations to be used when exchanging data. The WSDL must adhere to WS-I Basic Profile 1.1 to enforce interoperability.

11.3.3 The common agreed XSD shall be used for partially validating the data.

11.3.4 The mandatory fields for fish quantities (OB, CA and KG) will be given as MZZ equal to 0 (zero) if there is nothing to declare.

11.3.5 The RN (Record number) shall be crewsRN (CREWS - Common Regional ERS Web Services) and be the unique identifier of a report. The format shall be:

XXXYYYYMMDDHHmmSSsss (sss – milliseconds) where the XXX will be the ISO-Alpha 3 country code. Each Party ensures that the RN they produce is unique.

11.3.6 TM will not be used as a code for message type. The message type will instead be given as an XML element instead of an XML attribute.

11.3.7 If the report is sent to correct a previous report the updateErs(ERS) must be used and if the report is sent to cancel a previous sent report the deleteErs(DEL) must be used. When using Web Services RE/511 or RE/521 will not be entered into the report. However, the return messages for corrections and deletions WILL include RE/512 and RE/522, respectively. It is the chosen WSDL operation that indicates that the report is a cancellation or correction report.

11.3.8 All RE (return error number) values will be included within the return message. The RS field (ACK/NAK) will reflect the final decision taken during the report validation. Note that RE values may be given and the message may still contain ACK – in such cases the RE values may be considered 'warnings' or information, and may still lead to enforcement.

11.3.9 The system shall validate incoming and outgoing reports against the crews xsd. If the report does not validate, a SOAP fault should be returned within the session indicating that the report has not been handled.

## 12 PRINCIPLES USED WITH CORRECTIONS AND CANCELLATIONS

12.1 If the correction or cancellation is registered, or altered or accepted by the flag state FMC the report should be marked by using the FM (FMC marking) data element in the header fields set out in Appendix 5 of Annex I.

12.2 If a report has been cancelled by the master of the vessel using the formats specified in

Annex I a new report must be sent within the time limits given under point 9. Previously cancelled reports will not be revived by a cancellation.

- 12.3 In accordance with the fallback procedures described in point 14 all types of reports will be registered by the flag state FMC and sent in the ordinary ERS to the coastal state FMC when the vessel is experiencing equipment failure or transmission failure on board the vessel.
  - 12.3.1 When the problems at the vessel are solved, the vessel shall register the missing reports and send these to the flag state FMC where they are marked FM=D and forwarded to the coastal state FMC.
  - 12.3.2 To handle duplicate reports authorized personnel at the flag state FMC shall have the opportunity to generate cancellations (FM=C and deleteERS(DEL))for all reports previously sent to the coastal state FMC as FM marked, even though some of these reports normally cannot be cancelled. The reports will not be deleted from the database but marked as deleted. It is only possible to cancel a report that is valid. Furthermore, at the coastal state FMC the system must allow cancellations marked with FM=C for all stored reports that are FM marked, even though some of these reports normally cannot be cancelled. This is outlined in Annex V.

### 13 TESTING

- 13.1 The Delegations agreed to perform the tests of the implementation of the electronic reporting system before the real data exchange starts.
- 13.2 The AUD report as described in Annex I can be used to test the connection between vessel, flag state FMC and the coastal state FMC. The AUD report is also meant to verify the connection between the FMCs if there are indications of transmission failure between the parties. The RET message is issued for each AUD.
- 13.3 If agreed by both parties the use of a test call sign can be allowed in the production environment within a restricted period and by using agreed procedures.

### 14 FALLBACK PROCEDURES

- 14.1 **Equipment failure onboard vessel and/or transmission failure between vessel and its authority**
  - 14.1.1 The flag state authority shall notify the coastal state authority about problems influencing the data exchange with a vessel and confirm that appropriate action has been taken to correct the problem.
  - 14.1.2 The flag state FMC shall without undue delay notify the coastal state FMC about problems influencing the data exchange with a vessel and confirm that appropriate action has been taken to correct the problem.
  - 14.1.3 In such cases the master of the vessel shall send the required reports described in Annex I of this Agreed Record by alternative communication means to the flag state





FMC. The flag state FMC shall register the data and forward the required reports to the coastal state FMC with high priority. If the reports are manually registered by the flag state FMC they should be marked by using the FM (FMC marking) data element (FM=M) in the header fields as set out in Appendix 5 of Annex I. Manual reports in such cases are legally binding for the vessels.

- 14.1.4 When the electronic recording equipment is restored, the master of the vessel shall register the missing information and send the required reports as described in Annex I. The flag state FMC will push the information to the coastal state FMC without delay. The reports should be marked by using the FM (FMC marking) data element (FM=D) in the header fields set out in Appendix 5 of Annex I.
- 14.1.5 When the communication between the vessel and its FMC is restored the flag state FMC shall push the received reports without delay to the coastal state FMC, and complete the procedures as set out in Annex V.
- 14.1.6 A fishing vessel shall not leave a port following a technical failure or non-functioning of its electronic recording and reporting system (ERS) before the ERS is functioning to the satisfaction of the competent authorities of the flag state or before it is otherwise authorized to leave port by the competent authorities of the flag state. In these cases the flag state shall notify the coastal state before it authorizes a vessel flying its flag to leave a port of the coastal state.

#### **14.2 Transmission failures between parties or system failures at one of the parties**

- 14.2.1 When a party discovers a failure in the electronic reporting system that interferes with the ability to send or receive electronic reports as described in this Agreed Record, it shall without delay inform the other parties FMC to about this failure. The parties shall exchange information about; contacts and back up contacts (if different from that in Annex III), efforts being made to solve the problem and if necessary cooperate on solving the problem.
- 14.2.2 When transmission failures occurs and on request of the coastal state FMC, catch and activity data requested should be forwarded without delay by the flag state FMC to the coastal state FMC. The FMCs should agree on the format of this exchange (secured FTP, Emailed zip file, etc.).
- 14.2.3 The coastal state shall inform their Coast Guard or other patrol vessels about transmission failures between the parties or system failures at one of the parties.
- 14.2.4 Once the system comes back to an operational mode, the missing reports (even when these have been sent to the coastal state FMC by other means) shall be sent to the other party in the agreed digital format (Annex I and II). In such cases the reports shall be marked by using the FM (FMC marking) data element in the header fields as set out in Appendix 5 of Annex I.



### 14.3 Maintenance at one of the FMCs

14.3.1 Planned maintenance operations that may affect data exchange must be notified at least 72 hours in advance and if possible the date and time period of the maintenance should be specified and communicated between the FMCs.

14.3.2 During maintenance, transmission operations may be put on hold until the system is back online. Once the system is back online, all held data should be transmitted immediately in the agreed digital format (Annex I and II).

14.3.3 Maintenance periods should not exceed 24 hours. If they do, the delayed messages should be forwarded as soon as possible.

14.3.4 During maintenance periods the fallback procedures for system failure apply.

Hafnarfjörður, 10 June 2013

For the Icelandic Delegation



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For the Norwegian Delegation



Thord MONSEN

ANNEX I

DESCRIPTION OF DATA AND DATA FORMAT USED IN COMMUNICATION BETWEEN FMCs

**Header data elements**

Data Element:	Code:	Mandatory / Optional	Remarks:
Header fields provided by the FMC when forwarding the report.			
From	FR	M	The transmitting Party Alpha-3 ISO country code
Record Number	RN	M	Format as defined in point 11.3.5 of this agreed record
Record Date	RD	M	UTC date of transmission from the FMC (YYYYMMDD)
Record Time	RT	M	UTC time of transmission from the FMC (HHMM)
Previous record number	RX	M <sup>2</sup>	In the case of a correction or cancellation, this field value will be the previous record number which shall be corrected or cancelled as defined in point 11.3.5 of this agreed record
FMC marking	FM	M <sup>3</sup>	FMC marking as defined in Appendix 5
Header fields provided by the master and forwarded by the FMC			
Address	AD	M	Destination code ISL or NOR
Radio Call sign	RC	M	International radio call sign of the vessel
Internal Registration Number	IR	O	Internal registration number for Icelandic vessels (The identification for Norwegian vessels should only be the RC)
Date	DA	M	UTC date of transmission from the vessel (YYYYMMDD)
Time	TI	M	UTC time of transmission from the vessel (HHMM)
Name of Master	MA	M	Name of master
Sequence number	SQ	M <sup>4</sup>	Serial number of the report from the vessel to the coastal state in the relevant year as defined in Annex IV
Type of Message	TM	M	3 letter code message type

<sup>2</sup> Mandatory if it is a correction or cancellation to a previous report. Limitations for correcting or cancelling reports are listed in point 12 of this Agreed Record.

<sup>3</sup> Mandatory only if the report has been forwarded manually or generated by the FMC.

<sup>4</sup> Mandatory only if the report has been sent by the master of the vessel.



## DEPARTURE FROM PORT REPORT – DEP

Format used in communication between FMCs

Data Element:	Code:	Mandatory / Optional	Remarks:
Header fields provided by the FMC when forwarding the report.			
Header fields provided by the master and forwarded by the FMC			
Type of Message	TM	M	Message type, "DEP"
Elements below are specific for this report type, prepared by the master and forwarded by the FMC			
Port	PO	M	Code of port (ISO alpha-2 country code + 3 letter port code) based on the UN/LOCODE (the United Nations code for Trade and Transport Locations) <a href="http://www.unece.org/cefact/codesfortrade/codes_index.htm">http://www.unece.org/cefact/codesfortrade/codes_index.htm</a>
Departure Date	ZD	M	UTC date of the departure from port (YYYYMMDD)
Departure Time	ZT	M	UTC time of the departure from port (HHMM)
Catch onboard	OB	M	Quantity of species onboard when departing, in pairs as needed. FAO species code (SN) Live weight in kilograms (WT)
Vessel activity	AC	M	Predicted anticipated vessel activity as defined in the 'Main vessel activity' code set in Appendix 2

## CATCH ON ENTRY REPORT - COE

Format used in communication between FMCs

Data Element:	Code:	Mandatory Optional	Remarks:
Header fields provided by the FMC when forwarding the report.			
Header fields provided by the master and forwarded by the FMC			
Type of Message	TM	M	Message type, "COE"
Elements below are specific for this report type, prepared by the master and forwarded by the FMC			
Latitude	XT	M	Latitude at time of transmission of the report in decimal format(WGS84)
Longitude	XG	M	Longitude at time of transmission of the report in decimal format (WGS84)
Quantity On Board species live weight	OB	M	Quantity by species on board, in pairs as needed, FAO species code (SN) Live weight in kilograms (WT)
Predicted latitude	LT	M	Estimated latitude where the master intends to commence fishing in decimal format (WGS84)
Predicted longitude	LG	M	Estimated longitude where the master intends to commence fishing in decimal format (WGS84)
Predicted date	PD	M	Estimated date UTC when the master intends to commence fishing (YYYYMMDD)
Predicted time	PT	M	Estimated time UTC when the master intends to commence fishing (HHMM)
Directed species	DS	M <sup>5</sup>	Planned directed species FAO species code (only one)
Relevant area	RA	O	The ICES Division where the master intends to commence fishing

<sup>5</sup> Mandatory only when starting to fish in Norwegian waters



## DETAILED CATCH ACTIVITY REPORT – DCA

Format used in communication between FMCs.

Data Element:	Code:	Mandatory / Optional	Remarks:
<b>Block A</b>			This part has data for one day
Header fields provided by the FMC when forwarding the report.			
Header fields provided by the master and forwarded by the FMC			
Type of Message	TM	M	Message type, "DCA"
Elements below are specific for this report type, prepared by the master and forwarded by the FMC			
Activity	AC	M	Activity of the fishing vessel (codes see appendix 2). REL shall be used by vessels that are pumping catch from another vessel gear. SET shall be used by vessels fishing with gillnets or long lines and are only setting the gear. Block B is not mandatory if the activity is ANC, DRI, STE or SET.
Partner vessel	PA	M <sup>6</sup>	The radio call sign of the partner fishing vessel if fishing in pair with another vessel

<b>Block B</b>			This part will be one for each fishing operation
Block Date	BD	M	Date for start of fishing operation (YYYYMMDD) in UTC
Block time	BT	M	Time for start of fishing operation (HHMM) in UTC
Start Latitude	LT	M	Latitude for start of fishing operation , decimal degrees (WGS84)
Start Longitude	LG	M	Longitude for start of fishing operation , decimal degrees (WGS84)
Start Zone	ZO	M	Zone of (LT /LG) (ISO-3 country code for Iceland and Norway )
Gear specification	GS	M <sup>7</sup>	1 = single trawl 2 = twin trawl 3 = triple trawl or more
Fishing gear	GE	M	FAO gear code
Gear problems	GP	M <sup>8</sup>	1 = empty set 2 = net burst 3 = split 4 = broken meshes in the cod end (tear in cod end) 5 = lost gear 6 = other
End Latitude	XT	M	Latitude for end of fishing operation, decimal degrees (WGS84)

<sup>6</sup> Mandatory if fishing in pair with another vessel

<sup>7</sup> Mandatory only when trawling

<sup>8</sup> Mandatory only if there are problems

End Longitude	XG	M	Longitude for end of fishing operation, decimal degrees (WGS84)
Duration	DU	M	Duration of the fishing operation in minutes
Pumping from	TF	M <sup>9</sup>	Radio call sign of the vessel that is pumped from
Fishing operation (quantity of deployed gear)	FO	M <sup>10</sup>	Total number of hooks, total length of gillnets deployed.
Stock specification	SS	M <sup>11</sup>	Stock value as listed in appendix 3. Ex NOR01
Catch species live weight	CA	M <sup>12</sup>	Total quantity by species from this fishing operation (including undersized catch), in pairs as needed, FAO species code (SN), Live weight in kilograms (WT).

<sup>9</sup> Mandatory only if pumping from another vessels gear

<sup>10</sup> Mandatory only for long line, or gillnets

<sup>11</sup> Mandatory only if the data element AC is FIS and the catch (CA) contains any of the stocks listed in appendix 3

<sup>12</sup> Mandatory only if any catch was taken

## CATCH ON EXIT REPORT (COX)

Format used in communication between FMCs

Data Element:	Code:	Mandatory / Optional	Remarks:
Header fields provided by the FMC when forwarding the report.			
Header fields provided by the master and forwarded by the FMC			
Type of Message	TM	M	Message type, "COX"
Elements below are specific for this report type, prepared by the master and forwarded by the FMC			
Quantity On Board species live weight	OB	M <sup>15</sup>	Quantity by species on board, in pairs as needed, FAO species code (SN) Live weight in kilograms (WT)
Port	PO	O	Port of landing (ISO alpha-2 country code + 3 letter port code) based on the UN/LOCODE (the United Nations code for Trade and Transport Locations) <a href="http://www.unece.org/cefact/codesfortrade/codes_index.htm">http://www.unece.org/cefact/codesfortrade/codes_index. htm</a>

<sup>15</sup> Mandatory from 17 December 2013



## CONTROL POINT/AREA REPORT (CON)

Format used in communication between FMCs

Data Element:	Code:	Mandatory / Optional	Remarks:
Header fields provided by the FMC when forwarding the report.			
Header fields provided by the master and forwarded by the FMC			
Type of Message	TM	M	Message type, "CON"
Elements below are specific for this report type, prepared by the master and forwarded by the FMC			
Name of Control point/area	CP	M	Name of Control point/area (codes see Appendix 4)
Latitude	LT	M <sup>14</sup>	Estimated control area latitude in decimal format (WGS84)
Longitude	LG	M <sup>15</sup>	Estimated control area longitude in decimal format (WGS84)
Predicted date	PD	M	Date UTC when the master intends to arrive at the control point/area (YYYYMMDD)
Predicted time	PT	M	Time UTC when the master intends to arrive at the control point/area (HHMM)

<sup>14</sup> Mandatory for Norwegian vessels. Mandatory for Icelandic vessels if the data element CP is a control area.

<sup>15</sup> Mandatory for Norwegian vessels. Mandatory for Icelandic vessels if the data element CP is a control area.



## PORT REPORT (POR)

Format used in communication between FMCs

Data Element:	Code:	Mandatory / Optional	Remarks:
Header fields provided by the FMC when forwarding the report.			
Header fields provided by the master and forwarded by the FMC			
Type of Message	TM	M	Message type, "POR"
Elements below are specific for this report type, prepared by the master and forwarded by the FMC			
Quantity On Board species live weight	OB	M	Quantity by species on board before landing, in pairs as needed, FAO species code (SN) Live weight in kilograms (WT)
Quantity on-loaded or off-loaded species live weight	KG	M	Quantity by species to be landed in pairs as needed (including undersized catch), FAO species code (SN) Live weight in kilograms (WT)
Port	PO	M	Name of port (ISO alpha-2 country code + 3 letter port code) based on the UN/LOCODE (the United Nations code for Trade and Transport Locations) <a href="http://www.unctad.org/cefact/codesfortrade/codes_index.htm">http://www.unctad.org/cefact/codesfortrade/codes_index.htm</a>
Landsite	LS	M <sup>16</sup>	Name of buyer or other specifications describing exactly where in the Port the landing will take place, given in free text (max 100 characters)
Predicted date	PD	M	Estimated date UTC for coming to port (YYYYMMDD)
Predicted time	PT	M	Estimated time UTC for coming to port (HHMM)

<sup>16</sup> Mandatory if landing



## TRANSHIPMENT REPORT (TRA)

Format used in communication between FMCs

Data Element:	Code:	Mandatory / Optional	Remarks:
Header fields provided by the FMC when forwarding the report.			
Header fields provided by the master and forwarded by the FMC			
Type of Message	TM	M	Message type, "TRA"
Elements below are specific for this report type, prepared by the master and forwarded by the FMC			
Quantity On Board species live weight	OB	M	Quantity by species on board before the transshipment, in pairs as needed, FAO species code (SN) Live weight in kilograms (WT)
Quantity on-loaded or off-loaded species live weight	KG	M	Quantity by species on-loaded or off-loaded within waters under the jurisdiction of relevant coastal state, in pairs as needed (included undersized catch), FAO species code (SN) Live weight in kilograms (WT)
Latitude	LT	M <sup>17</sup>	Estimated latitude for the transshipment in decimal format (WGS84)
Longitude	LG	M <sup>18</sup>	Estimated longitude for the transshipment in decimal format (WGS84)
Predicted date	PD	M <sup>19</sup>	Estimated date UTC for the transshipment (YYYYMMDD)
Predicted time	PT	M <sup>20</sup>	Estimated time UTC for the transshipment (HHMM)
Transhipped To	TT	M <sup>21</sup>	International radio call sign of the receiving vessel
Transhipped From	TF	M <sup>22</sup>	International radio call sign of the donor vessel
Port	PO	M <sup>23</sup>	Name of port (ISO alpha-2 country code + 3 letter port code) where the transshipment will take place based on the UN/LOCODE (the United Nations code for Trade and Transport Locations) <a href="http://www.unepce.org/cefact/codesfortrade/codes_index.htm">http://www.unepce.org/cefact/codesfortrade/codes_index.htm</a>

<sup>17</sup> Optional for reports sent by the receiving vessel after the transshipment

<sup>18</sup> Optional for reports sent by the receiving vessel after the transshipment

<sup>19</sup> Optional for reports sent by the receiving vessel after the transshipment

<sup>20</sup> Optional for reports sent by the receiving vessel after the transshipment

<sup>21</sup> Whichever one is appropriate; all vessels taking part in the transshipment operation have to send TRA report.

<sup>22</sup> Whichever one is appropriate; all vessels taking part in the transshipment operation have to send TRA report.

<sup>23</sup> Mandatory for the donor vessel if the transshipment occurs at Port



**AUDIT REPORT USED FOR TESTING – AUD**

Format used in communication between FMCs

<b>Data Element:</b>	<b>Code:</b>	<b>Mandatory / Optional</b>	<b>Remarks:</b>
Header fields provided by the FMC when forwarding the report.			
Header fields provided by the master and forwarded by the FMC			
Type of Message	TM	M	message type, "AUD"
Elements below are specific for this report type, prepared by the master and forwarded by the FMC			
Free text	MS	M <sup>24</sup>	Free text string

---

<sup>24</sup> Note that a FMC has no obligation to check this element unless this has been specially agreed before sending the report.



## RETURN MESSAGE (RET)

Format used in communication between FMCs

Data Element:	Code:	Mandatory/Optional	Remarks:
Address	AD	M	Destination Party Alpha-3 ISO country code
From	FR	M	Alpha-3 ISO country code of the Party sending the return message
Radio Call sign	RC	M	International radio call sign of the vessel , copied from the report which is received
Sequence number	SQ	M <sup>25</sup>	Serial number of the report from the vessel in the relevant year, copied from the report which is received
Type of Message	TM	M	Message type "RET" for return message
Return Status	RS	M	Code showing whether the message is acknowledged or not (ACK or NAK)
Return error code	RE	M <sup>26</sup>	Number showing the type of error see Appendix 1
Previous record number	RX	M <sup>27</sup>	Previous record number copied from the report which is received
Record Number	RN	M	Record number copied from the report which is received
Date	DA	M	UTC date of transmission of the RET message (YYYYMMDD)
Time	TI	M	UTC time of transmission of the RET message (HHMM)
Comment	MS	O	Optional free text

<sup>25</sup> Mandatory only if SQ is given in the report from the vessel

<sup>26</sup> Mandatory when there are errors in the received report.

<sup>27</sup> Mandatory only if RX is given in the report received



**APPENDIX 1**

**RETURN CODES**

Return code		
Not acknowledged Follow up action required	Acknowledged with warning	Cause
100	100	Unspecified error (the RS field will indicate whether the report has been acknowledged or not acknowledged)
101		Message unreadable
102		Data value or size is wrong
104		Mandatory data missing
106		Unauthorised data source
	150	Sequence error
151		Date forward in time (date/time in the future)
152		Data is too old
	301	DCA prior to COE
	302	TRA received before COE
	303	COX received before COE
501		No matching report to cancel/correct
502		This report is a duplicate and has got the status Not Acknowledged (NAK), because this was the status given when received earlier.
	503	This report is a duplicate and has got the status Acknowledged (ACK) because that was the status given when received earlier.
504		The first DCA report for this day was generated after the deadline for generating DCA reports.
505		The cancellation or correction could not be completed due to exceeding the deadline for generating such report.
506		The record number is received earlier, but the report differs and is not sent as a correction or cancellation.
	507	The report was Acknowledged (ACK) after manual handling at the FMC.
511		This report shall be corrected. (This code shall be sent together with a new version of a DCA report to show that the DCA report with this RN shall be corrected). This code is not needed when using XML as the exchange format.
	512	The previous report is corrected
513		The previous report cannot be corrected due to error
	514	This report has a lower version number than a previously accepted report (Used only when version numbers are given).

521		This report shall be cancelled (This code shall be given for the cancellation of a report with this RN) This code is not needed when using XML as the exchange format.
	<b>522</b>	The previous report is cancelled
<b>523</b>		The previous report cannot be cancelled due to error
<b>530</b>		Not implemented (for example, a test report is received , but an advanced test system is not implemented, or a query was received, but the PULL mechanism is not yet implemented)

Return codes in bold indicate possible codes which may be exchanged between FMCs.

The RE coded with numbers less than 500 except 100 and 152 are from the NEAFC system and is also used between EU and NOR in the ERS system. The list of RE codes may increase during the implementation period.



## APPENDIX 2

### Main vessel activities

Code	Definition
ANC	Anchoring
DRI	Drifting
FIS	Fishing
GUD	Guard ship
HAU	Hauling
PRO	Processing
REL	Catch relocation
SCR	Scientific research
SET	Setting gear
STE	Cruising/Steaming
TRX	Transshipping
INW	Inactivity due to weather conditions <sup>28</sup>
SEF	Searching for fish when no fishing gear is used <sup>29</sup>
OTH	Other

The main vessel activity given in the DCA report will always be FIS if the vessel has been conducting fishing activities.

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<sup>28</sup> To be added at the next update of the XSD.

<sup>29</sup> To be added at the next update of the XSD.



### APPENDIX 3

List of stock codes used in the SS field in the DCA report:

<b>Stock code</b>	<b>Norwegian species code</b>	<b>Name English</b>	<b>Name Scientific</b>
NOR01	061101	Norwegian spring spawning (Atlanto scandian) herring	Clupea harengus
NOR02	061104	North Sea herring	Clupea harengus

The Delegations agreed to use international harmonised stock codes when available.



#### APPENDIX 4

List of Norwegian Control points/areas:

Name of Control Point	Code
ALPHA	A
BRAVO	B
CHARLIE	C
DELTA	D
ECHO	E
FOXTROT	F
GOLF	G
HOTEL	H
Name of Control Area	Code
Area 1	1
Area 2	2
Area 3	3

List of Icelandic Control areas:

Name of Control Point	Code
In accordance with Icelandic regulation.	A
	B
	C
	D
	E
	F
	G
	H
	1
	2

The codes I to Z will be added at the next update of the XSD.



## APPENDIX 5

### Procedures for using FMC marking (FM)

Code (ISO-3 country code for FMC + one letter)		Description
ISO-3 country code for FMC	D	Reports sent delayed and without changes from the FMC. Example: ISLD
ISO-3 country code for FMC	C	Reports corrected or cancelled by the FMC. Example: NORC
ISO-3 country code for FMC	M	Reports manually registered by the FMC. Example: NORM

The FMC marking is a part of the Fallback procedures agreed between the Parties and should be used in situations where the master of the vessel are not able to comply with the reporting requirements, either due to technical problems, onboard the vessel, communication problems between the vessel and its flag state FMC or between the flag state FMC and the coastal State FMC.

The FMC marking will indicate that the Flag State FMC has assisted the vessels by handling the report in a specified manor. Any action by the Flag State FMC regarding this should be done based on information given by the master of the vessel.

Only marking a report with FM=C will not correct or cancel any report. Correct report format using CRX and methods as described must be used.

#### *The FM codes should be used as follows:*

FM= D

Reports sent delayed and without changes from the FMC  
(using createERS(ERS), updateERS(ERS) or deleteERS(DEL) depending on the content of the reports that are delayed.)

#### *Examples:*

*Reports for several hours have queued up and the time limits will not be met, flag state FMC mark the reports with FM=D before sending.*

*A master has sent a DCA and forgot to send his COE. The DCA is stopped at the flag state FMC, the master send his COE but that is also stopped due to time limits, but the flag FMC authorized personnel log the problem, mark the reports with FM=D and send first the COE and then the DCA.*

FM= C:

Reports corrected or cancelled by the FMC  
(using updateERS(ERS) for correction and deleteERS(DEL) for cancellation)

#### *Examples:*

*The master is not able to do the correction or cancellation needed due to technical issues onboard or limitations in the onboard application, the authorized personnel at the flag state FMC register the reports needed and mark them with FM=C. This will also be used if the FMC shall cancel reports registered by the FMC.*



FM=M

Reports manually registered by the FMC  
(using createERS(ERS))

*Examples:* The master is not able to register the reports due to technical issues onboard or limitations in the onboard application, the authorized personnel at the flag state FMC register the reports needed and mark them with FM=M.

*Table 1: Description of functionality needed at the FMCs to handle the FM codes*

FM code	FMC flag state system facilities	FMC coastal state system facilities	Comments
<b>D (delayed)</b>	<ul style="list-style-type: none"> <li>Allow authorized personnel to select all types of reports for sending to the coastal state FMC and mark them with FM=D.</li> <li>createERS(ERS), may be used with FM=D</li> <li>RET messages will only have FM if copied from the report received.</li> </ul>	<ul style="list-style-type: none"> <li>Treat the FM=D marked reports as ordinary reports.</li> <li>Correct reports marked with FM=D must not be rejected by the coastal state FMC due to time limits.</li> </ul>	
<b>C (Cancellation)</b>	<p><b>Cancellation:</b></p> <ul style="list-style-type: none"> <li>Allow authorized personnel to register DEL reports for sending to the coastal state FMC as deleteERS(DEL) method and mark these reports with FM=C.</li> <li>The cancellation must also be made in the stored data at the flag state FMC.</li> </ul>	<p><b>Cancellation:</b></p> <ul style="list-style-type: none"> <li>Treat the FM=C marked DEL reports as ordinary cancellations (the report with record number CRX must be removed from the system of valid reports).</li> <li>Correct reports marked with FM=C must not be rejected by the coastal state FMC due to time limits.</li> </ul>	<ul style="list-style-type: none"> <li>Corrections and cancellations sent with FM=C might not be visible onboard the vessel.</li> <li>The reference to the previous record number CRX must always be used to correct or cancel this previous acknowledged report.</li> </ul>
<b>C (Correction)</b>	<p><b>Correction:</b></p> <ul style="list-style-type: none"> <li>Allow authorized personnel to register ERS reports for sending as updateERS(ERS) methods and mark these reports with FM=C.</li> <li>The correction must also be made to the data at the flag state FMC.</li> </ul>	<p><b>Correction:</b></p> <ul style="list-style-type: none"> <li>Treat the FM=C marked ERS reports as ordinary corrections (the new report must be the only valid report and the CRX numbered report is not valid anymore).</li> <li>Correct reports must not be rejected due to time limits.</li> </ul>	
<b>M (manually)</b>	<ul style="list-style-type: none"> <li>Allow authorized personnel to manually register ERS reports for sending as createERS(ERS) methods and mark the reports with FM=M.</li> </ul>	<ul style="list-style-type: none"> <li>Treat the FM=M marked ERS reports as ordinary reports.</li> <li>Correct reports must not be rejected due to time limits.</li> </ul>	<ul style="list-style-type: none"> <li>If a manually registered report is a correction or cancellation the FMC marking shall be FM=C.</li> <li>Please look at the guidelines under point FM=C.</li> </ul>

**APPENDIX 6**  
ISO-3 country code

<b>Zone</b>	<b>ISO-3 country code</b>
Icelandic zone	ISL
Norwegian Economic Zone	NOR
Fisheries Protection Zone around Svalbard	XSV
Fisheries zone around Jan Mayen	XJM
Territorial waters of Svalbard	XSI <sup>30</sup>
Skagerrak	XSK
EU waters	XEU
Russian zone	RUS
Greenland zone	GRL
Faroese zone	FRO
NEAFC Regulatory Area	XNE
NAFO Regulatory Area	XNW
CCAMLR Regulatory Area	XCA

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<sup>30</sup> To be added at next update of the XSD.



**ANNEX II**  
**Data exchange using XML and Web Service**

- a. XML format for data reports in Annex I and an *HTTPS* Web Service for data exchange should be used. Official certificates, including client certificates, should be used for mutual authentication.
- b. The Common Regional ERS Web Service (CREWS), as described below and in Figure 1, should be used for implementation of the ERS data exchange between the parties.
- c. As many codes as possible must be put in a common code.xsd to simplify the verification of data. International codes should when possible be used.
- d. The system must allow for creating, correcting, and cancelling reports.
- e. Return messages with appropriate error codes must be generated using both XSD validation and more logical testing done in the FMC's own systems.
- f. In order to guarantee interoperability between system implementations, a Basic Profile must be chosen from the WS-I deliverables to ensure minimal compliance (for example, Basic Profile 1.0 or 1.1)
- g. The XSDs shall use the normal xs:dateTime data type (for example RDRT="2010-01-17T09:30Z") instead of the YYYYMMDD and HHMM formats described in Annex I for all date and time fields.

One web service, defined in the WSDL, with the following methods should be used:

```
createERS(ERS)
    updateERS(ERS)
    deleteERS(DEL)
    createRET(RET)

queryERS(QUE)
    putQueryResults(RSP)
```



All of the above methods will return the time the message or report was received. . Furthermore, createERS, updateERS, deleteERS and queryERS will all throw a SOAP fault (based on SOAP version 1.1 as defined by the Basic Profile, see section 11.3.9 if the asynchronous response at the application level is not possible (missing FR, CRN, etc.). The correlation id for the asynchronous nature will be defined as the CREWS record number (for the CREWS record number definition please refer to CRN section 11.3.5.)

ERS used both in createERS and updateERS is the header elements plus the different reports defined in Annex I sent one by one without the TM field.

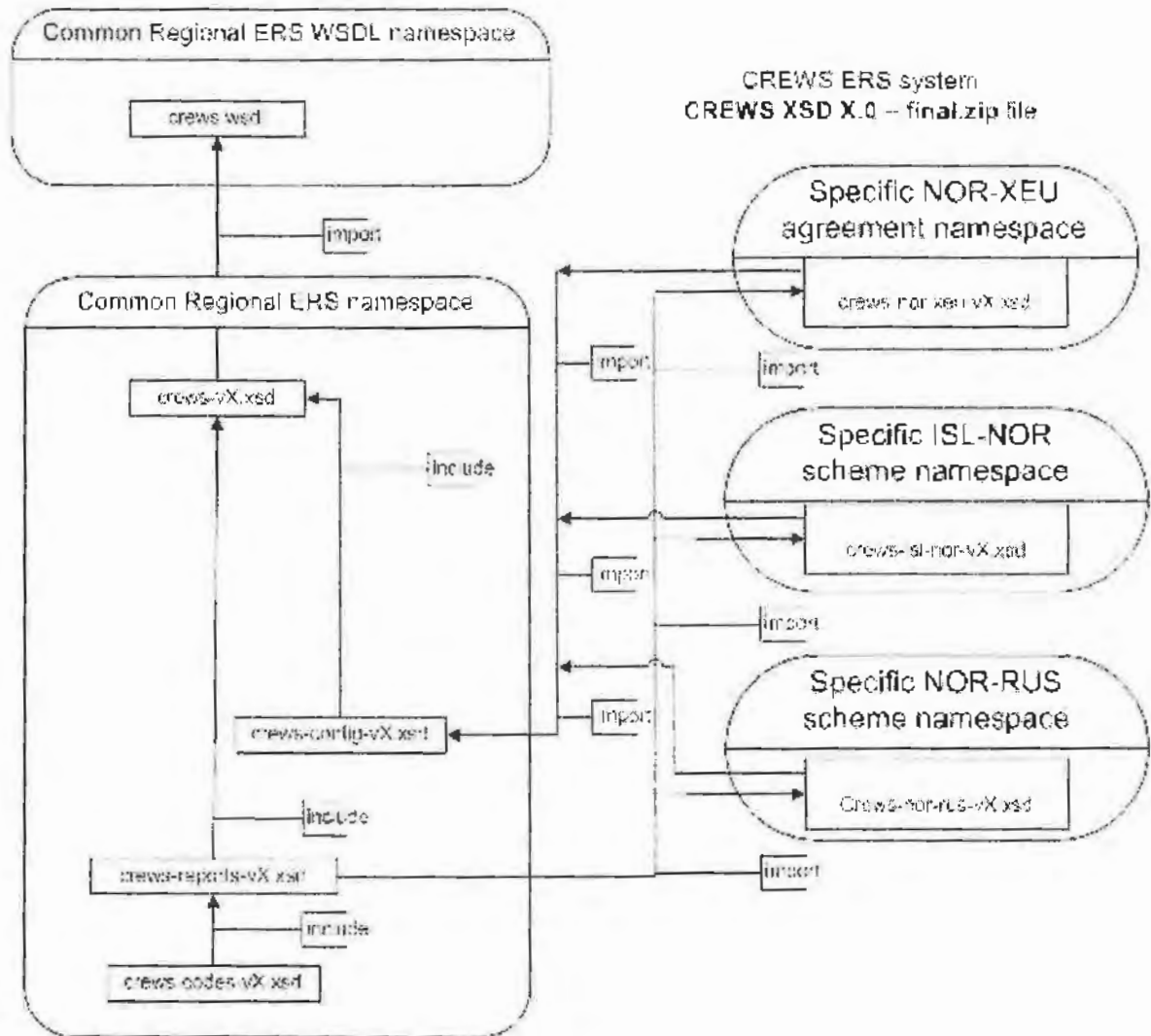
DEL used for deleteERS is defined using some of the header data elements.

Data Element:	Code:	Mandatory Optional	Remarks:
Header fields provided by the FMC when forwarding the report.			
From	FR	M	the transmitting Party Alpha-3 ISO country code
Record Number	RN	M	Format as defined in point 11.3.5 of this agreed record
Record Date	RD	M	UTC date of transmission from the FMC (YYYYMMDD)
Record Time	RT	M	UTC time of transmission from the FMC (HHMM)
Previous record number	RX	M	This field value will be the previous record number which shall be deleted (cancelled)
FMC marking	FM	M	FMC marking as defined in Appendix 5
Header fields provided by the master and forwarded by the FMC			
Address	AD	M	Destination code ICE or NOR
Radio Call sign	RC	M	International radio call sign of the vessel
Date	DA	O	UTC date of transmission from the vessel (YYYYMMDD)
Time	TI	O	UTC time of transmission from the vessel (HHMM)
Sequence number	SQ	O	Serial number of the report from the vessel to the coastal state in the relevant year

RET used for createRET is defined in Annex I (The data element TM is not entered).

For more details look into the WSDL and XSDs.

Figure 1: An example on Web Service to be used in electronic reporting systems (v.X will be a version number).



**In order to add a new agreement into CREWS:**

1. Define an XSD for the new agreement with a new namespace
2. Import the crews reports vX.xsd into the new XSD from step 1
3. All reports within the new XSD should be of type common TCM in order to be valid in the CREWS schema. All types defined within crews-vX.xsd may be used to help build the new reports
4. Add the new namespace to the xs:schema of the crews-config-vX.xsd for example xmlns:nc="urn:crews:nc:vX"
5. Add a new xs:import in crews-config-vX.xsd to import the new message types for the new agreement

This figure shows how the use of different namespaces can allow for a system where the common reports and all the codes are placed in a common namespace. All reports only occurring in a smaller context can be placed in their own namespaces. This makes it possible to have a flexible system where different needs for different parties can be met in the same environment.

Namespace changes will occur when updating a schema to a new major version (for example when updating version 1.x to version 2.0). No namespace changes will occur for minor version updates (for example version 1.1 updated to 1.2).

AM



ANNEX III

FMC CONTACT POINTS IN ICELAND AND NORWAY

ICELAND	
1) Name of the authority	Icelandic Coast Guard
2) Address of the authority	Operations Centre, Skógarhlið 14, 105 Reykjavík
3) Name and position of the ERS contact person	Main: Hjalti Sæmundsson, Chief Controller, Substitute: Björgólfur Ingason, Assistant Chief Controller
4) Phone No of the ERS contact person	+354 545 2100
5) Fax No of the ERS contact person	+354 545 2001
6) E-mail of the ERS contact person	1 <sup>st</sup> : <a href="mailto:hjalti@lhg.is">hjalti@lhg.is</a> 2 <sup>nd</sup> : <a href="mailto:sar@lhg.is">sar@lhg.is</a>
7) 24/7 contacts	Phone : +354 5452100 (tel)/ +354 5452011 (fax) e-mail : <a href="mailto:sar@lhg.is">sar@lhg.is</a> Inmarsat C: 581425101519 HTTPS: <a href="https://vmsdb.lhg.is-httpsgw">https://vmsdb.lhg.is-httpsgw</a> Radio: VHF Ch 16 (Voice) Ch 70 (DSC) 2182 khz (Voice) 2189,5 khz (DSC) Radio callsign: Icelandic Coast Guard MMSI N°: 002510100

NORWAY	
1) Name of the authority	Directorate of Fisheries
2) Address of the authority	Strandgaten 229, Po 5804 Bergen
3) Name and position of the ERS contact person (and substitute)	Main: Anders Østreim, Head of Section Substitute: Jens Wathne, Senior Adviser
4) Phone No of the ERS contact person (and substitute)	Main/ Substitute: +47 974 32 799 / +47 995 68 688
5) Fax No of the ERS contact person (and substitute)	+47 55 23 82 76
6) E-mail of the ERS contact person (and substitute)	<a href="mailto:anders.ostreim@fiskeridir.no">anders.ostreim@fiskeridir.no</a> <a href="mailto:jens.wathne@fiskeridir.no">jens.wathne@fiskeridir.no</a>
7) 24/7 contacts	Phone : +47 55 23 83 36 e-mail : <a href="mailto:FMC@fiskeridir.no">FMC@fiskeridir.no</a>

## ANNEX IV

### PROCEDURES FOR THE USE OF THE DATA ELEMENT SQ (SEQUENCE NUMBER)

Procedures for the use of the data element SQ as a mandatory field if the report is sent by the master of the vessel:

- a) The data element SQ should be given as a whole number  $\geq 1$  and the first message in the sequence might have a SQ number  $\geq 1$ . At each turn of the year the data element SQ shall be restarted.
- b) The first report sent to the coastal state FMC via the flag state FMC should have the lowest SQ number. Thereafter, the data element SQ will be increased by one for each report sent from the vessel within the same year.
- c) Both cancellation reports and corrected reports from the vessel will add to the sequence number.
- d) The data element SQ will not be used for validation purposes, i.e. messages will not be denied even if they arrive in wrong order based on the data element SQ.

The data element SQ is not required if the report is manually registered by the flag state FMC and marked using FMC marking = M. Reports manually registered by the flag state FMC should be replaced by final reports from the vessel.



## ANNEX V

### PROCEDURES FOR CONTACT BETWEEN FMCs

According to point 12.3.2 and 14 the Parties shall cooperate to secure complete ERS data and avoid duplication.

If the reporting equipment onboard the vessel fails or the master of the vessel is not able to transmit the required reports to the flag state FMC, the following rules apply (see also Figure 1):

- 1) The flag state FMC shall notify the coastal state FMC about the problem and confirm that appropriate action has been taken to solve the problem.
- 2) The master of the vessel shall send the required data by alternative communication means (format to be decided by the flag state FMC) to its flag state FMC.
- 3) The flag state FMC shall register the data and forward the required reports to the coastal state FMC with high priority. The flag state FMC shall mark these reports by using the FMC Marking (FM) data element in the header fields (FM=M or FM=C as appropriate, cf. Appendix 5 of Annex I).
- 4) When the reporting equipment onboard and/or the communication between the vessel and its FMC is restored, the master of the vessel shall record all required data and send all of the required reports to the flag state FMC (even if the report has previously been manually handled by the flag state FMC). Without delay the flag state FMC shall push the reports received from the master of the vessel to the coastal state FMC.
  - a) In situations where time limits are not upheld the flag state FMC shall mark the reports by using the FM data element in the header field (FM=D or FM=C as appropriate, cf. Appendix 5 of Annex I).
  - b) In situations where time limits are upheld the flag state FMC will forward the reports without using the FM data element in the header field.
- 5) Reports (as described in point 4) received from the master of the vessel and forwarded by the flag state FMC must be monitored by the flag state FMC, and compared to reports previously manually handled by the flag state FMC on behalf of the vessel, to be sure that double reporting is avoided.
- 6) If reports as described in point 3 and 4 are both considered valid by the coastal state FMC, the flag state FMC must cancel the valid reports manually registered (as described in point 3) by the flag state FMC (FM=C, cf. Appendix 5 of Annex I).



