JOINT ADVISORY GROUP ON DATA MANAGEMENT (JAGDM)

15-16 March – London UK

REPORT

Wednesday, April 6, 2016

TO:
Gylfi Geirsson
Chair, NEAFC Ad Hoc Working Group on Electronic Reporting Systems (AHWG ERS)

FROM:
Lloyd Slaney
Chair, Joint Advisory Group on Data Management (JAGDM)

ADVICE FROM JAGDM REGARDING NAF FORMAT CODES AND THE POSSIBLE ADOPTION OF THE UN/CEFACT P1000 STANDARD WITHIN NEAFC ERS

REGARDING THE REQUEST FOR NEW CODES FOR NEAFC ERS;

A first step to proposing new NAF format codes for NEAFC ERS is to consolidate the existing codes in use to ensure harmonization. Progress was made towards consolidating existing NAF format codes under agenda points 9 c ii & iii on both days, but more work needs to be done before a complete list is finalized.

On the second day, there was a detailed discussion regarding the definitions of the data elements proposed for NEAFC ERS, these are outlined in document 2016-01-07. The JAGDM group felt that many of the current definitions lacked clarity. One example that was discussed was 'fishing depth'. The group agreed that it was not possible to match this data element with a single code or definition.

Participants agreed to postpone the discussion of specific codes to next meeting.

REGARDING ADVICE ON THE POSSIBLE ADOPTION OF UN/CEFACT P1000 WITHIN NEAFC ERS; DOCUMENT JAGDM 2016-01-31 REV1 IS ATTACHED.

Yours sincerely

Lloyd A. Slaney
Chair, JAGDM

Answer to the NEAFC ERS Working group:

Possible adoption of the UN/CEFACT standard as the standard used for the data exchange in the new ERS system in NEAFC.

The advice of JAGDM is:

It seems very likely that UN/CEFACT standard would provide all the information necessary for NEAFC ERS, within an international standard; however a very detailed mapping and harmonization is still required.

Regarding the desirability of adoption JAGDM notes the following pros and cons of using the UN/CEFACT standard.

Pros:

- NEAFC contracting parties want to use international standards. UN/CEFACT P1000 will be an international standard for global fisheries data exchange from 27 April 2016.
- Contracting parties having ERS bilateral agreements are familiar with using XML.
- NEAFC Secretariat and Contracting Parties could benefit from "open source" tools already available for this standard.
- NEAFC would benefit from a single EU connection into a NEAFC ERS

Cons:

- The standard is still not tested for ERS.
- Additional development and training costs for NEAFC in transitioning to the new standard.

Additional Considerations

- There is a need to guarantee that EU, as first adopter of the standard is providing sufficient technical assistance.
- It is important that all Contracting Parties have the possibility to actively participate in the technical decision making.

Background:
Information about the UN/CEFACT standard and what EU can offer other Contracting Parties if the NEAFC ERS system is made in line with the EU ERS system.

At the JAGDM meeting 15 March EU gave JAGDM an introduction to their new planned ERS system designed to do exchange of all kind of fisheries data elements, with a much wider scope than is currently foreseen in the proposed NEAFC ERS. EU vessels are taking part in fisheries in many different areas regulated by various legislations. Their need is to have a worldwide data exchange standard.

EU, together with some other parties, have worked out the UN/CEFACT standard to be a worldwide standard. Some elements are the same as elements used in standards for trade and agriculture, but the part for fisheries is new. UN/CEFACT will be adopted as a UN standard and presented 27 April 2016 in Geneva.

EU have been using parts of the UN/CEFACT elements internally but most of it is not tested in real data exchange yet.

EU will start the implementation work of their new ERS system in April 2016 and it is planned to start the test period in October 2016. Production will be as fast as possible, but all the Member States must do changes of their vessel systems to fulfill all the new obligations and that will take some time.

What can EU offer in addition to the UN/CEFACT Standard?

FLUX transportation layer.
"Open source" software made by EU to take care of the transportation of all kinds of XML reports independent of the Business content of the reports.

We understand that this has been in production in EU for about a year now for aggregated catch reports sent within EU. The sending of VMS messages has been in production for 4 months and 4 FMCs are using this. NEAFC Secretariat has deployed a Flux node to compare data received via https and FLUX, and to gain experience. This was requested by PECMAC at their April 2015 The legal obligation for EU member states to send VMS positions in UN/CEFACT via FLUX TL came into force January 01 2016.

Data viewer
"Open source" software made by EU for receivers of data. This is currently a Coastal State appropriate system in that it can be used to view and validate messages received and return ACK/NAK Return Messages. This is not (currently) a web interface for a full ERS system.

Table of Definitions

AHWG	Ad-hock Work Group
ACK	Acknowledged (Return message format)
COE	Catch on Entry
COX	Catch on Exit
CP	Contracting Party
DFG	Denmark, Faroe Islands and Greenland
EC	European Commission
ERS	Electronic Reporting System
EU	European Union
FLUX - TL	Fishery Language for Universal eXchange - Transport Layer
FMC	Fisheries Monitoring Centre
IMO	International Maritime Organization
ISMS	Information Security and Management System
MEM	Marco Encoded Message Codes
NAK	Not Acknowledged (Return message format)
NAF	North Atlantic Format (In respect to codes)
NAFO	North Atlantic Fisheries Organization
NCEM	NAFO Conservation and Enforcement Measures
NEAFC	Northeast Atlantic Fisheries Commission
NEAFC - EPSC	Electronic Port State Control
NRA	NAFO Regulatory Area
PECMAC	Permanent Committee on Monitoring and Compliance
PSC	Port State Control
RA	Regulatory Area
STACTIC	Standing Committee on International Control
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
WP	Working Paper
AHWG	Ad-hock Work Group

1. Opening

The Vice-Chair Ellen Fasmer (Norway) welcomed all participants.
Participants represented Canada, Denmark (in respect of Faroe Islands and Greenland), the European Union, Iceland, Norway and the Russian Federation.

2. Appointment of Rapporteur

The NEAFC Secretariat was appointed rapporteur.

3. Discussion and adoption of the Agenda

The agenda was discussed and approved as circulated.

4. Election of the Chair

The Vice-Chair briefly explained that Canada decided to replace its representative and former Chair and therefore the participants should formally elect a new Chair. Lloyd Slaney (Canada) was elected Chair by unanimity.

5. Data Exchange statistics

a. NAFO

NAFO Secretariat presented document 2016-01-17 containing a table describing the number of different messages/reports received by the NAFO Secretariat's VMS.

Canada explained that the discrepancies between EXIs and ENTs, which had exhibited higher values than the total COEs, were due to technical problems. Canada explained that the difference between the COX and COE was due to a fishing trip ending in the new calendar year.

NEAFC Secretariat mentioned that in its experience with discrepancies there were a significant number that resulted from duplicate messages/reports.

Norway mentioned that technical issues justified the low number of messages/reports sent to NAFO, for example EXI messages were rejected due to mandatory course and speed fields not being complete before submission. Norway noted that a proposal for submission to STACTIC will be prepared which would see an amendment to footnote 4 of Annex II.E.

Russian Federation highlighted the discrepancies between the numbers of EXIs, ENTs, COEs and COXs for each NAFO CP. Russian Federation suggested that all CPs address the issues in order to improve reporting in the future.

Chair encouraged participants to make an effort to improve the reporting.

b. NEAFC

NEAFC Secretariat introduced document 2016-01-18 containing a table describing the number of different messages/reports received by NEAFC's database. The statistics were presented with duplicates of messages previously accepted (ACK 155) processed out.

No comments or concerns were raised by the participants.

6. NAFO issues

a. Technical Implications of the implementation of recommendations

NAFO Secretariat presented document 2016-01-30 on the adopted amendment of Article 28.8 and Annex II.N of the NCEM by STACTIC.

EU asked for clarification on whether each line of the "haul by haul logbook" required a separate entry for each species.

NAFO Secretariat informed that the requirement is that one "line" per species.

DFG noted that new requirements should be simpler than the previous ones and avoid overcomplicating procedure.

b. Issues raised by STACTIC

i. Data Sharing Between NAFO and NEAFC

NEAFC Secretariat presented document 2016-01-14 on the possibility of catch data exchange between NAFO and NEAFC Secretariats. The document is the result of internal discussions within the Secretariat and it identifies possible future steps. This will require a formal decision by the Commission and most likely changes to the Scheme of Control and/or to the ISMS.

Participants agreed on the need to harmonize the content of the COX reports in both organizations. It was noted that:

- a similar exercise is taking place in NAFO, and that the number of vessels fishing in both RAs is very limited
- the differences in reporting on regulated species will affect comparisons
- the introduction of ERS may impact the data
- real-time transmission of the data may take some time
- Vessels fishing in the NRA have to cross NEAFC and will often report COE/COX although it is not mandatory.

Participants agreed that:

- Both organizations would benefit from the harmonization of COX reports.

ii. STACTIC request to JAGDM to review the Annexes of the NCEM and make some clarifications

Norway introduced documents 2016-01-20 and 2016-01-21 on the STATIC request for advice regarding possible amendments to the annexes of the NCEM. During the 2015

STACTIC Intercessional, this matter was referred to the JAGDM for clarification and advice with a view to amending the pertinent tables in the Annexes to include clear definitions and examples for applicable reporting formats. It was noted that the absence of clear definitions and examples of NAF data-elements still poses challenges, particularly for IT developers who utilize the annexes to program system requirements.

JAGDM agreed that work must continue to improve clarification of data elements.

The NAFO document 2016-01-20 will be updated to reflect the changes written in the NEAFC document 2016-01-21 rev1 during the meeting.
Both documents will be listed at the JAGDM 2016-2 agenda to be finalized and proposals made. This to ensure that the changes listed in these two documents can be adopted at the annual meetings of the organizations this year.

Participants agreed that: The NAFO Secretariat shall, as soon as possible, update NAF two letter filed codes at the NAF website in line with the data element definition texts updates shown in JAGDM 2016-1-21 rev 1.

Making examples for applicable reporting formats as asked for by STACTIC, will be dealt with as a separate issue in later meetings.

c. Recommendations for adopting an ISMS for NAFO

NAFO Secretariat presented documents 2016-01-27 and 2016-01-3 on the NAFO ISMS implementation and on the IT infrastructure security assessment. There were some general discuss relating to the firewalls performance.

NAFO Secretariat presented document 2016-01-24 on "Bring Your Own Device" (BYOD) policy for NAFO staff. There were some general comments on the use of personal hardware and encrypted flash drives within NAFO/NEAFC installations and while attending meetings.

d. Status of other NAFO projects

i. Flux Transportation Layer Testing

NAFO Secretariat presented document 2016-01-05 on the Secretariat's testing of the EU FLUX transportation layer to exchange relating to the sending and receiving of "haul by haul" data. The general view of the JAGDM was that the data exchange may be useful later

if detailed catch data is to be exchanged in more real-time for control and enforcement purposes.

It was noted that there is a plan for the ERS working group to consider the FLUX transportation layer as part of its work within NEAFC.

ii. New website technology and design

NAFO Secretariat briefly described the ongoing project for the redesign of their website. The participants had no comments.

iii. Experience with IMO numbering

NAFO Secretariat presented document 2016-01-15 on the introduction of IMO numbers on fleet data. Participants noted that smaller vessels do not have IMO numbers and that this has been taken into account in NAFO by applying the requirement for the IMO number only to eligible vessels. It was noted that the data element related to the vessel IMO number, in the annexes to the NCEMs, should reflect that it is only required for eligible vessels.

7. NEAFC issues

a. Technical implications of the implementation of recommendation

i. NEAFC Secretariat's new obligations for more proactive monitoring of Bottom Fishing in Regulatory Areas (information only)

NEAFC Secretariat introduced document 2016-01-13 on the new system of monitoring bottom fisheries which is a new obligation from the 2015 Extraordinary Meeting of the NEAFC Commission.

Participants had a discussion on the possibilities of "geo-fencing" and potential generation of a significant number of false-positives.

ii. Implementation of objections to recommendations

The NEAFC Secretariat considers that there are no implications regarding objections to 2016 recommendations.

b. Issues raised by PECMAC

i. Proposal to change duplicate handling in NEAFC system for duplicates to return NAK (part handled by correspondence but advice not finalised)

NEAFC Secretariat introduced document 2016-01-08 on reports identified as duplicates, implications and the solution proposed by PECMAC. This was provided to the JAGDM prior to the meeting for advice and comparison with other solutions. Also provided was a summary of the different responses from the group at the end of 2015.

During the discussion, the Russian Federation expressed support for the solution proposed by PECMAC. DFG and EU noted that reports should be allowed to be sent twice for various reasons, including maintaining a consistent approach to NAK messages whereby some action

is required by the FMC. Handling of duplicates should instead be allowed for by some post processing of the data to identify and or discard duplicates as appropriate, depending on the type of reporting.

Norway noted the importance of ensuring that the calculation of any aggregate catches (ie aggregated from daily catch or total catch on board as sent from the vessel) is not affected by the processing of duplicates.

Participants agreed that the advice from JAGDM to PECMAC should be:

- **Duplicates of messages already accepted should not be part of any aggregated catches (i.e. aggregated data from daily catch or total catch on board as sent from the vessel) and that post-processing to identify and or discard duplicates as appropriate would be a better solution than changing the ACK 155 to NAK.**

ii. Status of proposal to use IMO numbering in NEAFC (information only)

NEAFC Secretariat introduced document 2016-01-09 on the status of discussion on requirement by NEAFC that all vessels are assigned IMO numbers. The participants had no comments.

iii. Should additional codes be added to NEAFC Scheme for PSC (two documents both previously discussed)

NEAFC Secretariat presented document 2016-01-10 on additional product forms required by PSC users.

Participants agreed with the addition of the codes HED, FIA and LGS. It was noted that clarification is needed for FMF fishmeal as to whether the source is either whole fish or by-products of fish or both. The group was not aware of any use of the code FMF but agreed that it may be suitable for use once the description is clarified.

Participants agreed that the advice from JAGDM to PECMAC should be:

- **Appendix I a) to Annex IV "Product Form Codes" of the Scheme of Control and Enforcement to be amended to include the new codes (HED, FIA and LGS).**
- **Code FMF may be appropriate for use for Fish Meal once the description of 'from fish', 'from offal' or 'from both' is clarified.**

NEAFC Secretariat introduced document 2016-01-011 Rev 1 on the need to add additional species to Annex V of the Scheme of Control and Enforcement as these species are already part of the NEAFC EPSC application.

Participants agreed that the advice from JAGDM to PECMAC should be:

- **The list of species in the document as amended 2016-01-11 Rev2, annexed to this report, should be added to Annex V of the Scheme of Control and Enforcement.**

iv. Items from ERS Working Group Meeting in January

Following the January Meeting of the ERS working group a request was sent to JAGDM for advice 1) on new NAF codes which would be required for the new system and 2) the possibility and desirability of the adoption of the UN/CEFACT standard instead of the NAF-Format, which is currently in use. To facilitate this discussion, EU offered to map the NAF-codes proposed for NEAFC ERS to the UN/CEFACT P-1000 standard.

The EU introduced documents 2016-01-07, 2016-01-26 and 2016-01-29 and made a presentation on FLUX Transport Layer (TL) and the development status of fisheries standard P-1000 Fisheries Language for Universal Exchange (FLUX) under UN CEFACT. The first document (2016-01-07) was presented by EU which contained the mapping between the NAF-format data elements proposed for NEAFC ERS and UN/CEFACT standard P-1000.

In the discussion following this presentation the participants asked for clarification on several issues such as the possibility of using other languages than English in the open source tools available for the system, real-time access to data, or the validation of sender identity in a system which separates out the 'transportation' elements from the business elements. Clarification was provided by EU on these points.

The group agreed that use of an international standard has benefits, however it was noted that Norway and other NAFO/NEAFC CPs, are already working in other formats. It was also pointed out that the FLUX-TL has only been in production a short time and the use of the UN standard within fisheries has not yet been implemented. With this in mind the group thought that it was difficult to have confidence that FLUX is a functioning standard that is easy to implement in NEAFC ERS. The JAGDM questioned whether or not we have enough knowledge about the use of the UN standard together with FLUX Transport Layer to recommend the use of this system as a whole package.

EU informed that EU-ERS 3 is already in use in the entire EU and in many African sustainable fisheries partnership agreements.

It was also noted that the ERS group in Iceland has a different ERS solution than the EU.

DFG noted that already many years were lost and that CPs should agree to a unified system for ERS with a clear step by step approach.

The group then went into other items on the agenda and agreed to keep the agenda point open for the second day of the meeting to allow time to reflect on the EU information and to formulate advice to the NEAFC ERS working group from JAGDM.

Regarding the request from the ERS Working Group for New Codes for NEAFC ERS;
A first step to proposing new NAF format codes for NEAFC ERS is to consolidate the existing codes in use to ensure harmonization. To this end, members were asked to check the list of 'NAF-codes in use', which included the code list on the NAF-format website plus the codes in use in bilateral ERS agreements, and add any additional codes in use in domestic agreements or confirm that no such additional codes existed. Responses were received by most members in advance of the meeting. Progress was made towards this under agenda point 9 c iii (updating the NAF-format code lists) on the second day but was not finalized, however it was the detail of the descriptions rather than codes, which warranted further discussion.

There was also a discussion of the definitions of the data elements proposed for NEAFC ERS codes which are currently lacking a code. These data elements are also identified in document 2016-01-07, however participants felt that many of the definitions lacked clarity, a primary example was 'fishing depth'. This data element was discussed in some detail but was not possible to match to a single code to a single definition.

JAGDM advice to NEAFC ERS WG is:

1) Advice on new NAF codes which would be required for the new system

It is possible that some new NAF-FORMAT codes will be needed for ERS however this can only be confirmed once all the NAF codes in use have been reviewed. JAGDM is an appropriate group to take on such a review. It is important that the codes/definitions of any new data elements are as clear and harmonized as possible and some further time is required to ensure this.

Participants agreed that:

- **The Chair will prepare a note, annexed to this report, to the Chair of ERS Working Group informing that more time is needed to advise on the request expressed in document 2016-01-07 and that more detail is needed.**

2) Advice on Adopting UN/CEFACT

Document 2016-01-07 was once again considered by the Participants.

Regarding the mapping provided by EU of the data element codes between the UN standard and NAF-format, this was presented during the meeting. EU confirmed that every code proposed for use in NEAFC ERS is either already covered in UN/CEFACT or can be added to a Code list which means it can be implemented regionally without changing the standard. The same applies to new elements currently not identified.

Participants agreed that:

- **The Chair will send a note, annexed to this report, to the Chair of AHWGERS informing that more time is needed to advise on the request expressed in document 2016-01-07 and that more detail is need.**

Document 2016-01-31 was drafted as a possible response to the request for advice from the AHWG ERS.

After some discussion amongst participants, document 2016-01-31 was amended as document 2016-01-31 rev1. This document will also be part of the note to be sent by the Chair under the previous agenda point.

c. NEAFC Information Security Management System (ISMS)
with the exception of iii) Security Incident Management, these standing items will be discussed in the Second session meeting

i. Possible Upgrade of NEAFC ISMS to use ISO 27001:2013

Agenda item deferred to the next meeting.

ii. Work of the Security System Administrators

Agenda item deferred to the next meeting.

iii. Information Security Incident Management (ISMS Article 13)

Agenda item deferred to the next meeting.

iv. Risk Management (ISMS Article 3) status of the work

Agenda item deferred to the next meeting.

v. Annual Review of the NEAFC Inventory (ISMS Article 7.1)

Agenda item deferred to the next meeting.

d. Status of other NEAFC projects

i. Flux Transport Layer Testing (information only)

NEAFC Secretariat introduced document 2016-01-25 on the Secretariat's testing of the EU FLUX transportation layer noting the main chronological events. It was noted that in the next few days the exchange of VMS data will be tested.

DFG asked about the number of "partners" dealing with FLUX outside EU. The answer was that the introduction of FLUX is introduced in all fisheries partnership agreements, starting in 2016 with Seychelles, Gabon, Morocco, Sao Tome and Principe, Senegal and Liberia. It was noted that NEAFC was the first successful testing and that in the future the EC will likely act as a centralised FMC for all EU Member States.

Norway is also doing some testing but has identified some shortcomings relating to certification and concerns that it had to be step by step, and a lot of thinking, not just plug and play which mirrored the experience at NEAFC Secretariat. During the period between this meeting and the report being finalised a FLUX node was deployed at NAFO Secretariat.
The Participants had no further comments.

8. Management of the North Atlantic Format

a. Issues raised by NAF users

NAFO Secretariat introduced document 2016-01-23 on questions from an IT developer regarding error codes and MEM codes.

Norway presented document 2016-01-19 on MEM codes.

Participants agreed that:

- **Future replies on MEM questions should state that "MEM codes are specific to each satellite service provider and should be supplied by them".**

9. Management of the websites

a. NAFO and NEAFC – How to present JAGDM documents to users other than JAGDM participants

b.

NAFO has had no requests for JAGDM documents in the past year.

NEAFC had some requests by members of CPs delegations to access some JAGDM documents. At the moment, JAGDM documents are restricted to meeting participants.
It was noted that NEAFC meeting reports are restricted until after the Annual Meeting then they become public documents. Working papers are not made public but are available to registered individuals with the user role 'delegate'. Delegates are able to see working papers for all committees and there are no committee specific roles.

It was noted that in NAFO, JAGDM reports are made public as soon as they are final but working papers should never become public and are only made available to participants and NAFO/NEAFC members.

Participants agreed that:

- **The status quo is kept and that if NAFO and/or NEAFC want it otherwise, JAGDM should be instructed accordingly**.

c. JAGDM

Norway noted that there is little information on the website and that the 2014 and 2015 reports should be included.

Participants agreed that:

- **That the public should be provided access to reports after NAFO/NEAFC Annual Meetings.**

d. NAF

i. No contact information on the website

NAFO Secretariat introduced document 2016-1-16 on the current lack of contact details on the NAF website.

Participants agreed that:

- **General contact information should be added to the website which would be administered by the NAFO Secretariat**.

ii. Update the List of data-elements, codes and definitions to be in line with the proposed changes in STACTIC WP 15/29

This agenda item was discussed in conjunction with 6.b.ii.

iii. Updating NAF website with codes already in use by Contracting Parties

(See also 7 b iv) Norway introduced document 2016-01-28 on the updating of data-element definitions in documents in the NAF website, noting that new codes have been introduced in recent years by different CPs and tables and/or definitions are no longer updated.

The Participants discussed in detail some definitions and its practical use as a data source. It was also noted that some national codes may become ERS standards.

Participants agreed that:

- **Norway will revise document 2016-01-28 and it will be revisit during next meeting.**
- **The Chair will inform the PECMAC Chair that more time will be needed to provide advice.**

The Chair encouraged participants to prepare contributions for the next meeting relating to document 2016-01-28.

10. Any other business

a. JAGDM Logo Proposal

NAFO Secretariat introduced documents 2016-01-06 and 2016-01-04.

Participants agreed that:

- **Drawing number 1 (first drawing as presented) on document 2016-01-06 was preferred provided suggested improvements are completed.**

11. Report to the Annual Meetings

The Chair will report the activities of JAGDM to NAFO intercessional STACTIC meeting in May.

The Vice-Chair will report the activities of JAGDM to the NEAFC Annual Meeting.

12. Date and place of the next meeting

Tentative dates for the next meeting are 31st May and 1st June.
The meeting will take place at the NAFO HQ in Dartmouth, NS, Canada.

13. Closure of the meeting

The Chair closed the meeting thanking the Participants and both Secretariats for the work done and wishing all a safe return home.