JOINT ADVISORY GROUP ON DATA MANAGEMENT (JAGDM)

March 19 - 20, 2019 – NEAFC Secretariat – London, United Kingdom

REPORT

1. Opening of the meeting

The Chair, Leifur Magnusson (Iceland) opened the meeting and welcomed the participants to this meeting.

Following Contracting Parties were present: Canada, Denmark (in respect of Faroes and Greenland), the European Union, Iceland and Norway. The NAFO and NEAFC Secretariats were also present. The NEAFC Service provider Trackwell attended the meeting virtually via Webex on 19th March at 14:00.

2. Appointment of the rapporteur

The NEAFC Secretariat was appointed as rapporteur

3. Discussion and adoption of the Agenda

The Chair mentioned that under agenda item 5.b.ii at 14:00 Trackwell would join the meeting via WebEx, with input in regards to the discussion on duplicates.

The Agenda was adopted without no changes.

4. Data Exchange Statistics

a. NAFO

The NAFO Secretariat presented document JAGDM 2019-01-12 on messages and reports (VMS Stats) received by the NAFO Secretariat. The NAFO Secretariat noted that the analyses was presented a bit differently this year with more graphs than tables.

No discussion took place in regards to the first graph (Chart 1) showing Catch messages by flag State in 2018. The NAFO Secretariat noted that there were little over 120 thousand messages stored by the NAFO Secretariat in its database in 2018, showing total messages stored for the past 10 years.

Norway raised an issue in regards to a discussion that took place in this working group some years ago about the Observer reports and if it was possible to send those report through the "normal" system. According to Norway, their vessels have done that even though Norway has a very few vessels. Norway then raised another question, if Norway was the only one doing so or did anyone else do it as well. The NAFO Secretariat informed participants that it was possible to send these reports through the system. The NAFO Secretariat was going to follow-up with Norway on the question raised.

Canada noted that they were sending daily Observer reports, which is a new requirement for 2019 for the observers and they send that electronically to the NAFO Secretariat, according to the Annexes, in the same way as for example the CAT messages and this is working very well for them.

b. NEAFC

The NEAFC Secretariat presented document JAGDM 2019-01-03 number of messages and reports received by the NEAFC Secretariat. The NEAFC Secretariat informed participants that this table is also presented at PECMAC and that this presentation was inherited from the permanent committee, and continues to be presented for JAGDM. The document shows the number of messages and reports accepted by type in 2018. There were no specific question or discussion about these messages/document.

The NEAFC Secretariat presented document JAGDM 2019-01-11. The document is a summary of annual activity, showing number of vessels sending POS by month and vessel sending catch and activity report by month, in 2018. The NEAFC Secretariat pointed out that there seems to be unusual high number of vessels sending positions in March, however the Secretariat is not sure why that spike occurred. The NEAFC Secretariat have made basic checks to detect an error, and it seems that the number that is present in the system. In regards to the catch and activity reports they are similar as the Secretariat produced for 2017. The Secretariat noted that it did not, as last year, produce a list with number of vessel sending all messages per month, just in case if anyone want to make a comparison between this year and last year.

Finally, the NEAFC Secretariat presented document JAGDM 2019-01-04, analysis of return messages. This is design to give some better understanding how the system is performing overall. Messages and reports are split into three categories, Positions, catch and activity and registry messages (NEAFC Scheme Annex II) 2 Pie charts are presented for each category. The first shows the split of the return status (ack, ack with warning and ack with follow up). The second shows a split of the return errors according to NEAFC Scheme Annex IX D2 b. The first chart shows the return status for vessel positions in 2018. The overwhelming majority are ACK would be expected. The next chart shows the count of the return errors (follow up and warning) generated by position messages. There was quite a few generating warnings, vessel not notified and many with sequence error and again the future date and time which we came across last year as well. That is because in the case of the position messages they are always accepted if readable. Even if the mandatory fields are missing the message is accepted if it can be read. This has always been the practise to avoid rejecting primary data. Some FMCs are sending POS with DA/TI (date/time of message) but without RD/RT (date/time the message is forwarded from the FMC). Messages without both two time stamps generate a future time error (rather than NAK 104 mandatory data missing). This is what is happening with the largest part of these warnings. Norway asked about the date and time in the future and if that is for the VMS messages and the Secretariat answered yes. Then Norway asked is it date and time for the position messages? According to the

Secretariat it is because the message is being sent without record date and record time. Norway then asked if there are 24.498 such messages, and if the FMC could not be contacted in that regard. DFG noted that this was a problem, however, it doesn't hinder the system for working and JAGDM should not spend too much time on it, especially if NEAFC is taking up a new system. The Chair mentioned that this might be something that could be inherit into the new system. EU mentioned that it would be best to find the source of this problem and try to address it.

JAGDM did not discuss this document in further detail.

5. NEAFC issues

a. Technical implications of the implementation of recommendations

(Recommendations adopted in 2019 with technical implications are listed below. An update will be given in a single information document.)

i. A new annex XIX for formalising when information is required for designating ports.

ii. Changes to the Regulated Resources list – Annex I

iii. Changes to the data sent to ICES from NEAFC VMS

The NEAFC Secretariat presented this standing item on the JAGDM Agenda. Due to the nature of the changes required for this year, this document was only a brief summary. The NEAFC Secretariat noted that it was hard to meaningfully include the very far reaching work of introducing ERS in a summary of this nature. For this reason, the NEAFC Secretariat put it at the end of the document despite not making an attempt to describe it, to ensure that these simultaneous efforts are at least recorded.

JAGDM did not discuss this any further.

b. Issues Raised by PECMAC

i. Confirming PSC Species

The NEAFC Secretariat presented document JAGDM 2019-01-05 Species listed in NEAFC EPSC Application but not in Scheme Annex V.

The extension of the scope of NEAFC PSC extended the number of different species which were required to be reported to NEAFC. Therefore, at its meeting in April 2015 NEAFC PECCOE (now PECMAC) agreed a system of automatically forwarding codes in use in NEAFC PSC application to JAGDM for assessment regarding their formal inclusion into the NEAFC Scheme of Control and Enforcement. Species lists in NEAFC systems have so far been linked to NEAFC Scheme Annex V. For some years the NEAFC Secretariat has not had any species to add, but for this year there has been a few requests for adding species codes again into the Scheme. Thus, the species mentioned in the table of this document have now been added to the PSC application since the last JAGDM meeting and therefore JAGDM is asked to decide if they are appropriate to be added to the species list in the NEAFC Scheme.

JAGDM discussed if a business questions like this should, in the long term, have a home in a technical group as JAGDM or not, or if there was a more suitable group (for example PECMAS) to make these

decisions. EU noted that it depended on the exact goal, which is a little unclear. If the goal is to prevent the accidental reporting of species which do not exist in the area, then PECMAS should review it. However if the goal is maintain consistent species lists throughout NEAFC reporting systems, this does not require the input of scientists.

Canada had a look if the NAFO Scheme listed these species as well. The only species that was overlapping was the BFT (Blue Fin Tuna) and in the ASFIS list it is named Atlantic Blue Fin Tuna and in NAFO Northern Blue Fin Tuna. Therefore the NAFO Secretariat wondered if the best way forward was not to keep the list harmonised since Atlantic Blue Fin Tuna is the same as Northern Blue Fin Tuna. EU was on the same line as Canada in this respect. EU then proposed amendments of the species in document 05 to align it with ASFIS.

Following further discussion, JAGDM amended the name of the species in the table for more harmonisation. These amendments can be seen in an amended version of document JAGDM 2019-01-05 Rev. 1.

It was agreed: That the amended list should be sent to PECMAC for decision if these species should be listed in Annex V in the NEAFC Scheme.

ii. Duplicates in ERS system

The Chair opened the floor for Norway to present paper 2019-01-06 on Duplicates in NEAFC ERS System, where Norway noted that the discussion on how to implement duplicate checking in NEAFC ERS has been ongoing through NEAFC ERS working group and the issue had been referred to JAGDM in October 2018.

JAGDM discussed that the current NEAFC Scheme has a method for identifying duplicates based on duplicated content rather than on duplicated identifiers, however this concept is not part of the new ERS system, where there were no business rules defined (yet) in this regards. At the request of JAGDM the Secretariat also discussed this issue with the NEAFC Service provider and a decision was made that Trackwell would take part via Webex in the discussion at this meeting.

Previously JAGDM had agreed that it could be useful to check for duplicated content. All parties agreed that the best solution was to create the business rules, and return the status across the network to FMCs. However the time that this would take was considered a disadvantage. It was discussed that "hash values" could be used as a possible 'quick/partial' solution, at least to get experience of the extent of any problem, and asked the Secretariat to get some input on this from their Service provider, and for them to be available to answer questions from the group if possible. The necessary analysis was undertaken between the meetings and a conference call arranged for this meeting. At 14:00 Trackwell entered the meeting via Webex and updated JAGDM that they have been looking at the duplicates and that creating Business rules was the best approach. Hash values could yield useful information, however in terms of time the more complicated nested structure of the FLUX reporting mean, in the opinion of the service provider, it would not be substantially more complicated to do the fundamental work for business rules, than it would be to work out the details of which values to strip and which values to hash in order to use the 'quick/partial' hash value approach. In summary, if the quick solution is not guaranteed to be that quick, it's better to just go for the full solution from the beginning. According to Trackwell, there is no need to cross-check all data field but only the most important ones, and that the table currently in NEAFC Scheme Annex IX D 2 C could still usefully be used as a basis. However, the issue in regards to duplicates will almost certainly not be included in the first version of the ERS system. The conversation with Trackwell ended at 14:25.

JAGDM discussed the issue of duplicates in further detail, where different methods being used were explained, by participants. Finally the following was agreed.

> It was agreed: To follow the advice of Trackwell and build a robust set of business rules to identify duplicates. However, decision needed to be taken if this should belong to JAGDM or the ERS implementation Working Group. If details for duplication needed to be discussed in another session, by JAGDM this would most productively be a NEAFC only meeting.

c. NEAFC Information Security Management System (ISMS)

The NEAFC Secretariat presented three items under part C. – documents JAGDM 2019-01-14, JAGDM 2019-01-15 and JAGDM 2019-01-16.

i. Upgrade to ISO 27001:2013 version (ISMS article 4 last paragraph)

No update.

ii. Risk management (ISMS article 3) status of the work

The NEAFC Secretariat presented JAGDM 2019-01-14, but the document is not uploaded to www.jagdm.org. This document is an Executive Summary of the Application Penetration testing undertaken by the company Dionach at the request of the Secretariat. It was agreed at the previous JAGDM meeting that such a summary would be circulated to Security System Administrators (SSAs) for their comments when it was available. This was duly done, the SSAs were asked if they wanted to further discuss the results. The response was generally positive, but there were no requests for further information or a meeting. NEAFC started with the application testing of the EPSC system as a priority, as this has been classified as mc 'mission critical'. The classification has been made in the updated to the risk assessment provision within the NEAFC ISMS, which included a system classification which was adopted by the Commission in November.

In JAGDM 2019-01-14 there is a list of what was tested and what was identified. According to NEAFC, the risk was prioritised and it was very helpful exercise. The PSC application was tested in regards to the dev site rather than the production site, to ensure that production systems were not disrupted. The dev site is a mirror of the production site and so this approach does not compromise the integrity of the testing. The authentication system (CAS) of the www. and epsc sites included in the test, but not the other parts of the www. site.
The Chair asked if this testing included the JAGDM website, which was the reality according to the NEAFC Secretariat.

NAFO Secretariat asked if there was internal testing. The NEAFC Secretariat mentioned that there has not been any yet. The NAFO Secretariat informed JAGDM that they already did such a research, which was quite expensive.

The Chair asked NAFO Secretariat if they had done some risk management. The NAFO Secretariat replied that they have not done that, however they were always interested into hear what the NEAFC Secretariat was doing in regards to risk issues.

Canada asked if there were any standards under the ISMS. The NEAFC Secretariat said no, as it is not in the nature of the standard to provide specific rules, which has to be applicable to all contexts. Secretariat confirmed that the company used by NEAFC were, Payment Card Industry (PCI) Security Standards compliant, and that this is a higher level of security compliance than is required at NEAFC, and so an easy rule of thumb is to use PCI accredited companies. The company chosen are also ISO 27001 compliant an approved supplier for the UK government 'digital marketplace'.

The Chair noted the importance to set standard in regards to risk and get feedback from different companies.

iii. Annual Review of the NEAFC Inventory (ISMS article 7.1)

The NEAFC Secretariat went through the NEAFC Network Diagram (document 2019-01-15) as it is today and the significant changes this year to the private cluster which hosts NEAFC most important systems. Both the Chair and Norway asked in regards to the Diagram and if there were still servers hosted at the NEAFC HQ, with the response that there were no servers at NEAFC HQ, and that they had all been moved out prior to the move to Baker Street location.

The NEAFC Secretariat identified that the changes made to the inventory had increased the security level of the system according to the Security Level Definitions contained in Article 10 NEAFC ISMS. Therefore the parts of the ISMS reflecting the security of this system also needed to be updated. To this end the Secretariat presented 2019-01-16 with updated matrices for Article 10 (Communications and Operations Security, B) Data Transmission and Storage Security Matrix) and Article 14 (Business Continuity Management, 1) System Availability) of NEAFC ISMS. JAGDM went through the Matrix describing Data Transmission and Storage Security status of the NEAFC system October 2018, which included the updated levels for VMS/ERS system and a new component of the system for the FLUX TL. The Chair thoughts were that it was a right thing to do to list FLUX TL as a separate item in the ISMS Matrix.

EU agreed that the FLUX TL is a separate system component, in the same way as the HTTPS Gateway and therefore the risks should be described in the same way, although the levels may not be the same.

It was agreed: To make these changes proposed by the NEAFC Secretariat.

iv. Reflecting EU General Data Protection Regulation (GDPR) in NEAFC ISMS

No document was presented under this agenda point as there was nothing new since the last meeting. However, the Chair asked about the NEAFC service provider (Trackwell) and if JAGDM did know anything about their security measures and if they were certified according to the 27001 standard. The NEAFC Secretariat could not answer that. The Chair mentioned that because they were a very important part of this setup and he thought that JAGDM should ask them about their status on these security measures.

The Chair opened the floor for general discussion on the GDPR. The NEAFC Secretary mentioned that NEAFC did not admit that it was under the GDPR and that there is a statement already on the NEAFC website. The NAFO Secretariat informed JAGDM that they were careful about sending out information, however no clear procedures in this regard.

The Chair mentioned that this was generally applied towards more international companies such as Facebook, to protect the public for mis-use of information. However, EU said that this applied to all, including small companies and organisations. However, it is a still a bit floating and it has to be addressed.

EU noted that the VMS information is considered personal data in the EU and so GDPR would apply. For the Secretariat, this was the first time that the idea of VMS is being considered a GDPR issue had been mentioned by Contracting Parties in NEAFC working groups, although it had been identified as a possible GDPR risk in the risk report for NEAFC made by Positive Internet in summer 2018. VMS is commercially sensitive and classified within NEAFC as Restricted High (confidential), which is somewhat different to being personal, in the context of GDPR. Canada replied to the EU comment that VMS data in Canada is considered personal information however, VMS data can be shared as outlined in Fisheries and Oceans Canada's Vessel Monitoring Personal Information Bank (PIB).

> According to the Treasury Board Secretariat, Government of Canada, "website Personal Information Banks (PIBs) are descriptions of personal information under the control of a government institution that is organized and retrievable by an individual's name or by a number, symbol or other element that identifies that individual. The personal information described in a PIB has been used, is being used or is available for an administrative purpose. The PIB describes how personal information is collected, used, disclosed, retained and/or disposed of in the administration of a government institution's program or activity." (https://www.canada.ca/en/treasury-board-secretariat/services/access-information-privacy/access-information/information-about-programs-information-holdings/standard-personal-information-banks.html)

The NAFO Secretariat highlighted that when they send out information about vessels, they cover for example the name of the vessel and radio call sign (anonymous).

The Chair asked if there were any possibility to follow this discussion inside the EU. The EU representative mentioned that GDPR is not his domain and he can therefore not reflect an official position of the EU in this. However, for him it is important to come to conclusion on these issues: It has to be clear (for the owner of the data) what will happen with the data when shared with other parties (ic. NEAFC).

Norway noted that the issue of the Master in regards to the ERS and that NEAFC data is supposed to be confidential. The Chair mentioned that if we would not get this data, we would not be functional. It was the understanding of all parties that GDPR is about the handling of such data rather than being allowed to have it or not. A clear statement of the legal base under which personal data is collected is fundamental to GDPR.

6. NAFO issues

a. Technical Implications of the implementation of recommendations

No update.

b. Recommendations for adopting an ISMS for NAFO

No update.

c. Issues raised by STACTIC

i. STACTIC request for JAGDM to review the work on the ERS system in NEAFC in the context of NAFO

Canada presented the questions put forward by STACTIC to JAGDM. However, since the questions were rather wide Canada suggested to address them with the three following questions:

1. Status of ERS within NEAFC
2. High level technical requirements for ERS (NAFO/FMCs)
3. Technical benefits of ERS

The Chair noted that there would be no documents produced in this respect. However, JAGDM would have general discussions where these questions would be addressed and NAFO delegates would take notes in order to draft a response to STACTIC.

It was agreed: That NAFO delegates would draft a response be sent to the JAGDM Chair and NEAFC for further review, before being delivered to the Chair of STACTIC.

ii. STACTIC request for JAGDM to discuss the possibility of transposing the NEAFC electronic system into NAFO for PSC1 and PSC2 forms.

The NEAFC Secretariat made a presentation for JAGDM about the Port State Control system within NEAFC, with a similar structure as the question created by Canada in regards to the ERS system.

The system is set up on a separate website or the Electronic Port State Control website (NEAFC EPSC). The Secretariat went through the development of the system, such as that extra modules were developed, using Content Management System (CMS) to manage the website and it operates on the popular web environment of Linux, Apache, mysql and php. The EPSC system built on the existing role based access control for individual users, which was already quite well developed in NEAFC sites. Thus, a decision was taken to operate the PSC system on the same CMS, so the Secretariat could use the same access control which is very flexible for user roles and permission and would be very well understood, using a single sign on to all of the NEAFC site.

The NEAFC Secretariat presented to JAGDM the human interface for the EPSC and how the users create the PSC forms and what they can see and do in the system. Thus, JAGDM was informed how the workflow worked from being submitted by the user, acknowledgement from the port State, the verification from the flag State and finally the authorisation from the port State. The system was launched in 2011 in parallel with the paper fax system and in 2013 the system became fully electronical however the paper based system can be used as a fall back procedure. In the beginning the system applied only to frozen fish products but in July 2015 it included fresh fish as well and today it applies to landing, transhipment and other port services.

In regards to the question if it is possible to transpose the system into NAFO context, the NEAFC Secretariat and NAFO Secretariat have discussed this possibility, and in short what NEAFC has anyone can use it since the environment is common. However, there are some fundamental differences

between the RFMOs' network operating system, web servers, database servers, and software development technologies. Leveraging the intellectual property of NEAFC's PSC system, NAFO can develop a new application that will match the functionality of NEAFC's PSC system.

JAGDM discussed the possibility to enquiry the PSC database, which can be done where the NEAFC Secretariat use it in its compliance reports.

No further discussions took place under this item.

It was agreed: That NAFO delegates would draft a response be sent to the JAGDM Chair and NEAFC for further review, before being delivered to the Chair of STACTIC.

iii. Review of NAFO CEM Annexes

Canada presented its proposal in document JAGDM 2019-01-08 to amend NAFO CEM Annex II.D.C – Format for electronic exchange of fisheries monitoring information (The North Atlantic Format). Currently, Annex II.D.c defines the contents of the Fishing Gear data element as the FAO Code for gear. However, the type description for that field does not currently indicate the correct format for all FAO gear codes: the three-alpha codes, in some cases, are further defined by the addition of a hyphen and number, e.g. OTB-2 (as noted in Annex II.) j footnote 1). Changing the field "Type" from Char*3 in the data element Fishing Gear to Char*5 would correct the type description to accommodate the longer codes.

JAGDM reviewed and proposed amendments to the NAFO CEM Annex II.D.C from the type description Char*3 to Char*5.

It was agreed: That the document JAGDM 2019-01-08 Rev. 1 would include amendments from the type description Char*3 to Char*5 and be submitted to STACTIC and PECMAC for consideration of the amendments.

Canada presented its proposal in document JAGDM 2019-01-09 to amend NAFO CEM Annex II.F – Cancel report.

Currently there is still confusion as to the appropriate date and time to include in the DA and TI fields, some reports erroneously include the DA and TI fields from the report that is to be cancelled, while others correctly provide the date and time of the CAN report's transmission. Canada therefore proposed a change to the text of the Requirements for the field in regards to DA and TI data elements.

JAGDM reviewed and proposed amendments to the NAFO CEM Annex II.F as to the appropriate date and time to include in the DA and TI fields and that the same amendment would be made to the other Annexes as applicable to maintain consistency throughout the tables.

It was agreed: That the document JAGDM 2019-01-09 Rev. 1 should be submitted to STACTIC and PECMAC for consideration of the amendments. Following text was agreed in regards to date: "Message detail; UTC date of transmission of this report from the vessel". Following text was agreed in regards to time: "Message detail; UTC time of transmission of this report from the vessel".

7. Any other business

JAGDM 2019-01-10 List of JAGDM Outputs in 2018

8. Report to the Annual Meeting

No update.

9. Date and place of the next meeting

Date and place of the next meeting is to be decided.

The NAFO Secretariat offered to host an upcoming meeting and as an aside informed JAGDM that the NAFO Secretariat will move to new premises at the end of this year.

10. Closure of the meeting

The Chair closed the meeting and wished all participants a safe trip home.