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46th ANNUAL MEETING OF NAFO - SEPTEMBER 2024

To introduce electronic communication between FMCs and NAFO using the international standard UN/CEFACT "Fisheries Language for Universal Exchange" (FLUX)

Preamble

This proposal calls for introducing the UN/CEFACT "Fisheries Language for Universal Exchange" (FLUX) as the format for electronic communication between the Contracting Parties' FMCs and the NAFO Secretariat.

Background

At STACTIC 1 2024 under agenda item 20.a. Introducing Electronic Reporting System (ERS) and Vessel Monitoring Systems (VMS) in NAFO, it was agreed that Norway will provide a proposal on the way forward, including additional information on the FLUX standard, and how the implementation took place in NEAFC to facilitate further discussions on this item at the 2024 Annual Meeting.

To introduce UN/FLUX as the communication format in NAFO as mentioned, it will require that STACTIC identifies which technical developments are needed at the NAFO Secretariat (both the ability to receive, handle, and reply to data obtained and the ability to present the received data to Contracting Parties for conservation and enforcement purposes) and to establish testing regimes as appropriate (please refer to point 2 in the attachment). This work should also include assessing the administrative and economic consequences for the involved parties if such a communication format is to be established.

Further, STACTIC will need to identify necessary amendments to the NAFO Conservation and Enforcement (CEM) to establish requirements to use UN/FLUX as the format for electronic communication between the Contracting Parties FMCs and the NAFO Secretariat.

The FLUX standard is envisaged to be used for all data exchanged between the FMCs and the NAFO Secretariat. However, the UN/FLUX should be introduced stepwise, focusing first on vessel position reports (Vessel Monitoring Systems – CEM article 29) and fishing activities data (Monitoring of Catch – CEM article 28).

The introduction of the UN/FLUX in NAFO envisages phasing out the paper fishing logbook, by introducing a requirement to use electronic fishing logbooks on board fishing vessels to provide data currently outlined in CEM article 28.2, 28.6 and 28.8. STACTIC may consider additional reporting requirements to be covered by the electronic fishing logbook as appropriate.

STACTIC should take into consideration the decisions taken by the North-East Atlantic Fisheries Commission (NEAFC) to introduce the UN/FLUX standard for electronic communication of vessel position reports and fishing activity data between the Contracting Parties FMCs and the NEAFC Secretariat to ensure harmonization of the reporting requirements in NAFO and NEAFC as appropriate (please refer to point 1 in the attachment).

Proposal

STACTIC should seek a mandate from the NAFO Commission to assess the necessary preparations to introduce electronic communication between FMCs and NAFO using the international standard UN/CEFACT "Fisheries Language for Universal Exchange":

The NAFO Commission agreed to request STACTIC to assess all necessary changes and technical preparations needed to consider the introduction of the international standard UN/CEFACT "Fisheries Language for Universal Exchange" (FLUX) for the VMS and ERS domains, giving priority to the VMS domain. STACTIC is requested to carry out any necessary consultations with other NAFO bodies and the NAFO Executive Secretariat and present its conclusions to the NAFO Commission at the 2025 Annual Meeting.

Attachment

1. The process in NEAFC

NEAFC is in the process of introducing the international standard UN/CEFACT "Fisheries Language for Universal Exchange" (FLUX) as the format for electronic communication between the Contracting Parties' FMCs and the NEAFC Secretariat.

The introduction of the UN/FLUX standard in NEAFC will be done stepwise, starting with vessel position data and fishing activity data before 15 January 2026.

To introduce the UN/FLUX standard for electronic communication of vessel position reports and fishing activity data NEAFC has adopted recommendations and the necessary amendments to the NEAFC Scheme of Control and Enforcement, and established test scenarios and a master data register for relevant documents and code lists. See in particular:

- Recommendation 16:2018
- Recommendation 19:2019
- NEW NEAFC Scheme of Control and Enforcement
    - Articles 1, 9, 11, 12, 13 and 14
    - Annex IV. A. (provides an overview of the different data elements required in a specific report)
    - Annex IX. A)-C) (reference to the specific Implementation Documents)
- NEAFC Master Data Register (MDR)
    - NEAFC FLUX Vessel Position Implementation Document v1.0.1
    - NEAFC FLUX Fishing Activity Implementation Document v1.1.2 (currently implemented by the EU) and v2.0
    - On the MDR website (link above) test scenarios and code lists can be found

2. About the UN/FLUX standard

A detailed introduction and overview of the UN/FLUX standard can be found on the UNECEs website[1]. As stated there, the purpose of the UN/FLUX standard is to address "[…] the timely acquisition of information on vessels, stocks and catches as well as the exchange of such information between stakeholders" to ensure an effective management of fish resources.

As mentioned before, the scope of the proposal is limited to the exchange between a Contracting Party's FMC and the NAFO Secretariat. How information is exchanged between the vessel and the FMC is considered out of the scope of this proposal (Figure 1 – Fishing Activity overview).

However, to fulfill the purpose of the exchange it is also necessary to describe expectations on the exchanges between the master of the fishing vessel and the flag state authorities.

[1] https://unece.org/trade/uncefact/unflux

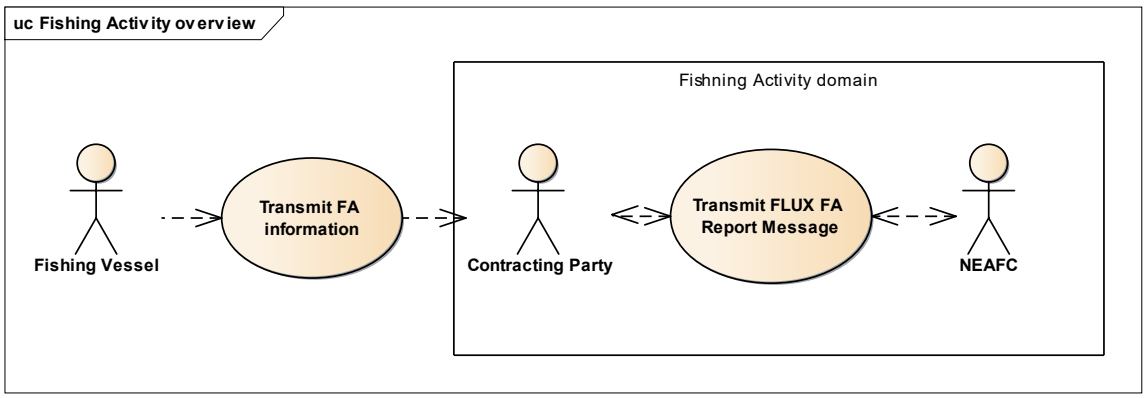

Figure 1. Fishing Activity overview diagram.

The UN/FLUX standard provides a global standard for the exchange of fisheries business data and is divided in several business domains. Each domain has its own set of business messages defined, for example vessel position data, fishing activity data, notifications, and authorizations etc.

Business messages are transported over the FLUX Transportation Layer. The transportation layer is a business-independent network to exchange data. This means that the transportation layer is general and can be used to exchange all types of business data. In Figure 2 below this is described as a FLUX Message, containing a business message.

For the fishing activities domain, a business **Message** (FLUX FA Report Message) contains one or more **Reports** (FA Report Document). Each Message transmitted has a unique ID. A Message cannot be corrected, nor cancelled.

A **Report** would usually contain information about one Fishing Activity. Examples of Reports are a prior notification of entry report (currently COE report), declaration of fishing operations report (currently CAT report), transhipment notification or declaration report (currently TRA report), prior notification of exit report (currently COX report) and port of landing notification report (currently POR report). Declaration means a report of a fishing activity that is taking or has taken place at the time of its recording and transmission. Notification means a report on the intention to perform an activity in the future.

Each **Report** is given a unique ID, which doesn't change, even if the report is transmitted several times within different **Messages**. The **Report** also contains the date and time of the transmission of the information from the vessel and the reception by the FMC. A Report can be corrected. In such case the original Report is replaced completely. A **Report** can be cancelled. In such case, the original Report is marked as cancelled in the system and is not applicable anymore. This is used for notification reports (e.g. prior notification of entry, exit).

The diagram in figure 3 illustrates how fishing activity business information is reported as part of **Reports** and how these reports are grouped into a **Message** for transmission.

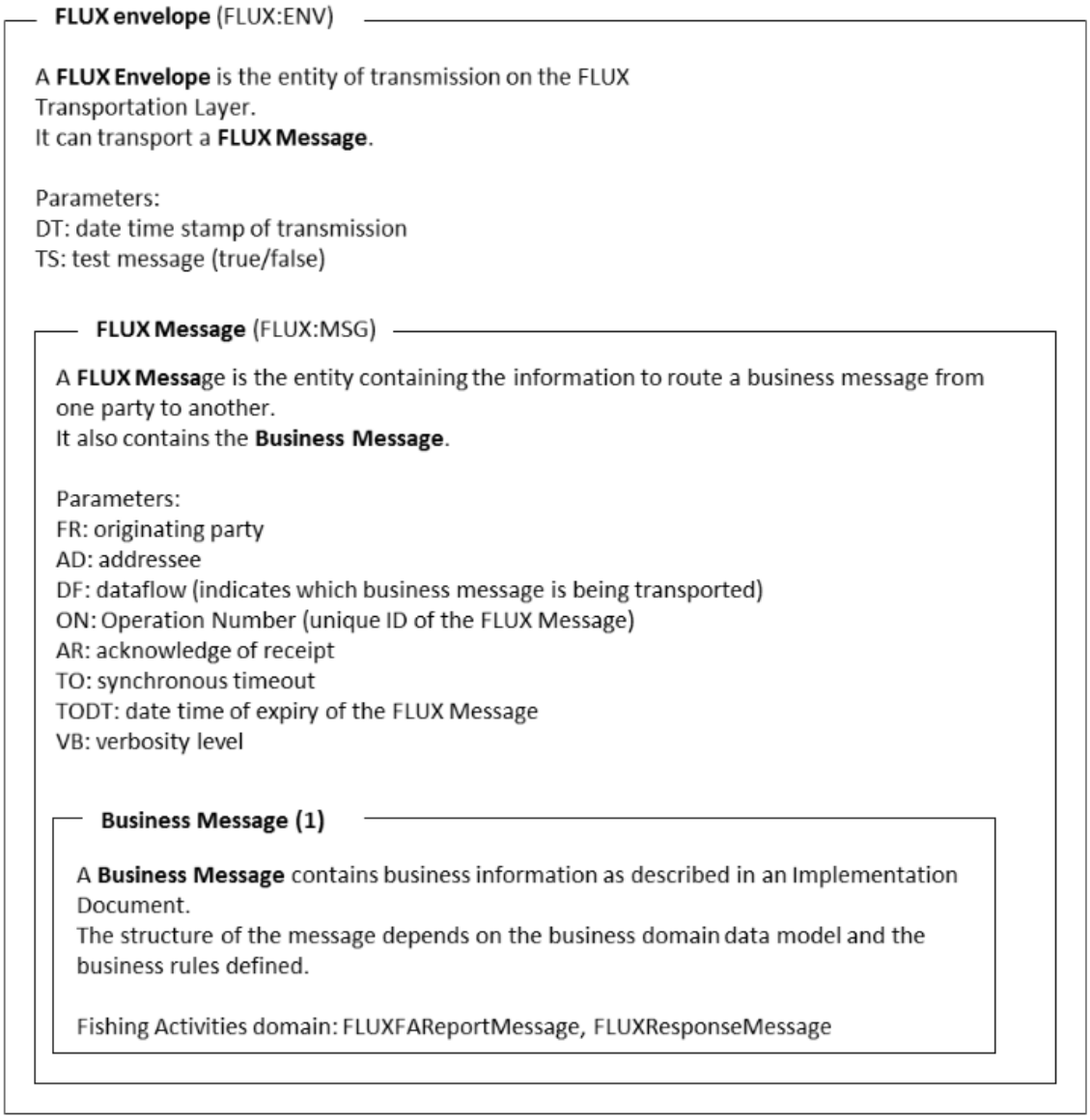

Figure 2. Diagram showing how a business message is exchanged in FLUX Message

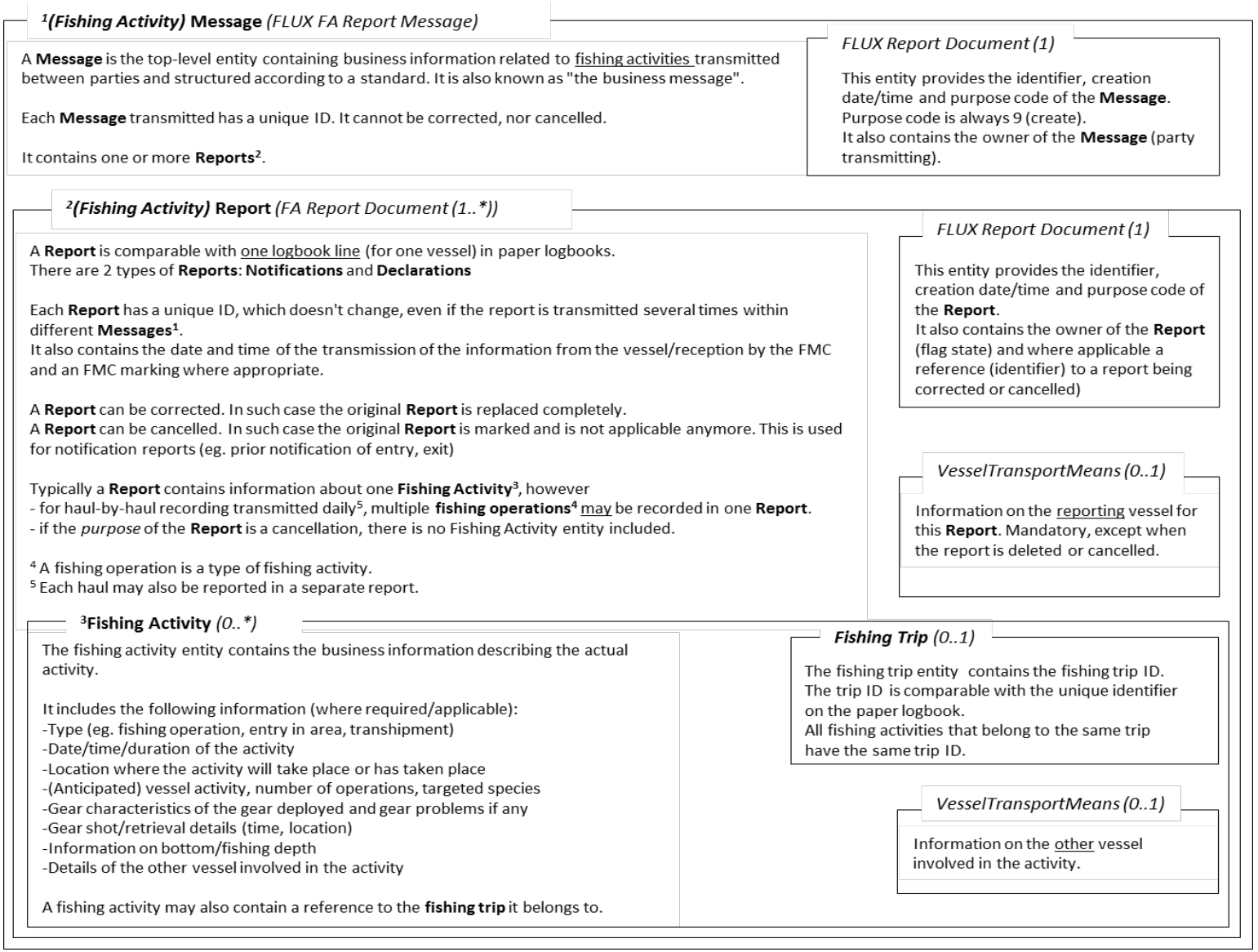

Figure 3. Diagram showing contents of a FLUX FA Report Message

After receiving a Fishing Activity **Message** and validating the Fishing Activity **Reports** it contains, the receiver of the Reports (NAFO Secretariat) informs the Contracting Party of the status of the **Reports**. This status is communicated in a **Response Message**.

The diagram in Figure 4 illustrates how a response message is structured. It contains the information of a return message.

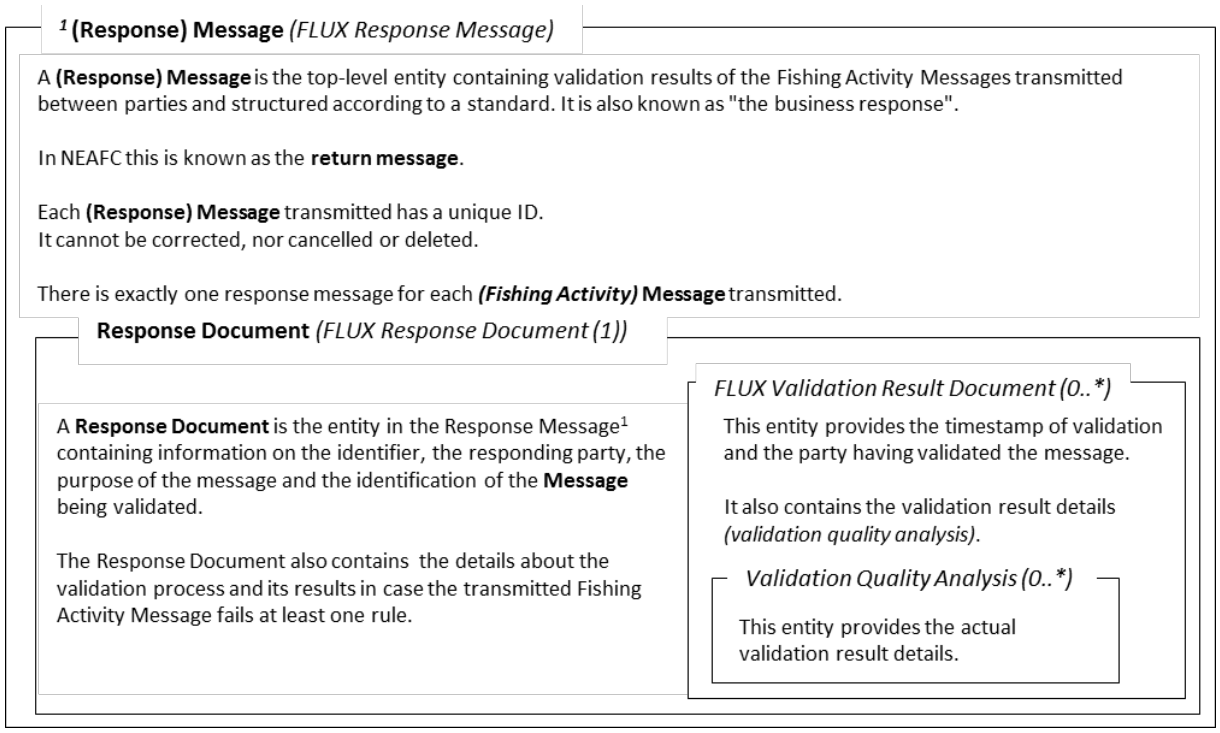

Figure 4. Diagram showing contents of a FLUX Response Message

A **Response Message (FLUX Response Message)** is used in the UNFLUX standard to report validation results about Fishing Activity Messages (FLUX FA Report Message). It contains all problems detected during the validation process. There is one FLUX Response Message for each FLUX FA Report Message. All reports in the message are either accepted or none of the reports are accepted.