19 November 2019

TO:
President
Vice President
Heads of Delegation
All Contracting Parties   Reference: HOD 19/41

NOTIFICATION OF RECOMMENDATIONS ADOPTED AT THE THIRTY-SEVENTH ANNUAL MEETING OF NEAFC, 12-15 NOVEMBER 2019

I am writing to formally notify you, in accordance with Article 11 of the Convention, of the recommendations adopted at the 38th Annual Meeting of NEAFC held 12-15 November 2019.

These recommendations are:

• **Recommendation 1:** *Recommendation on Conservation and Management Measures for Blue Whiting in the NEAFC Regulatory Area for 2020*

• **Recommendation 2:** *Recommendation on Conservation and Management Measures for Norwegian Spring Spawning (Atlanto-Scandian) Herring in the NEAFC Regulatory Area for 2020*

• **Recommendation 3:** *Recommendation on Conservation and Management Measures for Mackerel in the NEAFC Regulatory Area for 2020*

• **Recommendation 4:** *Recommendation to Adopt Conservation and Management Measures for Rockall Haddock in the NEAFC Regulatory Area (ICES 6b) for 2020*

• **Recommendation 5:** *Recommendation on the Conservation and Management of Roundnose Grenadier (Coryphaenoides rupestris), Roughhead Grenadier (Macrourus berglax), and Roughsnout Grenadier (Trachyrinchus scabrus) and other Grenadiers (Macrouridae) in the NEAFC Regulatory Area (Divisions Xb and XIIc, and Subdivisions XIIa1 and XIVb1) for 2020*

- **Recommendation 6:** *Recommendation on the Conservation and Management of Roundnose Grenadier (Coryphaenoides rupestris), Roughhead Grenadier (Macrourus berglax), and Roughsnout Grenadier (Trachyrinchus scabrus) and other Grenadiers (Macrouridae) in the NEAFC Regulatory Area on Hatton Bank and Rockall (ICES Subdivisions VI b.1 and VII c.1 and VII k.1, and Subdivisions V b.1a and Division XII.b) for 2020*

- **Recommendation 7:** *Recommendation on Conservation and Management Measures for Porbeagle (Lamna Nasus) in the NEAFC Regulatory Area from 2020 to 2023*

- **Recommendation 8:** *Recommendation on Conservation and Management Measures for Basking Shark (Cetorhinus Maximus) in the NEAFC Regulatory Area from 2020 to 2023*

- **Recommendation 9:** *Recommendation on Conservation and Management Measures for Deep Sea Sharks in the NEAFC Regulatory Area from 2020 to 2023*

- **Recommendation 10:** *Recommendation on Conservation and Management Measures for Deep Sea Rays (Rajiformes) in the NEAFC Regulatory Area from 2020 to 2023*

- **Recommendation 11:** *Recommendation on Conservation and Management Measure for Deep Sea Chimaeras in the NEAFC Regulatory Area from 2020 to 2023*

- **Recommendation 12:** *Recommendation to amend the NEAFC Scheme of Control and Enforcement in order to make lists of notified and authorised vessels publicly available on the NEAFC website*

- **Recommendation 13:** *Recommendation on amendments to the NEAFC Scheme of Control and Enforcement relating to abandoned, lost or otherwise discarded fishing gear (ALDFG)*

- **Recommendation 14:** *Recommendation on introducing fall back procedure for masters of fishing vessels in article 14 of the Scheme*

- **Recommendation 15:** *Recommendation on Article 27 and Annex XVI of the NEAFC Scheme of Control and Enforcement*

- **Recommendation 16:** *Recommendation to modify Article 44 of the NEAFC Scheme of Control and Enforcement in respect of vessels listed as IUU by other RFMOs*

- **Recommendation 17:** *Recommendation to amend the NEAFC Scheme of Control and Enforcement to add species to Annex V Species List*

- *Recommendation 18: Recommendation to amend NEAFC Scheme Annex VIII 7) CANCEL Report*

- *Recommendation 19: Recommendation to amend the Internal Registration Numbers (IR) Format in NEAFC Scheme of Control and Enforcement*

- *Recommendation 20: Recommendation on introducing the ERS Implementation document in Annex IX of the Scheme (FLUX Fishing Activities)*

- *Recommendation 21: Recommendation on introducing the ERS Implementation document in Annex IX of the Scheme (FLUX Vessel Position)*

- *Recommendation 22: Recommendation pursuant to Article 2 (Scope) of Recommendation 11:2013 and Article 7.2 (Information Classification) of Recommendation 08:2014*

The texts of these recommendations are attached to this letter.

Please regard the date of this letter, 18 November 2019, as the formal notification date for the attached recommendations pursuant to Article 11 of the Convention.

Article 12 of the Convention lays down the arrangements by which recommendations enter into force and also the time periods within which, and under what circumstances, Contracting Parties may object to recommendations.

In accordance with Article 12(4), I will notify Contracting Parties immediately if an objection to any recommendation is received, and will confirm the dates of entry into force, which are of course dependent on whether objection procedures are invoked.

Finally, I should like to remind you that Article 15 of the Convention obliges Contracting Parties to take whatever steps are necessary to give effect to NEAFC recommendations, once these have become binding on Contracting Parties.

Yours sincerely

Darius Campbell
Secretary of NEAFC

**Recommendation on Conservation and Management Measures for Blue Whiting
in the NEAFC Regulatory Area for 2020**

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the Convention:

1.   NEAFC notes that, as Coastal States to the management of the blue whiting stock, the European Union, the Faroe Islands, Iceland and Norway have agreed that the level of total catches of blue whiting in 2020 in the North-East Atlantic should be no more than 1,161,615 tonnes, based on the long-term management strategy and corresponding to FMSY as advised by ICES.

2.   The Coastal States will establish their individual quotas for 2020 within the framework of the total catch limitation referred to in paragraph 1.

3.   The individual Coastal State quotas may be fished within their respective zones of fisheries jurisdiction as well as in the Regulatory Area.

4.   Catches taken by Coastal States in the Regulatory Area shall be deducted from the respective individual quotas of those Coastal States.

5.   Within the total level of catches referred to in paragraph 1 above, the Contracting Parties hereby establish an allowable catch limitation of 92,452 tonnes of blue whiting for 2020 in the Regulatory Area, which is allocated as follows:

    a.   Denmark in respect of Greenland   6,290 tonnes
    b.   Russian Federation   86,162 tonnes

6.   Each Contracting Party shall notify the measures it has taken for 2020 to the Secretary by 1 May 2020. The Secretary shall notify these measures to the other Contracting Parties.

7.   Each Contracting Party may transfer unutilised quantities of up to 10% of the quota established by the Party for 2019 to the quota established by that Party for 2020. Such transfer shall be in addition to the quota established by the Party concerned for 2020.

    In the event of overfishing of quotas by any Contracting Party in 2019, the quantity overfished shall be deducted from the quota for that Party or those Parties for 2020.

8.   Each Contracting Party may transfer unutilised quantities of up to 10% of the quota established by the Party for 2020 to the quota established by that Party for 2021. Such transfer shall be in addition to the quota established by the Party concerned for 2021.

In the event of overfishing of quotas by any Contracting Party in 2020, the quantity overfished shall be deducted from the quota for that Party or those Parties for 2021.

9.   Only those vessels entitled to fly the flag of a NEAFC Contracting Party, having been authorised by its flag State to fish for blue whiting in the NEAFC Regulatory Area in 2020, may take part in the fishery.

10.   These conservation and management measures are taken without prejudice to any future conservation and management measures to be taken for the blue whiting stock in the North-East Atlantic.

Recommendation 2 : 2020

Recommendation on Conservation and Management Measures for Norwegian Spring Spawning (Atlanto-Scandian) Herring in the NEAFC Regulatory Area for 2020

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the Convention:

1. NEAFC notes that, as Coastal States to the management of the herring stock, the European Union, the Faroe Islands, Iceland, Norway and the Russian Federation have agreed that the level of total catches of Norwegian Spring-Spawning (Atlanto-Scandian) herring in 2020 should be no more than 525,594 tonnes, based on the long-term management strategy and as advised by ICES.

2. Each Contracting Party shall establish conservation and management measures for its Norwegian Spring-Spawning (Atlanto-Scandian) herring fishery in the NEAFC Regulatory Area for 2020.

3. Conservation and management measures shall include catch limits.

4. Only vessels entitled to fly the flag of a NEAFC Contracting Party, having been authorised by its flag State to fish for Norwegian Spring-Spawning (Atlanto-Scandian) herring in the NEAFC Regulatory Area, may take part in the fishery.

5. Each Contracting Party shall notify the conservation and management measures it has taken to the Secretary by 1 March 2020. The Secretary shall without delay notify these measures to the other Contracting Parties.

6. These conservation and management measures shall be without prejudice to any future conservation and management measures to be taken for Norwegian Spring-Spawning (Atlanto-Scandian) herring in the North-East Atlantic.

**Recommendation on Conservation and Management Measures for Mackerel
in the NEAFC Regulatory Area for 2020**

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the Convention:

1. It was noted that based on ICES MSY approach, the level of total catches (TAC) of mackerel in 2020 should be no more than 922,064 tonnes.

2. Each Contracting Party shall establish conservation and management measures for its mackerel fishery in the NEAFC Regulatory Area for 2020.

3. Conservation and management measures shall include catch limits.

4. Only vessels entitled to fly the flag of a NEAFC Contracting Party, having been authorised by its flag State to fish for mackerel in the NEAFC Regulatory Area, may take part in the fishery.

5. Each Contracting Party shall notify the conservation and management measures it has taken to the Secretary by 1 May 2020. The Secretary shall without delay notify these measures to the other Contracting Parties.

6. These conservation and management measures shall be without prejudice to any future conservation and management measures to be taken for the mackerel in the North-East Atlantic.

Recommendation 4 : 2020

Recommendation to Adopt Conservation and Management Measures for Rockall Haddock in the NEAFC Regulatory Area (ICES 6b) for 2020

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the Convention:

All fishing, except with long-lines, shall be prohibited in waters beyond the areas under national fisheries jurisdiction of the Contracting Parties in the box bounded by the following co-ordinates:

- 57° 00' N, 15° 00' W

- 57° 00' N, 14° 00' W

- 56° 30' N, 14° 00' W

- 56° 30' N, 15° 00' W

This measure shall be in force for the period 1 January to 31 December 2020.

Recommendation on the Conservation and Management of Roundnose Grenadier (*Coryphaenoides rupestris*), Roughhead Grenadier *(Macrourus berglax),* and Roughsnout Grenadier *(Trachyrinchus scabrus)* and other Grenadiers (Macrouridae) in the NEAFC Regulatory Area (Divisions Xb and XIIc, and Subdivisions XIIa1 and XIVb1) for 2020

The Commission hereby adopts the following recommendation pursuant to Article 5 of the Convention:

1. A total allowable catch limitation of 574 tonnes of roundnose grenadier is established.

2. No direct fisheries for roughhead grenadier and roughsnout grenadier should be authorised, and bycatches of these grenadiers as well as other grenadiers (Macrouridae) should be counted against the total allowable catch of roundnose grenadier specified in Point 1.

3. Contracting Parties shall submit all data on the relevant fishery to ICES, including catches, bycatches, discards and activity information. Catches should be reported by species. Unidentified grenadiers should be recorded as Macrouridae.

Recommendation on the Conservation and Management of Roundnose Grenadier (*Coryphaenoides rupestris*), Roughhead Grenadier *(Macrourus berglax),* and Roughsnout Grenadier *(Trachyrinchus scabrus)* and other Grenadiers (Macrouridae) in the NEAFC Regulatory Area on Hatton Bank and Rockall (ICES Subdivisions VI b.1 and VII c.1 and VII k.1, and Subdivisions V b.1a and Division XII.b) for 2020

The Commission hereby adopts the following recommendation pursuant to Article 5 of the Convention:

1.   A total allowable catch limitation of 2 622 tonnes roundnose grenadier is established.

2.   No direct fisheries for roughhead grenadier and roughsnout grenadier should be authorised, and bycatches of these grenadiers as well as other grenadiers (Macrouridae) should be counted against the total allowable catch of roundnose grenadier as specified in Point 1.

3.   Contracting Parties shall submit all data on the relevant fishery to ICES, including species-specific catches, bycatches, discards and activity information.

**Recommendation on Conservation and Management Measures for
Porbeagle (Lamna Nasus) in the NEAFC Regulatory Area from 2020 to 2023**

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the Convention:

Information available is not sufficient to inform on the current status of the stock of porbeagle (Lamna nasus) in the Northeast Atlantic. Since 2010, landings have been close to zero. The low productivity and aggregating nature of this species makes it particularly vulnerable to overexploitation. ICES therefore advise that fishing mortality should be minimised. ICES, therefore, have advised that there should be zero catch in each of the years 2020– 2023.

1. Each Contracting Party shall, for the period 2020 to 2023, prohibit all directed fishing of porbeagle (Lamna nasus) in the Regulatory Area by vessels flying its flag.

2. Any incidental catches of this resource shall be promptly released unharmed, to the extent possible.

3. Contracting Parties shall submit to ICES all available data on porbeagle, including fisheries data, for further evaluation of the state of the resource.

4. Contracting Parties are encouraged to take conservation measures with equal effect within waters under their national fisheries jurisdiction.

5. This measure shall remain in force from 1 January 2020 until 31 December 2023. Prior to the expiry of the measure, and on the basis of new scientific advice from ICES, the Commission, with the intention of extending that period, shall review this measure.

**Recommendation on Conservation and Management Measures for Basking Shark
(Cetorhinus Maximus) in the NEAFC Regulatory Area from 2020 to 2023**

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the
Convention:

Information available is not sufficient to inform on the current status of the stock of basking
shark (Cetorhinus maximus) in the Northeast Atlantic. Since 2010, landings have been close
to zero. The low productivity and aggregating nature of this species makes it particularly
vulnerable to overexploitation. ICES, therefore, have advised that when the precautionary
approach is applied, there should be zero catches in each of the years 2020 to 2023.

1.   Each Contracting Party shall, for the period 2020 to 2023, prohibit all directed fishing
      of basking shark (Cetorhinus maximus) in the Regulatory Area by vessels flying its flag.

2.   Any incidental catches of this resource shall be promptly released unharmed, to the
      extent possible.

3.   Contracting Parties shall submit to ICES all available data on basking shark. This should
      include fisheries data, with incidental catches being recorded in numbers, and by size
      and weight (where possible).

4.   Contracting Parties are encouraged to take conservation measures with equal effect
      within waters under their national fisheries jurisdiction.

5.   This measure shall remain in force from 1 January 2020 until 31 December 2023. Prior
      to the expiry of the measure, and on the basis of new scientific advice from ICES, the
      Commission, with the intention of extending that period, shall review this measure.

Recommendation on Conservation and Management Measures for Deep Sea Sharks in the NEAFC Regulatory Area from 2020 to 2023

The Commission hereby adopts the following Recommendation pursuant to Article 5 of the NEAFC Convention:

1. Each Contracting Party shall prohibit vessels flying its flag in the Regulatory Area from directed fishing for deep sea sharks.

2. Contracting Parties shall submit all data on deep sea sharks available to ICES for further evaluation of the state of the stocks.

3. Contracting Parties are encouraged to take conservation measures with equal effect within waters under their national jurisdiction.

4. For the purposes of this Recommendation, 'deep sea sharks' means the following list of species:

Scientific name	Common name
Centrophorus granulosus	Gulper shark
Centrophorus squamosus	Leafscale gulper shark
Centroscyllium fabricii	Black dogfish
Centroscymnus coelolepis	Portuguese dogfish
Centroscymnus crepidater	Longnose velvet dogfish
Dalatias licha	Kitefin shark
Etmopterus princeps	Greater lanternshark
Apristuris spp	Iceland catshark
Chlamydoselachus anguineus	Frilled shark
Deania calcea	Birdbeak dogfish
Galeus melastomus	Blackmouth dogfish
Galeus murinus	Mouse catshark
Hexanchus griseus	Bluntnose six-gilled shark
Etmopterus spinax	Velvet belly
Oxynotus paradoxus	Sailfin roughshark (Sharpback shark)
Scymnodon ringens	Knifetooth dogfish
Somniosus microcephalus	Greenland shark

This measure shall be in force from 1 January 2020 to 31 December 2023.

Recommendation on Conservation and Management Measures for Deep Sea Rays (Rajiformes) in the NEAFC Regulatory Area from 2020 to 2023

The Commission hereby adopts the following recommendation pursuant to Article 5 of the Convention:

1.   Each Contracting Party shall prohibit vessels flying its flag in the Regulatory Area from directed fishing for deep sea rays.

2.   Contracting Parties shall submit all data on deep sea rays available to ICES for further evaluation of the state of the stocks.

3.   Contracting Parties are encouraged to take conservation measures with equal effect within waters under their national jurisdiction.

4.   For the purposes of this Recommendation, 'deep sea rays' means the following list of species:

Scientific name	Common name
Raja fyllae	Round Skate
Raja hyperborea	Arctic Skate
Raja nidarosiensis	Norwegian Skate

This measure shall be in force from 1 January 2020 to 31 December 2023.

Recommendation 11 : 2020

Recommendation on Conservation and Management Measure for Deep Sea Chimaeras in the NEAFC Regulatory Area from 2020 to 2023

The Commission hereby adopts the following recommendation pursuant to Article 5 of the Convention:

1.   Each Contracting Party shall prohibit vessels flying its flag in the Regulatory Area from directed fishing for deep sea chimaeras.

2.   Contracting Parties shall submit all data on deep sea chimaeras available to ICES for further evaluation of the state of the stocks.

3.   Contracting Parties are encouraged to take conservation measures with equal effect within waters under their national jurisdiction.

4.   For the purposes of this Recommendation, 'deep sea chimaeras' means the following list of species:

Scientific name	Common name
Chimaera monstrosa	Rabbit fish
Hydrolagus mirabilis	Large-eyed rabbit fish (Ratfish)
Rhinochimaera atlantica	Straightnose rabbitfish

This measure shall be in force from 1 January 2020 to 31 December 2023.

Recommendation to amend the NEAFC Scheme of Control and Enforcement in order to make lists of notified and authorised vessels publicly available on the NEAFC website

As Proposed by PECMAC, the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

Proposal for amendment to NEAFC Scheme:

Article 5 – Notification of Fishing Vessels

1. Each Contracting Party shall notify, in computer readable form, to the Secretary prior to 1 January of each year if possible, or in any case before the vessel's entry into the Regulatory Area, all fishing vessels authorised to fish and notably whether the vessel is authorised to fish one or more regulated resource. No fishing vessel shall conduct fishing activities in the Regulatory Area unless it is listed as a notified vessel. The notification shall include for each fishing vessel the information listed in the format of Annex II. Each Contracting Party shall notify any modifications to this information without delay.

2. The Secretary shall make available to all Contracting Parties the information notified under paragraph 1.

3. The Secretary shall make the lists of all fishing vessels notified and all fishing vessels authorised to fish in the NEAFC Regulatory Area publicly available on the NEAFC website by providing the following information:

- Vessel Name
- Vessel IMO Number (where available)
- Flag State
- External Registration Number (where available)
- IRCS
- Vessel Type (where available)
- Vessel Tonnage
- Vessel Length
- Vessel Power

The list of authorised vessels shall include the regulated resources, start date and end date of the authorisation.

Recommendation on amendments to the NEAFC Scheme of Control and Enforcement relating to abandoned, lost or otherwise discarded fishing gear (ALDFG)

As proposed by PECMAC, the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

Article 7a – Removal and Disposal of Unmarked or Illegal ~~Fixed~~ Gear

Contracting Parties shall have the right to remove and dispose of ~~fixed~~ gear that is not marked, if marking of gear is required in accordance with Article 7 or in any other way contravenes other Recommendations adopted by NEAFC as well as fish that is found in the gear.

Article 7b – Retrieval of Lost ~~Fixed~~ Gear

1.   Each Contracting Party shall require that its fishing vessels do not deliberately abandon or discard fishing gear, in accordance with MARPOL Annex V on Regulations for the Prevention of Pollution by Garbage from Ships.

~~1.~~2.   Fishing vessels ~~fishing with fixed gear~~ shall have equipment on board to retrieve its gear, if that gear is lost ~~gear~~.

~~2.~~3.   A vessel that has lost ~~fixed~~ gear shall attempt to retrieve it as soon as possible.

~~3.~~4.   If the lost gear cannot be retrieved the master of the vessel shall notify the competent authorities of its flag State within 24 hours of the following:
a.   the name and call sign of the vessel;
b.   the type and quantity of lost gear;
c.   the time when the gear was lost;
d.   the position where the gear was lost;
e.   if the vessel has tried to retrieve the gear.

~~4~~5.   The Contracting Party~~flag State~~ shall without delay notify the Secretary of NEAFC of the information referred to in a-e. The Secretary shall without delay put this information on the secure part of the NEAFC website.

~~5~~6.   Contracting Parties shall on a regular basis undertake to retrieve lost fixed gears. If gear is retrieved that has not been reported as lost, the Contracting Party that retrieved the gear may recover the cost from the master of the vessel that has lost the gear.

Recommendation on introducing fall back procedure for masters of fishing vessels in article 14 of the Scheme

As proposed by PECMAC and with reference to Recommendation 16:2018 and 19:2019 the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

Article 14 - Communication to the Secretary

1. Each Contracting Party shall implement an electronic reporting system. It shall be used to communicate messages containing the data received according to Articles 11, 12 and 13 to the Secretary without delay.

2. In the event of technical malfunction, reports shall be transmitted **by the Contracting Parties** to the Secretary within 24 hours of receipt or as otherwise agreed with the Secretary. These reports shall be communicated in accordance with Annex IV and the technical specifications in the Business Continuity Guidelines in the NEAFC Information Security Management System (ISMS).

3. Each Contracting Party shall ensure that the messages transmitted between the Contracting Party and the Secretary shall be in accordance with the data exchange formats and data communication systems set out in Annex IX.

4. The Master of the fishing vessel shall fulfil the reporting requirements set out in Articles 11, 12 and 13. Fishing activity reports referred to in Article 12 and 13 can only be considered accepted if a positive acknowledgment from the Secretary is received. The FMC shall without delay inform the master of the vessel of the status of the report received by the Secretary.

5. **Each Contracting Party shall ensure that, if a master of a fishing vessel does not receive a positive acknowledgment on a fishing activity report from the Secretary, the master shall without delay make appropriate amendments and resubmit the fishing activity report to the FMC. If the master still does not receive a positive acknowledgment, or if it is no longer possible to amend or resubmit fishing activity reports due to time limits, the master of the fishing vessel shall contact the FMC to receive the necessary guidance on follow-up procedures, to ensure that the data referred to in Articles 12 and 13 is submitted.**

6. **Each Contracting Party shall ensure that, if the master of the fishing vessel is not able to submit the Fishing Activity report due to equipment failures or transmission failure, the master shall immediately notify the FMC about problems influencing the data exchange. Where appropriate, the master will inform the FMC of actions taken to resolve the failure. The FMC shall communicate the necessary follow-up procedures to the master, if necessary also to ensure that the data referred to in Articles 12 and 13 is submitted by using alternative means.**

4.7. **Each Contracting Party shall ensure that fishing vessels flying its flag have electronic reporting and recording systems fully operational at all times and that the information required by this Scheme is transmitted. In the event of a technical**

failure or non-operation of the electronic reporting and recording system on the board a fishing vessel, the system shall be repaired or replaced within one month. ~~After this period, the master of a fishing vessel shall not be authorised to commence a fishing trip with a defective system. Where the system stops functioning and a fishing trip lasts more than one month,~~ Tthe repair or the replacement has to take place as soon as the vessel enters a port and. ~~tT, t~~he fishing vessel shall not be authorised to ~~continue or~~ leave the port to commence fishing activities~~commence a fishing trip~~ without the system having been repaired or replaced.

~~5.~~8.   The FMC may as a fall-back procedure, and after individual evaluation and validation, accept reports outside of time limits, correct or manually create reports. In all these cases it shall use the FMC marking when communicated to the Secretary as set out in Annex IX.

~~6.~~9.   The Secretary shall make available as soon as possible the information received under this Article to other Contracting Parties with an active inspection presence in the Regulatory Area or for Port Inspection purposes in accordance with Article 25.

~~7.~~10. In the case of inspections at sea such information shall be provided when the Secretary receives the report of surveillance entry referred to in Annex X(A), which may be sent up to 24 hours in advance of the entry of the surveillance craft into the Regulatory Area. If the surveillance craft does not enter the area within this period, a report of exit shall be sent as referred to in Annex X(B). All reports and messages communicated pursuant to Articles 11, 12 and 13 shall be treated in a confidential manner.

~~8.~~   Without prejudices to paragraph 3 the Secretary shall immediately forward Port of Landing Reports to all Contracting Parties regardless of their "active inspection" status.

Recommendation on Article 27 and Annex XVI of the NEAFC Scheme of Control and Enforcement

As proposed by PECMAC, the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

Article 27 - Inspection Reports

1. Each inspection shall be documented by completing a Port State Control inspection report (PSC 3) as set out in Annex XVI.
2. The inspection report may be commented upon and shall be signed by the inspectors and the master or the~~their~~ representative of the master at the end of the inspection. A copy of the inspection report shall be given to the master of the fishing vessel or the~~o their~~ representative of the master~~.~~

Part D of Annex XVI:

D. OBSERVATIONS BY THE MASTER/REPRESENTATIVE OF THE MASTER

I, the undersigned, Master/Representative of the Master of the
vessel...
hereby confirm that a copy of this report have been delivered to me on this date. My signature does not constitute acceptance of any part of the contents of this report, except my own observations, if any.

Signature:_____   Date :_____

Recommendation 16 : 2020

Recommendation to modify Article 44 of the NEAFC Scheme of Control and Enforcement in respect of vessels listed as IUU by other RFMOs

As proposed by PECMAC, the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

Paragraphs 5 and 6 of Article 44 of the NEAFC SCE are modified as follows, with new paragraph 7:

5.   The Secretariat shall transmit the IUU B-List and any amendments thereto as well as any relevant information regarding the list, to the Secretariats of ~~Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), the Northwest Atlantic Fisheries Organization (NAFO) and the South East Atlantic Fisheries Organisation (SEAFO). The Secretary shall also circulate the IUU B-List to~~ other Regional Fisheries Management Organisations **listed in paragraph 7**.

6.   After having been notified by ~~CCAMLR, NAFO and SEAFO~~the Regional Fisheries Management Organisations **listed in paragraph 7** of vessels that have been confirmed as having been engaged in IUU fisheries, the Secretary shall without delay place ~~the NCP~~those vessels on the NEAFC IUU A~~B~~-List. The Secretary shall remove the ~~V~~vessels placed on the IUU A or B-List in accordance with this paragraph ~~may only be removed~~ if the RFMO which originally identified the vessels as having engaged in IUU fishing activity has notified the NEAFC Secretary of their removal from the list.

PECMAC shall regularly review modifications to the NEAFC IUU A and B-L~~l~~ist made according to this paragraph and, if necessary, shall amend the NEAFC IUU ~~B-L~~Lists.

7.   The Regional Fisheries Management Organisations referred to in paragraphs 5 and 6 are the following: the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), the Commission for the Conservation of Southern Bluefin Tuna (CCSBT), the Inter-American Tropical Tuna Commission (IATTC), the International Commission for the Conservation of Atlantic Tunas (ICCAT), the Indian Ocean Tuna Commission (IOTC), the General Fisheries Commission for the Mediterranean (GFCM), the Northwest Atlantic Fisheries Organization (NAFO), the North Pacific Fisheries Commission (NPFC), the South East Atlantic Fisheries Organisation (SEAFO), Southern Indian Ocean Fisheries Agreement (SIOFA), the South Pacific Regional Fisheries Management Organisation (SPRFMO) and the Western and Central Pacific Fisheries Commission (WCPFC).

8~~7~~.   The Secretary shall place the 'A' and 'B' lists on the NEAFC website without delay.

9~~8~~.   The Secretary shall notify without delay the relevant flag State of the change of status of any of its IUU-listed vessels.

Recommendation 17 : 2020

Recommendation to amend the NEAFC Scheme of Control and Enforcement to add species to Annex V Species List

As proposed by PECMAC, the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

FAO Code	English Name	Latin Name
JOD	John dory	Zeus faber
BFT	Atlantic bluefin tuna	Thunnus thynnus
RAJ	Rays and skates nei	Rajidae
SQC	Common squids nei	Loligo spp
SRX	Rays, stingrays, mantas nei	Rajiformes
TVK	Red cucumber	Parastichopus tremulus

For TVK ASFIS does not give a common name, but the latin name corresponds

Recommendation to amend NEAFC Scheme Annex VIII 7) CANCEL Report

As proposed by PECMAC, the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

Annex VIII 7) "CANCEL " Report

Format Specification when sending reports from FMC to NEAFC (XNE).

See Also Annex IX A) Data Transmission Format and B) Data Communication Systems Annex IX C1) Format for Electronic Exchange of Fisheries Monitoring, Inspection and Surveillance Information Annex IX D 1) Structure of Reports and Messages as laid down in Annex VIII

Data Element	Field Code	Mandatory/ Optional	Requirements for the field
Start record	SR	M	System detail; indicates start of record
From	FR	M	Message detail; Address of the transmitting party (ISO-3)
Address	AD	M	Message detail; destination, "XNW" for NAFO
Record Number	RN	M	Message detail; Unique serial number starting at 1 each year for records sent from the FMC to (XNW) (See also Annex II.D.C)
Record Date	RD	M	Message detail; Year, month and day in UTC of the record transmission from the FMC
Record Time	RT	M	Message detail; Hours and minutes in UTC of the record transmission from the FMC
Type of Message	TM	M	Message detail; message type, "CAN[1]" as Cancel report
Radio call sign	RC	M	Vessel registration detail; international radio call sign of the vessel
Cancelled report	CR	M	Message detail; the record number of the report to be cancelled

Year of the report cancelled	YR	M	Message detail; year of the report to be cancelled
Date	DA	M	Message detail; UTC date of transmission of this report from the vessel[2]
Time	TI	M	Message detail; UTC time of transmission of this report from the vessel[2]
End of record	ER	M	System detail; indicates end of the record

[1] Cancel report should not be used to cancel other Cancel report.

[2] If the report is not sent from a vessel the time will be from the FMC and be the same as RD, RT.

Recommendation to amend the Internal Registration Numbers (IR) Format in NEAFC Scheme of Control and Enforcement

As proposed by PECMAC, the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

Proposed Changes to Annex IX C1) Format for Electronic Exchange of Fisheries Monitoring, Inspection and Surveillance Information

Vessel Registration Details	Radio Call Sign	RC	Char*7	IRCS Code	International Radio Call Sign of the vessel
	Vessel name	NA	Char*30		Name of the vessel
	IMO Number	IM	Num*12	NNNNNNNNNNNN	IMO Number of the vessel
	Ext. registration	XR	Char*14		Side Number of the vessel
	Flag State	FS	Char*3	ISO-3166	State of registration
	Contracting Party internal reference number	IR	Char*3 ~~Num~~ Char*9	ISO-3166 + max. 9~~N~~ characters	Three letter country code followed by 9 character ~~Unique~~ unique vessel ~~number~~ identifier attributed by the flag State pursuant to registration
	Port Name	PO	Char*20		Port of registration of the vessel
	Vessel Owner	VO	Char*60		Name and address of the vessel owner
	Vessel Charterer	VC	Char*60		Name and address of the vessel charterer

Recommendation on introducing the ERS Implementation document in Annex IX of the Scheme (FLUX Fishing Activities)

As proposed by PECMAC, the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

FLUX Fishing Activities Implementation Document for NEAFC – v 1.1

1. **INTRODUCTION**

    This document describes the implementation of the UN/CEFACT standard FLUX for exchange of fishing activity information (the standard) as outlined in the NEAFC Scheme of Control and Enforcement (the Scheme) and should be read in conjunction with the Scheme.

    In chapters 3 and 4 the scope, legal basis and references are covered. Chapter 5 describes the stakeholders and terminology used and chapter 6 describes the procedures.

    In chapter 7 the NEAFC implementation of the data model for Fishing Activity Reports (7.1) and Responses (7.2) is described and Chapter 8 details the common set of business rules that should be implemented by parties exchanging data in NEAFC context.

    A reference to XML examples is provided in chapter 9. Finally chapter 10 contains an overview of the code list aliases used in this document and a reference to the Master Data register. Finally Chapter 11 specifies the required parameters for the FLUX TL envelope when transmitting the messages described in this document.

    The targeted audience of this document is business and technical staff responsible for system implementation of the fishing activities domain in NEAFC context.

2. GLOSSARY

AIS	Automatic Identification System
BR	Business Rule
BRS	Business Requirements Specification
CP	Contracting Party
EEZ	Exclusive Economic Zone
ERS	Electronic Reporting System
FA	Fishing Activity
FAO	Food and Agriculture Organization of the United Nations
FLAP	Fishing Licenses, Authorisations and Permits domain
FLUX	Fisheries Language for Universal eXchange
FMC	Fisheries Monitoring Centre
GP	General Principles
IRCS	International Radio Call Sign
ISMS	Information Security and Management System
ISO	International Organization for Standardization
MDR	Master Data Register
NEAFC	North-East Atlantic Fisheries Commission
RFMO	Regional Fisheries Management Organization
TL	Transportation Layer (software to exchange UN/FLUX messages
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
UN/FLUX	The FLUX standard under United Nations umbrella
UTC	Coordinated Universal Time
UUID	Universally Unique Identifier
UVI	Universal Vessel Identifier
VMS	Vessel Monitoring System
WGS84	World Geodetic System 1984
XML	eXtensible Markup Language
XSD	XML Schema Definition

3. LEGAL BASIS AND SCOPE

The implementation of the standard applies within the scope of the Scheme.

The exchange of validated fishing activity information is based on the flag State or Contracting Party principle. The Contracting Party plays the role of a report provider to other stakeholders, ensuring fishing activity information received from vessels flying their flag or the flag of any of its Member States are forwarded to the NEAFC Secretary according to the rules described in this document.

This document concerns exchange of electronic fishing activity information between Contracting Parties and the NEAFC Secretary (Figure 1). For the sake of clarity the document sometimes mentions the exchanges between the master of the fishing vessel and the flag State authorities.

Figure 1: Fishing Activity domain - scope
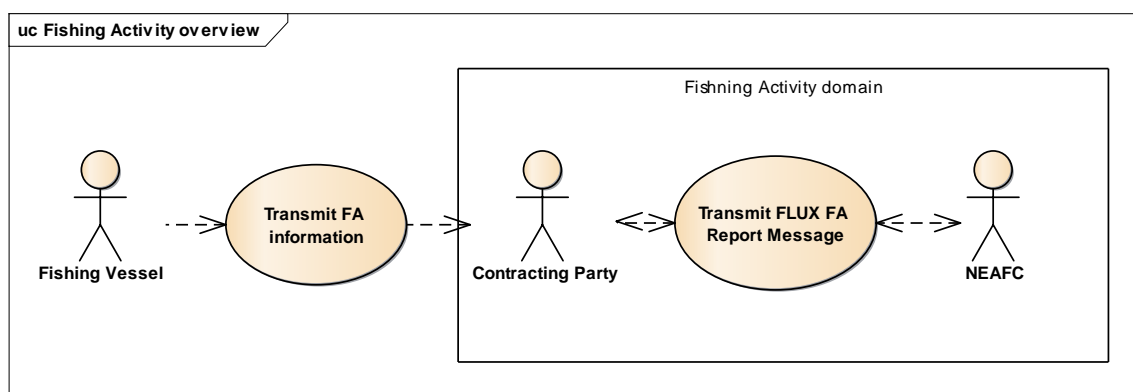
For each fishing activity message (FLUX FA Report Message), the business rules and definition of mandatory, conditional and optional data elements and attributes are based on requirements defined in the following articles and annexes of the Scheme:

- Article 9 – Recording of Catch and Fishing Effort

- Article 12 – Communication of Fishing Activities

- Article 13 – Communication of Transhipments and of Port of Landing

- Article 14 – Communication to the Secretary

- Annex IV.a

4. REFERENCES

The following **documents** are referenced in this document and are directly linked to this implementation document.

Standard	Version
FLUX BRS: P1000 – 1; General principles	2.1
FLUX BRS: P1000 – 3; Fishing Activity domain	1.1

The following **data structures** are referenced in this document and are directly linked to this implementation document.

Fishing Activities UN/CEFACT XSD	Version
FLUXFAReportMessage_3p1.xsd	3.1
FLUXResponseMessage_6p0.xsd[1]	6.0

Other relevant reading to provide more context to the data model described in this implementation document.

Standard	Version
FLUX BRS: P1000 – 2; Fishing Vessel domain	3.2
FLUX BRS: P1000 – 7: Vessel Position domain	2.0
FLUX BRS: P1000 – 9: Fishing Licence Authorization & Permit (FLAP) domain	1.1

The documents are available on the Master Data Register page of the NEAFC website at https://www.neafc.org/mdr[2].

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[1] The reponse to a FLUX FA Report Message or a FLUX FA Query Message is a general principles response.
[2] https://www.neafc.org/mdr

5. STAKEHOLDERS AND TERMINOLOGY

5.1. Stakeholders and their main responsibilities related to data exchanges

Stakeholder	Responsibility
Flag State or Contracting Party	• Store all data related to fishing activities received from the master of vessels carrying its flag. • Validate data received from the vessels carrying its flag, as a minimum according to the set of validation and verification rules[4]. • Send to the NEAFC Secretary validated information on fishing activities of its vessels that are or will be in the Regulatory Area. • Have fall-back procedures[3] in place to ensure timely exchange of relevant data. • Investigate and where possible correct and resend fishing activity messages that did not pass the validation rules applied by the receiving party. • Forward return message information to the master of the vessel.
Flag State or Contracting Party with inspection presence	• Receive from the NEAFC Secretary, fishing activity data of the vessels of other contracting parties in the NEAFC Regulatory Area, as set out in the Scheme.
NEAFC Secretary	• Receive, validate[4] and store data from all vessels covered by the scope of the Scheme. • Have fall-back procedures[3] in place to ensure timely exchange of relevant data. • Investigate and inform the Contracting Party if the received fishing activity messages did not pass the validation business rules. • Forward or make available to a Contracting Party with active inspection presence validated information on fishing activities related to the NEAFC Regulatory Area.

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[3] See section 6.5.

[4] Validation of fishing activity messages (FLUX FA Report Message) according to principles described in section 6.2.1 and the set of validation and verification rules as described in chapter 8 of this document.

	• Forward, where relevant, to any Contracting Party validated information on notifications of arrival to port with the intention to land catches taken or on-loaded in the NEAFC Regulatory Area.
Master of the fishing vessel	Report in an accurate and timely manner all fishing activity information to its flag state in accordance to all applicable rules, so that the flag State or Contracting Party can forward the required fishing activity information to the Secretariat.

5.2. Terminology

The purpose of this section is to clarify the technical terminology used in the UN/CEFACT FLUX standard and how it relates to terminology used in the Scheme.

The diagram in Figure 2 illustrates how fishing activity business information is reported as part of **<u>reports</u>** and how these reports are grouped into a **<u>message</u>** for transmission.

Fishing activity business information, such as Date/time, location, gear used and catch details, describes the activity and is recorded in a **Fishing Activity** (Figure 2(3)). A fishing activity may also contain a reference to the **fishing trip** it belongs to.

Fishing activities are recorded in **Reports** (Figure 2(2)).

Typically a **Report** contains information about one **Fishing Activity**. Examples of Reports are an entry into area report, daily catch report, or transhipment report.

Each **Report** has a unique ID, which doesn't change, even if the report is transmitted several times within different **Messages**. It also contains the date and time of the transmission of the information from the vessel/reception by the FMC and an FMC marking where appropriate.

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 and is not applicable anymore. This is used for notification reports (eg. prior notification of entry, exit)

Reports are communicated to NEAFC in **Messages** (Figure 2(1)). A **Message** contains one or more **Reports.** Each **Message** transmitted has a unique ID. A Message cannot be corrected, nor cancelled.

Figure 2: Diagram showing contents of a FLUX FA Report Message

¹(Fishing Activity) Message *(FLUX FA Report Message)*

A **Message** is the top-level entity containing business information related to fishing activities transmitted between parties and structured according to a standard. It is also known as "the business message".

Each **Message** transmitted has a unique ID. It cannot be corrected, nor cancelled.

It contains one or more **Reports²**.

FLUX Report Document (1)

This entity provides the identifier, creation date/time and purpose code of the **Message**. Purpose code is always 9 (create). It also contains the owner of the **Message** (party transmitting).

²(Fishing Activity) Report *(FA Report Document (1..*))*

A **Report** is comparable with one logbook line (for one vessel) in paper logbooks.
There are 2 types of **Reports**: **Notifications** and **Declarations**

Each **Report** has a unique ID, which doesn't change, even if the report is transmitted several times within different **Messages¹**.
It also contains the date and time of the transmission of the information from the vessel/reception by the FMC and an FMC marking where appropriate.

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 and is not applicable anymore. This is used for notification reports (eg. prior notification of entry, exit)

Typically a **Report** contains information about one **Fishing Activity³**, however
- for haul-by-haul recording transmitted daily⁵, multiple **fishing operations⁴** may be recorded in one **Report**.
- if the *purpose* of the **Report** is a cancellation, there is no Fishing Activity entity included.

⁴ A fishing operation is a type of fishing activity.
⁵ Each haul may also be reported in a separate report.

FLUX Report Document (1)

This entity provides the identifier, creation date/time and purpose code of the **Report**.
It also contains the owner of the **Report** (flag state) and where applicable a reference (identifier) to a report being corrected or cancelled)

VesselTransportMeans (0..1)

Information on the reporting vessel for this **Report**. Mandatory, except when the report is deleted or cancelled.

³Fishing Activity (0..*)

The fishing activity entity contains the business information describing the actual activity.

It includes the following information (where required/applicable):
-Type (eg. fishing operation, entry in area, transhipment)
-Date/time/duration of the activity
-Location where the activity will take place or has taken place
-(Anticipated) vessel activity, number of operations, targeted species
-Gear characteristics of the gear deployed and gear problems if any
-Gear shot/retrieval details (time, location)
-Information on bottom/fishing depth
-Details of the other vessel involved in the activity

A fishing activity may also contain a reference to the **fishing trip** it belongs to.

Fishing Trip (0..1)

The fishing trip entity contains the fishing trip ID. The trip ID is comparable with the unique identifier on the paper logbook.
All fishing activities that belong to the same trip have the same trip ID.

VesselTransportMeans (0..1)

Information on the other vessel involved in the activity.

12

5.2.1. *Contents of a FLUX FA Report Message*

a) A Fishing Activity **Message**, or "message", is defined in art 1 letter s of the Scheme. The "FLUX FA Report Message" is the equivalent of this "message" in the UN/CEFACT FLUX standard. It is used for transmitting one or more Fishing Activity Reports.

b) A Fishing Activity **Report**, or "report", is defined in art 1 letter r of the Scheme. The "FA Report Document" is the equivalent of this "report" in the UN/CEFACT FLUX standard. It is the standardized record made by the Contracting Party based on fishing activity information recorded and transmitted by the master of a fishing vessel.

There are 2 types of Fishing Activity Reports[5]

    a. Declarations[6] are reports about a fishing activity that is taking or has taken place at the time of its recording and transmission.

    b. Notifications[7] are reports about the intention to perform an activity in the future.

A Fishing Activity Report contains business information related to one or more "**Fishing Activities**", as defined in art. 1 letter e of the Scheme.

c) The **Electronic fishing logbook** as defined in article 1 letter p of the Scheme consists of one or more Fishing Activity Reports.

d) "FLUX Report Document" is an entity in the UN/CEFACT FLUX standard data model containing general information related to a FLUX FA Report Message or an FA Report Document. It contains identification, creation date/time, owner/sender, purpose and where applicable a reference to a report being corrected or canceled.

e) "Vessel Transport Means" is an entity in the UN/CEFACT FLUX standard containing business information related to the vessel, the master of the vessel and position of the vessel at time of transmission of the fishing activity information. Depending on the how this entity is related to the FA Report Document or Fishing Activity, the vessel information recorded is for the reporting vessel or for the other vessel involved in the activity.

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[5] See "Type" in Table 4.

[6] Article 1 letter t of the Scheme.

[7] Article 1letter u of the Scheme.

    f)   A Fishing Trip within the context of NEAFC is defined in the Scheme art. 1 letter q. In the UN/CEFACT FLUX standard, "Fishing Trip" is the entity that contains the trip identifier for the reported Fishing Activity.

    g)   "Fishing Operation" is a type of Fishing Activity for reporting business information on fishing operations as described in article 12 of the Scheme.

5.2.2.   *Contents of a FLUX Response Message*

After receiving a Fishing Activity Message and validating the Fishing Activity Reports it contains, NEAFC informs the Contracting Party of the status of the reports. This status is communicated in a Response Message.

The diagram in Figure 3 illustrates how a response message is structured. It contains the information of a return message.

Figure 3: Diagram showing contents of a FLUX Response Message
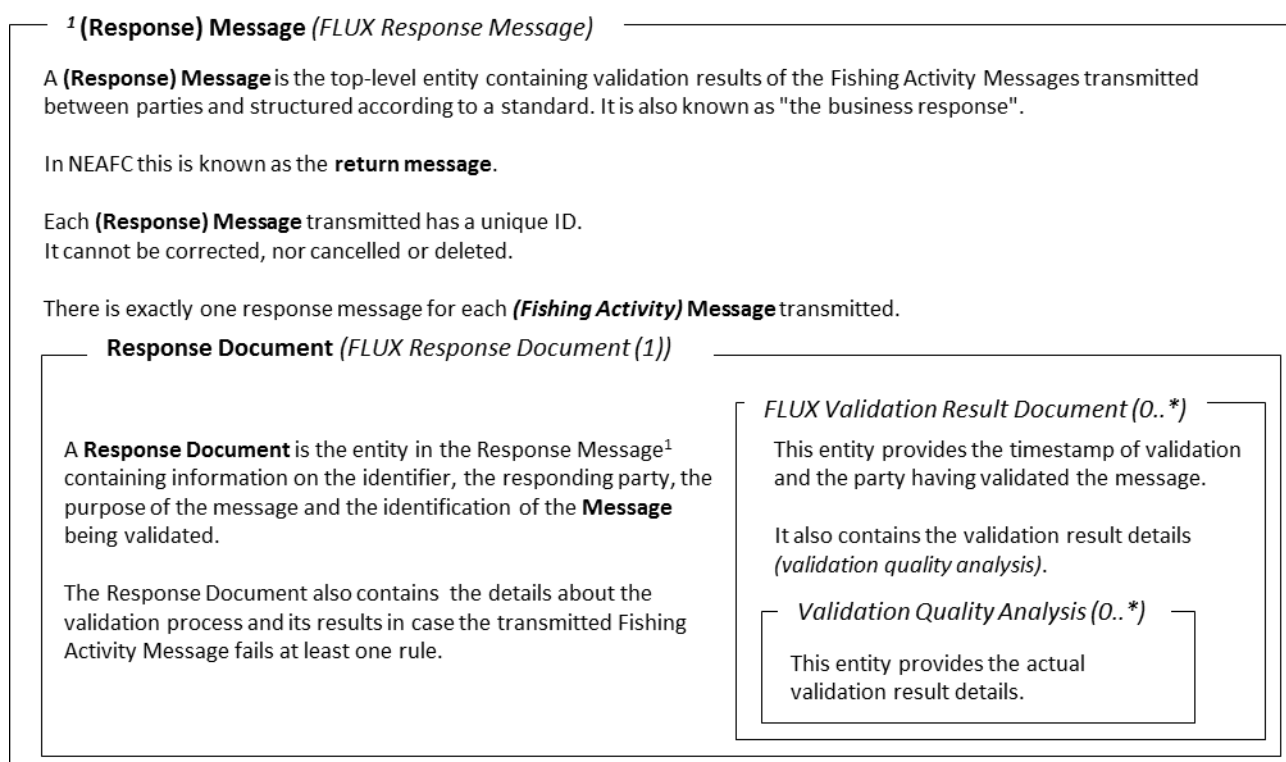
A **<u>Response Message</u>** (FLUX Response Message) is used in the UN/CEFACT FLUX standard to report validation results about Fishing Activity Messages (FLUX FA Report Message). It contains all problems detected during the validation process. There is one FLUX Response Message for each FLUX FA Report Message.

6.   PROCEDURES

6.1.   Assumptions

The exchange of the Fishing Activity Messages described in this document will be done through the FLUX Transportation Layer for which technical and functional documentations are published on the NEAFC Master Data Register (MDR) https://www.neafc.org/mdr[2].

The diagrams in figures 2 and 3 (see section 5.2) illustrate how Fishing Activity Messages are structured. The diagram in Figure 4 illustrates how these Fishing Activity Messages are encapsulated into a transportation layer envelope to be transported by FLUX TL.

Figure 4: Diagram showing how Fishing Activity Messages are encapsulated in the FLUX TL transportation layer envelope

FLUX envelope (FLUX:ENV)

A **FLUX Envelope** is the entity of transmission on the FLUX Transportation Layer.
It can transport a **FLUX Message**.

Parameters:
DT: date time stamp of transmission
TS: test message (true/false)

FLUX Message (FLUX:MSG)

A **FLUX Messa**ge is the entity containing the information to route a business message from one party to another.
It also contains the **Business Message**.

Parameters:
FR: originating party
AD: addressee
DF: dataflow (indicates which business message is being transported)
ON: Operation Number (unique ID of the FLUX Message)
AR: acknowledge of receipt
TO: synchronous timeout
TODT: date time of expiry of the FLUX Message
VB: verbosity level

Business Message (1)

A **Business Message** contains business information as described in an Implementation Document.
The structure of the message depends on the business domain data model and the business rules defined.

Fishing Activities domain: FLUXFAReportMessage, FLUXResponseMessage

Furthermore, it is assumed that data exchanges are fully automated and immediate. No human approval or intervention should be needed for data exchanges and validation of well-formed messages for which the business rules are defined in this document.

6.2. General principles

The way to exchange Fishing Activity Reports between the Contracting Party and the NEAFC Secretary using the FLUX Transportation Layer is shown in the diagram below (Figure 5).

The Contracting Party transmits a FLUX FA Report Message containing one or more FA Report Documents to the NEAFC Secretary. The NEAFC Secretary acknowledges receipt of the FLUX FA Report Message with a FLUX Response Message.

Figure 5: Diagram showing message transmission between CP and NEAFC
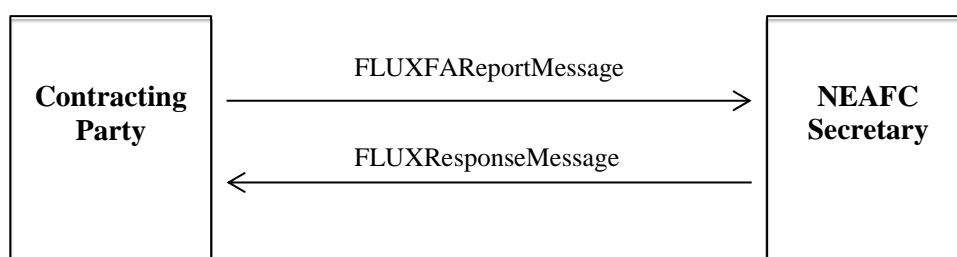
Where the NEAFC Secretary forwards fishing activity information it received to a Contracting Party, the roles in the diagram above are reversed.

The normal procedure for sending FLUX FA Report Messages between the Contracting Party and the NEAFC Secretary is described in Figure 6. This procedure respects the transmission procedure described in the FLUX General Principles document[8] (chapter 6.3.1).

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[8] FLUX BRS: P1000 – 1; General principles. See chapter 4.

Figure 6: Message Transmission procedure

act FA Report Message Transmission

FLUX FA Report Message Submitter

Message Creation

Message Validation

No — Msg Valid?

Yes

Send Message

FLUX FA Report Message

Receive Message

FLUX FA Report Message Receiver

Message Validation (*)

Send Response Message

Receive Response Message

FLUX Response Message

Out of Scope

Msg Valid? — No

Yes

Fishing activity data Verification
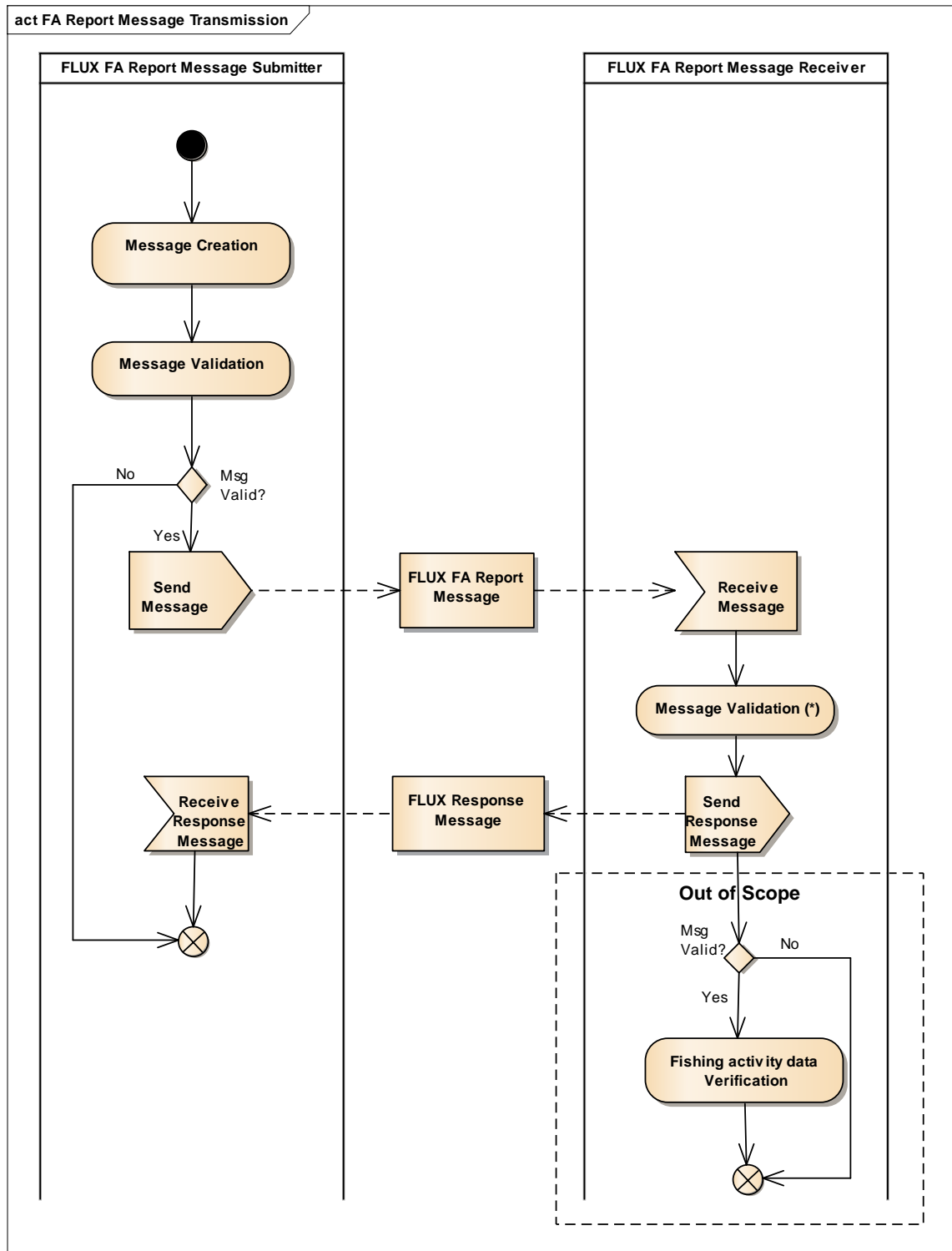
6.2.1. *Business rules*

FLUX FA Report Messages (messages) must be validated by the sender before transmitting and by the receiver when receiving.

There are 2 steps in the validation process (*) (Figure 7):

(1) <u>XML Validation</u>: An XML parser validates the structure of the XML provided[9] against the XSD[10] of the UN/CEFACT FLUX standard. This includes verification of the cardinalities of data elements as described in the Fishing Activities BRS document[11].

(2) <u>Business Rules Validation</u>: A Business Rules Engine (BRE) validates the information contained in the XML message against the data model requirements described in the implementation for NEAFC (chapter 7) and business rules defined for this business domain (chapter 8).

Figure 7: FLUX FA Report Message validation (detail of the process marked with * in Figure 6)

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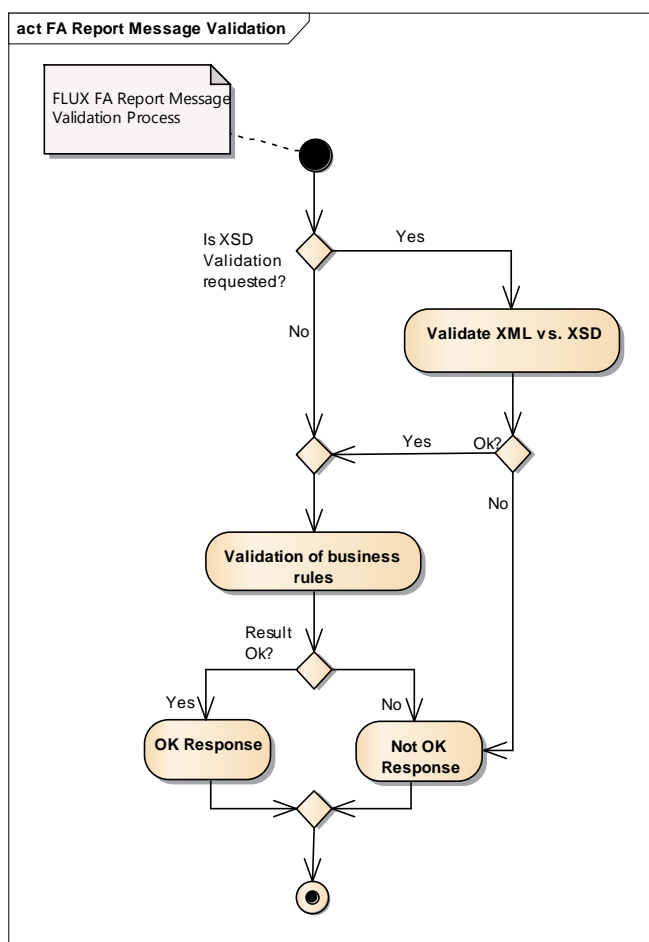
[9] In general, only some data elements are defined as mandatory in the XSD. Attributes listID or schemeID remain optional unless otherwise specified.

[10] The XSD considered for the validation process is specified in section "Fishing Activities UN/CEFACT XSD" in chapter 4.

[11] FLUX BRS: P1000 – 3; Fishing Activity domain as referred to in chapter 4.

The validation process must apply as many business rules as possible, not stopping at the first failure.

Once the validation step is completed and a response message is sent back, the message could be further processed or forwarded. Any further data verification may be performed on the data contained in the message. This is out of scope of this implementation document (see Figure 6).

When the exchange in an automatic and immediate way is not possible or when exchanged messages cannot be understood by the receiver, the fall-back procedure must be engaged as described in chapter 6.5.

Fishing Activity Messages (FLUX FA Report Message) with an identifier previously received must be rejected by the receiver. For the purposes of this implementation, Fishing Activity Reports (FA Report Documents) with an identifier[12] previously received must be considered as identical[13] and therefore it is not needed to perform the complete validation process again. A receiver may decide to perform the validation anyway.

6.2.2.   *Information on the errors or warnings in the Response message*

The response message returned to the sender of the message will contain information on the acceptance or refusal of that message.

In case of errors or warnings, the list of the validation results will be returned, including the business rule numbers for which a rule was violated, an indication if this is an error or warning, and a reference to the entity on which the business rule failed. Details on how to implement this are provided in chapter 7.2.

Business rules that fail with an error must be considered as blocking issues that need to be corrected before the report can be (re-)transmitted by the sending party or accepted by the receiving party. One error causes the whole message to be rejected.

Business rules that fail with a warning are not to be considered blocking issues and hence messages generating only warnings cannot be rejected on that basis.

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[12] FLUXReportDocument/ID related to the FAReportDocument entity.
[13] NEAFC Scheme of Control and Enforcement, Annex IX D2c) defines duplicates in NEAFC context

6.3. Fishing Activity Messages

Validated Fishing Activity Messages (FLUX FA Report Message) shall be sent by the Contracting Party of the vessel to the NEAFC Secretary, according to the Scheme and the following principles (Detailed requirements are described in chapter 7.1):

6.3.1. Fishing activity information

- Fishing activity information (or fishing activities), as outlined in the Scheme, is recorded as Fishing Activity Reports (FA Report Document).

- Fishing Activity Reports are transmitted, individually or grouped together, within Fishing Activity Messages (FLUX FA Report Message).

- A Fishing Activity Report (FA Report Document) is uniquely identified and the identifier is assigned once at report creation time. Subsequent transmissions of the same fishing activity information must re-use the same report identifier.

- Fishing activity information on multiple fishing operations[14] that occurred on the same day may be aggregated into one FA Report Document, either as one fishing operation with aggregated figures or with multiple fishing operations (hauls).

- There are two types of Fishing Activity Reports: Declaration and notification reports.

- Declarations and notifications may be corrected as many times as needed, in line with the provisions described in section 6.3.2. Notification reports may be cancelled only once, in line with the provisions described in section 6.3.3.

- FA Report Documents of the same vessel on the same fishing trip belong to the same electronic fishing logbook.

6.3.2. Corrections to fishing activity information

- Accepted declaration and notification reports may be corrected as outlined in the Scheme.

- A correction to fishing activity information is recorded in a FA Report Document and is also called "correction report". It has a unique identifier and a reference to the unique identifier of the FA Report Document being corrected.

---

[14] Fishing operation as described in art. 12 of the Scheme

- Correction reports replace the referenced FA Report Document completely and are considered as updates to the original fishing activity information.

- If information related to the catches (FACatch) in a notification report requires correction, a correction to the notification report must be sent. Corrected notifications remain notifications and do not change to declarations.

- Correction reports are part of the electronic fishing logbook.

- Correction reports must be transmitted without delay to the NEAFC Secretary if they relate to activities in the NEAFC Regulatory Area.

6.3.3. *Cancellation of notification reports*

- Accepted notification reports may be cancelled in case the activity being notified will no longer take place.

- If any information in the original notification report is incorrect, except when it is related to the catches on board or to be unloaded (FACatch), a cancellation report must be sent.

- A cancellation of a notification report is recorded in a FA Report Document. It has a unique identifier and a reference to the unique identifier of the FA Report Document being cancelled.

- Cancelled reports are no longer applicable. They remain part of the electronic fishing logbook however. In case the information contained in the cancelled report would need to be transmitted again, a new notification report must be sent. This new report will have no reference to any previous reports.

- Cancellations must be transmitted without delay to the NEAFC Secretary if they relate to activities intended to take place in the NEAFC Regulatory Area.

6.4. Response to Fishing Activity Messages

In response to a Fishing Activity Message (FLUX FA Report Message), exactly one (general principles) Response Message (FLUX Response Message) must be returned. It must be generated automatically and immediately, without human intervention. The recommended maximum delay for responding is 5 minutes.

The following general rules apply:

- The FLUX Response Message shall contain at least an acknowledgement of receipt and a reference to the unique identifier of the FLUX FA Report Message, provided the message is well-formed and valid XML according to the UN/CEFACT FLUX XSD[15]

- Specific business rules apply in case the FLUX FA Report Message is not valid or does not contain a valid unique identifier. These rules are specified in chapter 8.

- In case any of the business validation rules fail (see Figure 7 and chapter 8) with an error or warning, the complete validation results must be included in the response message (see chapter 7.2).

- The party receiving the validation results must take action to correct any issue and retransmit the correct information in a new report (in a new FLUX FA Report Message).

- A FLUX Response Message cannot be corrected nor cancelled.

6.5. Business continuity plan

A description of the business continuity plan, including fall back procedures, for the exchange of Fishing Activity information as outlined in the Scheme is available within the NEAFC Information Security Management System (ISMS) on the NEAFC web site https://www.neafc.org/isms/article14-2

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[15] A reference to the XSD considered for the validation process is specified in section "Fishing Activities UN/CEFACT XSD" in chapter 4.

7. DATA MODEL IMPLEMENTATION

7.1. FLUX FA Report Message

The FLUX FA Report Message is used to send fishing activity information recorded and transmitted by the master of a vessel carrying the flag of the Contracting Party to the NEAFC Secretary.

The structure of this message follows the data model of the FLUX Fishing Activities domain. Figure 8 shows the class diagram of this data model, adapted to NEAFC requirements. The different entities and their relationships are represented graphically.

The implementation of this data model follows the following general constraints at the level of XSD Element attributes:

(1)   For Code & Identifier DataType: *listID* or *schemeID* attribute must be provided respectively wherever specified in the definition of the element;

(2)   For DateTime DataType: only udt:DateTime (of type xsd:dateTime) choice is used. The date and time must be in line with ISO8601 and expressed in UTC, unless explicitly mentioned otherwise. The format shall be YYYY-MM-DDThh:mm:ss[.000000]Z[16];

(3)   Measure DataType: the unitCode attribute shall be provided.

In the sections below the entities and attributes defined in the data model are described in greater detail including whether or not they are mandatory as well as the conditions that may apply. The entity and attribute names are those described in the Business Requirements Specification document[17].

---

[16] YYYY= year; MM= month, including leading 0 where month number is less then 10; DD= day of the month including leading 0 where day number is less then 10; T= the letter T to indicate the part of the time section; H24= hours of the day expressed with 2 digits using the 24-hour notation; MI=minutes expressed as 2 digits; SS=seconds expressed as 2 digits; [.000000]= optionally fractions of seconds may be included up to 6 digits, not including the brackets; Z= time zone, which must be Z (ie. UTC)

[17] The BRS is the description of the UN/CEFACT FLUX standard. See section 4.

Figure 8: Class Diagram for FLUX FA Report Message.
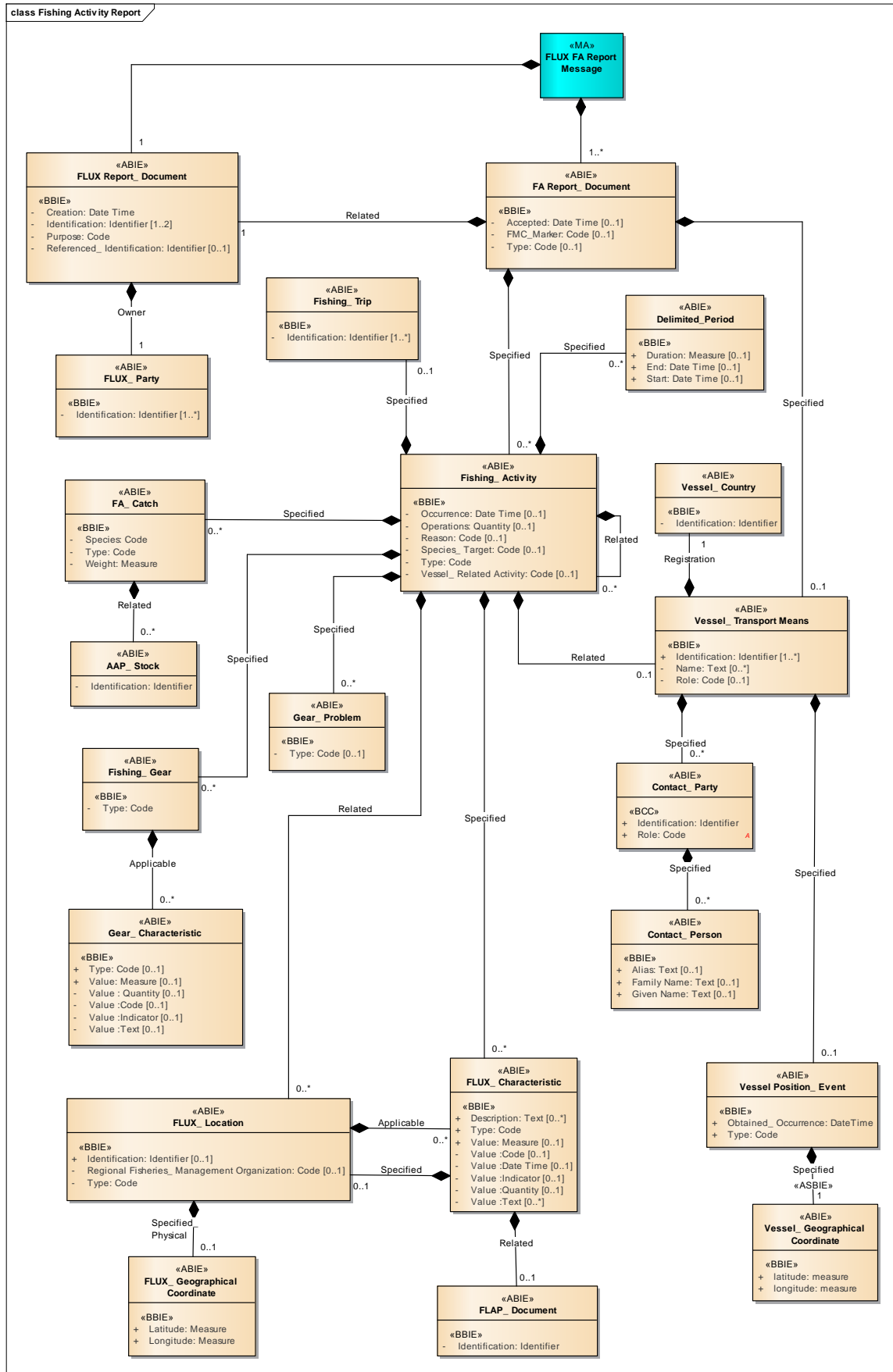
7.1.1. FLUX FA Report Message

Description: A message containing fishing activity information. There can be one or more reports in a message. A definition and schematic view is provided in section 5.2.

Table 1: Data elements and attributes of FLUXFAReportMessage

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
FLUXReport_ Document	Assoc.[18]	1	1	The document details for this FLUX FA Report Message.	See data elements and attributes in Table 2.
FAReport_ Document	Assoc.	1	*	The FAReportDocument contained in this FLUX FA Report Message.	The logbook line containing fishing activity information. See data elements and attributes in Table 4.

Table 2: Data elements and attributes of FLUXReportDocument related to a FLUXFAReportMessage

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The Global Unique Identifier of the FLUX FA Report Message	*schemeID*=UUID[19] as defined in the RFC 4122. Once the message is created, the data contained in the message remains associated with this identifier. Within the context of this implementation document the UUID is treated case insensitive.
Purpose	Code	1	1	The code specifying the purpose of this FLUX FA Report Message.	*listID*= FLUX_GP_PURPOSE Always use 9[20]. There are no corrections or deletions possible for this FLUXFAReportMessage.
Creation	DateTime	1	1	The UTC date and time, of the creation of this FLUX FA Report Message.	Must be according to the definition provided in 7.1(2)..
OwnerFLUX Party	Assoc.	1	1	The party owning this FLUX FA Report Message.	The party creating/transmitting the FLUX FA Report Message. See data elements and attributes in Table 3.

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[18] Association between 2 entities.

[19] Example: FE52A3BA-6C5A-4C87-BE15-CC19A3023DB1 (see also http://www.guidgenerator.com for more examples)

[20] Reference: Edifact (qDT UN02000125 - Message Function_Code).

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Table 3: Data elements and attributes of FLUXParty related to a FLUXFAReportMessage

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The identifier of the FLUX party, creating and transmitting the message.	*schemeID*= FLUX_GP_PARTY ISO-3 letter code of the party creating and transmitting the FLUXFAReportMessage.

7.1.2. FA Report Document

Description: A report containing fishing activity information. A definition and schematic view is provided in section 5.2

Table 4: Common data elements and attributes for all FAReportDocuments

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	0	1	Type of FAReportDocument	"Notification" is a report of a future activity; "Declaration" is a report of a past activity. *ListID*=FLUX_FA_REPORT_TYPE Use value=NOTIFICATION in case the FAReportDocument is a notification of an activity that will take place in the (near) future. Use DECLARATION in case the FAReportDocument is a declaration of an activity that currently takes place or has taken place in the past Optional in case of a deletion report.
Acceptance[21]	DateTime	1	1	The UTC date and time of acceptance of the information by the FMC.	Must be according to the definition provided in 7.1(2).
FMC_Marker	Code	0	1	Marking set by the FMC to indicate intervention by the FMC in the creation or modification of the report	listID=FLUX_FA_FMC Mandatory in case the report has been delayed, corrected/cancelled or generated manually by the FMC.
RelatedFLUX Report_ Document	Assoc.	1	1	The document details for this FA Report Document (the report)	Common entity containing details about report (such as the identifier). See data elements and attributes in Table 5.
Specified Fishing_Activity	Assoc.	0	*	Actual information about the fishing activity/ies reported in this FA Report Document	Typically a FA Report Document contains only one Fishing Activity entity, however - for haul-by-haul recording transmitted daily, there may be multiple instances of the "Fishing Activity" entity with TypeCode "FISHING_OPERATION". - if the FA Report Document is a cancellation (PurposeCode=1), there is no "Fishing Activity" entity included in the report. Note: Corrections to reports replace the whole report, including all "Fishing Activity" entities included in it (see section 6.3.2).. See data elements and attributes in sections 7.1.3 to 7.1.9.

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[21] Note that date and time of transmission by the vessel as recorded by the on-board system cannot be provided as a separate data element in this version of the UN/FLUX standard and corresponding XSD used for this Implementation Document. The issue will be addressed by updating the UN/FLUX standard and will be included in an Implementation Document corresponding to that version of the standard.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Specified Vessel_Transport Means	Assoc.	0	1	Information about the reporting vessel	Relevant information about the fishing vessel reporting this activity. Optional in case of a cancellation report. See data elements and attributes in Table 17.

Table 5: Data elements and attributes of a FLUXReportDocument related to a FAReportDocument

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	2	Unique identification of the fishing activity report.	At least one occurrence of ID with *schemeID*=UUID as defined in the RFC 4122 must be provided. Once the message is created, the data contained in the message remains associated with this identifier. Within the context of this implementation document the UUID is treated case insensitive. Optionally a second occurence with *schemeID*=NEAFC_SQ A sequence number, unique per vessel within the calendar year, starting at 1. Format: NNNNNN
Purpose	Code	1	1	The code specifying the purpose of this FLUX Fishing Activity Report.	Creation, correction or cancellation of a report as descrbed in chapter 6.3. *listID*= FLUX_GP_PURPOSE[22] Use 9 to send original data for the first time. Use 5 in case this report is an update or a correction of a previously (accepted) report. Use 1 in case the activity notification reported in the referenced report is to be cancelled.
Creation	DateTime	1	1	The UTC date and time of the creation of this FLUX FA Report document.	Date and time of creation of the report by the FMC. Must be according to the definition provided in 7.1(2).
Referenced_ Identification	Identifier	0	1	The identifier of a referenced FLUX Fishing Activity Report	*schemeID*=UUID as defined in the RFC 4122. A UUID number, for which an update or cancelation is being sent. Mandatory if the FAReportDocument is a correction or cancellation of an accepted report.

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[22] Reference: Edifact (qDT UN02000125 - Message Function_Code).

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Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
OwnerFLUX_ Party	Assoc.	1	1	The party owning this FA Report Document (report).	Reference to the party creating the report. See data elements and attributes in Table 6.

Table 6: Data elements and attributes of FLUXParty related to a FLUXFAReportDocument

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The identifier of the FLUX party, creating the report.	*listID*= FLUX_GP_PARTY ISO-3 code of the Flag State FMC.

7.1.3. Prior Notification of Entry

The table below shows the data elements and attributes that must be provided for a Prior Notification of Entry report as outlined in article 12 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "NOTIFICATION".

Table 7: Data elements and attributes of a Fishing Activity of type Entry into area

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing_Activity	*listID*=FLUX_FA_TYPE value= AREA_ENTRY
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional. See data elements and attributes in Table 25.
RelatedFLUX_Location	Assoc.	1	*	The area being entered.	At least one occurrence of Type=AREA to indicate that the NEAFC Regulatory Area (NEAFC_RA) is being entered. See data elements and attributes in Table 26. *Remark: The position at time of transmission from the vessel is provided as part of the VesselTransportMeans entity (Table 19) and should not be reported here.*
SpecifiedFA_Catch	Assoc.	1	*	The catch on board the vessel at the time of transmission	Quantity on board by species at the time of transmission, expressed in kg live weight. Use type=ONBOARD for catches kept onboard. See data elements and attributes in Table 22
Reason	Code	1	1	Planned activity	*listID*=FA_REASON_ENTRY
Species_Target	Code	0	1	The code specifying the directed species when in the area	*listID*=FAO_SPECIES FAO species code of the target species Mandatory where the planned activity is fishing (FIS)
RelatedFishing_Activity	Assoc.	0	1	Activity detail: Information related to the predicted start of activities within the area	See data elements and attributes in Table 8. Mandatory in case the planned activity is fishing (FIS) or transhipment (TRX).

7.1.3.1. The use of a sub-activity in the context of an Prior Notification of Entry

A sub-activity is used in order to report activity details related to the start of the operations within the area being entered.

There can not be more than one level of sub-activity.

Table 8: Data elements and attributes of the sub-activity START_ACTIVITY

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing sub-Activity	*listID*=FLUX_FA_TYPE Use value=START_ACTIVITY .
Occurence	DateTime	1	1	The estimated UTC date and time of the start of the planned activity	Must be according to the definition provided in 7.1(2).
RelatedFLUX_ Location	Assoc.	1	*	A FLUX_Location related to this fishing sub-activity	Use at least one FLUX_Location of type=POSITION to specify the estimated position where the planned activity will take place. Optionally, use a FLUX_Location of type=AREA to describe the Management Area where the master intends to commence fishing. See data elements and attributes in Table 26.

7.1.4. *Fishing Operation declaration*

The table below shows the data elements and attributes that must be provided for a fishing operation report as outlined in article 12 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "DECLARATION".

Table 9: Data elements and attributes of a Fishing Activity of type Fishing Operation

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing_Activity	*listID*=FLUX_FA_TYPE value=FISHING_OPERATION
Occurrence	DateTime	0	1	UTC (start) date and time when catches were taken or for which a NIL catch is reported.	Mandatory when reporting daily aggregated catches (this means no RelatedFishingActivity entities are present). The time is optional and may be set to zero[23] in such case. Must be according to the definition provided in 7.1(2).
Vessel_Related Activity	Code	1	1	The code specifying the main activity of the vessel in the reported period	*listID*=VESSEL_ACTIVITY
Operations	Quantity	0	1	The number of fishing operations aggregated in the report.	Mandatory in case of daily aggregated reporting
SpecifiedFishing_Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional. See data elements and attributes in Table 25.
SpecifiedFA_Catch	Assoc.	0	*	The catch caught and kept on board the vessel and the discards where applicable	Mandatory where a fishing operation has taken place. In case catches were taken the figures are expressed in kg live weight. Use type=ONBOARD for catches kept onboard. See data elements and attributes in Table 22.
RelatedFLUX_Location	Assoc.	0	*	The location where the activity took place (where most of the catch was taken)	Use type=AREA to report catches per relevant geographical area(s) (up to ICES division) and ICES statistical rectangle. Management area where the caches were taken. Mandatory for fisheries where management measures require it. See data elements and attributes in Table 26.

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[23] The data element used to report this information in the UN/FLUX schema, udt:DateTime (xsd:dateTime type), requires the time component to be included.

Entity/Field Name	DataType	Cardinality min	Cardinality max	Description	Remarks
Specified Delimited_Period	Assoc.	0	1	Duration of the fishing operation(s) in minutes	Mandatory where a fishing operation has taken place. Use *unitCode=MIN* (minutes). See data elements and attributes in Table 32.
SpecifiedFishing_Gear	Assoc.	0	1	Fishing gear details for this fishing activity.	Mandatory where a fishing operation has taken place Reporting in line with art. 12.3 of the Scheme. See data elements and attributes in Table 29.
SpecifiedGear_Problem	Assoc.	0	*	A gear problem specified for this fishing activity.	Mandatory in case a gear problem occurred. See data elements and attributes in Table 31.
Related Vessel_Transport Means	Assoc.	0	*	The (other) vessel(s) involved in this fishing operation	Mandatory when pumping from another vessel's gear or when performing pair fishing. Mandatory to report both the roles of the related and reporting vessels if a related vessel is reported. For pair fishing use RoleCode=PAIR_FISHING_PARTNER. For pumping operation use RoleCode DONOR See data elements and attributes in Table 17.
RelatedFishing_Activity	Assoc.	0	*	Details about the haul.	Mandatory when reporting catches haul by haul. One related activity for gear shot and one for gear retrieval. See data elements and attributes in Table 10.

7.1.4.1. The use of a sub-activity of a fishing operation

Sub-activities "gear shot" and "gear retrieval" are used when reporting catches haul by haul. There can not be more than one level of sub-activities; ie. RelatedFishingActivity entity cannot have a RelatedFishingActivity entity attached to it.

Table 10: Data elements and attributes of a sub-activity of a fishing operation

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing sub-Activity	*listID*=FLUX_FA_TYPE Use value=GEAR_SHOT or GEAR_RETRIEVAL for gear shot and gear retrieved.
Occurence	DateTime	1	1	UTC date and time of the start (in case of GEAR_SHOT) or end (in case of GEAR_RETRIEVAL) of the operation	Must be according to the definition provided in 7.1(2).
RelatedFLUX_ Location	Assoc.	1	*	The start (GEAR_SHOT) or end (GEAR_RETRIEVAL) position of the fishing operation.	Use Type=POSITION to describe the location where the sub-activity takes place. In case of GEAR_SHOT also specify a FLUX_Location of type=AREA to report the management area where the catch was taken. This is mandatory where specific management measures require it. See data elements and attributes in Table 26.
SpecifiedFLUX_ Characteristic	Assoc.	0	*	A characteristic specified for this fishing activity.	Mandatory where specific management measures require it. *listID*=FA_CHARACTERISTIC Use value FISHING_DEPTH to specify the depth when gear is fully shot (in case of GEAR_SHOT) and before start hauling (in case of GEAR_RETRIEVAL). Use value BOTTOM_DEPTH to specify the depth between surface and sea bed at start position (in case of GEAR_SHOT) and end position (in case of GEAR_RETRIEVAL). See data elements and attributes in Table 28.

7.1.4.2. The use of Gear_Characteristics to be specified when deploying gear

The gear characteristics to be provided when deploying each gear type are described in Annex (section 14.1).

7.1.5. Discard declaration

The table below shows the data elements and attributes that must be provided for a discard report.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "DECLARATION".

Table 11: Data elements and attributes of a Fishing Activity of type Discard

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of Fishing_Activity	*listID*=FLUX_FA_TYPE value=DISCARD
Occurence	DateTime	1	1	Start date and time of the operation in UTC	Must be according to the definition provided in 7.1(2). When reporting daily aggregated discards, the date is sufficient. In that case the time part may be set to zero.
Reason	Code	1	1	Reason for discard	*listID*=FA_REASON_DISCARD
SpecifiedFishing _ Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional See data elements and attributes in Table 25.
SpecifiedFA_ Catch	Assoc.	1	*	The catches discarded during this operation	Use Type=DISCARDED to record discards of catches Specify the live weight in kg. See data elements and attributes in Table 22
RelatedFLUX_ Location	Assoc.	1	*	A FLUX_Location related to this fishing activity	See data elements and attributes in Table 26.
SpecifiedFLUX_ Characteristic	Assoc.	0	1	A textual description of the reason for discard	Optional. Can be used in case the reason for discard is "OTH" (other) See data elements and attributes in Table 12.

Table 12: Data elements and attributes of FLUX_Characteristic when used in a discard activity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The type of FLUX characteristic	*ListID*=FA_CHARACTERISTIC Use value=REMARK
Value	Text	1	1	A textual description of the reason for discard	

7.1.6. *Report of transhipment (by donor)*

The table below shows the data elements and attributes that must be provided for a transhipment notification report (by donor) as outlined in article 13 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "NOTIFICATION". In this case the reporting vessel (FAReport_Document/SpecifiedVessel_TransportMeans) has the role "DONOR".

Table 13: Data elements and attributes of a prior notification of transhipment (unloading)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of FishingActivity	*listID*=FLUX_FA_TYPE Use value=TRANSHIPMENT
Occurrence	DateTime	1	1	Estimated start date and time of the operation	Must be according to the definition provided in 7.1(2).
SpecifiedFishing_ Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	See data elements and attributes in Table 25.
RelatedFLUX_ Location	Assoc.	1	*	The predicted position where the operation will take place	Specify Type=POSITION to specify the position of the transhipment. See data elements and attributes in Table 26.
SpecifiedFA_ Catch	Assoc.	1	*	The catches intended to be unloaded during this operation or catches prior to unloading.	Use type=ONBOARD for catches on board prior to the transhipment. Use type=UNLOADED in case of unloading. Specify live weights in kg. See data elements and attributes in Table 22.
Related Vessel_Transport Means	Assoc.	1	1	Relevant information about the receiving vessel involved in this unloading operation.	Use role=RECEIVER See data elements and attributes in Table 17.

7.1.7. *Report of transhipment (by receiver)*

The table below shows the data elements and attributes that must be provided for a transhipment declaration report (by receiver) as outlined in article 13 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "DECLARATION". In this case the reporting vessel (FAReport_Document/SpecifiedVessel_TransportMeans) has the role "RECEIVER".

Table 14: Data elements and attributes of a Fishing Activity of type Transhipment (loading)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of FishingActivity	*listID*=FLUX_FA_TYPE Use Value=TRANSHIPMENT
Specified Delimited_Period	Assoc.	1	1	The end date and time of the transhipment	At least the end date/time is mandatory. The end date/time is the date and time of completion of the transhipment. See data elements and attributes in Table 32.
SpecifiedFishing _ Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional. See data elements and attributes in Table 25.
RelatedFLUX_ Location	Assoc.	1	*	A FLUXLocation related to this fishing activity	Type=POSITION to specify the exact position of the transhipment. See data elements and attributes in Table 26.
SpecifiedFA_ Catch	Assoc.	1	*	The catches transhipped during this operation or onboard after the transhipment	Use Type=LOADED in case of loading of catches. Use Type=ONBOARD to indicate the total catch onboard after completion of the operation. Specify live weights (kg). See data elements and attributes in Table 22.
RelatedVessel_ TransportMeans	Assoc.	1	1	The other vessel involved in this transhipment	Use role DONOR. See data elements and attributes in Table 17.

7.1.8. Prior Notification of Exit

The table below shows the data elements and attributes that must be provided for an Prior Notification of Exit report as outlined in article 12 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "NOTIFICATION" in this case.

Table 15: Data elements and attributes of a Fishing Activity of type Exit from area

| Entity/Field Name | DataType | Cardinality | | Description | Remarks |
		min	max		
Type	Code	1	1	A code describing the type of Fishing_Activity	*listID*=FLUX_FA_TYPE value= AREA_EXIT
Occurence	DateTime	0	1	Date and time of exit	Must be according to the definition provided in 7.1(2).
SpecifiedFishing _ Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	See data elements and attributes in Table 25.
RelatedFLUX_ Location	Assoc.	1	*	The area being exited.	At least one occurrence of Type=AREA to indicate that the NEAFC Regulatory Area is being exited. Optionally one occurrence of Type=POSITION to report the estimated position at time of exit. See data elements and attributes in Table 26.
SpecifiedFA_ Catch	Assoc.	1	*	The catch on board the vessel at the time of exit	Mandatory. Weights expressed in kg live weight. Use type=ONBOARD for catches kept onboard. If no catch is onboard, nil catches should be reported. See data elements and attributes in Table 22.

7.1.9. Port of landing report

The table below shows the data elements and attributes that must be provided for an Port of Landing report as outlined in article 13 of the Scheme.

The descriptions of the common data elements and attributes for all FAReport_Documents apply (Table 4). The TypeCode of the FAReport_Document must have the value "NOTIFICATION".

Table 16: Data elements and attributes of a Fishing Activity of type Notification of Arrival

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	A code describing the type of FishingActivity	*listID*=FLUX_FA_TYPE value=ARRIVAL
Occurrence	DateTime	1	1	Estimated date and time of arrival.	Must be according to the definition provided in 7.1(2).
Reason	Code	1	1	The code specifying the reason for the arrival/returning to port	*listID*= FA_REASON_ARRIVAL value=LAN
SpecifiedFishing _ Trip	Assoc.	0	1	The reference to the trip in which this activity took place.	Optional See data elements and attributes in Table 25.
RelatedFLUX_ Location	Assoc.	1	*	The port of landing.	The (intended) port of arrival Use Type=LOCATION when the vessel intends to arrive in a port or other location available on the location list in MDR. Where available the landing site shall be provided as well. See data elements and attributes in Table 26.
SpecifiedFA_ Catch	Assoc.	1	*	The catch on board the vessel at the time of notification	Mandatory. Use Type= "ONBOARD" for the catches on board at the time of notification. Use Type= "UNLOADED" for the catches to be unloaded. See data elements and attributes in Table 22.

7.1.10. Common entities

7.1.10.1. Vessel_TransportMeans entity

Description: Entity used to provide information on a vessel.

Table 17: Data elements and attributes of Vessel_Transport_Means (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Role	Code	0	1	The role of the vessel in the operation	Mandatory for both reporting and related vessel in case the report contains an activity with a RelatedVesselTransportMeans. *ListID*=FA_VESSEL_ROLE Use value PAIR_FISHING_PARTNER if the vessel is a pair fishing partner in the fishing operation. Use value DONOR to indicate the donor vessel in a loading operation or a notification of loading. Use value RECEIVER to indicate the receiving vessel in an unloading operation or notification of unloading
Identifier	Identifier	1	*	An identifier for this vessel	For the reporting vessel: At least 2 vessel IDs of which one is *schemeID*=IRCS & Value= IRCS number must be provided. The other shall be *schemeID*=UVI where IMO is applicable to the vessel[24]; alternatively the contracting party reference number (REG_NBR) as flag state 3-alpha country code followed by alphanumeric characters. For the other vessel involved in the operation *schemeID*=IRCS. Optionally other values including their schemeID, insofar the schemeID is present in the MDR list FLUX_VESSEL_ID_TYPE. Eg. EXT_MARK
Name	Text	0	1	A name, expressed as text, of the vessel	Optional
Registration Vessel_Country	Assoc.	1	1	Identification of the flag state	See data elements and attributes in Table 18.
Specified Contact_Party	Assoc.	0	1	Reference to information related to the master of the vessel	Mandatory for the reporting vessel. See data elements and attributes in Table 20.
SpecifiedVessel_ PositionEvent	Assoc.	0	1	The position of the vessel at time of transmission.	Mandatory when used in relation to FishingActivity/TypeCode= AREA_ENTRY.

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[24] Annex IV(a) of the Scheme: Radio Call sign and IMO number is required, where IMO is not applicable (for Vessels under IMO resolution A.1078 (28)), use of either CP Internal reference number or Vessel external registration is required.

| Entity/Field Name | DataType | Cardinality | | Description | Remarks |
		min	max		
					See data elements and attributes in Table 19.

7.1.10.2. Vessel_Country entity

Description: Entity used to provide information on the registration location of the vessel (flag state).

Table 18: Data elements and attributes of Vessel_Country (Vessel domain)

| Entity/Field Name | DataType | Cardinality | | Description | Remarks |
		min	max		
Identifier	Identifier	1	1	An identifier for the flag state	ISO-3 code of the Flag State. *schemeID*= TERRITORY

7.1.10.3. Vessel_PositionEvent entity

Description: Entity used to provide information on the location of the vessel at time of transmission of activity reports.

Table 19: Data elements and attributes of Vessel_PositionEvent (Vessel domain)

| Entity/Field Name | DataType | Cardinality | | Description | Remarks |
		min	max		
Obtained Occurence	DateTime	1	1	Date and time when the specified position was obtained.	Date and time of transmission from the vessel (needed for control and enforcement for reports with explicit timelines) Must be according to the definition provided in 7.1(2).
Type	Code	1	1	The type of position	ListID = FLUX_VESSEL_POSITION_TYPE Use value POS only.
SpecifiedVessel_ Geographical Coordinate	Assoc.	1	1	Geographical coordinate information of the position event	Same definition as FLUXGeographicalPosition. See Table 27.

7.1.10.4. Contact_Party entity

Description: An individual, a group, or a body having a role as a contact

Table 20: Data elements and attributes of Contact_Party (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Role	Code	1	1	A code specifying the role of this contact party	*listID* = FLUX_CONTACT_ ROLE Value must be MASTER
Specified Contact_Person	Assoc.	1	1	A specified person for this contact party.	Name of the master of the vessel See data elements and attributes in Table 21.

7.1.10.5. Contact_Person entity

Description: The details of a contact person.

Either the GivenName and FamilyName must be provided or an Alias.

Table 21: Data elements and attributes of Contact_Person (Vessel domain)

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
GivenName	Text	0	1	Given name of the master	Required when specifying FamilyName and if Alias is not specified.
FamilyName	Text	0	1	Family name of the master	Required when specifying GivenName and if Alias is not specified.
Alias	Text	0	1	An alias to identify the master	If GivenName and FamilyName are not provided.

7.1.10.6. FA_Catch entity

Description: Fishing Activity (FA) information about the species and quantity.

Table 22: Data elements and attributes of FACatch entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying a type of catch, such as retained on board.	*listID*=FA_CATCH_TYPE
Species	Code	1	1	The FAO species code.	*listID*=FAO_SPECIES For nil catches the species code "MZZ" may be used or target species.
Weight	Measure	1	1	The live weight (kg) of the reported catch.	*unitCode=KGM* 0 for nil catches
SpecifiedSize_ Distribution	Assoc.	0	1	The size distribution specified for the catch.	Optional. Not applicable when used in relocations used as sub-activity. See data elements and attributes in Table 23.
RelatedAAP_ Stock	Assoc.	0	1	The stock specification.	Mandatory if the catches caught belong to a stock listed in NEAFC Recommendation 02:2011 (as amended)[25]. See data elements and attributes in Table 24.

7.1.10.7. Size_ Distribution entity

Description: The size distribution specified for the FA_catch.

Table 23: Data elements and attributes of Size_ Distribution

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Class	Code	1	1	The code specifying the size class	*listID*= FISH_SIZE_CLASS Use value "LSC" for legally sized fish. Use value "BMS" for fish below minimum conservation reference size.

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[25] Annex IV(a) of the Scheme.

7.1.10.8. AAP_Stock

Table 24: Data elements and attributes of AAPStock entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	Identification of the stock.	*SchemeID=* FA_NEAFC_STOCK[26]

7.1.10.9. Fishing_Trip

Description: The fishing trip to which the fishing activity belongs.

Table 25: Data elements and attributes of the FishingTrip entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
Identification	Identifier	1	*	The unique identifier of the fishing trip	The *schemeID* of the identifier must always be provided. The value must be on the code list FA_TRIP_ID_TYPE. At most one occurrence of ID for a given schemeID. Eg. *schemeID*=NEAFC_TN

7.1.10.10. FLUX_Location entity

Description: Entity providing information of a physical location or place where the activity takes place or where catches are taken.

Table 26: Data elements and attributes of FLUXLocation

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the type of FLUX location.	*ListID*=FLUX_LOCATION_TYPE Use POSITION to report activities or catches at a certain geographical location. Use AREA to report catches per relevant geographical area or to indicate the relevant area for the activity. Use LOCATION if the location of the activity is a port or other location defined on the LOCATION list in MDR

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[26] Annex III of Recommendation 2–2011 as amended by recommendations 14-2013 17-2015 and 13-2016.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	0	1	The identifier for this FLUX location.	Mandatory if TypeCode=AREA: *listID*=FAO_AREA up to the ICES division. *listID*=STAT_RECTANGLE where available *listID*=TERRITORY for EEZ *listID*=MANAGEMENT_AREA for locations taking place in areas eg. managed by RFMOs Mandatory if TypeCode=LOCATION: For ports and other defined locations use: *listID*=LOCATION If the location is not in the MDR code list, use the closest relevant MDR location. In such case it is recommended to use in addition a FLUXLocation of Type=POSITION to specify the exact position.
RegionalFisheries Management Organisation	Code	0	1	The code specifying the organization managing fisheries of this FLUX location.	*listID*=RFMO
SpecifiedFLUX_ Geographical Coordinate	Assoc.	0	1	Geographical coordinates information.	Mandatory if TypeCode=POSITION See Table 27.
ApplicableFLUX _Characteristic	Assoc.	0	1	Landing site	Name of the buyer or other specifications describing exactly where in the port the landing will take place. Mandatory if available for a notification of arrival with the intention to land catches caught in the NEAFC RA. Use TypeCode=LANDING_SITE (value from code list FA_LOCATION_ CHARACTERISTIC)

7.1.10.11. FLUX_GeographicalCoordinate entity

Description: Entity providing information of the latitude and longitude of a specified place, by which a location's relative situation on the globe is known.

Table 27: Data elements and attributes of FLUXGeographicalCoordinate

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Longitude	Measure	1	1	The measure of the longitude as an angular distance east or west from the Greenwich meridian to the meridian of a specific place for this FLUX location geographical coordinate	Coordinate expressed in WGS84, decimal degree notation, using a precision of at least 3 decimal positions. Positive coordinate refers to East of Greenwich meridian. Negative coordinate refers to West.
Latitude	Measure	1	1	The measure of the latitude as an angular distance east or west from the Greenwich meridian to the meridian of a specific place for this FLUX location geographical coordinate.	Coordinate expressed in WGS84, decimal degree notation, using a precision of at least 3 decimal positions. Positive coordinate refers to North of equator. Negative coordinate refers to South.

7.1.10.12. FLUX_Characteristic entity

Description: Entity used to provide information of a prominent attribute or aspect of a another FLUX entity.

Table 28: Data elements and attributes of FLUX_CHARACTERISTIC

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the characteristic	When used in data element FLUX_Location *listID*=FLUX_LOCATION_CHARACTERISTIC When used in data element Fishing Activity *listID*= FA_CHARACTERISTIC
Value	Measure	0	1	The measure of the value for this FLUX characteristic.	If UN_DATA_TYPE[27] for the characteristic (specified in FLUXCharacteristic/TypeCode) is MEASURE or NUMBER. Attribute *unitCode* must be set. The unitCode should be defined in the list FLUX_UNIT.
Value	DateTime	0	1	The value, expressed as a date, time, date time, or other date time value, of this FLUX characteristic.	If UN_DATA_TYPE[27] for the characteristic (specified in FLUXCharacteristic/TypeCode) is DATETIME. Must be according to the definition provided in 7.1(2)..
Value	Indicator	0	1	The value, expressed as an indicator, for this FLUX characteristic.	If UN_DATA_TYPE[27] for the characteristic (specified in FLUXCharacteristic/TypeCode) is BOOLEAN.
Value	Code	0	1	The code specifying a value of this FLUX characteristic.	If UN_DATA_TYPE[27] for the characteristic (specified in FLUXCharacteristic/TypeCode) is CODE. Attribute listID must be set. Use value of an existing code list on MDR.
Value	Text	0	1	A value, expressed as text, of this FLUX characteristic.	If UN_DATA_TYPE[27] for the characteristic (specified in FLUXCharacteristic/TypeCode) is TEXT.
Value	Quantity	0	1	The value, expressed as a quantity, for this FLUX characteristic.	If UN_DATA_TYPE[27] for the characteristic (specified in FLUXCharacteristic/TypeCode) is QUANTITY.
RelatedFLAP_ Document	Assoc.	0	1	The Fishing Licence, Authorization or Permit (FLAP) specified for this FLUX characteristic.	If UN_DATA_TYPE[27] for the characteristic (specified in FLUXCharacteristic/TypeCode) is FLAP_DOCUMENT
SpecifiedFLUX_ Location	Assoc.	0	1	A FLUX Location specified for this FLUX characteristic.	If UN_DATA_TYPE[27] for the characteristic (specified in

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[27] Reference to UN_DATA_TYPE field in the code list (on MDR) specified in the listID attribute of FLUXCharacteristic/TypeCode.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
					FLUXCharacteristic/TypeCode) is FLUX_LOCATION

7.1.10.13. Fishing_Gear entity

Description: Entity used to provide information of a fishing gear.

Table 29: Data elements and attributes of Fishing_Gear

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the type of gear	*listID*= GEAR_TYPE The FAO gear codes.
ApplicableGear_ Characteristic	Assoc.	0	*	Specific characteristics of the gear or gear deployment	The characteristics to be reported depending on the gear type as specified in Annex 14.1. See data elements and attributes in Table 30.

7.1.10.14. Gear_Characteristic entity

Description: Specific characteristics of the gear or gear deployment.

Table 30: Data elements and attributes of GearCharacteristic

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the gear characteristic	*listID*= FA_GEAR_CHARACTERISTIC
Value	Measure	0	1	The measure of the value for this GEAR characteristic.	If UN_DATA_TYPE[28] for the characteristic (specified in GearCharacteristic/TypeCode) is of type MEASURE or NUMBER. Attribute *unitCode* must be set. Use the values specified in Annex 14.1, depending on the gear code. The unitCode is defined in the list FLUX_UNIT.
Value	Indicator	0	1	The value, expressed as an indicator, for this GEAR characteristic.	If UN_DATA_TYPE[28] for the characteristic (specified in GearCharacteristic/TypeCode) is of type BOOLEAN.

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[28] Reference to UN_DATA_TYPE field in the code list (on MDR) specified in the listID attribute of GearCharacteristic/TypeCode (ie FA_GEAR_CHARACTERISTIC).

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Value	Code	0	1	The code specifying a value of this GEAR characteristic.	If UN_DATA_TYPE[28] for the characteristic (specified in GearCharacteristic/TypeCode) is of type CODE. Attribute listID must be set. Use value of an existing code list on MDR.
Value	Text	0	1	A value, expressed as text, of this GEAR characteristic.	If UN_DATA_TYPE[28] for the characteristic (specified in GearCharacteristic/TypeCode) is of type TEXT.
Value	Quantity	0	1	The value, expressed as a quantity, for this GEAR characteristic.	If UN_DATA_TYPE[28] for the characteristic (specified in GearCharacteristic/TypeCode) is of type QUANTITY.

7.1.10.15. Gear_Problem entity

Description: Entity providing information on a problem with a fishing gear.

Table 31: Data elements and attributes of Gear_problem entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying a type of gear problem.	*ListID*=FA_GEAR_PROBLEM

7.1.10.16. DelimitedPeriod entity

Description: A period of time delimited by a start and end date.

Table 32: Data elements and attributes of Delimited_Period entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Start	DateTime	0	1	UTC start date of the delimited period	Must be according to the definition provided in 7.1(2).
End	DateTime	0	1	UTC end date of the delimited period	Must be according to the definition provided in 7.1(2).
Duration	Measure	0	1	Total duration of the delimited period	The total duration of the delimited period, including the unitCode. Attribute *unitCode* must be "MIN". The unitCode is defined in the list FLUX_UNIT. The value must not contain decimals.

7.2. FLUX Response Message

The FLUX Response Message is used to respond to a FLUX FA Report Message and contains validation results.

Figure 9: Class Diagram for FLUX Response Message (General Principles Response)
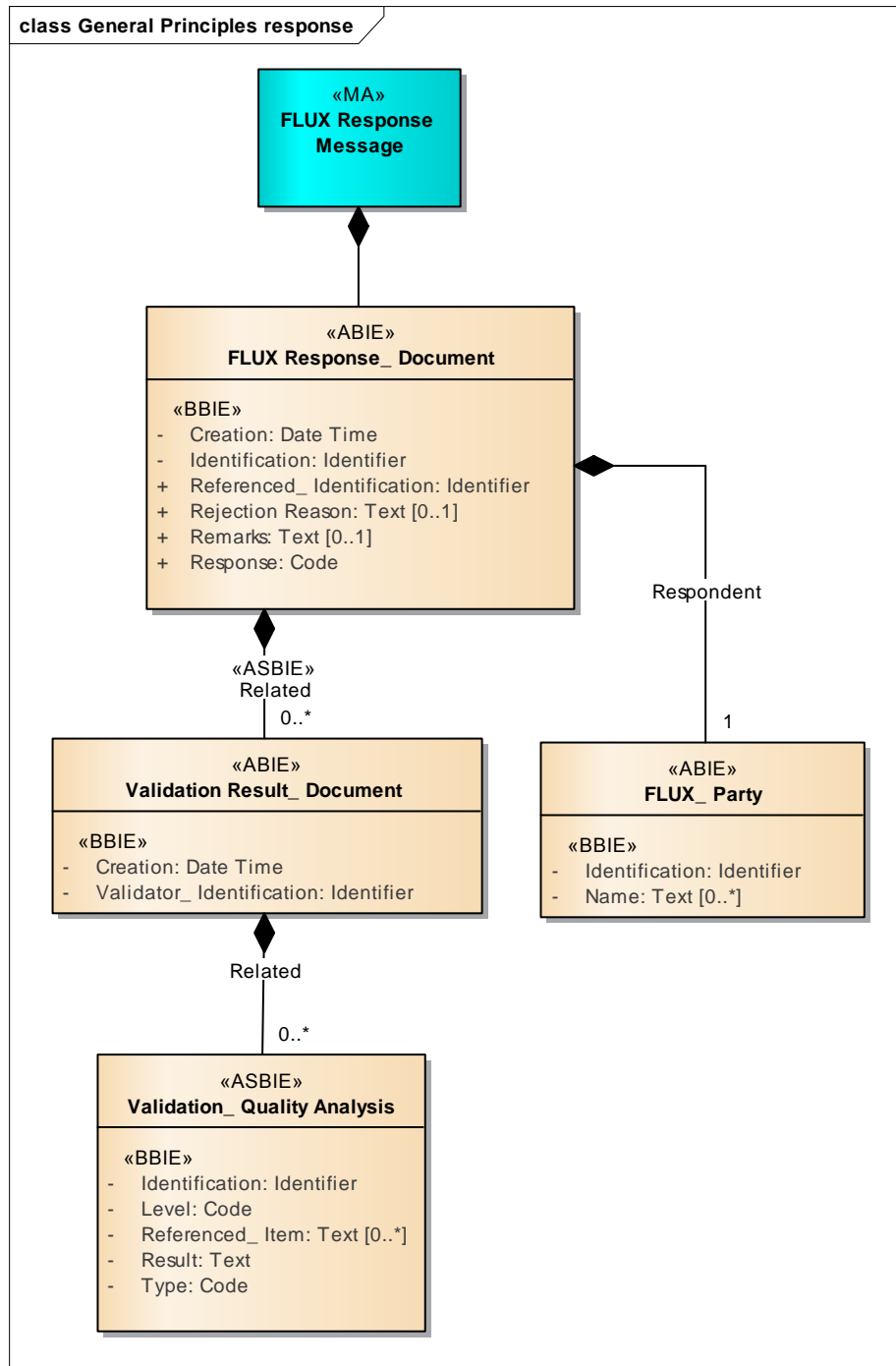
7.2.1. FLUX Response Document

This entity contains information on which message was validated, when and by whom as well as the set of validation results.

Table 33: Data elements and attributes of FLUXResponseDocument entity

| Entity/Field Name | DataType | Cardinality | | Description | Remarks |
		min	max		
Identification	Identifier	1	1	The Global Unique Identifier of the FLUX Response Message.	*schemeID*=UUID[29] as defined in the RFC 4122.
Referenced Identification	Identifier	1	1	The identifier of a referenced FLUX FA Report, to which this FLUX Response Document refers.	Used for referencing the query message or the report message that has been validated. *schemeID*=UUID[29] as defined in the RFC 4122.
Creation	DateTime	1	1	The UTC date and time of the creation of this FLUX Response Message.	Must be according to the definition provided in 7.1(2).
Response	Code	1	1	The code specifying the general status of the validation process, which has been applied on the referenced FLUX FA Report Message.	*listID*=FLUX_GP_RESPONSE If at least one Business Rule fails with an error (NOK), the whole FLUX FA Report Message is rejected
Remarks	Text	0	1	A general textual remark related to the Response code.	Optional.
Related ValidationResult _ Document	Assoc.	0	*	The validation result document related to this FLUX response.	To be provided only in case at least one BR fails (ResponseCode <> OK). See data elements and attributes in Table 34.
Respondent FLUX_Party	Assoc.	1	1	The party owning this FLUX Report Document.	See data elements and attributes in Table 36.

7.2.2.   *Validation Result Document*

Table 34: Data elements and attributes of ValidationResultDocument entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Validator Identification	Identifier	1	1	The identifier the validating party.	*listID*=FLUX_GP_PARTY
Creation	DateTime	1	1	The UTC date/time of the creation of this validation report.	Must be according to the definition provided in 7.1(2).
Related Validation_ QualityAnalysis	Assoc.	0	*	The validation result document related to this FLUX response.	Only the failed business rules[30] are part of FLUX Response Document. The information on the failed business rules are at the level of data field. See data elements and attributes in Table 35.

7.2.3.   *Validation Quality Analysis*

Table 35: Data elements and attributes of QualityAnalysis entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
ID	Identifier	1	1	Business rule identification.	See chapter 8. e.g.: FA-L00-00-0000
Level	Code	1	1	The code specifying the validation level of the business rule.	*listID*= FLUX_GP_VALIDATION_LEVEL e.g.: L00
Type	Code	1	1	The code specifying the type of error found.	*listID*= FLUX_GP_VALIDATION_TYPE e.g. Error, warning, etc.
Result	Text	1	1	Text explaining the business rule violation.	Standardized error/warning message in English. *Message* description on MDR in *listID*=FA_BR
ReferencedItem	Text	0	*	An information to locate in the XML the data causing the problem	X-path to the data element generating the business rule failure. Mandatory for rules with specific reference to an entity/data field/attribute

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[30] All business rules applicable to the message that failed must be included (see section 6.4).

7.2.4. Respondent FLUX_Party

Table 36: Data elements and attributes of RespondentFLUXParty entity

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The identifier of the party generating the response.	*listID*= FLUX_GP_PARTY

8.   BUSINESS RULES

The list of business rules below is used to verify that the data quality of Fishing Activity messages transmitted over the FLUX system is sufficiently high to ensure their relevance. In an exchange of data between two systems without any human intervention, the principle is to give back to the sending system as much as possible feedback about the received message. Therefore it is advised to execute as many business rules as possible at the moment of reception of the message and to reply to the sender by putting in the response all the possible errors (or warnings) detected, not stopping the validation process at the first error (see also sections 6.2.1 and 6.4).

Before transmitting Fishing Activity messages, all business rules defined in this implementation document must be applied.

A business rule is applicable during a certain time period including the start and end dates of the specified period. The period during which the business rule is applicable is available on the Master Data Register page of the NEAFC website (https://www.neafc.org/mdr)[2].

Messages received must be validated according to the applicable business rules at the time of creation of the Fishing Activity Report document (FLUXFAReportDocument/CreationDateTime associated to the FAReportDocument). A business rule must be applied if the data used by the business rule is available in the message.

Mandatory and conditionally mandatory data elements are identified in chapter 7. Where a data element is mandatory to be provided, given the conditions, the XML tags in the report shall be present and not be empty. Where data elements are provided while not mentioned in this implementation document, but nevertheless comply to the UN/FLUX standard, the XML tags in the report may be ignored by the receiving party. It is therefore not mandatory to validate those data elements.

Rules related to data elements are only applicable if the data element is present, except for the rules which explicitly check the presence of a data element. Rules related to data elements of a particular entity, including the rules checking the presence of data elements, are only applicable if those entities are present. Rules checking presence of entities are applicable only if the parent entity is present.

An overloaded data element is defined as a data element communicated repetitively (based on the cardinality of the element defined in the data model) but exceeding the limit imposed by the implementation document. In this version of the document, there are no business rules[31] defined to detect overloaded data elements and therefore to report such issue to the sender. Such data elements are ignored by the validation process. (ex: multiple IRCS identifiers for a vessel in the XML: allowed by the standard but limited to one in the implementation document …)

Validation of the format of the value of an identifier is based on the format defined for the schemeID. The format check must be applied if the format description and expression are

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[31] Additional business rules can be defined in a future version

provided for the schemeID in the Master Data Register. If it is not provided, any value provided must be considered valid.

The tables presented in the sections below must be read as follows:

- BR-ID: Business rule ID. Identifier assigned to the BR according to the following methodology: FA-Lxx-BB-CCCC

  o FA: Referring to the Fishing Activities domain

  o Lxx: The level of the business rule, where x is

    ▪ 00: Integrity control

    ▪ 01: Data field validation (one attribute)

    ▪ 02: Row validation (one report)

    ▪ 03: Content validation (coherence between reports or with external data)

  o BB: optional sub-level. This part of the numbering is used to identify the sub-levels, if FLUX domain requires the split of the business rules levels. If the domain does not require sub-level, '00' must be used.

    Not used in the Fishing Activities domain.

  o CCCC: This part of BR identification represents the sequence number of the business rule in the level and/or sub-level group so it can be uniquely identified.

- Entity/Attribute: the entity in the Fishing Activities data model and the attribute(s) name(s) within this entity used by the BR. The names of entities and attributes are as defined in the UN/CEFACT XSD files.

- BR: description of the rule

- E/W: error or warning.

- Note: Any relevant information to clarify the BR

8.1. General business rules

BR-ID	Entity/Attribute	BR	E/W [32]	Note
FA-L00-00-0000	FLUXFAReportMessage	Verifies whether or not the message is valid XML and validates against the XSD schema	E	An invalid XML message has been received.

8.2. Rules for FLUXFAReportMessage entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0001	FLUXFAReportMessage/FLUX ReportDocument/ID	Check presence. Must be present.	E	
FA-L01-00-0002	FLUXFAReportMessage/FLUX ReportDocument/ID	Check attribute schemeID. Must be UUID.	E	
FA-L01-00-0003	FLUXFAReportMessage/FLUX ReportDocument/ID	Check Format of the value. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L03-00-0004	FLUXFAReportMessage/FLUX ReportDocument/ID	The identification must be unique and not already exist	E	If it exists already, the contents are considered identical and the message may be ignored by the receiving party.
FA-L00-00-0005	FLUXFAReportMessage/FLUX ReportDocument/CreationDateTime	Check presence. Must be present.	E	
FA-L01-00-0006	FLUXFAReportMessage/FLUX ReportDocument/CreationDateTime	Check Format. Must be according to the definition provided in 7.1(2).	E	
FA-L03-00-0007	FLUXFAReportMessage/FLUX ReportDocument/CreationDateTime	Date must be in the past.	E	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.
FA-L00-00-0008	FLUXFAReportMessage/FLUX ReportDocument/PurposeCode	Check presence. Must be present.	E	
FA-L01-00-0009	FLUXFAReportMessage/FLUX ReportDocument/PurposeCode	Check attribute listID. Must be FLUX_GP_PURPOSE	E	If listID provided.
FA-L01-00-0010	FLUXFAReportMessage/FLUX ReportDocument/PurposeCode	Check code. Must be value 9 (original data)	E	
FA-L00-00-0014	FLUXFAReportMessage/FLUX ReportDocument/OwnerFLUXParty/ID	Check presence. Must be present	E	
FA-L01-00-0015	FLUXFAReportMessage/FLUX ReportDocument/OwnerFLUXParty/ID	Check attribute schemeID. Must be FLUX_GP_PARTY	E	
FA-L03-00-0016	FLUXFAReportMessage/FLUX ReportDocument/OwnerFLUXParty/ID	Check if OwnerFLUXParty/ID is consistent with FLUX TL values.	E	The party sending must be allowed to send the message. Part of FLUX TL FR-value before colon must be equal to OwnerFLUXParty/ID
FA-L00-00-0017	FLUXFAReportMessage/FAReportDocument	Check presence. At least one occurrence must be present.	E	

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[32] Error/Warning

8.3. Rules for FAReportDocument entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0020	FAReportDocument/TypeCode, FAReportDocument/RelatedFLUXReportDocument/PurposeCode	Check presence. Must be present in case of a new message or a correction.	E	PurposeCode 9or 5.
FA-L01-00-0021	FAReportDocument/TypeCode	Check attribute listID. Must be FLUX_FA_REPORT_TYPE	E	
FA-L01-00-0022	FAReportDocument/TypeCode	Check code. Must be existing in the list specified in attribute listID.	E	
FA-L00-00-0025	FAReportDocument/AcceptanceDateTime	Check presence. Must be present.	E	
FA-L01-00-0026	FAReportDocument/AcceptanceDateTime	Check Format. Must be according to the definition provided in 7.1(2).	E	Include the check if the date provided exists.
FA-L03-00-0027	FAReportDocument/AcceptanceDateTime	Date must be in the past	E	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.
FA-L00-00-0480	FAReportDocument/FMCMarker	Check attribute listID. Must be FLUX_FA_FMC if data element present	E	
FA-L01-00-0481	FAReportDocument/FMCMarker	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0028	FAReportDocument/RelatedFLUXReportDocument	Check presence. Must be present.	E	
FA-L01-00-0580	FAReportDocument/RelatedFLUXReportDocument/ID	Check attribute schemeID. At least one occurrence of schemeID must be UUID. In addition, another occurrence may be NEAFC_SQ	E	SQ number is optional
FA-L01-00-0030	FAReportDocument/RelatedFLUXReportDocument/ID	Check Format. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L00-00-0032	FAReportDocument/RelatedFLUXReportDocument/PurposeCode	Check presence. Must be present	E	
FA-L01-00-0033	FAReportDocument/RelatedFLUXReportDocument/PurposeCode	Check attribute listID. Must be FLUX_GP_PURPOSE	E	
FA-L01-00-0034	FAReportDocument/RelatedFLUXReportDocument/PurposeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L03-00-0035	FAReportDocument/RelatedFLUXReportDocument/ReferencedID, FAReportDocument/RelatedFLUXReportDocument/PurposeCode	Check presence. Must be present if correction, deletion or cancellation of an earlier report. PurposeCode = 1, 3 or 5.	E	
FA-L01-00-0036	FAReportDocument/RelatedFLUXReportDocument/ReferencedID	Check attribute schemeID. Must be UUID.	E	
FA-L01-00-0037	FAReportDocument/RelatedFLUXReportDocument/ReferencedID	Check Format. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L00-00-0039	FAReportDocument/RelatedFLUXReportDocument/CreationDateTime	Check presence. Must be present.	E	
FA-L01-00-0040	FAReportDocument/RelatedFLUXReportDocument/CreationDateTime	Check Format. Must be according to the definition provided in 7.1(2).	E	
FA-L03-00-0041	FAReportDocument/RelatedFLUXReportDocument/CreationDateTime	Date must be in the past.	W	A thresholdof 10 minutes to compensate for incorrect clock

BR-ID	Entity/Attribute	BR	E/W	Note
				synchronization of the exchanging systems must be taken into account.
FA-L02-00-0042	FAReportDocument/Acceptance DateTime, FAReportDocument/RelatedFLUXReportDocument/CreationDateTime	Acceptance date/time must be before Creation date/time	E	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.
FA-L00-00-0043	FAReportDocument/RelatedFLUXReportDocument/OwnerFLUXParty/ID	Check presence. Must be present	E	
FA-L01-00-0044	FAReportDocument/RelatedFLUXReportDocument/OwnerFLUXParty/ID	Check attribute schemeID. Must be FLUX_GP_PARTY	E	
FA-L02-00-0045	FAReportDocument/RelatedFLUXReportDocument/OwnerFLUXParty/ID, FLUXFAReportMessage/FLUXReportDocument/OwnerFLUXParty/ID	Check if FAReportDocument/RelatedFLUXReportDocument/OwnerFLUXParty/ID (owner of the report) is consistent FLUXFAReportMessage/FLUXReportDocument/OwnerFLUXParty/ID (party sending the message).	W	Both values must be identical, except where FLUXFAReportMessage/FLUXReportDocument/OwnerFLUXParty/ID starts with letter "X". Eg. XEU, XFA
FA-L00-00-0046	FAReportDocument/SpecifiedVesselTransportMeans, FAReportDocument/PurposeCode	SpecifiedVesselTransportMeans must be present, unless deletion or cancellation report.	E	If purposeCode 9 or 5, this entity is mandatory
FA-L00-00-0047	FAReportDocument/SpecifiedFishingActivity	Check presence. Must be present, unless deletion or cancellation report.	E	If purposeCode 9 or 5, there must be exactly one occurrence, except for fishing operations (code FISHING_OPERATION or JOINT_FISHING_OPERATION) occurring on the same day.

8.4. Rules for VesselTransportMeans

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0563	VesselTransportMeans/ID	Check presence. At least 2 identifiers with distinct schemeID must be present if used in SpecifiedVesselTransportMeans	E	
FA-L00-00-0570	VesselTransportMeans/ID	Check presence. At least 1 identifier must be present if used in RelatedVesselTransportMeans	E	
FA-L01-00-0051	VesselTransportMeans/ID	Check schemeID. SchemeIDs must be present in the list FLUX_VESSEL_ID_TYPE	E	
FA-L01-00-0052	VesselTransportMeans/ID	Check Format. Must be according to the specified schemeID.	E	
FA-L03-00-0482	VesselTransportMeans/ID	One occurrence of ID must have schemeID=IRCS.	E	
FA-L00-00-0055	VesselTransportMeans/RoleCode	Check presence. Must be present if used in FishingActivity entity (ic. RelatedVesselTransportMeans).	E	Conditions for RoleCode for the reporting vessel (i.e. FAReportDocument/SpecifiedVesselTransportMeans) are specified elsewhere.
FA-L01-00-0056	VesselTransportMeans/RoleCode	Check attribute listID. Must be FA_VESSEL_ROLE	E	
FA-L01-00-0057	VesselTransportMeans/RoleCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0058	VesselTransportMeans/RegistrationVesselCountry/ID	Check presence. Must be present	E	
FA-L01-00-0059	VesselTransportMeans/RegistrationVesselCountry/ID	Check schemeID. Must be TERRITORY	E	
FA-L01-00-0060	VesselTransportMeans/RegistrationVesselCountry/ID	Check code. Must be existing in the list specified in attribute schemeID	E	
FA-L03-00-0062	VesselTransportMeans/ID, VesselTransportMeans/RegistrationVesselCountry/ID	The vessel identification and registration location (flag state) must be consistent	W	The vessel (based on the reported IDs) must be registered in the reported flag state on the report creation date.
FA-L00-00-0067	VesselTransportMeans/SpecifiedContactParty	Check presence. Must be present if used in entity FAReportDocument/SpecifiedVesselTransportMeans	E	
FA-L00-00-0069	VesselTransportMeans/SpecifiedContactParty/RoleCode	Check listID. Must be FLUX_CONTACT_ROLE	E	
FA-L01-00-0070	VesselTransportMeans/SpecifiedContactParty/RoleCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L02-00-0590	VesselTransportMeans/SpecifiedContactParty/RoleCode	Must be MASTER if used in entity FAReportDocument/SpecifiedVesselTransportMeans	W	
FA-L00-00-0072	VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/GivenName, VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/Alias	Check presence. Must be present if AliasText is not present.	E	
FA-L00-00-0074	VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/FamilyName, VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/Alias	Check presence. Must be present if Alias is not present	E	
FA-L00-00-0076	VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/Alias, VesselTransportMeans/SpecifiedContactParty/Sp	Check presence. Must be present if GivenName or FamilyName is not present.	E	In some cases the name of the master is not available as first and last name,

BR-ID	Entity/Attribute	BR	E/W	Note
	ecifiedContactPerson/GivenName, VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/FamilyName			but as one text field containing a concatenation of both.
FA-L01-00-0077	VesselTransportMeans/SpecifiedContactParty/SpecifiedContactPerson/Alias	Non-empty	E	In some cases the name of the master is not available as first and last name, but as one text field containing a concatenation of both.
FA-L02-00-0469	VesselTransportMeans/ SpecifiedVesselPositionEvent, FishingActivity/TypeCode	Check presence. SpecifiedVesselPositionEvent must be present if FishingActivity/TypeCode=AREA_ENTRY	E	

8.5. Rules for VesselPositionEvent

BR-ID	Entity	BR	E/W	Note
FA-L00-00-0458	VesselPositionEvent/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0459	VesselPositionEvent/TypeCode	Check attribute listID. Must be FLUX_VESSEL_POSITION_TYPE	E	
FA-L01-00-0460	VesselPositionEvent/ TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0461	VesselPositionEvent/ObtainedOccurenceDateTime	Check presence. Must be present.	E	
FA-L01-00-0462	VesselPositionEvent/ObtainedOccurenceDateTime	Check Format. Must be according to the definition provided in 7.1(2)	E	Include the check if the date provided exists.
FA-L00-00-0463	VesselPositionEvent/SpecifiedVesselGeographicalCoordinate/LatitudeMeasure	Check presence. Must be present	E	
FA-L01-00-0464	VesselPositionEvent/SpecifiedVesselGeographicalCoordinate/LatitudeMeasure	Must be a number with at least 3 decimal positions between -90.000 and 90.000 included.	E	
FA-L01-00-0465	VesselPositionEvent/SpecifiedVesselGeographicalCoordinate/LatitudeMeasure	Must be a number with at least 3 decimal positions between -180.000 and 180.000 included.	E	
FA-L00-00-0455	VesselPositionEvent/SpecifiedVesselGeographicalCoordinate/LongitudeMeasure	Check presence. Must be present	E	

8.6. Rules for FishingActivity entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0090	FishingActivity/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0091	FishingActivity/TypeCode	Check attribute listID. Must be FLUX_FA_TYPE	E	
FA-L01-00-0092	FishingActivity/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0094	FishingActivity/OccurrenceDateTime	Check Format. Must be according to the definition provided in 7.1(2)	E	If provided. In some cases, depending on fishing activity type, a delimited period must be used instead.
FA-L01-00-0097	FishingActivity/ReasonCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0101	FishingActivity/SpeciesTargetCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0102	FishingActivity/VesselRelatedActivityCode	Check attribute listID. Must be VESSEL_ACTIVITY	E	
FA-L01-00-0103	FishingActivity/VesselRelatedActivityCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L01-00-0104	FishingActivity/OperationsQuantity	Must be a positive integer[33] number or zero (>=0)	E	
FA-L01-00-0105	FishingActivity/SpecifiedDelimitedPeriod/DurationMeasure	Must be a positive number or zero (>=0)	E	
FA-L01-00-0106	FishingActivity/SpecfiedDelimitedPeriod/DurationMeasure	Check attribute unitCode. Must be MIN (minutes)	W	Duration expressed in minutes
FA-L01-00-0484	FishingActivity/SpecifiedDelimitedPeriod/DurationMeasure	Check presence of attribute unitCode. Must be present if data element provided.	E	

8.7. Rules for FACatch entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0150	FACatch/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0151	FACatch/TypeCode	Check attribute listID. Must be FA_CATCH_TYPE	E	
FA-L01-00-0152	FACatch/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0153	FACatch/SpeciesCode	Check presence. Must be present.	E	
FA-L01-00-0154	FACatch/SpeciesCode	Check attribute listID. Must be FAO_SPECIES	E	
FA-L01-00-0155	FACatch/SpeciesCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0565	FACatch/WeightMeasure	Check presence. Must be present.	E	
FA-L01-00-0160	FACatch/WeightMeasure	Check attribute UnitCode. Must be KGM (kilograms)	E	

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[33] Integer numbers are numbers without fractions. They should be provided in the reports without decimals.

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L01-00-0161	FACatch/WeightMeasure	Positive number with maximum 2 decimals or zero (>=0)	E	
FA-L01-00-0166	FACatch/SpecifiedSizeDistribution/ClassCode	Check attribute listID. Must be FISH_SIZE_CLASS	E	i.e. BMS, LSC
FA-L01-00-0167	FACatch/SpecifiedSizeDistribution/ClassCode	Check code. Must be existing in the list specified in attribute listID	E	

8.8. Rules for AAPStock entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0491	AAPStock/ID	Check presence. Must be present.	E	
FA-L01-00-0492	AAPStock/ID	Check attribute schemeID. Must be FA_NEAFC_STOCK	E	
FA-L01-00-0493	AAPStock/ID	Check code. Must be existing in the list specified in attribute schemeID	E	

8.9. Rules for FishingTrip entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0190	FishingTrip/ID	Check presence. Must be present.	E	At least one occurrence.
FA-L00-00-0487	FishingTrip/ID	Check attribute schemeID. Must be present.	E	
FA-L02-00-0591	FishingTrip/ID	Check attribute schemeID. At most one occurrence of ID for a given schemeID.	E	
FA-L01-00-0192	FishingTrip/ID	Check format. Must be according to schemeID rules.	E	

8.10. Rules for FLUXLocation entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0195	FLUXLocation/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0196	FLUXLocation/TypeCode	Check attribute listID. Must be FLUX_LOCATION_TYPE	E	
FA-L01-00-0197	FLUXLocation/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L02-00-0201	FLUXLocation/ID, FLUXLocation/TypeCode	ID must be present, unless TypeCode is POSITION or ADDRESS	E	ID is optional for address and geographical location
FA-L01-00-0473	FLUXLocation/ID, FLUXLocation/TypeCode	Check attribute schemeID of ID. In case TypeCode=AREA: schemeID must be FAO_AREA, STAT_RECTANGLE, TERRITORY, MANAGEMENT_AREA. In case TypeCode= "LOCATION" the schemeID must be LOCATION	E	

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L01-00-0203	FLUXLocation/ID	Check value. Must be existing in the list specified in attribute schemeID	E	
FA-L01-00-0204	FLUXLocation/RegionalFisheriesManagementOrganisationCode	Check attribute listID. Must be RFMO.	E	
FA-L01-00-0205	FLUXLocation/RegionalFisheriesManagementOrganisationCode	Check value. Must be existing in the list specified in attribute listID	E	
FA-L02-00-0206	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate, FLUXLocation/TypeCode	Check presence. Must be present if FLUXLocation/TypeCode =POSITION.	E	Must be present if location type is POSITION.
FA-L01-00-0216	ApplicableFLUXCharacteristic/TypeCode	Check attribute listID. Must be FLUX_LOCATION_CHARACTERISTIC if used in entity FLUXLocation	E	

8.11. Rules for FLUXGeographicalCoordinate entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0207	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate/LatitudeMeasure	Check presence. Must be present.	E	
FA-L01-00-0213	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate/LatitudeMeasure	Must be a number with at least 3 decimal positions between -90.000 and 90.000 included.	E	Boundaries follow the EPSG[34] definition for WGS84.
FA-L00-00-0210	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate/LongitudeMeasure	Check presence. Must be present.	E	
FA-L01-00-0214	FLUXLocation/SpecifiedPhysicalFLUXGeographicalCoordinate/LongitudeMeasure	Must be a number with at least 3 decimal positions between -180.000 and 180.000 included.	E	Boundaries follow the EPSG[34] definition for WGS84.

8.12. Rules for FishingGear entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0540	FishingGear/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0120	FishingGear/TypeCode	Check attribute listID. Must be GEAR_TYPE	E	
FA-L01-00-0121	FishingGear/TypeCode	Check code. Must be existing in the list specified in attribute listID	E	
FA-L02-00-0592	FishingGear/ApplicableGearCharacteristic, FishingGear/TypeCode	ApplicableGearCharacteristic must be present if FishingGear/TypeCode requires specific characteristics to be reported. Only applicable if used in entity FishingActivity	W	As many occurrences required as defined in the annex 14.1).

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[34] The EPSG Geodetic Parameter Dataset is a collection of definitions of coordinate reference systems and coordinate transformations. It is a standardized way to specify the coordinate system & parameters. WGS84 corresponds to EPSG:4326.

8.13. Rules for GearCharacteristic entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0124	GearCharacteristic/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0125	GearCharacteristic/TypeCode	Check attribute listID. Must be FA_GEAR_CHARACTERISTIC	E	
FA-L01-00-0126	GearCharacteristic/TypeCode	Check the value of the code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0128	GearCharacteristic/ValueMeasure	If UN_DATA_TYPE[35] for the characteristic (specified in GearCharacteristic/TypeCode) is MEASURE or NUMBER, ValueMeasure must be present and have a value	E	If gear characteristic requires value of type Measure
FA-L01-00-0510	GearCharacteristic/ValueMeasure	Check attribute *unitCode*. The unitCode is defined in the list FLUX_UNIT. Use the value as specified in Annex 14.1.	E	
FA-L00-00-0129	GearCharacteristic/ValueIndicator	If UN_DATA_TYPE[35] for the characteristic (specified in GearCharacteristic/TypeCode) is BOOLEAN, ValueIndicator must be present and have a value.	E	If gear characteristic requires value of type Indicator
FA-L00-00-0130	GearCharacteristic/ValueCode	If UN_DATA_TYPE[35] for the characteristic (specified in GearCharacteristic/TypeCode) is CODE, ValueCode must be present and have a value	E	If gear characteristic requires value of type Code
FA-L03-00-0145	GearCharacteristic/ValueCode	Check presence of attribute listID. Must be present and have a value of an existing code list in MDR.	E	
FA-L01-00-0146	GearCharacteristic/ValueCode	Check value. Must be existing on the MDR code list specified in listID.	E	
FA-L00-00-0131	GearCharacteristic/Value	If UN_DATA_TYPE[35] for the characteristic (specified in GearCharacteristic/TypeCode) is TEXT, Value must be present and non-empty.	E	If gear characteristic requires value of type Text
FA-L00-00-0132	GearCharacteristic/ValueQuantity	If UN_DATA_TYPE[35] for the characteristic (specified in GearCharacteristic/TypeCode) is QUANTITY, ValueQuantity must be present and have a value	E	If gear characteristic requires value of type Quantity

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[35] Reference to UN_DATA_TYPE field in the FA_GEAR_CHARACTERISTIC code list on MDR.

8.14. Rules for GearProblem entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0135	GearProblem/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0136	GearProblem/TypeCode	Check attribute listID. Must be FA_GEAR_PROBLEM.	E	
FA-L01-00-0137	GearProblem/TypeCode	Check code. Must be existing in the list specified in attribute listID.	E	

8.15. Rules for FLUXCharacteristic entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0220	FLUXCharacteristic/TypeCode	Check presence. Must be present.	E	
FA-L01-00-0221	FLUXCharacteristic/TypeCode	Check the value of the code. Must be existing in the list specified in attribute listID	E	
FA-L00-00-0223	FLUXCharacteristic/ValueMeasure	If UN_DATA_TYPE[36] for the characteristic (specified in FLUXCharacteristic/TypeCode) is MEASURE or NUMBER, ValueMeasure must be present and have a value.	E	If FLUX_characteristic requires value of type Measure
FA-L00-00-0229	FLUXCharacteristic/ValueMeasure	Check attribute *unitCode*. The unitCode is defined in the list FLUX_UNIT.	E	If FLUX_characteristic requires value of type Measure
FA-L00-00-0224	FLUXCharacteristic/ValueDateTime	If UN_DATA_TYPE[36] for the characteristic (specified in FLUXCharacteristic/TypeCode) is DATETIME, ValueDateTime must be present.	E	If FLUX_characteristic requires value of type DateTime
FA-L00-00-0225	FLUXCharacteristic/ValueIndicator	If UN_DATA_TYPE[36] for the characteristic (specified in FLUXCharacteristic/TypeCode) is BOOLEAN, ValueIndicator must be present and have a value.	E	If FLUX_characteristic requires value of type Indicator
FA-L00-00-0226	FLUXCharacteristic/ValueCode	If UN_DATA_TYPE[36] for the characteristic (specified in FLUXCharacteristic/TypeCode) is CODE, ValueCode must be present and have a value.	E	If FLUX_characteristic requires value of type Code
FA-L03-00-0147	FLUXCharacteristic/ValueCode	Check presence of attribute listID. Must be present and have a value of an existing code list in MDR.	E	
FA-L01-00-0148	FLUXCharacteristic/ValueCode	Check value. Must be existing on the MDR code list specified in listID.	E	
FA-L00-00-0227	FLUXCharacteristic/Value	If UN_DATA_TYPE[36] for the characteristic (specified in FLUXCharacteristic/TypeCode) is TEXT, Value must be present and non-empty.	E	If FLUX_characteristic requires value of type Text
FA-L00-00-0228	FLUXCharacteristic/ValueQuantity	If UN_DATA_TYPE[36] for the characteristic (specified in FLUXCharacteristic/TypeCode) is	E	If FLUX_characteristi

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[36] Reference to UN_DATA_TYPE field in the code list (on MDR) specified in the listID attribute of FLUXCharacteristic/TypeCode.

BR-ID	Entity/Attribute	BR	E/W	Note
		QUANTITY, ValueQuantity must be present and have a value.		c requires value of type Quantity

8.16. Additional rules for a prior notification of entry

BR-ID	Entity/Attribute	BR	E/W	Note
CONDITION	FishingActivity/TypeCode, FAReportDocument/TypeCode	If AREA_ENTRY NOTIFICATION		All rules in this table apply to reports that match this condition.
FA-L02-00-0471	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurrence must be present if the activity is an area entry notification.	E	
FA-L02-00-0456	FishingActivity/RelatedFLUXLocation/TypeCode	At least one occurrence of RelatedFLUXLocation/TypeCode must have the value AREA if the activity is an area entry notification.	E	
FA-L02-00-0466	FishingActivity/RelatedFLUXLocation/TypeCode	The schemeID of at least one occurrence with RelatedFLUXLocation/TypeCode=AREA must have RelatedFLUXLocation/ID=MANAGEMENT_AREA if the activity is an area entry notification.	W	
FA-L02-00-0468	FishingActivity/SpecifiedFACatch/TypeCode	Must have at least one occurrence with TypeCode ONBOARD if the activity is an area entry notification	E	
FA-L02-00-0511	FishingActivity/ReasonCode	Check presence. Must be present if the activity is an area entry notification.	E	
FA-L02-00-0512	FishingActivity/ReasonCode	Check attribute listID. Must be FA_REASON_ENTRY if the activity is an area entry notification	E	
FA-L02-00-0514	FishingActivity/SpeciesTargetCode, FishingActivity/ReasonCode	Check presence. Must be present if ReasonCode=FIS if the activity is an area entry notification	E	
FA-L02-00-0515	FishingActivity/SpeciesTargetCode	Check attribute listID. Must be FAO_SPECIES if the activity is an area entry notification	E	
FA-L02-00-0517	FishingActivity/RelatedFishingActivity, FishingActivity/ReasonCode	Check presence of RelatedFishingActivity. Must be present if the activity is an area entry notification and ReasonCode is FIS or TRX.	E	
FA-L02-00-0520	FishingActivity/RelatedFishingActivity/TypeCode	Check value of the code. Must be START_ACTIVITY if the activity is an area entry notification	E	
FA-L02-00-0521	FishingActivity/RelatedFishingActivity/OccurenceDateTime, FishingActivity/TypeCode	Check presence. Must be present if the parent activity is an area entry notification	E	
FA-L02-00-0523	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation, FishingActivity/TypeCode	Check presence. Must be present if the parent activity is an area entry notification.	E	
FA-L02-00-0524	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation/TypeCode, FishingActivity/TypeCode	Check value. At least one occurrence of RelatedFLUXLocation/TypeCode must be POSITION if the parent activity is an area entry notification .	E	

8.17. Additional rules for a fishing operation declaration

BR-ID	Entity/Attribute	BR	E/W	Note
CONDITION	*FishingActivity/TypeCode, FAReportDocument/TypeCode*	*If FISHING_OPERATION DECLARATION*		*All rules in this table apply to reports that match this condition.*
FA-L02-00-0256	FishingActivity/VesselRelatedActivityCode	Check presence. Must be present if the activity is fishing operation declaration.	E	
FA-L02-00-0535	FishingActivity/OperationsQuantity, FishingActivity/RelatedFishingActivity	Check presence. Must be present if the activity is a fishing operation declaration and no RelatedFishingActivity entities are present	E	Not applicable for haul by haul (ie. RelatedFishingActivity GEAR_SHOT, GEAR_RETRIEVAL)
FA-L02-00-0564	FishingActivity/SpecifiedFACatch, FishingActivity/VesselRelatedActivityCode	Check presence. Must be present if the activity is fishing operation declaration and VesselRelatedActivityCode = FIS	E	
FA-L02-00-0536	FishingActivity/SpecifiedFACatch/TypeCode	Value must be ONBOARD if the activity is fishing operation declaration	E	
FA-L02-00-0537	FishingActivity/SpecifiedDelimitedPeriod/DurationMeasure, FishingActivity/VesselRelatedActivityCode	Check presence. Must be present if the activity is fishing operation declaration and VesselRelatedActivityCode = FIS	E	
FA-L02-00-0531	FishingActivity/RelatedFLUXLocation, FishingActivity/RelatedFLUXLocation/ID	At least one occurrence must be present with listID=MANAGEMENT_AREA if activity is fishing operation declaration	W	
FA-L02-00-0532	FishingActivity/RelatedFLUXLocation, FishingActivity/RelatedFLUXLocation/ID	At least one occurrence must be present with listID=FAO_AREA or STAT_RECTANGLE if activity is fishing operation declaration and no RelatedFishingActivity entities are present	E	
FA-L03-00-0545	FishingActivity/RelatedFLUXLocation/ID	If attribute listID=FAO_AREA, then must be FAO devision (3 levels: area, sub-area, division) if the activity is fishing operation declaration	W	
FA-L03-00-0546	FishingActivity, FishingActivity/RelatedFishingActivity	If the activity is fishing operation declaration, there must be either no RelatedFishingActivity or there must be 2	W	
FA-L02-00-0260	FishingActivity/RelatedFishingActivity/TypeCode, FishingActivity/TypeCode	If the activity is fishing operation declaration, FishingActivity/RelatedFishingActivity/TypeCode must be GEAR_SHOT or GEAR_RETRIEVAL (if RelatedFishingActivity entity is present).	E	
FA-L02-00-0547	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation	Check presence. At least one occurrence must be present if the activity is fishing operation declaration.	E	
FA-L02-00-0548	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation/TypeCode, FishingActivity/RelatedFishingActivity/TypeCode	Check valueof RelatedFishingActivity/RelatedFLUXLocation/TypeCode. If RelatedFishingActivity/TypeCode= GEAR_SHOTand the activity is fishing operation declaration, there must be at least one occurrence with TypeCode=POSITION	E	Start position
FA-L02-00-0549	FishingActivity/RelatedFishingActivity/RelatedFLUXLocation/TypeCode, FishingActivity/RelatedFishingActivity/TypeCode	Check valueof RelatedFishingActivity/RelatedFLUXLocation/TypeCode If RelatedFishingActivity/TypeCode= GEAR_RETRIEVAL SHOT and the activity is fishing operation declaration, there must be at least one occurrence with TypeCode=POSITION	E	End position.

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L02-00-0550	FishingActivity/RelatedFishing Activity/SpecifiedFLUXCharact eristic/TypeCode	Check value. If provided, there must be one occurrence with FISHING_DEPTH and one with BOTTOM_DEPTH	E	
FA-L02-00-0610	FishingActivity/RelatedFishing Activity/TypeCode, FishingActivity/TypeCode	If the activity is a fishing operation declaration and the RelatedFishingActivity/TypeCode is either GEAR_SHOT or GEAR_RETRIEVAL, then the RelatedFishingActivity shall not contain SpecifiedFACatch entities.	E	
FA-L00-00-0571	FAReportDocument/SpecifiedV esselTransportMeans/RoleCode, FishingActivity/RelatedVesselTr ansportMeans	Check presence. Must be present if the activity is fishing operation declaration and a relatedVesselTransportMeans is present.	E	The role of the reporting vessel must be provided in case more than one vessel is involved in the activity
FA-L01-00-0582	FishingActivity/RelatedVesselTr ansportMeans/RoleCode	Must be either PAIR_FISHING_PARTNER or DONOR if the activity is a fishing operation declaration..	E	The role of the other vessel involved in the activity must be specified.

8.18. Additional rules for a discard declaration

BR-ID	Entity	BR	E/W	Note
CONDITION	*FishingActivity/TypeCode, FishingActivity/FAReportDocum ent/TypeCode*	*If DISCARD DECLARATION*		*All rules in this table apply to reports that match this condition.*
FA-L02-00-0281	FishingActivity/RelatedFLUXL ocation	Check presence.At least 1 occurence must be present if the activity is discard declaration.	E	
FA-L02-00-0567	FishingActivity/SpecifiedFACat ch, FishingActivity/SpecifiedFACat ch/TypeCode	At least one occurrence must be present and have TypeCode=DISCARDED if the activity is discard operation declaration	W	
FA-L02-00-0533	FishingActivity/SpecifiedFACat ch/SpecifiedFLUXLocation, FishingActivity/SpecifiedFACat ch/SpecifiedFLUXLocation/ID	At least one occurrence must be present having a SpecifiedFLUXLocation/ID with listID=MANAGEMENT_AREA if activity is discard operation declaration (and catches provided)	W	Location where the discarded catches were taken.
FA-L02-00-0534	FishingActivity/SpecifiedFACat ch/SpecifiedFLUXLocation, FishingActivity/SpecifiedFACat ch/SpecifiedFLUXLocation/ID	At least one occurrence must be present with listID=FAO_AREA or STAT_RECTANGLE if activity is discard operation declaration (and catches provided)	E	Location where the discarded catches were taken.
FA-L02-00-0560	FishingActivity/ReasonCode	Check presence. Must be present if the activity is discard operation declaration.	E	
FA-L02-00-0561	FishingActivity/ReasonCode	Check attribute listID. Must be FA_REASON_DISCARD if the activity is discard operation declaration	E	
FA-L02-00-0562	FishingActivity/OccurenceDateT ime	Check presence. Must be present if the activity is discard operation declaration.	E	
FA-L02-00-0568	FishingActivity/SpecifiedFLUX Characteristic/TypeCode	Value must be REMARK if the activity is discard operation declaration	E	

8.19. Additional rules for a transhipment declaration (by receiver)

BR-ID	Entity/Attribute	BR	E/W	Note
CONDITION	*FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode*	If TRANSHIPMENT DECLARATION		*All rules in this table apply to reports that match this condition.*
FA-L02-00-0321	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurence must be present if the activity is a transhipment declaration.	E	
FA-L02-00-0322	FishingActivity/RelatedFLUXLocation/TypeCode	If the activity is a transhipment declaration, the TypeCode value of at least one RelatedFLUXLocation must be LOCATION or POSITION.	E	
FA-L02-00-0323	FishingActivity/RelatedVesselTransportMeans	Check presence. Must be present if the activity is a transhipment declaration.	E	
FA-L00-00-0559	FAReportDocument/SpecifiedVesselTransportMeans/RoleCode	Check presence. Must be present if the activity is a transhipment declaration.	E	
FA-L02-00-0569	FishingActivity/ RelatedVesselTransportMeans/ RoleCode	Check value. Must be DONOR if the activity is a transhipment declaration.	E	
FA-L02-00-0552	FishingActivity/SpecifiedFACatch/TypeCode	Check value. Must be LOADED or ONBOARD if the activity is a transhipment declaration.	E	
FA-L02-00-0583	FishingActivity/SpecifiedFACatch, FishingActivity/SpecifiedFACatch/TypeCode	Check presence. At least 2 occurences of SpecifiedFACatch with different values for SpecifiedFACatch/TypeCode must be present if the activity is a transhipment declaration.	E	Catches loaded and catches onboard after transhipment.
FA-L02-00-0538	FishingActivity/SpecifiedDelimitedPeriod, FishingActivity/SpecifiedDelimitedPeriod/EndDateTime	Check presence. Must be present and have at least EndDateTime present if the activity is a transhipment declaration.	E	

8.20. Additional rules for a notification of transhipment (by donor)

BR-ID	Entity/Attribute	BR	E/W	Note
CONDITION	*FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode*	If TRANSHIPMENT NOTIFICATION		*All rules in this table apply to reports that match this condition.*
FA-L02-00-0407	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurrence must be present if the activity is a transhipment notification.	E	
FA-L02-00-0408	FishingActivity/RelatedFLUXLocation/TypeCode	Check value. There must be at least one occurrence with value POSITION if the activity is a transhipment notification.	E	
FA-L02-00-0409	FishingActivity/RelatedVesselTransportMeans	Check presence. Must be present if the activity is a transhipment notification.	E	
FA-L02-00-0412	FishingActivity/RelatedVesselTransportMeans/RoleCode	Check value. Must be RECEIVER if the activity is a transhipment notification	E	
FA-L00-00-0452	FishingActivity/OccurrenceDateTime	Check presence. Must be present if the activity is a transhipment notification.	E	
FA-L02-00-0557	FishingActivity/SpecifiedFACatch, FishingActivity/SpecifiedFACatch/TypeCode	Check presence. At least 2 occurences of SpecifiedFACatch with different values for SpecifiedFACatch/TypeCode must be present if the activity is a transhipment notification.	E	Catches unloaded and catches onboard prior to transhipment.

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L02-00-0551	FishingActivity/SpecifiedFACatch/TypeCode	Check value. Must be UNLOADED or ONBOARD if the activity is a transhipment notification.	E	

8.21. Additional rules for a prior notification of exit

BR-ID	Entity/Attribute	BR	E/W	Note
CONDITION	*FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode*	If AREA_EXIT NOTIFICATION		*All rules in this table apply to reports that match this condition.*
FA-L02-00-0472	FishingActivity/RelatedFLUXLocation	Check presence. At least 1 occurence must be present if the activity is an area exit notification.	E	
FA-L02-00-0450	FishingActivity/RelatedFLUXLocation/TypeCode	At least one occurrence of RelatedFLUXLocation/TypeCode must have the value AREA if the activity is an area exit notification.	E	
FA-L02-00-0470	FishingActivity/RelatedFLUXLocation/ID, FishingActivity/RelatedFLUXLocation/TypeCode	The schemeID of at least one occurrence with RelatedFLUXLocation/TypeCode=AREA must have RelatedFLUXLocation/ID=MANAGEMENT_AREA if the activity is an area exit notification.	W	
FA-L02-00-0457	FishingActivity/RelatedFLUXLocation/TypeCode	If the activity is an area exit notification, TypeCode must be either POSITION or AREA.	E	
FA-L02-00-0558	FishingActivity/SpecifiedFACatch/TypeCode	Must have at least one occurrence with TypeCode ONBOARD if the activity is an area exit notification	E	

8.22. Additional rules for a port of landing notification

BR-ID	Entity/Attribute	BR	E/W	Note
CONDITION	*FishingActivity/TypeCode, FishingActivity/FAReportDocument/TypeCode*	If ARRIVAL NOTIFICATION		*All rules in this table apply to reports that match this condition.*
FA-L00-00-0291	FishingActivity/OccurrenceDateTime	Check presence. Must be present if the activity is an arrival notification.	E	
FA-L02-00-0292	FishingActivity/ReasonCode	Check presence. Must be present if the activity is an arrival notification.	E	
FA-L02-00-0293	FishingActivity/ReasonCode	Check attribute listID. Must be FA_REASON_ARRIVAL if the activity is an arrival notification.	E	
FA-L02-00-0294	FishingActivity/RelatedFLUXLocation	Check presence. At least one occurrence must be present if the activity is an arrival notification.	E	
FA-L02-00-0295	FishingActivity/RelatedFLUXLocation/TypeCode	TypeCode must be LOCATION for at least one occurrence if the activity is an arrival notification.	W	
FA-L02-00-0296	FishingActivity/SpecifiedFACatch, FishingActivity/ReasonCode	Check presence. Must be present if the activity is an arrival notification and ReasonCode is LAN (landing)	E	
FA-L02-00-0297	FishingActivity/SpecifiedFACatch/TypeCode	Must have at least one occurrence with TypeCode ONBOARD if the activity is an arrival notification.	E	

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BR-ID	Entity/Attribute	BR	E/W	Note
FA-L02-00-0298	FishingActivity/SpecifiedFACatch/TypeCode, FishingActivity/ReasonCode	Must have at least one occurrence with TypeCode UNLOADED if the activity is an arrival notification (and if SpecifiedFACatch provided)	E	
FA-L02-00-0556	FishingActivity/RelatedFLUXLocation/ApplicableFLUXCharacteristic/TypeCode	Check value. Must be LANDING_SITE if the activity is an arrival notification.	E	

8.23. Rules for FLUXResponse entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0380	FLUXResponseDocument/ID	Check attribute schemeID. Must be UUID.	E	
FA-L01-00-0381	FLUXResponseDocument/ID	Check Format. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L03-00-0382	FLUXResponseDocument/ID	The identification must be unique and not already exist.	E	
FA-L00-00-0383	FLUXResponseDocument/ReferencedID	Check attribute schemeID. Must be a valid value from code list FLUX_GP_MSG_ID.	E	*schemeID*=FLUXTL_ON (reference from the envelope) may be used only in case of a parsing problem with the message or a non availability of or incorrect UUID.
FA-L01-00-0384	FLUXResponseDocument/ReferencedID	Check Format. Must be according to the specified schemeID.	E	Check is case insensitive.
FA-L03-00-0385	FLUXResponseDocument/ReferencedID	The identification must exist for a FLUXFAReportMessage or for a FLUXFAQuery message	W	
FA-L00-00-0386	FLUXResponseDocument/ResponseCode	Check presence. Must be present.	E	
FA-L02-00-0387	FLUXResponseDocument/ResponseCode	Check attribute listID. Must be FLUX_GP_RESPONSE	E	
FA-L02-00-0388	FLUXResponseDocument/ResponseCode	Check value. Code must be value of the specified code list in listID.	E	
FA-L00-00-0389	FLUXResponseDocument/CreationDateTime	Check presence. Must be present.	E	
FA-L01-00-0390	FLUXResponseDocument/CreationDateTime	Check Format. Must be according to the definition provided in 7.1(2).	E	
FA-L01-00-0391	FLUXResponseDocument/CreationDateTime	Date must be in the past.	W	A threshold of 10 minutes to compensate for incorrect clock synchronization of the exchanging systems must be taken into account.
FA-L00-00-0553	FLUXResponseDocument/RespondentFLUXParty	Check presence. Must be present	E	
FA-L02-00-0368	FLUXResponseDocument/ValidationResultDocument, FLUXResponseDocument/ResponseCode	At least one occurrence if ResponseCode <> OK	E	

8.24. Rules for Respondent FLUXParty entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0392	RespondentFLUXParty/ID	Check presence. Must be present	E	
FA-L01-00-0393	RespondentFLUXParty/ID	Check attribute schemeID. Must be FLUX_GP_PARTY	E	
FA-L03-00-0394	RespondentFLUXParty/ID	Check if RespondentFLUXParty/ID is consistent with FLUX TL values.	E	The party sending the response must be the same as the one from the FR value of the FLUX TL envelope. Only

BR-ID	Entity/Attribute	BR	E/W	Note
				the part before the first colon in the FR value is to be considered: Eg. ABC:something => only ABC refres to the party for the purpose of this rule.

8.25. Rules for ValidationResultDocument entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0395	ValidationResultDocument/ValidatorID	Check presence. Must be present.	E	
FA-L01-00-0396	ValidationResultDocument/ValidatorID	Check schemeID. Must be FLUX_GP_PARTY.	E	
FA-L01-00-0555	ValidationResultDocument/ValidatorID	Check value. Must be value from the code list specified in schemeID.	E	
FA-L02-00-0554	ValidationResultDocument/ValidationQualityAnalysis, FLUXResponseDocument/ResponseCode	At least one occurrence must be present if ResponseCode<> OK	E	

8.26. Rules for ValidationQualityAnalysis entity

BR-ID	Entity/Attribute	BR	E/W	Note
FA-L00-00-0397	ValidationQualityAnalysis/ID	Check presence. Must be present.	E	
FA-L01-00-0398	ValidationQualityAnalysis/ID	Check listID. Must be FA_BR.	E	
FA-L01-00-0399	ValidationQualityAnalysis/ID	Check value. Code must be value of the specified code list in listID.	E	Note: only active rules, valid at report creation date and applicable to the context, are to be considered.
FA-L02-00-0400	ValidationQualityAnalysis/LevelCode	Check presence. Must be present.	E	
FA-L01-00-0401	ValidationQualityAnalysis/LevelCode	Check listID. Must be FLUX_GP_VALIDATION_LEVEL.	E	
FA-L01-00-0402	ValidationQualityAnalysis/LevelCode	Check Code. Must be in the list specified in listID.	E	
FA-L01-00-0403	ValidationQualityAnalysis/TypeCode	Check listID. Must be FLUX_GP_VALIDATION_TYPE.	E	
FA-L01-00-0406	ValidationQualityAnalysis/TypeCode	Check value of TypeCode. Must be in the list specified in listID.	E	
FA-L00-00-0404	ValidationQualityAnalysis/Result	Must be non-empty	W	
FA-L01-00-0405	ValidationQualityAnalysis/ReferencedItem, ValidationQualityAnalysis/TypeCode	At least one non-empty occurrence if TypeCode is ERR or WAR.	W	x-path to the location in the FLUXFAReportMessage causing the rule to fail

9. XML EXAMPLES

XML examples will be provided on https://www.neafc.org/mdr.

10. CODE LISTS

All XSDs and code lists are listed on https://www.neafc.org/mdr.[2] (.

The values mentioned in above tables for the listID attribute refer to a code list alias in the table below, which can be used to find the code list in MDR or query the code lists from MDM services using the FLUX Master Data Management specifications[37].

Code list alias (ListID in the XSD)
FA_BR
FA_CATCH_TYPE
FA_DEVICE_GEAR_ATTACHMENTS
FA_GEAR_CHARACTERISTIC
FA_GEAR_PROBLEM
FA_NEAFC_STOCK
FA_REASON_ARRIVAL
FA_REASON_DISCARD
FA_REASON_ENTRY
FA_TRIP_ID_TYPE
FA_VESSEL_ROLE
FAO_AREA
FAO_SPECIES
FISH_SIZE_CLASS
FLUX_CONTACT_ROLE
FLUX_FA_FMC
FLUX_FA_REPORT_TYPE
FLUX_FA_TYPE
FLUX_GP_MSG_ID
FLUX_GP_PARTY
FLUX_GP_PURPOSE
FLUX_GP_RESPONSE
FLUX_GP_VALIDATION_LEVEL
FLUX_GP_VALIDATION_TYPE
FLUX_LOCATION_CHARACTERISTIC
FLUX_LOCATION_TYPE
FLUX_UNIT
FLUX_VESSEL_ID_TYPE
FLUX_VESSEL_POSITION_TYPE
GEAR_TYPE
LOCATION
MANAGEMENT_AREA
RFMO
STAT_RECTANGLE
TERRITORY
VESSEL_ACTIVITY

---

[37] FLUX BRS: P1000 – 10; MDM domain

11. FLUX TL ENVELOPE PARAMETERS

The following FLUX TL parameters must be used for transmission of FLUX FA Report Messages and the related FLUX Response messages described in this document.

Common name	FLUX TL Envelope Tag name	Value	Remark
Dataflow name	DF	urn:un:unece:uncefact:fisheries:FLUX:FA:XNE:1	According to format: urn:un:unece:uncefact: fisheries:FLUX:[domain]:[context]:[version]
Timeout DateTime	TODT	DateTime (in UTC) of creation of the envelope + - 72 hours.	Value expressed as XSD DateTime in UTC. The TODT offset parameter (FLUX TL) should be configured to 72 hours. The FLUX TL will retry an undelivered envelope in a given schedule until the TODT is reached.
Acknowledge Receipt	AR	True	This parameter indicates that FLUX TL will always return an acknowledgement of receipt when the message has been received by the FLUX TL destination node. Note: a non-delivery message is always sent when the recipient cannot be reached, or timeout (TODT) time has been expired.

12. VERSIONING

Version	Date	Notes
1.0	27/03/2019	Complete revision of draft document.
1.1	03/10/2019	Update 11. FLUX TL envelope parameters and to 14.1 inlcuding table 38 gear characteristics

13. CONTACT

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14. ANNEXES:

14.1. Gear characteristics to be reported for each gear type.

The tables below show the description of the gear attribute codes and which of those are mandatory to be provided for each type of gear[38], where a business rule has been established. Gear characteristics which are only mandatory in certain conditions where a business rule cannot be established are not marked here but are required according to the NEAFC Scheme and Measures.

Table 37: Description of the possible gear attribute codes

Code	EN_Description
ME	Mesh size
MT	Model of trawl[38] eg. side: OTB-1, OTM-1; stern: OTB-2, OTM-2
GM	Gear dimension by length or width of the gear - in metres: • length of beams • trawl – perimeter of opening • seine nets – overall length • purse seine – length • purse seine – one boat operated – length • width of dredges • gill nets – length
GN	Gear dimension by number: for example • number of trawls • number of beams • number of dredges • number of pots • number of hooks
HE	Height
NI	Number of lines
NN	Number of nets in the fleet
NL	Nominal length of one net in a fleet
QG	Quantity of gear onboard
GD	Gear description
DA	Devices and attachments[39]
GO	Gear bar dimension

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[38] According to FAO International Standard Statistical Classification of Fishing Gear (ISSCFG). Coordinating Working Party on Fishery Statistics (CWP) Handbook of Fishery Statistical Standards, Section M: FISHING GEAR CLASSIFICATION (rev 1, 2013). MDR code list GEAR_TYPE contains a mapping from the previous to new version version of this classification.

[39] Includes appendix II to Annex II - B Main Categories of Devices and Attachments

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Table 38: The use of gear characteristics

GE[40]	Description	ME	GO	GM	HE	NL	GN	NI	NN	QG	MT	GD	DA
	Unit >	Measure (MMT)		Measure (MTR)			Quantity				Text		Code
SURROUNDING NETS													
PS	Purse seines												
PS1[41]	- one boat operated purse seines												
PS2[41]	- two boats operated purse seines												
LA	Surrounding nets without purse lines												
SUX	Surrounding nets (nei)												
SEINES													
SB	Beach seines												
SV	Boat seines												
SDN[41]	- Danish seines												
SSC[41]	- Scottish seines												
SPR[41]	- pair seines												
SX	Seine nets (nei)												
TRAWLS													
TBB	Beam trawls						X						
OTB	Single boat bottom otter trawls						X						
OT[41]	Otter trawls (nei)						X						
OTT	Twin bottom otter trawls						X						
OTP	Multiple bottom otter trawls						X						
PTB	Bottom pair trawls						X						
PT[41]	Pair trawls (nei)						X						
TB	Bottom trawls (nei)						X						
TBN[41]	Bottom trawls nephrops trawls						X						
TBS[41]	Bottom trawls shrimp trawls						X						
PUK	Bottom trawls - electric beam trawls (Pulse Beam)						X						
PUL	Bottom trawls - electric sumwing trawls (Pulse Wing)						X						
OTM	Single boat midwater otter trawls	X					X						
PTM	Midwater pair trawls	X					X						
TM	Midwater trawls (nei)	X					X						
TMS[41]	Midwater shrimp trawls						X						
TSP	Semipelagic trawls	X					X						
TX	Trawls (nei)						X						

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[40] Gear type as defined in MDR code list GEAR_TYPE

[41] Code from ISSGFC 1980, kept in GEAR_TYPE code list in MDR for backward compatibility with legacy systems.

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GE	Description	ME	GO	GM	HE	NL	GN	NI	NN	QG	MT	GD	DA
	Unit >	Measure (MMT)		Measure (MTR)			Quantity				Text		Code
DREDGES													
DRB	Towed dredges						X						
DRH	Hand dredges						X						
DRM	Mechanized dredges						X						
DRX	Dredges (nei)						X						
LIFT NETS													
LNP	Portable lift nets												
LNB	Boat-operated lift nets												
LNS	Shore-operated stationary lift nets												
LN	Lift nets (nei)												
FALLING GEAR													
FCN	Cast nets												
FCO	Cover pots/Lantern nets												
FG	Falling gear (nei)												
GILLNETS AND ENTANGLING NETS													
GNS	Set gillnets (anchored)			X									
GND	Drift gillnets			X									
GNC	Encircling gillnets			X									
GNF	Fixed gillnets (on stakes)			X									
GTR	Trammel nets			X									
GTN	Combined gillnets-trammel nets			X									
GEN	Gillnets and entangling nets (nei)			X									
GN[41]	Gillnets (nei)			X									
TRAPS													
FPN	Stationary uncovered pound nets												
FPO	Pots						X						
FYK	Fyke nets												
FSN	Stow nets												
FWR	Barriers, fences, weirs, etc.												
FAR	Aerial traps												
FIX	Traps (nei)												
HOOKS AND LINES													
LHP	Handlines and hand-operated pole-and-lines						X						
LHM	Mechanized lines and pole-and-lines						X						
LLS	Set longlines						X						
LLD	Drifting longlines						X						
LL	Longlines (nei)						X						
LVT	Vertical lines						X						
LTL	Trolling lines						X						

GE	Description	ME	GO	GM	HE	NL	GN	NI	NN	QG	MT	GD	DA
LX	Hooks and lines (nei)						X						
GE	**Description**	**ME**	**GO**	**GM**	**HE**	**NL**	**GN**	**NI**	**NN**	**QG**	**MT**	**GD**	**DA**
	Unit >	**Measure (MMT)**		**Measure (MTR)**			**Quantity**				**Text**		**Code**
MISCELLANEOUS GEAR													
HAR	Harpoons												
MHI	Hand implements (Wrenching gear, Clamps, Tongs, Rakes, Spears)												
MPM	Pumps												
MEL	Electric fishing												
MPN	Pushnets												
MSP	Scoopnets												
MDR	Drive-in nets												
MDV	Diving												
MIS	Gear nei												
HMX[41]	Harvesting machines (nei)												
RG[41]	Recreational fishing gear												
GEAR NOT KNOWN													
NK	Gear not known												

Recommendation 20 : 2020

Recommendation on introducing the ERS Implementation document in Annex IX of the Scheme (FLUX Vessel Position)

As proposed by PECMAC, the Commission hereby adopts the following recommendation pursuant to Article 8 of the Convention:

NEAFC FLUX Vessel Position Implementation Document

1 Contents

2   Introduction

This document aims to describe the implementation of Vessel Position XSD in the context of NEAFC.

Based on EU Implementation version 2.1

Submissions of reports will be done through the FLUX Transportation Layer. The technical and functional documentation is published on the Master Data Register (MDR) page of NEAFC website[1].

3   References

- UN/CEFACT P1000 FLUX Standard v1.0[2.]
  - FLUX BRS: P1000 – 1; General principles (version 2.1).
  - FLUX BRS: P1000 – 7; Vessel Position domain (version 2.0).
- UN/CEFACT FLUXVesselPositionMessage_4p0.xsd[3]

The documents Code Lists which are specific to Vessel Position domain are published on Master Data Register page of NEAFC.

4   Legal Basis

NEAFC Scheme of Control and Enforcement[4] and current NEAFC Management Measures and Recommendations[5]

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[1] https://www.neafc.org/mdr

[2] http://www.unece.org/cefact/brs/brs_index.html

[3] http://www.unece.org/fileadmin/DAM/cefact/xml_schemas/D15B.zip

[4] https://www.neafc.org/scheme/contents

[5] https://www.neafc.org/managing_fisheries/measures/current

5   Scope

5.1   Implementing Guide Scope

As shown on Figure 1, even if the message is provided by a Vessel, the scope of this document is limited to the transmission from a Flag State FMC, which has received the Vessel Position message[6], to NEAFC according to the NEAFC scheme.
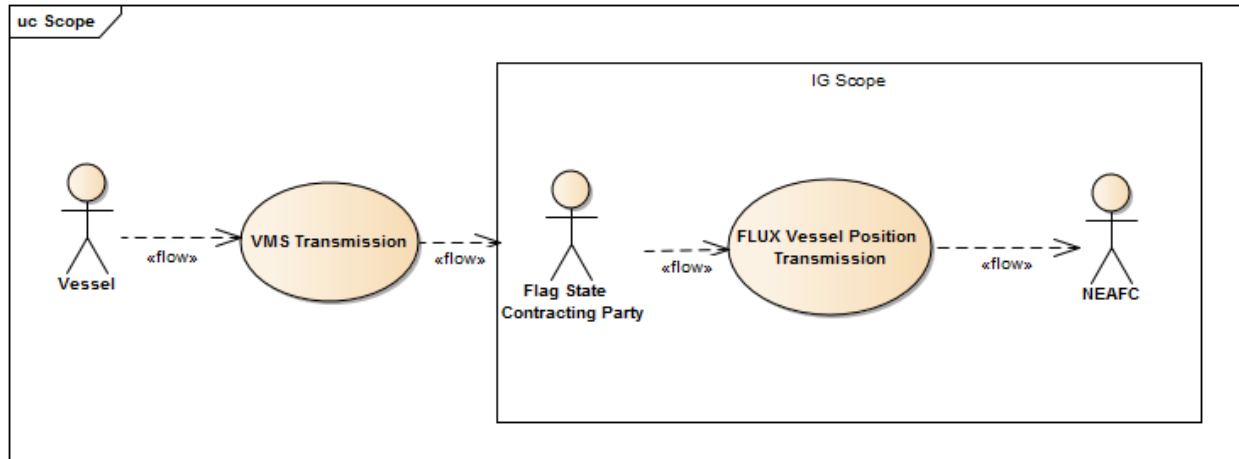

Figure 1 Implementing Guide Scope diagram

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[6] In theory, a FMC can use various methods for providing Geographical Position of a vessel, such as AIS device or a manual input based on a GPS, for filling-up Vessel Position message.

6   Procedures

6.1   General Principles
The following activity diagram describes the normal procedure defined for the submission of every Vessel Position Messages sent between a Flag State FMC and NEAFC:
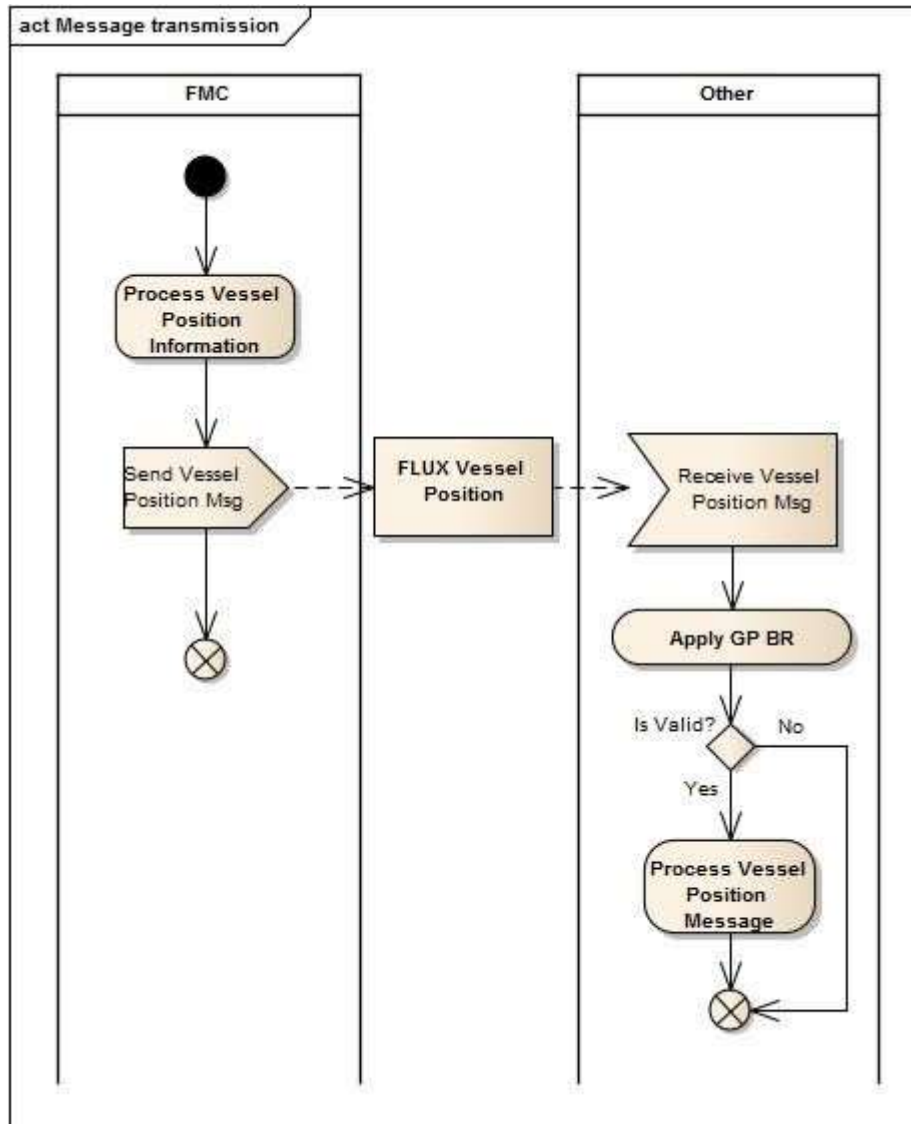

Figure 2 Message Transmission activity diagram

As shown in the diagram, Apply General Principles (GP) Business Rules (BR) is a validation process which does:

- XML Validation level: Based on the definition in the XSD, the parser validates the structure and cardinality as well as compliance for mandatory elements of the XML provided[7].
- Business Rules Validation level: a Business Rules Engine validates the content of XML according to the General Principles Business Rules definition[8].

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[7] In general, only XSD element are defined as mandatory. Element attributes and facets remain optional.
[8] Some specific business rules of this domain can withdraw or overwrite the definition of FLUX General

4

6.2 Business Continuity Plan

Business continuity provision for this system is provided for in Article 14.2 of NEAFC Information Security Management System (ISMS) which is available at https://www.neafc.org/isms

7 Data Model (XSD) Implementation

The implementation of the Vessel Position Data Model applies the following general constraints at the level of XSD Element attributes:

(1) For Code & Identifier Data Type: *listID* or *schemeID* attribute must be provided if it is not specifically defined in the definition of the element;

(2) For DateTime Data Type: only udt:DateTime (of type xsd:dateTime) choice is used. The date and time must be in line with ISO8601 and expressed in UTC, unless explicitly mentioned otherwise. The format shall be YYYY-MM-DDThh:mm:ss[.000000]Z[9];

7.1 Data Model Diagram

The following diagram describes the Vessel Position Data Model used for the implementation of transmission of VesselPositionMessage:

Principles.

[9] YYYY= year; MM= month, including leading 0 where month number is less than 10; DD= day of the month including leading 0 where day number is less than 10; T= the letter T to indicate the part of the time section; H24= hours of the day expressed with 2 digits using the 24-hour notation; MI=minutes expressed as 2 digits; SS=seconds expressed as 2 digits; [.000000]= optionally fractions of seconds may be included up to 6 digits, not including the brackets; Z= time zone, which must be Z (ie. UTC)

Figure 3: Vessel Position Message Data Model

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[9] YYYY= year; MM= month, including leading 0 where month number is less than 10; DD= day of the month including leading 0 where day number is less than 10; T= the letter T to indicate the part of the time section; H24= hours of the day expressed with 2 digits using the 24-hour notation; MI=minutes expressed as 2 digits; SS=seconds expressed as 2 digits; [.000000]= optionally fractions of seconds may be included up to 6 digits, not including the brackets; Z= time zone, which must be Z (ie. UTC)
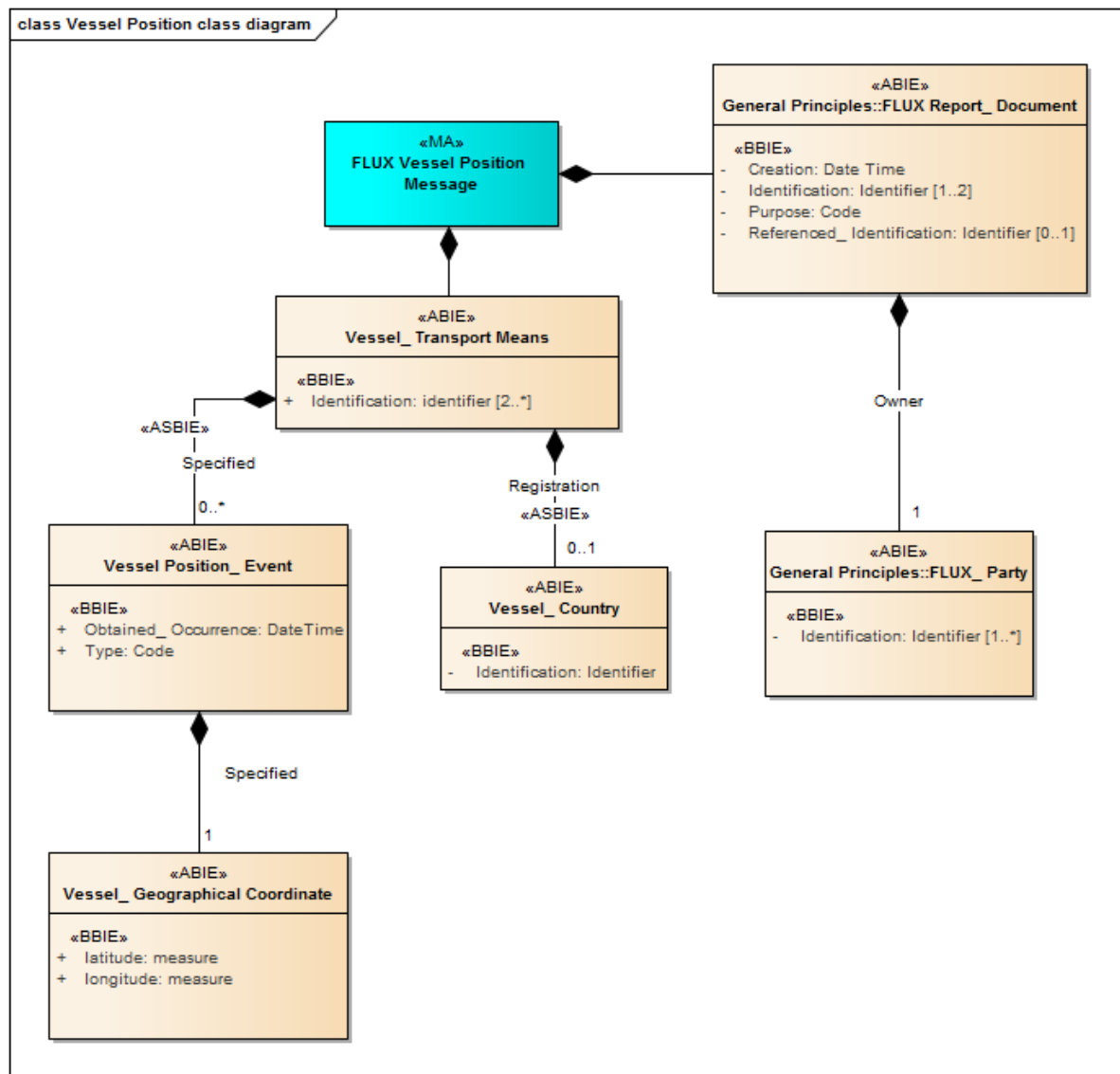
7.2 Data Model Fields

The table below describes for each fields defined in the Data Model (XSD) the values that can be used:

Entity/Field Name	Data Type	Min	Max	Description	Remarks
FLUX Report Document	Assoc.	1	1	The document details for this FLUX vessel position message.	FLUX General Principles Entity
Identification	Identifier	1	1	The unique identification of the FLUX vessel position message	A UUID as defined in the RFC 4122
Creation	DateTime	1	1	The date, time, date time of the creation of the FLUX vessel position message.	A UTC date time. Must be according to the definition provided in 6(2)
Purpose	Code	1	1	The code specifying the purpose of this FLUX report document, such as original, cancellation or replace.	Attribute *listID*=FLUX_GP_PURPOSE Reference: EDIFACT Code List 1225 (qDT UN02000125 - Message Function_Code). *Restriction: only value 9 is used in this context.*
Owner FLUX Party	Assoc.	1	1	Entity used to provide information on an individual, a group, or a body having a role in a Fisheries Language for Universal eXchange (FLUX) business function. Party has a legal connotation in a business transaction.	FLUX General Principles Entity
Identification	Identifier	1	1	An identifier of this FLUX party.	Attribute *schemeID*=TERITTORY ISO 3166-1 alpha-3 code of the country owning this report. e.g.: SWE
Vessel Transport Means	Assoc.	1	1	Entity used to provide the identification and characteristic information of a ship or boat.	

Entity/Field Name	Data Type	Min	Max	Description	Remarks
Identification	Identifier	2	*	An identifier for this vessel	At least 2 vessel IDs of which one is schemeID=IRCS & Value= IRCS number must be provided. The other shall be schemeID=UVI where IMO is applicable to the vessel ;[10] alternatively the contracting party reference number (REG_NBR) as flag state 3-alpha country code followed by alphanumeric characters.
Registration Vessel Country	Assoc.	1	1	The country of registration of this transport means vessel.	
Identification	Identifier	1	1	The identifier for this vessel country.	Use Code Countries code list in MDR. schemeID = TERRITORY ISO 3166-1 alpha-3 code of the country where the vessel is registered (flag state).
Specified Vessel Position Event	Assoc.	1	*	The general information of the VMS message.	More than one position can be provided.
Obtained Occurrence	DateTime	1	1	The date and time when the position of the vessel was taken by the vessel's navigation equipment.	The UTC date time when the position was obtained by the vessel navigation equipment, transmitted by the VMS system on-board of the vessel. Must be according to the definition provided in 6(2)
Type	Code	1	1	The code specifying the type of vessel position event.	Attribute *listID must be provided with a value from list =* FLUX_VESSEL_POSITION_TYPE Example of values are: ENTRY, EXIT, POS, or MANUAL.

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[10] Annex IV(a) of the Scheme: Radio Call sign and IMO number is required, where IMO is not applicable (for Vessels under IMO resolution A.1078 (28)), use of either CP Internal reference number or Vessel external registration is required.

Entity/Field Name	Data Type	Min	Max	Description	Remarks
Speed Value	Measure	0	1	The measure of speed of the vessel for this vessel position event.	In knots. Maximum 2 significant decimals. Mandatory unless the following conditions are all met: TypeCode= EXIT, Message addressed to Third party or RFMO, The element is defined as optional in the agreement with the Third Party or RFMO
Course Value	Measure	0	1	The measure of course of the vessel for this vessel position event.	In degrees and decimal degrees. Maximum 2 significant decimals. Mandatory unless all the following conditions are all met: TypeCode= EXIT, Message addressed to Third party or RFMO, The element is defined as optional in the agreement with the Third Party or RFMO.
Specified Vessel Geographical Coordinate	Assoc.	1	1	The latitude and longitude of a specified place, by which a vessel's relative situation on the globe is known. The height above the sea level constitutes a third coordinate.	Geographical Coordinates Position of the vessel transmitted by the VMS system at Obtained DateTime. Altitude and System information are not used in context of this implementation.
Latitude	Measure	1	1	The measure of the latitude as an angular distance north or south from the Equator meridian to the meridian of a specific place for this vessel geographical coordinate.	Reference ISO 6709. Coordinate expressed in WGS84, decimal degree notation, using a precision of at least 3 and maximum 6 decimal positions. Positive coordinate refers to North of equator. Negative coordinate refers to South.
Longitude	Measure	1	1	The measure of the longitude as an angular distance east or west from the Greenwich meridian to the meridian of a specific place for this vessel geographical coordinate.	Reference ISO 6709. Coordinate expressed in WGS84, decimal degree notation, using a precision of at least 3 and maximum 6 decimal positions. Positive coordinate refers to East of Greenwich meridian. Negative coordinate refers to West.

9

8   XML Examples[11]

```xml
<?xml version="1.0" encoding="utf-8"?>
<rsm:FLUXVesselPositionMessage
xsi:schemaLocation="urn:un:unece:uncefact:data:standard:FLUXVesselPositionMessage:4
FLUXVesselPositionMessage_4p0.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:rsm="urn:un:unece:uncefact:data:standard:FLUXVesselPositionMessage:4"
xmlns:ram="urn:un:unece:uncefact:data:standard:ReusableAggregateBusinessInformationEnti
ty:18"
xmlns:udt="urn:un:unece:uncefact:data:standard:UnqualifiedDataType:18">
  <rsm:FLUXReportDocument>
    <ram:ID>c133b211-0b0e-4358-893c-7afb5437bd61</ram:ID>
    <ram:CreationDateTime>
      <udt:DateTime>2001-12-17T09:30:47.0Z</udt:DateTime>
    </ram:CreationDateTime>
    <ram:PurposeCode>9</ram:PurposeCode>
    <ram:OwnerFLUXParty>
      <ram:ID>SWE</ram:ID>
    </ram:OwnerFLUXParty>
  </rsm:FLUXReportDocument>
  <rsm:VesselTransportMeans>
    <ram:ID schemeID="CFR">SWE000007880</ram:ID>
    <ram:ID schemeID="EXT_MARKING">S-381</ram:ID>
    <ram:ID schemeID="IRCS">EI6207</ram:ID>
    <ram:ID schemeID="UVI">1234567</ram:ID>
    <ram:RegistrationVesselCountry>
      <ram:ID>SWE</ram:ID>
    </ram:RegistrationVesselCountry>
    <ram:SpecifiedVesselPositionEvent>
      <ram:ObtainedOccurrenceDateTime>
        <udt:DateTime>2001-12-17T09:30:47.0Z</udt:DateTime>
      </ram:ObtainedOccurrenceDateTime>
      <ram:TypeCode>POS</ram:TypeCode>
      <ram:SpeedValueMeasure>8.3</ram:SpeedValueMeasure>
      <ram:CourseValueMeasure>50</ram:CourseValueMeasure>
      <ram:SpecifiedVesselGeographicalCoordinate>
        <ram:LatitudeMeasure>50.563</ram:LatitudeMeasure>
        <ram:LongitudeMeasure>009.252</ram:LongitudeMeasure>
      </ram:SpecifiedVesselGeographicalCoordinate>
    </ram:SpecifiedVesselPositionEvent>
  </rsm:VesselTransportMeans>
</rsm:FLUXVesselPositionMessage>
```

---

[11] Note that a single Position in each message reflects a real time reporting implementation. It is possible to send more than one position in each position message which could be used for example when pulling data from another system

9   Code Lists

All XSDs and code lists are listed in the NEAFC Master Data Register

The values mentioned in above tables for the *listID* attribute refer to index of this MDR. This listID value can be used to retrieve the code values using the FLUX Master Data Management specifications[12].

Code list alias
FLUX_GP_PURPOSE
FLUX_VESSEL_POSITION_TYPE
TERRITORY
FLUX_VESSEL_ID_TYPE

10   FLUX TL Envelope Parameters

The following FLUX TL parameters must be used for transmission of Vessel Position Messages.

Common name	FLUX TL Envelope Tag name	Value	Remark
Dataflow name	DF	urn:un:unece:uncefact:data:standard: FLUXVesselPositionMessage:4	
Timeout DateTime	TODT	DateTime (in UTC) of creation of the envelope + 72 hours.	Value expressed as XSD DateTime in UTC. Must be according to the definition provided in 6(2) The FLUX TL will retry an undelivered envelope in a given schedule until the TODT is reached.
Acknowledge Receipt	AR	False	Note: a non-delivery message is always sent when the recipient cannot be reached and timeout (TODT) time has expired.

11   Contact

Please address enquiries to info@neafc.org so the query can be routed as appropriate

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[12] FLUX BRS: P1000 – 10; MDM domain

Recommendation pursuant to Article 2 (Scope) of Recommendation 11:2013 and Article 7.2 (Information Classification) of Recommendation 08:2014

As proposed by JAGDM, the Commission hereby adopts the following recommendation pursuant to Article 2 (Scope) of Recommendation 11:2013 and Article 7.2 (Information Classification) of Recommendation 08:2014

Article 7.2 Information Classification

Data Classification and Transmission in the NEAFC Secretariat at [update to date of adoption]:

Descriptions of Data Transmission and Storage used below refer to Article 10 Communications and Operations Management of NEAFC Information Security and Management System *(restricted)*

Public = available to all (P)

Restricted medium = sensitive or private with conditional access (RM)

Restricted high = sensitive or private with conditional access (as referred to in the NEAFC Scheme as confidential) (RH)

Location	Data type	Data classification	*Data Transmission and Storage*	Notes
neafc.org	public web pages	P	P	Listed in Annex 1
	user names	RM	RH	Stored as plain text transmitted encrypted. Selective display to authenticated users
	passwords	RH	RH	Stored and transmitted encrypted
	User information	RH	RH	
	meeting reports	P/RM	P/RM	Final versions P after Annual Meeting. Draft Reports are marked as draft and distributed by email
	Standard meeting docs	P/RM	P/RM	Final versions P after Annual Meeting

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Location	Data type	Data classification	Data Transmission and Storage	Notes
	Sensitive meeting docs	RM	RM	Identified by Committees and working groups
	HOD letters	RM	RM	Sent by email
	Heads Meeting Docs			
	IUU event log	RH	RH	
	Scheme Letters	RM	RM	Sent by email
	Operational Contacts	P/RM	P/RM	Choice of CP where appropriate
	Redfish catches	RM	RM	Sent by email
	ICES vms data	RH	RH	recommendation 10: 2013
	NEAFC Authorised Vessels List	P	RH	*[reference to adopted recommendation]* Vessel Registry information is sent via HTTPS network is made available to the public in accordance with the Recommendation
	Monthly provisional Statistics	RM	RH	Uploaded to application
vms server	inspectors application data: view of surveillance and annex ii [not & aut] messages received via https	RH	RH	Java layer on VMS server haddock. GUI for view / download resides on secure.neafc.org
vms server	All data sent via https network: vms /ers/vti /surveillance	RH	RH	mcs = web gui to view / download/ by Secretariat
psc.neafc.org	registered PSC forms	RH	RH	

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Location	Data type	Data classification	Data Transmission and Storage	Notes
	PSC Fax or inspection report uploaded to website	RH	RH	Inspection reports sent by email
	administer PSC for PS (acknowledge & PSC form Part C)	RH	RH	
	administer PSC for FS [PSC form part B]	RH	RH	
	View all PSC	RH	RH	
	Inspection reports	RM	RMRH	Uploaded to application and Received via email
File server	Aggregated statistics	RM	RMRH	Received via email
	meeting reports	RM	RMRH	
	meeting docs	RM	RMRH	
	HOD letters	RM	RMRH	
	Heads Meeting Docs	RM	RMRH	
	IUU event log	RM	RMRH	
	Scheme Letters	RM	RMRH	
	Redfish catches	RM	RMRH	
	Statistics data	RM	RMRH	
Email server	Contacts	RH	RH	

* Management of Communication Security is described in detail in ISMS Article 10 Communication and Operation Security Guidelines

Annex 1

NEAFC website & standard text email regarding the subscription criteria for web accounts are the main vehicles for sharing information about the organisation with the public. Details of this standard text and subscription process are found in ISMS Article 11 Access Control

Public Information available on the NEAFC website at **[update to date of adoption]**

Website section	Item	description
Homepage/quick links	Final Annual Statistics	As signed off at annual meeting
	Coastal states meeting	Stock/Dates only
	Generic Secretariat contact details	
	List of Contracting Parties	
	List of Cooperating non-Contracting parties	
	General news items	Signed off by Secretary
	OSPAR/NEAFC Collective Arrangement	
	Compliance Report	Version of the NEAFC compliance report, as adopted at the Annual Meeting. Published on adoption of the Annual Meeting report.
	NEAFC Authorised Vessels List	Vessel Registry information is sent from Fisheries Monitoring Centres via HTTPS network is made available to the public in accordance with the Recommendation
About / Basic Texts	Convention	
	Rules of Procedure	

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Website section	Item	description
	Committee and WG terms of reference	
	ICES MoU	
	OSPAR MoU	
	HQ agreement	
About /Structure	President (name and Contracting Party)	
	List of Committees	
	List of Chairs (name /Contracting Party)	
	List of Secretariat Staff	
	FAQs	
	Meeting room facilities	
	Becoming a contracting party	Guidelines agreed at AM 2003
	Press releases	
	News and jobs	
About/ NEAFC Fish Stocks (information pool)	Overview page	Description for 'information pool' – which is an initiative started by at the request of the heads to provide more information to the public about the work of NEAFC. Not currently public but the intention is that it should be
	Herring	Intro to Herring management
	Herring fact sheet	

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Website section	Item	description
	Blue Whiting Fact Sheet	Based on content provided by Secretariat for FAO firms fact sheets
	Mackerel Fact Sheet	
	Irminger Sea Redfish Fact Sheet	
About/ VMEs and closures *(information pool)*	Overview page	Wider Ecosystem considerations
	Protection of VMEs	NEAFC action on bottom fishing
	Existing new and closed areas	Description of what these terms mean
Managing Fisheries	Intro to measures	
	Current Measures	Measures/Recommendations currently in force
	Pending Measures	Measures/Recommendations still in objection period
	Historic Measures	Measures/Recommendations no longer in force
	Map of NEAFC RA	
	Map of Ices areas in NEAFC RA	
Managing Fisheries/VME and closures	Closed area coordinates	Text disclaimer on accuracy
	Existing fishing areas coordinates	text disclaimer on accuracy
	NEAFC RA and all closures	Google map
	Existing bottom fishing areas	Google map

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Website section	Item	description
	Blue ling closure	Google map
	Mid Atlantic Ridge VME closures	Google map
Managing Fisheries/VME and closures	Hatton Rockall closures	Google map
Illegal Fishing	Intro/about illegal fishing	
	A and B lists	Does not include events log
	About Port-state Control	Description and link to UN FAO PSMA
	NEAFC Scheme	All formats
Reports Archive	Final reports and papers where eligible from committees and working groups	Reports are available after presentation at AM (for example reports from 2012 are made available when AM report for 2012 is signed off in Jan 2013). Working papers will be made available according to ref 1 of the table in Article 11 (Access Control). Meeting Papers from 2017 and older are available on request.
PSC.neafc.org	Designated ports list	
	Public port contacts list	
	Species list	
	Product Presentation Codes	
	Packaging Codes	
	PSC operational guide	

Annex 2 Classification of Meeting Documents

The NEAFC meeting documents will be classified as public after presentation to the Annual Meeting with the exception of;

1. Documents where individual vessels or individuals are identified;

2. Documents that contain business sensitive information; and,

3. Documents relating to personnel issues.

Business Sensitive information includes anything that could harm NEAFC, its Contracting Parties or its stakeholders, if discovered by a competitor or the general public. In the context of NEAFC, working papers which are not yet final will be considered business sensitive by default.

Classification of Documents will become a standing agenda item for all Committees and Working Groups of the Commission and decisions will duly be recorded. All documents should be marked on the document itself as well as on the website.

Requests for Access to documents classified as restricted should be made according to ref 1 to the table in Article 11 Access Control Security Guidelines.