Northwest Atlantic Fisheries Organization

Serial No. N6386 NAFO/FC Doc. 14/21
(Adopted)

36th ANNUAL MEETING – SEPTEMBER 2014

ANNUAL COMPLIANCE REVIEW 2014
(Compliance Report for Fishing Year 2013)

1. Introduction

This compliance review is being undertaken in accordance with Rules 5.1 and 5.2 of the Fisheries Commission Rules of Procedure. The scope of the review is to determine how international fisheries complied with the annually updated NAFO Conservation and Enforcement Measures (NCEM) when fishing in the NAFO Regulatory Area (NRA), and assess the performance of NAFO Contracting Parties with regard to their reporting obligations. [1]

This review utilizes information for the years 2004 to 2013 from the following sources: vessel monitoring system (VMS) and hail messages delivered by the vessels (Vessel Transmitted Information – VTI), Port Inspection Reports, At-sea Inspection Reports and Reports on Dispositions of Apparent Infringements provided by the Contracting Parties, and Observer Reports sent to the Secretariat.

As discussed at the Intersessional Meeting of the Standing Committee on International Control (STACTIC) in May 2014, a new section *Bycatch* is included in this review.

2. Fishing effort and fishing trends in the NAFO Regulatory Area

NAFO identifies three main fisheries in its Regulatory Area: the groundfish (GRO - primarily in Div. 3KLMNO), shrimp (PRA - primarily in Div. 3LM) and pelagic redfish fisheries (REB - primarily in Div. 1F and 2J). Shrimp and pelagic redfish fisheries utilize shrimp trawls and midwater trawl gears, respectively. In the groundfish fisheries, trawling and longlining operations account for 94.8% and 5.2%, respectively.

In 2013, there were 64 fishing vessel spending a total of 4 779 days in the NAFO Regulatory Area (NRA) (Table 1). 160 trips were identified. Groundfish fishery accounted for 94.3% of the total fishing effort, shrimp for around 4.0%, and the pelagic redfish fishery for around 1.7%.

An overall 13.3% decrease of the total fishing effort was observed (Table 1) compared to 2012. The net decrease could be attributed largely to the pelagic redfish fishery and shrimp fishery in 2013. Shrimp fishing effort has continued its decline since the 3M shrimp moratorium in 2010. The groundfish fishery effort decreased at a 10.7% (Table 1).

Table 1. *2012-2013 Comparison of Fishing Effort in the NAFO Regulatory Area.*

Number of fishing vessels					Fishing effort (days present)				
Year	Groundfish (GRO)	Shrimp (PRA)	Pelagic Redfish (REB)	TOTAL	Year	Groundfish (GRO)	Shrimp (PRA)	Pelagic Redfish (REB)	TOTAL
2012	44	5	8	57	2012	5050	250	210	5510
2013	54	7	4	64	2013	4510	190	79	4779
% change	22.70%	40.00%	-50.00%	12.30%	% change	-10.70%	-24.00%	-62.40%	-13.30%

[1]For the purpose of this compliance analysis, only fishing trips which ended in 2013 were considered. Fishing trip for a fishing vessel includes "the time from its entry into until its departure from the Regulatory Area and continues until all catch on board from the Regulatory Area is unloaded or transhipped" (NCEM Art. 1.7).

For the period 2004–2013, the overall fishing activities in the NRA show a declining trend, from 134 active vessels in 2004 to 64 in 2013, representing a 53% decrease. The decline in terms of overall fishing days was a 71% decrease for the same period from 16 480 days in 2004 to 4 779 days in 2013. The average number of days each vessel operates in the NAFO Regulatory Area also declined from 123 days in 2004 to 75 days in 2013.

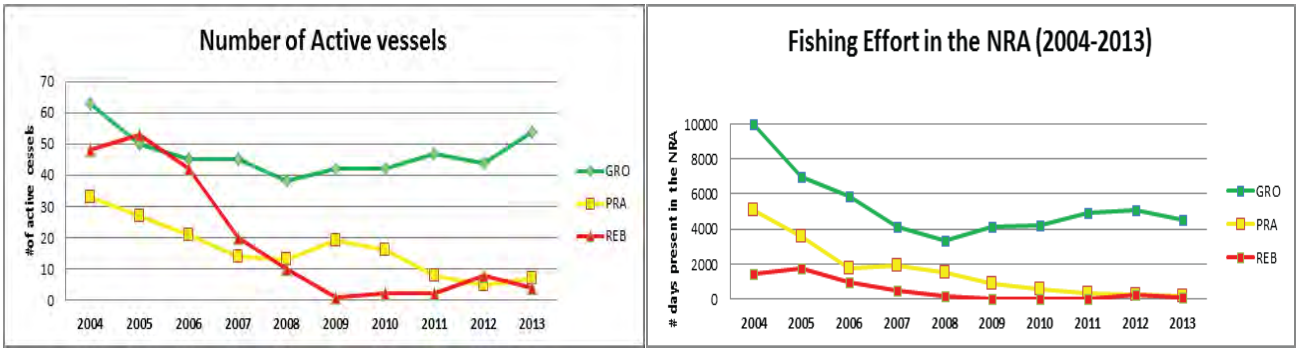

Figure 1. *The trend of fishing effort in the NAFO Regulatory Area in the period 2004-2013.*

Figure 1 illustrates the changes described above for each of the major fisheries. NAFO fisheries remain dominated by the groundfish category. After five years of steep decline, the groundfish effort has been stable since 2009. Figure 2 illustrates the current effort distribution compared to the historical average. By 2013, the fishing effort contribution of shrimp fisheries was reduced to 4% largely due to the shrimp fishing moratorium established in 2011.

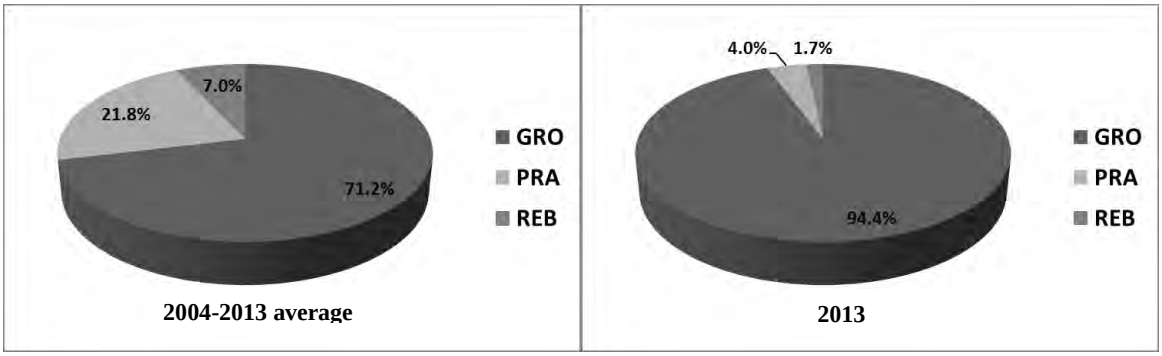

Figure 2. *Comparative fishing effort (days present) in the NAFO Regulatory Area*

Effort distribution by depth of groundfish vessels

The requirement of providing the speed and course information in the Vessel Monitoring System (VMS) reports facilitated the estimation of fishing effort in terms of fishing hours. Speeds between 1 and 5 knots were considered fishing speeds. In Figure 3, the distribution of fishing effort in hours of groundfish vessel is presented. Figure 3 shows that about half of all groundfish effort is at depths 400 meters and below (skates, redfish and cod).

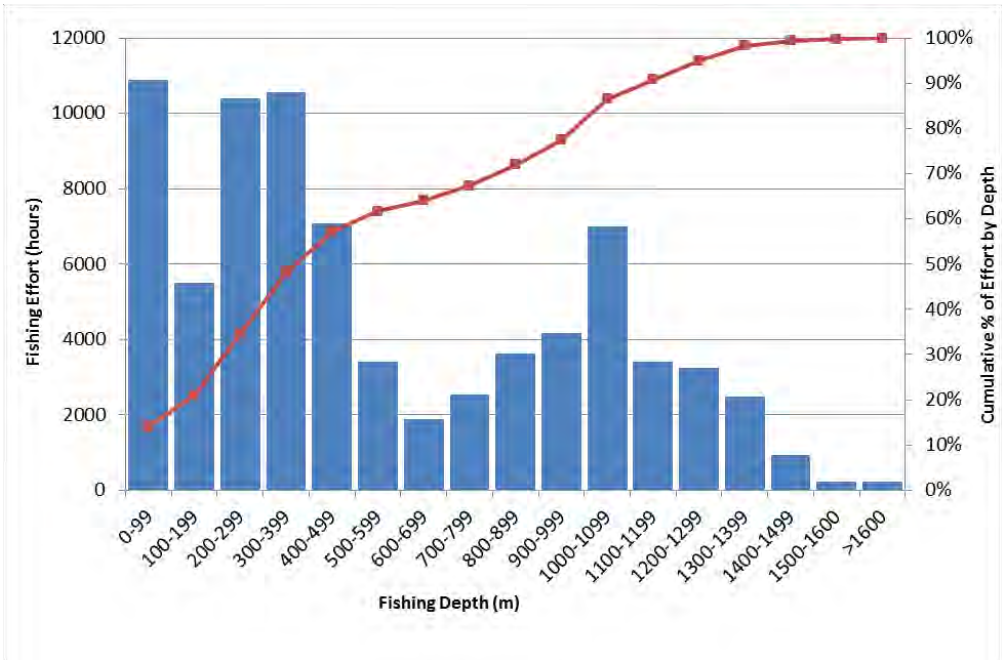

Figure 3. *Distribution of groundfish fishing effort by depth in the NRA in 2013 (Divisions 3L, 3M, 3N, and 3O).*

3. Compliance by Fishing Vessels

Monitoring, Control and Surveillance (MCS) measures are spelled out in Chapters III-VII of the NCEM. Through the at-sea and port inspections, NAFO monitors, controls and conduct surveillance of the fisheries in the NRA exposing infringements of the NAFO regulations and collecting evidence for the following prosecution within the legal system of each NAFO flag State Contracting Party.

Position reporting – Vessel Monitoring System (VMS)

Vessels in the NRA are required to transmit position reports at one hour intervals. In addition, the course and speed information must be included in the position reports. Examination of the position reports revealed that vessels were compliant to this requirement. The position reports were received by the Secretariat in practically real-time through the Fisheries Monitoring Centres (FMC) of individual flag States. When technical difficulties were encountered by the vessels in complying with the position reporting requirements, the position reports were transmitted electronically by email and promptly entered into the VMS database by the Secretariat. In cases of technical difficulties, VMS reports can be sent at least once every four hours. Generally, the technical issues were resolved at most within a few days through the coordination and communication between the Secretariat and the FMCs. The timeliness of submission of position reports was not an issue since VMS reports were being received by the Secretariat and CPs with inspection presence in real-time through satellite technology.

With an estimated total fishing effort of 4 779 vessel-days, the expected number of VMS reports is 114,696. A total of 128 158 VMS position reports within the vessel-days were received in 2013 fishing trips. This amount suggests that some vessels transmitted their positions at intervals less an one hour. Some vessels which were landing or calling on Canadian ports continued to transmit VMS reports. This also contributed to the higher-than-expected number of VMS reports received in the Secretariat.

Activity and catch reporting – Vessel Transmitted Information (VTI): Catch-on-Entry, Catch-on-Exit, Daily Catches

Catch quantities on board upon entry to (COE) and exit from (COX) the NRA must be reported for each fishing trip. While fishing in the NRA, fishing vessels are required to transmit daily catch reports (CAT) detailing catch quantities by species and division. Catch reports are transmitted through the same technology and communication channel as the transmission of VMS (positions) reports. (See section *Vessel Transmitted Information (VTI) – Catch-on-Entry (COE), Catch-on Exit (COX), Daily catch reports (CAT)* below.)

Daily catch reports are not limited to regulated (under TAC or moratorium) species. Vessels are required to report catches (and discards) at the species level to the extent possible. The catches of regulated and selected non-regulated species are presented in Table 2.

Table 2. *Total reported catches (in tons) of regulated and selected non-regulated species in 2013 (Source: CAT reports).*

Division	1F	2J	3L	3M	3N	3O	6G	?
Species (FAO-3-alpha code)								
Regulated								
COD			130.8	14801.0	641.3	263.5		13.9
GHL			6201.7	1653.6	767.4	9.9		2.2
HKW			1.2	0.1	14.2	132.8		0.1
PLA			78.1	248.8	1065.6	233.4		
PRA			1733.3					17.4
REB	1383.9	5.6						65.5
RED			1757.7	7538.6	1748.1	8146.8		28.5
SKA			36.7	72.4	3530.9	797.0		0.3
WIT			35.0	177.2	108.1	188.7		
YEL			1.2	7.8	4385.9	59.3		
Unregulated								
ALF							113.9	
ANG				0.0	20.0	26.3		
CAT			28.2	256.8	18.5	1.0		
HAD				74.9	68.1	103.6		
HAL			91.0	74.9	128.2	69.5		2.1
HKR			17.1	4.8	4.0			
HKS			0.1			82.5		
RHG			212.5	146.1	47.7	0.1		0.0
RNG			70.9	170.0	24.2	0.1		

Vessel activity after 3M redfish 100%-TAC-uptake notification

The fish stock 3M redfish is the only regulated stock which Total Allowable Catch (TAC) is considerably less than the sum of the quotas. The Secretariat monitors the TAC uptake through the daily catch reports (CATs) it receives from the fishing vessels. Contracting Parties are updated with the total accumulated catch (50%, 80% and 100% of the TAC) with the aim of preventing the TAC to be exceeded. When the TAC is reached, Contracting Parties are required to instruct their vessels to cease directed fishery on the stock.

According to Footnote 8 of the Quota Table (Annex I.A of the NCEM), not more than 50% of the TAC may be fished before 1st July. On 2nd May 2013, a 50%-TAC uptake notification was circulated by the Secretariat, on which time the fishery would be suspended until 30th June. Notifications of 95% and 103% were circulated on 25th and 29th July, respectively. Figure 4 shows the total daily catches and the percentage cumulative catch derived from CAT reports. The fishing vessels continued to conduct directed fishery of this stock for few days after the 103%-notification. When the fishing ceased the accumulated catch was exceeded by 16% of the TAC.

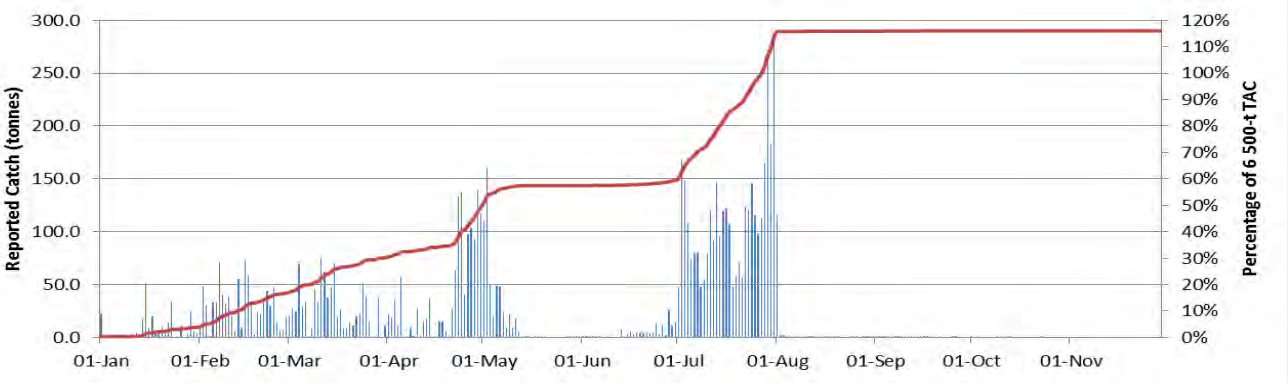

Figure 4. *Daily 3M redfish catches of all vessels in 2013.*

Shrimp vessels

Shrimp in Division 3M has been under moratorium since 2011. Examination of the VMS and VTI reports revealed that the moratorium is being respected. All fishing were confined in Division 3L. According to NCEM Art. 9.7, no vessel shall fish at the depth less than 200 meters. Figure 5 confirms that shrimp vessels complied with this regulation. Majority of fishing took place at depths 200-400m.

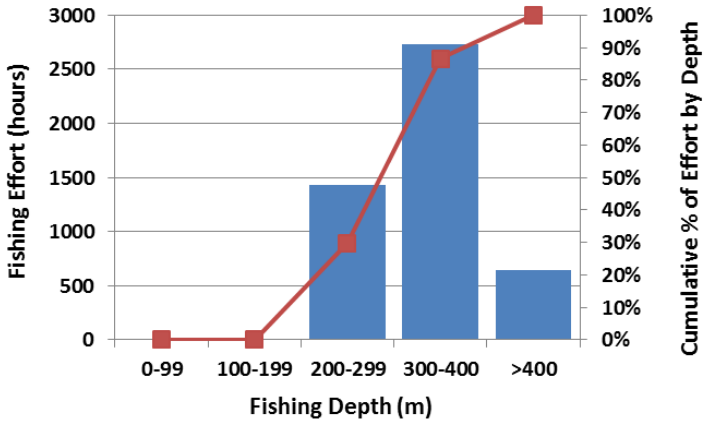

Figure 5. *Distribution of shrimp fishing effort by depth in the NRA in 2013.*

Closed areas and Exploratory Fisheries

Since 2007, in total 19 areas in NAFO have been closed to bottom fishing including 12 significant coral and sponge areas, one coral protection zone and six seamounts. The conservation and enforcement measures concerning the protection of the VMEs are stipulated in Chapter II of the NCEM.

An examination of the VMS position reports revealed that the closed areas were respected (Fig. 6). Fishing activities were confined within the footprint, except for one vessel which fished in Division 6G (in the environs of the closed Corner Seamounts) for a total of 17 days in February and March 2013 (Fig. 6.D). According to the observer report of this fishing trip in Division 6G, the fishing gear that was used was a mid-water trawl. The main species caught was the unregulated splendid alfonsinos. With the use of non-bottom fishing gear, NCEM Chapter II provisions (more specifically relating to Exploratory Fisheries) would not apply. Possible management measures concerning fishing stocks associated with seamounts are currently under discussions at the Joint FC-SC Working Group on Ecosystem Approach Framework to Fisheries Management.

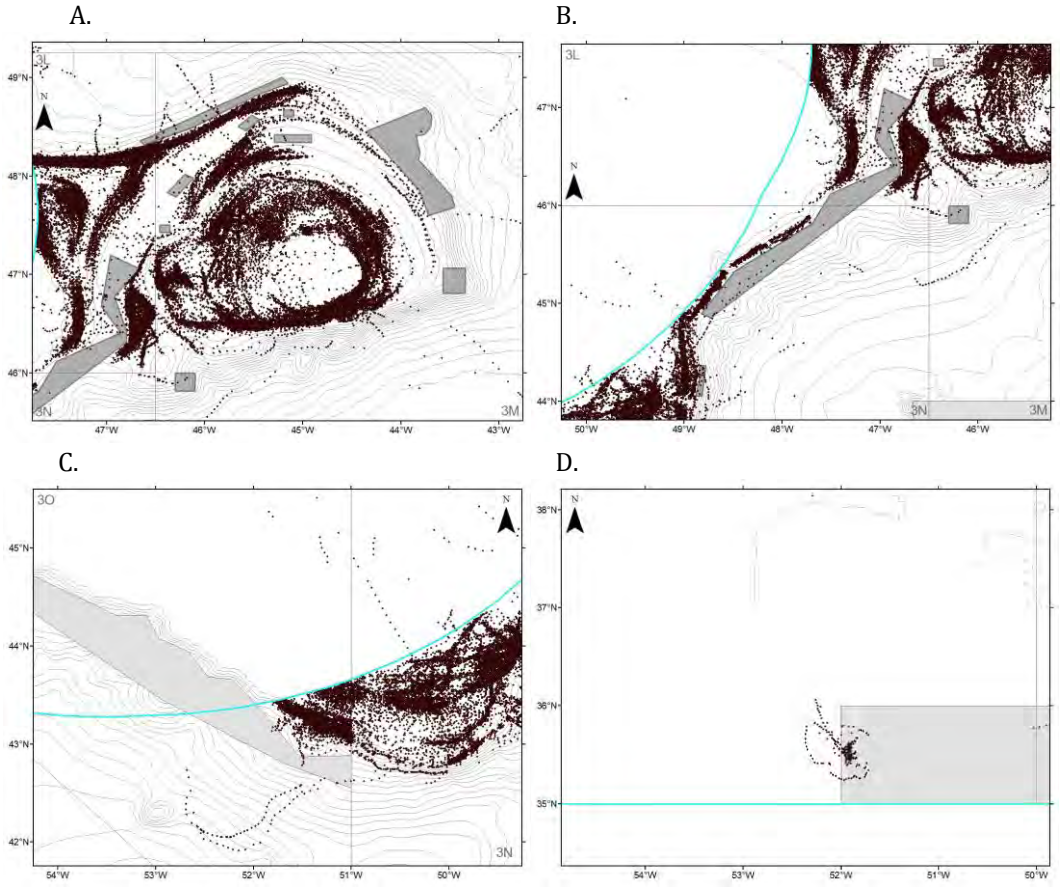

Figure 6. *VMS position plots of all vessels in the NAFO Regulatory Area in 2013 in relation to the VME closed areas and Corner Seamount. A: Flemish Cap, B: Flemish Pass, C: Division 3O Coral Zone, D: Corner Seamount*

Catch reporting on sharks

Fishing for the purpose of collecting shark fins is prohibited under NCEM Art. 12. Sharks species taken in NAFO fisheries are not associated with shark fining practices, and there has never been an incident of shark fining observed in the NRA.

It has been noted that there has been a lack of species-specific reporting of shark catches in the NRA. In this regard, it became a requirement in 2012 to report, the extent possible, all shark catches at the species level (NCEM Art. 28.2.g).

All 2013 CAT reports were examined. Not all sharks catches were not reported to the species levels. 70% of all shark catches were reported as dogfishes (Table 4). It is not known how many species of shark were lumped into DGX.

Table 4. *Amount of shark catches (in tons) as reported in CATs.*

FAO 3-Alpha Code	English name	Reported catches in 2013 (from CATs)	Percentage
DGX	DOGFISHES (NS)	63.5	69.97%
GSK	GREENLAND SHARKS	22.2	24.48%
POR	PORBEAGLE	3.6	4.00%
SMA	SHORTFIN MAKO	1.4	1.54%

At-sea inspections

The NAFO Joint Inspection and Surveillance Scheme is implemented to ensure management and enforcement measures are complied with by fishing vessels fishing in the NRA. Inspectors are appointed by Contracting Parties and assigned to fishery patrol vessels tasked to carry out NAFO inspection duties at sea (Chapter VI of NCEM).

The total number of at-sea inspections dropped from 193 in 2012 to169 in 2013. With the decrease of total fishing effort (from 5510 days in 2012 to 4779 days in 2013), inspection rate (number of inspections/fishing effort) remained steady at 3.5% (Fig.7).

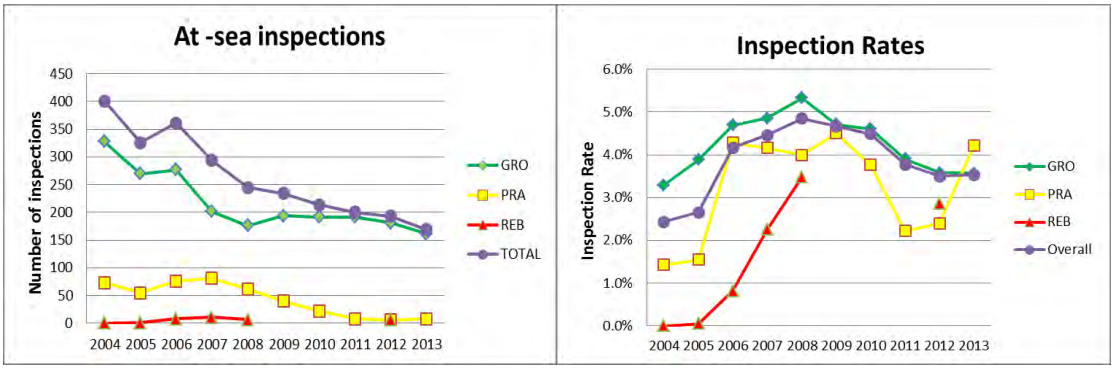

Figure 7. *Number of At-Sea Inspections and Inspection rates (number of at-sea inspection/vessel-days) in the NAFO Regulatory Area by fishery type.*

Port inspections

Prior to 2009, port State Contracting Parties were required to conduct port inspections on *all* vessels landing or transhipping fish species from the NRA, i.e. 100% coverage. Since the adoption of the Port State Control measures in 2009, the 100% coverage has been maintained for vessels landing NAFO species under recovery plans, in particular Greenland halibut. When landing catch species not under recovery plans, port inspections are not required if the vessel flag State Contracting Party and the port State Contracting Party are the same; if the flag State and the port State are different, the latter is required to conduct port inspections only 15 % of the total fish landing port of call in a year.

Traditionally, port inspections also serve to confirm AIs that were detected by at-sea inspections. In some occasions port inspectors issue citations of AIs to vessels, which were not detected by the at-sea inspectors. In 2013, 98 port inspection reports were received by the Secretariat, 89 of which were associated with groundfish (e.g. Greenland halibut and Atlantic cod) landings.

Apparent infringements

Each citation issued by at-sea or port inspectors can list one or more apparent infringements (AI). NCEM Art. 38 lists fifteen kinds AI's considered serious. In 2013, sixteen vessels were issued with apparent infringement/s either at sea or at port. There were twenty nine AIs issued, The nature of the AIs ranges from expired capacity plans (considered non-serious) to evidence tampering (considered serious). Inspectors determine during the time of inspection whether the AI is considered non-serious or serious.

In cases of at-sea inspections, there were only two types of AI issued, concerning: move-away requirements when bycatch thresholds are reached, and retaining 3M redfish after 100%-TAC-uptake notification. The year 2013 saw the least number of distinct AIs detected at sea (two). In cases of port inspections, there were seven different types of AIs raging from the non-serious AI involving expired capacity plans to a serious AI of breaking or tampering of seals. Table 5 give details of the AIs issued at-sea and at ports in 2013 (See Section 5 for follow-up actions and disposition of the AI cases).

Table 5. *Details of Apparent Infringements (AI) detected in 2013 by at-sea inspectors and port authorities.*

AIs detected at sea

Vessel Code	CP	FS	Inspecting CP	Inspection Date	Division in NRA or Port Location	Directed Fish. (according to COE)	Apparent Infringement	Serious AI? As considered by inspectors	Article (2013 NCEM)	Disposition/Followup/update as of May2014, as reported by flag State Contracting Party
10	EU	ESP	CAN	04-Mar-13	3N	GHL	Failure to maintain 10 nmiles from previous tow after exceeding allowable bycatch in previous tow	No	Art. 6.2.a	Case pending
7	EU	ESP	CAN	30-Jul-13	3M	SKA	3M Redfish retained after 100%-uptake notification	No	Art. 5.2.b	Case pending
4	EU	PRT	CAN	31-Jul-13	3M	COD, GHL	3M Redfish retained after 100%-uptake notification	No	Art. 5.2.b	No prosecution. Vessels were not notified in due time of area closure.
13	EU	EST	CAN	01-Aug-13	3M	RED, COD	3M Redfish retained after 100%-uptake notification	No	Art. 5.2.b	National proceedings initiated and case pending.
14	RUS	RUS	CAN	01-Aug-13	3L	RED	3M Redfish retained after 100%-uptake notification	No	Art. 5.2.b	Decided not to prosecute the master due to timeliness of the closure notification.
15	RUS	RUS	CAN	02-Aug-13	3M	RED, SKA	3M Redfish retained after 100%-uptake notification	No	Art. 5.2.b	Decided not to prosecute the master due to timeliness of the closure notification.
5	EU	PRT	CAN	02-Aug-13	3L	COD, RED	3M Redfish retained after 100%-uptake notification	No	Art. 5.2.b	No prosecution. Vessels were not notified in due time of area closure.
1	EU	PRT	CAN	04-Aug-13	3L	RED	3M Redfish retained after 100%-uptake notification	No	Art. 5.2.b	No prosecution. Vessels were not notified in due time of area closure.
11	EU	ESP	CAN	04-Aug-13	3M	COD	3M Redfish retained after 100%-uptake notification	No	Art. 5.2.b	Case pending
9	EU	ESP	CAN	07-Aug-13	3L	GHL, SKA	3M Redfish retained after 100%-uptake notification	No	Art. 5.2.b	Case pending
3	EU	PRT	CAN	10-Aug-13	3L	RED, GHL	3M Redfish retained after 100%-uptake notification	No	Art. 5.2.b	No prosecution. Vessels were not notified in due time of area closure.
2	EU	PRT	CAN	19-Aug-13	3O	RED, COD	3M Redfish retained after 100%-uptake notification	No	Art. 5.2.b	No prosecution. Vessels were not notified in due time of area closure.
12	EU	EST	CAN	21-Aug-13	3N	GHL, RED	3M Redfish retained after 100%-uptake notification	No	Art. 5.2.b	No prosecution. Vessels were not notified in due time of area closure.

AIs detected at ports

CallSign	CP	FS	Inspecting CP	Inspection Date	Division in NRA or Port Location	Directed Fish. (according to COE)	Apparent Infringement	Serious AI? As considered by inspectors	Article (2013 NCEM)	Disposition/Followup/update as of May2014, as reported by flag State Contracting Party
13	EU	EST	EU	14-Nov-13	Cangas do Morrazo	COD	Incomplete labelling of PLA and YEL	No	Art. 27	*to be clarified*
8	EU	ESP	EU	12-Feb-13	Vigo	SKA	Product labelling	No	Art. 27	*to be clarified*
8	EU	ESP	EU	12-Feb-13	Vigo	SKA	Capacity Plans	No	Art. 25.9	*to be clarified*
8	EU	ESP	EU	12-Feb-13	Vigo	SKA	Bycatch	No	Art. 6.2.a	*to be clarified*
16	DFG	FRO	EU	19-Mar-13	Vigo	GHL, RED	Product labelling	No	Art. 27	*to be clarified*
16	DFG	FRO	EU	19-Mar-13	Vigo	GHL, RED	Catch recording	No	Art. 28	*to be clarified*
13	EU	EST	EU	15-Apr-13	Cangas-Galicia	COD, RED	Capacity Plans	No	Art. 25.11	*to be clarified*
8	EU	ESP	EU	02-Jul-13	Vigo	GHL	Capacity Plans	No	Art. 25.10.b	*to be clarified*
1	EU	PRT	EU	12-Apr-13	Cangas do Morrazo	RED	Mis-recording	?	Art. 28.1, 38.1	*to be clarified*
1	EU	PRT	EU	12-Apr-13	Cangas do Morrazo	RED	Product labelling	No	Art. 27.1	*to be clarified*
1	EU	PRT	EU	12-Apr-13	Cangas do Morrazo	RED	Tampering of seals	?	Art. 38.1.n	*to be clarified*
6	EU	ESP	EU	16-Jul-13	Rande-Galicia	GHL	Misrecording of catches	?	Art. 38.1.i	*to be clarified*
6	EU	ESP	EU	16-Jul-13	Rande-Galicia	GHL	Obstructing inspectors	?	Art. 38.1.l	*to be clarified*
6	EU	ESP	EU	16-Jul-13	Rande-Galicia	GHL	Falsified documents	?	Art. 38.1.o	*to be clarified*
6	EU	ESP	EU	16-Jul-13	Rande-Galicia	GHL	Product labelling	No	Art. 27.1.b	*to be clarified*
6	EU	ESP	EU	16-Jul-13	Rande-Galicia	GHL	Capacity Plans	No	Art. 25.10.b	*to be clarified*

In Fig. 8, the composite list of AIs and the frequency of the cases since 2004 are shown. The black and the blue dots represent AIs issued by at-sea inspectors and port authorities, respectively. Product mis-labelling, expired vessel capacity plans, and mis-recording of catches are the most frequent AI. Three kinds of AI were issued for the first time in 2013: Bycatch: move-away requirement (NCEM Art. 6.2.a); bycatch: retention of 3M redfish after 100%-TAC-uptake notification (NCEM Art. 5.2.b), and falsification of documents (NCEM Art. 38.1.o). Regardng the retention of 3M Redfish after 100 % notification, causes were identified and actions were initiated to avoid repetition of this type of infringement.

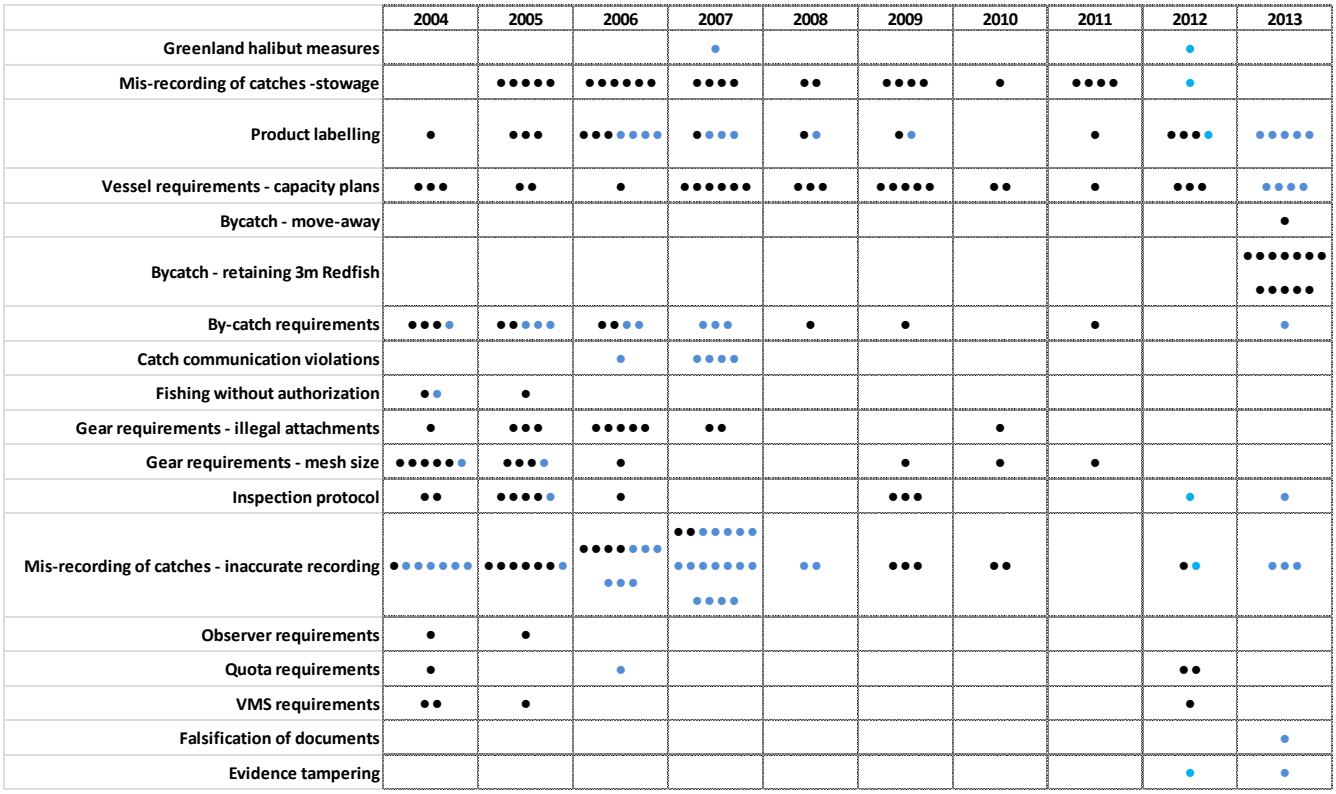

Figure 8. *Frequency of AI cases detected by NAFO at-sea and port inspectors in 2004 -2013(black and blue dots represent AIs issued at sea and at port, respectively).*

4. Reporting obligations by NAFO Contracting Parties and Observers

The NCEM obliges vessels and Contracting Parties to provide reports on their activity within a determined time frame. The completeness and regular delivery of those reports in time are of key importance to evaluating overall compliance. In evaluating the completeness, reports were examined to determine which fishing trips were covered by the reports. Each fishing trip must have VTI and Observers reports; vessels landing Greenland halibut must have port inspection reports. The percentage coverage is computed as a ratio of fishing days accounted for by the reports and total fishing days effort in the NRA. Less than 100% coverage suggests that there were missing reports that should have been received by the Secretariat.

Vessel Transmitted Information (VTI) – Catch-on-Entry (COE), Catch-on Exit (COX), Daily catch reports (CAT)
The FMCs of flag States are responsible in transmitting the VTI reports to the Secretariat (see also section *Activity and catch reporting* above). The COE and COX are transmitted signifying the start and end of a fishing trip. A 100% coverage would mean that all expected COEs are paired up with all expected COXs. A trip with a missing COE or COX would not account for the number of days of a fishing trip in the NRA.

In Table 6, the number of COE, COX, and CAT, as well as of the fishing trips and fishing effort-day in the NRA, is presented. Ideally, the number of COE and COX should correspond to the number of fishing trips. The higher-than-expected numbers suggest that duplicates and erroneous reports are occasionally sent. The VMS-VTI system features a cancel report (CAN) which allow vessels and FMCs to withdraw or correct previously sent VTI report but this feature is not widely used. Nonetheless, all identified fishing trips had the corresponding COE and COX report, representing a 100% coverage (see also Fig. 9).

Table 6. *Fishing effort and VTI statistics in the NRA, 2013.*

Number of fishing trips identified	160
Days Present in the Regulatory Area	4779
Number of Daily Catch Reports (CATs)	5248
Number of Catch on Entry Reports (COEs)	205
Number of Catch on Exit Reports (COXs)	196

5248 CATs were received, more than the total effort of 4779 vessel days. This indicates that vessels which fished in two or more Divisions in a day transmitted multiple reports, consistent with the requirement that fishing vessels shall report daily their catches by species and by Divisions. The CAT reports have proven to be useful in monitoring quota uptakes of the Contracting Parties.

Port inspection reports

When vessels land their catches, the port inspectors report on the quantity of catches as well as the fishing trip details. However, the port inspection is not mandatory for all landings from NAFO fisheries (see *Port Inspections*).

In evaluating the compliance of port State authorities in conducting inspections, only trips with Greenland halibut onboard were considered. The identification of these trips was done by examining COX reports. Of the 160 fishing trips identified, COXs of 71 fishing trips indicated Greenland halibut on board. Of the 71 fishing trips (3465 days effort), 57 (2855 days effort) have corresponding port inspection reports --- an 82% coverage (see Fig. 9).

Observer reports

Under the "traditional" scheme, vessels are required to have an independent observer on board at all times (i.e. 100% coverage) in every fishing trip (NCEM Art. 30.A). Observers in this scheme" are committed to deliver within 30 days after their assignment period their observer report, which contains information on date of fishing trip as well as catch and effort.

Since 2007, Contracting Parties have the option of the electronic reporting scheme. Under this "electronic" scheme, CPs may allow their vessels in a single year to have observers onboard at least 25% of the time the vessels are on a fishing trip (NCEM Art. 30.B). CPs must give prior notification to the Secretariat which vessels participate in the electronic scheme. Observers under this scheme are required to report daily the catches and discards (OBR) while the fishing master transmits the daily catch reports (CAT) every trip. The CAT and OBR reports are transmitted through the same technology and communication channels as the VMS. In 2013, sixteen vessels participated under this scheme.

In evaluating compliance of observer reports submission, only reports from vessels under the "traditional" scheme were considered. As in the port inspection reports, percentage coverage was computed as the ratio of the fishing days accounted for by the observers and the total fishing days (of the trips under this scheme) in the NRA. In 2013, the percentage was 78%, i.e. only 3 489 out of 4 456 days were covered by observer reports (Fig. 9).

Catch information in observer reports may be crosschecked with other data sources (e.g. port inspection reports and CATs). According to NCEM Art. 30.A.2.c, the observers shall record, among others, the catch, effort, and discard information *for* each haul. The Secretariat has noted that not all observers' reports contain the required information on catch and effort on a haul by haul basis. Out of 94 observer reports received, only 12 coming from three flag States contained detailed haul-by-haul catch information. The rest provided only trip summaries of the catch.

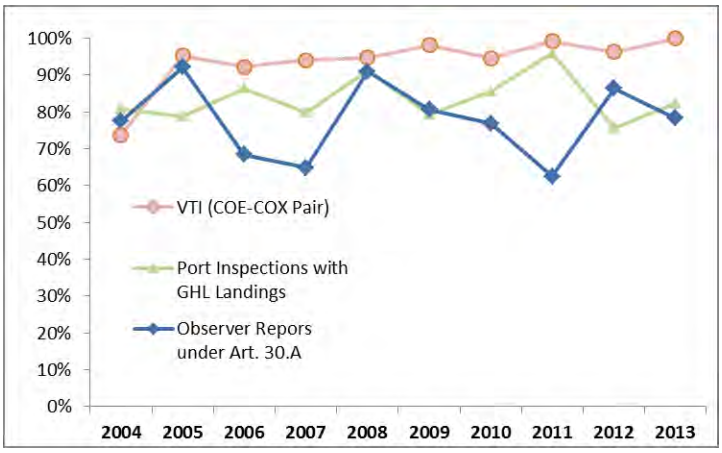

Figure 9. *Percentage coverage of fishing effort by VTI (COE-COX Pairs), Port Inspection and Observer Reports as a measure of compliance to report submission requirements.*

Timeliness of submission of reports

The timeliness of reports submitted to the NAFO Secretariat is an important issue. VMS messages are required to be provided every hour; hail messages at each entry and exit from the NRA as well catch reports on a daily basis (VTI); observers and at-sea inspection reports are expected to be submitted within 30 days and port inspection reports (PSC3 forms) should be sent to the Executive Secretary "without delay." For the purpose of timeliness analysis, PSC 3 forms, as well as at-sea inspection reports received more than 30 days after the date of inspection were considered late. VMS and VTI messages were not included in the timeliness analysis as they are received practically in real time through satellite technology.

Figure 10 shows the timeliness of submission of at sea inspection, observer and port inspection reports. Less than half of the number of observer reports was received on time (23%). Timeliness in the submission of at-sea and port inspection reports was 89% and 50%, respectively.

At-sea and port inspection reports containing citations of infringements were always transmitted to the Secretariat without delay.

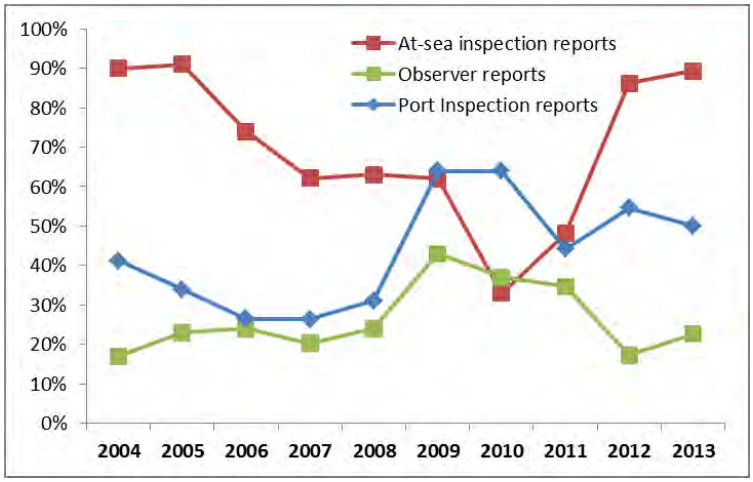

Figure 10. *Timeliness of submission of reports.*

5. Follow-up to infringements

NCEM Art. 39 spells out obligations of a flag State Contracting Party that has been notified of an infringement. It includes taking immediate judicial or administrative action in conformity with its national legislation and ensuring that sanctions applicable in respect of infringements are adequate in severity. In 2013, thirteen (13) individual citations with a single AI each were issued by at-sea inspectors – twelve of each concerning retaining of 3M redfish after the 100% TAC uptake notification, and another one concerning move-away provision when bycatch thresholds are reached in a tow. At port, sixteen AIs were detected involving eight vessels. The nature of the AI range from a non-serious case of expired capacity plans to a serious AI of obstructing inspectors (See Table 5 for details).

In compliance with NCEM Art. 40, the status of each AI case must be reported to the Secretariat annually until the case is resolved, since the legal procedure can take longer than one year due to of the legal procedures in force in each Contracting Party. During the review of the follow-up actions by CPs at the STACTIC Intersessional Meeting in May 2014, procedural questions arose with regards to dealing with AIs issued at ports. For example, some port AI citations might have been a violation of domestic port measures rather than an infringement of the NAFO regulations. It was agreed that this will be clarified on a later date by the CP concerned. In Table 7, a summary of the status of AI cases in the last five years and their resolution. Pending clarification on follow-up of AIs detected at ports, the statistics for the year 2013 includes only AIs detected at sea. With regards to the resolved cases in 2013 (which all involved 3M Redfish retention after the closure of the fisheries notified by the Secretariat), the CPs concerned determined that no prosecution would proceed as it was determined that the vessels did not received the closure notification in due time.

Table 7. *Legal resolution of citations against vessels fishing in the NAFO Regulatory Area by year in which the citations were issued (as of August 2013). A citation is an inspection report (from at-sea or port inspectors) that lists one or more infringements. Inspections carried out for confirming a previous citation are not included. For year 2013, only citations at sea are included pending procedural clarifications regarding citations issued by port authorities.*

Year	Number of Reports with AI Citation/s	Resolved cases		Pending cases
		Number	%	
2009	13	10	77%	3
2010	7	7	100%	0
2011	8	8	100%	0
2012	11	9	82%	2
2013	13	8	62%	5
Total	**52**	**42**	**81%**	

6. Trends, Conclusions and Recommendations

General Trends

- Although fishing effort has steadily declined since 2004 it has stabilized at 5000 days in the NRA. Overall fishing effort declined by 13.3% in 2013 compared to the previous year. Fishing days in the NRA fell from 5510 days in 2012 to 4779 days in 2013. In contrast the number of vessels has increased by 12.3% from 57 vessels in vessel in 2012 to 64 vessels in 2013. Longline vessels fishing in the NRA have increased and have accounted for 5.2% of Groundfish operations in 2013. It can be concluded that changes in fishing activity has reduced average duration of fishing trips to the NRA
- In the 3L shrimp fishery, although 2013 saw 7 vessels operating in the fishery in 2013, an increase from 5 vessels in 2012, the overall fishing effort has reduced a further 24% from 250 days in 2012 to 190 days in 2013.
- The re-emergence of fishing effort for the Pelagic Redfish Fishery (REB) observed in 2012 has continued but on a reduced scale.t. Vessel numbers operating in this fishery declined by 50%, with t 4 vessels fishing in 2013 compared to 8 in 2012, and furthermore effort has been reduced by 62%, down from 210 days in 2012 to 79 days in 2013
- Observer Reports are consistently untimely and missing critical information. In 2013, only 23% of observer reports were submitted on time, a rate that has been fairly consistent for a decade. Additionally, out of 94 observer reports received, only 12 contained detailed haul-by-haul catch information. The remainder provided only trip summaries of the catch. Catch and effort on a haul by haul basis is required. Since flag State Contracting

Parties are responsible for forwarding observer reports to the Secretariat, they should ensure that they are complete, consistent with Article 30, and submitted in a timely manner. The improvements made in 2014 to the observer reporting requirements should increase compliance.

- No analysis is available to determine the observer coverage rate or compliance with the OBR reporting requirements for Contracting Parties employing the electronic reporting protocol under Article 30.B. Additional analysis is necessary to ensure that Contracting Parties are complying with minimum observer coverage levels and submitting the required reports.

Additional data elements compiled provided the following information and recommendations for compliance review:

- Based on VMS reports for 2013, closed areas are being respected.
- Based on VTI reports for 2013, 3M redfish exceeded the TAC of 6500t by16%. Notifications were circulated to CPs when total accumulated catch reached 95% and again at 103%. Directed fishing continued for a few days following notification at 103%. The overage was directly related to a delay in notifications to vessels. Contracting Parties should inform the Secretariat if 5 days is insufficient to inform its vessels of a closure.
- Based on VMS and VTI, the 3M shrimp fishery moratorium is being respected
- Based on water depth, 3L shrimp fishing effort continues to comply with a ban of fishing in depths less than 200m.
- Based on CAT reports the total catches reported by regulated and non regulated species can be used to identify fishing trends.
- Analysis of groundfish activity by water depth has indicated a significant increase of fishing activity in depths < 200metres and a decrease in depths > 700 metres as compared with 2012 figures. This is consistent with increased effort in 3M Cod, 3M redfish, and a reduced effort for deep water species such as Greenland halibut.
- There has been a slight increase in effort distribution in the shallower depths. In 2012 50% of fishing effort was conducted in depths below 700 metres and in 2013 50% of fishing effort was conducted in depths below 400 metres. This suggests an increase in the targeting of species found in shallower waters such as skates, cod and redfish despite there being no increase in quota for these species. (3M cod increased TAC)
- Reporting of shark captures by species has been achieved since it became a requirement in 2012 and the quantities of shark captures remain insignificant. However 70% of all shark catches were reported as dogfishes, a general description that should be more specific. Contracting Parties should explore ways to improve species identification of shark species, as required in the CEM.
- Table 2 of the Compliance Review indicates that catch for both regulated and unregulated species were reported without an associated NAFO division in daily catch (CAT) reports submitted by vessel masters. Contracting Parties should ensure that vessel masters are accurately reporting catch of each species by NAFO division in their daily CAT reports.

Inspections and Apparent Infringements

- The number of sea inspections has declined from 193 in 2012 to 169 in 2013.This decline was related to factors such as decreased fishing effort in the NRA. The inspection rate has remained steady at 3.5% compared with 3.3% in 2012.
- In 2013, 98 port inspection reports were received by the secretariat, 89 of which were associated with landings of groundfish species. Port inspections remain high due to the species subject to 100 percent inspection coverage such as the Greenland halibut rebuilding plan. However, based on available data it appears that 100 percent requirement is not being met. This will require additional investigation. CPs should strive to increase inspections for vessels landing Greenland halibut from the current rate of 82% (57 of 71 trips).
- No analysis is available regarding the landings referred in Article 43.10. Additional analysis is needed to determine if the minimum 15% port inspections on such trips is being achieved.
- Only two types of AI were detected at sea in 2013, and out of a total of 13 AI's 12 were associated with retaining 3M redfish after closure and 1 with the bycatch move away rule.
- Detection rate of AI's in port has increased markedly. Seven types of AI were detected in port in 2013 with a total of 16 and more than 50% of these AI's were associated with product labelling and capacity plans. This is large increase compared with 2012 which saw six types of AI's with a total of 6 cases. Prior to 2012 the last AI detected in port was in 2009.
- Contracting Parties have an obligation to resolve reported AIs. Recent resolution has been satisfactory, but there are still pending cases with no additional detail provided on their status.