INDUSTRY GROUP AGREEMENT TO COD FISHERY IN THE NORTHERN PART OF NORTH-EAST ATLANTIC

NEWSLETTER NOVEMBER 2017

Below you will find out how we set up a monitoring system to ensure that we in our supply chains only use cod caught using trawls within the defined existing fishing areas.

I hope after reading the newsletter you will have an idea on how we used this data.



SUMMARY OF PROGRESS

Based on data from the Norwegian - & Russian catching, we have a map showing existing fishing areas including already protected areas within the region (Figure 1).

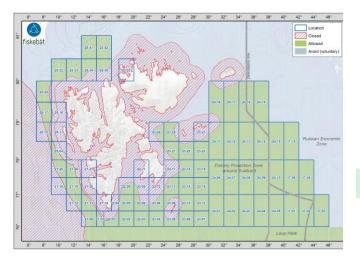


Figure 1. Areas of interest showing existing and closed fishing areas

The protected areas around Svalbard includes the 12 nautical miles (nm) territorial sea, 15 nm closed area to the southwest of Svalbard, and a 20nm closed area to the northwest of Svalbard with the exception of shrimp trawling over 100m deep. This area is highlighted in the map below (Figure 2), and possible fishing activity in this closed area will specify whether the activity was inside the 12nm, 15nm or 20nm area.

The territorial sea around Hoven is closed to trawl fishing too.

MONITORING OF FISHING ACTIVITIES.

We have an agreement with OceanMind to monitor activities for the 2017-fishing season.



OceanMind is a not-for-profit division of the Satellite Applications Catapult working to increase the sustainability of fishing globally through actionable insights into vessel compliance.

The cost of this monitoring is 36 k GBP, of which PEW pay 12k GBP. The remaining 24k GBP is shared equally between all participants in the agreement.

All companies agreed to pay 1.500 GBP. OceanMind will send out invoices shortly.

SETTING UP THE SYSTEM TO MONITOR FISHING ACTIVITIES IN THE AREA.

The purpose of this system is to provide verification of the compliance of the trawl fleet with the Industry Group Agreement.

The part of ICES Division 1b not included in this agreement is the areas East of the delimitation line as defined in the Treaty between Norway and Russia concerning maritime delimitation and cooperation in the Barents Sea and the Arctic Ocean 2010. This is shown as a gray line on Figure 1, and white in Figure 2.

All vessels in the Svalbard area of interest (Figure 2) were analyzed using boundaries interpreted by OceanMind based on map provided by Norwegian Fishing Vessel Owners Association.

Vessels operating legally in this area transmit AIS (Automatic Identification System) signals. The AIS data provides an opportunity for to verify that boats are complying with the agreement. AIS data is publicly available.

This is in addition to VMS transmitted to national fishery monitoring centers.

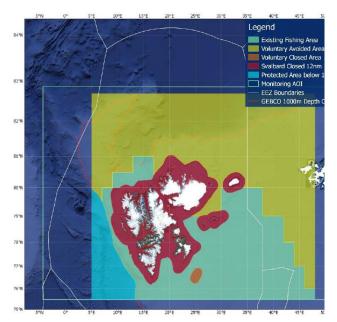


Figure 2. Map of areas of interest provided by OceanMind

We reviewed all trawlers signed up to our agreement for compliance with closed and avoided areas in this area of interest.

Any vessels that demonstrated speeds (between 0.25 – 5 knots or 0.29 - 5.75 mph) and tracks consistent with possible fishing over 0.5 nm (926 meters) inside a closed or avoided area that conflicted with the Industry Group Agreement are reported for follow up investigation.

The frequency of incursion is also included to highlight high-risk vessels.

If a vessel was observed possibly fishing inside a closed or avoided area for longer than 2 days, the incursion is described as frequent.

Any vessels signed up to the agreement but not detected in the areas of interest were reviewed to determine vessel activities and AIS transmission availability.



All trawlers, which are not included in the Industry Group Agreement were also analysed and included in the reports for situational awareness.

When observations is analysed the AIS data that show movements of the vessels is overlapped with the boundaries of the existing fishing area as shown on the map, and vessel speeds to be analysed to establish if vessels activities outside the existing fishing area correspond to fishing (or transiting).

OceanMind reviewed all vessels detected in the 12nm Closed Area for compliance with this regulation.

In figure 3 is shown an example of the activities of a fishing vessel in the areas of Hopen Island.

All vessels with activities inside a closed or avoided area that conflicted with the Industry Group Agreement are in for follow up investigation.

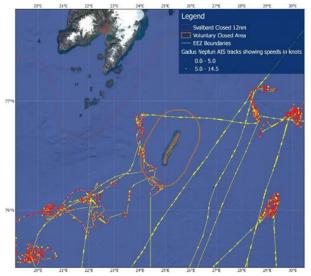


Figure 3. Vessel AIS track inside closed area around Hopen Island

The case shown in figure 3 is a freezing trawler fishing for either whitefish or shrimps. In such cases, we verify the target for the fishery. In this case, the trawler was fishing for shrimps. Which is not included in the agreement.

FISHING ACITIVITIES SO FAR

OceanMind provides us with maps of fishing pressure in the areas of interest activities so called **heatmap**, which show concentrations of AIS activities from fishing vessels operating between 2.5 - 4.5 knots.

Figures 4 - 6 shows heatmap of AIS activities in the areas of interest from July 1^{st} to November 2^{nd} 2017.

Our focus has been on the areas north of our existing fishing areas. As shown in Figures 4 - 6, we have not registered any fishing activity, which is exactly what we hoped and expected.

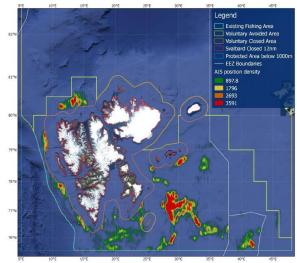


Figure 4. Heat map of all AIS activity of trawl vessels operation 1^{st} July -12^{th} September 2017.



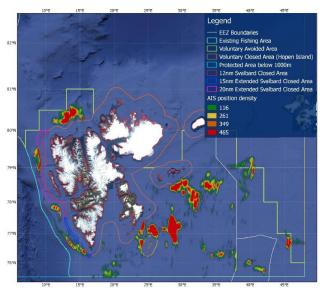


Figure 5 Heatmap of all AIS activity of trawl vessels operation 12th September – 4th October 2017

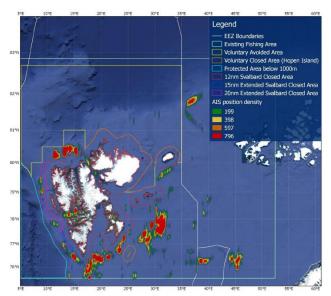


Figure 6. Heatmap of all AIS activity of trawl vessels operation 16^{th} October – 2^{nd} November 2017

For all three figures you will see, that most of the activities are concentrated in the existing areas to the south and to the east of Svalbard. There is also a high concentration of fishing pressure to the northwest of Svalbard in between the 12 nm closed area and the voluntary avoided area to the north. In the beginning of our monitoring, we observed high fishing in the area near Hoven as well.

We have registered some activities at the borders of the closed areas around Svalbard and Hoven. The Norwegian Coast Guard controls these areas. Therefore, we keep an eye on these areas, but our focus has been on the areas to the north.

On figure, 5 & 6 so will see activities east of the delimitation line as mentioned on page 2. However, these areas is as mentioned earlier not part of the agreement.

We will have a working group meeting in January to discuss our findings and what to do next.

We will circulate a report of our monitoring process will be circulated to all participant in January 2018.

MILESTONES

A small group of companies met with Greenpeace during NASF March 2016.

Seminar on Sustainable Arctic Fisheries April 5th 2016 in London

Industry Agreement published May 2016

A High-Level Roundtable meeting in September 20th 2016 in London.

This initiative received the Responsible Business Oceans Award January 2017.

Satellite monitoring of fishing activities in the areas covered by the agreement July – November 2017.