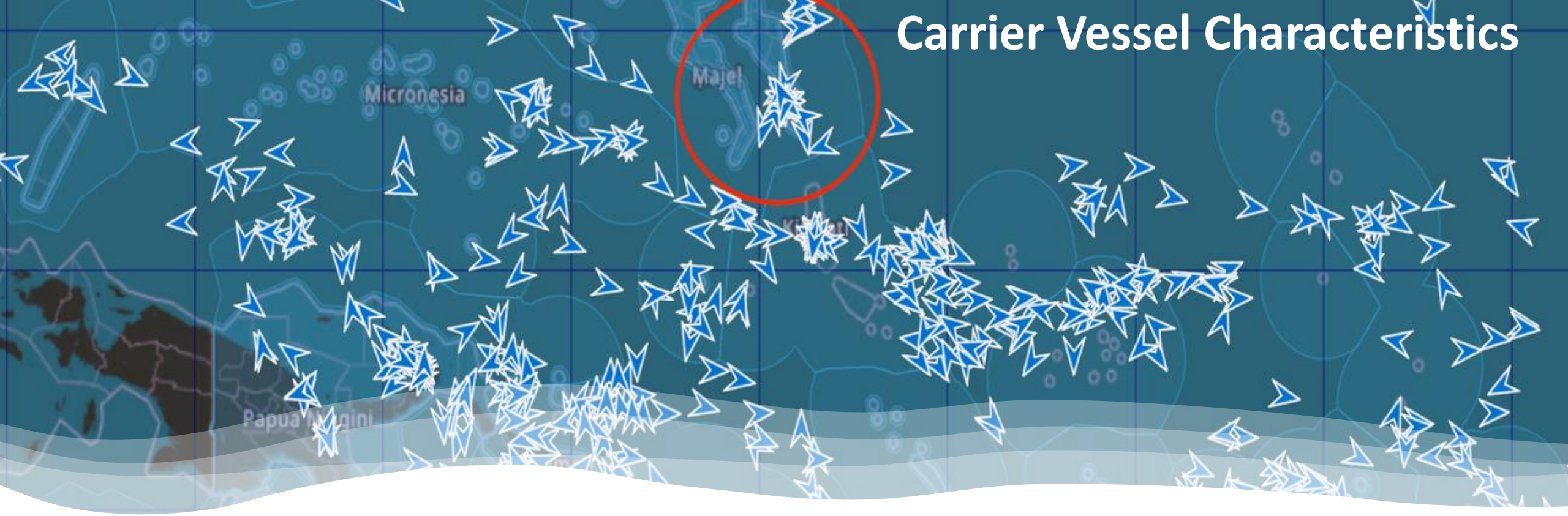
Carrier Vessel Risk Assessment

From Transshipment Port to Landing Port

Beau Bigler - Chief Fisheries Officer – Marshall Islands Marine Resources Authority - MIMRA

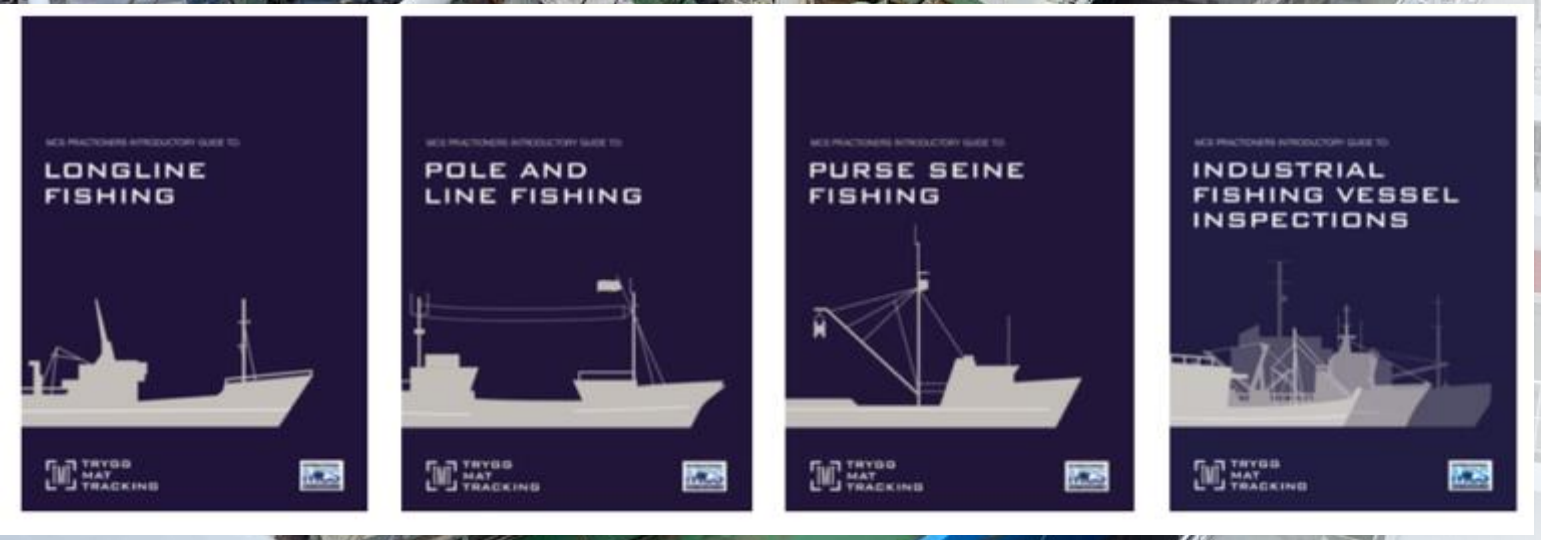
How did this start for us?

Carrier Vessel Characteristics



- Classifying Carriers in a fisheries Compliance “spectrum”
- Requirements
- Movement and behavior
- Crewing
- Limited historical compliance info.

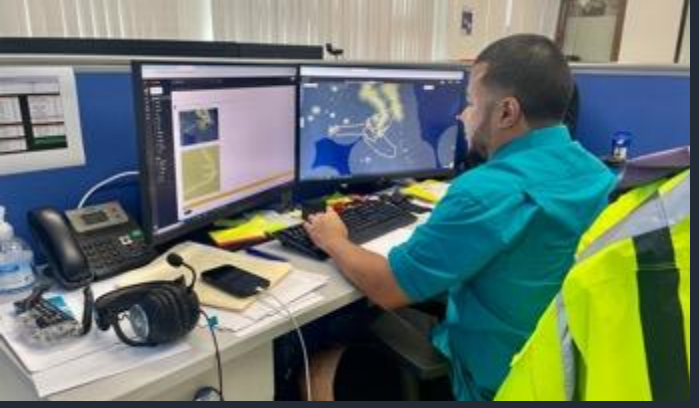
So, we worked on various initiatives.



- 2017 - Risk Assessments of vessels' operations focused on PS and Carriers and inspection SOPs.
- 2018 - Regional PSM evaluation including IUU Risk/Compliance Assessment Criteria that included Carriers.
- 2020 - Fishing Operation MCS Guides (LL, PS, P&L and Carriers).
- 2021 - MIMRA Carrier Vessels Job Aid

The process

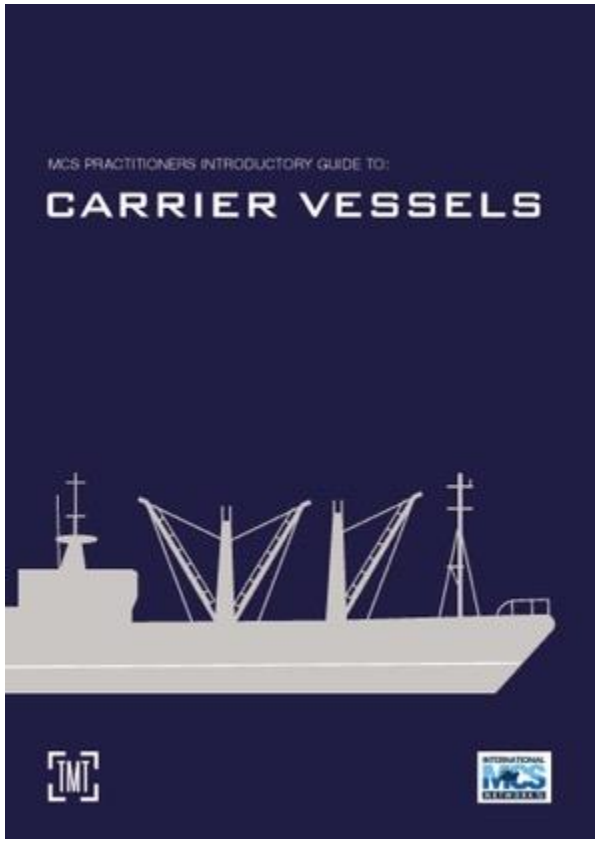
- Delays due to COVID19
- Adapting to online work
- Expanding the MCS team
- Key partnership
- Procuring the right tools and equipment



The Importance of the right Technology and Equipment

- 100% boarding and inspection prior to authorizing port use
- MCS technology: Hardware and Software
- Acquisition of 2 boarding boats

The result?



Marshall Islands Marine Resources Authority

Vessels Inspection Plan

Prepared by MIMRA
Acknowledging assistance from NZMFAT

Cite as:
Republic of the Marshall Islands Vessels Inspection Plan - 2020 – 2025.

Marshall Islands Marine Resources Authority

CARRIER VESSEL JOB AID

This Job Aid outlines standardised processes and procedures for MIMRA Fisheries Officers to follow while carrying out port inspections of foreign-flagged carrier vessels intending to conduct transhipment activities in the port of Majuro.

Developed by the MIMRA with invaluable support from the International Monitoring, Control, and Surveillance Network

The result?

Table of contents

Prior to authorizing port use, it is important for fisheries inspectors to verify the identity and licensing status of the carrier vessel as well as the carrier vessel's manoeuvring activity on VMS and/or AIS during it current voyage since its last port entry. The key vessel manoeuvring scenario relevant to potential transhipment activity are the periods of time that a carrier vessel is idle at sea, moving at drifting speed normally following the prevailing current/wind. In these cases, proximity analysis to other fishing vessels closer than 500 meters as indicated on VMS and/or AIS could indicate that transhipment activity occurred. However, it is important to note again that two vessels can meet at sea for many reasons other than transhipment of fish such as crew transfers and transfers of other items such as food, parts, supplies provision, etc. As such, the amount of time a carrier vessel remains alongside another vessel is an important factor to consider when analysing the vessel's movements to identify potential transhipment activity.

Vessels generally tranship fish at volumes that range between six and ten metric tons per hour depending on weather, crew fatigue, vessel maintenance, etc. Furthermore, the amount of time it takes for the two vessels to lay alongside one another and prepare for transhipment may take upwards to 30 to 45 minutes. Hence, a two-hour period where two vessels appear on VMS and/or AIS to lay alongside one another may only allow for the transfer of several tons of fish. The question to ask in these cases is whether it is realistic to think that a transhipment of fish took place. Does the transhipment of small quantities of fish make financial sense? Generally, the "rule of thumb" in the analysis of vessel movement on VMS and/or AIS is that vessel encounters that last more than three consecutive hours represent greater probability that a potential transhipment activity took place.

Most observed transhipments of fish that take place at sea generally last between eight and forty hours. Add to this the potential transfer of crew, cargo, and supplies in addition to the fish and this could add another three to four hours to the time that the vessels remain alongside one another. Sometimes two vessels separate for a period of time to then lay alongside one another again to restart transhipment activity. These movements are generally due to bad weather and marginal sea states. However, it can also be related to on board stowage stability of a longliner or the logistics of freezer hold management on the carrier vessel itself.

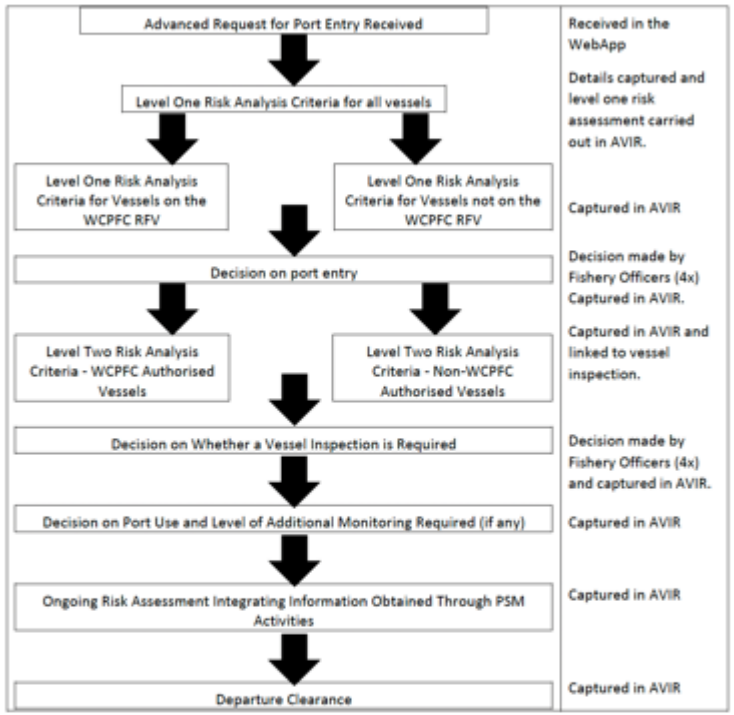
Prior to any carrier vessel inspection, the dates, time and geolocation of each of possible encounter at sea should be noted so that they can be used to help verify the information on transhipments found in the documentation on board the carrier vessel.

The result?

2 Section 2 – Carrier Vessel Inspection Job Aid

2.1 MIMRA Simplified Risk Assessment Process Diagram

The diagram included below provides a simple flow diagram to demonstrate how the proposed risk assessment processes align with key PSM decision points and activities.



2.2 Purpose

This section outlines the standardised process and procedures for Marshall Islands Marine Resource Authority (MIMRA) Fisheries Officers to follow to carry out risk assessment and port inspection processes for foreign-flagged carrier vessels seeking authorisation to conduct transshipment and other activities in the port of Majuro.

This has been developed as a quick instructional tool to support officers performing tasks associated with carrier vessel risk assessment and inspections to quickly access the information they need to perform these tasks.

Arriving Vessel Intelligence Analysis Report

Part 1: Arrival Notification

FV Name: TAIHO MARU	**Flag:** Panama	**IRCS:** 3FSL8	**Type:** Carrier
Flag state Registration # 51220-20	**FFA Vessel Reg #** 36061	**WCPFC VID#** 4469	**IMO#** 9459591
WCPFC Flag State Authorisation # 04-105-4444-223-1249		**WCPFC Flag State Authorisation Expiry Date:** 19 Mar 2025	
Other RFMO Flag State Authorisation # IATTC #: 14341		**Other RFMO Flag State Authorisation Expiry Date:** N/A	
Master's name Hsiao Umetani	**Nationality** Japan	**Port and Date of last Departure** 30/12/2022 Busan	
Activity: ☐ Transhp ☐ Unload ☐ Receive fish (carrier) X Operational Port Call			
Is there an observer onboard the vessel?	X yes ☐ no	If Yes record known observer details: IATTC	
Has the vessel entered Majuro port before?	X yes ☐ no	If yes, note last dates in Majuro: 26 Nov 2022	
ETA of Vessel: **6 Feb**		Responsible Agent: Romeo Reimers	

Part One: Arrival Notification *– all fields in this section are automatically completed based on the AREP information submitted by the vessel agent with the exception of the following four fields:*

a. ***WCPFC Flag State Authorisation # and Expiry Date*** *– This information is obtained from the WCPFC Record of Fishing vessels (RFV) record for the carrier vessel, under "Authorisation".*

b. ***Other RFMO Flag State Authorisation # and Expiry Date*** *– Based on the areas that the vessel has operated, checks should be made of the RFV for that RFMO to ensure the vessel was authorised by the flag State to operate in that area. For carrier vessels this will most commonly be the Inter-American Tropical Tuna Commission (IATTC). Note that the IATTC requires members to notify a time period for authorisation of transhipping, but does not currently display this on its RFV records.*

c. ***Is there an observer onboard the vessel?*** *– In the WCPFC, all carrier vessels over 33m in length and/or all carriers receiving purse seine or frozen longline caught fish need to carry an observer from the regional observer programme. In the IATTC, all carrier vessels are prohibited from commencing or continuing at-sea transshipping in the Convention Area without an IATTC observer on board, except in cases of force majeure.*

d. ***Has the vessel entered Majuro port before?*** *– The previous port visits by carrier vessels can be found in the departure record information on the MIMRA Fisheries System. If the vessel has been into port in Majuro before then the previous port record should be viewed to ensure risks previously identified are understood and considered.*

✓ *All other information completed by the agent should be checked by the MIMRA MCS Officer to ensure that it is complete and accurate. Verify details such as port and date of last departure.*

Arrival Notification

Flag State Authorisation

Flag States need to authorise their vessels to operate in areas beyond national waters and within in RFMO waters. This authorisation is captured in the RFMO record of fishing vessels and needs to be checked to confirm the vessel is authorised.

Previous Port Entry in Majuro

If the vessel has entered port in Majuro before then the last AVIR completed for this port entry is an important record to inform risk assessment.

2.6 Vessel Inspection and Port Use Decision

Part 3: Manoeuvring Analysis

Does an assessment of areas of operation, slow speeds, drifting events, speed and distance between events, and proximity analysis identify any vessel activities, unreported port calls and manoeuvring that is not compliant with vessel authorisations, licences or permits?

Encounters – 2 February (High Seas IATTC). 3 February, 4 February, 5 February, 6 February, 8 February (High Seas IATTC/WCPFC Overlap). 9 February, 10 February, 11 February, 13 February, 14 February, 15 February, 16 February, 17 February, 21 February, 22 February, 23 February, 24 February (High Seas IATTC). 1 March 2023, 2 March 2023, 3 March 2023, 4 March 2023, 5 Mar 2023 (WCPFC High Seas).
Unexplained Slow Speeds – 1 February and 6/7 February (High Seas IATTC/WCPFC Overlap). Check vessel logbook and engineers logbook.
Screenshots of Operations of Interest During Current Trip (Concentrate on those that do not align with reported activities or that indicate possible non-compliance)

Manoeuvring Analysis Compliance Risk:	Medium: **Unexplained Slow Speeds – 1 February and 6/7 February** (High Seas IATTC/WCPFC Overlap). Check vessel logbook and engineers logbook.

Part Three: Manoeuvring Analysis *– Following a recommendation to endorse port entry, a more detailed analysis of the vessel movements and activities during the current trip should be undertaken.*

✓ *The manoeuvring analysis should examine the areas of operation during the current trip to identify any potential unreported port calls or operations in closed or other areas where the vessel may not be authorised to operate.*

✓ *Depending on their size and sea conditions, carrier vessels generally transit at speeds between 8kn and 12kn. They will generally transit to an area to conduct transhipments and fishing vessels will generally move to the carrier vessel (almost always in port) once the carrier vessel is in the area. However, for at sea transhipments, the carrier may also move closer to fishing vessels with transhipments generally occurring in groups. This movement between individual vessels or groups of vessels will generally be at normal transit speed. So, the manoeuvring analysis should look for and examine periods of slow speed (less than 2kn) or periods of drift (movement consistent with existing currents and wind), as these are speeds at which transhipments and other interactions can occur.*

✓ *The manoeuvring analysis should also assess if there are any concerns with regards the accuracy of the positional data reported by the vessel during the current trip. Look for anomalies in the reported positional data, do all reported positions across different data sources (AIS/VMS) align and make sense?*

✓ *Proximity analysis should be undertaken at the time of the identified slow speed events to identify any vessels in the vicinity that the carrier vessel may have interacted with. Fishing and other vessels identified through the proximity analysis should be cross checked with the hatch plan or other documentation submitted by the carrier vessel to identify any potential unreported transhipments or other interactions.*

✓ *Any identified periods of slow speed or drifting that do not align with vessel interactions reported by the carrier vessel should be noted for further investigation during the inspection.*

✓ *Where possible, the activities of the fishing vessels that have interacted with the carrier vessel (both reported and identified through manoeuvring analysis) should be examined to ensure the legality of the catch transhipped. This analysis should again look for periods of slow speeds and at which fishing activities can occur.*

✓ *During the manoeuvring analysis the MIMRA MCS officer should also examine the carrier vessel transit speeds to identify any transits that would*

Manoeuvring Analysis
(As Much as Possible Examine)

Carrier Vessel
Examine Areas of Operation
Possible Port Calls
Pattern of Behaviour
Slow Speed
Drifting
Proximity Analysis
Unreported Encounters

Donor Vessels
Examine Areas of Operation
Fishing Events
Drifting
Slow Speed
Other Encounters
Electronic Logsheets (if e-reporting)
Observer reports (if e-reporting)

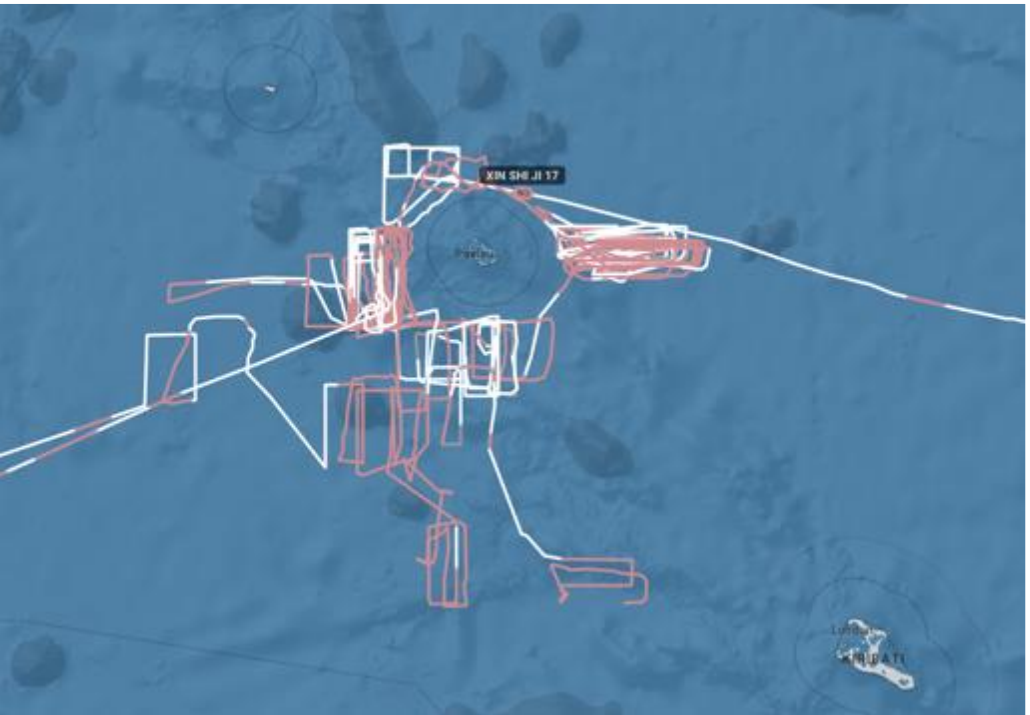
What did we learn?

- Carriers have not been looked at regionally (perhaps globally?)
- Risks for us as a major port state.
- Carrier vessel visits for “other’ reason
- Very different operational risks

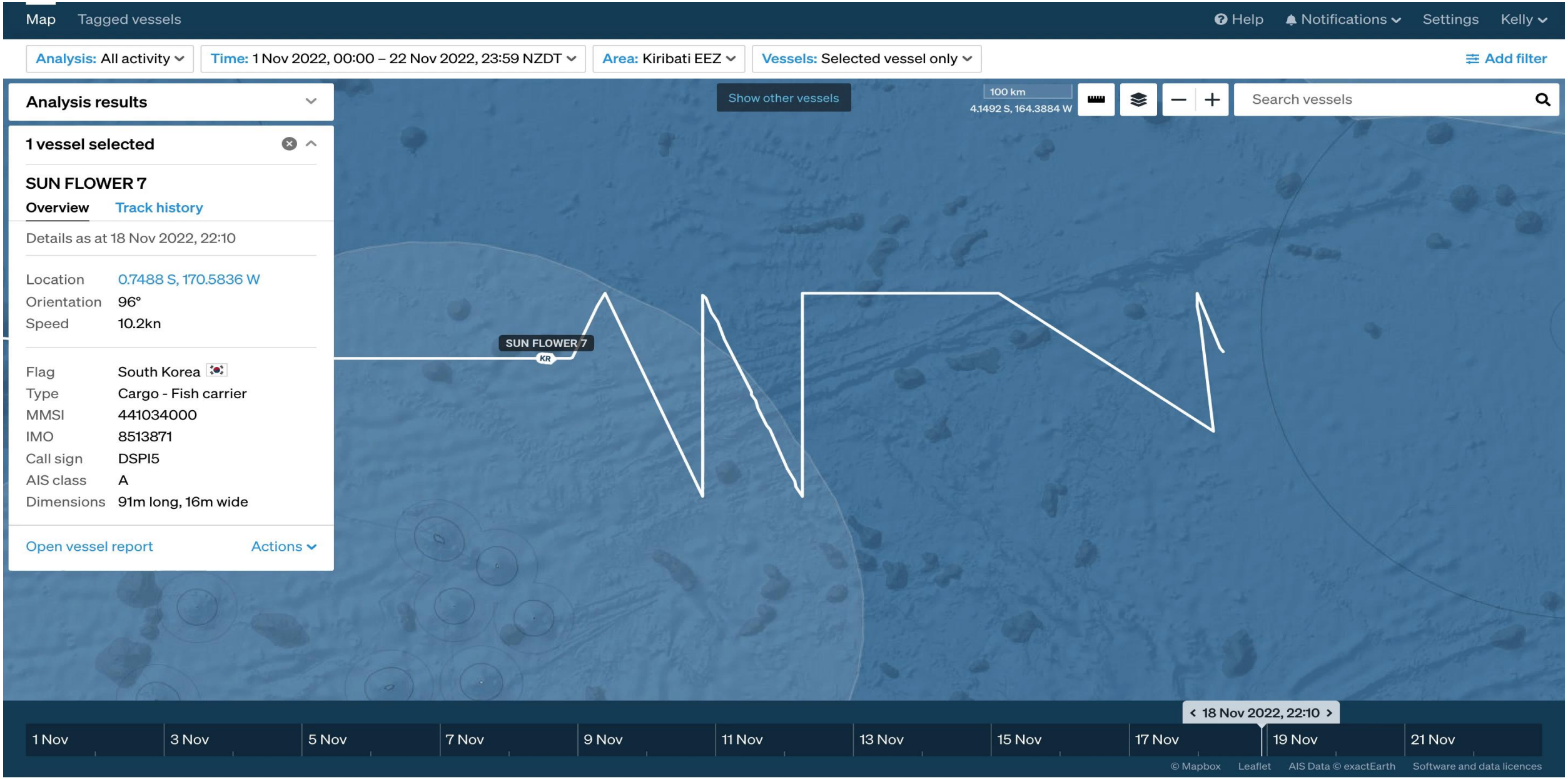
Example: HS Carrier

- 25 TS (flagged to 4 different DWFN)
- 8 defined locations in HS pockets and just outside the EEZ of other FFA members.

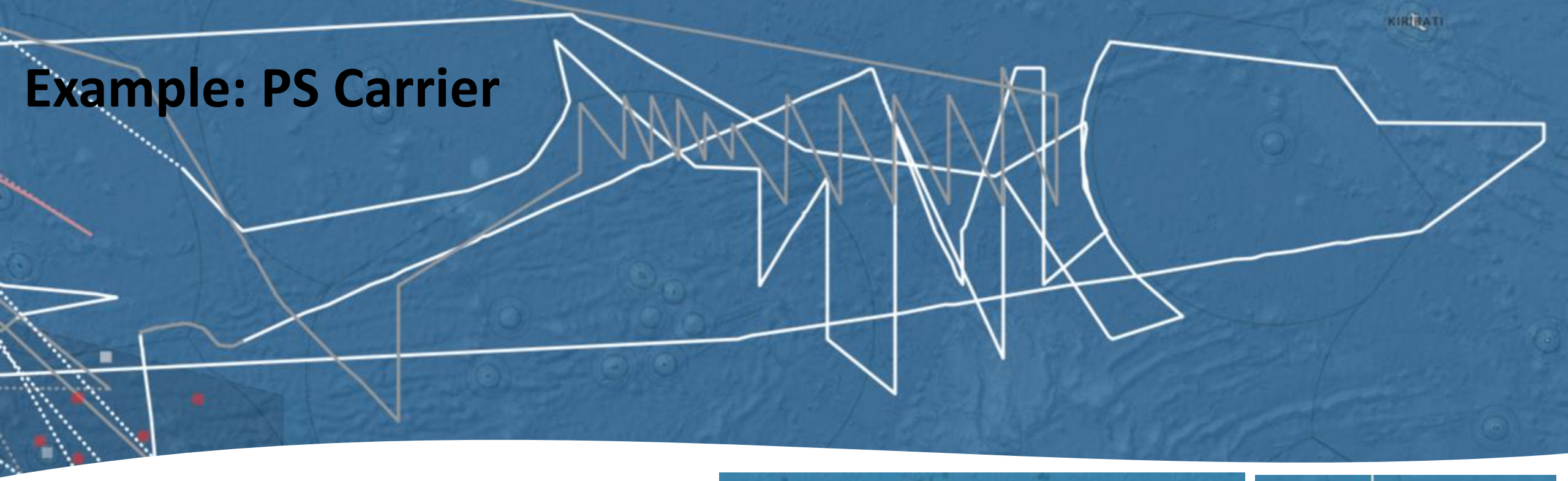
- No form of compliance assessment in the HS by the flag state.



Example: PS Carrier



Example: PS Carrier



Where is the flag state responsibility?

Thank you Komol tata

Our doors are open for any other agency that would like to come and spend a couple of weeks with us and share knowledge and experiences.