JOINT ANALYTICAL CELL

Introduction to the Joint Analytical Cell

Workshop on Strengthening Regional Fisheries Governance and Technology Integration to Combat IUU Fishing in the Indo-Pacific, 17-19 March 2026, SEAFDEC (in association with DFO, Canada), Bangkok, Thailand

JAC: Five organisations working collaboratively

Leads on **Monitoring, Control and Surveillance (MCS) capacity building and training**, works to ensure the Joint Analytical Cell (JAC) output is tailored to support MCS practitioners.

Provision of **tools and data** powered by satellite tracking, remote sensing and machine learning to support analysis of fishing-related activity.

Human analysis of a wide range of data sources, focused on vessel and company intelligence.

A maritime monitoring and analysis software platform providing MCS practitioners with a **near real-time tool** to identify suspicious vessel behaviour and take action, including access to **commercial remote sensing data**.

Focus on **beneficial ownership and corporate network analysis**.

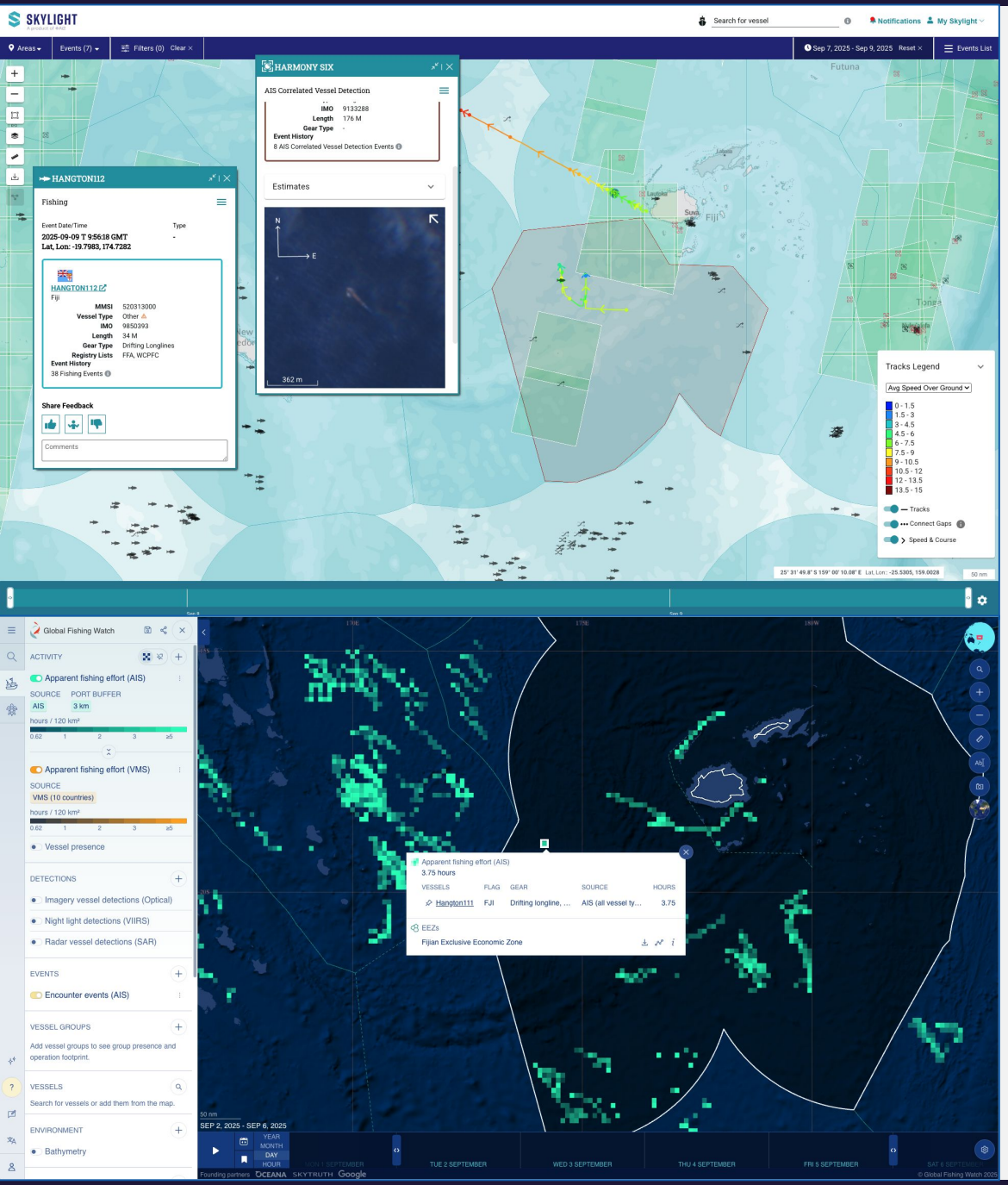
JOINT ANALYTICAL CELL

JAC approach

- Each JAC organisation has unique skills and expertise

- Working collaboratively enables our countries and organisations we partner with to access the full range of expertise across the five organisations

JOINT ANALYTICAL CELL | IMCS NETWORK | Global Fishing Watch | TMT | C4ADS | SKYLIGHT A product of Ai2



Access to Data and Technology

- JAC partners develop accessible, free-to-use Monitoring, Control and Surveillance tools, platforms and emerging technologies

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MCS Capacity Building

- The JAC is involved in capacity development and targeted technical training and assistance with fisheries enforcement agencies, networks and other partners including educational institutions
- Focus is to build capacity to apply data and technology to fisheries Monitoring, Control and Surveillance (MCS)
- Approaches include: Train the trainer, mentoring, and in-person and on-the-job training

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Patrol Support

- Combined JAC expertise, data, and tools has been used to support patrol planning, execution, and post patrol lesson learning and follow ups

- Improves targeting of and efficiency of patrols

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Port State Measures (PSM) Support

- PSM capacity building
- Facilitating exchange of information between relevant PSM States

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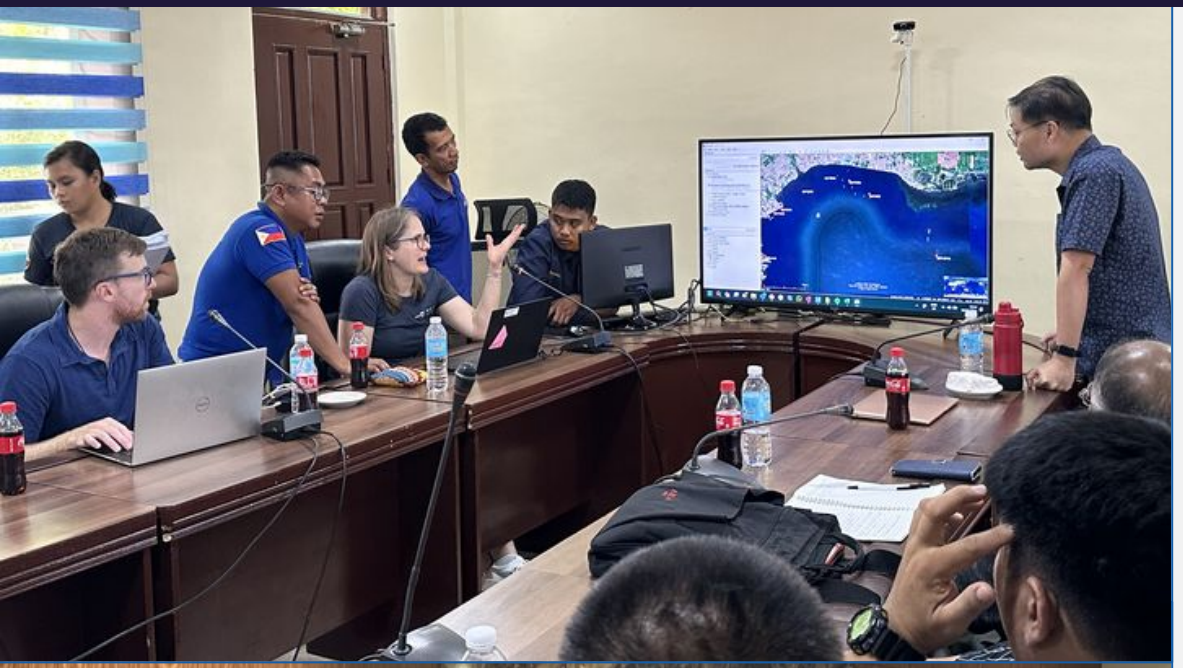

JAC presentations today

4 JAC members will be presenting today

- GFW
- C4ADS
- Skylight
- IMCS Network
- TMT not presenting today

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Global Fishing Watch

Using open access data and tools to help combat IUU fishing

Global Fishing Watch

Today's Session Covers

- Who is Global Fishing Watch (GFW)?
- Our platform, data & tools
- Cooperation with governments and key actors
- Case studies and demonstration of the Global Fishing Watch platform

Global Fishing Watch

Who is Global Fishing Watch?

Founded via collaboration between Google, Oceana, and SkyTruth 2015

Established as a nonprofit in 2017

Largely grant funded by philanthropic foundations

Plus a small amount of government funding

GFW's Mission

"Global Fishing Watch seeks to advance ocean governance through increased transparency of human activity at sea by creating and publicly sharing map visualizations, data and analysis tools that enable scientific research and drive a transformation in how we manage our ocean."

STATEMENT

The High Seas Treaty is now in force — transparency will determine its success

As a historic governance gap closes, accessible and actionable data remain key to delivering real protection for marine biodiversity, says Global Fishing Watch CEO Tony Long

January 17, 2026

NEWS STORY

Global Fishing Watch data used for breakthrough study on whale-ship collisions

Research demonstrates need for increased oversight of waterways A new study led by the University of Washington using Global Fishing Watch data has found that fewer than 7 percent of global...

November 21, 2024

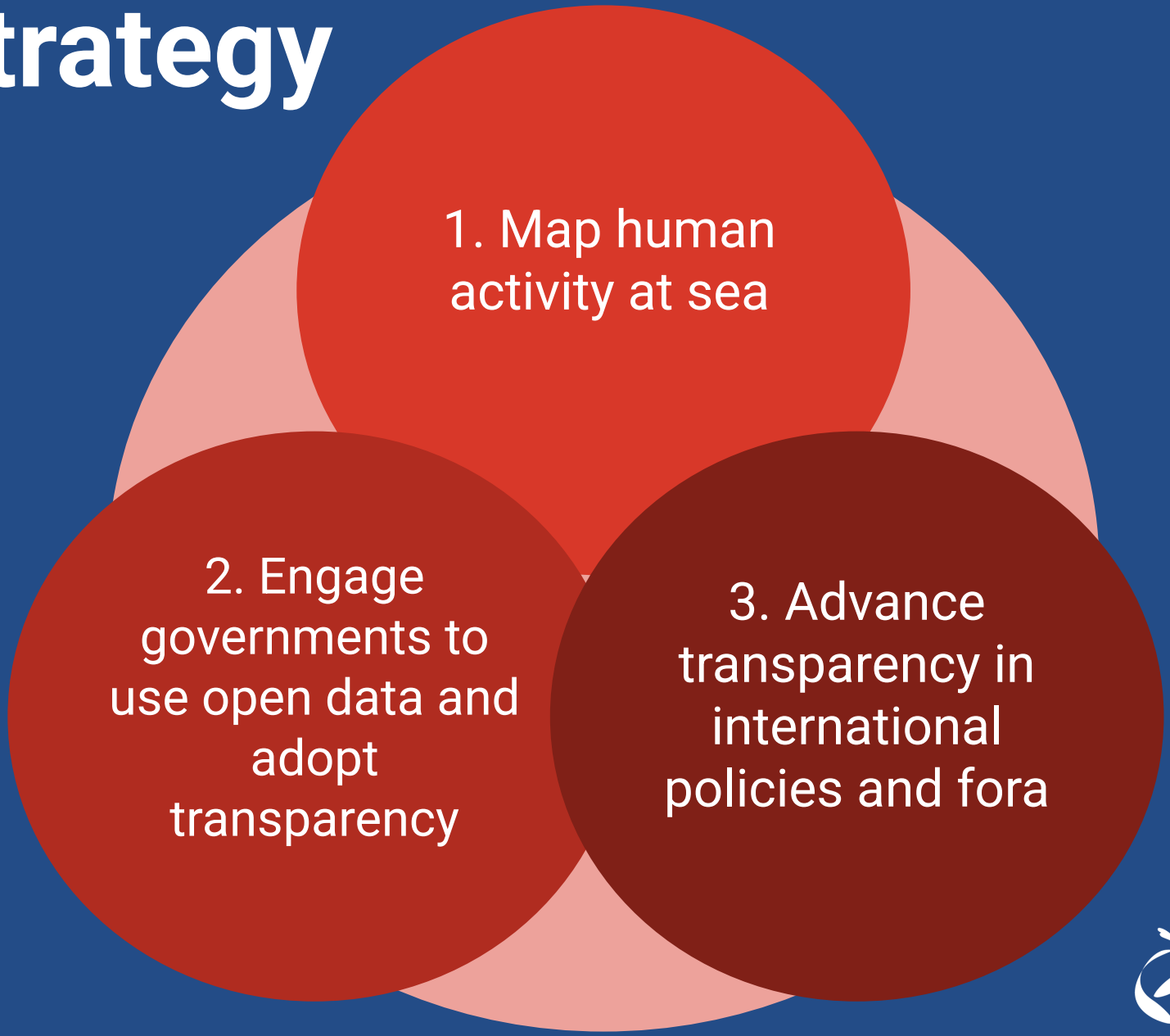
PRESS RELEASE

New research harnesses AI and satellite imagery to reveal the expanding footprint of human activity at sea

Study reveals 75 percent of the world's industrial fishing vessels are hidden from public view WASHINGTON, D.C. – A new study published today in the journal Nature offers an unprecedented view...

January 3, 2024

GFW's Strategy

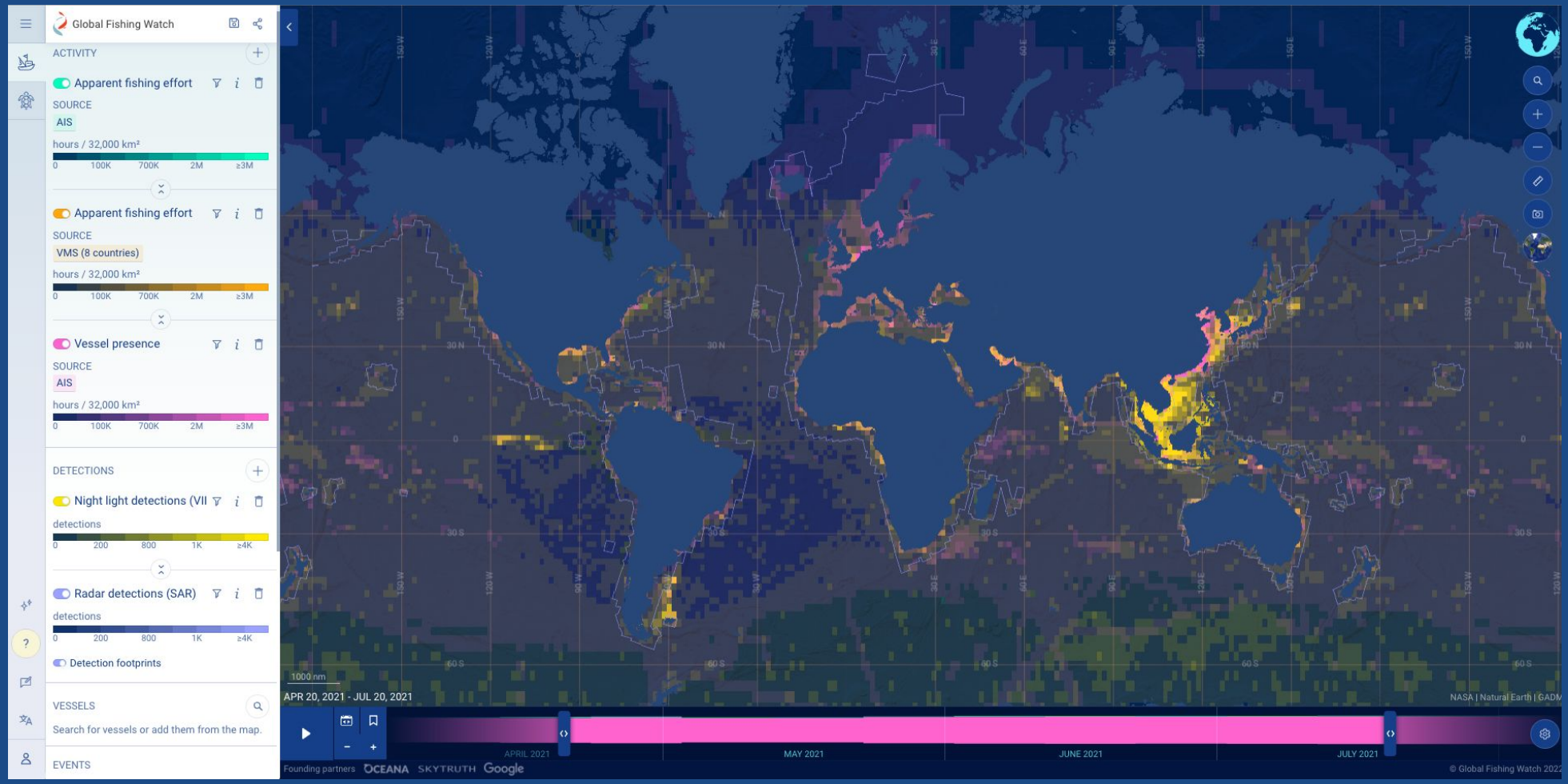


Global Fishing Watch


Technology and engineering
Research
Policy
Analysis and capacity development
Team composed of approximately:
120+ people; 30 Countries

Global Fishing Watch Platform

The Global Fishing Watch Platform



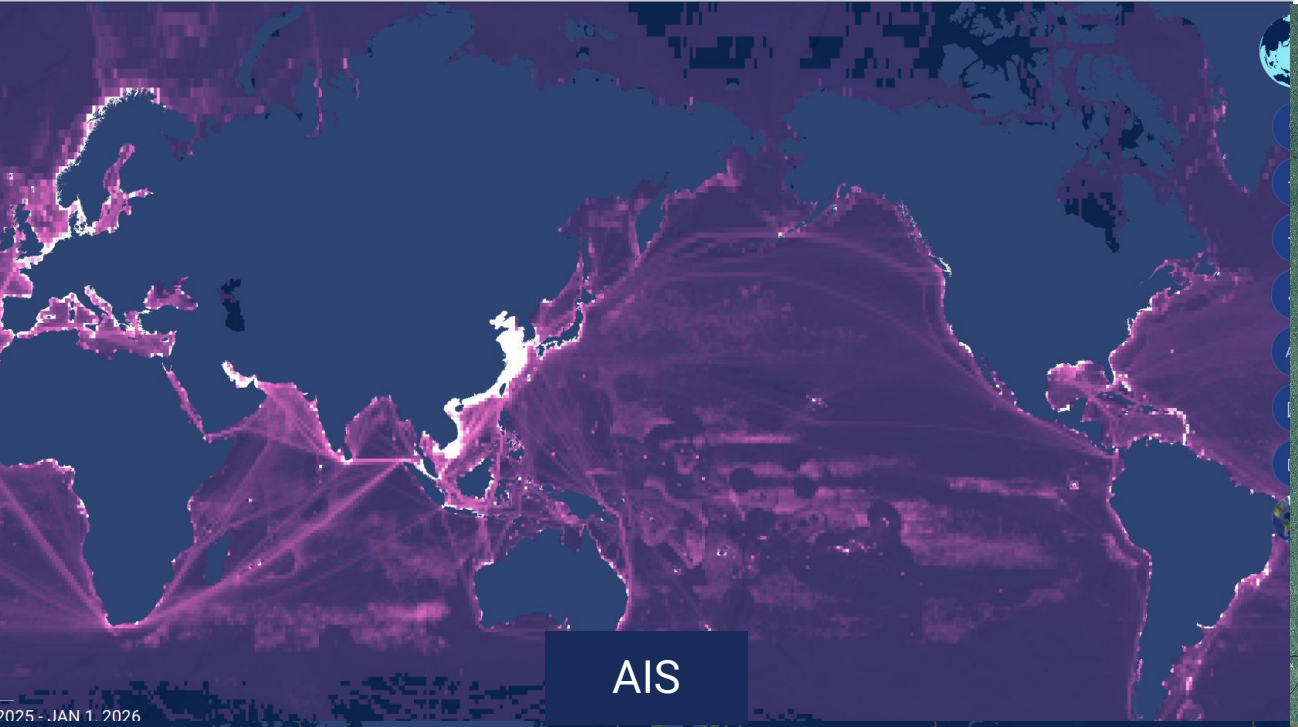
Open-access online tool for visualization and analysis of vessel-based human activity at sea.

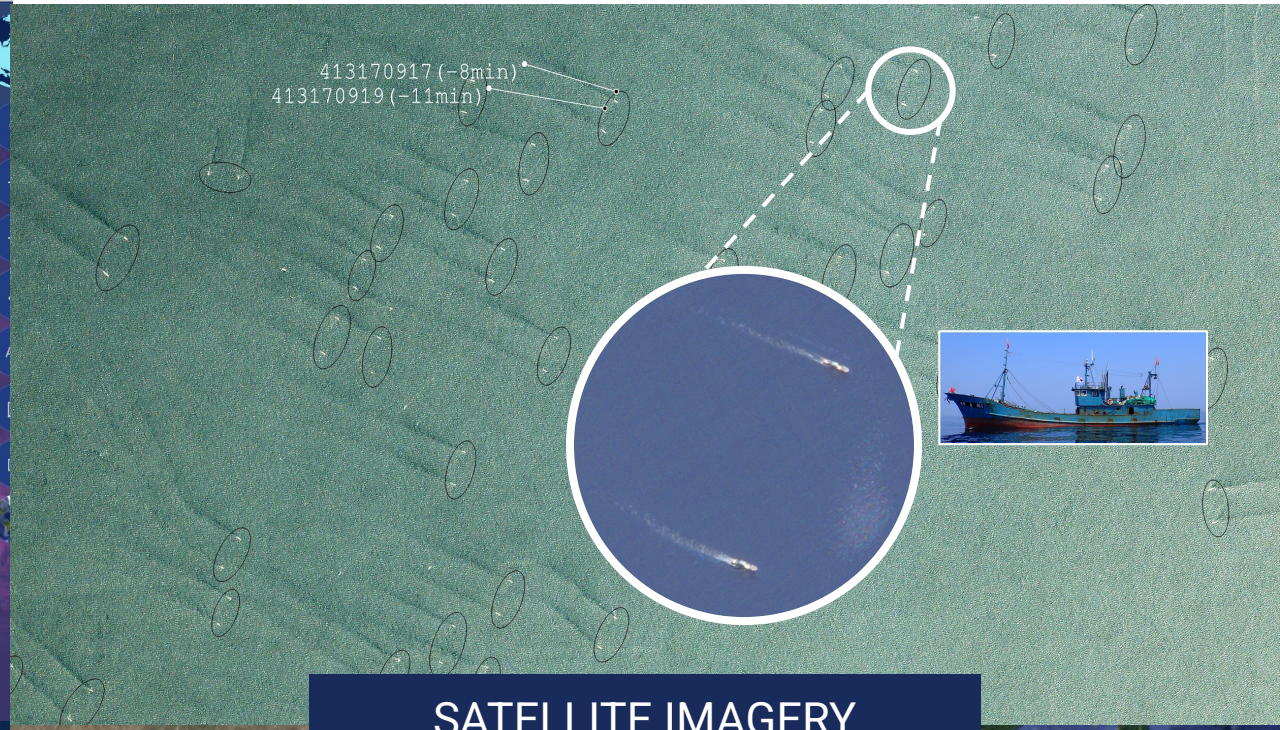
Global Fishing Watch

https://globalfishingwatch.org/our-map/

GFW Platform:

Data Layers


AIS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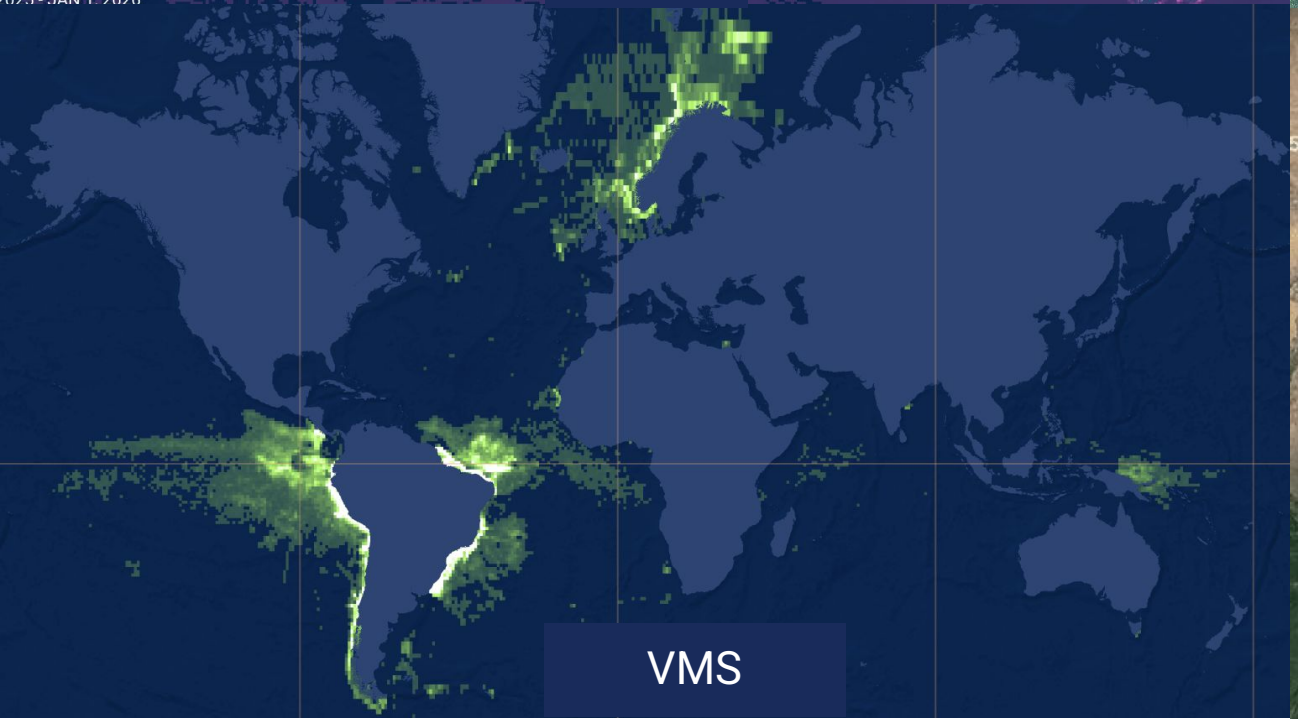
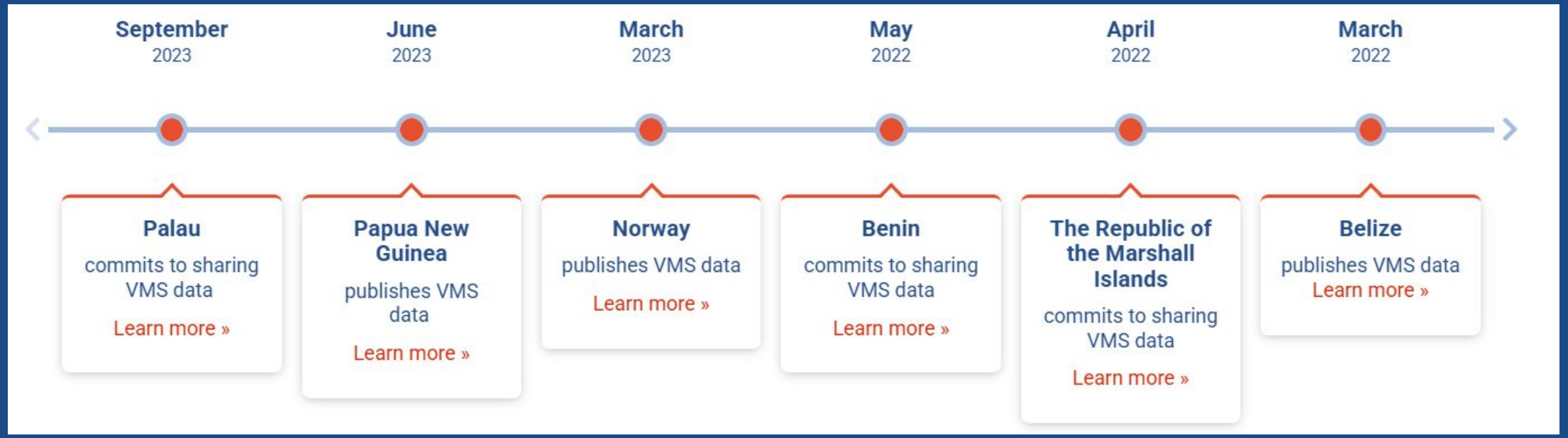
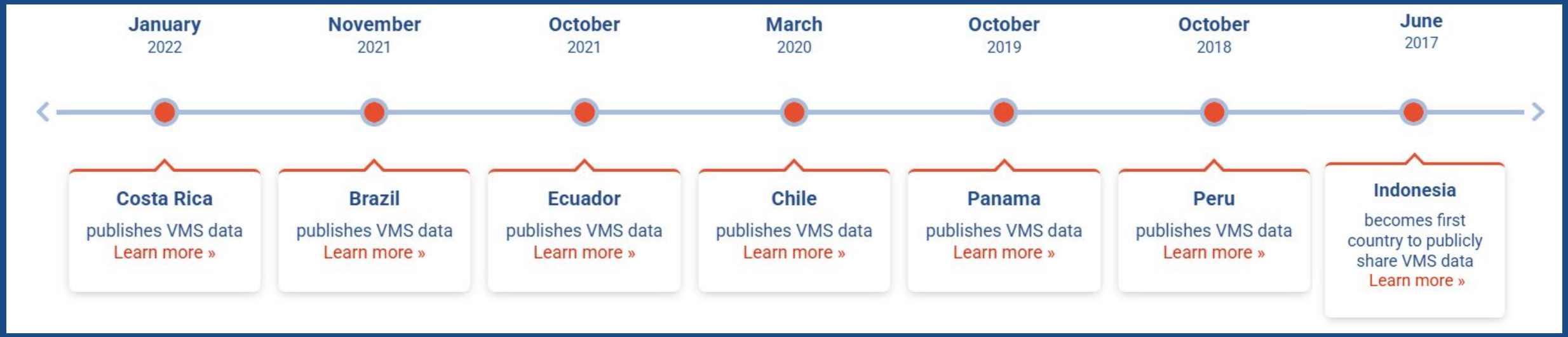
SATELLITE IMAGERY

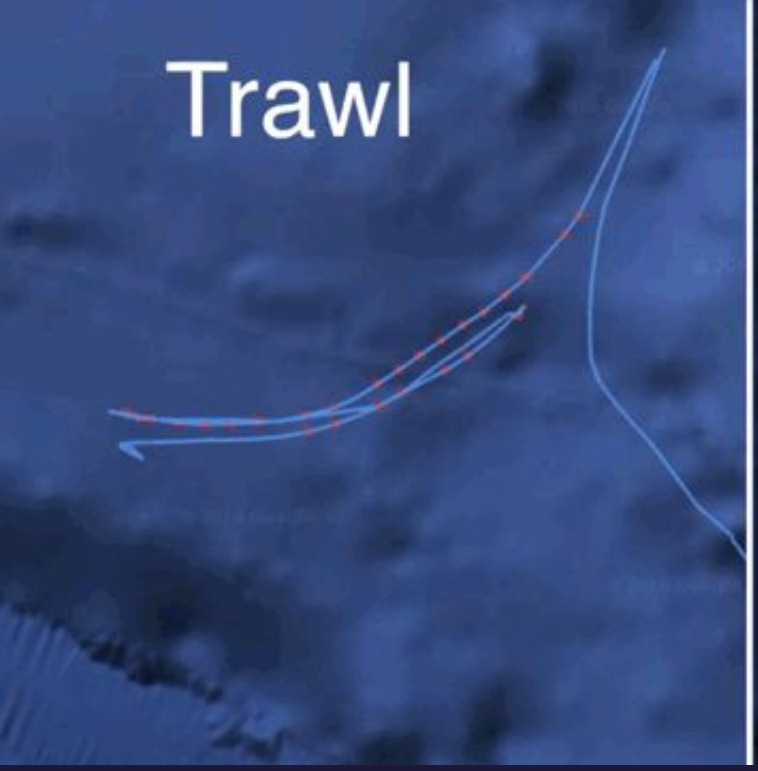

VMS

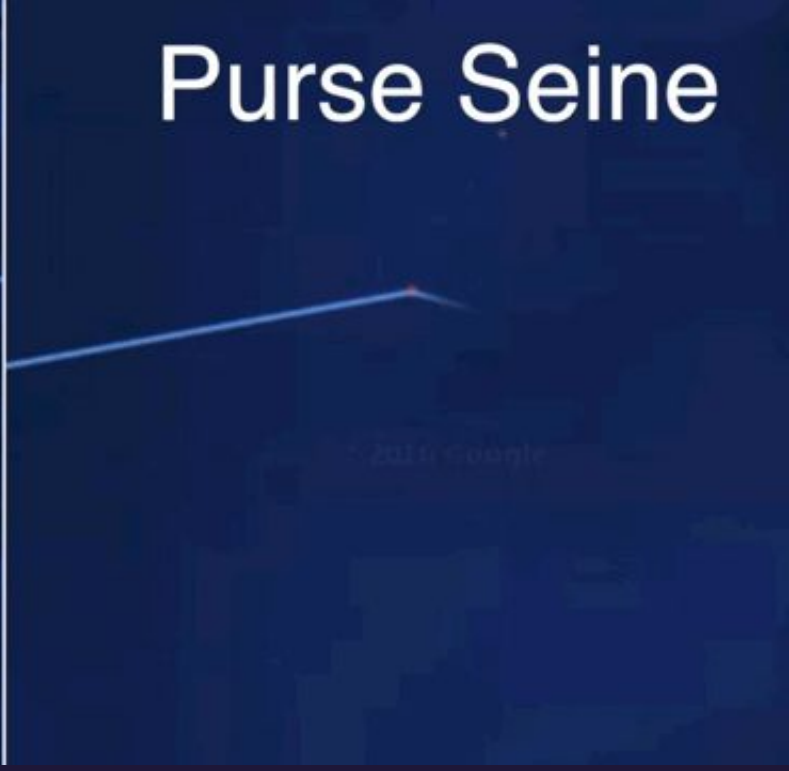
Flag States sharing VMS data publicly





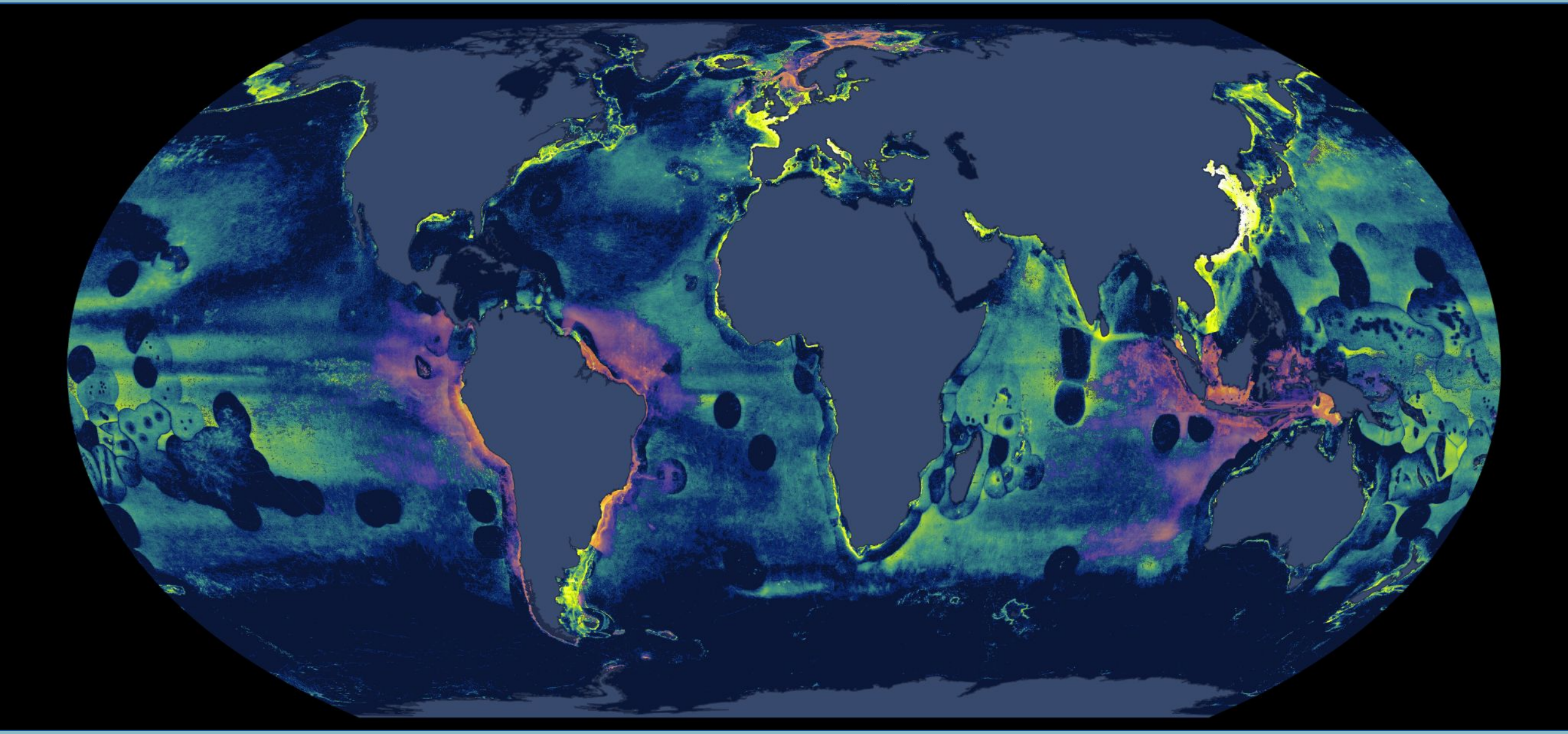
https://globalfishingwatch.org/transparency/



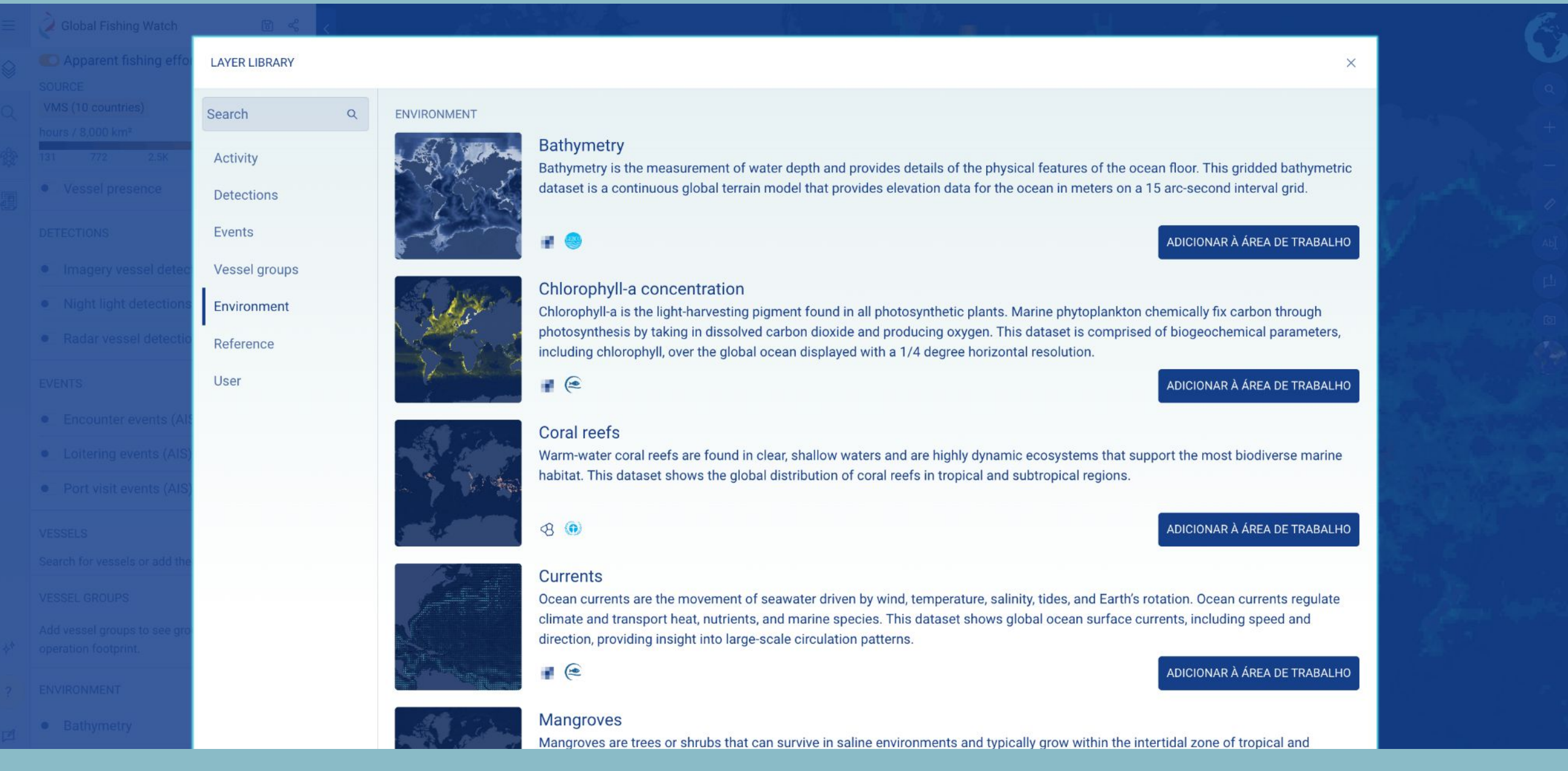


Machine learning algorithms can estimate if a vessel is fishing and vessel type based on their GPS tracks

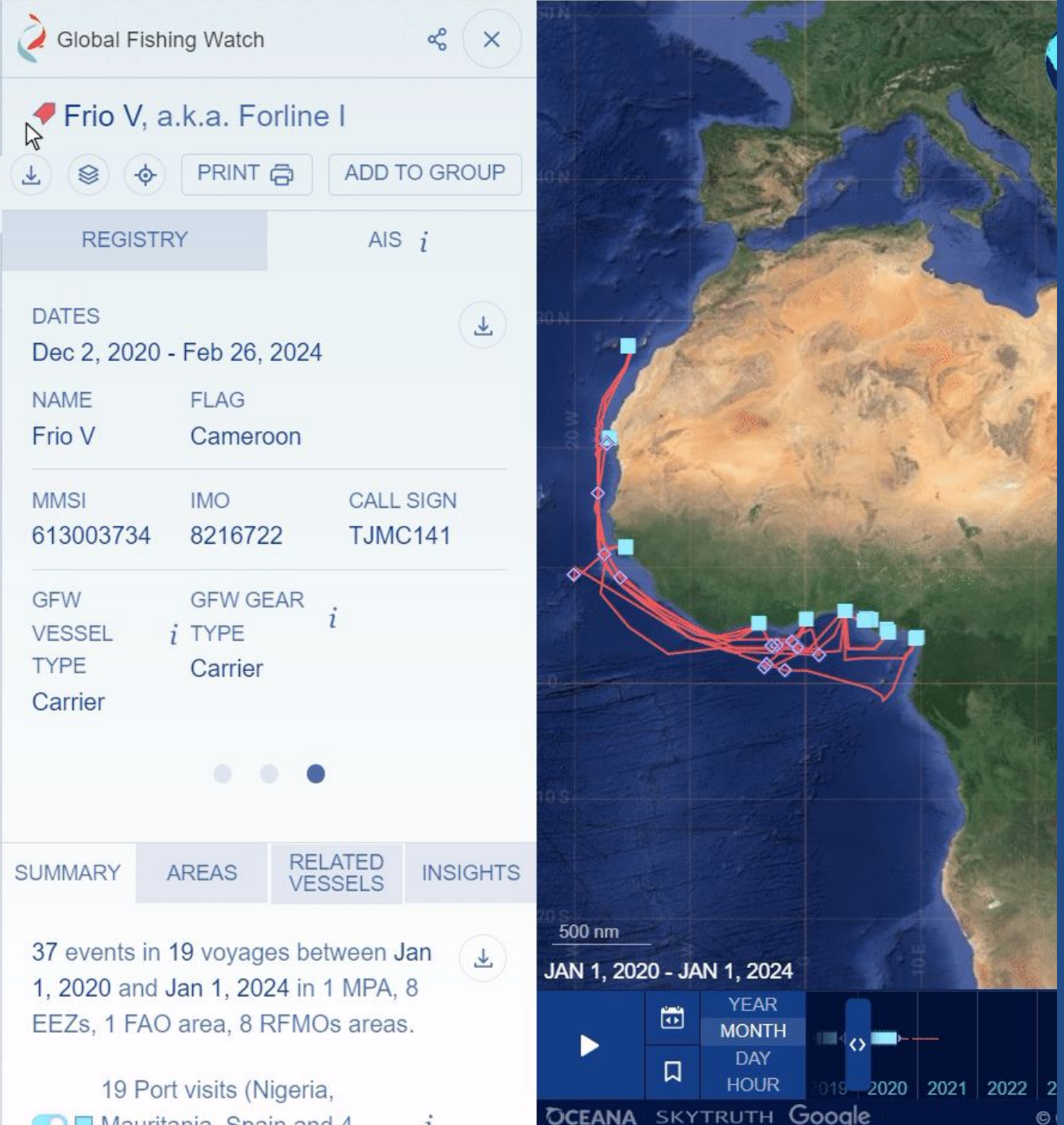
AIS and VMS based Fishing Effort 2024



Environmental and Reference Layers



GFW Platform: Vessel Profiles



Vessel Profiling

- A single **powerful search engine** of >220K vessels involved in fishing
- **Vessel profiles** including public registry, self-reported AIS/ VMS identity and activity information
- **Vessel insights** to improve cross checks and risk assessments powered by vessels behaviours
- **Risk evaluation** of potential association with IUU fishing, highlight gaps for further investigate
- **Direct integration** and cross-links with other platforms

Global Fishing Watch

Pioneering technology for effective MCS

Historical data

Several years of data across all datasets from 2012 until the last 72 hours - apparent fishing, encounters, vessel detections, tracks and identity

Dynamic analysis

Conduct fleet and area based analysis for up to 1000 vessels at a time, create and share dynamic reporting

Easy to use

Designed with both experts and non-experts in mind

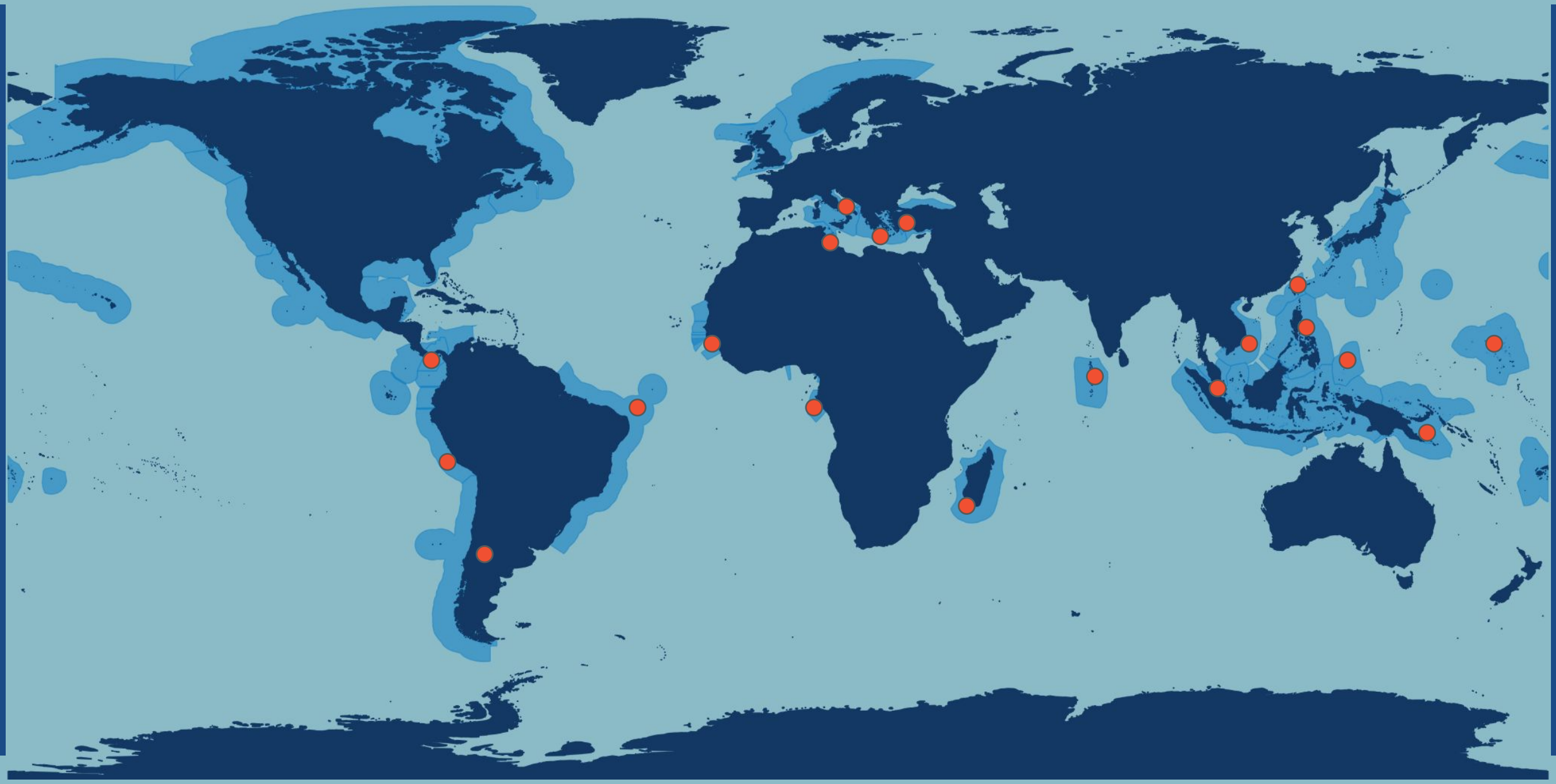
Open and free

Free to anyone with an Internet, mid-level computers

Global Fishing Watch

Working with Partners

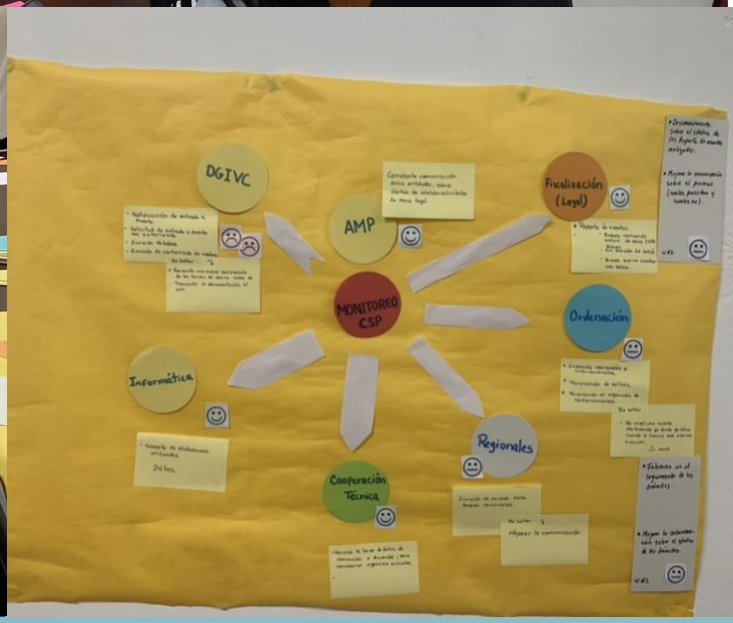
Cooperation with governments and key actors



Capacity development and Policy Support

Types of capacity development and policy support GFW has offered to date include:

- Structured Monitoring, Control and Surveillance Course Modules
- Informal mentoring & coaching in workplace
- Review of Policy and decision making processes
- Developing protocols
  (*e.g.* Standard Operating Procedures - SOPs)
- Learning collaboratives/ Knowledge Exchange (sharing information)



Example Partnership Events in Indo-Pacific Region

Madagascar (GFW)	Sep 2025	MCS training modules
Philippines (JAC) Supported by DFO Canada	Feb 2026	Data analysis and intelligence creation using various MDA tools including the GFW Map
Papua New Guinea (GFW)	Aug 2025	Regional Knowledge Exchange between The Philippines and Papua New Guinea on implementing the Port State Measures Agreement (PSMA)
SEAFDEC (JAC)	Sep 2025	Regional training course for fisheries inspectors in implementation of PSMs (ASEAN)

Intelligence Support

- Actionable fisheries intelligence
- Proactive and reactive
- Analysis of vessel tracks, activities and vessel identities
- Analysis of fleet activities

Jun 17, 2022

Encounter between the **QIAN YUAN** (fish carrier) and **FU YUAN YU 687** (purse seine).

- Start: Jun 17th, 2022 02:10 UTC
- End: Jun 17th, 2022 04:20 UTC
- Duration: 2 hours 10 minutes

The second encounter was with the purse seine vessel FU YUAN YU 687 flagged to China (MMSI: 412440362 and IMO: 8548606). GFW map

Case Study - Reefer Qian Yuan

Global Fishing Watch

Qian Yuan

ADD TO VESSEL GROUP

REGISTRY | AIS

REGISTRY SOURCES
GFW-REVIEW, IATTC, ICCAT...

DATES
Aug 13, 2021 - Dec 4, 2022

NAME
Qian Yuan

FLAG
Panama

GEAR TYPES
Specialized reefer

YEAR BUILT
1988

MMSI
371031000

IMO
8819691

CALL SIGN
H3YK

LENGTH (M)
80.1

DEPTH (M)
7.45

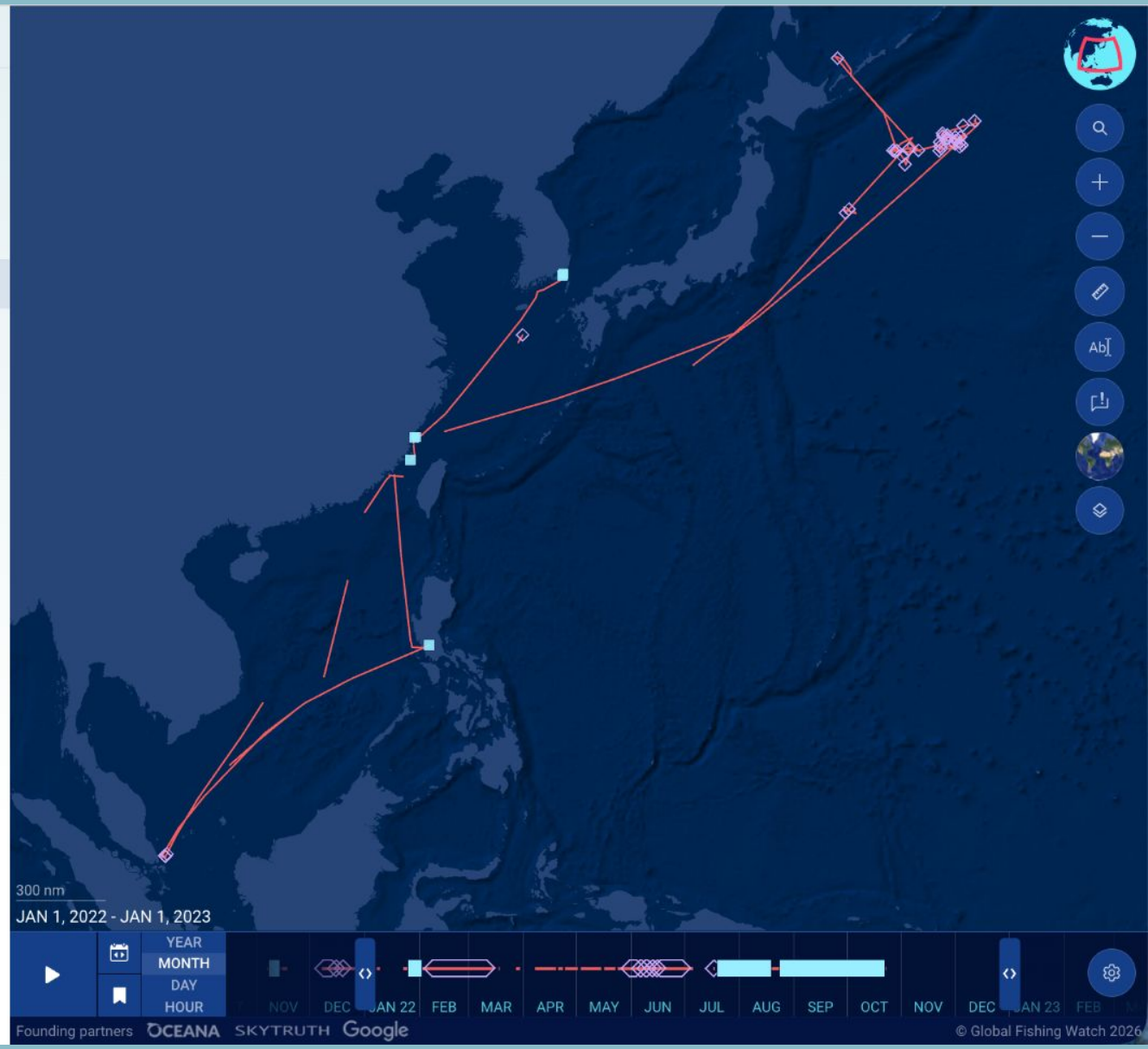
GROSS TONNAGE
1,891

OWNER
Brimming Sonic (Hong Kong) Aug 13, 2021 - Dec 4, 2022

OPERATOR
Chi Ocean International Shipping (Hong Kong)

AUTHORIZATION
ICCAT Dec 31, 2021 - Apr 1, 2022
IOTC Nov 30, 2021 - Jun 1, 2022
NPFC Dec 31, 2021 - May 1, 2022
SPRFMO Dec 29, 2021 - May 1, 2022
WCPFC Jan 13, 2022 - Jun 1, 2022

The most recent vessel authorized date is the last date Global Fishing Watch collected data. Visit registry source to verify status.



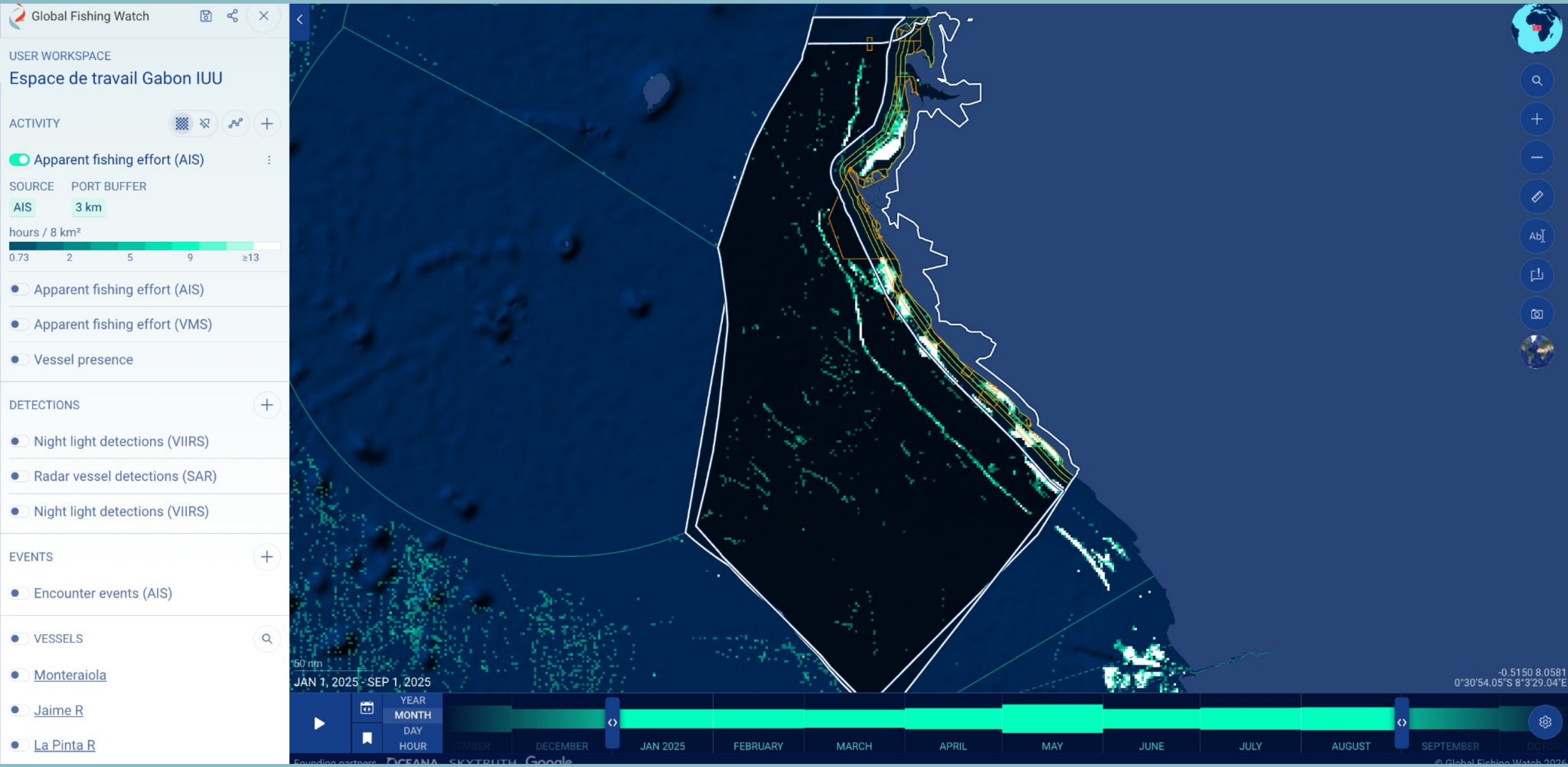
Patrol Support

- Use a combination of open source data and tools to support patrol planning through analysis of historical trends

- Improve targeting of and efficiency of patrols

Global Fishing Watch

Case Study - Support to Operation Albacore in Gabon



Key Messages

- **Global Fishing Watch** is one of 5 organisations that work collaboratively & globally as the Joint Analytical Cell (JAC)
- Each JAC partner brings its unique strengths;
  Working together creates better actionable insights
- GFW's platform provides free-to-access to tools and data powered by satellite tracking, remote sensing and machine learning to support analysis of fishing-related activity (72-hour delay)
- GFW supports partners to use our platform and tools to help combat IUU fishing

Global Fishing Watch

JOINT ANALYTICAL CELL

About the Joint Analytical Cell:

The Joint Analytical Cell (JAC) is a unique collective of organizations that provides maritime authorities with high quality fisheries intelligence, technology, data analysis and capacity building to combat illegal, unreported and unregulated fishing (IUU). Together, the JAC members, IMCS Network, Global Fishing Watch, TMT, C4ADS and Skylight, harness innovative technology and complementary expertise to improve the effectiveness of fisheries monitoring control and surveillance, and foster cooperation to build insights and capacity that support and enhance fisheries management.

Contact: jac-coord@tm-tracking.org

www.jointanalyticalcell.org | www.imcsnet.org | www.globalfishingwatch.org | www.tm-tracking.org

Questions?

Global Fishing Watch