FVON UPDATES

SEPTEMBER 2025



QUICK STATS •

FVON METRICS

Since the beginning of 2025, FVON has been documenting metrics (shown in Table 1) from three of its affiliate networks: the environmental Monitoring on Lobster Traps and Large Trawlers Program (eMOLT), Ocean Data Network (ODN), and the Smart Fisheries Network (SFiN).

METRIC	eMOLT	ODN	SFiN
Number of Tows	14694	1716	2191
Number of Tows to GTS	4546	1459	0
Vessels	124	23	223
Vessels with WMO ID	60	21	0
Min/Max Pressure	4.1 / 373.0 dbar	1.8 / 858.8 dbar	0.0 / 499.9 dbar
Min/Max Temperature	-0.5 / 28.7 °C	0.2 / 19.7 °C	0.6 / 31.7 °C
New Vessels	81	18	0

Table 1. Statistics from eMOLT, ODN, and SFiN between 1 January 2025 and 12 September 2025. Thanks to Carles Castro Muniain and Ocean Data Network for setting up automatic metrics.

Together, these programs have contributed **18,601 total tows** from **370 vessels** since 1 January 2025. Thank you to George Maynard, Cooper Van Vranken, Jack Carroll, Carles Castro Muniain, Shin Kida, Nick Hirose, and the many program participants for your contributions to ocean science!

MILESTONES IN OCEANIA

The Fishing Vessels Ships of Opportunity Ocean Observing Program (FishSOOP) celebrated its first birthday as an endorsed program of the Integrated Marine Observing System (IMOS), which facilitates ocean data collection across Australia's coastlines. In just one year, FishSOOP nearly doubled its fleet from 33 to **64 vessels**, collecting over **4.7 million data points**. Congratulations to FishSOOP on its one-year legacy and the many successes still to come!

Meanwhile, the collaboration between IMOS and the Pacific Community (SPC) – the Pacific Islands FVON (PI-FVON) program – has now been running for six months, in which time it has collected almost **50,000 data points**. The program operates in Fiji, the Solomon Islands, Papua New Guinea, and other small island nation-states throughout the region, increasing the climate resilience of the fishing communities who live there.

These updates were originally published in the IMOS-FishSOOP newsletter. Subscribe and read more on the website.

KEY FVON WORKSTREAMS

ENDORSED FISHSOOP DATA BEST PRACTICES

The FishSOOP team's "Real-time Quality Assurance and Quality Control Practice Manual, Version 1.0," has been endorsed by the <u>International Ocean Best Practice</u>

Organisation as a Mature Practice. This is a huge milestone toward becoming a mature GOOS network and the impressive culmination of 2.5 years of work.

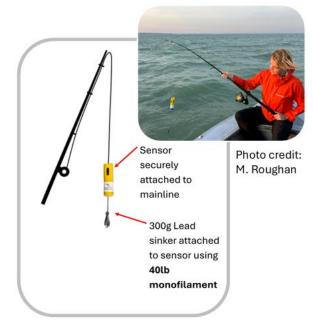
This manual provides guidance on how to manage, describe, and publish FishSOOP datasets so they can be easily accessed and understood by global researchers, decision-makers, and the broader public. By defining best practices for metadata standards, quality control, and long-term data maintenance, this manual helps to ensure that FishSOOP data is transparent, discoverable, and usable while also supporting international capacity building.

This manual will be critical in FVON's ongoing effort to publish unified best practices across the organization. The Data Management Subcommittee will integrate FishSOOP best practices into FVON standards and strengthen a culture of data sharing that expands the reach and impact of all FVON networks.

Lago, V., M. Roughan and S. Caon. (2025) IMOS Fishing Vessels as Ships of Opportunity (FishSOOP), Real-time



Moninya Roughan (IMOS) onsite during a PI-FVON installation. Credit: Moninya Roughan



FishSOOP figure of a Moana sensor mounted to fishing rod. Credit: Lago et al. (2025)



EDF conducting a test of the sensor and deck unit onboard a panga in Baja California Sur. Credit: Rosita Hirales

Quality Assurance and Quality Control Practice Manual, Version 1.0. Integrated Marine Observing System. DOI:10.26198/sp0r-p448

INCOMING DEPLOYMENTS IN MEXICO

Environmental Defense Fund (EDF) is making strong progress on grant activities in Baja California Sur for a "technology testbed" of several projects, one of which includes funding for a new FVON pilot.

Thanks to the support of Ocean Data Network and ZebraTech, nineteen temperature-depth sensors will be deployed on fishing vessels out of La Paz Bay and Magdalena Bay in the coming weeks. The data will be used to improve the climate resilience of fisheries throughout the region as well as better predict marine heatwaves, harmful algal blooms, and tropical cyclones.

NEW REPORTING & DATA TOOLS FROM EMOLT

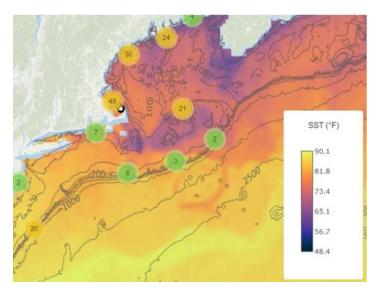
Thanks to the fishing community of the Northeast United States, eMOLT continues to bring critical data from the water straight into the hands of scientists, fisheries managers, and industry. In August, eMOLT had some exciting updates.

- The Cape Cod Bay Study Fleet and eMOLT are collecting critical oxygen data on loggers. Over the summer, conditions have been in the normal range – a good sign heading into autumn.
- When Hurricane Erin passed offshore in late
 August, fishing vessels recorded early signs of
 temperature and oxygen fluctuations and
 thermocline breakdown nearly a month ahead of
 past averages, underlining the importance of
 high-resolution coastal data for early preparation
 and prediction.
- A new <u>"Cape Cod Ocean Watch" portal</u>, developed by Woods Hole Oceanographic Institution (WHOI) with support from eMOLT, now brings together environmental data in one place. Click on the link to take a look.

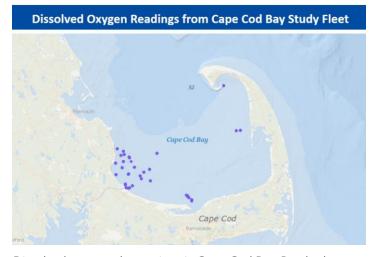
These updates were originally published in the eMOLT newsletter. Subscribe and read more on <u>LinkedIn</u>.



EDF hosting a capacity building workshop in Baja California Sur. Credit: Hector Licón



An image showing eMOLT water column profiles (yellow and green circles) along with gap-filled sea surface temperatures. Credit: Cape Cod Ocean Watch portal



Dissolved oxygen observations in Cape Cod Bay. Purple dots indicate dissolved oxygen values in the normal range (> 6 mg/L). Credit: Cape Cod Bay Study Fleet & eMOLT

CONFERENCES, COMMUNICATIONS, & EVENTS

FVON AT THE OCEAN SCIENCES MEETING

The Ocean Sciences Meeting (OSM) will take place in Glasgow, Scotland, 22-27 February 2026.

Patrick Gorringe, Audrey Minière, Hassan Moustahfid, Miguel Santos, and João Souza will be chairing a poster session at OSM titled: **Innovating Ocean Observing for Earth System Prediction and Societal Benefit**. This session explores how innovative ocean observing technologies – from fishing vessels to gliders and Argo floats – are transforming Earth System prediction. With a focus on under-observed coastal and shelf seas, the posters focus on integrating in situ data into forecasting systems, advancing co-design with industry, and developing sustainable, societally-relevant observing models. Stay tuned for more information about the time and date of the session!

FVON will also be hosting the **FVON Community Event** after the conference sessions on either Tuesday or Wednesday, the 24 or 25 February. More information about this event will be coming soon. Hotels are filling quickly, so please plan ahead if you intend to come!

BUILDING RESILIENCE IN THE CARIBBEAN

CoastPredict and IOCARIBE are leading a project titled "Building resilience of climate-vulnerable coastal communities in the Wider Caribbean Region." Thanks to the support of the Adaptation Fund, UNIDO, and UNESCO, seven countries in the Caribbean will be expanding their coastal ocean observing capabilities.

FVON-Bahamas is a success story in this region and will be a critical entry point and model for a wider Caribbean observing system. As a fundamental citizen science initiative of CoastPredict (as seen in this new video), FVON will be a key technical implementor of the project. More updates to come next year!

FVON WEBINAR

We are excited to announce that <u>Seafood and Fisheries Emerging Technologies</u> (SAFET) and the <u>Global Ocean Observing System</u> (GOOS) will be co-hosting a webinar series focused on FVON and the use of ocean data for sustainable and profitable fisheries.

Part I of the webinar will focus on the Western Hemisphere and will take place on **9 October 2025 at 16:00 UTC / 12:00 EDT**. Keep an eye out for the registration link, which will be shared next week. More information on Part II of the series will be available soon. A huge thank you to George Maynard and Cooper Van Vranken for speaking at this event!

DIVE A LITTLE DEEPER •

https://www.fvon.org/ LinkedIn Twitter (X) Facebook

