FVON UPDATES

AUGUST 2025

WELCOME, NEW MEMBERS

Zac Anderson
Brandon Bethel
Stella Caon
Fiona Carse
Enrico Cecapolli
Andrew Corso
Antonio Novellino

Thank you for all of your support. Welcome to the FVON Member Committee!

Kwame Agyekum
Lancelot Blondeel
Ainhoa Caballero
Carles Castro Muniain
Caroline Cusack
Julie Duchêne
Naoki Hirose
César González-Pola
Hellen Kizenga
Véronique Lago
Mbiru Moses Mapombe
Terry McConnell
Filipe Nhanquê
Pierluigi Penna
Tanuspong Pokavanich
Linus Stoltz
Tetsutaro Takikawa
R. Venkatesan
Z. Aleck Wang

SENSORS, STORMS, SCIENCE

SENSORS TRACK EXTREME WEATHER NEAR SYDNEY

This is an edited version of an article which appeared in the June edition of the FishSOOP newsletter and the May edition of IMOS Marine Matters, a biannual newsletter providing program and facility updates, new data streams, user resources, impact stories, and research findings. Subscribe to IMOS Marine Matters here and to the IMOS-FishSOOP newsletter here.

Subsurface sensors deployed via commercial fishing vessels off the coast of New South Wales captured dramatic ocean changes during a powerful storm in early April. Collected as part of Australia's IMOS-FishSOOP program, the data revealed bottom

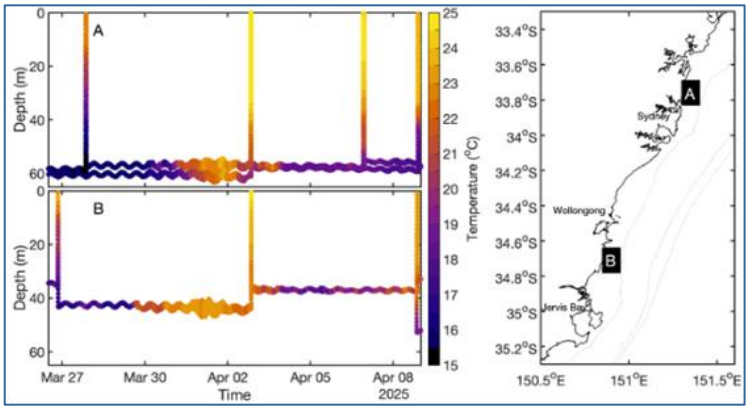


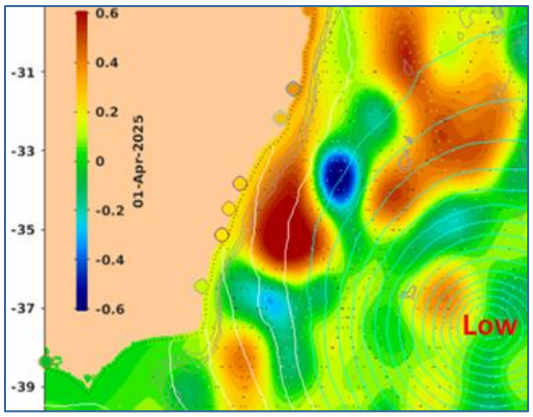
Figure 1 Temperature and depth timeseries data measured off Sydney's Northern Beaches (A) and Kiama (B) regions.

temperature spikes of up to 23°C, intense pressure swings from storm surge and tides, and evidence of marine heatwave activity.

Pre-storm conditions showed typical bottom temperatures of 16-17°C and semi-diurnal pressure fluctuations of 1-2 m at around 42 m depth (Figure 1). Beginning 30 March, a sharp temperature increase and thickening of the water column suggested the combined effects of a king tide, offshore eddy, and storm surge (Figure 2). This was accompanied by greater pressure variability, attributed to high waves and tidal forcing (Figure 3).

These sensors were mounted on fish traps and remained underwater before, during, and after the event, highlighting the value of sustained, subsurface observations for storm tracking and marine heatwave monitoring. Post-storm, the water column remained warmer and less stratified through late April, showing how storm-driven mixing interacts with ongoing marine heatwaves.

Over fifty vessels across Australia and beyond are now equipped to feed real-time data into global systems like the WMO GTS, improving forecasts and our understanding of climate-linked ocean changes.



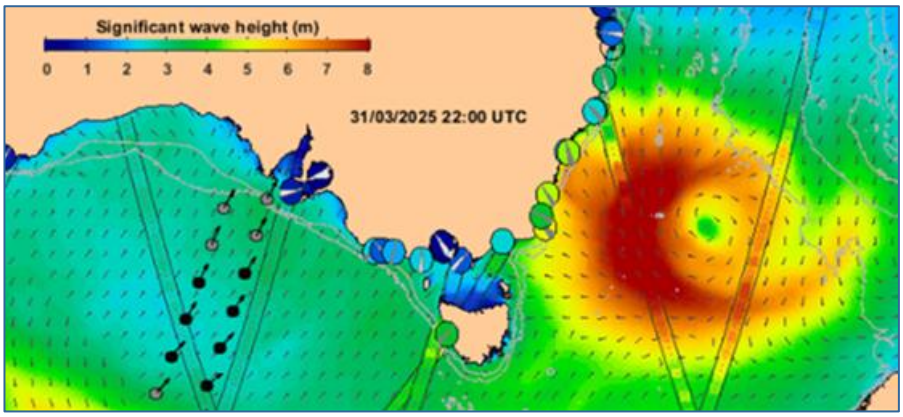


Figure 2 Sea level anomaly data for 1 April 2025 showing an increase in sea level height close to the NSW coast due to the storm surge. The center of the low-pressure system responsible is visible in the bottom right of the image, along with 2hPa isobars.

Figure 3 Significant wave heights close to coast for 31 March 2025.

Credit: Sourced from https://oceancurrent.aodn.org.au/sst.php?link=SE/20250401.html (Figure 2) and https://oceancurrent.aodn.org.au/waves/waves3.php?date=20250331220000 (Figure 3). Data were sourced from Australia's Integrated Marine Observing System (IMOS), which is enabled by the National Collaborative Research Infrastructure Strategy (NCRIS).

PORTUGAL'S FIRST ARGO FLOAT

Portugal successfully deployed its first Argo float, creating a milestone for its national ocean observing capacity. Deployed off of the Portuguese coast in July, the float will contribute to the global Euro-Argo network, supporting real-time ocean data collection for climate and marine research. This marks a major step forward for Portugal and international ocean monitoring efforts as a whole.

IPMA news | Euro-Argo article | LinkedIn post

FVON PORTAL DEMO

Carles Castro Muniain, Cooper Van Vranken, and the ODN team have released a short video demo showcasing features of the FVON data portal. The video highlights both the captain-facing view, designed for simplicity and usability, and the network management and QC tools available for coordinators. This is a strong example of how our partners are making FVON data more accessible.

CONFERENCES & PUBLICATIONS

OCEAN SCIENCES MEETING 2026

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

Call for Abstracts
Patrick Gorringe, Audrey Minière, Hassan Moustahfid, Miguel Santos, and João Souza will be chairing a 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 chairs invite abstracts on integrating in situ data into forecasting systems, advancing co-design with industry, and developing sustainable, societally-relevant observing models.

Abstract submissions are due by 20 August 2025, 23:59 EDT / 03:59 UTC. Submit an abstract here and share with your networks!

FVON Community Event
FVON plans to host a side meeting at OSM that will be open to the full Member Committee. This event will showcase the FVON community and facilitate high-level discussions between the Steering Committee and broader membership. We invite all members who are able to attend! More information on this side meeting is coming soon.

If you are considering attending, here are some relevant sessions at OSM that may be of interest:

- OT010 - Innovating Ocean Observing for Earth System Prediction and Societal Benefit
- F003 - Innovative and Climate-Informed Technologies for Marine Fisheries and Ecosystem Management
- HC002 - Amplifying Voices in Aquatic Sciences: Human Impacts on the Ocean
- HC004 - Co-Designing Ocean Observing Systems for Impact: Evolving Toward Multiple End Users Needs
- OT006 - Building an Integrated Coastal Ocean Observing System for Global Ocean, Weather and Climate Prediction
- OT007 - Co-designing the synergistic ocean observing Network for ocean and climate monitoring and predictions
- OT008 - Emerging technologies to enhance Southern Ocean and Antarctic observations

Browse more sessions here. The deadline for abstract submissions is 20 August 2025, 23:59 EDT / 03:59 UTC.

CS-MACH1 KICK OFF

On 9-10 July, Patrick Gorringe and Emilie Breviere attended the first meeting of the EU-funded project CS-MACH1 in Lecce, Italy. The event brought together leaders from 15 countries committed to building scientifically-rigorous, impactful marine data systems for climate action. FVON was spotlighted as a key initiative during this event.

The MACH1 project aims to enhance collaboration and data flow among marine citizen science efforts, technology providers, and researchers. FVON was highlighted as an international, community-driven effort to link cost-effective data collection with global ocean observing and prediction systems.

BOOK CHAPTER ON OCEAN GOVERNANCE

An abstract highlighting FVON has been accepted for inclusion in an upcoming *Springer* publication titled ***Perspectives in Ocean, Marine, and Coastal Governance***, coordinated by Dr. Godwell Nhamo (University of South Africa).

The chapter will explore how FVON is advancing inclusive governance models and innovative financing mechanisms for ocean observing, particularly in under-observed geographies. Drawing on our background research and real-world examples across the network, the chapter will make the case for new co-governance frameworks and sustainable, fisher-led ocean observing. A full draft will be developed in the coming months.

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FVON FISHING VESSEL OCEAN OBSERVING NETWORK

Want to contribute? Submit anonymous feedback or newsletter updates.