

GCOOS Update

2025 Fall Board and Members Meeting



Jorge Brenner
Executive Director



Our Mission

To provide on-demand information about the Gulf's coastal and open ocean waters that is accurate, reliable and benefits people, ecosystems and the economy



TEXAS A&M
UNIVERSITY.

Fall Meeting Turned Virtual



We want you to join us in 2026 for the in-person meeting and celebration in

April 2026

Member Updates

New GCOOS Voting Members

Organization	Represented by	Date Joined
Barnacle-Blocker LLC	Lewis Beckham	10/21/2025
EOM Offshore	Daniel Sheehan	9/12/2025
Kongsberg Discovery	Nicholas Gagliano	10/9/2025
Northern Gulf Institute	Jonathan Harris	7/23/2025

New GCOOS Individual Members

Name	Affiliation	Date Joined
Cassandra Huneau	TAMU Geography	8/17/2025
Sharon Mesick	NOAA (Retired)	8/25/2025
Lisa Jordan	Houston City College	8/30/2025
Jun-Whan Lee	The University of Texas at Austin	9/11/2025
Travis Washburn	TAMU – Corpus Christi	9/18/2025
Patricia Zwolinski	ESRI	10/16/2025

Staff Updates



Dr. Natalia Lopez Figueroa

- GCAN Coordinator
- NASEM Gulf Research Program Policy Fellow



Pallavi Tummeti

- GIS Administrator and Developer

Gliders

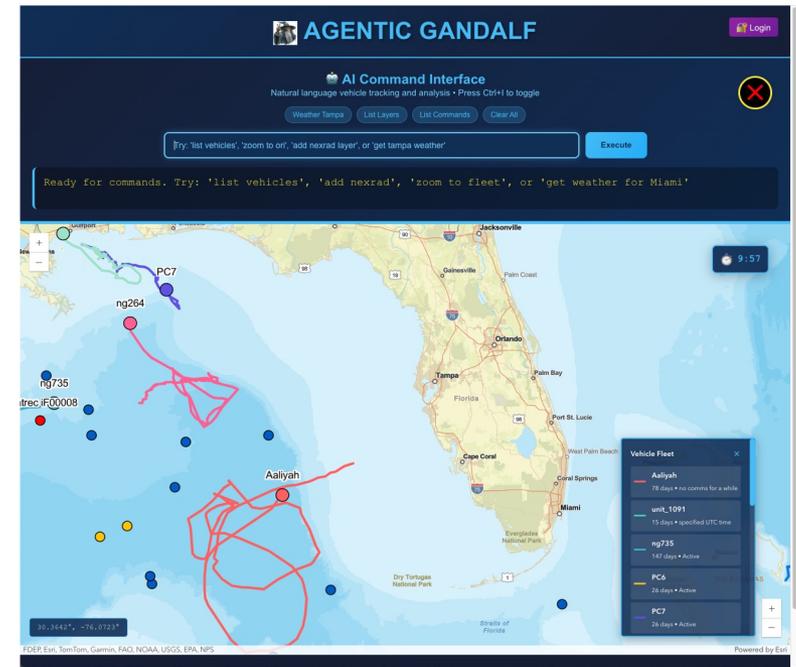
Agentic GANDALF

Released in June 2025:

- Last updated on August 12, 2025

New Features:

- Advanced AUV piloting tool that combines real-time vehicle tracking, AI-powered natural language commands, and detailed data analysis tools using the Anthropic API.
- Navigation queries are now fully AI-powered - the AI understands natural language navigation requests and extracts entities intelligently.



<https://agentic-gandalf.gcoos.org>

Glider missions of 2025 Atlantic Hurricane Season in GANDALF:

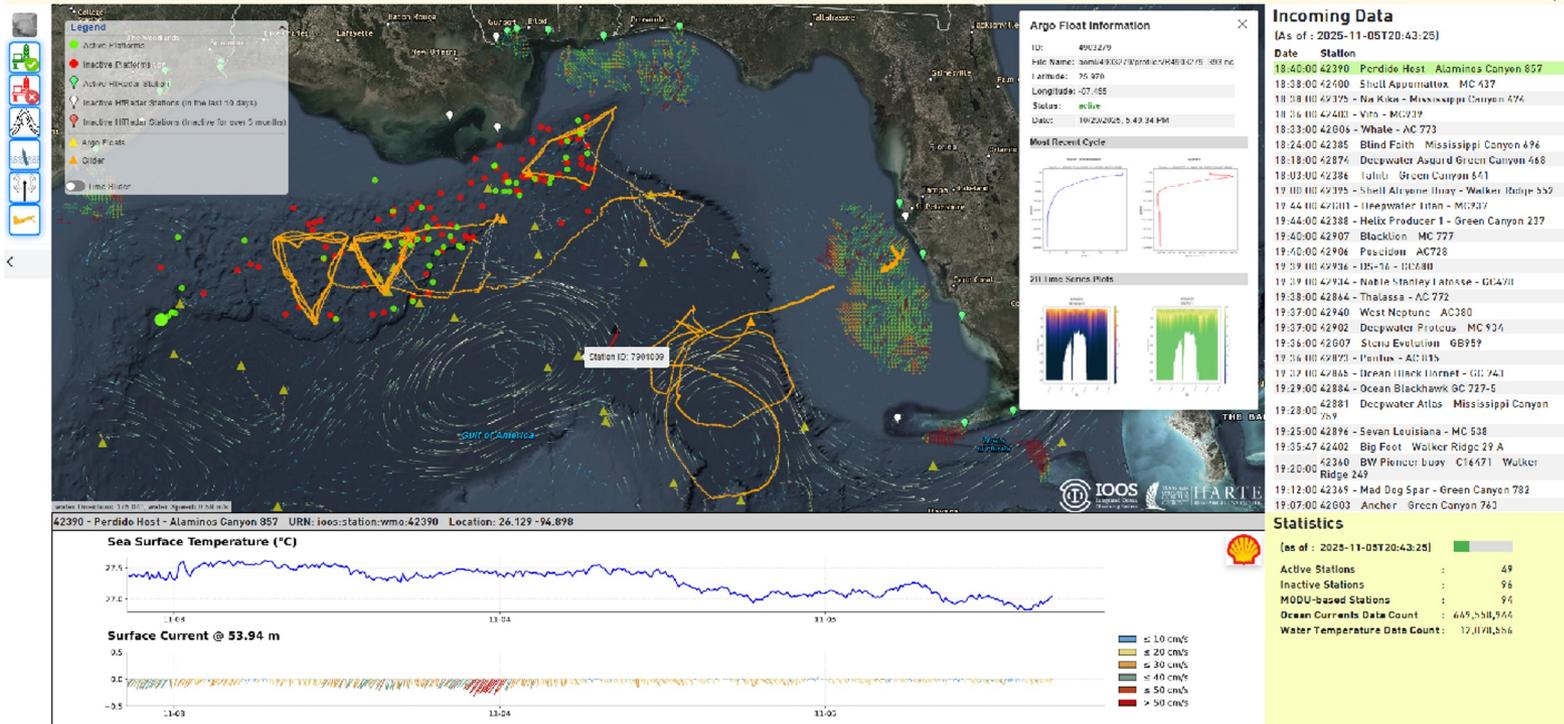
- GCOOS-sponsored storm missions: 6
- Navy storm missions: 3
- Partner contributed missions: 8

NTL Project



BSEE/NTL Data Repository & Registry

HOME LIST OF STATIONS WAF DATA ON ERDDAP CONTACT US



- New monitoring screen for BSEE and operators
- New data is ingested and displayed
- New functionality: time slider, etc.

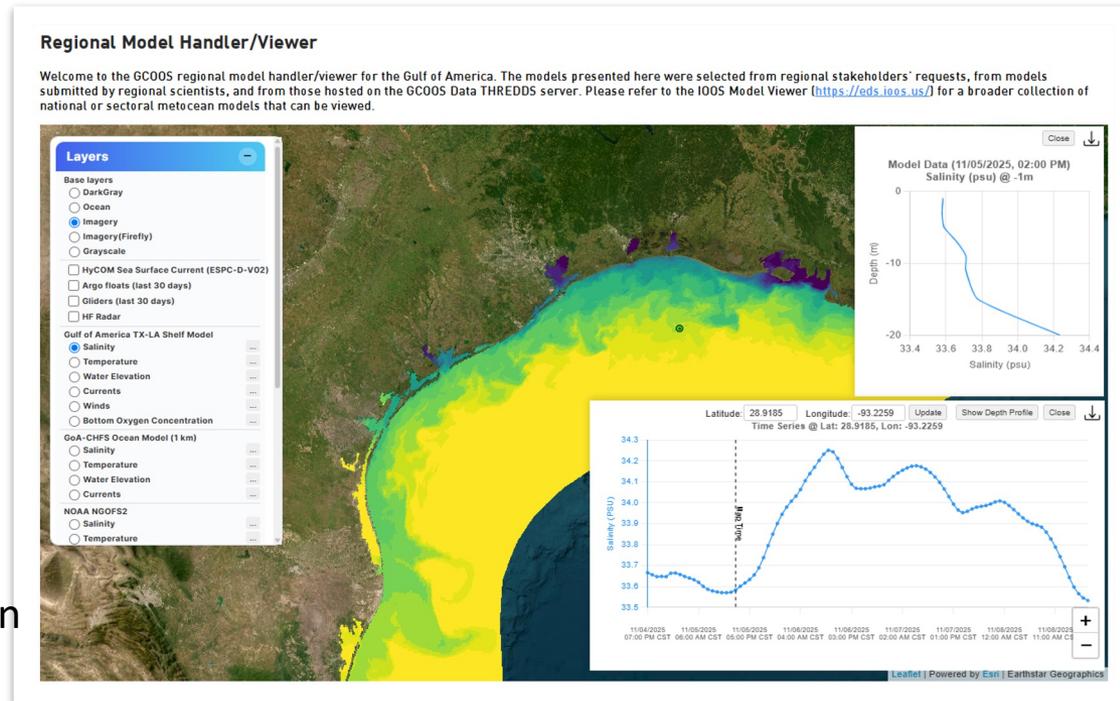
Regional Model Handler

Models Available:

- TX/LA shelf model
- GoA-CHFS (Gulf of America Coastal Hazard Forecast Model)
- NGOFS2 (Northern Gulf of America Operational Forecast System)
- Gulf River Basin Model
- Other operational

Coming soon:

- LSU Galveston flooding map forecast
- ECCOFS (East Coast Community Ocean Forecast System)



Features: (1) to change color map and scale, (2) create a virtual station and see predicted values, and (3) display profile when available, to name a few.

Marine Heatwaves Project

Data and Analysis App



ABOUT US ▾ FOCUS AREAS ▾ RESOURCES ▾ GET ENGAGED ▾ DATA PORTAL ▾ PRODUCTS & SERVICES ▾ f t y

Interactive Marine Heatwave Analysis Tool

Analyze marine heatwave data from Gulf of America monitoring stations using our interactive analysis tools. This platform provides access to temperature data from NDBC buoys and coastal monitoring stations, enabling visualization of marine heatwave patterns and trends across the region.

Click on any buoy station on the map below or select from the dropdown menu to explore marine heatwave events at different intensity thresholds (90th, 95th, and 99th percentiles) with daily and monthly analysis, statistical ranking, and both raw and detrended data visualizations.



- Implemented daily/monthly MHW and DHW calculations in Python
- Processed data from 30 Gulf buoy stations and identified MHW events
- Built and deployed MHW website: <https://gwu.gcoos.org/mhw/>
- Initiated satellite MHW analysis and integration

Impact Reports

- Published in English and Spanish (17 reports)

Webinar Series June-July 2025

Marine Life



CETACEAN

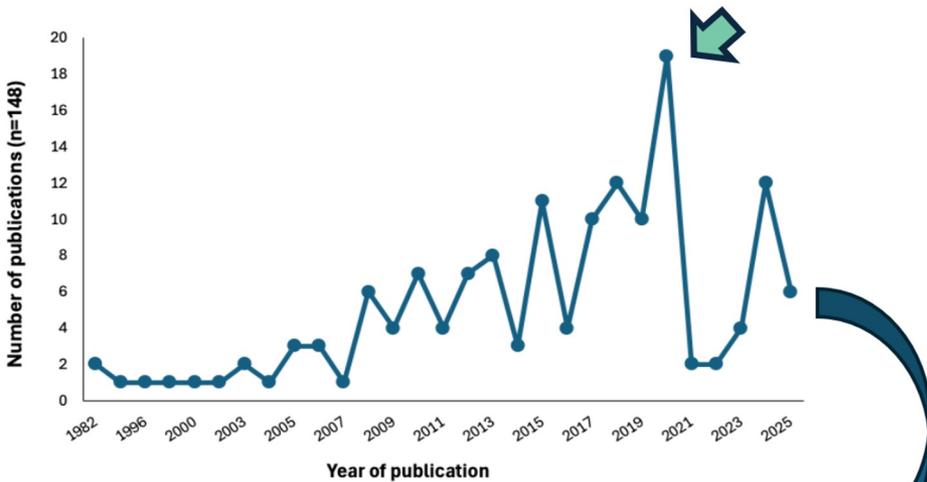
- Over 1.2 million views in the last year
- Completed priority population data
- Completed initial anthropogenic data compilation
- Developed a curriculum for students using CETACEAN data
<https://cetacean.gcoos.org/>

Sea Turtle atlas

- Launched Sea Turtle Atlas Hub
- Set up enterprise system so protected data can be hosted securely
- Began populating Hub with population and anthropogenic data

<https://seaturtleatlas.gcoos.org/>

GCAN



- 146 publications on Gulf OA/COA = 2020 peak
 - New publication!
- Gulf International OA Summit
- Monthly webinars in collaboration with other CANs
- GOMECC-5 postponed until 2026
- In-person workshop – coming soon!

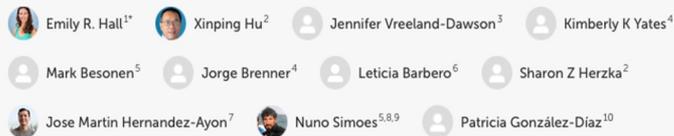
ORIGINAL RESEARCH article

Front. Mar. Sci.
Sec. Marine Biogeochemistry
Volume 12 - 2025 | doi: 10.3389/fmars.2025.1676610

This article is part of the Research Topic
Ocean Acidification in Latin America

[View all 10 articles >](#)

A Tri-national Initiative to Advance Understanding of Coastal and Ocean Acidification in the Gulf of Mexico/Gulf of America Provisionally accepted



Outreach and Education

Matt Howard Fellowship Award:

- Dafrosa Kataraihya, PhD student, FIU: Sea Level Rise
- 2026 application opening soon!

Summer Intern:

- Iven Keomanyvong - DISL : StoryMap: Ocean Highways: Charting the Course of Global Trade

Pan-regional Collaboration:

- Storytelling workshop co-hosted with NERACOOS, SECOORA and Kirsten Farrell of The Goodman Center. Stories shared via enews, SM; more content in development.

Outreach and Education Council:

- Annual Meeting coming up in Orange Beach, AL in December 11-12, 2025
- Focus on MHW and IRA projects, including Rip Current OE activities



GCOOS @ NMEA 2025 in Lafayette

Inflation Reduction Act: Updates

Project Highlights:

- The USGS OA project (TA2) is on schedule and has identified its primary monitoring location as Eagle Point, TX
- LUMCON PACIT project (TA2) has received verbal approvals from landowners Conoco Phillips and Apache to move forward with the installation of its monitoring stations.
- DISL (TA1) has deployed a Spotter buoy to aid in rip current monitoring in the Mississippi Bight
- USF will deploy first eco glider missions in the Fall

Service Delivery & Communication:

- NTL project (TA1) developed new station monitoring tool
- GANDALF v2 was launched using ArcGIS and released in Spring 2025 (TA1)
- iTAG project (TA2) has hired a data manager, deployed the data node, and made the first data push to OTN.
- The GCAN project (TA1) published an article in Frontiers in Marine Science
- GCAN hosted 3 summer webinars
- Outreach and Education program has started and accomplished multiple tasks

New Acoustics Work

- Began developing a GCOOS Acoustics plan and workflow
- Members of IOOS Acoustic data coordination workgroup
- Partnered with USF and NOAA on a FLCREP grant to use acoustics to study Rice's Whale
- Developing an AI classifier for Rice's Whale, Sperm Whale, and Black Grouper

New Projects

Infrastructure Investment and Jobs Act (IIJA)

Title: **Continue the Modernization and Recapitalization of the Gulf of Mexico Coastal Ocean Observing System**

- Goal: Continue the recapitalization and modernization of the observing system
- Partners: USM, RATES Inc., FSU, USF, MML, USA, ULL, GERG (8 co-PIs)
- Period: June 1, 2025 + 3 years
- Budget: \$1,951,635 (Years 1-2 were awarded: \$1,301,090)

Florida RESTORE Act Centers of Excellence Program (FLRACEP)

Title: **Systematic Observations of Rices Whales, their Prey, and the Oceanographic Conditions of the Northeastern Gulf of Mexico**

- Goal: Use surveys and glider missions to assess habitat and prey of Rice's Whale
- PI: USF ; co-PIs: GCOOS, NMFS
- Period: May 1, 2025 + 3 years
- Budget: \$120,000

New 5-Year Proposal to IOOS

Goal:

- Identify projects for next 5-year award to provide continuation to the observing system
- Renew U.S. Congress-appropriated core funding for the Regional Association

Process:

- Competitive solicitation of Letters of Intent (6-week period)
- Target: Proposal ready for submission by end of December 2025

Outcome of Solicitation:

- Received 45 LOIs!
- New topics: AI, fisheries, estuaries, cameras, etc.

Next Steps:

- Finalizing funding scenarios & contacting selected PIs
- Deadline for full proposals is December 5, 2025
- Anticipated project start day is July 1, 2026

Remaining of 2025

- New 5-year Proposal to IOOS
- Strategic Plan Review
- New Data Visualization Platform
- 20th Anniversary Spring Meeting

Thank you



IOOS Association Awards for Bipartisan Leadership in Ocean Observing March 2025 • U.S. Senate

