

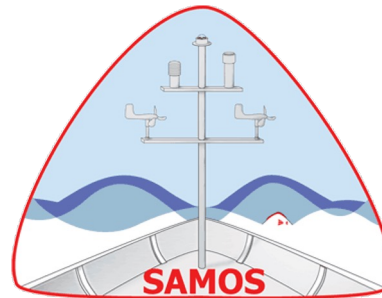
Celebrating 20 Years of SAMOS!

Shawn R. Smith, Kristen Briggs, Julia O'Neill,
and Amanda Lovett

srsmith@fsu.edu, kbriggs@fsu.edu, jpo21a@fsu.edu,
alovett@fsu.edu

Center for Ocean-Atmospheric Prediction Studies
The Florida State University, Tallahassee, Florida USA

RVTEC, 6 November 2025



SAMOS Today

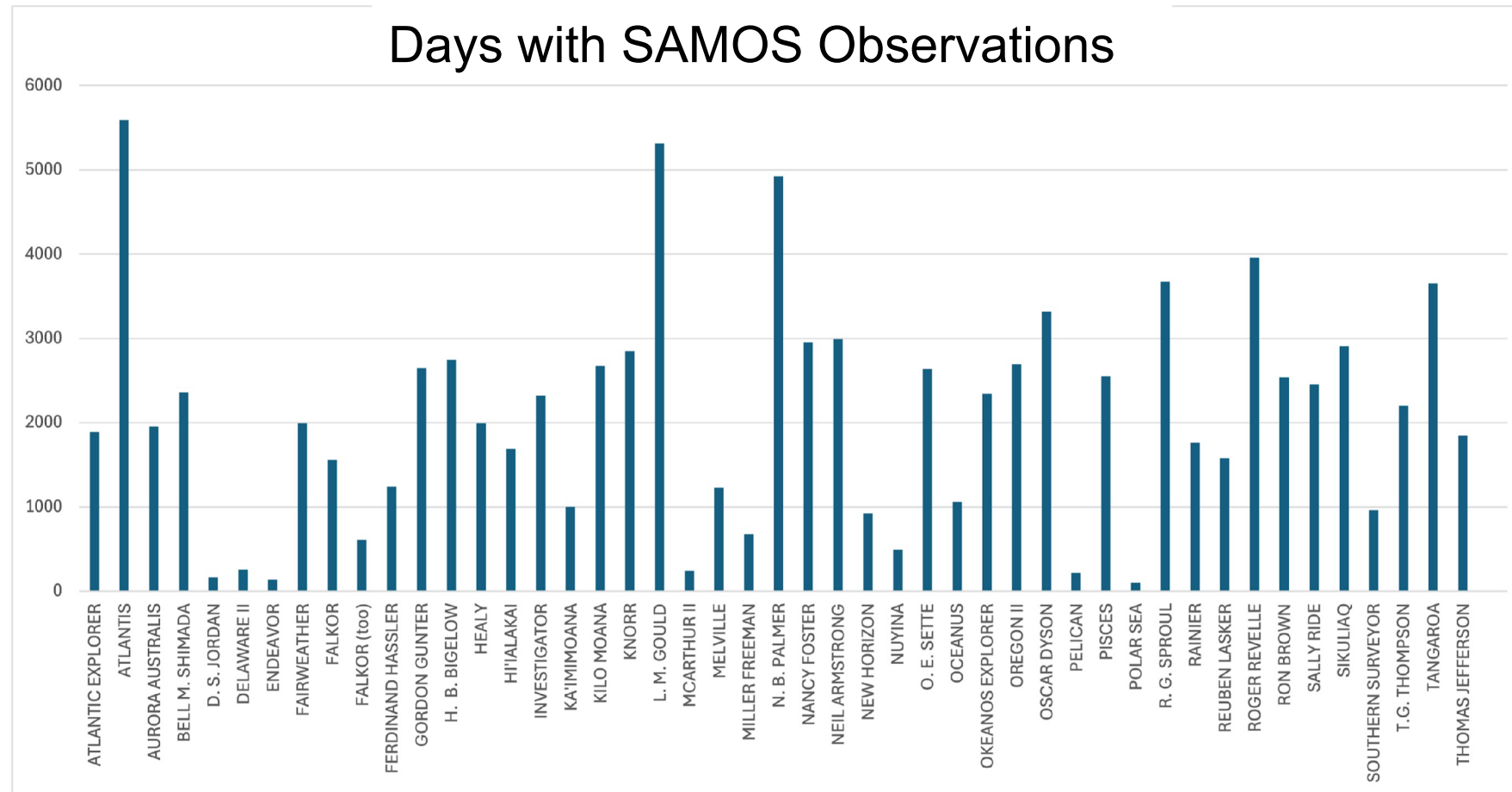


Cruise
maps for
2024

- Receiving, quality controlling (QC), distributing, and archiving underway meteorological and surface oceanographic data
- 30 recruited vessels in 2025
 - 9 Academic Research Fleet
 - 15 NOAA
 - USCG *Healy*
 - *Nathaniel B. Palmer*
 - 3 International RVs (*Investigator*, *Tangaroa*, *Nuyina*)
 - RV *Falkor (too)*


SAMOS Through the Years

- 47 research vessels
- 98,500 daily SAMOS files
- Over 2.9 billion 1-minute observations
 - Only 4.5% of data failed QC
- Over 40 Publications
- 25+ Technical Reports



How This All Started



- March 2003 – Workshop on High-Resolution Marine Meteorology
 - https://www.coaps.fsu.edu/RVSMDC/marine_workshop/Workshop.html
- SAMOS addresses most of the 13 recommendations from this workshop
- SAMOS data center established in 2004
- *RV Knorr* first routine contributor (May 2005).



Workshop on High-Resolution Marine Meteorology

3-5 March 2003

Center for Ocean-Atmospheric Prediction Studies
Florida State University
Tallahassee, Florida



The workshop will identify scientific objectives achievable using high-resolution (sampling interval < 1 hr) marine meteorological data and draft a plan for sustained collection, calibration, quality control, and distribution of U.S. sponsored high-resolution observations that is consistent with the science objectives.

Sponsored by: NOAA Office of Global Programs

Executive Summary	Recommendations	Report [PDF]
Announcement	Organizers	List of Attendees
Hotel Information	Meeting Location/Times	Agenda
Local Transportation	Maps	Around Tallahassee

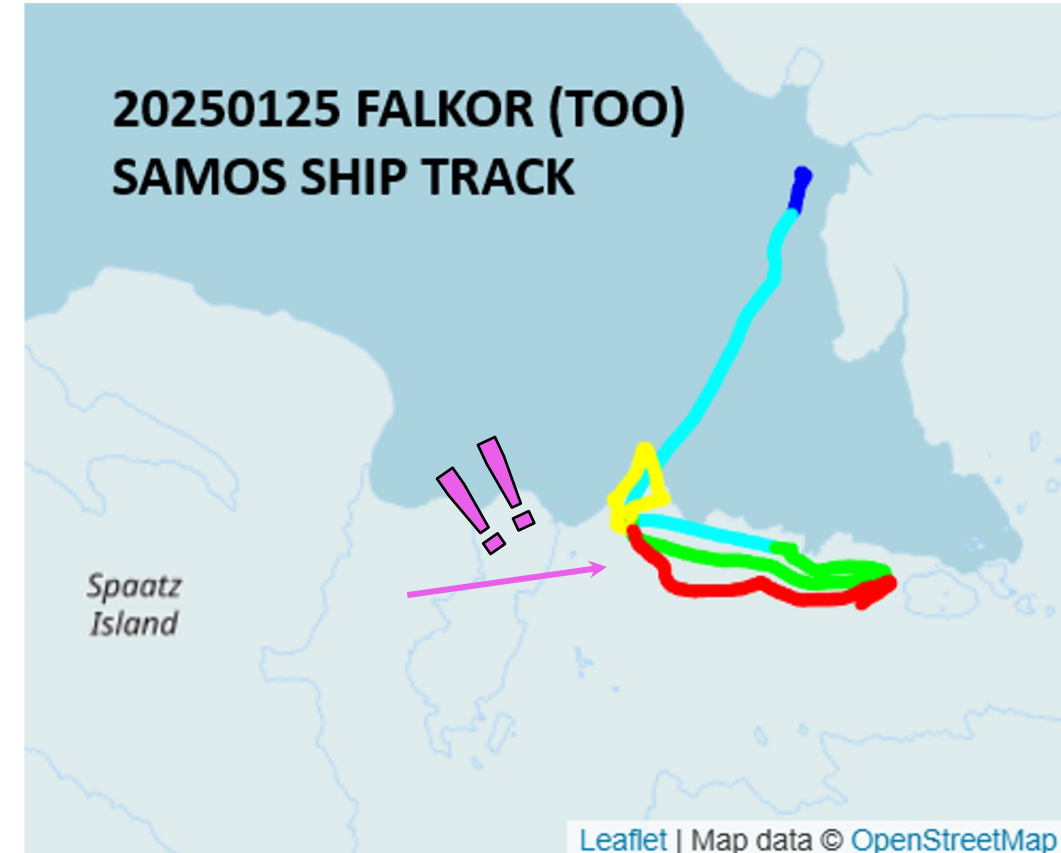
Cool Events

AI Overview

In January 2025, a massive iceberg, named A-84, broke off from the George VI Ice Shelf in Antarctica. This event, which was approximately the size of Chicago, opened up a previously inaccessible area of the seafloor for research. Scientists aboard the R/V Falkor (too) discovered a vibrant ecosystem teeming with life, including new species, in the area that had been hidden under the ice for centuries.



Image credit: J Garwood, C/O Falkor(too)



When the Volcano Blew...

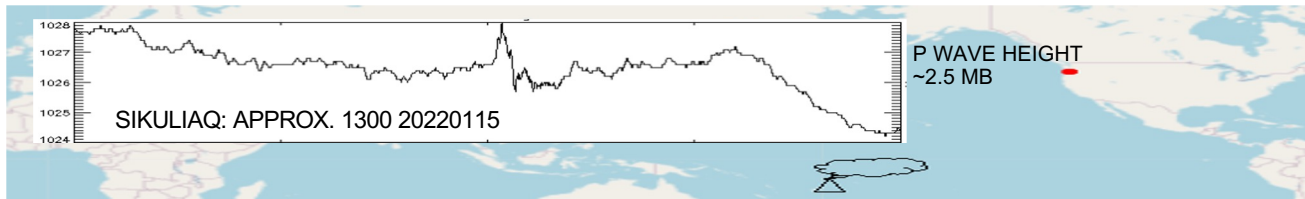
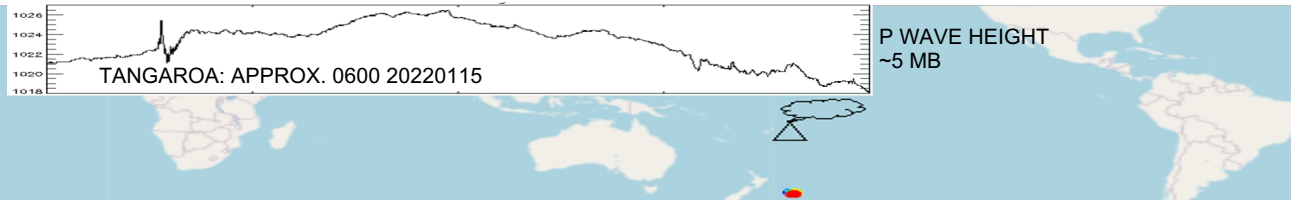
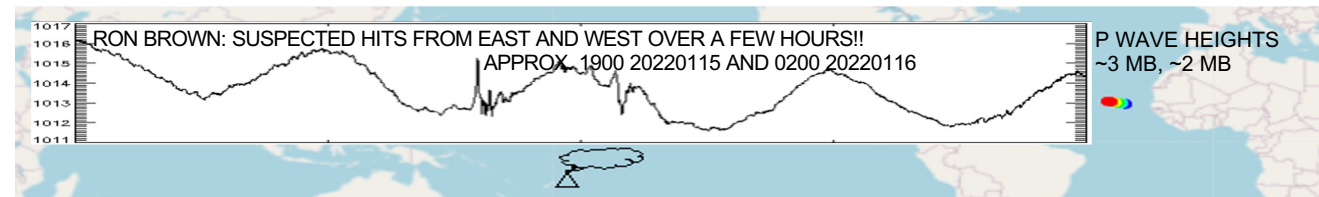
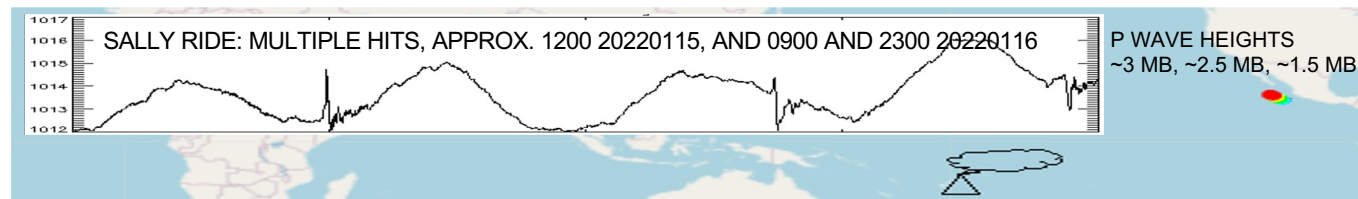
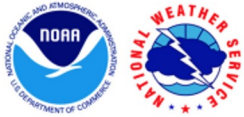


Image credit: Tonga Geological Services



Hunga Tonga-Hunga H'apai 2022 volcanic eruption released a pressure wave that rocked the world!!

Sometimes It's Good to be in Port

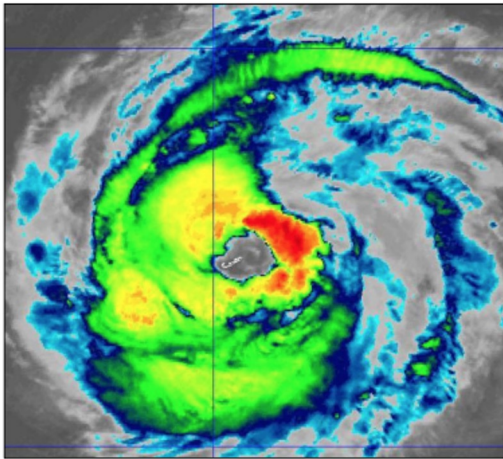


NATIONAL HURRICANE CENTER TROPICAL CYCLONE REPORT

HURRICANE PAULETTE (AL172020)

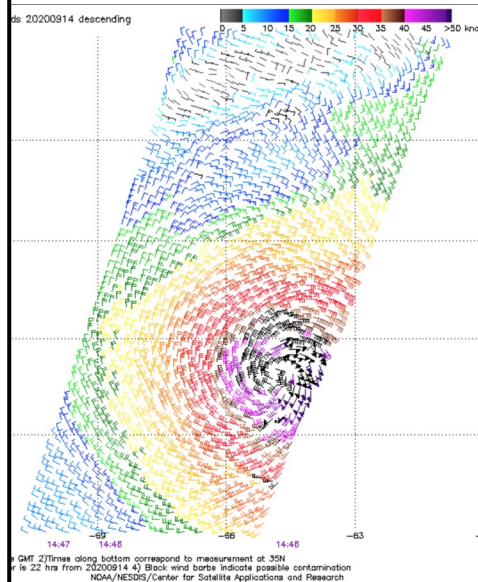
7–22 September 2020

Andy S. Latta
National Hurricane Center
1 April 2020



GOES-16 INFRARED SATELLITE IMAGE OF HURRICANE PAULETTE AT 0850 UTC 14 SEPTEMBER 2020 AS THE EYE PASSED OVER BERMUDA.

Paulette was a long-lived tropical cyclone that passed over Bermuda as a category 2 hurricane (on the Saffir-Simpson Hurricane Wind Scale). Paulette then became a post-tropical cyclone before regenerating into a tropical storm near the Azores.



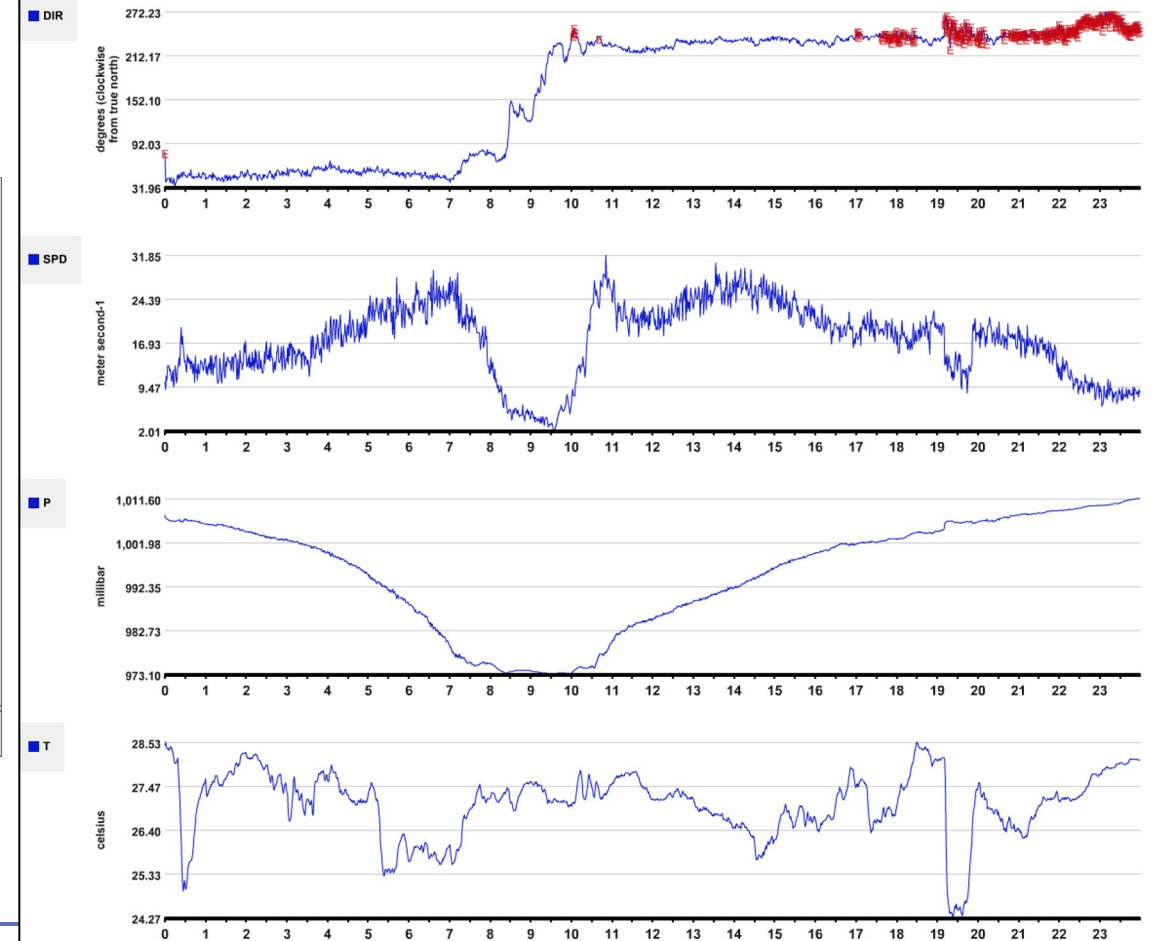
GOES-16 INFRARED SATELLITE IMAGE OF HURRICANE PAULETTE AT 0850 UTC 14 SEPTEMBER 2020 AS THE EYE PASSED OVER BERMUDA.

ATLANTIC EXPLORER

Order number: 01

Date: 09-14-2020

Failed QC vs. Passed QC [Flag Distribution] [A-Y Flags] [Z Flags] [Plot] [Plot (bound w/o flags)] [Map]



Birds! Those Pesky Birds!

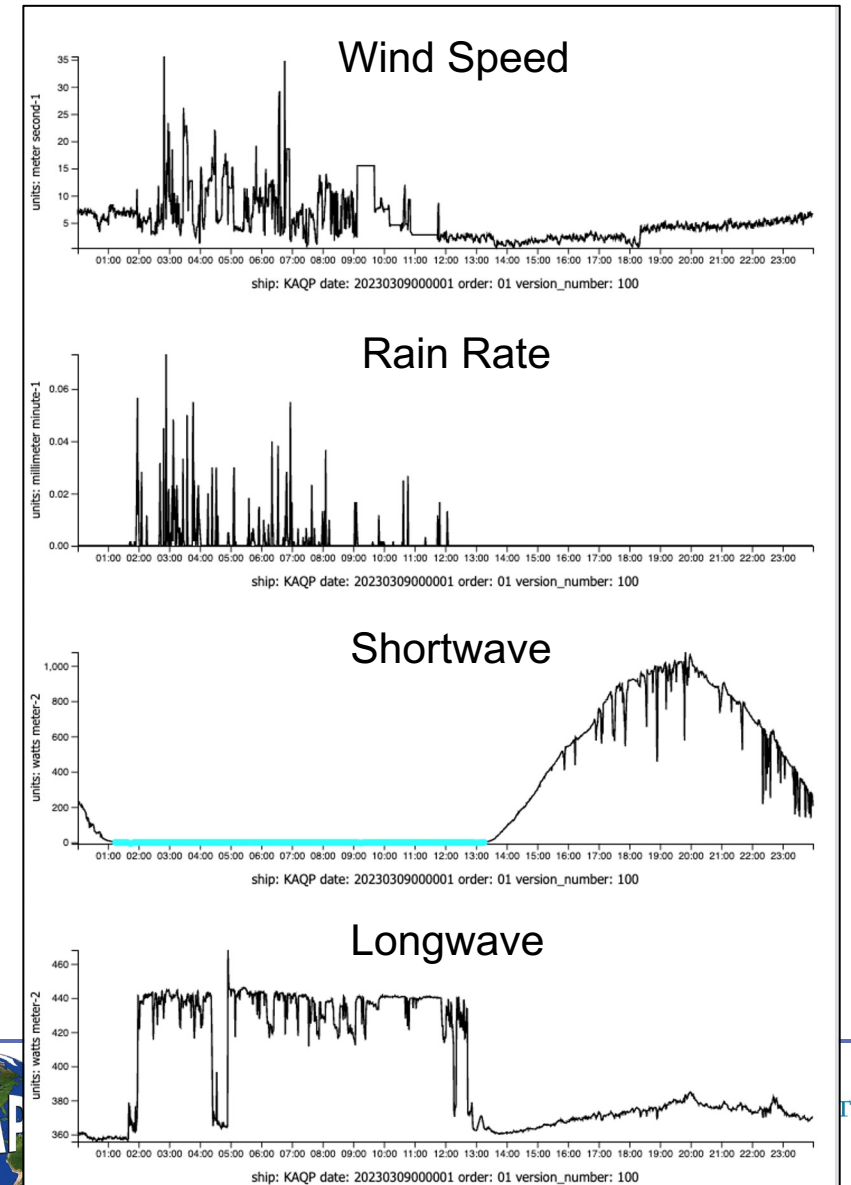
Courtesy UW



Courtesy WHOI



Courtesy Ella @ WHOI





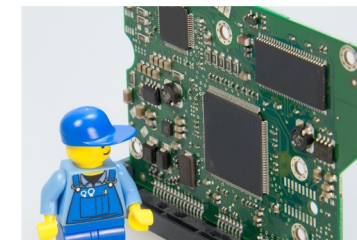
Can't Do It Without You!



- Technicians and Operators make SAMOS a success!

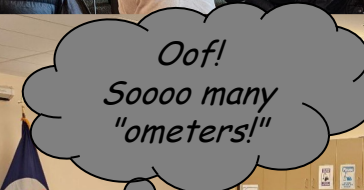


Falkor(too)/SAMOS 2025 Virtual Visit and Device Review

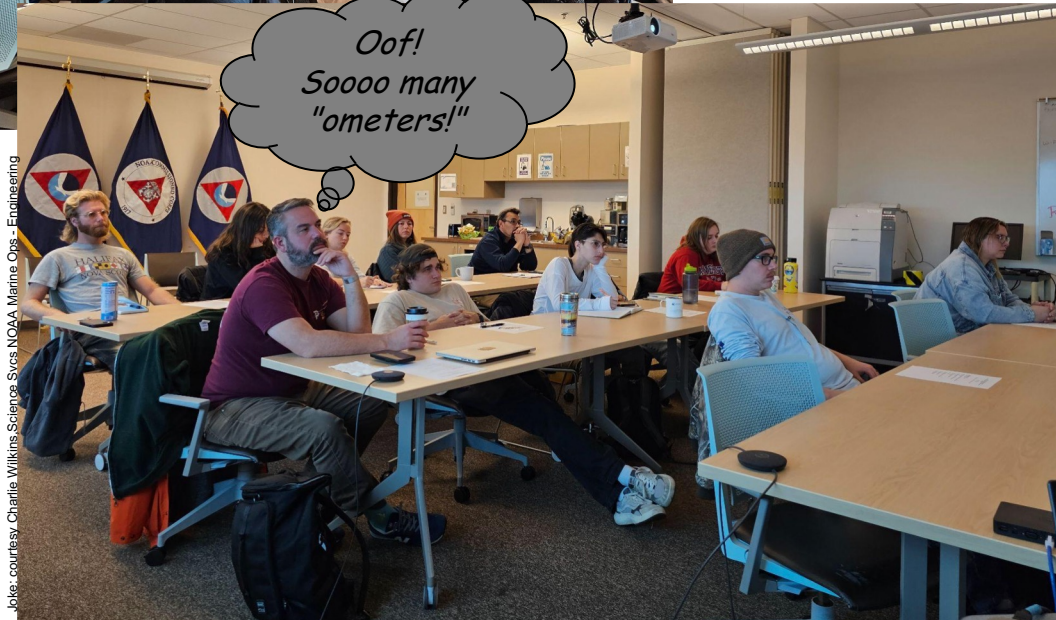


NOAA MO-DATA 2023

+ SAMOS MET TECH SHORT COURSE



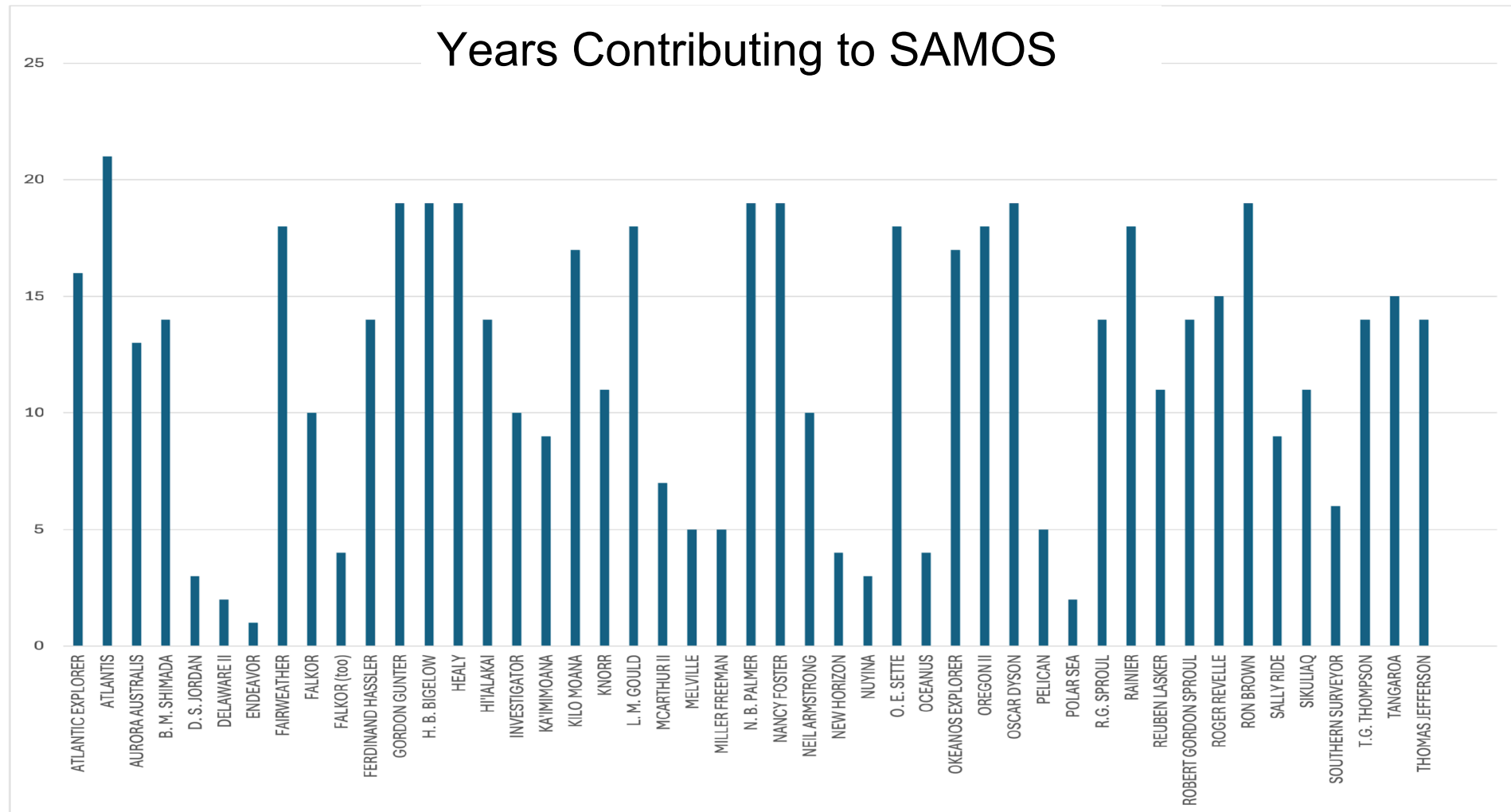
Joke: courtesy Charlie Wilkins Science Svcs NOAA Marine Ops - Engineering



Images: courtesy Katie Watkins-Brandt, Section Chief, Science Services NOAA Marine Operations - Engineering

*"Pleasure in the job puts perfection in the work." - Aristotle**

Many Long Time Contributors



Congrats to ATLANTIS: 20+ Year Contributor!



Callsign(s): KAQP

Date Range: 01/01/2005 - 10/01/2025



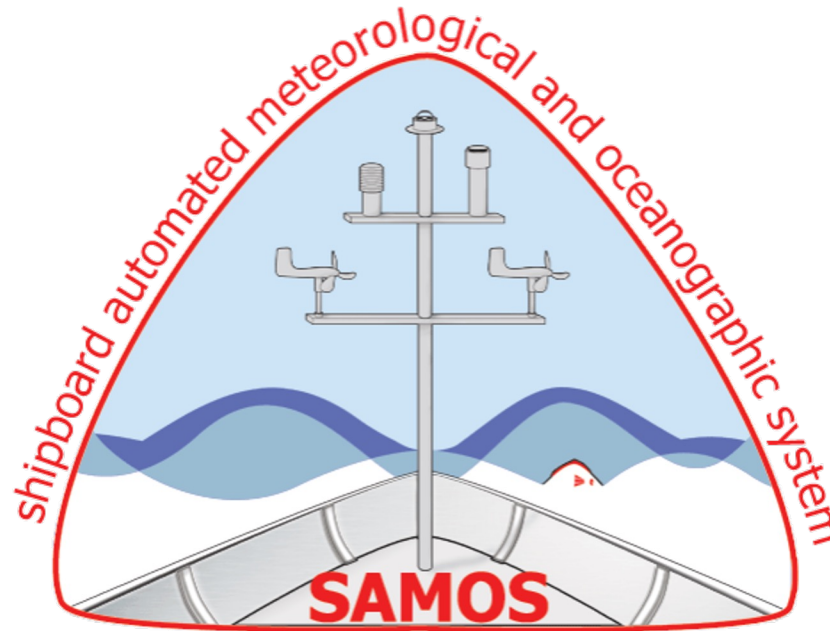
Thank You!

- NSF Oceanographic Instrumentation and Technical Services Program
 - NOAA Global Ocean Monitoring and Observing Program
 - NOAA Office of Marine and Aviation Operations
 - Schmidt Ocean Institute
- RVTEC Community!



Met training, RVTEC 2016 @ Scripps

Questions?



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