AOML KEYNOTES

NOAA's Atlantic Oceanographic and Meteorological Laboratory

April - June 2024 Quarterly Publication

EQUIPPING THE NEXT GENERATION OF HURRICANE MODEL SCIENTISTS

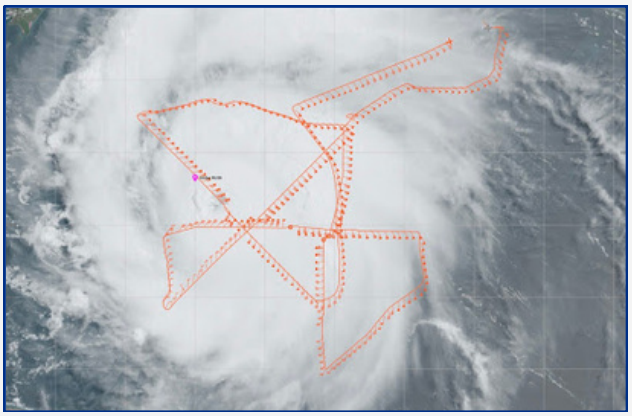
June 27, 2024

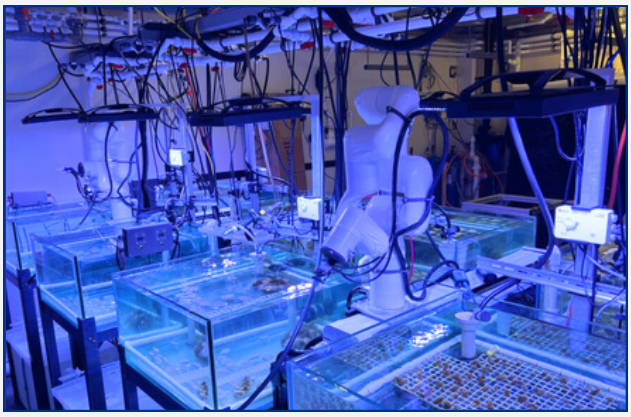
In May 2024, representatives from the Hurricane Modeling Team at NOAA's Atlantic Oceanographic & Meteorological Laboratory (AOML) hosted a Summer Colloquium focused on equipping the next generation of hurricane scientists with a knowledge base of the HAFS model. [Continue Reading]

UNVEILING THE INNOVATIVE ADVANCEMENTS IN HURRICANE MODELING

June 4, 2024

With an active hurricane season on the horizon, the need for reliable hurricane forecasting is at the forefront of our minds. To better predict developing storms, modelers have worked to incorporate new improvements to the HAFS model for the 2024 hurricane season. [Continue Reading]





INVESTIGATING THE IMPACTS OF CLIMATE CHANGE ON REEF-BUILDING CORALS USING ROBOTIC ARMS

May 8, 2024

In the Experimental Reef Lab, scientists at AOML and CIMAS are investigating how crucial reef-building coral species are affected by the impacts of climate change using a suite of open-source robotic arms designed and built at AOML. [Continue Reading]

FLOATING ICE, FREEZING TEMPERATURES: FOUR FACTS ABOUT THE I08S GO-SHIP CRUISE TO ANTARTICA

May 2, 2024

Scientists at NOAA's AOML and CIMAS co-led and participated in the nearly six-week cruise from Antarctica to the Indian Ocean led by the U.S. National Science Foundation (NSF). [Continue reading]

DEVELOPMENTS IN HURRICANE MODEL CONTRIBUTED TO ITS LASTING LEGACY

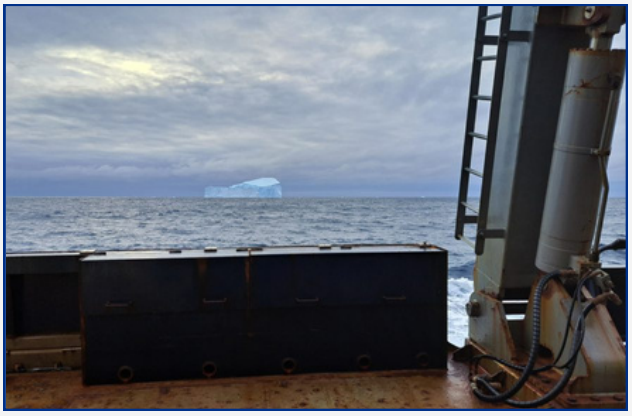
April 30, 2024

Since its implementation in 2007, NOAA's Hurricane Weather Research and Forecasting (HWRF) model has paved the way for major improvements in tropical cyclone prediction. This model laid the foundation for the newest tropical cyclone forecasting model- The Hurricane Analysis and Forecast System (HAFS). [Continue reading]

CROSSING THE EQUATOR AND NAVIGATING ICEBERGS: THE A13.5 GO-SHIP RETURNS AFTER 52 DAYS AT SEA

April 22, 2024

The A13.5 GO-SHIP cruise provided new data that bring the promise of groundbreaking future research. Researchers spent weeks investigating global changes in ocean physics and chemistry – most notably, the uptake of atmospheric carbon under a changing climate. [Continue reading]



THE ATLANTIC MERIDIONAL OVERTURNING CIRCULATION IS WEAKENING IN THE DEEP NORTH ATLANTIC OCEAN, STUDY FINDS

April 13, 2024

A new study, which analyzed mooring observations and hydrographic data, found the Atlantic Meridional Overturning Circulation (AMOC) abyssal limb in the North Atlantic has weakened over the past two decades contributing to sea level rise. [Continue reading]

Farewell

Chris Kelble has accepted a new position as the Director of the Marine Ecosystems Division at the NMFS Office of Science & Technology, beginning June 16. Chris has worked at AOML for 25 years, starting as a CIMAS affiliate, a lab technician, a field technician, a Principal Investigator, the OCED deputy director, the OCED Director, and most recently as the Acting Deputy Director of AOML. Chris has made a substantial lasting impact on AOML and we want to thank him for his many years of service and wish him best of luck in his new position.

Welcome Aboard

Ann Holmes
NGI Research Scientist

Ann will work on a new project to develop environmental DNA metabarcoding standard practices for invasive species detection.

Alexandra Ceurvorst
Science Communication Intern

Alexandra will support ongoing work with the communications team with the goal to make marine and atmospheric science more accessible to the public.

Sean Jungbluth
Research Scientist III

Sean will work to develop workflows and analyze metagenomic data from global sampling projects, including Bio-GO-SHIP.

Richard Karp
Postdoctoral Researcher

Richard will conduct research is focused on understanding and increasing coral thermal tolerance to create more resilient coral reef ecosystems.

Christopher Malanuk
Science Communication Specialist

Chris will work to highlight the research performed in the Ocean Chemistry and Ecosystems Division and assist with the development of AOML's new website.

Eric Mortenson
Research Physical Scientist

Eric's role at AOML will be focused on model development and analysis of the regional northwest Atlantic physical and biogeochemical projections.

Pubali Mukherjee
CIMAS Postdoctoral Scientist

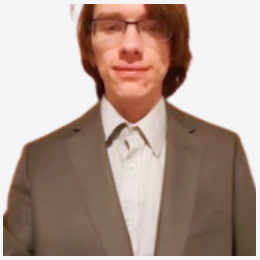
Pubali will study the impact of Saildrone and glider observations on improving hurricane forecasts and contributing to ocean data assimilation efforts.

Christopher Paver
NCEI Liaison for AOML

Christopher's main priorities are to archive and provide public access to environmental data, products and other observations collected by AOML.

Emma Pontes
Postdoctoral Researcher

Emma will be leading experiments in the FRESCA Project to create species specific response curves for benthic species under climate change stressors.



Carter Rollins
NGI Research Engineer II

Carter will work to develop a database and web portal (codename: Opal) for environmental DNA data and associated environmental data.

Katherine Silliman
Federal Research Biologist

Katherine will be rejoining OCED and conducting research in support of fisheries, ecosystem assessments, and bioinformatics solutions.

Lourdes Sanchez Rodriguez
Custodial Contractor

Lourdes Sanchez Rodriguez will serve as a custodial contractor for AOML facilities through Goodwill.

Philip Tuchen
Postdoctoral Researcher

Philip will collaborate with AOML scientists to better understand the mechanisms driving tropical and subtropical ocean variability.

Publications

ALAKA, G.J. Jr., J.A. SIPPEL, Z. Zhang, H.-S. KIM, F. MARKS, V. Tallapragada, A. Mehra, X. ZHANG, A. Poyer, and S.G. GOPALAKRISHNAN. Lifetime performance of the operational Hurricane Weather Research and Forecasting model (HWRF) for North Atlantic tropical cyclones. Bulletin of the American Meteorological Society, 105(6):E932-E96 (2024).

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Heinz, J.M., J. Lu, L.K. Huebner, S.L. Salzberg, M. Sommer, and S.M. ROSALES. Novel metagenomics analysis of stony coral tissue loss disease. G3 Genes|Genomes|Genetics, jkae137, (2024).

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