



# AOML KEYNOTES

NOAA's Atlantic Oceanographic and Meteorological Laboratory

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July-September 2024 Quarterly Publication







## NEW STUDY SUGGESTS EDDIES MAY INFLUENCE CORAL RESILIENCE

July 1, 2024

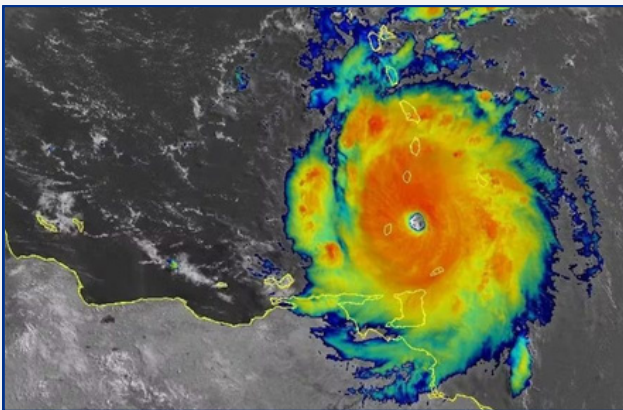
A new study spanning two decades of research may indicate a series of reefs from the surface to 150 meters deep in the Gulf of Mexico are more resilient to warmer oceans as they are exposed to a wider range of temperatures brought on by a physical movement of seawater called “eddies.” [\[Continue Reading\]](#)

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## NEW STUDY FINDS POTENTIAL PREDICTOR FOR LONG-RANGE US TORNADO FORECASTS

July 9, 2024

Tornadoes are among the deadliest and costliest natural disasters in the United States and are one of the hardest to predict. In December 2021, the most destructive winter tornado outbreak, known as the Quad-State Tornado Outbreak, caused 89 fatalities, 672 injuries, and at least \$3.9 billion in property damages. [\[Continue Reading\]](#)



## HURRICANE BERYL: LOOKING FROM SEA, SKY AND SPACE

July 15, 2024

In early July, the Caribbean experienced 165 mph winds as Category 5 Hurricane Beryl swept through the region. Beryl was unprecedented, becoming the Atlantic’s earliest forming Category 5 tropical cyclone on record. [\[Continue Reading\]](#)

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## NEW STUDY REVEALS IMPACTS OF SUSPENDED SEDIMENT FROM PORT MIAMI ON LARVAE FROM CARIBBEAN CORAL

July 16, 2024

New study led by scientists at CIMAS, AOML and NMFS reveals impacts of suspended sediment from Port Miami on early life stages of a threatened Caribbean coral species. [\[Continue reading\]](#)

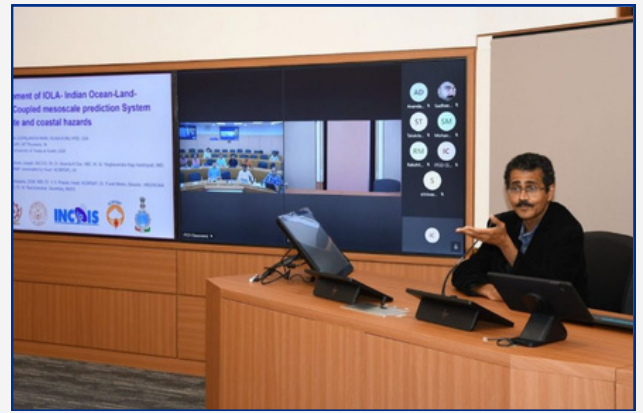


## NOAA AND INDIA TEAM UP TO CREATE LIFE-SAVING TROPICAL CYCLONE MODEL

July 31, 2024

A 12-year collaboration between NOAA's AOML and the Indian Ministry of Earth Sciences (MoES) has culminated in a renewal of an Implementing Arrangement (IA) on Technical Cooperation in Development of Tropical Cyclone Numerical Weather Prediction System for the Indian Seas, which paves the way for advances in severe weather modeling. [\[Continue reading\]](#)

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## NOAA RESEARCH CRUISE SUPPORTS KEY TROPICAL ATLANTIC OBSERVING SYSTEM

August 6, 2024

NOAA Ship Gordon Gunter journeyed away from Pascagoula, Mississippi for 90+ days and 12,700+ nautical miles to conduct the PIRATA Northeast Extension cruise. A NOAA ship that traditionally sails in the Gulf of Mexico embarked on a 90+ day journey into international waters. [\[Continue reading\]](#)

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## RECORD BREAKING DRONE FLIGHT GATHERS CRITICAL DATA INSIDE HURRICANE ERNESTO

August 19, 2024

One of the largest challenges in hurricane research is studying the inner dynamics of a storm. The regions within the hurricane that provide the most valuable data are often the most inaccessible and dangerous to reach, creating an opportunity for researchers to utilize emerging technology to enter the storm. [\[Continue reading\]](#)

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## VOYAGE OF COLLABORATION: THE XBT NETWORK AND THE SHIP OF OPPORTUNITY PROGRAM

August 20, 2024

Scientists and engineers at NOAA/AOML frequently participate in cruises in support of the NOAA/AOML expendable BathyThermograph (XBT) Network. Dr. Marlos Goes CIMAS scientist, gave a short talk to the officers of the Vienna Express about the importance of the Ship Of Opportunity Program. [\[Continue reading\]](#)

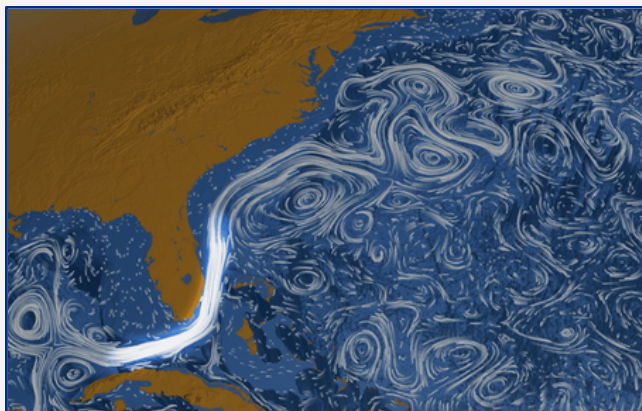


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## NOAA AND THE REPUBLIC OF KOREA SCIENTISTS TEAM UP TO COLLABORATE ON EXTREME WEATHER FORECASTING

August 28, 2024

Weather has no regard for political or geographic boundaries, making the timely and accurate prediction of extreme weather events a collective goal that bridges meteorological and ocean observing agencies worldwide. [\[Continue reading\]](#)



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## REASSESSING THE STABILITY OF THE FLORIDA CURRENT: NEW INSIGHTS FROM 40 YEARS OF OBSERVATIONS

September 5, 2024

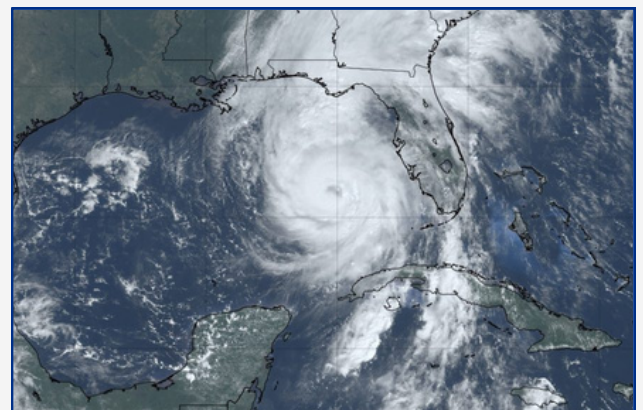
There is growing scientific interest in quantifying how large-scale ocean circulation is evolving as part of a changing global climate. Of particular interest is the potential weakening of the Atlantic Meridional Overturning Circulation (AMOC). [\[Continue reading\]](#)

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## HURRICANE HELENE: BREAKING RECORDS IN HURRICANE DATA COLLECTION

September 26, 2024

As Hurricane Helene developed in the Gulf of Mexico, NOAA researchers gathered critical data from the sea and sky to better understand tropical cyclones and support the National Hurricane Center forecasters. This real time data gives meteorologists a clearer picture of the storm environment and structure, reducing forecast uncertainty. [\[Continue reading\]](#)



# THANKING OUR INTERNS



AOML would like to take this opportunity to celebrate our 2024 internship class! From high school students to post doctoral fellows, these exceptional individuals are joining us from schools across the country, from Hawaii to Florida. They are researching corals, microbes, hurricanes, air-sea interaction, ocean acidification, communications strategies, and much more.

To learn more about the AOML interns and their projects, visit our [intern web story](#).

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## STAFF TRANSITIONS

### AOML HURRICANE RESEARCHER DR. FRANK MARKS RETIRES AFTER MORE THAN FOUR DECADES OF FEDERAL SERVICE

September 30, 2024

After more than 40 years of federal service, NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML) celebrates the career of Frank Marks, PhD. Marks' contributions to meteorology and hurricane research have left an indelible impact on the field, making him a true NOAA legend. [\[Continue reading\]](#)



### AOML WELCOMES DR. GUS ALAKA AS NEW HURRICANE RESEARCH DIVISION DIRECTOR

September 6, 2024

NOAA's Atlantic Oceanographic and Meteorological Laboratory (AOML) is excited to announce the selection of Dr. Ghassan "Gus" Alaka as the new Director of the Hurricane Research Division (HRD). As a vital member of the AOML team since 2014, Alaka brings a wealth of experience and expertise to the role. [\[Continue reading\]](#)



# Welcome Aboard

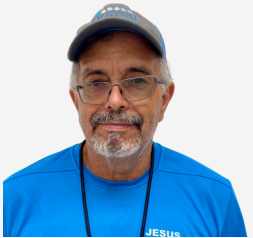


**Leah Chomiak**  
*Postdoctoral Fellow*

Leah is a sea-going physical oceanographer studying large scale circulation and hydrographic changes of the deep Atlantic Ocean.



**Darrin Moore**  
*Acquisition Management Specialist*  
Darrin Moore joins AOML as Lead Acquisitions Coordinator, bringing extensive experience from his roles across NOAA, including innovative contracting and IT support.



**Jesus Fernandez**  
*Trade Contractor*

Jesus joins AOML as a trade contractor, bringing his expertise in skilled trades to support the maintenance and enhancement of our facilities.



**Tyler Pearce**  
*Trade Contractor*

Tyler joins AOML as a trade contractor, bringing his expertise in skilled trades to support the maintenance and enhancement of our facilities.



**Evan Josza**  
*Research Assistant I*

Evan is an ocean professional with interests in carbon cycling, biogeochemistry and data science, and will be joining the Ocean Carbon Group.



**Prasanth Rajendran**  
*Postdoctoral Research Associate*

Prasanth's research focuses on the impact of physical processes on phytoplankton distribution using ocean-biogeochemical models.



**Matthieu Le Henaff**  
*Postdoctoral Researcher*

Matthieu's research interest is improving our understanding of how regional ocean dynamical processes affect the other components of the Earth system.



**Wendy Lewis**  
*Associate Director*

CAPT Wendy Lewis previously served as Director of NOAA's Office of Legislative and Intergovernmental Affairs and Chief of Staff for OMAO Director Admiral Nancy Hann.



**Ashley Rossin**  
*Postdoctoral Associate*

Ashley joins OCED working on the urban coral and coral omics projects, specifically assessing corals found in the Port of Miami.



**Farah Medina**  
*AOML Receptionist Backup*

Farah will work as a backup receptionist to assist guests and employees who may be visiting or working at AOML.



**Alisha Warren**  
*Administrative Officer*

Alisha joins AOML to lead the Admin Group and looks forward to sharing her expertise and learning from the AOML community.



## U.S. Department of Commerce

Gina M. Raimondo  
Secretary of Commerce  
[www.doc.gov](http://www.doc.gov)



## National Oceanic and Atmospheric Administration

Dr. Richard W. Spinrad  
Undersecretary of Commerce for  
Oceans and Atmosphere  
and NOAA Administrator  
[www.noaa.gov](http://www.noaa.gov)

## Office of Oceanic and Atmospheric Research

Dr. Steven Thur  
Assistant Administrator  
[www.research.noaa.gov](http://www.research.noaa.gov)



## Atlantic Oceanographic and Meteorological Laboratory

Dr. Molly O. Baringer  
Acting Director

Dr. Rick Lumpkin  
Acting Deputy Director

CAPT Wendy Lewis  
Associate Director

Dr. Gus Alaka, Director  
Hurricane Research Division

Jasmin John, Acting Director  
Ocean Chemistry and  
Ecosystems Division

Dr. Renellys Perez, Acting Director  
Physical Oceanography Division

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*Keynotes* is published quarterly to  
highlight AOML's recent research  
activities and staff accomplishments.

# Publications

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