NCAR|UCAR hurricane experts available to explain storm behavior, potential impacts

Scientists keep close watch on Hurricane Michael

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As hurricane season continues, scientists at the National Center for Atmospheric Research (NCAR) and its managing organization, the University Corporation for Atmospheric Research (UCAR), are closely watching the storm and its potential for strong winds, torrential rains, and widespread flooding.

Hurricane experts are available to explain issues such as:

- How we can better predict the possible impacts of hurricanes from winds, coastal surge, and flooding
- How people respond to hurricane forecast and warning messages and how risk communication can be improved
- Whether climate change is affecting hurricanes and what we can expect in the future;
- The importance of improving weather models to safeguard life and property.

Antonio Busalacchi, UCAR president (please contact David Hosansky or Ali Branscombe for interview requests)

Busalacchi, an expert on ocean-atmosphere interactions, has testified before Congress on the importance of improving the nation's weather forecasting capabilities to better protect life and property, bolster the economy, and strengthen national security. As a part-time New Orleans resident, he has firsthand experience with the impacts of powerful hurricanes.

Christopher Davis, director, NCAR Mesoscale and Microscale Meteorology Laboratory, cdavis@ucar.edu, 303-497-8990

One of the world's leading tropical cyclone researchers, Davis studies the weather systems that lead to hurricanes and other major rainfall events. His expertise includes hurricane prediction and how computer models can be improved to better forecast storms.

James Done, NCAR scientist, done@ucar.edu, 303-497-8209

Done works with the insurance industry to better understand hurricane impacts. He also focuses on seasonal predictions of hurricanes and the potential influence of climate change on the storms.

David Gochis, NCAR scientist, gochis@ucar.edu, 303-497-2809

An expert in hydrometeorology, Gochis studies the causes of floods and how to better predict them. He helped develop pioneering software that is at the core of the National Water Model, which is used by the National Oceanic and Atmospheric Administration Office of Water Prediction for detailed streamflow and flood forecasts.

Terry Hock, NCAR engineer, mailto:hock@ucar.edu, 303-497-8767

Hock is an electrical engineer who oversees work on the dropsonde, a specialized instrument developed at NCAR that is dropped by aircraft that fly into hurricanes. It takes measurements of winds and thermodynamic properties of the storm such as pressure, temperature and humidity from the aircraft to the ocean surface, thereby improving forecasts of storm track and intensity.

Matthew Kelsch, UCAR hydrometeorologist, <u>kelsch@ucar.edu</u>, 303-497-8309 Kelsch has studied some of the biggest U.S. flood events connected to hurricanes and tropical storms. He trains scientists and forecasters from around the world on emerging hydrology and weather topics.

Rebecca Morse, NCAR scientist, morss@ucar.edu, 303-497-8172 Morss studies the predictability of hurricane-related hazards, including storm surge and inland flooding, and hurricane and flood risk communication and evacuation decision making.

Rossimar Ríos-Berríos, NCAR scientist, rberrios@ucar.edu, 303-497-8199 Ríos-Berríos studies hurricane dynamics and the reasons that certain hurricanes undergo rapid intensification. A native of Puerto Rico who observed the devastation caused by Hurricane Maria, she is available for interviews in English and Spanish.

Kevin Trenberth, NCAR senior scientist, <u>trenbert@ucar.edu</u>, 303-497-1318 Trenberth is an expert on the global climate system. He has been in the forefront of scientists examining the potential influence of climate change on the intensity of tropical storms and hurricanes and the increased widespread flooding that they cause.

Jeff Weber, UCAR meteorologist, <u>jweber@ucar.edu</u>, 303-497-8676 As an expert on hurricanes and severe weather in general, Weber closely monitors the behavior of individual storms and the larger atmospheric and oceanic conditions that influence them.

Colin Zarzycki, NCAR scientist, zarzycki@ucar.edu, 303-497-1381 Zarzycki is an expert on the global climate system who uses advanced computer simulations to study extreme weather events. Much of his research focuses on the potential influence of climate change on hurricane and other tropical cyclones.

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