Hurricane Prediction

AI-driven tools for better forecasts

On September 26, 2024 Hurricane Helene made landfall over Florida as a category 4 storm, bringing with it intense winds, wide-spread flooding, and tragic loss of life. NOAA's Cooperative Institute for Meteorological Satellite Studies supplied AI-driven wind estimates to the forecasters that warned those in danger. These warnings gave people time to prepare and evacuate to safety.

Hurricanes

Better predictions to save lives

AI tools developed at NOAA's Cooperative Institute for Meteorological Satellite Studies provide forecasters at the National Hurricane Center rapid updates to dangerous changes in a storm's development.

- Provide insight into rapid intensification processes that are critical to the accuracy of forecasting and alerting the public of dangers.

- AI algorithms are used by National Hurricane Center in Miami, the Joint Typhoon Warning Center, and worldwide by other warning agencies.

- CIMSS AI tools using global satellite data provide continuous coverage for vulnerable areas where reconnaissance flight data are unavailable.

Innovative research and development at the Cooperative Institute for Meteorological Satellite Studies supports NOAA's mission to save lives and protect property