Hurricanes and other severe weather events cause tremendous human and economic impacts worldwide. A hurricane path can be predicted more accurately than ever before with Geostationary Operational Environmental Satellite (GOES) tracking data, aiding emergency personnel to quickly identify and evacuate areas directly in the predicted path of the storm. Advances in GOES capabilities will allow us to continue this vital effort in the decades ahead, thereby reducing the loss of life and damage to property.
Hurricane Katrina 23–30 August 2005—Tropical Cyclone Report

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National Hurricane Center
National Oceanic and Atmospheric Administration

Katrina was an exceptionally powerful (deadly) hurricane that formed at a rate of unprecedented magnitude and intensity, and with the rapid intensification, Katrina maintained a steady state for five days. Katrina was a Category 5 hurricane, with winds of 175 mph, and destruction potentials that were a factor of ten higher than those of any other major hurricane. Katrina was an extremely destructive storm that inflicted billions of dollars in damages to property and infrastructure. The storm was the costliest and one of the five deadliest hurricanes to ever strike the United States.

How Was This Hurricane Katrina Image Created?

The image of Hurricane Katrina was formed from data captured using data from the GOES-12 satellite. The GOES system, part of the National Oceanic and Atmospheric Administration's (NOAA) Wideband Geostationary Operational Environmental Satellite (GOES) system, provides real-time images from geosynchronous satellites that orbit the Earth. The images are provided to the National Hurricane Center (NHC) and other national and international users for the purpose of monitoring and forecasting severe weather systems.

Hurricane Season—Be Prepared—Be Safe!

To present the risks associated with hurricane season, the National Hurricane Center offers a guide to help individuals prepare for the upcoming season. The guide includes information on how to stay informed, what to do before and during a hurricane, and how to recover after a storm.

Hurricane Watch:

A hurricane watch is issued when a tropical storm is expected to reach hurricane conditions within 24–36 hours.

Be Prepared:

- Stay informed by monitoring local news and weather reports.
- Prepare an emergency plan and supplies.
- Secure your home by anchoring heavy objects and ensuring adequate lighting.
- Evacuate if advised to do so by local authorities.

Hurricane Season:

The hurricane season runs from June 1 to November 30, with the peak season occurring from August 1 to October 31.

Informative Web Sites:

- National Hurricane Center
- National Oceanic and Atmospheric Administration
- FEMA
- Red Cross
- NOAA's Geostationary Operational Environmental Satellites (GOES)
- National Geographic

Tracking A Monster Storm

Student Activity

Objective:

Students will create a map of the hurricane's path using data from NOAA and other sources.

Materials:

- Maps of the affected region
- Markers or stickers to represent hurricane activity
- Tape or glue to attach maps to paper

Procedure:

1. Introduce the topic of hurricanes and their impact on coastal communities.
2. Provide students with maps of the affected region and ask them to identify key locations.
3. Have students create a map of the hurricane's path, using markers or stickers to represent the storm's movement.
4. Encourage students to label important locations and provide a brief description of each.

Assessment:

Evaluate students' maps based on their accuracy and ability to represent the hurricane's path.

Additional Resources:

- National Hurricane Center
- National Oceanic and Atmospheric Administration
- FEMA
- Red Cross
- NOAA's Geostationary Operational Environmental Satellites (GOES)
- National Geographic