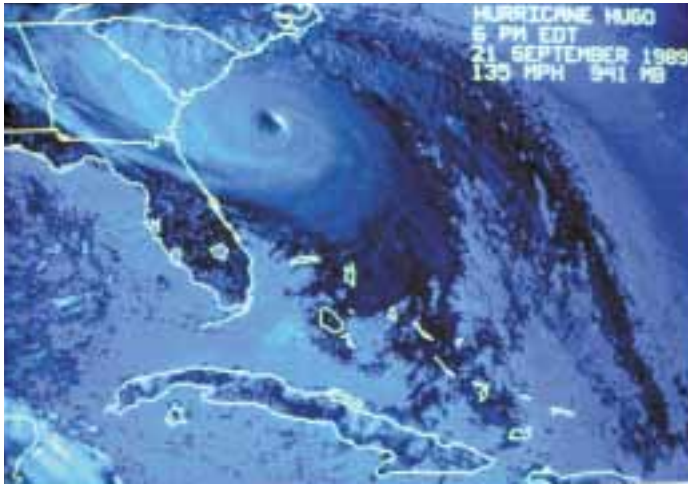


Vaisala's Dropsondes Used for Hurricane Research

PHOTOS COURTESY OF NOAA, USA.



The visible spectra satellite image of Hurricane Hugo on September 21, 1989. Hugo had strengthened explosively to category 4. Tropical storm winds and rising waters were already battering the coast. All preparations and evacuation measures should have been completed by this time.

Vaisala's current RD93 dropsonde is the successor to the prototype sonde used in Aurora's 1998 scientific experiment. Vaisala is continuing to develop the dropsonde to allow the METRECO concept to be successfully brought into operation and made commercially available for high altitude platforms. The RD93 is a general-purpose dropsonde for aircraft use. It is designed for high altitude drops, and the data system architecture supports four simultaneous dropsonde soundings.

During their missions, the aircraft release dropsondes which are used for weather reconnaissance, hurricane and weather research.

Hurricanes are unique

Satellite images of hurricanes show a unique and characteristic cloud formation, signaling an intense tropical weather system. There is nothing similar to hurricanes in the atmosphere. Born in warm tropical waters, these spiraling masses require a complex combination of atmospheric processes to grow, mature and then die out. They are neither the largest, nor the

most violent storm systems in our atmosphere, but they combine size and violence in a way that no other weather phenomenon does. Hurricanes are awesome storms that have been a massive problem for residents and sailors ever since the early days of colonization. Today, hurricane damage costs billions of dollars.

Thankfully, the number of people injured or killed during tropical cyclones in the United States is on the decline, largely because of improvements in forecasting and readiness for emergencies. Nonetheless, risks from hurricanes are rising. Due to population increases and the development of the coastal areas, more people and property are vulnerable to the hurricane threat.

Hurricanes cannot be controlled, but our vulnerability can be reduced if we are better prepared.

The main hazards associated with tropical cyclones and especially hurricanes are storm surge, high winds, heavy rains, and flooding, not to mention tornadoes. The intensity of a hurricane is an indicator of the damage it could potentially cause. ■



Ben Sawyer Bridge, which connects to Sullivan's Island, is shown after the passage of Hurricane Hugo. (Late September 1989).



The damage caused to a small vessel at Roosevelt Roads Naval Base by Hurricane Hugo. (Late September 1989, Puerto Rico).