

PLANNING FOR AN ACTIVE HURRICANE SEASON

With Fey, Gustav, Hana, Ike, and Josephine the 2008 Atlantic hurricane season got off to a strong start, keeping state and local authorities in a heightened state of alert. Helping them to visualize the potential impacts from hurricanes and plan for catastrophic flooding events is computer modeling and mapping technology released by Applied Science Associates, Inc. (ASA) earlier this year.

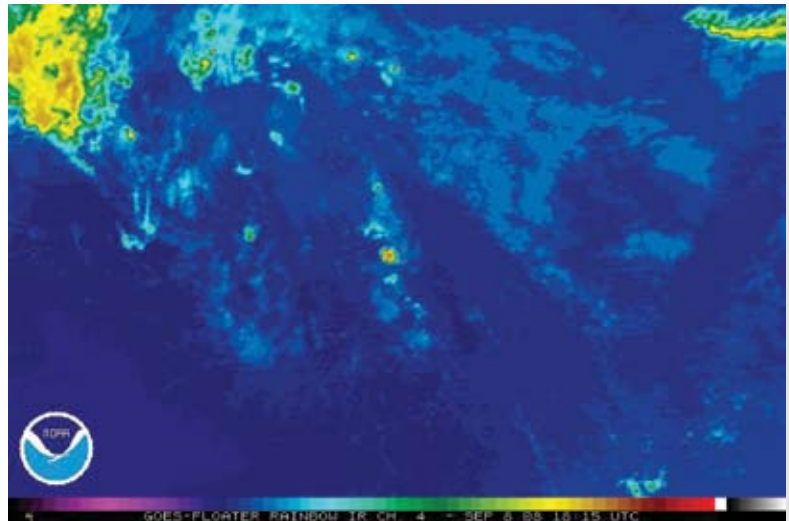
The 2008 Atlantic hurricane season is likely to be above normal, with up to 16 named storms and up to five major hurricanes, the National Oceanic and Atmospheric Administration (NOAA) predicted in June, citing climate conditions. The outlook issued by NOAA's Climate Prediction Center called for "considerable activity," with a 65 percent probability of an above-normal season.

One of the challenges in hurricane forecasting is communicating the potential impacts to the public, emergency responders, and scientists. ASA uses its Flood Inundation Toolbox™ to calculate flood extents based on flood elevation predictions, produce flood maps, and distribute those maps via the web.

The ability to translate NOAA forecasts into a meaningful visual product dramatically improves the communication of risk to officials as well as the public. "By mapping the impact, storm surge, and flood zones of hurricanes and other severe storms on actual up-to-date maps and satellite images," said ASA scientist Kelly Knee, "we can assess the risks associated with the onset, duration, and severity of hurricane flooding and storm surge events and work to reduce vulnerability."

The Flood Inundation Toolbox is a suite of web services that allows distribution of integrated data within geographic references for environmental problems and crisis management solutions. The use of flexible open standards allows for distribution of data to web pages and email feeds, and enables strategies to distribute warnings to mobile devices, including cell phones. The outputs from the predictions can also be imported into a variety of widely used mapping applications such as Google Earth™ and Microsoft Virtual Earth to provide high-resolution local context.

ASA is currently preparing a series of maps for the World Wildlife Fund representing flooding along the U.S. Gulf



Hurricane Gustav [Source: www.ssd.noaa.gov.]

Coast. These maps, covering an area from Galveston, Texas, to Tallahassee, Florida, blend data from multiple sources with the USGS National Elevation Dataset. The resulting elevation dataset is being used to assess the impacts from a Category 3 hurricane, as well as for four other projected sea level rise scenarios. The World Wildlife Fund is just one of several organizations working with ASA to look at potential storm impacts in the 2008 hurricane season. [For more information, contact Lee Dooley at ldooley@asascience.com.]



FEMA Releases MHIP Version 3.0

FEMA has released the latest version of the Multi-Year Flood Hazard Identification Plan (MHIP), Version 3.0, which details FEMA's plan for prioritizing and delivering modernized flood maps for areas of the United States with the greatest flood risk. MHIP Version 3.0 amends Version 2.0 dated September 2006 and Version 2.5 dated April 2007. MHIP Version 3.0 and previous releases are available on FEMA's Flood Hazard Mapping Web site at www.fema.gov/plan/prevent/fhm/mh_main.shtm. [Source: Ernie Lepore (703) 317-6276.]