



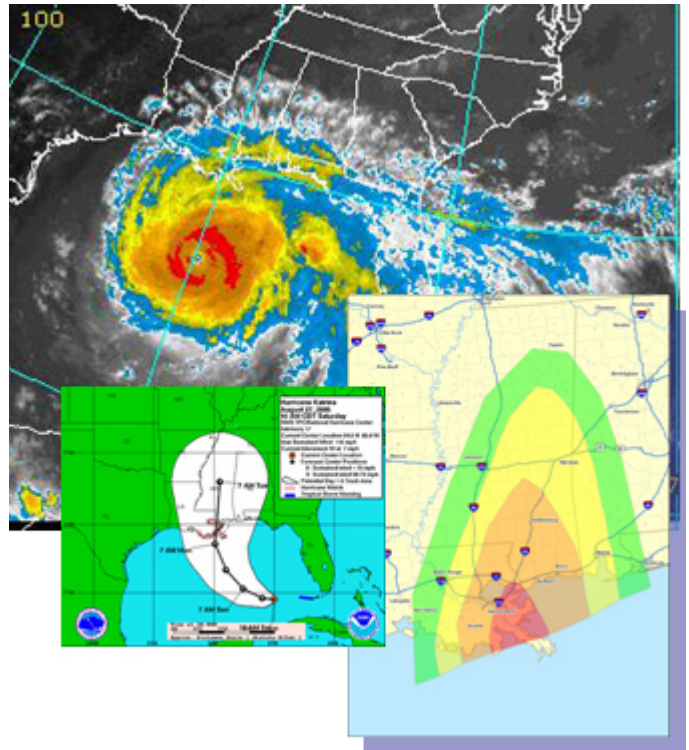
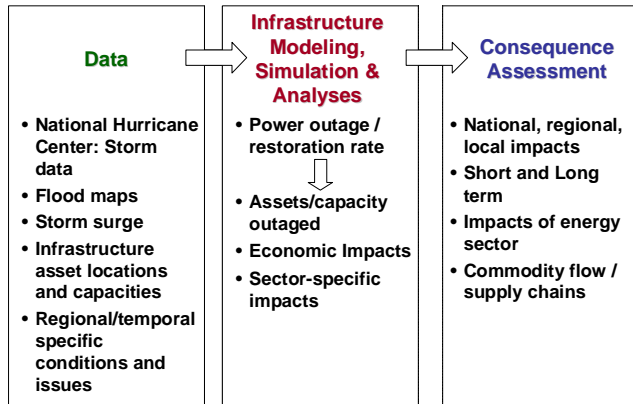
Analysis of Hurricane Impacts to Infrastructure

The National Infrastructure Simulation and Analysis Center (NISAC) program under the Department of Homeland Security's (DHS) Preparedness Directorate, provides advanced modeling and simulation capabilities for the analysis of critical infrastructures, their interdependencies, vulnerabilities, and complexities. These capabilities help improve the robustness of our nation's critical infrastructures by aiding decision makers in the areas of preparedness, consequence and risk analysis, policy analysis, investment and mitigation planning, education and training, and near real-time assistance to crisis response organizations.

Sandia National Laboratories (SNL) and Los Alamos National Laboratory (LANL) are the prime contractors for NISAC, integrating the two laboratories' expertise in infrastructure disruption/vulnerability modeling and simulation under the direction of DHS's Infrastructure Protection/Risk Management Division.

FAST Team – Dynamic Responders

The Fast Analysis and Simulation Team (FAST) was formulated to serve as a central resource point for DHS in providing relevant and practical information in response to issues of national importance under limited time constraints. The core FAST group is expanded dynamically in response to the triggering event and its location. The FAST team's process for hurricane analysis is diagrammed below.



NOAA storm track predictions and NISAC electric power outage area contour projections are bases of FAST analysis

Pre-Event Projections and Recovery Support

NISAC analysis reports provide situational awareness of the range of potential impacts to infrastructure for use in decision support.

- Generated daily or as required for disruption (historically, up to a month or more)
- Results briefed to DHS Secretary Chertoff and the White House (including the President)

NISAC provides a unique capability and perspective:

- National view
- Cross-sector continuity
- Analysis of ripple effects – unexpected consequences
- Analysis of critical assets from a systems perspective

