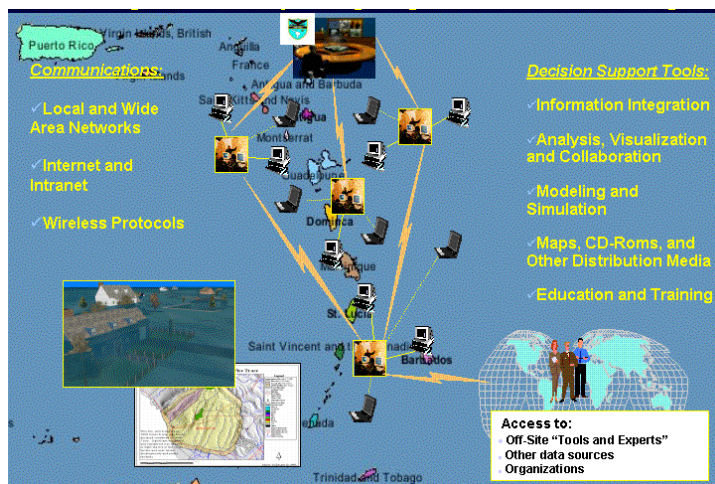







## PDC supports disaster managers in the Caribbean

Personal suffering, property loss, and economic hardship caused by disasters can be significantly reduced when appropriate actions are taken based on the best available information. New and emerging information technologies, observation systems, and communications may now be combined to provide decision makers in disaster management and humanitarian assistance with enhanced capabilities. This enables access by multiple users to disparate types of information, at varying levels of detail and many points in time.

Under a U.S. Southern Command initiative, the Pacific Disaster Center (PDC) has designed an Integrated Decision Support System (IDSS) for the Caribbean. The IDSS incorporates Geographic Information Systems (GIS) with visualization tools and analytical models.



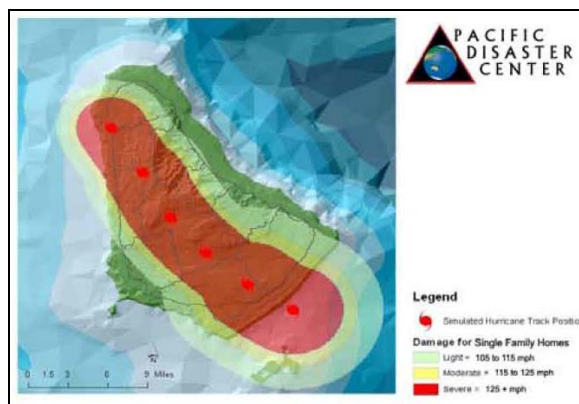
*The Integrated Decision Support System (IDSS) conceptual architecture links communities through regional and local networks.*

-  Decision and Policy Support
-  Institutional Capacity Development
-  Risk and Vulnerability
-  Humanitarian Assistance Support
-  Security and Sustainability

This system responds to emergency managers' requirements for hazard analysis, risk and vulnerability assessments, mitigation and preparedness planning, education, training, and exercise support. IDSS goals are to:

- Provide mechanisms to allow sharing of information between decision makers.
- Provide the capability to view issues at regional, country, and local scales.
- Enable users to collaborate by providing a common understanding of any given situation.

*“IDSS incorporates Geographic Information Systems (GIS) with visualization tools and analytical models.”*



*This Consequences Assessment Toll Set (CATS) model output can be viewed by decision makers through the IDSS. The model output shows moderate-to-severe damage to single-family homes for most of the Island Barbados in a hypothetical Category 3 hurricane scenario.*

## IDSS Components

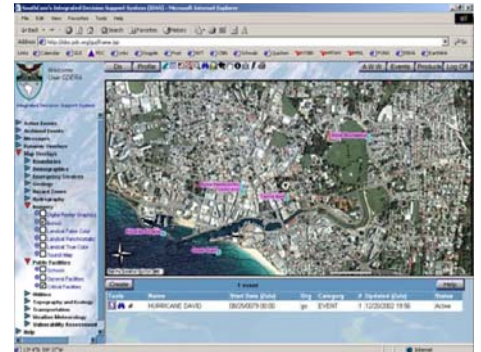
The IDSS consists of three components; a Geospatial Collaboration and Awareness System (GeoCAS), an Incident Command System (ICS), and other open-source information feeds.

GeoCAS acts as the primary IDSS tool for developing a common operating picture among decision makers from different countries at operational and strategic levels.

The Incident Command System is a core IDSS component for real-time event management and decision support at the local level, allowing users to enter and access information, track resource requests, and report infrastructure status.

The first phase of this Integrated Decision Support System activity involved combining GIS tools with geospatial databases of the Caribbean region, as well as some specific data examples from Caribbean nations, to demonstrate critical components of the prototype IDSS, including:

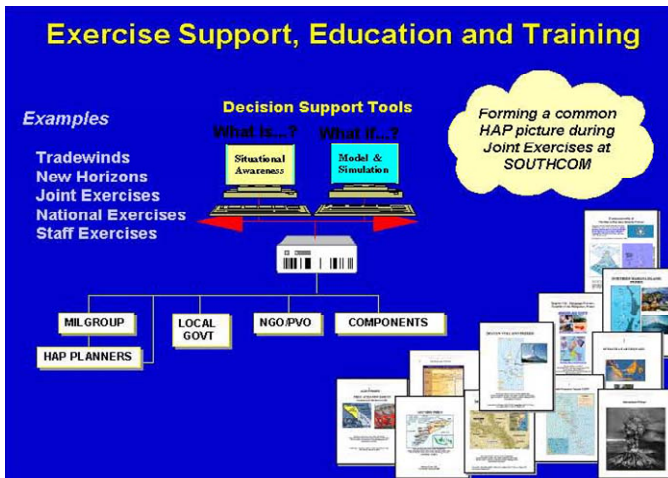
- Interaction and data sharing between the regional Caribbean Disaster Emergency Response Agency (CDERA) and national emergency response organizations in Dominica and Barbados.
- Integration of model outputs, such as hurricane wind damage estimates, into a geospatial picture.
- A data distribution network, available to decision makers accessing the Internet.



*The Geospatial Collaboration and Awareness System allows users to access and display relevant data and information for an area of interest. A table of contents also allows users to select, customize, and query information.*



*An Incident Command System application such as the one provided by E-Team Inc. is a key IDSS component.*



*The IDSS supports a wide range of exercise, education, and training activities.*

Pacific Disaster Center • 1305 N. Holocono St. Ste. 2 • Kihei, HI 96753 • Phone 808.891.0525 • Email [info@pdc.org](mailto:info@pdc.org) • [www.pdc.org](http://www.pdc.org)

*Mission: To provide applied information research and analysis support for the development of effective policies, institutions, programs and information products for the disaster management and humanitarian assistance communities of the Asia Pacific and beyond.*