

Progress Energy Florida

Recent Hurricane History

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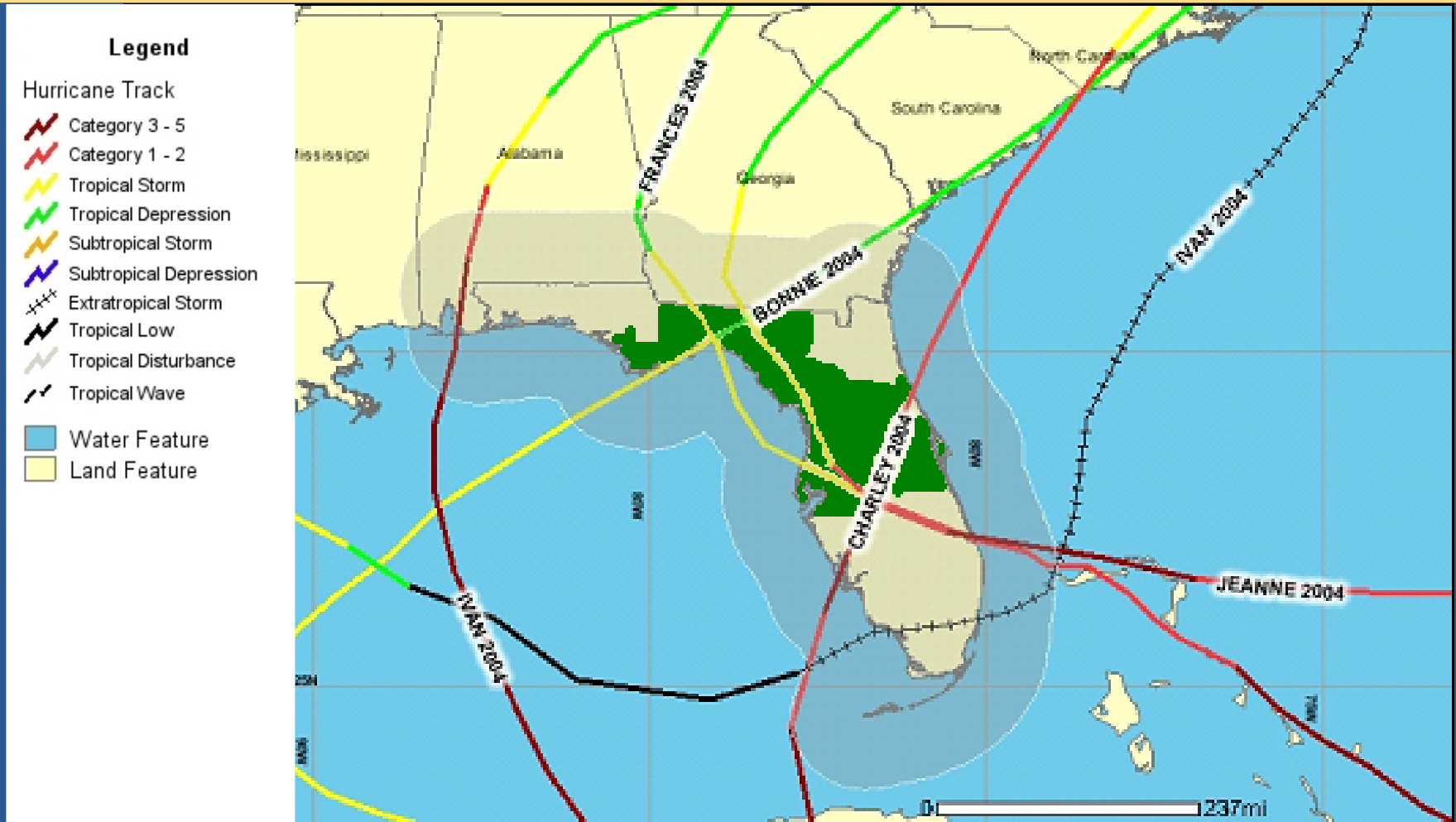
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Discussion Topics

- 2004 Storm Season Impacts to PEF
 - ◆ *A closer look at the numbers...*
- Operational and Process Improvements
 - ◆ *What has changed since 2004?*
- Closing Information Gaps
 - ◆ *Opportunities to improve performance...*

2004 Storm Season Impacts

Storm Tracks



2004 Storm Season Impacts

Progress Energy Florida Summary

45 Days, 4 Hurricanes...23 Days of Restoration Activity

	Charley	Frances	Ivan	Jeanne
Date of landfall	Aug. 13	Sept. 5	Sept. 16	Sept. 26
Category at peak	Cat 4	Cat 2	Cat 3	Cat 3
Peak number of customers out	502,000	832,898	10,000	722,000
Substations out	83	105	3	86
Days of storm restoration	10 Days	7 Days	1 Day	5 Days

Operational and Process Improvements

- Key Activities and Improvements by PEF
 - ◆ Hurricane Lessons Learned Initiative
 - ◆ Revised Storm Plan and developed DSSOP
 - ◆ Increased pole replacements
 - ◆ Accelerated tree trimming in high risk areas
 - ◆ Strengthened coordination with local governments, contractors, and vendors

Operational and Process Improvements

- FPSC - “EIW Hardening”
 - ◆ 8-yr Pole Inspection
 - ◆ Integrated Vegetation Management
 - ◆ Implementation of a GIS System
 - ◆ Post Storm Data Collection and Analysis
 - ◆ Audit of Joint-Use-Pole Attachments
 - ◆ Review of Category 3 Construction Standards
 - ◆ Review of Undergrounding Electrical System

Closing Information Gaps

- Data Gathering and Analysis
 - ◆ Leveraging statistical and analytical abilities of Universities
 - ◆ Identify effects of normal and abnormal events on the system.
- Example: Determining true system impacts of high wind speeds with limited information
 - ◆ Data recorders are not always available in close proximity to electric infrastructure
 - ◆ Remote weather stations record incomplete data due to power outages and weather induced failures prior to peak wind



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