

Case Study: Disaster Recovery after Katrina

Aline Ward

Chief Information Officer, Mississippi Power,
Southern Company Transmission & Distribution

June 6, 2006

Hurricane Katrina

August 29, 2005


Day One Challenges






**100%
customers
without power**






**65% of power
delivery
system
down or damaged**






**97% of
generating
capacity
lost during
storm**





**9,000
power poles
down or
damaged**





**23,500
spans of
wire
down**





**2,300
transformers
down or damaged**





100% MPC Corporate Offices Uninhabitable





**58% of
company
employees
in Mississippi
had significant
home damage**





86 company employees Lost their Homes





Devastated Infrastructure





Waterline



Loss of Communications

09/02/2005

Day One Priorities





Re-establish Communications



Cables connecting temporary generator to 7th floor

Original Generator

4 3:32 AM



CIO Decisions Conference

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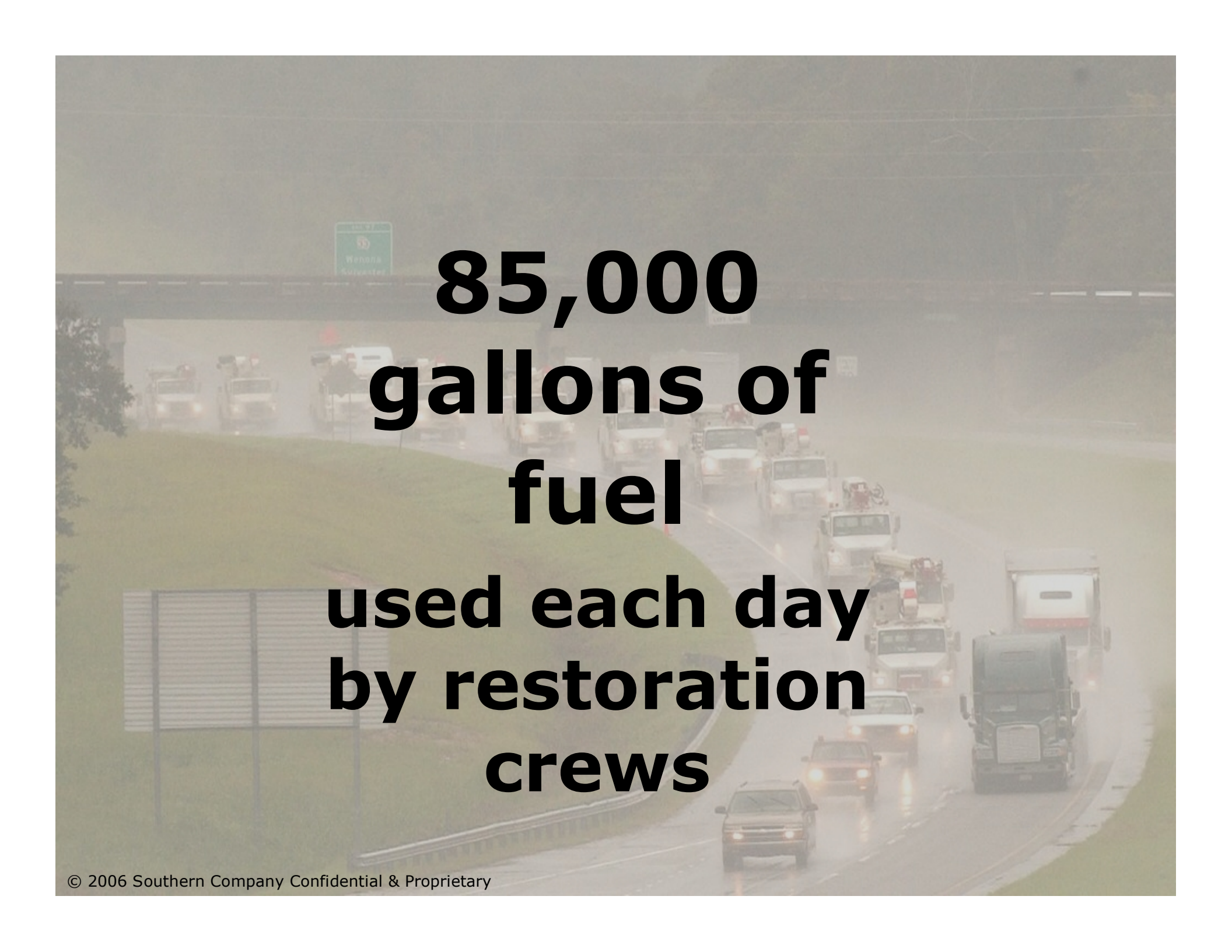
**12,000
personnel
assisting with
storm
restoration**

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A photograph of a multi-lane highway with a traffic jam of trucks and cars, overlaid with large black text. The scene is hazy, possibly due to fog or rain. In the background, a green highway sign is visible with the text 'WENONA' and 'SUGARLOAF'. The text is centered and reads:

**85,000
gallons of
fuel
used each day
by restoration
crews**

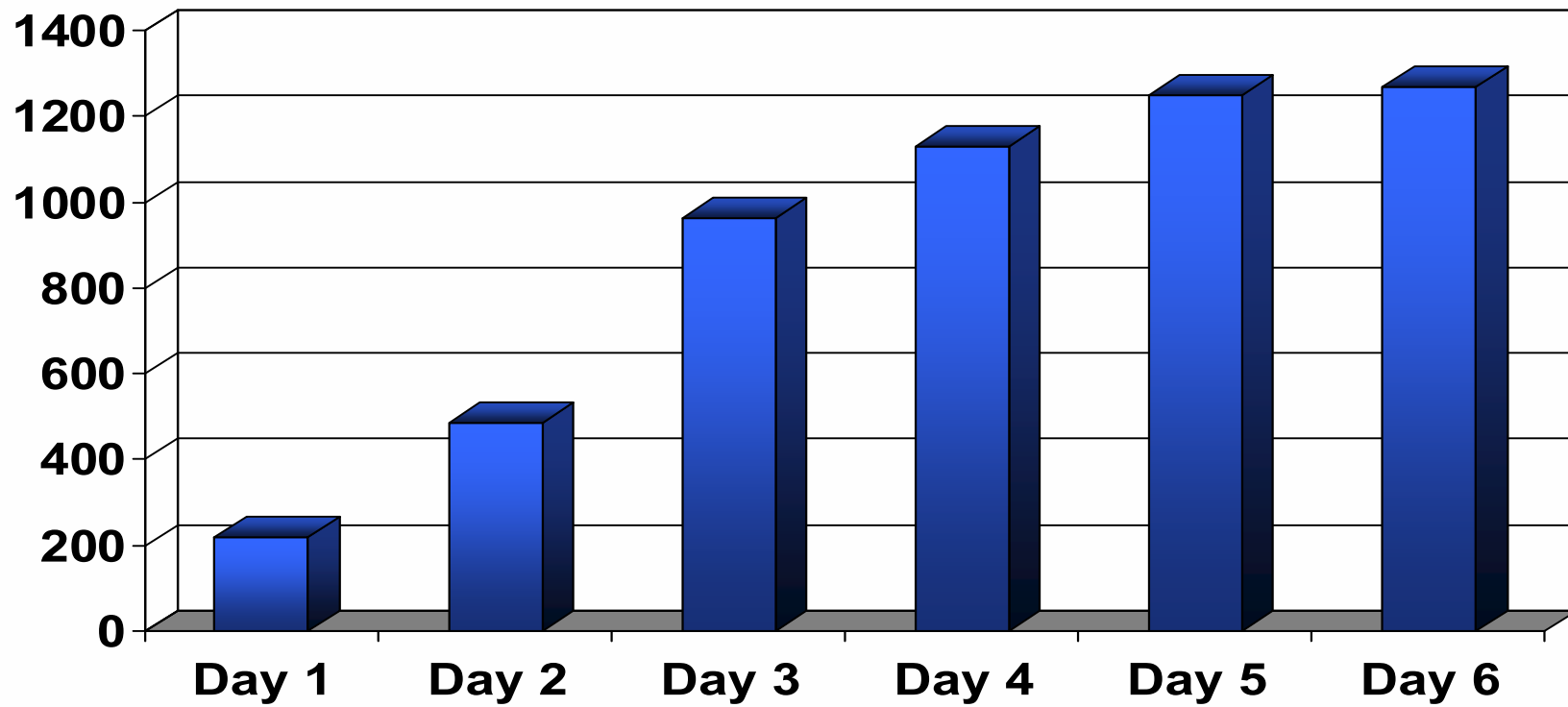




Help Employees With Personal Loss

Employees

Reporting for Duty



Unaccounted

- 100 24 6 2 0

Family Services









**100% of
customers
who were able had
power restored
in 12 days**

IT's Role in Storm Preparation

- **Review and Update Disaster Manual Annually**
- **Notify Employees to Protect PC's, Phones, Printers**
- **Storm Radios – Charge Batteries and Issue Before Storm**
- **Pre-arrange Agreements for Satellites and Mobile Trailers**

IT's Role in Storm Preparation

- **Check Generators / Fuel Levels / Alarms**
- **Site Vulnerability Checks**
- **Storm Assignments / Training**
- **Work with MPC to Coordinate Fuel, Propane, Food, Lodging and Tree Trimming**

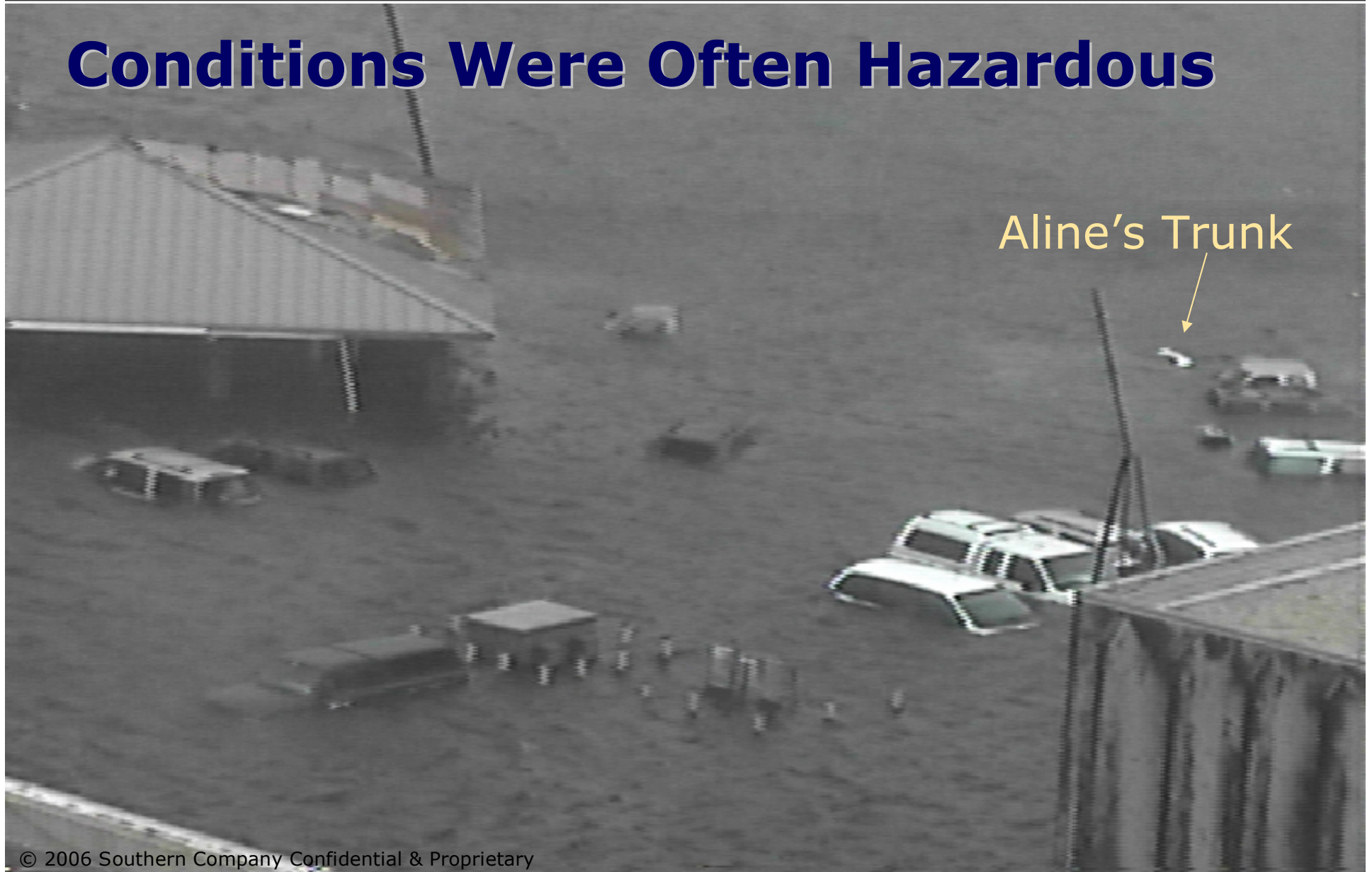
IT's Role in Restoration

- **Fixed / Rerouted 12 Fiber Cuts**
- **Installed 6 Microwave Systems**
- **Set up 3 Generator Systems and Provided Maintenance for Many More**
- **Restored the Technology Used to Control the Electrical Network Which was Almost Completely Unavailable**

IT's Role in Restoration

- **Coordinated Installation/Relocation of 19 Satellite Systems**
- **Designed and Implemented Transport, Voice, Data, and End User Devices for Temporary Facilities**
- **Relocated Hundreds of Employees Computers and Phones to Temporary Facilities**
- **Programmed and Issued 300 SouthernLINC Wireless Radios**

Conditions Were Often Hazardous



Aline's Trunk

Lessons Learned and Action Items

- **Plan to Operate With No Communications for at Least 48 Hours**
- **Identify 2 Alternates for Every Critical Storm Assignment**
- **Have Port-a-lets and Showers Available Before Event**

Lessons Learned and Action Items

- **Be in the FEMA Loop**
- **Substantially Increase Logistics, Procurement and Management Support Capabilities**
 - **Be self-sufficient**
- **Prepare for Hostilities and Civil Unrest**
- **Prepare for Substantial Employee Property Losses and Family Crises**

Lessons Learned and Action Items

- **Purchase Satellite Phones for Critical Storm Personnel**
- **More Planning for Staging Sites and Emergency Operations Center (Radio Coverage, Satellite Dishes, PC's, etc.)**
- **Blackberry PIN #'s Available Prior to Storm**
- **Outside Area Code & Phone Number for Employees and Suppliers to Call in to Report Status and Get Information**
- **Critical Infrastructure Protected and Ultimately Moved to New Storm Facility**



**REBUILDING
HOPE
TOGETHER**

Katrina 2005



