Emergency Operations Management

Prepare, Respond, Communicate

Energy Delivery

Emergency
Restoration
Plan (ERP)

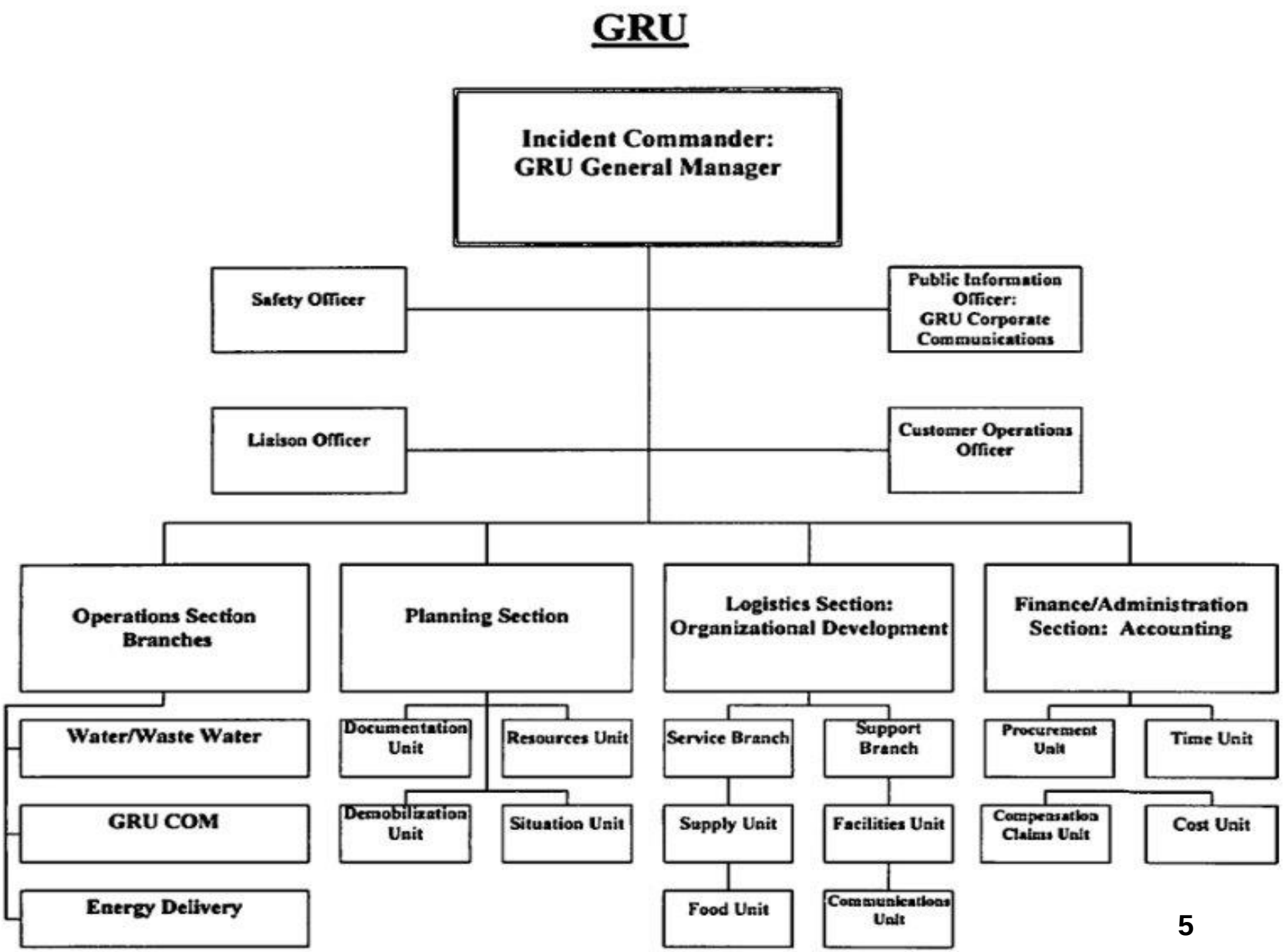
Energy Delivery ERP

- Foundation & Guidance
  - Nearly 100 years of experience in Emergency Response and Operations
  - Federal Emergency Management Agency
  - State of Florida
    - Public Service Commission
    - Division of Emergency Management
  - Alachua County Office of Emergency Management
  - City Emergency Operations

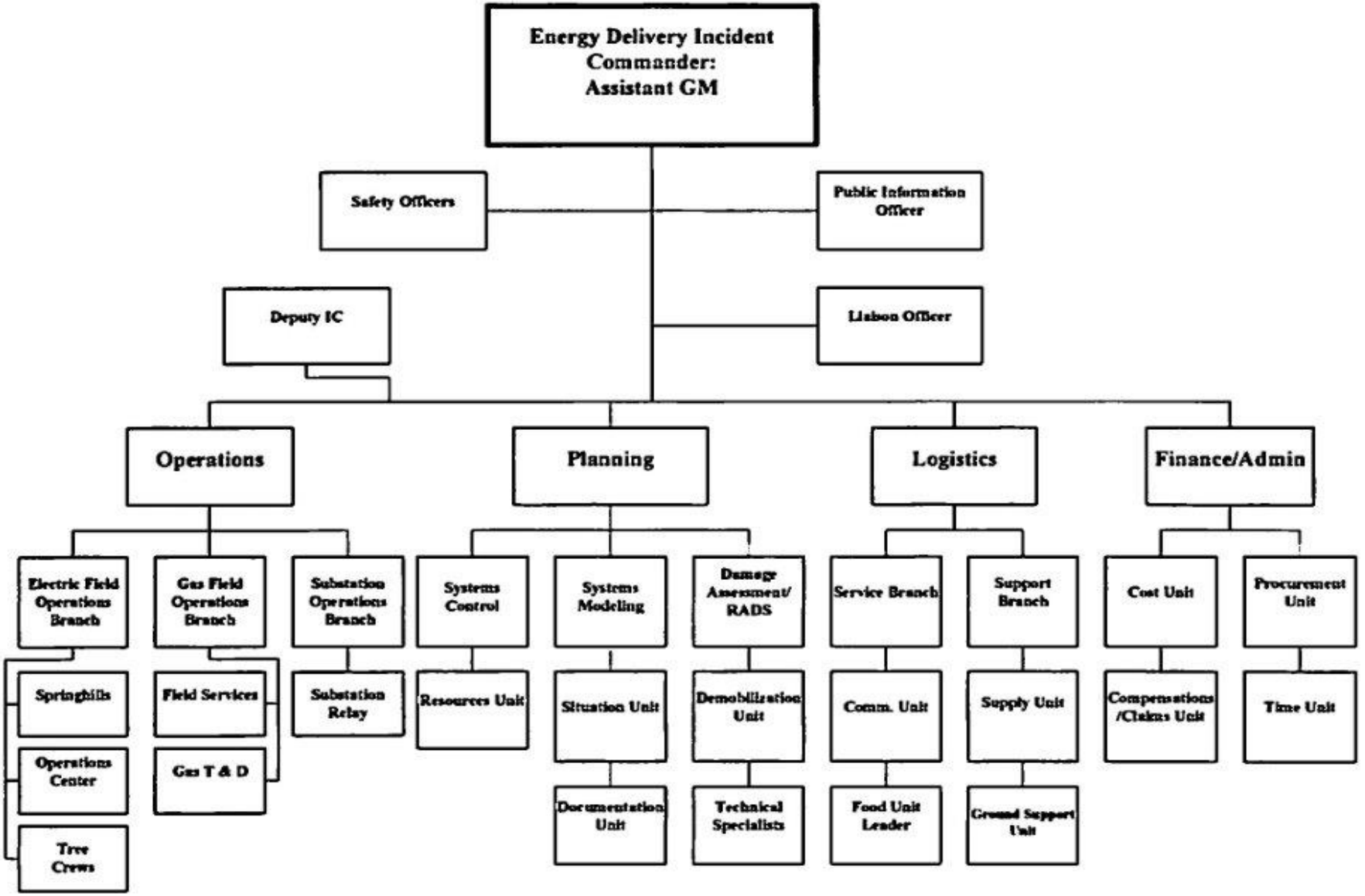
Energy Delivery ERP

- Commitment
  - Prepare for system upsets, respond quickly and effectively, and communicate to all stakeholders
  - Interact cooperatively and effectively with all federal, state and local agencies
- Practice
  - City – March 2015
  - County/State Drill – May 2015
  - GRU – June 2015

Organizational Structure and Functional Responsibilities



Energy Delivery



Energy Delivery ERP

- Focus
  - Safety
  - Employee Training
  - Mutual Aid Contracts
  - Vendor Contracts
  - RADS & DADS Training
  - Public Information
  - Communication Platforms

Energy Delivery ERP

- Restoration Timeline
  - Monitor National Weather Service
  - Preparation Meetings, start 96 hours in advance
  - Public Service Announcements (PSAs)
  - Staff Emergency Operations Centers as required
  - Develop storm ride-through strategy and default report-to-work time
  - Begin restoration when safe

Energy Delivery ERP

- Restoration Priorities
  - Generation / Supply
  - Transmission System
  - Substations
  - Critical Customers & Distribution System Circuits
  - Remaining Distribution Circuits, Main Line
  - Distribution Laterals
  - Services

Energy Delivery ERP

- Critical Customers & Distribution System Circuits
  - Water & Wastewater Plants
  - Hospitals, Critical Care Facilities
  - Emergency Alert System (RUF)
  - Public Safety Facilities (Police & Fire)
  - Correctional Facilities

Energy Delivery ERP

- Operating Periods
  - 24 hr/day operation
  - Generally two operating periods per day
  - Typically of unequal periods
    - Day shift of 16hrs
    - Night shift of 8hrs

Energy Delivery ERP

- Rapid Assessment of Damage (RADS)
  - Day 1, high level and very fast assessment of system damage.
  - Electronic tabulation of manpower and material required to restore system.
  - Results used to determine the amount of mutual aid needed to augment our resources.
  - Initial restoration estimate derived. Estimate will vary based on discovered damage & mutual aid availability.

Energy Delivery ERP

- Detailed Assessment of Damage (DADS)
  - Detailed and thorough assessment of system damage
  - Electronic tabulation of manpower and material required to restore system
  - Results used to refine the mutual aid resources needed to augment our staff
  - Refined estimated time of restoration by circuit computed. Estimate will vary based on discovered damage, mutual aid availability, materials and weather.

Energy Delivery ERP

- Communications
  - Pre through post system upset
  - Internal and external updates
  - Hourly then periodic facilities status reports
  - ACEOC and CEOC lines of communication open
  - Call center(s) active (24 x7)
  - Interval action plans distributed
  - Restoration timeline calculated and distributed
  - Pipelines: Corporate Communication and news/ social media

WATER/ WASTEWATER

GRU
More than Energy

Water/ Wastewater Systems

- Drinking Water
  - Murphree WTP: provides drinking water to ~190,000
  - 1,117 miles of distribution pipe covering 118 sq miles
- Wastewater
  - 2 Water Reclamation Facilities
  - 168 Wastewater Lift Stations
  - ~800 miles of collections pipe covering 115 sq miles

Prepare

- System Design
- Emergency Preparedness Plan
- Training
- 5 day Prediction Cone
- 1st 72 hours
- Positioning of Resources
- Vendor Coordination

GRU More than Energy

Respond

- Restore Water & Wastewater Service
  - Community health, safety and welfare
- Emergency Preparedness Plan
  - Personnel: All 1st Responders
    - Roles and Responsibilities
    - Equipment
    - Material
- Field Assessment
  - Triage
- Work Order Assignment

Communicate

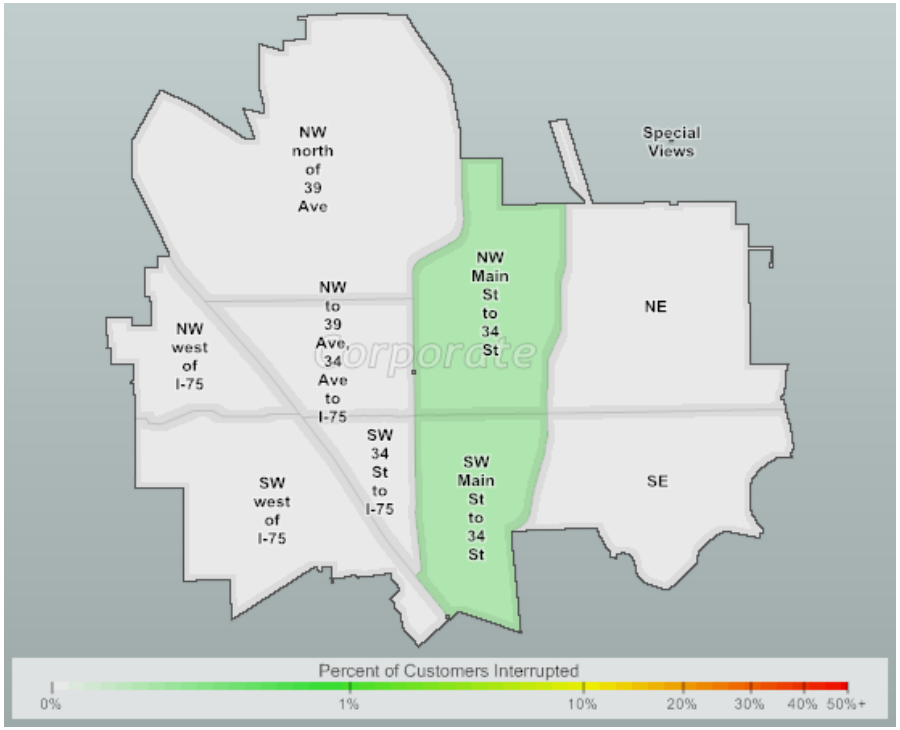
- Dispatch Centers
- SCADA
- Mutual Aid
- FlaWARN and Regulatory Agencies
- Local/State/Federal Public Safety Authorities
- Corporate Communications
  - News and Social Media
- After Action Assessment

CUSTOMER/ EMPLOYEE COMMUNICATIONS

GRU
More than Energy

Year-Round

- Storm Season
- Ongoing General Messaging
  - www.gru.com
    - Electric Outage Map
  - Twitter
  - Facebook



http://www.gru.com/StormCentral

GRU More than Energy

Start of Hurricane Season
(June – November)

- Web
  - Storm preparedness; hurricane guide, safety checklist, restoration information and power outage map
- Print
  - Newsletter, newspaper, storm guide
  - TV & radio

Customer Communications

Imminent Storm

- Before
- During
- After

Hurricane Jeanne (2004)

Before the Storm

- Internal information systems activated
  - Employee emergency information phone line, text messaging and email
  - All communication tools tested
- Communication channels established between GRU personnel, external officials

Before the Storm

- Review/ prepare communication tools
  - Pre-recorded TV and radio spots ready for activation
    - Scripts for Public Service Announcements (PSAs)
  - Pre-drafted news releases
- Update www.gru.com, Twitter and Facebook
- Participate in news conferences as needed
- Work with GM to keep local officials informed

During the Storm

- Activate pre-recorded TV and radio spots
- Update www.gru.com, Twitter and Facebook
- Participate in news conferences as needed/ update news media
- Information collected, documented and distributed
- Update employees
- Work with GM to keep local officials informed

After the Storm (restoration)

- Activate pre-recorded TV and radio spots
- Assist all departments in communicating with customers and employees as needed
- Participate in or arrange news conferences to report damage, restoration efforts and timing
- Update www.gru.com, Twitter and Facebook
- Update employees
- Work with GM to keep public officials informed

After the Storm
(return to normal)

- Evaluate

Questions?