

# Storm Preparation and Response

August 1, 2019

# GRU Emergency Management

## Our Process



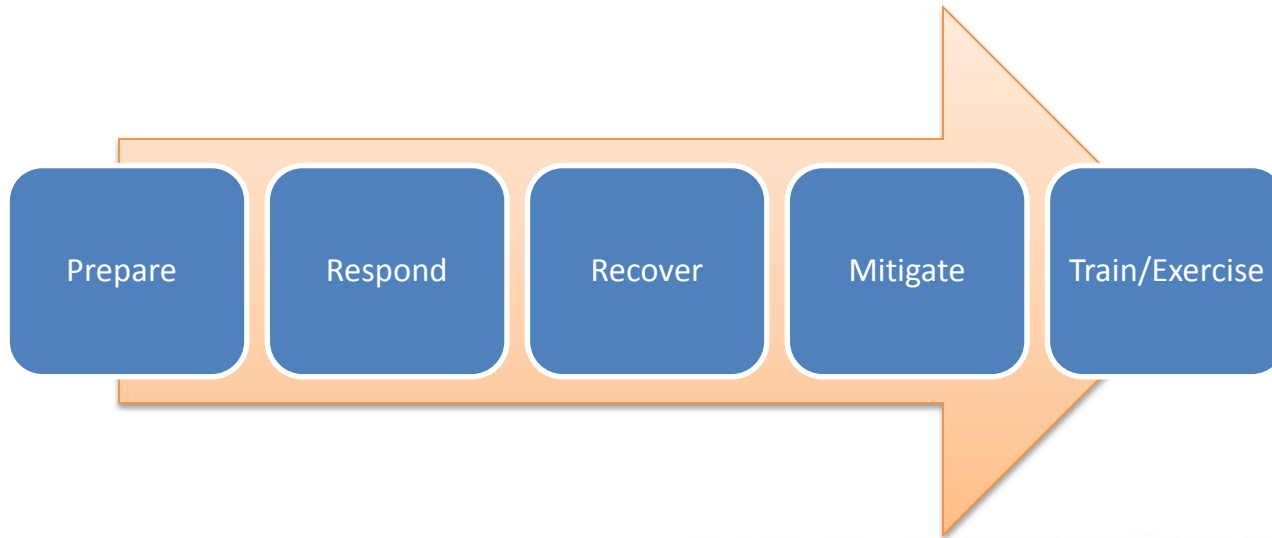
### *Video Distribution*

- Gru.com
- Social media
- TV12
- Email Campaign

# GRU Emergency Management

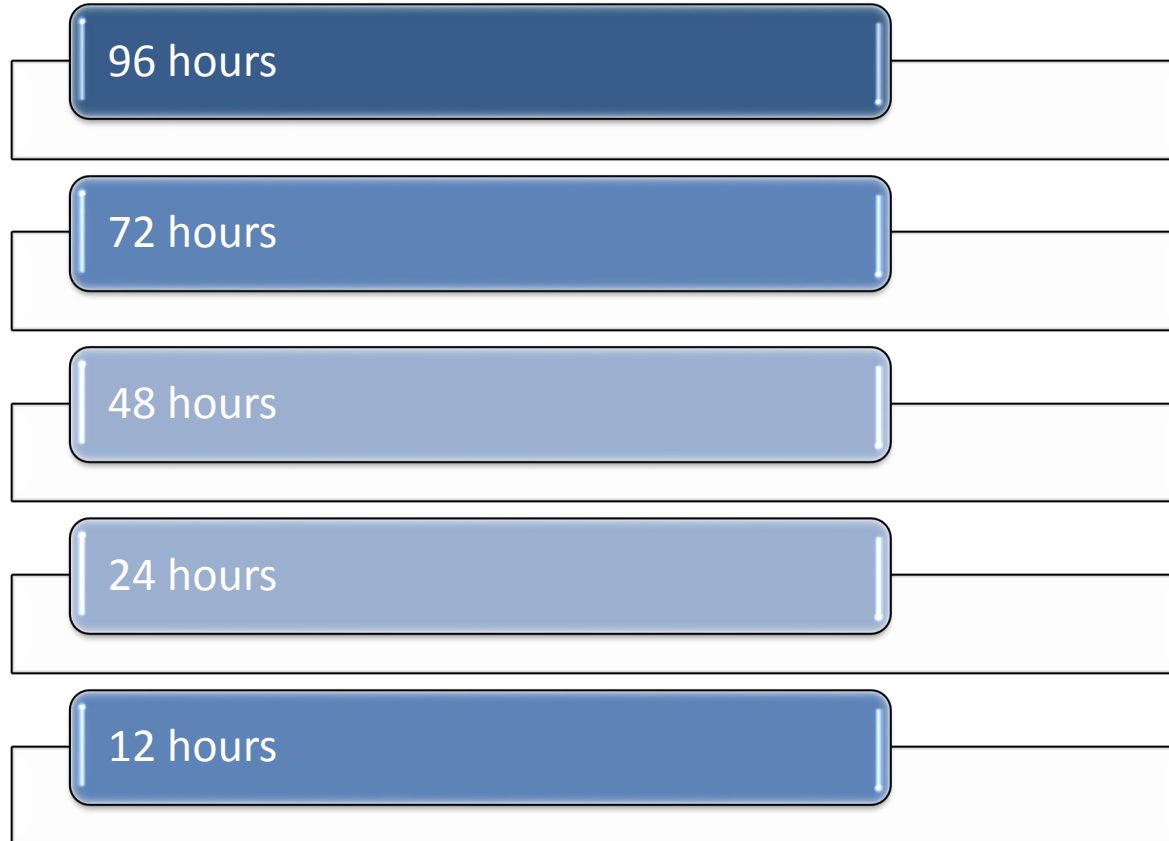
## Our Process

- Safety First
- National Incident Management System (NIMS)
- Incident Command System (ICS)



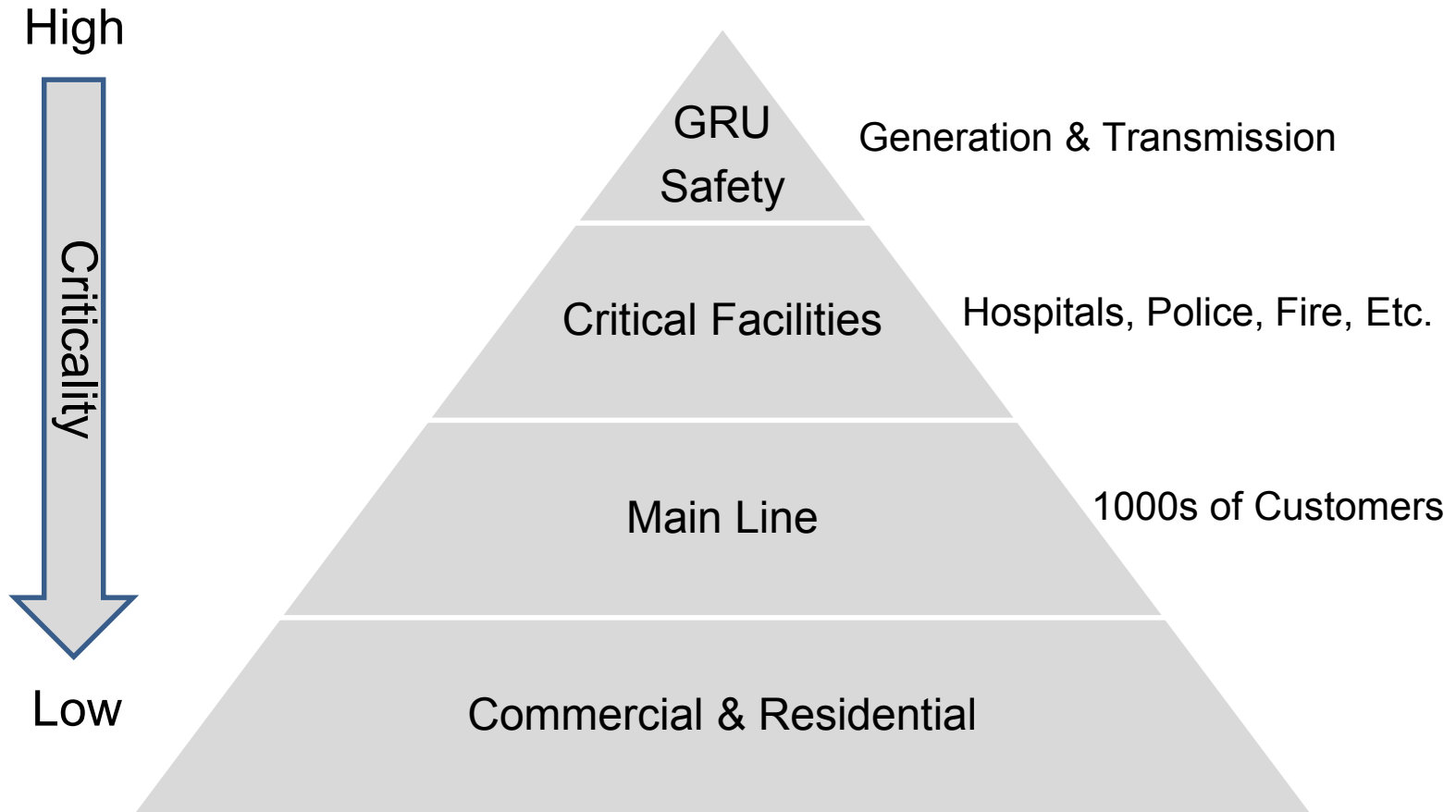
# GRU Emergency Management

*Countdown to Impact*



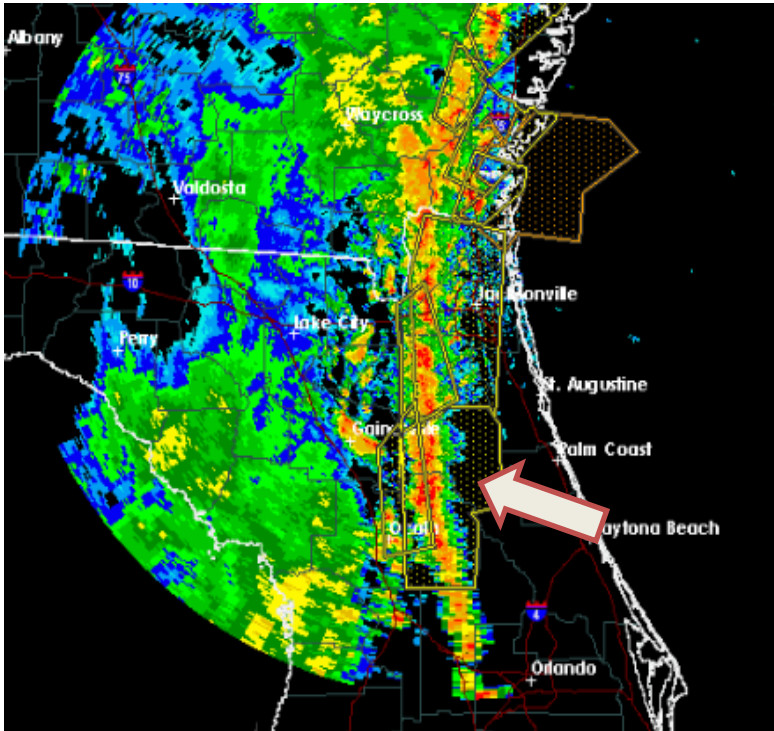
# GRU Emergency Management

## RESTORATION PRIORITIES

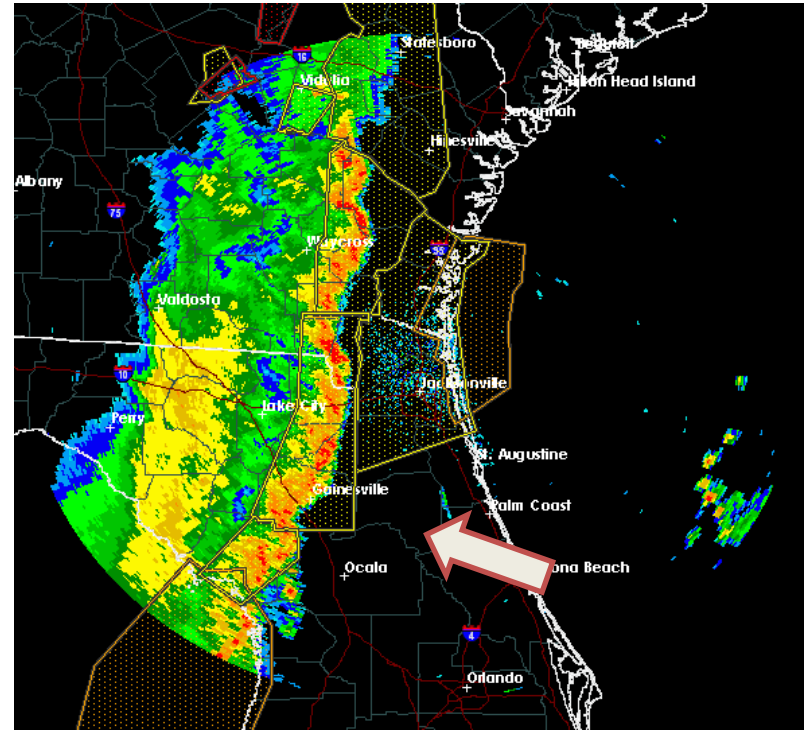


# *A Tale of Two Storms*

# GRU Emergency Management



Monday, April 15, 2018  
5 customer interruptions



Friday, April 19, 2019  
39,000 customer interruptions

# GRU Emergency Management



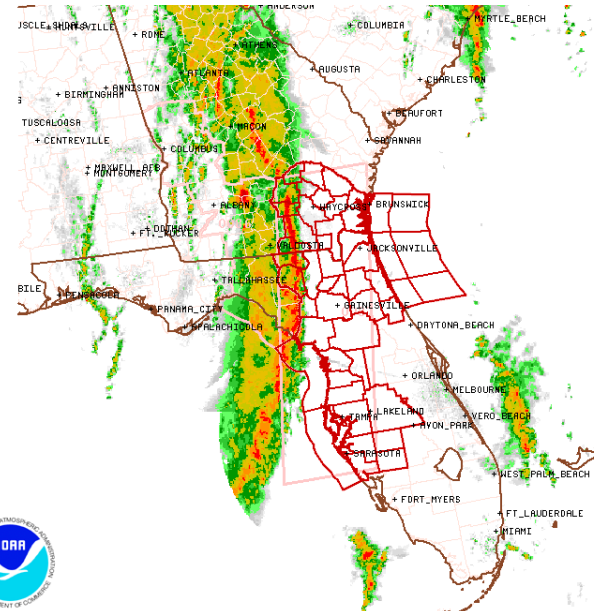
**NATIONAL WEATHER SERVICE**  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

**April 15, 2018** “... Squall line moved eastward ... producing numerous damaging wind reports and two tornadoes.”

**Tornadoes Track Across the Florida Panhandle and Southwest Georgia**



**April 19, 2019** “... A broken squall will likely persist into the afternoon while moving eastward ... embedded supercells will pose a treat for a couple of tornadoes and damaging gusts.”



**Tornado Watch # 87 - Valid from 1015 AM until 400 PM EDT**

NOAA/NWS/Storm Prediction Center

Updated: 20190419/1421 UTC



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April 15, 2018 - Gainesville

## Wind Speeds

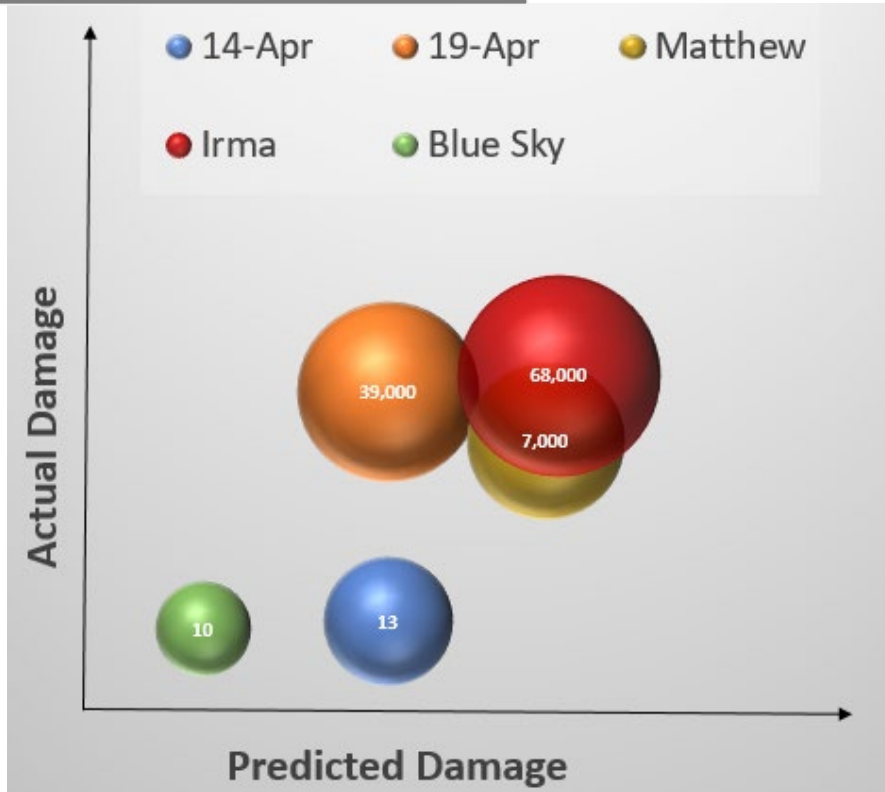
2:01 PM	68 ° F	65 ° F	90 %	W	23 mph	32 mph	29.7 in	0.0 in
2:06 PM	67 ° F	63 ° F	87 %	W	16 mph	33 mph	29.7 in	0.0 in

April 19, 2019 - Gainesville

7:44 AM	72 ° F	64 ° F	76 %	WSW	35 mph	53 mph	29.6 in	0.0 in
7:53 AM	69 ° F	63 ° F	81 %	WSW	32 mph	47 mph	29.6 in	0.0 in
7:56 AM	69 ° F	63 ° F	81 %	WSW	28 mph	47 mph	29.6 in	0.0 in
8:07 AM	68 ° F	63 ° F	84 %	SW	22 mph	36 mph	29.6 in	0.4 in

# GRU Emergency Management

## Scalability of ICS



■ Inherently difficult to predict and forecast certain storms

- Hurricane
- Tornado
- Lightning
- Afternoon thunderstorms

## April 19, 2019 Storm

Prepare

Respond

Recover

Mitigate

Train/Exercise

# GRU Emergency Management

## Prepare



# GRU Emergency Management

## Respond



# GRU Emergency Management

## Recover



# GRU Emergency Management

Recover



# GRU Emergency Management

Mitigate





# GRU Emergency Management

Train



# GRU Emergency Management

Friday, April 19, 2019 - Storm Notes

- 2 Transmission Line Outages
- ~39,000 (40%) customer interruptions (majority vegetation-related)
- ICS Gray Sky roles activated
- Mutual aid assistance requested and received
- ~32,000 customers restored within 8 hours
- By Sunday evening, 100% of power restored

# GRU Emergency Management

## Lessons Learned (what went well)

- Restored ~32,000 customers quickly
- Mutual aid called on time
- No major injuries; use of Personal Protective Equipment (PPE)
- Coordination/accommodations for hotels for mutual aid
- Employees stepped up and worked hard
- Utility Stores/Materials Unit well-trained and well-prepared for response

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## Lessons Learned (areas of improvement)

- Some employees lacked training on the new Outage Management System (OMS)
- Internal and external communication
- Consistent completion of ICS 214 Activity Log forms for FEMA reimbursement
- Continuing customer education

# GRU Emergency Management

## Short-term Implementations

- Expand customer education on system restoration and priorities
- Finish training of identified employees on the new OMS
- Continue vegetation management based on targeted approach
- Continue system hardening
- Continue employee training and exercises
- Establish new parameters for Social Media Advocacy Group

# GRU Emergency Management

## Needed Long-term Implementation

- Implement Smart Grid to integrate with the Smart City
  - Install Advanced Metering Infrastructure (AMI)
  - Deepen GRU's Distribution Automation program
- Continue targeted vegetation management
- Continue employee training and exercises



Questions?

