

2026 May Micro-Region | Disaster Season Preparedness: Synchronizing GIS Resources and Response

- Esri Disaster Response: [Esri Disaster Response Program | Maps, Software & Support with GIS Technology](#)
- [ArcGIS Solutions | Watch Center](#)
 - [Video Demo](#)
- [Streamline shelter operations with the new Emergency Shelter Management solution](#)
 - [ArcGIS Solutions | Emergency Shelter Management](#)



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Weatherproof Your Disaster Ops: Embedding Real-Time Weather into GIS Workflows



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Who is Baron Weather

Driven by a passion for science for over 35 years, we harness the power of innovative technology to **Weatherproof Your World** and foster a safer, more sustainable future.

We provide weather data that functions in any ArcGIS application globally.

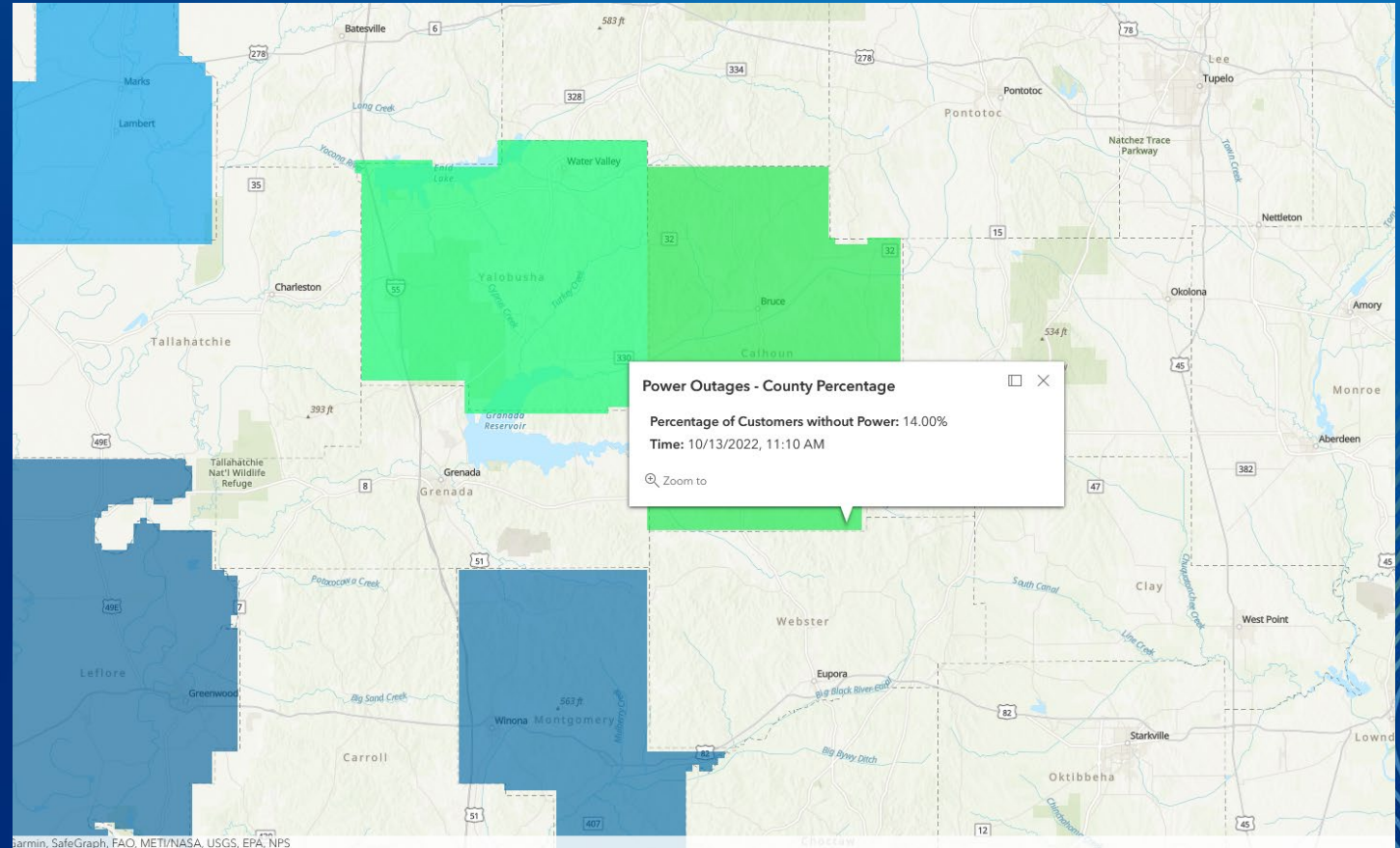


State and Local
Government
Specialty



Why Weather Matters

- Storms → Power Outages
- Temperature extremes → Warming/Cooling Centers
- Flooding → Infrastructure risk
- Lightning → Crew and Asset Safety



Subjectivity

Fragmented Weather
Monitoring Systems

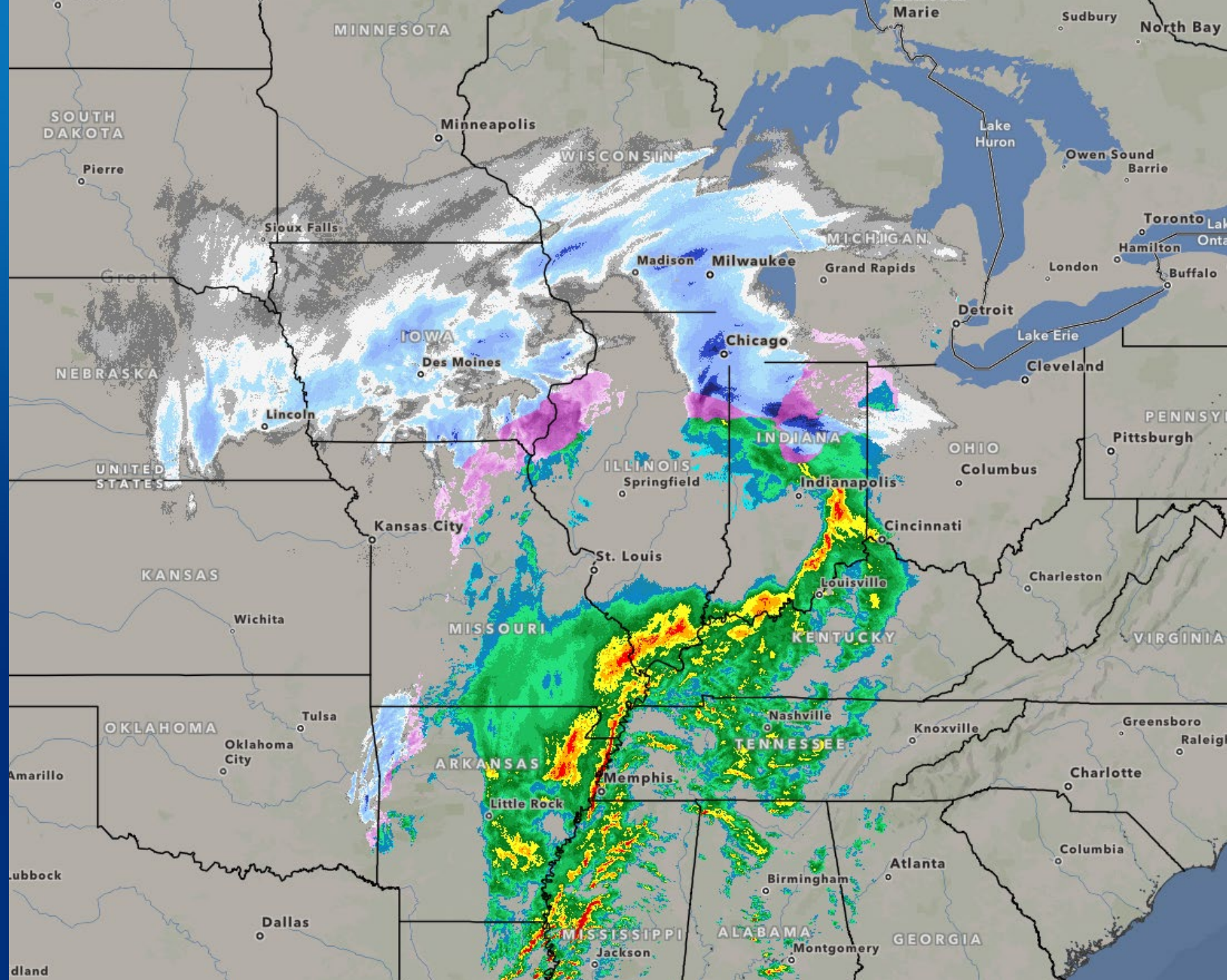
Common Challenges

Difficulty Aligning
with SOPs

Manual Workflows

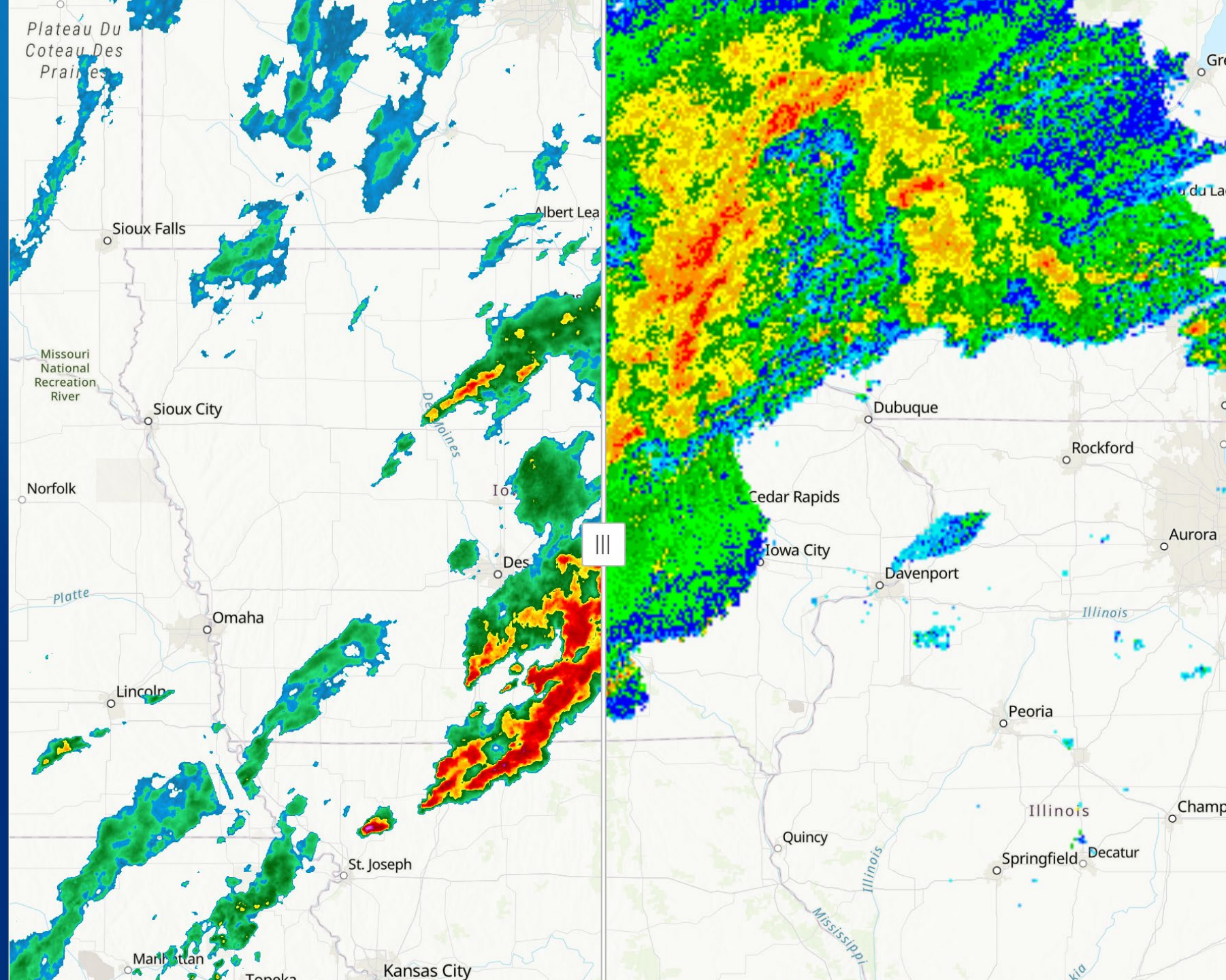
Types of Weather Data for GIS

- Real-time observations (temperature, wind, precipitation) for EVERYWHERE
- Forecast models
- Alerts and warnings



Desired Characteristics of GIS Weather Data

- Accuracy
- Full geographic coverage
- Analysis already performed
- Frequent updates
- Reliable/always available



The Public-Private Partnership



ArcGIS – GIS as a System

Decision-making made easier with dashboards and alerting.

Baron Weather – Value-added Data

Impact-based data that can be intersected with assets & people.

NOAA & NWS – The Federal Foundation

Official warnings, NEXRAD radars, and satellite data.

The Last Mile is the Most Useful



Capture and Store

Where's my stuff?
Geo-referenced points,
lines, & polygons in a
database.



Display and Present

Put my stuff on a map
with other data layers and
make it look good or tell a
story.



Analyze and Derive

Intersect, filter, buffer,
overlay, and manipulate to
inform better decisions.

Key Esri Tools in the Workflow



The Last Mile

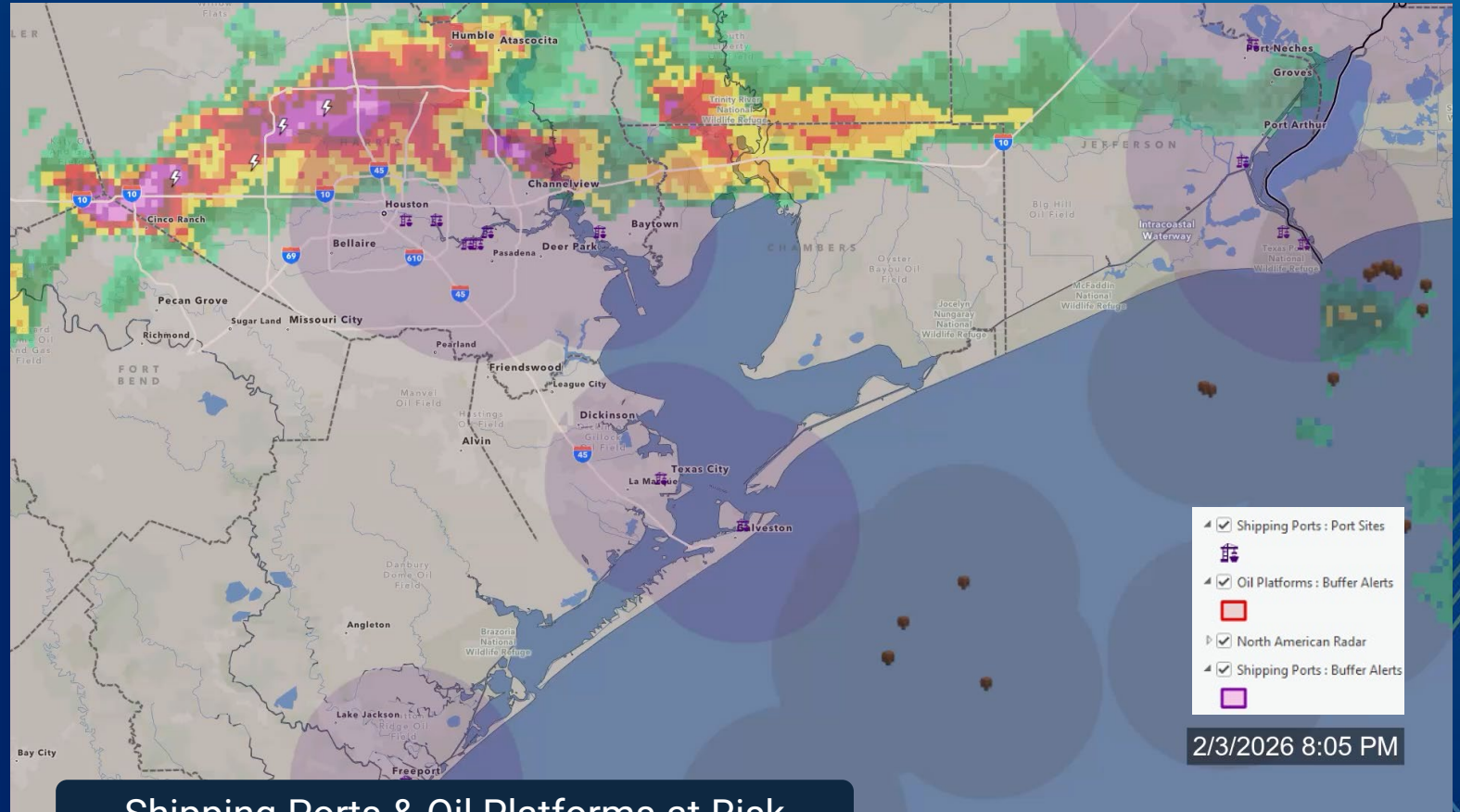
- Buffer zones around every asset at a 10-mile radius.
- Alert (symbology change) triggered when lightning strike enters the radius.
- Darker circles indicate more strikes (more risk).
- Waiting period of 30 minutes after last strike before alert disappears.



North American Radar & Lightning

The Last Mile

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Shipping Ports & Oil Platforms at Risk

ArcGIS Velocity for Scalable Real-Time Analytics

Cloud-based ingestion, analysis, and action

→ Branded connectors make the job even easier!

Example: monitor wind speeds at remote wind turbines





Automated Alerting with ArcGIS Velocity

Faster Decision
Making

Reduced Manual
Monitoring

Proactive Risk
Management

Integrated Weather & GIS Benefits

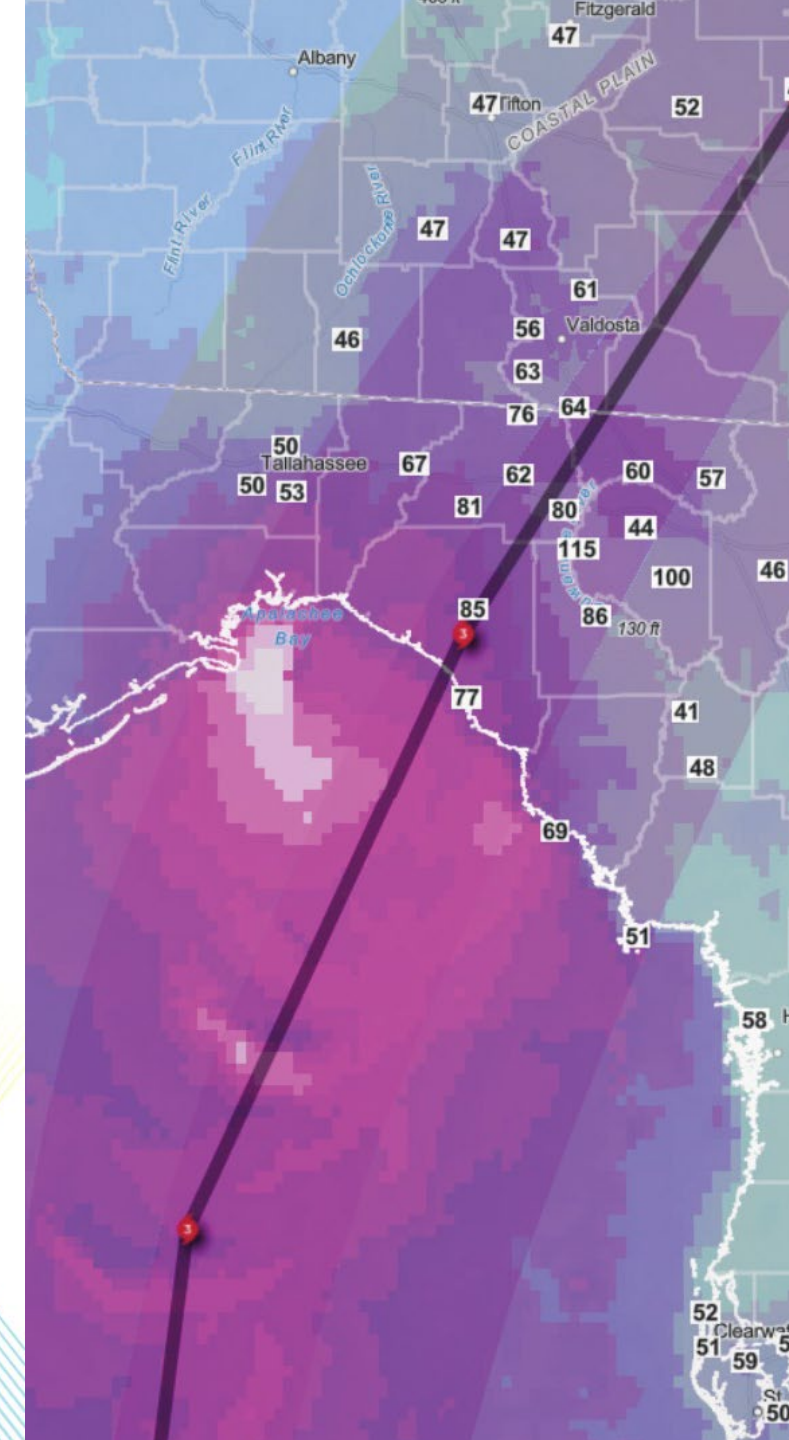
Enhanced Coordination
with Field Teams

Better Adherence
to SOPs

Framework for Deployment

1. Identify relevant weather layers
2. Connect to real-time feeds via ArcGIS
3. Configure maps, alerts, dashboards
4. Align with your particular needs

Result: Preparedness, Efficiency, Safety





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Thank You!



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