Georgia DOT’s Experience with System Resilience: Learning from Past Experience

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System disruptions GDOT has faced:

- Hurricanes
- Tornados
- Flooding
- Ice and snow storms
- Wildfires
- I-85 Bridge collapse and other incidents
• ATLANTA ICE STORM: January 29, 2014—worst ice storm in decades (3 to 5 inches)

• Rapid changes in storm dynamics did not allow accurate predictions of where severe impacts would be

• Some motorists stuck for 24 hours; over 10,000 abandoned cars

• Because of clogged highways, salt trucks unable to treat roadways

• Strong political backlash as event became national news
Governor Deal’s Executive Order February 4, 2014
Severe Winter Weather Warning & Preparedness Task Force
• GEMA hired State Meteorologist and expanded its connection to the National Weather Service for improved advanced warning.

• Road Weather Information Sensors (RWIS) have been put in place to get a better handle on what is happening with respect to traffic conditions on the road network

• Better data tools: WebEOC, Bridge Watch, Find My Plow, Expanded ITS
OPERATIONAL PLANNING AND DESIGN

Create Incident Button
Click on this button to create a new incident report.

Select Button
Click on this button to view the report on this incident.

Update Button
Click on this button to update an incident.

Color Code
- A. Yellow - Passable
- B. Red - Blocked
- C. Green – Open
- White – Unverified status recorded
OPERATIONAL PLANNING AND DESIGN

- Multi-Agency “strike teams”
- Contracts with Tow companies, contractors
Policies and Regulation

- Governor budgeted $15 million for GDOT to make changes so that “it would never happen again.”
- New GDOT position called Manager of Emergency Operations was created.
- New procedures and approaches, such as putting brine on Interstates in anticipation of ice, pretreating roads and using agriculture vendors for salt supply have been adopted.
- Construction of additional salt barns and a bulk salt storage facility
- A new GDOT policy was established to not send GDOT teams into a disaster area without the state patrol accompanying them.
- Communication from the state level is a unified response from all agencies
EMERGENCY RESPONSE

• GDOT added a dedicated radio service for multi-agency field communications.
• GDOT’s Web EOC expanded for all GEMA reporting.
• Expansion of the Navigator System to more highway coverage has been pushed forward.
• GDOT had not been allowed to work off the state highway system until a gubernatorial disaster declaration; this has now changed to allow GDOT forces to work for 24 hours on the off-state highway system during disasters without gubernatorial approval.
• Real time dry-runs required with all involved agencies – names, communications, routes
Lessons Applied to the Bridge Deck Collapse – Thursday
March 30, 7:00 PM

• Within moments of collapse, state agencies and FHWA began to report to the Emergency Operations Center
• Immediate collaborative effort between state patrol, local police and fire, GDOT on clearing trapped traffic and putting road closures and detours into place
• Police escort for all GDOT maintenance trucks and contractor vehicles
• Unified communications – 11 PM news conference on site with Governor, State Agencies, Transit, Federal Agencies, City of Atlanta
• Continued collaboration throughout rebuild
After burning for 45 minutes, a northbound span collapsed.
Challenge: Local Government and EMA Coordination

• Made easier with unified front at state level
• GEMA takes lead but all agencies involved
• Continuous communication and education; before, during, after, and in-between
Team Georgia -- Major Conclusions

• Partnerships are the key to success.....especially between state and local agencies

• A resilient state DOT needs to learn from experience

• Must anticipate characteristics of possible future disruptions and put appropriate strategies and institutional structures in place

• Changes to improve state DOT performance will occur agency wide -- operational planning, procurement, traffic operations, maintenance and emergency response
Questions?
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