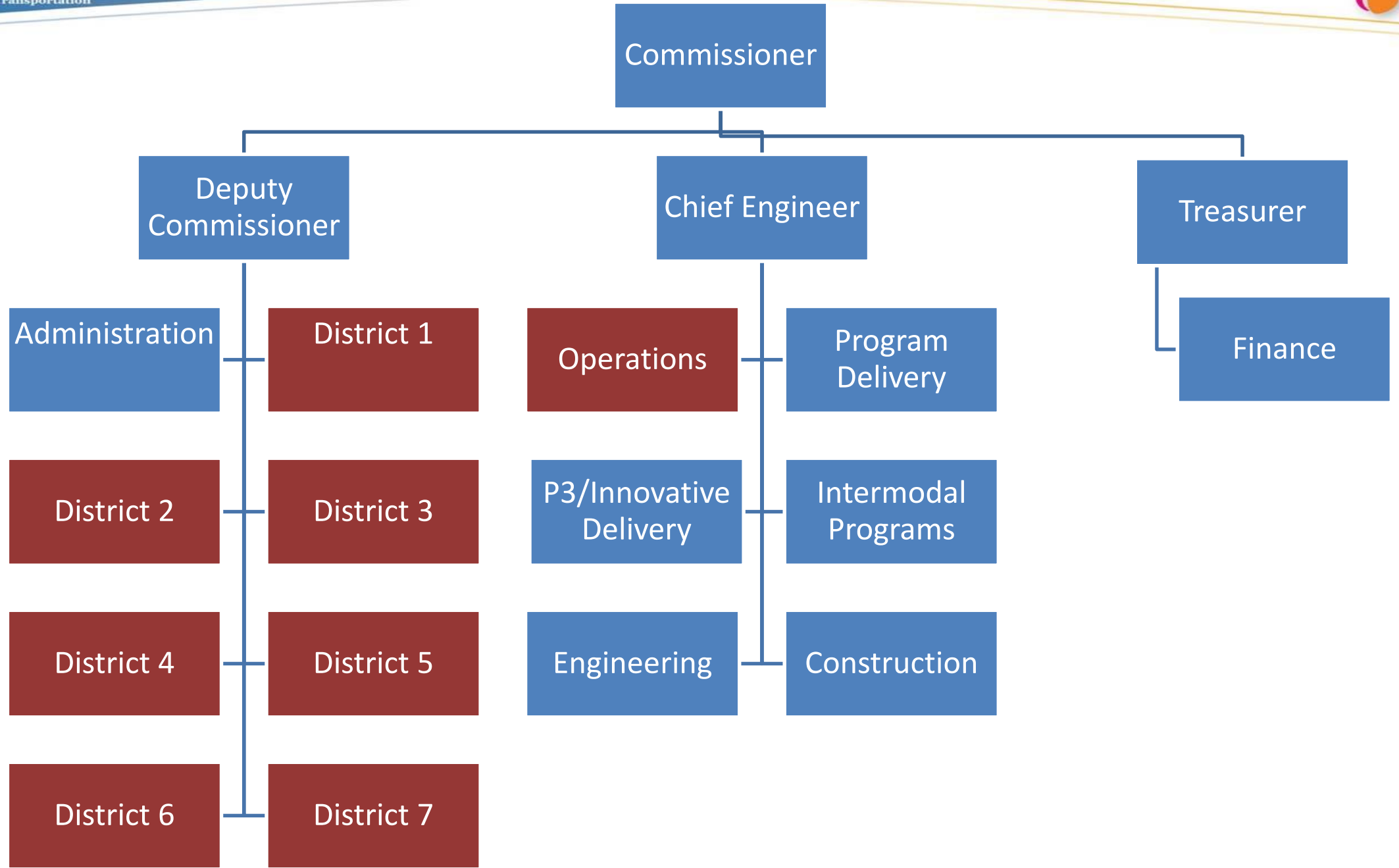


Georgia DOT and System Resilience: Learning from Past Experience

John L. Hibbard, P.E., Operations Director
Georgia Department of Transportation



System disruptions GDOT has[^] faced: *(recently)*

- Hurricanes
- Tornados
- Flooding
- Ice and snow storms
- Wildfires
- I-85 Bridge collapse



Snowmageddon: 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
- Because of clogged highways, salt trucks unable to treat roadways
- Some motorists stuck for 24 hours; over 10,000 abandoned cars
- Strong political backlash as event became national news



Governor Deal's Executive Order February 4, 2014 Severe Winter Weather Warning & Preparedness Task Force



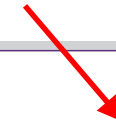
Operational Planning and Design


- GEMA:
 - Hired State Meteorologist
 - Improved relationship with National Weather Service
- GDOT:
 - Installed Road Weather Information Sensors (RWIS) to provide more information about road conditions
 - Has better 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.





Georgia Transportation Emergency Management

Incident: Daily Operations - 2015 Apr-Jun

Assigned to District:

Assigned to Area:

Assigned to Position:

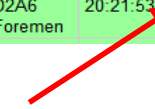
Status:

Search:

Incident District	County	GDOT Incident Name	State Route Number	Interstate	Beginning MP	Ending MP	Direction	Affected Lane Description	Initial Conditions	Initial Status	Current Status	Current Conditions	Number of Lanes Passable	Bridge Closed	Assigned To	Last Updated	Details	Update
009	Baldwin	Test 2 Map	24		17.60	17.60	NB	3 (Next Right lane)	Accident/Crash	Closed/Blocked	Passable	Accident/Crash	All	(Select)	GDOT-AEOC-D2A6 Foremen	08/18/2015 10:34:55	<input type="button" value="Select"/>	<input type="button" value="Update"/>
009	Baldwin	Test Map	002400	00016	16.70	16.70	Increasing (NB/EB)	1 (Inner/Left-most lane)	Accident/Crash	Closed/Blocked	Closed/Blocked	Accident/Crash	All	(Select)	GDOT-AEOC-D2A6 Foremen	08/18/2015 10:33:20	<input type="button" value="Select"/>	<input type="button" value="Update"/>
District Two - Tennesse	Baldwin	Map	004900		0.00	0.00	Both	9 (Outer/Right-most lane)	Accident/Crash	Closed/Blocked	Open	Accident/Crash	All	(Select)	GDOT-AEOC-D2A6 Foremen	07/10/2015 20:21:53	<input type="button" value="Select"/>	<input type="button" value="Update"/>

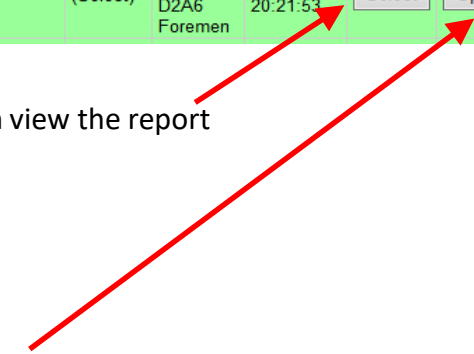
Select Button

Click on this button 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



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 created: Manager of Emergency Operations
- 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 bulk salt storage facilities
- New GDOT policy: 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

Brine!



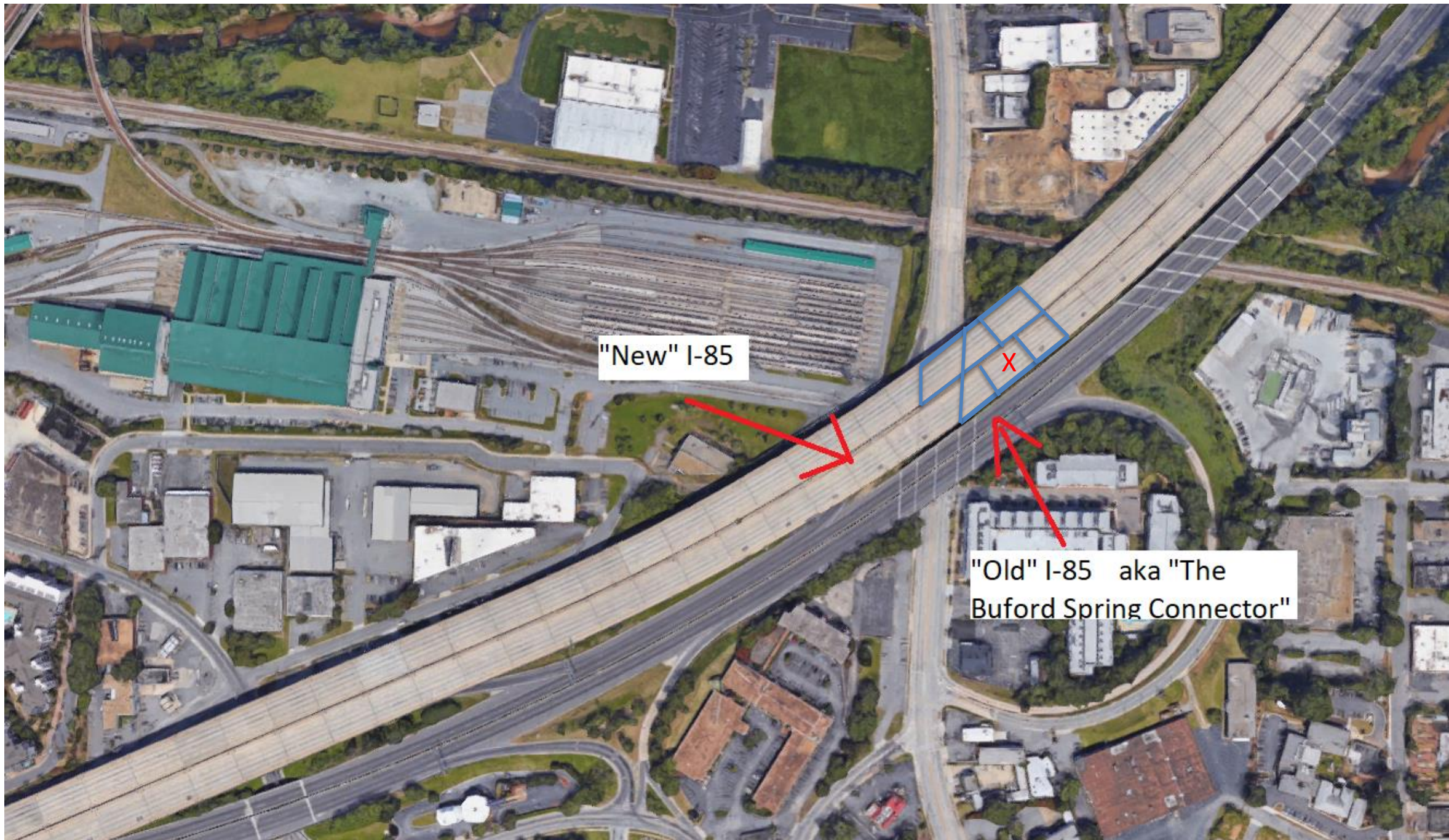
Emergency Response

- GDOT added a dedicated radio service for multi-agency field communications
- GDOT's Web EOC expanded for all GEMA reporting
- Navigator System expansion accelerated
- Previously, GDOT had not been allowed to work off the state highway system until a gubernatorial disaster declaration
 - 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

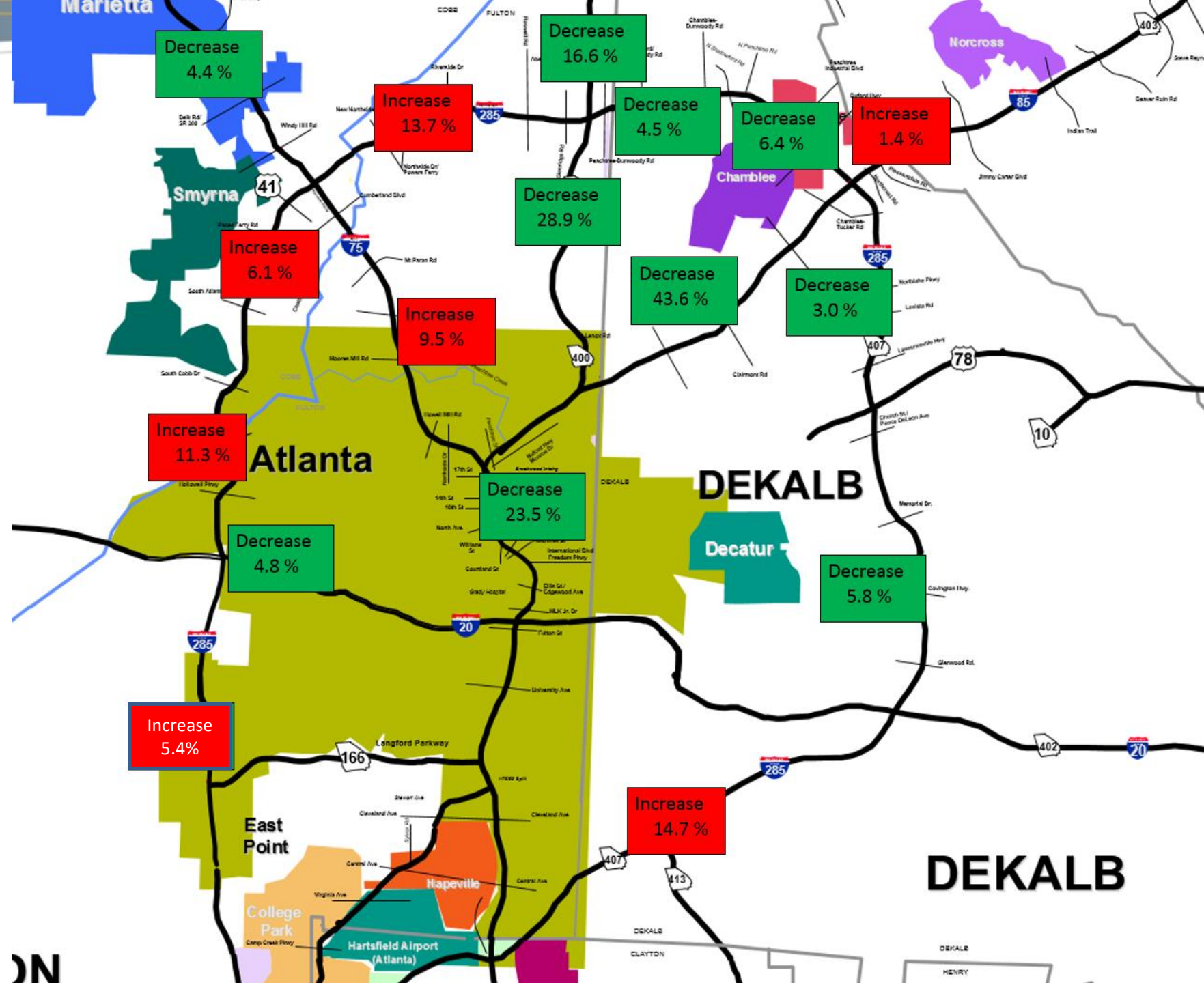


"New" I-85

"Old" I-85 aka "The
Buford Spring Connector"

Traffic Changes due to Collapse

Overall, there was a 7% reduction in traffic in the region during the closure period





Traveler Information Impact

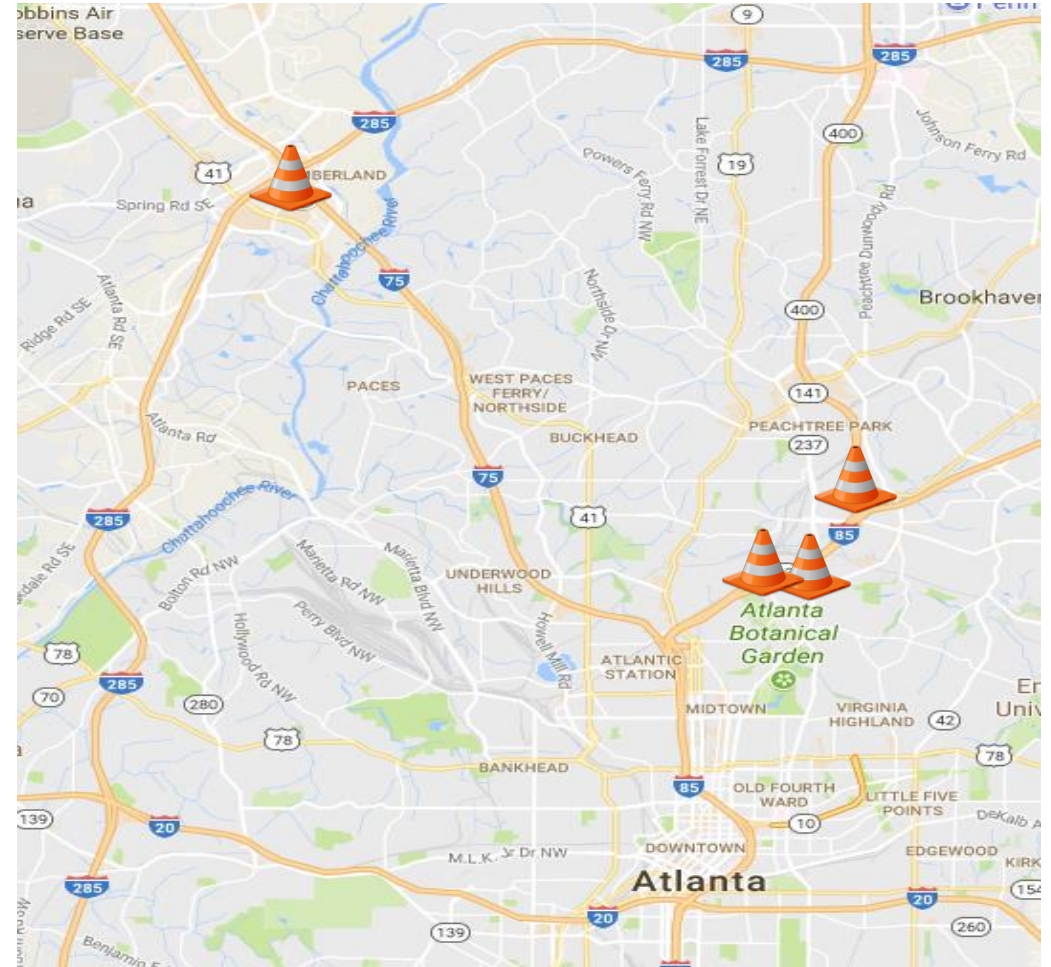
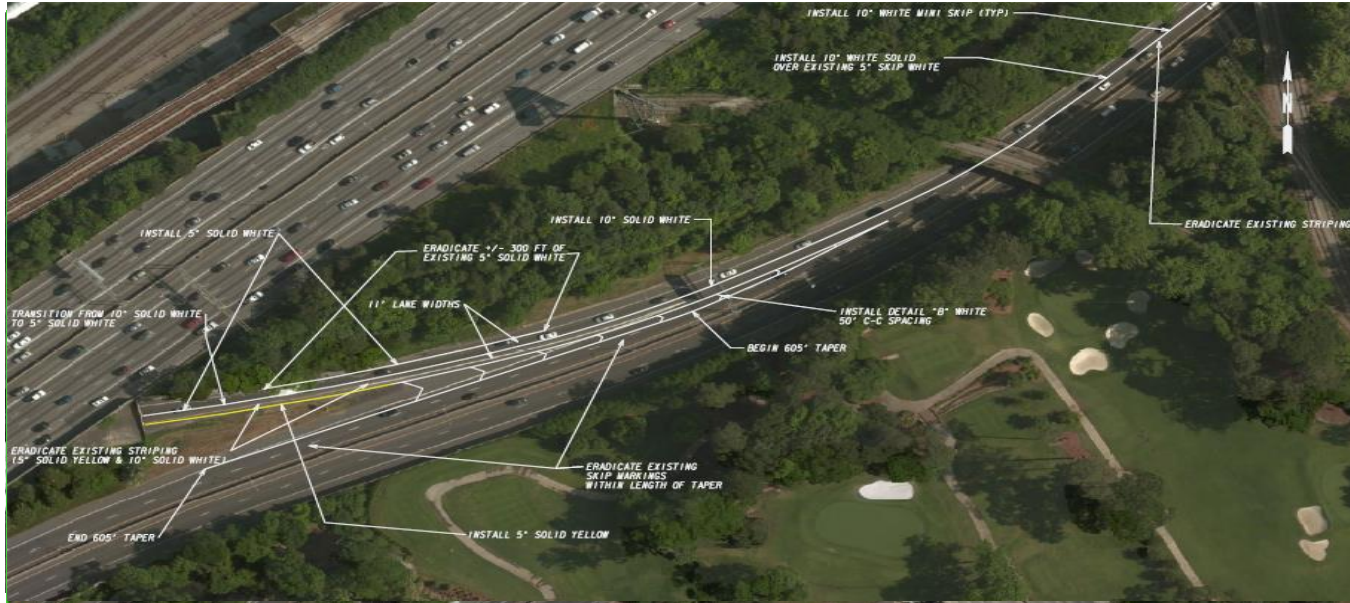
	511 Calls	Peak calls in 1 day	Peak calls in 1 hour
Jan	67,214	6,632	831
Feb	48,195	4,720	643
Mar	81,880	11,693	1,319
Apr	86,377	7,222	977

	Website Usage
Week prior to collapse	28,000
1 st week after collapse	83,000
2 nd week after collapse	79,500
3 rd week after collapse	56,000
4 th week after collapse	52,100
5 th week after collapse	39,600



Quick Response Projects

Pinpointing the Best Response





NAVIGATOR

GDOT-CAM-143
SR 13/BUFORD HWY AT PIDMONT



511
Travel Info
Video courtesy of GDOT



Thu, Mar 30 at 10:58 PM
CAM-143 - SR 13 BUFORD HWY AT PIDMONT
2017 GDOT - <http://511ga.org>

18:57

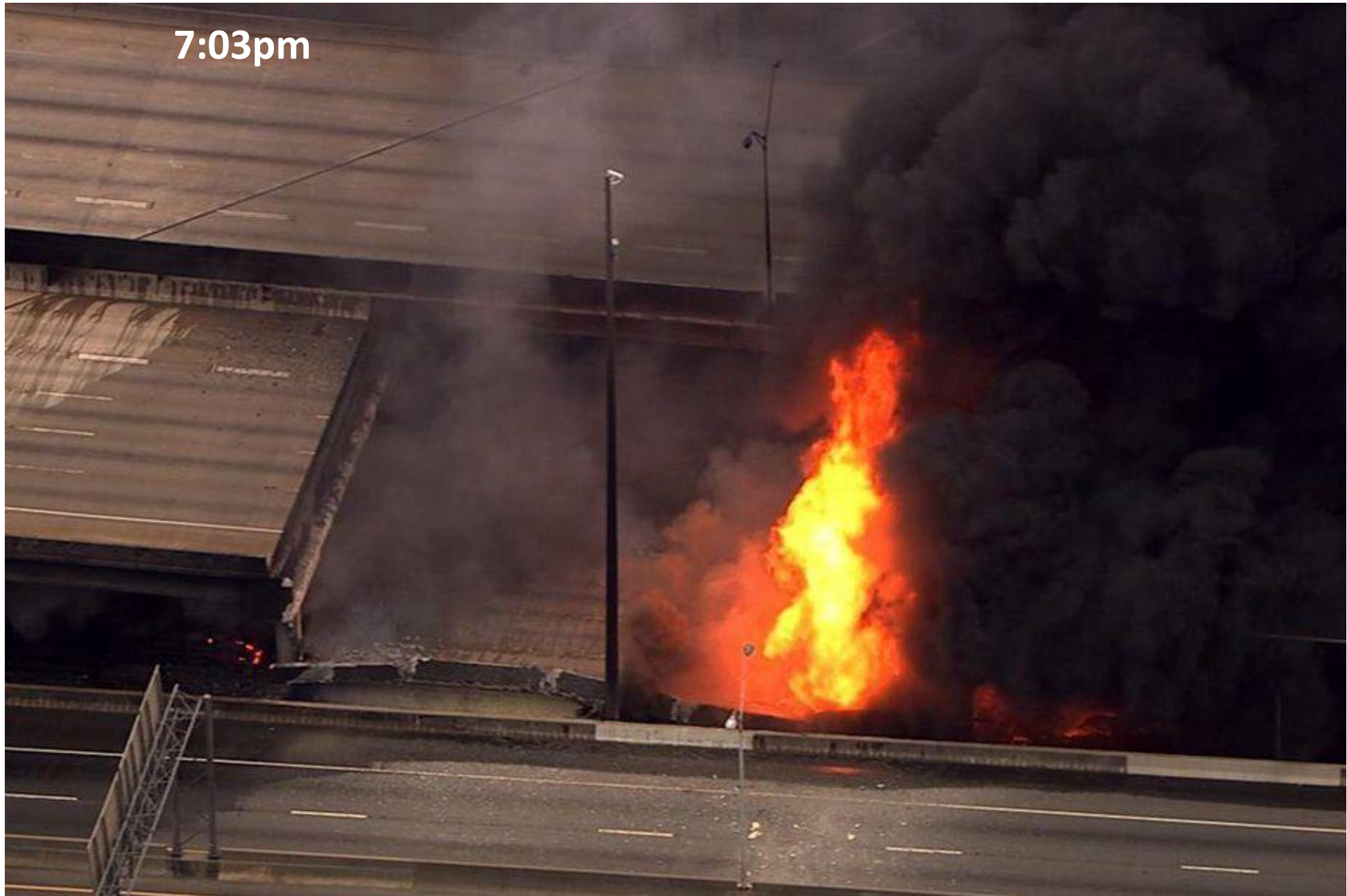
GDOT-CAM-036
I-85 S AT MONROE DR

100%

511
Travel Info
Video courtesy of GDOT



7:03pm





Interstate 85 Bridge Rebuild – Thursday afternoon, April 6, 2017



May 13, 2017

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?

John L. Hibbard, P.E., Director of Operations

Georgia DOT

404-631-1400



GEORGIA FORESTRY
COMMISSION

