Welcome to the 2017 Southeastern State Equipment Managers Conference

Jeffrey Hill
Chief Information Officer
Georgia Department of Transportation
Why is the C.I.O. for GDOT presenting at the State Equipment Managers Conference?
How can we take advantage of technology for Emergency Operations and day-to-day operations?
How can we take advantage of our data warehouse and our applications?
What happens during the first 24 hours of an event?
WebEOC was implemented with the following requirements:

- Single Sign On/Active Directory
- Custom Geocoding Requirements
- Route Geocoder
- Address Geocoder – Lat/Long - Reverse Geocoding
- External Views
- GDOT Transportation Incident Management Board
- GDOT Transportation Incident Management Input Views
- iPhone Views
- GDOT Transportation Incident Management Log Views
- Notifications
- Dashboard
- Image Mapper – External Views
**Capability to Open different boards simultaneously using Control Panel**

<table>
<thead>
<tr>
<th>Boards</th>
<th>After Action Review (AAR)</th>
<th>GDOT District Salt Barn Levels</th>
<th>Links</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GDOT Incident Management</td>
<td>GDOT Incident Management Phone</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GDOT Major Incidents</td>
<td>GDOT Vehicular Incidents (Road Only)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GDOT Public Safety (Road Only)</td>
<td>GDOT Incident Management Phone</td>
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</tbody>
</table>

**Georgia Transportation Emergency Management**

<table>
<thead>
<tr>
<th>State Route Number</th>
<th>Interstate</th>
<th>Region</th>
<th>End Mile</th>
<th>Description</th>
<th>Initial Conditions</th>
<th>Initial Status</th>
<th>Current Status</th>
<th>Current Conditions</th>
<th>Number of Lanes Affected</th>
<th>Bridge Closed</th>
<th>Assigned To</th>
<th>Last Updated</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
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<td>001</td>
<td>001</td>
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</tr>
</tbody>
</table>

**Tools**

- Dashboards
- Messages
- Plugins
- NWS Weather Alerts

**Maps**

- 200 EAT AT NEWBORN ROAD
- 001
- 001
- 001
- 001

**Districts**

- 001
- 001
- 001
- 001

**Searches**

- Active Incidents
- Archived Incidents
Sample screens to show Actual Incident and other Incidents on the GDOT Mapper

### Georgia Transportation Emergency Management

<table>
<thead>
<tr>
<th>Incident District</th>
<th>County</th>
<th>GDOT Incident Name</th>
<th>State Route Number</th>
<th>Begin MP</th>
<th>End MP</th>
<th>Direction</th>
<th>Affected Lane Description</th>
<th>Initial Conditions</th>
<th>Initial Status</th>
<th>Current Status</th>
<th>Current Conditions</th>
<th>Number of Lanes Passable</th>
<th>Bridge Closed</th>
<th>Assigned To</th>
<th>Last Updated</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Seven-Chamblee</td>
<td>Cobb</td>
<td>NORTHBOUND SR 3 AT CANTON HWY</td>
<td>00230</td>
<td>58.06</td>
<td>58.06</td>
<td>Increasing Traffic</td>
<td>ALL LANE BLOCKED</td>
<td>Accident</td>
<td>Closed</td>
<td>Closed</td>
<td>Accident</td>
<td>2</td>
<td>GDOT AECO-Formentor</td>
<td>04/20/2016 23:54:49</td>
<td>View</td>
<td></td>
</tr>
</tbody>
</table>
WebEOC: Creating An Incident

Select Geocode Method
You will select the county and others from the drop down list and hit Retrieve Information.

Initial Status
- Open
- Passable
- Closed/Blocked
- Extended Closure

Incident location details are auto retrieval based on Geocode.
# WebEOC: Creating An Incident

## Action Taken

<table>
<thead>
<tr>
<th>Date/Time Unite on Scene</th>
<th>Date Treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Select)</td>
<td>(Select)</td>
</tr>
</tbody>
</table>

## Material Used

- [ ] Cause cannot to update

## How Many Times Treated

- [ ]

## Comments

Add Comments & History of comments

## Comments History

## Assignment Details

<table>
<thead>
<tr>
<th>Assign To District</th>
<th>Assign To Area</th>
<th>Assign to Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Select)</td>
<td>(Select)</td>
<td>(Select)</td>
</tr>
</tbody>
</table>

## Notifications

- Chestdick Hendon (shitdon@dot.ga.gov)
- Jeffrey Hill (jli@dot.ga.gov)
- DOT-Charles Jimmy (joyd@dot.ga.gov)
- DOT-Sam Wheeler (wheeler@dot.ga.gov)
- DPS-JAMES NARMORE (jarmore@dot.ga.gov)

## Information Routing

- Major Incident: [ ] No [ ] Yes
- Restrict to GDOT: [ ] No [ ] Yes

All Major Incidents will be published to GEMA.

Assignment of the Incident

Notifying Teams
WebEOC: Creating An Incident using iPhone

Time Saving Feature on iPhone to retrieve location information

Click to create a new incident.
You can select incidents by:
- Districts
- Status Type
- Assigned to

Click the Select button to view the report on this incident.
Click the Update this button to update an incident.

- White—No Status Recorded
- Red—Closed/Blocked
- Yellow—Passable
- Green—Open
Web EOC being updated in the field in real-time
GDOT Tracker App

Select
Team: * BRAVES
Vehicle #: 124-1646
Shift: * FIRST
*All above fields are required.

Track
Your location is not currently being tracked.

Tap “Track” to enable tracking of your location. Tap “Pause” to stop the tracking. Tapping “Pause” does not close the Tracker app, it only suspends tracking of your location until you tap “Track” again.
Tracking vehicles with phones
Winter Weather Interstate Brine Teams (for road de-icing)
<table>
<thead>
<tr>
<th>Report Time</th>
<th>Location</th>
<th>Speed</th>
<th>Security</th>
<th>Ignition</th>
<th>Engine Hour</th>
<th>Odometer (m)</th>
<th>Windshield Hour</th>
<th>Idle Hour</th>
<th>Messages</th>
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</thead>
<tbody>
<tr>
<td>01/05/2017 15:43:19</td>
<td>33.60975, -84.39227</td>
<td>0.0</td>
<td>Off</td>
<td>On</td>
<td>54:58:27</td>
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<td>21:16:19</td>
<td>33:42:08</td>
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<tr>
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<tr>
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<td>On</td>
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<td>On</td>
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<td>On</td>
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<td>On</td>
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<tr>
<td>01/05/2017 20:02:35</td>
<td>33.61048, -84.39105</td>
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<td>On</td>
<td>55:08:01</td>
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<td>21:16:19</td>
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<tr>
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<td>55:08:05</td>
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<tr>
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<td>On</td>
<td>55:08:12</td>
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<td>33:51:49</td>
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</tr>
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<td>On</td>
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</tr>
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<td>On</td>
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<td>On</td>
<td>55:13:18</td>
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<tr>
<td>Report Time</td>
<td>Location</td>
<td>Heading</td>
<td>Speed</td>
<td>Ignition</td>
<td>BRINE</td>
<td>Odometer (Miles)</td>
<td>Engine Hours</td>
<td>Windshield Hours</td>
<td>Idle Hours</td>
</tr>
<tr>
<td>-------------------</td>
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<td>1/5/2017 7:54:01 PM</td>
<td>33.6105, -84.39103</td>
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<td>SPREADING</td>
<td>895</td>
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<td>33.6105, -84.39105</td>
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<td>33.61048, -84.39105</td>
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<td>2</td>
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<td>OFF</td>
<td>895.1</td>
<td>55:08:01</td>
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<td>33:51:42</td>
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<td>1/5/2017 8:02:40 PM</td>
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<td>55:08:33</td>
<td>21:16:32</td>
<td>33:52:01</td>
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</tbody>
</table>
## Material Usage Report

**Start Date:** 1/5/2017 12:00:00 AM  
**End Date:** 1/5/2017 11:59:00 PM  
**Asset Selection:** All  
**Geofences:** All  

### Run Report  
### Export To Excel

### DPS Winter Ops

<table>
<thead>
<tr>
<th>Asset</th>
<th>Distance</th>
<th>Engine Hours</th>
<th>Distance Spreading</th>
<th>Salt Distance</th>
<th>Salt Total</th>
<th>Average Salt Rate</th>
<th>Salt Blast Count</th>
<th>Pw1 Distance</th>
<th>Pw1 Total</th>
<th>Average Pw1 Rate</th>
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<tbody>
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<td>60.5</td>
<td>60.5</td>
<td>58464.3</td>
<td>966.7</td>
<td>1</td>
<td>--</td>
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<tr>
<td>652</td>
<td>68.6</td>
<td>4:41:40</td>
<td>43.6</td>
<td>43.6</td>
<td>43781.5</td>
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<td>1111.4</td>
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</tbody>
</table>
Communications
Logic in the design

Example for District Two

District Office Base Station 2-2-0-0-0
District Engineer 2-2-0-0-1
Area Office (1-5) 2-2-1-0-0
Area Engineer 2-2-1-0-1
Assistant Area Engineer 2-2-1-0-2
Permits Inspector 2-2-1-0-3
Asphalt Shop 2-2-6-0-0
Sign Shop 2-2-7-0-0
Bridge Shop 2-2-7-5-0
Traffic Operations 2-2-8-0-0
Maintenance Shop 2-2-9-0-0
15 Traffic Strike Teams
(Originally Activated)

1 Trooper, 1 MCCD Officer, 1 DNR Ranger, 1 GFC Ranger, 1 HERO Unit and 1 DOD Humvee per Team

DOD Humvee    HERO    GFC    DNR    MCCD    GSP Humvee

Traffic Strike Team members will not stay together as a group while patrolling their assigned routes. The routes will be better covered if the team members separate and continue patrolling while other team members are assisting motorists. The team members will make continuous loops on the designated routes to ensure no area along the route goes unpatrolled for an extended period of time.
10 Brine Truck Escort Teams

1 Trooper or MCCD Officer per Brine Truck
Salt Treatment on Interstate Routes in Metro Atlanta: GDOT Salt Truck Escort Team; GSP, MCCD, and DOR
Hurricane Matthew

- Real-time updates
- Situation awareness
- Interagency Communication - first time in Georgia
- Real-time tracking of vehicles, strike teams, staging areas, reentry teams, etc.
TMC
(Transportation Management Center)

- Officially known as the Wayne Shackelford Building
- Immediately adjacent to Georgia Emergency Management Agency
- State Patrol also on site
TMC Operations Floor

- Six 3-person consoles
- Supervisor Desk
- 18 x 24’ video wall
- Surrounded by offices
- Gallery view upstairs
Coordinated Highway Assistance & Maintenance Program
Coverage Area (Atlanta region)

- 600+ Traffic cameras
- 110 message signs
- 2200 detection stations
- 170 ramp meters
- 280 miles of fiber
- 28 Hub buildings
Devices Employed
Provide Information

- Navigator website, 511, message signs inform travelers of current conditions
- Well-informed travelers can avoid trouble spots
- Helps balance traffic flow on the network
Strategies to Keep Traffic Moving

• TRIP program
  (Towing Recovery Incentive Program)

  ▪ Aims to clear big truck crashes in 90 minutes
  ▪ Pays incentive to tow operators
Travel Times

- Run 5 am to 10 pm
- Completely automated
- Recalculated every minute
- Lower priority level
- Recently changed algorithm
Ramp Meters

- Nearly all ramps in metro Atlanta are now metered (170)
- Exceptions: I-675, SR 166, I-285 SE, SR 141
- Built as part of Fast Forward
- Operate mostly during peak hours
Ramp Meters

• Without meters, entrance ramp traffic affects the flow of the mainline.
• “Platoons” of vehicles force their way on, causing mainline traffic to brake
Ramp Meters

• With meters, entrance ramp traffic is broken up - one car at a time (every 3-4 seconds)
• Entrance ramp traffic merges more easily, easing mainline congestion
## Other Ramp Meter Results

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Before Travel Time</th>
<th>After Travel Time</th>
<th>Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>75/85 NB Langford to I-20</td>
<td>11</td>
<td>7.5</td>
<td>32%</td>
</tr>
<tr>
<td>I-285 WB GA 400 to I-75</td>
<td>16</td>
<td>13.5</td>
<td>16%</td>
</tr>
<tr>
<td>I-75 NB I-285 to Wade Green Rd</td>
<td>26</td>
<td>20</td>
<td>23%</td>
</tr>
<tr>
<td>I-75 SB Wade Green to I-285</td>
<td>25</td>
<td>19</td>
<td>24%</td>
</tr>
<tr>
<td>I-285 NB from US 78 to I-85</td>
<td>10</td>
<td>7.5</td>
<td>25%</td>
</tr>
<tr>
<td>I-85 NB from 285 to Pleasant Hill</td>
<td>24</td>
<td>15</td>
<td>38%</td>
</tr>
</tbody>
</table>
Questions?

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