



Winter Weather Plan and Preparedness Efforts/2016



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GEORGIA DOT WINTER WEATHER PLAN AND PREPAREDNESS EFFORTS/2016

Georgia DOT's Winter Weather Response Plan focuses on proactive and preventive efforts.

GENERAL FACTS

Georgia DOT's Priorities

- The Department's first priority is to keep the Interstate System open and passable for emergency responders and essential travel. Georgia DOT maintenance forces will treat all affected lanes on the interstates. However, depending on the severity of the storm, some lanes may be closed.
- Second priority is the highest volume state routes; focusing on the most traveled routes first, keeping them open for emergency travel. Two-lane state routes may be closed to traffic until they are safe; or cities and counties may choose to work on those roadways.

Dealing with Black Ice

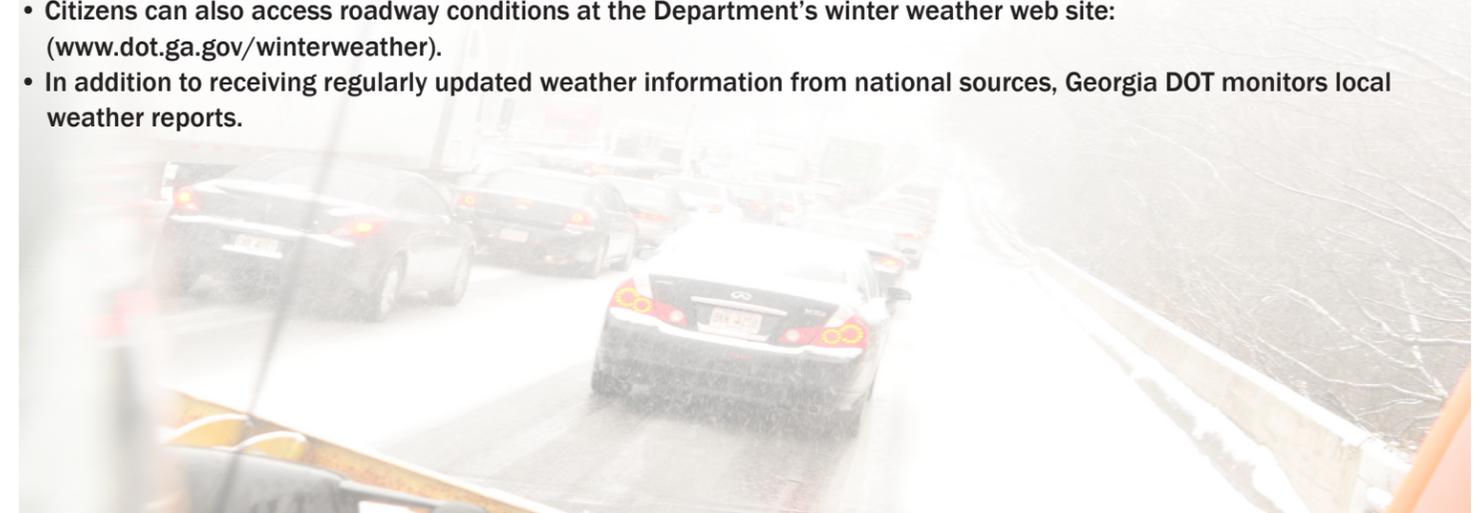
- Whenever there's a winter weather event, the threat of black ice on all roadways is possible.
- Black ice is a thin, often invisible sheet of ice that forms on the roadway, especially on bridges and overpasses and low lying areas. It can form at any time when temperatures drop below freezing and there is any form of moisture, from sprinklers, run-off or precipitation on the road way.
- GDOT's Highway Emergency Response Operators (HEROs) will monitor roadways in the metro Atlanta area for potential moisture areas that may freeze. HEROs will notify the 511 dispatchers and routine maintenance crews will address the issues as they arise.
- To enhance monitoring of these roadways, GDOT will use Roadway Weather Information System to help identify potential timeframes for black ice or when enhanced monitoring may be necessary.
- The Department will monitor historically known black ice areas - for example I-20 concrete section in Covington - that have been problematic in previous winter weather events. The Department will consistently monitor these areas and try to address black ice as soon as it occurs.
- The Department does not expect that every possible area of black ice will be addressed; however, we are putting a system in place to monitor and try to address this issue before it becomes a problem. The public is urged to use caution at all times and to avoid driving if possible during extreme winter weather.

Coordination and Outreach

- A coordination plan with Local Governments is in place to share information. Georgia DOT is working collaboratively to strategically pool resources and response.
- Georgia DOT outreach efforts include utilizing its existing website; interviews with media and distribution of press releases; changeable message signs (CMS) along the transportation network; coordinating with Outdoor Advertising Association of Georgia (OAAG) to distribute messages on electronic billboards; and postings on Facebook and Twitter.
- Multi-agency response plan includes:
 - Enhanced GIS equipment tracking to ensure clear knowledge of locations being treated;
 - Web-based program to monitor incidents;
 - Snow removal equipment operators are equipped with a communication device to share real-time conditions with their Area and District Storm Operations Center.

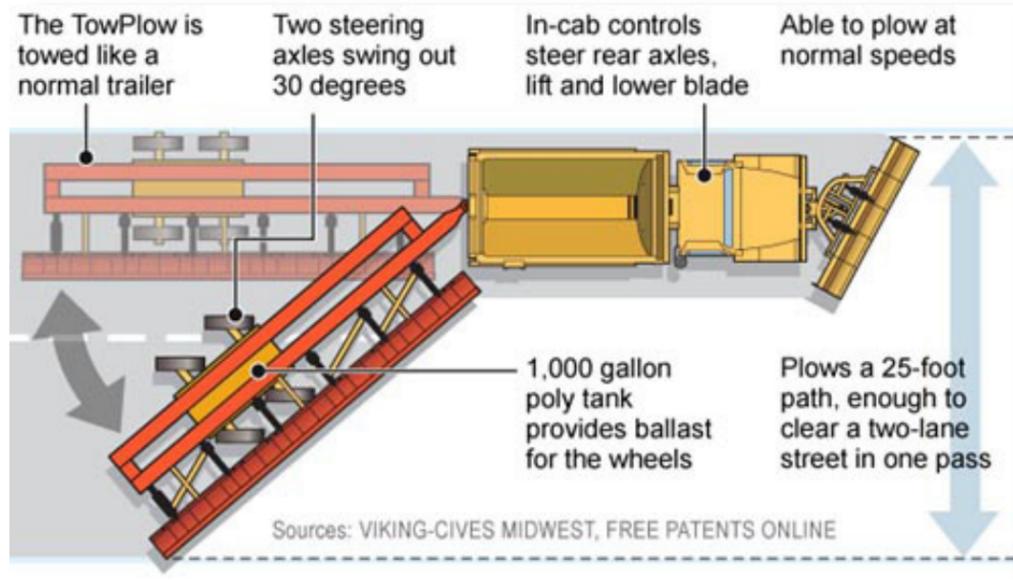
RESPONSE TEAMS/PERSONNEL

- Four types of teams are designated to respond to different incident types during a winter storm event:
 - 10 brine distribution tankers will dispense brine along all metro Atlanta Interstates up to 24 hours before the onset of a winter weather event. Brine tankers will be escorted by the Georgia State Patrol and Motor Carrier Compliance Division.
 - Additional brine plants and units located in Districts 1, 2, 3 & 6
 - Eighteen Interstate teams with three to five tandem dump trucks (trucks with snow plows and material spreaders attached) will treat and remove snow from the roadways.
 - Special Response teams will respond to "hot spots" independent of the treatment areas where the Interstate teams will focus.
 - Traffic Strike Teams consisting of Georgia State Patrol, Motor Carrier Compliance Division, Georgia DOT Highway Emergency Response Operators (HEROs), Department of Natural Resources, Georgia Forestry Commission and Georgia Department of Defense personnel will focus on clearing incidents on I-285; I-75, I-85, I-20, Ga 400 and Ga 166 (inside the Perimeter).
- More than 1,930 Georgia DOT maintenance and construction employees are available for active duty across the state. District resources will relocate as needed to assist in affected areas.
- Georgia DOT maintains a staging area in most counties. These county maintenance buildings each stockpile salt, gravel, fuel and supplies needed for emergencies.
- Georgia DOT's Highway Emergency Response Operators (HEROs) will patrol I-85, I-75, I-20, I-285, GA 400, I-675 and I-575 in the metro Atlanta area to clear incidents and stalls from the roadway and assist motorists.
- In the metro Atlanta area, traffic operators at the Transportation Management Center (TMC) will constantly monitor traffic cameras along the interstates looking for signs that roads are icing; they will enter those locations in the State's Web Emergency Operations Center (EOC) system so that all statewide partners are aware and to advise maintenance staff to dispatch appropriate response. TMC traffic operators will take calls from metro Atlanta motorists through the 511 system. State Farm sponsors the HERO, and statewide 511 programs.
- Six contractors have signed agreements and are ready to join Georgia DOT to address hazardous winter precipitation.
- Communications personnel across the state will be at the TMC and the district offices to provide constant updates to the media.
- Communications personnel will provide updates to the public via Facebook (<http://www.facebook.com/GeorgiaDOT>) and Twitter (<https://twitter.com/GADeptofTrans>).
- Citizens can also access roadway conditions at the Department's winter weather web site: (www.dot.ga.gov/winterweather).
- In addition to receiving regularly updated weather information from national sources, Georgia DOT monitors local weather reports.



EQUIPMENT

- Road Weather Information System (RWIS) – roadway sensors in 15 locations around the metro Atlanta area, one in Macon and 11 in north Georgia will help more confidently predict weather conditions on roads, including the ice, temperature, precipitation and wind. Locations and the number of sensors were determined by the GEMA taskforce.
- Expanded network of RWIS capabilities to include all airports in Georgia; and the ability to view all surrounding states' weather conditions in real-time. (AL, TN, NC, SC, North FL and MS)
- Additional cameras have been added to the Navigator Intelligent Transportation System to assist in monitoring and deploying resources during a weather event.
- Six multi-lane tow plows – allow one dump truck to clear two lanes in one pass. These multi-lane tow plows may be dispatched around the State as needed to remove snow and ice from interstates and multi-lane state routes



- Single and/or double-axle dump trucks with snowplows attached to the front to push the snow and ice from the roadways.
 - Single and/or double-axle dump trucks with hopper spreaders or tailgate spreaders attached to the rear to distribute the salt/gravel mixture and brine used for de-icing the roads.
 - Single and/or double-axle dump trucks with both salt/gravel spreaders and snowplows attached.
- Tractor-type motor graders for moving snow.
- Chainsaws for removing trees and branches from the roadway.

EQUIPMENT - CONT.

- Brine maker and tanks - Brine maker creates a liquid form of salt that can be stored for use as needed. New distribution tanks are added to the hopper spreaders that distribute the solid form of salt and gravel. The new saddlebag tanks allow an operator to spread the liquid mixture and the solid mixture together or just spread the solid mixture on the roadway using one dump truck. All new spreaders have liquid saddlebag tanks for distribution. District offices also have new holding tanks that can store up to 5,000 gallons of brine:
 - Ten 5000-gallon tankers are available to apply brine treatment to Metro Atlanta interstates; and
 - An automated brine production unit, which includes a 100,000-gallon storage tank, is in place at GDOT's Forest Park facility.



MATERIAL RESOURCES

- Nine new material storage locations have been added for a total of 30 - to allow for quicker, targeted and continuous response where needed.
 - Two in Northeast Georgia (District One)- SR 53 at I-85 in Braselton and I-985 north at milepost 16 in Oakwood (in closed rest area)
 - Large salt barn (District Two) is still under construction on I-20 in Morgan County to provide enhanced distribution of salt and gravel around the state – anticipated completion in early 2016.
 - Three in Northwest Georgia (District Six) – I-75 at Red Top Mountain in Bartow Exit 285, SR 372 at I-575 in Cherokee County and Highway 136 in Villanow in Walker County
 - Three in Metro Atlanta area (District Seven) – I-675 at I-285, I-285 at US 78 and Buford Spring Connector at Sidney Marcus Blvd.
- Georgia DOT's stockpile of materials has increased statewide to allow for heavier applications of salt and gravel through longer events, if needed.
- The Brine Pre-treatment Program has been expanded:
 - Brine treatment - a mixture of salt and water is used as a preventative treatment and is intended to limit the bonding of the ice to the pavement;
 - 22, 5000-gallon brine tankers are available to apply brine treatment to the interstates and critical routes;
 - 10 in metro Atlanta
 - 3 in District 1
 - 2 in District 2
 - 2 in District 3
 - 3 in District 6
 - 2 at MAU special details/backups
 - An automated brine production unit that includes a 100,000-gallon storage tank is in place;
 - Two brine plants for District 1 and District 6 should be operational by December 2015
 - Batch unit for District 3 should be operational by December 2015
 - Batch unit for District 2 should be operational by early 2016
 - Routes include I-285; all interstate routes inside I-285; and portions of interstate routes outside I-285.



SNOW AND ICE REMOVAL

- Keeping roads safe for emergency vehicles is the first priority.
- Interstates are cleared first, and then state routes from the most heavily traveled to the least traveled.
- To prevent ice from bonding to the roadway surface, brine will be used to pre-treat all interstates in the metro Atlanta and north Georgia areas.
- The most common de-icing mixture is a 3:1 ratio of small "89 gravel" and sodium chloride (salt). It is effective in breaking up ice and snow until temperatures drop below 25 degrees.
- If temperatures dip below 25 degrees, calcium chloride is added to the gravel/salt mixture.
- Georgia DOT will bring in crews and equipment from other areas of the state to help with particularly hard-hit areas when necessary.

SAFETY TIPS

- The threat of black ice on roadways is possible whenever there is a winter weather event. Beware of black ice (especially on bridges and overpasses) and watch for fallen trees or power lines.
- Avoid driving unless absolutely necessary; postpone travel until daylight hours when road conditions such as black ice are more visible.
- Do not pass a Georgia DOT dump truck spreading the salt/gravel mixture, as gravel may kick up and could break car windshields. Follow at least 100 feet behind Department vehicles.
- Be aware of Georgia DOT crews working to clear the snow and ice from interstates and state routes.
- SLOW DOWN at least half your normal speed and use a low gear as you drive.
- Treat a non-working traffic signal as a four-way stop.



MATERIALS AND STAFFING BY REGIONS

Statewide, approximately...

- 1,938 employees on call covering 39,919 lane miles
- 54,030 tons of salt
- 65,460 tons of gravel
- 385 snow removal equipment units (one plow +hopper+truck = 1 equipment unit)
- These statewide district resources can be moved to most-needed areas during a winter weather event.

District 1, Northeast Georgia...

- 247 employees on call covering 5,667 lane miles
- 15,000 tons of salt
- 20,000 tons of gravel
- 55,000 gallons of brine
- 160 snow removal equipment units
- District has two shifts; 123 employees per shift
- **Contact Teri Pope – (404) 274-6436**

District 2, East Central Georgia...

- 274 employees on call covering 7,518 lane miles
- 3,375 tons of salt
- 7,249 tons of gravel
- 65 snow removal equipment units
- Salt shed under construction in Morgan County that will service D2, as well as D1, D6, D7. This facility will include a brine production operation,.
- District has two shifts; 250-300 employees; no exact number
- **Contact: Kyle Collins – (478) 553-3361**

District 3, West Central Georgia...

- 342 employees on call covering 3,600 lane miles
- 5,443 tons of salt
- 2,802 tons of gravel
- 15 snow removal equipment units
- District has two shifts; 171 employees per shift
- **Contact: Kimberly Larson – (706) 741-3439**

MATERIALS AND STAFFING BY REGIONS - CONT.

District 4, Southwest Georgia...

- 284 employees on call covering 8,135 lane miles
- 432 tons of salt
- 500 tons of gravel
- 12 snow removal equipment units
- District has two shifts; 142 employees per shift
- **Contact: Nita Birmingham – (229) 326-5435**

District 5, Southeast Georgia...

- 282 employees on call covering 6,882 lane miles
- 200 tons of salt
- 500 tons of gravel
- 12 snow removal equipment units
- District has two shifts; 141 employees per shift
- **Contact: Jill Nagel – (912) 424-6643**

District 6, Northwest Georgia...

- 255 employees on call covering 5,117 lane miles
- 9,580 tons of salt
- 10,409 tons of gravel
- 66 snow removal equipment units
- District has two shifts; 122 employees per shift
- **Contact: Mohamed Arafa – (770) 359-9523**

District 7, Metro Atlanta...

- 281 employees on call covering approximately 3,000 lane miles
- 20,000 tons of salt
- 24,000 tons of gravel
- 55 snow removal equipment units
- District has two shifts; 140 employees per shift
- **Contact: Natalie Dale – (404) 631-1814 or Annalysce Baker (770) 986-1788**

