



I-95 Corridor Coalition: Summit on Traveler Information Strategies during Emergency Operations: Getting the Word Out to Travelers and Truckers

Q&A Notes - Fred Heery, Florida DOT

TSMO & Traveler Information Strategies Used in Hurricane Irma and Hurricane Michael – Fred Heery, Florida DOT:



TJ Bathras (MD Transportation Authority): Did you get a contact with Waze to assist you?

- Fred Heery: FDOT has an agreement with Waze. We contact our volunteer coordinator (Abigail) through email. The coordination is excellent.

Russell Holt (Rhode Island DOT): Was any formal documentation prepared by or between FDOT and Waze for the activities you noted (anything outside of your std. agreement with them)? If yes and sharable can you kindly share w/ the group?

- Fred Heery: Nothing was prepared outside of the standard agreement.

Paul Pisano: What if someone relied on Apple Maps or TomTom as their navigation service? Are they just out of luck? Or even Google Maps?

- Fred Heery: They would need to use Waze or FL511.

Gail Yazersky (NJDOT): The information on Rt 27 Waze showed full road closure; Google showed only northbound, and closed till 9/15. Was Google verifying the info with anyone?

- Fred Heery: It is my understanding that they were extracting their data from Waze. We coordinate with Waze. They did not give a predicted time to reopen which is typically difficult to predict when roadway flooding will subside – Google may have made an estimate.

Paul Pisano: For what it's worth, I find that Waze and Google Maps often do not share information, so only Waze would have the critical information

Eileen Singleton (Baltimore Metropolitan Council): I agree with what Paul said about Waze and google not having the same road closure information, I have looked at road closures in our region comparing Waze and Google maps and they were often not the same.

Denise Markow (I-95 Corridor Coalition): Was Florida the first state to sign an agreement with Waze?

- Fred Heery (Florida DOT): Yes, likely 2014.

Denise Markow: Have you had the same volunteer?

- Fred: I believe that she has been the same volunteer.

Sal Cowan (NJDOT): Did you get a request by Feds for your contraflow program?

- Fred Heery: We don't do contraflow. We have Emergency Shoulder Use (ESU) plans. Not sure if they are available.
- Denise Markow: Some ESU and contraflow plans are included in a repository on the Coalition's website - <https://i95coalition.org/events-calendar-event/southern-hog-operations-exchange/>
- Lee Smith (Tennessee DOT): Florida did have contraflow plans for Andrew.
- Fred: We did develop contraflow plans for Hurricane Andrew. We never pulled the trigger on the contraflow plans. The new administration and we preferred the ESU.
- Our ESU was approved by the Governor.



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Q&A Notes - Fred Heery, Florida DOT

Scott Cowherd (VDOT): Did you have any issues with latency of information? (how quickly the data gets updated on Waze)

- Fred Heery: Waze is accurate. One time Google showed an incorrect closure so we worked with them to get the correct information.

Scott Cowherd: How did you deal when your system was over capacity?

- Fred Heery: The system was slow but working. When we noticed that, we spoke to the vendor and they were able to fix it.

Marygrace Parker (I-95 Corridor Coalition): In emergency plans, have you physically checked roads to see if they accommodate trucks.

- Fred Heery: We do not detour onto County Roads and all interstates in Florida can accommodate 52' trucks. The detour may be long but it can accommodate trucks.

Marygrace Parker: Was there any targeted travel information messaging to truckers?

- Fred Heery: There was not any targeted outreach.

Ali Farhangi (VDOT): Were tolls suspended for the return trip?

- Fred Heery: Generally, that is the Governor's call. Usually they are suspended for at least the first day of the return but it depends on the particular storm. It helps ease the congestion for motorists reentering that do not have SunPass.

Denise Markow: What were the challenges to bringing folks back into Florida from your perspective?

- Fred Heery: We spoke to a lot of media to pass along the message that the roads were not ready yet and their return would hinder the clean-up process.
- Chris Hilyer (Alabama DOT): There were a lot of unknowns and limiting factors – southeast Alabama does not have an interstate system – we were relying on a 4-lane divided US highway. Signal operations and turning radii become a huge hinderance (on commercial freight). FDOT tracked volume that far exceeded capacity on I-95 and I-75, and I-10 coming toward Alabama.
- Mark Demidovich (GDOT): Re-entry is less of an issue as it is more spread out and therefore, less congestion.

Denise Markow: How did Florida coordinate with Georgia on your emergency shoulder use?

- Fred Heery: We contacted GDOT before and during the ESU. They did have motorists try to drive on the shoulders in Georgia that they had to deal with. We coordinate with Georgia frequently.
- Mark Demidovich: Georgia did not use ESU. GA has only a few pinch points and the volumes were not that high to warrant this strategy.

Denise Markow: Did you have issues regarding fuel and supplies getting into Florida?

- Fred Heery: Yes, we had fuel issues. During Hurricane Michael, we used ITS trailers to monitor that fuel and supplies were getting to their intended location. During Hurricane Irma, we had FTA escorts were getting fuel into Florida.



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Q&A Notes - Dinah Massie, Houston TranStar

Development of a Roadway Flood Warning System for the Houston Region –

Dinah Massie, Houston TranStar:



Dan Walston: U.S. DOT ESF-1 staff utilized TranStar extensively during emergency response coordination for Hurricane Harvey. Great application, and a tremendous help to logistics and trucking companies.

- Dinah Massie: It is the marriage of emergency management and transportation management. It helps having the County Judge with us in the Center to help make timely decisions.
- Dinah Massie: During the last storm the County Judge asked residents if they have a boat and can help us out by volunteering to pick up stranded persons. Major sports figures, the Cajun Navy, and many others offered/helped.

Paul Pisano: FYI, TRB is hosting a webinar entitled, " Road Weather and Flood Monitoring with the National Water Model" (<https://webinar.mytrb.org/Webinars/Details/1266>) that will explore the utility of the National Flood Model as another key input into roadway flooding.

Dan Walston: FEMA Region VI and TX EOC would benefit from outreach opportunities.

Russell Holt (Rhode Island DOT): We appreciate your efforts, Dinah, in this challenging area of warning folks about POSSIBLE flooding. I hope the USDOT/FHWA will support your proposed "future" message you show on the cell phone on your slide (it's not exact to WHERE, but what else can you do in advance given the limitations of what tech and info TranStar has?) Thx.

- Dinah Massie: We are working with the University of Houston on an elevation map. We will be looking at this data to see if we can adjust the bubble surrounding the sensors to more accurately predict flooded arterials.

Robert White (Vermont AOT): Have you considered partnering with Texas DOT Lone Star?

- Dinah Massie: Texas DOT has tried to have TranStar use their map however, TranStar believes our map is better and does not want to switch. TranStar and TxDOT Austin coordinate well together.

Marygrace Parker: Did you work with any trucking companies to get supplies into the area?

- Dinah Massie: Non-Governmental Organizations (NGOs), including the United Way, Red Cross, Salvation Army, Center Point, and Walmart had representatives in our facility and we were continually communicating during the event.

Marygrace Parker: What drove your plan to do a trucker focus group?

- Dinah Massie: Due to the location of the port, flooding is a big issue impacting trucks.

Lee Smith (Tennessee DOT): Can your flood warning system be used for more than major events?

- Dinah Massie: Flooding occurs frequently in the Houston area.



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Q&A Notes - Mary Farrell, Information Logistics on behalf of PennDOT & PA Turnpike

Connecting with Travelers During Severe Winter Weather Emergency Events –

Mary Farrell, Information Logistics on behalf of PennDOT & PA Turnpike Commission:



511PAConnect is a new, trapped-traveler emergency communications tool that allows incident response teams to communicate via automated phone or text message directly with motorists who are trapped in a roadway backup.

Marygrace Parker: How did you make truckers aware of the event through the app?

- Mary Farrell: They do not need to be aware as long as they have a phone - the app provides 'push' alerts.
- Todd Leiss (PA Turnpike Commission): We tried to get the word out when it was initially deployed. Right before it was to be officially deployed, PennDOT had a mass casualty incident involving tractor trailers and it was determined that we would go live - truckers did sign up because it was an easy process. During Jonas (before 511PAConnect was developed), the PA Turnpike was asked by FEMA how many persons were trapped but we did not have the information.
- Marygrace Parker: Truckers have different characteristics that you may want to consider. They have longer stopping distances and they typically carry supplies. You may want to convene a trucker focus group (such as American's Road Team) to provide feedback on the app.
- Todd Leiss: When a user accepts 511PAConnect, we can tell if it is a truck or passenger car (or bus) and we can provide different messaging. We have collected informal feedback from truckers on the app.

Todd Leiss: The system gives a pop-up every 15 minutes to see if the agency wants to send a message because during emergency operations, you may be focused on other tasks and may need the reminder.

Todd Leiss: There have been times when a trucker will go to sleep in his cab to wait out the event that can contribute to the backup when the event begins to clear if they don't move. This system can be used to reach out to truckers to let them know the status and the anticipated time they will be moving.

Ryan McNary (PennDOT): We only enacted 511PAConnect for one storm but queues were much longer because motorists were sleeping in their trucks. We will be sending messages to truckers during an event to wake them if the queue is going to move. PennDOT is working doing performance measures and data analysis with INRIX – some of the most dangerous issues are the secondary crashes at the back of the queue. Timing of the messaging is something that we need to reconsider.

- Marygrace Parker: You may want to consider reaching out to truckers first since they have longer stopping distances.

Denise Markow: Is there any consideration for using other vendors as part of the Help (or 511PAConnect system)?

- Mary Farrell: We have developed this application using travel time data from INRIX.



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Chris Hilyer: Does this product use text to speech?

- Mary Farrell: The warning sound at the beginning is audible but the entire message has not yet been made audible.
- John Farrell (Info Logistics): Users can register for the PEMA alert via phone and then receive messages that way.

Chris Hilyer: For Pennsylvania – what sharing are you doing with other partners?

- Todd Leiss: We determine when to send message – we try to be proactive and get the message out early.
- Ryan McNary: The biggest thing that we learned is how quickly these messages should be sent out – you need to think like the general public. PennDOT was initially waiting for two hours. We realized that it should be earlier however, it is difficult for us to change the process. Our emergency management agency is the one who sends out the alerts.
- Todd Leiss: You need to be realistic about the event and not assume it will clear. You also can't ask folks what they need early in the event if you are not able to provide it.
- Mike Pack (PA Turnpike Commission): In the off season, we practice to make sure that we are ready to use it when needed.
- Mary Farrell: Read only access is available to adjoining states. INRIX has been helpful in giving us the data that is needed for any over border issues.

Denise Markow: Could 511PAConnect be used for other situations?

- Todd Leiss: Yes, you could use it for many different emergencies including mudslides, active shooter situations. The agency determines the geofenced area and as a vehicle comes into the area, they receive the alert.

Earl Sharp (PennDOT): Is the PennDOT platform on an Everbridge IPAWS platform?

- Mary Farrell: No, Everbridge is a commercial entity. Information Logistics works directly with PEMA. In addition, this was approved for multi-carriers for location services – the heavy lift was done in the past.

Denise Markow: In states outside of PA, this tool is being offered as HELP. The Coalition's Executive Board is interested in pursuing an ATMCTD grant so that all Coalition members could have this HELP system – the focus being on safety and particularly in rural areas where folks are more difficult to reach. The Coalition staff is working on this grant application and will keep you updated.

- John Farrell: This system allows agencies unlimited state use.

Rick Schuman (INRIX): Currently, any state interested in the HELP system, can purchase it separately from their data purchase (they do not need to be using INRIX).

Rick Schuman (INRIX): The FCC is making changes (rules will be finalized at the end of this year) that will help with boundaries for all carriers. For any warning alert, when the agency selects an area, the carriers will be required to contact users with 1/10 mile. This will allow agencies to experiment with boundaries for the alerts.

Denise Markow: Sal (NJDOT) – Your agency is looking to procure the HELP system, how is it progressing?



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- Sal Cowan (NJDOT): We have not yet contracted for HELP. We plan to use the PennDOT model and are currently waiting for the NJ State Police. We anticipate that the situation reports will be very helpful for the numerous questions we receive during events. *(Subsequent to the meeting NJDOT completed the process to start using the system.)*



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Q&A Notes - Kelly Wells, North Carolina DOT

NCDOT Traveler Info for Hurricane Florence – Kelly Wells, North Carolina DOT:



Kelly Wells (NCDOT): Do you find private providers saying different things than what your agency is saying?

- Some providers have an automatic set end time for an event that may not be the same as the DOTs end time – this causes confusion.

Denise Markow: Has anyone had any issues with open road tolling?

- Mark Demidovich: For reverse tolling lanes, Google sometimes tells users to go in the opposite (wrong direction). Seems that the providers use the quickest route without regard to direction.

Kelly Wells: We learned that for a newly constructed roadway, it is better to let the mapping companies (especially HERE and TomTom) know as early as possible as it can take up to one year for it to get a TMC code, and low information will not show up until it has the TMC code.

Scott Cowherd: Google showed a section of roadways closed for 1 ½ hours. How quickly have you been able to get them to make the change?

- Kelly Wells: Waze is one of the sources for Google. I go through my spreadsheet/ checklist. Google buys incident data from TrafficCast. Google is difficult. For NCDOT, the Director of Google Marketing lives in Durham – if it is bad, I call her and she gets it fixed. Three senior NC Waze volunteers were extremely helpful however, it's difficult working with Google directly.

Diane Lackey (South Carolina DOT): In our TMC, the only reason that I have used Google maps is to determine the location for the person calling in and then compare it to my other maps to provide them with the appropriate information.

- Kelly Wells: On our new traveler information website, the user will be able to enter an address to find its location.
- Diane Lackey: We can do that in our system too, but most are more comfortable looking on Google maps.

Diane Lackey: Out of necessity, we added a freight overlay to our system. I am recommending to our staff that we have a freight tab that has the overlay with closure information added for clarity.

Dinah Massie: On the freight network map, it would be really helpful to have bridge heights. Last year, we had 76 bridge hits.

Marygrace Parker: When you have these discussions with providers, how does the GPS work for trucks?

- Kelly Wells: When we publish detours, they are truck friendly (interstate to interstate). However, some trucks use shorter detours that may not be truck appropriate. We know that we need to figure out where truckers get their information. NCDOT is starting to work with NC State (supply chain) to figure this out. VDOT has already done a study that Scott Cowherd will be presenting today.



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Q&A Notes - Kelly Wells, North Carolina DOT

Russell Holt responded to Kelly:

RIDOT has private providers saying different things than we are but we have not done anything up to this point. We are not that structured yet so we have various people that could potentially work with the providers.

We will share an electronic copy of Kelly's spreadsheet with other agencies to use as a base for creating their own data flow upon receipt from NCDOT.



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Q&A Notes – Open Discussion – Freight, Waze, Data, Other

Open Roundtable Discussion - Freight – Scott Cowherd, Virginia DOT:

Scott Cowherd: VDOT commissioned a Commercial Vehicle Traveler Information Needs Study. The study looked at their preferences for receiving information, sources of information, and telematics. The study highlighted the differences between large and small carriers.

Marygrace Parker: There is a difference between smaller independent and larger carriers. I believe that one difference is that smaller carries use off the shelf products. I recommend having law enforcement interview truck drivers involved in incidents to determine what they were using.

- Scott Cowherd: In Hampton Roads, one truck gets stopped every day for getting stuck with a height issue which means traffic has to be stopped.
- Scott Cowherd: When the report is finalized, VDOT would be happy to provide the report they had prepared as a resource.
- Kelly Wells: Waze and Google are not intended for truck use. How can we get to them to understand what they should be using?
- Marygrace Parker: Truckers don't always differentiate between routing and truck routing. Dialogue is needed with truckers and the providers.

Question: Is there any state within the Corridor that has freight routing on 511?

- Diane Lackey: South Carolina is looking at including that information – similar to Iowa DOT.

Open Roundtable Discussion - Waze – Mark Demidovich, Georgia DOT:

Mark Demidovich: We added a layer for Waze events that can be turned on/off which can be used by the public. Iteris (for GDOT) adds the Waze events to the website. Waze users are quicker at reporting than DOT in rural areas (outside of metro areas). It improves our situational awareness in rural areas.

Kelly Wells: Do operators use the same map to detect incidents?

- Mark Demidovich: There is a different interface for operators in the ATMS. The Waze incidents are pulled into our central ATMS as an unconfirmed incident that the operators can verify.
- Mark Demidovich: Waze users can add comments when they report an incident. Some are useful and some are not.
- Ryan McNary: We actually find the comments to be helpful.

Does everyone have an agreement with Waze except New Jersey?

- All: Yes
- Gene Donaldson: We have an agreement but we filter the data. We take in all types of information and filter it as needed.

Denise Markow: Would you be interested in freight/overheight/overweight vehicle restrictions to Waze and/or Google?



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Q&A Notes – Open Discussion – Freight, Waze, Data, Other

- Mike Pack: Waze does not want anything to do with freight. I'm interested in VDOTs report. We understand that truckers use the Drivewyse app and they consult Waze to see where police are located.
- Ryan McNary: Waze has no ability to add restrictions.
- Denise Markow: We could have a discussion with Waze as a Coalition – it should be on our calendar this year.
- Marygrace Parker: We should also look at the trucker apps. Maybe we should have an RFI and see if there are companies that want to work with us.

Kelly Wells: These companies have to ingest data from 50 states that all provide it in different formats which is very difficult.

- Denise Markow: Yesterday we talked about building a data portal – where all of the data comes in and then goes out with consistency. This is a project that the Coalition would like to look at.
- Marygrace Parker: We could get a smaller group of agencies together and build consistency then grow from there.
- Scott Cowherd: We have started looking at consistent terminology between agencies – we are building a top 10.

Bob Glantzberg (TRANSCOM): We use a HERE base map. HERE provided truck routes and we ingest travel times from multiple states. We are looking to start to create height restrictions that we could eventually share with a larger group. We are looking add specific layers (specific height restrictions).

Question: Most state DOTs have a robust GIS group facilitating this standardized approach for what measures are needed for overweight/overheight vehicles. These measures and characteristics could be used and bubbled up to providers then used as a source for the portal.

Gene Donaldson (DeIDOT): We should get a minimum survey - how are other states making their data available? What data are you providing? I am not concerned about connecting with other agencies. We push out our data and we provide instructions to get our data.

Sal Cowan: Data is not stored on 511, it is stored on ATMS.

Russell Holt: The biggest benefit RIDOT has experienced from Waze CCP agreement is that we've been able to use the feed to post travel times on our VMS.

Russell Holt: I appreciate and empathize with the other State's comments regarding Waze issues.



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Q&A Notes – Open Discussion – Freight, Waze, Data, Other

Open Roundtable Discussion - Data – Clint Smith, Florida DOT:

Sal Cowan: During usage peaks, we recognize that people want to see the cameras – they want a visual.

Gene Donaldson: We save all our data in several locations - in the TMC, in our backup - and we are currently working with Google to store data in the cloud. We are also working with other states on a fiber network that will enable storing at other DOTs.

Lee Smith (Tennessee DOT): We are currently going through the data governance process. How many states have data governance standards?

- Maine, Delaware, and Vermont (is in progress)

Denise Markow: When looking at data statistics and analytics with the Traveler Information Systems, it seems that emergency events generate large spikes in usage as compared to day to day operations. How do you handle these data spikes both from a bursting standpoint as well as data analysis?

- Scott Cowherd: We have encountered it a number of times. We have bursting capability on all of our systems.
- Dinah Massie: We have bursting capability.
- Bob Glantzberg: In support of NJDOT, we have a recovery site in case we lose the primary and we can roll that in and use the site in case of a major weather issue when we would need capacity.

Open Roundtable Discussion - Other:

Kelly Wells: Sometimes, we draw on Google maps for construction detours. Our DOT has now told us we cannot save anything in Google documents (they want us to use GIS). What do other agencies do?

- Sal Cowan: The NJDOT website has the detour exhibits (used at a public information session) on the DOT Website. For very large projects, we are linked to the project website for detour information where the detour plans are very involved.

Kelly Wells: Does anyone record their cameras beyond training purposes?

- Sal Cowan: We record our camera feeds and sell them to the public (\$100 per ½ hour or hour). State Police and State Agencies can get it at no cost.
- Gene: We record them
- Ryan McNary: We record them and we are finalizing our statewide policy.

Wrap Up – Denise Markow

The Coalition now has a YouTube channel where all of the recorded presentations are located.

<https://www.youtube.com/channel/UC4ySXvd1ht4KE4dR1Az7geA>

The link for this meeting's recording is <https://youtu.be/MYgQR8fh9Ko>