



I-95 Corridor Coalition

NASTO / I-95 Corridor Coalition Hurricane Sandy After Action Review (AAR)

Summary of Findings

FINAL REPORT



**I-95 CORRIDOR
COALITION**

January 2013

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Prepared for:

**I-95 Corridor Coalition and Northeast Association of State Transportation
Officials (NASTO)**

Sponsored by:

I-95 Corridor Coalition

Prepared by:

Cambridge Systematics

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This report was produced by the I-95 Corridor Coalition. The I-95 Corridor Coalition is a partnership of state departments of transportation, regional and local transportation agencies, toll authorities, and related organizations, including law enforcement, port, transit and rail organizations, from Maine to Florida, with affiliate members in Canada. Additional information on the Coalition, including other project reports, can be found on the Coalition's web site at <http://www.i95coalition.org>.

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1.0 Overview

On October 29, 2012, Hurricane Sandy moved ashore near Atlantic City, New Jersey. The storm caused substantial devastation across a 17-state region, with over 100 storm-related deaths, power loss to over eight million people, and estimates of property damage in the tens of billions of dollars.^{1 2} One of the functional areas of impact of Hurricane Sandy was the need to transport oversized and overweight vehicles through the affected region. Transport was needed to secure equipment and job sites in the path of Sandy, to bring relief equipment and supplies to damaged areas, and to clear damage and debris from affected areas.

The primary responsibility for the review and issuance of permits rested with the states that are *both* members of the Northeast Association of State Transportation Officials (NASTO) and the I-95 Corridor Coalition. Members of the permit issuance offices in the *NASTO* states were in close contact with each other and with appropriate Federal officials throughout the approach, landfall, and aftermath of Sandy. As with most major emergency response events, some activities went extremely well and others appeared to have room for substantial improvement.

As a result of these experiences, the NASTO Subcommittee on Highway Transport (SCOHT) wished to conduct an “After Action Review” (AAR) to explore how member agencies and associated Federal stakeholders prepared for Sandy and executed activities both during landfall and afterwards. The I-95 Corridor Coalition (Coalition) agreed to sponsor the process and provide funding and Coalition staff and consultant support for research, facilitation, and documentation.

This report is the summary of the findings of the After Action Review process. The process involved preparatory planning sessions with SCOHT and Coalition staff, invitations to a facilitated webcast for statewide permitting officials and relevant USDOT and association staff, and execution of a pre-session participant survey. The AAR session was held by teleconference on December 13, 2012, lasting two and a half hours, hosted by the Coalition and facilitated by staff from Cambridge Systematics.

Section 2 of this report presents a summary of findings from the process, including both the survey and the facilitated webcast. Section 3 presents

¹ <http://nation.time.com/2012/11/26/hurricane-sandy-one-month-later/>

² <http://press.ihs.com/press-release/country-industry-forecasting/hurricane-sandy-monster-storm-just-time-halloween>

recommendations for ongoing activities which SCOHT and the Coalition may wish to consider taking in preparation for future emergency events.

2.0 Findings

To collect, compile, and analyze the most accurate feedback regarding the Hurricane Sandy event (pre; during; and post) this project was initiated and completed in approximately one month. This short lead time included contacting and convening representatives of affected states as close to their returning to normal operations as possible to ensure institutional memory and historical perceptions were captured. The findings of the AAR process were compiled in two parts: a facilitated webcast and a pre-webcast survey distributed to all invited participants. Both the survey and workshop questions were developed in advance with input from SCOHT leadership and Coalition staff.

2.1 PRE-WEBCAST SURVEY

The AAR pre-meeting on-line survey was developed to provide stakeholders a means to easily convey anonymous information pertaining to their operational experiences during the events of Hurricane Sandy. The results of the survey were used to refine the facilitated discussion points and parameters.

In preparation of the formal AAR webcast meeting on December 13, 2012 it was important to collect information from stakeholders prior to the meeting in order to best utilize the time of stakeholders and yield the most valuable AAR output. Pre-meeting information gathering was critical to structuring productive meeting discussion topics and breadth given the scale of the event and stakeholder representation.

The survey instrument was developed using free online software which allowed for anonymous collection of user feedback, a variety of user response tools (radio buttons; short text entry; and ranking) to determine stakeholder response to a series of topical questions. The survey was tested and determined to take approximately 10 minutes per respondent, designed to yield greater stakeholder response for ease of access, anonymity, and limited time requirement.

AAR stakeholders consisted of 15 direct representatives from NASTO states (NY; NJ; PA; CT; MD; ME; DE; NH; RI; VT) and Canadian provinces, Federal Agencies (FHWA; FMCSA), and Associations (AASHTO) each with unique experience and perception of events. Representatives were invited to share the AAR on-line survey with other key staff within their state/agency/association that may have had relevant input to offer.

Topical questions represented the following areas:

- stakeholder affiliation;
- operational statistics; and

- experience/perception of operations during the events of Hurricane Sandy as defined by timeline:
 - “pre”,
 - “during”, and
 - “post” event.

Additionally, respondents were prompted to provide insights regarding what they were most proud of during events; what they would do differently in the future; and what assistance other jurisdictions/agencies may provide to yield even better future coordination.

Given the short turn-around time respondents were given four days to complete the survey for results to be included in the meeting facilitation; the survey remained open following the meeting to gather any additional information stakeholders may wish to provide.

The feedback collected through the pre-meeting survey was used to establish high level operational baseline and evaluative performance information which was used to inform the facilitated discussion points and parameters.

On-line survey results were tabulated and analyzed prior to finalizing webcast presentation materials. While the responses yielded high level feedback on the topical areas previously identified, themes and outliers were gleaned.

Respondents, while anonymous, indicated state/agency affiliation (versus Federal agency or Association). Despite variance in operational scenarios (multiple permit issuing agencies; volume of permits issued during the event; etc.), the predominant findings include:

- State/agency perspective of preparedness and ability to execute operationally throughout phases of the event was positive;
- Coordination with neighboring jurisdictions was cooperative and productive;
- Issues related to understanding/execution of the Presidential Declaration were of import within and across jurisdictions; and
- Issues related to understanding/execution of MAP-21 legislation were of lesser import but also impacted cooperation among/between jurisdictions.

The greatest discrepancies among respondent feedback were related to the ease and/or difficulty in permitting moves of particular commodities (equipment; debris; other), and consistency of understanding, among jurisdictions, what was permissible for movement per the Presidential Declaration.

Appendix A contains the full set of survey questions and responses.

2.2 FACILITATED WEBCAST QUESTIONS

The webcast format was chosen for the main AAR session due to the geographically dispersed set of stakeholders. A webcast, however, posed a logistical challenge for keeping pace throughout a session of just over two hours, ensuring that a broad range of relevant topics were discussed while controlling the amount of tangential discussion.

To address these challenges, the facilitation team reached five major decisions:

- Demographic types of questions would be covered only in the pre-webcast survey;
- The webcast would focus on ten pre-scripted questions, with an average discussion time of ten minutes for each question;
- The facilitator would start each question with a representative from one of the most affected states (either New Jersey or New York) and then open discussion to other participants;
- Two members of the facilitation team would be taking notes, one privately and one visibly to webcast participants; and
- The facilitator would call on additional stakeholders in rotation, as the rapid discussion format might cause some stakeholders to have hesitancy to participate.

Appendix B contains the webcast presentation. The facilitated questions were as follows:

- Think back to July or August... What were the two or three most important components of your organization's approach to OSOW during an emergency situation?
- Now let's fast forward to when Hurricane Sandy was first identified to be heading up the Atlantic coast... What was your organization able to do proactively regarding closures, relief activities, and contingency planning?
- Name the one or two things which you found the most unexpected with respect to OSOW-related activities. What made them unexpected?
- Sandy eventually reached land... what worked and what did not regarding communications to your staff, to other states, to Federal agencies, and to industry? If you had a communications plan, why did it work or fail?
- Did you and those in your organization feel that you had enough information about what was happening in the field to be able to manage permit issuance?
- What legal or regulatory issues arose which you found to be unexpected?
 - Did you have the right mix of permit types (and waivers)?
 - Were there debates about interpretation?

- What was the impact of MAP-21?
- Were there moves you had to deny due to not having the appropriate emergency language in law/regulation?
- How did your information systems fare during Sandy?
- In the weeks since Sandy subsided, what have been the obstacles to relief efforts?
 - Are OSOW loads able to get to the affected areas efficiently?
 - Are OSOW loads able to leave the affected areas efficiently?
 - Do agencies have the same assumptions and expectations?
 - Do carriers and other third parties understand what is expected of them from government agencies?
- What has your organization identified as an OSOW-related best practice as a result of Sandy?
- Survey response was split regarding permit issue and execution related to the Presidential Declaration. What is your perspective?

2.3 WEBCAST FINDINGS

OS/OW permit officials from nine NASTO states participated in the webcast, joined by representatives of FHWA and AASHTO. All ten topics were covered; although as is inevitable in this type of scenario, the discussion was not always sequential and the formal questions served as “mileposts” to steer the ongoing conversation. The general theme from participants was that while issues certainly arose during the hurricane and its aftermath, the issues were not insurmountable and could certainly be addressed by stakeholders in advance of any future emergency situations.

As the discussion across questions did tend to be somewhat cyclical, with themes cutting across responses to multiple questions, we have organized the key findings by broader theme as opposed to by individual question.

Long-Term Preparation

Participants were asked about their pre-Sandy emergency plans, whether documentation for emergency response existed and had been practiced, and how OS/OW fit into their agency’s broader emergency response approach. All participating states had some sort of emergency plan approach. Many states have a specific set of carriers who are pre-qualified to operate during an emergency, either with a specialized blanket multi-trip permit or with a permit with relaxed permit review processes. Several of the state processes were originally designed for railroad derailments and other single-point emergencies.

In addition, several states had policies in place to allow an expedited permit process when their state's governor has issued an emergency proclamation. These expedited processes allowed for self-issuance of a permit, typically with conservative weight and dimensional information and a waiver of applicable fees.

An area where states were less prepared was in the coordination of OS/OW activities with other agency-wide or state-wide emergency response processes. Only a few states indicated that their staff had a formal approach to coordinating with these processes, and in only one state (Rhode Island) was a permits manager actually planned to be embedded into an emergency response center.

The passage of the Federal MAP-21 legislation in July enacted several Federal preparations, including the ability for a Presidential Declaration of Emergency to serve as a trigger to allow states to allow divisible loads to be able to be treated as non-divisible loads for the purposes of route selection for permits. Most states officials participating in the webcast admitted that there had not been enough time from June to October to fully assess the implications of the MAP-21 language on their state permit issuance operations. Additionally, further guidance from FHWA was provided in September which was interpreted differently among states.³ For example, state permit issuance systems which classify load types as "divisible" or "non-divisible" would have to be modified to accommodate emergency situations.

Most governors of NASTO states issued the appropriate emergency declarations two to three days before Sandy reached the New Jersey coast, allowing their corresponding permit issuance functions to begin implementing emergency procedures. The Presidential declaration referenced in MAP-21, however, was not issued until the hurricane made landfall⁴. The difference in timing caused issues in several states, as divisible equipment and supplies were being shipped in advance to be able to reach affected areas just after landfall. These loads could not legally use the Interstate system until the declaration was enacted.

The Word "Waiver"

One of the most difficult items to determine over the course of over two hours of discussion was the multitude of ways in which participants utilized the word "waiver." One issue was that the phrase "carriers can get a waiver" was often interpreted by stakeholders as being "a waiver of the permit". Additional questioning, however, typically revealed that the need for obtaining a permit was not being waived. Instead, components of the process or restrictions for the permit were being waived, such as not collecting a fee or letting a carrier download and fill out an "emergency waiver" as a form of self-issuance. For

³ <http://www.fhwa.dot.gov/map21/guidance/guideemergency.cfm>

⁴ <http://www.whitehouse.gov/blog/2012/10/30/update-hurricane-sandy>

example, in Delaware carriers could download a “waiver” letter at no cost from the Department which served as a trip permit and outlined the definition of load size and configuration which could be transported during the emergency with the letter. The MAP-21 related “waiver” is regarding the definition of “divisible load” but still obligates carriers to obtain the appropriate permit if over-dimensional or overweight.

One different meaning of note was in New York State, where Governor Cuomo’s emergency declaration suspended the laws governing size and weight. As a result, the New York State Department of Transportation was unable to issue permits during this period, but helped carriers when possible regarding evaluation of potential routes of travel. However, in some cases carriers were in restricted areas for not having been properly routed through the permit process.

With the participants on the webcast being sufficiently confused by what their colleagues were using the word “waiver” to mean, it is no surprise that participants reported that industry carriers and associations were confused as well. As a result, it is likely that many carriers did not follow the appropriate processes for documenting and permitting their travel in the aftermath of Sandy. Additionally, a historic “picture” of the volume and type of oversize weight loads moved in the region during the events is not fully traceable.

Post-Landfall Communications

In the most heavily damaged areas, power was lost at permitting office facilities for at least a day after landfall. In general, statewide information technology and web access remained functioning for those who had power to access them, so staff with power (either from home or from a different office) could continue to operate and communicate. One notable exception was New York City, where the city’s permit office was without power for multiple days.

One potential issue that arises in these types of emergencies, but which was averted during this event, was being able to ascertain the safety of all of the agency staff after landfall. In general, the path of the hurricane did not directly affect statewide agency locations other than in New Jersey, a statement that cannot be generalized for the future.

State participants reported that after some sporadic initial start-up issues, communications between permit issuance leaders and their counterparts in other states was very good. One contributing factor was that AASHTO had recently undertaken an update of its emergency roster, a file available by request to all NASTO SCOHT participants.

Communications with Federal agencies were more problematic. One issue reported by participants is that they did not have timely access to the actual Presidential Declaration of October 29, and therefore were concerned about the legal and liability ramifications of instituting the appropriate MAP-21 waivers without suitable documentation. Another issue was the coordination with FMCSA and FEMA. Participants’ understanding was that FMCSA was

designated as the lead Federal coordination agency during the event, but noted that some FMCSA and FEMA staff were not knowledgeable about the oversize/overweight transport process and asserted that this lack of knowledge resulted in their participation in the process being more of a hindrance than a resource for agency permit staff.

Additionally, integration of road closures into immediate decision making did not appear to be uniform. Participants reported varying amounts of information available about road closures, not only in their state but in neighboring states. New York State was lauded by multiple participants for the coordination of their 511 traveler information system for providing appropriate information about road closures. Participants from neighboring states remarked that having this information made permit review much easier for vehicles departing their state for New York.

Internal Agency Processes

Several state participants noted the internal agency challenges which Hurricane Sandy exposed. One of the major challenges noted by multiple participants was the need to educate agency executives on permitting complexity. Participants noted that agency executives wanted to “help” or “expedite” but in doing so just created more work for the agency’s permit issuance staff.

Another challenge was having the right mix of permits to cover emergency situations. In New Jersey, for example, staff ended up evaluating eight common size/weight/configuration scenarios and posting the results online so that carriers could ascertain if they would qualify for a fee and permit review waiver. Additional configurations were identified in coordination with the fuel industry as there were widespread fuel shortages across both New Jersey and lower New York. These experiences were complicated post-landfall, and additional preparation would have been beneficial.

During the Presidential Declaration period, both automated and manual processes in many states need to be adjusted to consider the waiver of divisible load prohibitions. Current systems and internal training documents were not always sufficient during the event, and participants identified needs for updates.

Emergency operations plans had not always been fully tested. In some states, this caused minor issues. For example, the fee and review waivers posted in New Jersey did not apply to larger loads, and thus staff had to be able to review and issue permits in a timely manner. But without office power, staff had to rely on working from home and whether there was power at home to access the permit issuance site.

Legislation

There were two issues which participants reported arose as a result of the first implementation of the MAP-21 language regarding Presidential declarations of emergency. One issue was the perception that some carriers were using the

legislation's language about divisible loads as an excuse not to get any permit at all, exacerbated by the language which some state agencies were using about "waiving permits" when actually meaning "waiving complicated permit issuance processes, parameters, and fees".

The second issue surrounded the topic of debris. As written, MAP-21 did not allow for debris to be classified as a divisible load. The massive amounts of debris at affected sites, however, meant that debris had to be moved to be able to get emergency equipment and supplies (both covered by MAP-21) into those locations. Subsequent to landfall, FHWA did provide additional guidance on situations where debris could be moved. The unconfirmed understanding of participants on the webcast was that this issue would be considered in future declarations on a case-by-case basis.

In New York State, the Governor's declaration of emergency suspended the relevant size and weight laws. It was not clear to some participants on the webcast how this suspension and relevant Federal laws coexist for transport on the Interstate system.

Several participants indicated that additional multi-trip permit types to be utilized in emergency situations may be helpful. These permit types could potentially integrate with the MAP-21 language by reference.

3.0 Recommendations

One of the goals of the After Action Report was to have sufficient dialogue about both emerging best practices as well as areas for improvement for NASTO, SCOHT, and I-95 Corridor Coalition members. In this section, we outline six recommendations for consideration.

Standardization of Language and Reduction of Jargon

The most obvious place to start is around the word “waiver.” It is being widely used by agencies, and the meaning is not consistent. The region should adopt a best practice of consistency in language. An example of how this type of consistency might look is as follows:

“If an emergency is declared, we provide several accommodations which are consistent with State and Federal law. While a permit is still required, we implement a simplified “emergency” process for obtaining permits below a size and weight threshold of <example>, and will not require payment of fees for the permit. Travel on designated state routes is allowed, but it is the carrier’s responsibility to check the route both before and during travel, using an escort if necessary. Carriers may utilize divisible loads with this permit only if a Presidential Declaration of Emergency has been published. Information can be downloaded at the following link: <example>.”

Action Item: It is likely that across the NASTO region, a mix of policy, regulatory and legal changes would be necessary to reach consistency. The Coalition and SCOHT should take a leadership role in drafting appropriate language, educating agency leaders for the need for such language, and implementing the language when enacted.

Improving Emergency Operations Plans

While some state agencies had defined interactions between their permit staff and their agency-wide emergency operations center, such interaction was not consistent. Having defined interaction with an emergency operations center not only raises awareness of the importance of permitted loads during an emergency (such as the fuel deliveries in New Jersey after Hurricane Sandy had left the area), but also provides permit office staff with improved information about road closures, weather forecasts, driving conditions, and other key pieces of information for making informed decisions internally for permit issuance and route guidance. In addition, emergency operations centers can include information on special permit requirements, procedures and restrictions during such events on their information output mediums (i.e., web sites, 511 systems, etc.) as an information resource for specialized and other carriers responding to such events.

Action Item: The leadership of I-95 Corridor Coalition’s Intermodal Freight and Passenger and Incident Management Committees should meet with the NASTO SCOHT leadership to exchange information about potential linkages between permit offices and emergency operations centers in the member states that could assist them with enhancing internal and external communications during such events.

Coordination with Federal Agencies

There were multiple areas of concern in the interaction between member state agencies’ permit offices and their counterparts at Federal agencies. Some of these were definition-oriented (the varying meaning of the word “waiver”) and others were process-oriented (locating the Presidential declaration). The rapid onset of Hurricane Sandy after MAP-21 passage did not help the situation. Still, most of the concerns can be addressed easily via some additional proactive pre-emergency measures.

Action Item: Coalition and SCOHT leadership should work with AASHTO and USDOT to develop a very simple *draft* emergency operations plan (3-5 pages) for mutual use that defines a project scoping approach to emergencies. The plan should define roles and responsibilities, issue management and escalation, and communications.

Action Item: The draft plan should be presented at the Summer 2013 AASHTO SCOHT committee meeting for consideration by the overall AASHTO leadership.

Additional Emergency Permit Types

In several situations, the appropriate permit for the type of emergency operation caused by Hurricane Sandy was not available in a particular state. For example, many “emergency permits” are geared for particular types of equipment used to clear emergency situations, such as major vehicular crashes, train derailments, or bridge strikes. In other situations, there was no way to implement emergency provisions into an agency’s online permitting system.

Action Item: SCOHT members should develop a set of harmonized permits which, when combined, allow for seamless end-to-end multistate travel for appropriate loads during emergency situations. State members should discuss whether single-trip or multi-trip permits are appropriate, whether fees should be collected, and whether the permits are issued in advance and triggered by a declaration or are issued only after a declaration.

Action Item: The Coalition leadership should work with SCOHT members to facilitate a session for member states’ agency executives to discuss the need for and benefits of a regional approach to emergency permit issuance and to draft a broader action plan for implementation region-wide.

Information/Best Practice Sharing with Other Regions

While the effects of Hurricane Sandy were substantial, the NASTO region is not the only region to have suffered a tragedy, either natural or man-made, requiring OS/OW permitting response. While this AAR has been a beneficial learning experience for members, additional benefits can be gathered by information sharing between states, benchmarking member states and identifying best practices. . The Coalition, by virtue of its sixteen state region from Maine to Florida, has a number of member agencies outside the NASTO region who have had significant experiences planning for and responding to hurricanes and other events. These agencies can be a resource to NASTO SCOHT members for information exchange on best practices.

Action Item: The Coalition should facilitate a discussion between agencies from its member states outside of the NASTO region with the NASTO SCOHT member agencies, using this document as a baseline for developing agenda items for information exchange and comparison of best practices to assist agencies with enhancing operational practices for OS/OW permitting during emergency events.