





# **OUR BOUT WITH SUPERSTORM SANDY**

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AASHTO Extreme Weather Event Symposium

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## THE SUPERSTORM

- Sandy was the largest Atlantic hurricane on record as measured by diameter with winds spanning 1100 miles
- Initial damage estimates at \$71 Billion
- More than 110 Fatalities



## IN SOME AREAS, DEVASTATION WAS COMPLETE

- Childhood memories gone
- Businesses gone
- Lives shattered
- Where do you start in order to recover?





#### **RESPONSE WAS SWIFT**

- Within 5 hours of wind subsidence, NJDOT had contractors and state forces on the ground
- Lesson learned it pays to be ready and pre-plan





October 30, 2012

December 11, 2012



## PLANNING FOR THE WORST

- Develop pre-storm checklist
  - Notional timeline
  - Emergency contracts in place
  - Practice your plans
  - Debris removal contracts are a must have
  - Top off fuel supplies
  - Inventory resources beforehand

Route 35, debris-laden (note house in middle of highway)





## POST STORM SITUATION





## NJDOT IMMEDIATE STORM RESPONSE

"Restore Stability. Maintain Safety"

- Closed 3 breaches in Mantoloking by SAT, 3 NOV
- Cleared nearly 581 road incidents within 3 days
- Opened RT 35 (plus side streets) and RT 36 in one week
- Provided 59,031.80 gallons of fuel to first responders and medical professionals
- Repaired/restored nearly 1100 traffic signals by 7 Nov
- BTW....Nor'easter snow storm on 7 NOV!



## NJDOT POST STORM RECOVERY

- Establish the NJDOT "Presence" (Forward Command Post)
  - NJDOT Mobile Command Center moved to Seaside Heights
  - Create relationships with law enforcement; utility companies; political leaders; Federal agencies
  - Create operational chain of command and reporting structure to NJDOT HQ
- Establish battle rhythm; scope and accountability
  - Organized teams and assigned individuals to take charge of affected locations
  - Organized and tasked emergency contractors based on locations and who was assigned to specific locations (Over 400 personnel and 200 pieces of equipment pressed into service).
  - Set up a daily schedule of meetings and report requirements.
     Empowered field personnel to "get the roads open"
  - Implemented a communication plan and communication rules
  - Provided daily situational report to HQ and NJSP personnel



## NJDOT POST STORM RECOVERY (CON'T)

#### Affected area:

- Area 1: RT 36; Sea Bright and Monmouth Beach (Sinkholes, Debris and Sand)
- Area 2: RT 35; Pt. Pleasant to Mantoloking (Debris, Sand, Sinkholes and Breach locations)
- Area 3: RT 35; Seaside Heights to Mantoloking (Sinkholes, Debris and Sand)
- Area 4: RT 72; Manahawkin (Sinkholes, erosion)
- Area 5: RT 37 Mathis bridge (structural damage)
- Area 6: RT 152; Atlantic county (ramp destroyed)
- RT 71 draw bridge

NJDOT POST STORM RECOVERY (CON'T)











# NJDOT POST STORM RECOVERY (CON'T)











#### THE RESULTS

- Reconstruction of three breaches along RT 35 complete and road fully open on 21 DEC (53 days after storm)
- 80 sink holes repaired
- 4,425 truck loads of debris removed from roadways
- 4,330 trucks loads of "clean sand"
- RT 71 draw bridge repaired by 19 DEC (51 days after storm)
- Over 1,250 signs erected









## **KEYS TO SUCCESS**

- Excellent Leadership
- "Can-Do" attitude
- Effective Operational organization
- Emergency contracts
- Good prior planning
  - "Storm kit" for field personnel
  - Good coordination with Federal agencies; other state agencies and local officials





## OTHER LESSONS LEARNED

- Document, Document!! You will need this for FEMA
- Prepare and Practice Prepare for the worst, hope for the best!
- You are on your own while there are people there to help you, don't count on it. Be as self sufficient as you can.
- Know the process, work the process it will help you get results quicker





## "JERSEY STRONG"

- Follow on recovery efforts would not have happened as quickly or efficiently if we had not done our work as well as we did
- As devastating as Hurricane SANDY was, it showcased the NJDOT's Engineering and Operational prowess, dedication and resourcefulness