NCDOT & NCDIT – T

Florence Response
Utilizing GIS

“Get as much verified information as possible, to as many officials as possible, as soon as possible”

John Farley
NCDOT GIS Manager
November 7, 2018
Times They Are a Changin’
Hurricane Florence

- 2400 road closures during Florence
- 1600 max at one time

<table>
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<th>#</th>
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<tr>
<td>Total</td>
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Hurricane Florence Disaster Event Time Line

**Business Impacts**
- **Tues 9/11**: IT Recommend DMV close
- **Wed 9/12**: Bladen DMV Closed
  - Emergency Msg to IVR
  - STARS Help Desk Closed
- **Fri 9/14**: 63 DMV LPAs closed
- **Sat 9/15**: LPAs Resume normal duties
- **Mon 9/17**: 1500 roads closed
- **Wed 9/19**: Activate alternate DMV Cust Contact Ctr

**IT Actions**
- **Mon 9/10**: Communicate w all DOT Bus Units to ID BEFs
- **Wed 9/12**: Hydraulics & Facilities Mapping
- **Thurs 9/13**: TIMS support assigned in DOT Traffic Mgmt Call Ctrs
- **Fri 9/14**: Start Rcvg Emergency data requests
- **Sat 9/15**: Hotel Mapping
  - TIMS History Event Map started
  - Web Team staff available 24x7
  - 0365 hurricane collaboration sites stood up
- **Sun 9/16**: Drone Imagery published
- **Mon 9/17**: Div 3 Maps for Secretary
- **Tues 9/18**: Daily TIMS Maps
- **Wed 9/19**: AGOL Shelter Map
  - GIS Servers stressed thru Oct 11

**Legend:**
- Red = Hurricane Florence events
- Orange = GIS actions
- Green = DMV impacts
- Blue = Web Services actions
- Yellow = Infrastructure actions

- **Sat Sept 1 – Sun 30**: Inundated w new AGOL/123 Accounts Req (460 total)
- **Wed Oct 3 Lenoir impact for Kinston**
- **Sun Sept 23 MOA Maps**
UAS – Unmanned Aerial Systems

- NCDOT deployed 14 teams
- Over 3200 Images and Videos were collected
UAS – Unmanned Aerial Systems

Image Capture

Seven Springs, NC

Lumberton, NC

NC22 at Highfall
UAS – Unmanned Aerial Systems

Video Capture

US 117
Storm Maps

Weather Event Response & Recovery Support Maps

NCDOT Hurricane Michael Imagery Map
NCDOT Weather Information Map
NCDOT Facilities Status - Hurricane Florence Map
NCDOT Facilities Status - Hurricane Florence Viewer
NCDOT Facilities Status - Hurricane Florence Map - INTERNAL
NCDOT Hydraulics Data - Hurricane Florence
NCDOT Pipe Replacement Recommendations – INTERNAL
Hurricane Florence Impact Maps
NCDOT Hurricane Florence Imagery Map
USPS National Map
~ NCDOT Weather Event Information Map - Created 9/11 - 26,270 views (this is our original TIMS and weather data map and is probably more public oriented)

Most of the views were generated in that time window with over 200 times increase of daily viewing from about 15 to over 3000.
Storm Apps

- *Drone Map and Display*
- *Secretary’s Mobile Drone Mission Assignment*
- *Pipe Inventory, Assessment, and Replacement (mobile component)*
- *Traffic Information Management System (TIMS) GIS Integration*
- *Mobile Damage Assessment*
- *Mobile Debris Removal*
Florence

After Action and Lessons Learned

• Finishing the After Action Report for DIT – T
  • Majority are GIS and/or Data Management Related
• Meeting with the business to consolidate and prioritize recommendations
Florence

Some Recommendations…

• Daily Geospatial Call – Patterned on the one for FEMA
• State GIS Staff (Resources?) for local assistance
• Etc…
Questions…
Let’s Connect!

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