NAVFAC Southeast
Contingency Engineering
Response Team (CERT)
Overview for Hurricane Matthew

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Storm Track & Navy Installations

The National Hurricane Center's Tropical Cyclone Reports
Hurricane Matthew

Damaged road in Flagler Beach from Hurricane Matthew

FEMA News Photo Oct 12, 2016
Hurricane Matthew Facts

- Formed September 28, 2016, Dissipated October 10, 2016
- Category 5 hurricane
- First Atlantic hurricane since Felix in 2007
- The 9th costliest Atlantic hurricane, $15.09 billion (USD)
- Top winds reached 160 mph
- Impacted 8 Navy Installations in the Southeast
Esri Capabilities Utilized During Storm Prep

• ArcGIS Online Services
  – NOAA Storm Surge Data
  – FEMA Flood Zone Data
  – Evacuation Zone Data
  – Hurricane Track Data

• Data Driven Pages
Supported Business Lines

• Contingency Engineer Response Team (CERT)
• Emergency Operations Center (EOC)
• Regional Operations Center (ROC)
• Planners
• Public Works
• Regional Dispatch Center (RDC)
• Base Security
List of Map Products

- FEMA Flood Maps
- NOAA Storm Surge Maps
- Facility Index Maps
- Imagery Maps
- Facility Map books
SE GRC Map Product: FEMA Flood Zone

[Image of a map showing FEMA flood zones with a detailed legend and scale.]

Legend:
- Facilities
- Building
- Street Centerline
- Flood Boundary
- Farther Flood Zones (Hundred Year Flood)
- 1% Annual Flood Risk
- Regulatory Floodplain

Projection: Transverse Mercator Coordinate System
- Scale: 1:14,400
- 0 to 1,250 feet

Prepared by: [Organization Name]

Contact: SE Geosolutions Center (814) 346-3656

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SE GRC Map Product: NOAA Storm Surge
SE GRC Map Product: Facility Mapbook
SE GRC Map Product: Facility Index Map
CERT Response Effort

- Prepared maps for all installations along the east coast in preparation for CERT response to potential hurricane impact
- CERT deployed to Navy’s Atlantic Undersea Test and Evaluation Center (AUTEC), Andros Island, Bahamas on Oct 11, 2016
- Team used provided wall maps to plan out the inspection effort
- Mapbooks were used in the field to locate facilities that needed to be evaluated
Example of Damage
CERT Disaster Assessment Team (DAT) Feedback

• Create map books with all assets that need to be evaluated from INFADS, the Navy’s property database.

• Pre fill out DAT forms with facility number.

• Water proof DAT forms.

• Maps printed and laminated for use in field during inclement weather.
GIS Mapping Team Feedback

Products Standardized During this Effort:
- Map templates
- Layer files
- Mapbooks

Issues:
- Plotting Maps
- Mapping Standards
- Map exports in Citrix (page size, data type, data size)
- Grids missing for several bases
- Acquiring Guantanamo Bay and Bahamas Flood and Storm Surge Data
• Lessons Learned
  – All standard disaster assessment maps need to be completed and ready to print before Hurricane season begins June 1.
  – Updates to storm surge maps can be made as the storm matures.

• Hurricane Exercise (HURREX)
  – GIS is now part of an annual HURREX that helps the Navy prepare for hurricanes. Detailed maps are one of the first products requested during a HURREX.
Thank You

Q&A