Making Our Way Through the 2020 Hurricane Season











Hurricane Season Lessons and Practices



Awareness and Actual Experience- shows that a 48-72 hour window may be all that is available to respond/react to a Tropical Storm or Hurricane

In the case of Tropical Depression Imelda of September 2019, almost no warning was possible to a 30-41 inch rainfall event in SE Texas over a 24 hour period

A rapid standup of a ICC and MTSRU is a key element to any storm event this Hurricane Season





Even one storm may have multiple impact to differing areas

Hurricane Harvey hit the Corpus/Aransas area as a Cat 4 and had significant damage to that port complex

It also moved over Houston Galveston and set a record for rainfall during a tropical event (over 60 inches)





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Key Elements- Immediate Action/Response In Place for 24-36 Hour Window for Hurricane Approach and Landfall

- 72 Hours- Hurricane Michael went from a Tropical Storm to the 3rd Most Intense Storm to Hit the Northern Gulf Coast
- Hurricane Harvey was also similar-rapid (very) intensification of a storm that had appeared to have died in entering the Gulf



Rapid Assembly Into a Command Center and Standing Up of a MTSRU



We are enormously blessed with a Port of Morgan City's Vision and Realization of a very rugged and capable EOC!



Evaluate the opportunities to use various response

- Q. technologies
- R. Develop Disposal Plans.
- Develop a plan for collecting, transporting, and analyzing S. samples
- Maintain Unit Log (ICS 214-CG) and forward to DOCL for disposition.

MARINE TRANSPORTATION SYSTEM RECOVERY UNIT LEADER (MTSL)

The MTSL is responsible for planning infrastructure recovery for transportation security incidents (TSI) and other incidents that significantly impact the MTS. The MTSL will track and report on the status of the MTS, understand critical recovery pathways, recommend courses of action, and provide all MTS stakeholders with an avenue of input to the response organization. The MTSL prepares transportation data for the Situation Unit and daily situation briefs applying core Essential Elements of Information (EEIs). Additional MTS related details can be found in chapter 16. The MTSL Job Aid, reference (h), should be reviewed regarding the organization and duties of the MTSL.

The major responsibilities of the MTSL are:

- A. Review Common Responsibilities in chapter 2.
- B. Obtain a briefing and special instructions from the PSC.
- Support Operations Section Staff elements that are C. established for MTS Recovery.
- D. Review the Area Contingency Plan (ACP).
- Review the AMSP and associated recovery procedures E. and priorities.
- F. Identify and implement supporting MTS Recovery Plans, where available.

Centrality of Reporting and Common Understanding of Response Work





Multiple Efforts – USACE, USCG, Pilots, Port Authorities, NOAA- All working together, can make recovery a rapid process. Even is obstructions or hazards are found- opening/recovery of the port and waterways are possible under the supervision of the Captain of the Port







NOAA focuses on Multi Beam and Sidescan Sonar Response Surveying. This can give you a very high definition view of an object, it's size, location and the amount of water above the object (clearance depth)



Immediate post storm/hurricane imagery is collected by NOAA of the impacted areas.

This imagery is on a public website and provides very high resolution images that can be used for many purposes and downloaded and shared across many missions and programs



Ownload ▼







About







Off Ramps and Standing Up Post Incident Activities



Standing down from an ICC and MTSRU is a key goal

This doesn't mean the work is finished, but does move ports and waterway users back to a more normal operating stance





In Summary

Storm Surge Fast Draw



- Understand the Need for Reacting in a 24-36 Hour Time Window
- Understand that Large Areas Could be Severely Damaged/Destroyed
- Communications (Telephone, Radios) May Be Out for Weeks
- Access Into and Out May be Severely Limited
- Multiple Missions will be in Play Urban Search and Rescue, Emergency Food and Sheltering, Medical Support, Housing and Support of Responders
- Alternative Support and Recovery Options must be on the Table for Everyone's Awareness
- ► Finding The End Point is Critical
- A Full Recovery of Years is Likely for a Major Hurricane. Restoration of Permanent Housing and Infrastructure May Also Take That Long

NOAA Charting and Updates

APPLYING HYDRO SURVEY DATA TO THE CHARTS FROM PRIVATE TERMINALS, FACILITIES AND HARBORS

NOAA Office of Coast Survey



A Lot of Growth of Coastal Ports is Occurring with New Private Terminals and Facilities and Harbors

- New Terminals and Harbor Areas that are outside of the USACE and Port Navigation Channels are growing rapidly
- With this growth, there is a need for the charting of these



Many Large Terminals Can Represent Billions of Dollars of Investment- and Receive Large and Very Valuable Shipping. Their Representation on the Charts is Critical to Safe Navigation To and From the Facility



For Surveys of Harbors and Terminals-Here are Some Information that We Request from the Terminal Operator and Surveyor- for Use on Chart

Updates



Charting Data for Placement of Depths and Harbor Bathymetry on the Charts

- Who conducted the survey, including the credentials of the surveyor
 - What area is covered by the survey
 - Date of survey
 - Type of survey / reason (condition, after dredge, etc.)
 - Survey technology (single beam, multibeam)
 - Equipment and software used
 - Horizontal / vertical datum
 - Horizontal and positional accuracy
 - Statement that the survey meets the standards for bathymetric surveying
 - How was the data filtered/ sounding density explained/ Bin size, etc?
 Example: 30 x 30 arid shoalest sounding centered or average of shoalest 3 x

Example: 30 x 30 grid shoalest sounding centered or average of shoalest 3 soundings.

- Supplemental datasets available: Diagrams, imagery, shapefiles showing coverage.
- Point of contact

Updating Coast Pilot- To Include Information on the Terminal and Harbor

-The Coast Pilot is a Very Important for Providing Information to the Mariner and Ship Lines on the Area and Terminal and Harbor

-Updating the Coast Pilot Should be a Benefit to Provide Information on the Terminal, Harbor and Contact Information and Various Resources and Features at the Facility's Location





Coast Pilot Volume 5 - 47th Edition, 2019

This publication has been updated through: 26-January-2020

NOAA's Coast Pilot

https://nauticalcharts.noaa.gov/publications/coast -pilot/index.html

<u>Coast Pilot Assist</u> <u>https://www.nauticalcharts.noaa.gov/customer-</u> <u>service/assist/</u>

And Don't Forget- Your Local Navigation Manager is Here to Help!

<u>https://nauticalcharts.</u> <u>noaa.gov/customer-</u> <u>service/regional-</u> <u>managers/index.html</u>

Contact your region's Navigation Manager if you...

- need expert navigation preparation and response information for severe weather or hurricane preparedness and post-storm response
- · know of a danger to navigation that should be charted
- need experienced assistance in navigational project coordination
- want NOAA at your Harbor Safety Committee meeting, or other maritime-related conference or workshop
- require more information about NOAA's latest navigation technologies
- are looking for objective information on hardware and software products for safe navigation and homeland security
- have an idea for a new navigation product that would improve safety, efficiency, or value for the marine economy
- need advice to resolve navigational problems
- · have a concern about a NOAA nautical chart or data



NOAA Navigation Manager providing customer service to maritime community.