



UNITED STATES COAST GUARD SECTOR NORTH CAROLINA

Hurricane DORIAN & Geographical Response Strategies



CDR Tracy Wirth
Response Department Head



Hurricane FLORENCE Summary

ESF #10



- Mission Assignment: \$10M
- Key Objectives: Assess Coastline and Remove Oil/HAZMAT from Targets w/ Threat to Environment
- Unified Command: USCG, EPA, NC Wildlife Resources Commission & NC Department of Environmental Quality

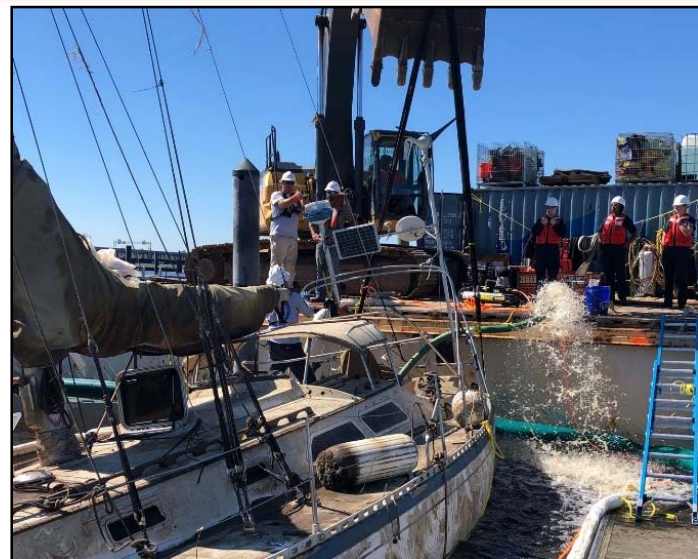




Hurricane FLORENCE Summary

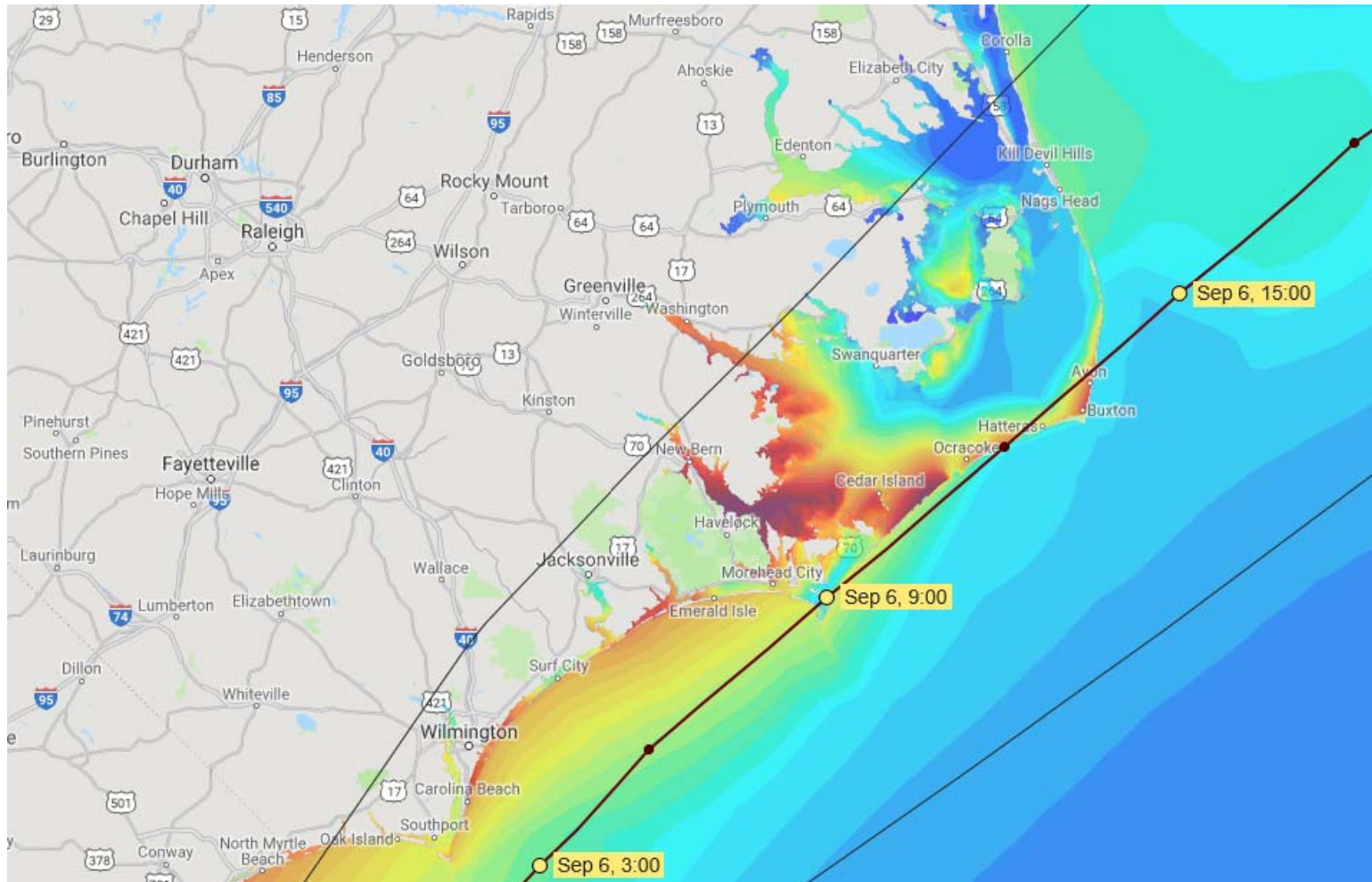
ESF #10

- Final Cost: \$8.9M
- Completion: 14 Nov 2018 (60 days)
- ESF-10 Mitigation: 148 Vessels
- Owner Removed: 118 Vessels
- Remain In Place: 120 Vessels
- Total Assessed: 362 Vessels





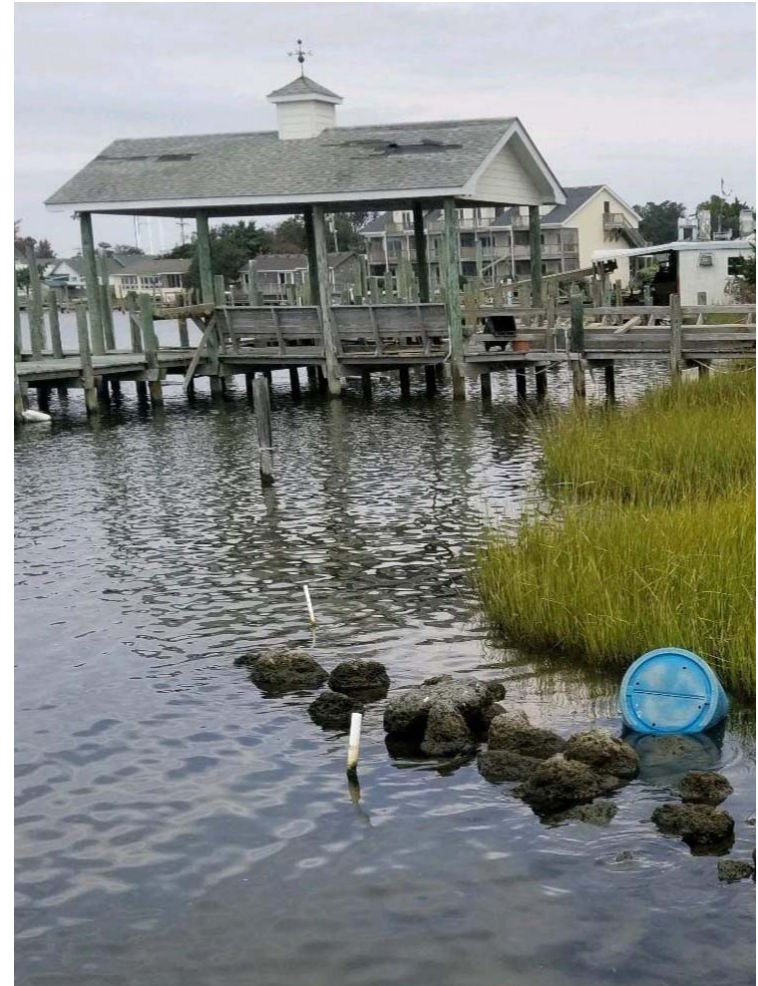
DORIAN's Path through NC





How Dorian Differed

- W/ the exception of the Outer Banks, most of state took a glancing blow.
- Flooding & cresting not as prevalent/pervasive as FLORENCE.
- Citizens were prepared & many vsls removed/secured ahead of time.
- Low number of vessel/HAZMAT targets removed demand for Mission Assignment under Stafford Act.
- USCG responded under existing FOSC authorities using traditional operating parameters & funding sources under FWPCA/CWA/OPA.





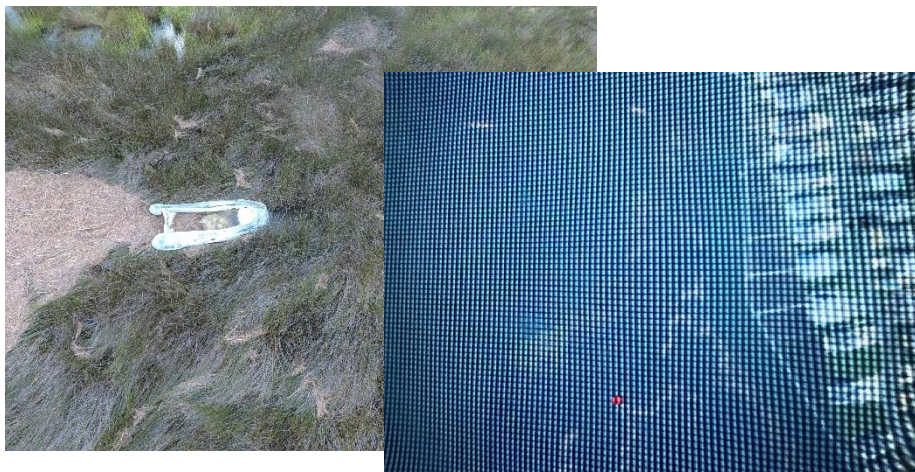
Post-DORIAN Pollution Response Operations

- 06 Sep 2019: USCG teams deployed to perform post-storm Port & Pollution Assessments.
- Sector NC personnel supported National Strike Force, National Pollution Funds Center & NOAA.
- Assessments meticulously performed from land, air, surface & satellite.
- Over 2 weeks, all targets were investigated & all threats mitigated as needed/appropriate.



*(Below) USCG NSF
Staged Pre-Dorian*

*(Above) Target from
USCG Port
Assessment Team
(Frisco, NC)*



*(Above) Target displayed on ERMA (right).
Target located in marsh using UAS.*

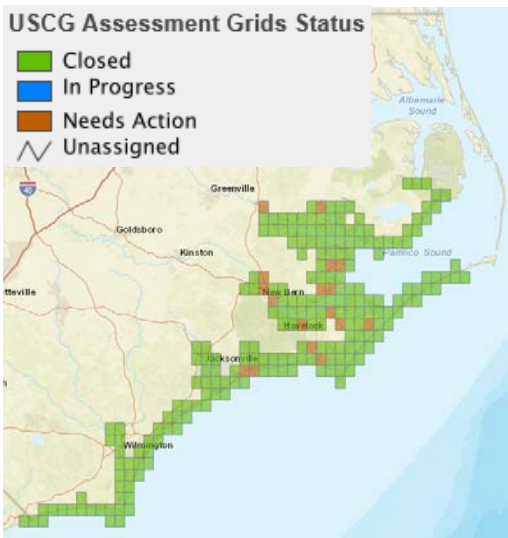
- **Responders:** 25 from Sector NC, 08 from NSF, 01 from NOAA, 01 from NPFC & 03 IA.
- **Special Equipment:** UAS, C2 Trailer, MH-60 & Plum Kit.
- **Actions:**
 - Responders embarked on 4x4 vehicles, CG & OGA small boats & A/S Elizabeth City MH-60s.
 - Combined efforts id'd 60 potential targets.
 - Each target thoroughly assessed & investigated to determine potential threat to environment & identify owner
- **Results:**
 - 22- Vessel had no pollution on board
 - 20- No vessel present
 - 07- Vessel removed by the owner
 - 05- Vessels w/ pollution on board, but no threat
 - 04- Sites inaccessible
 - 02- Pollution removed by USCG contractor



Response Tools - ERMA

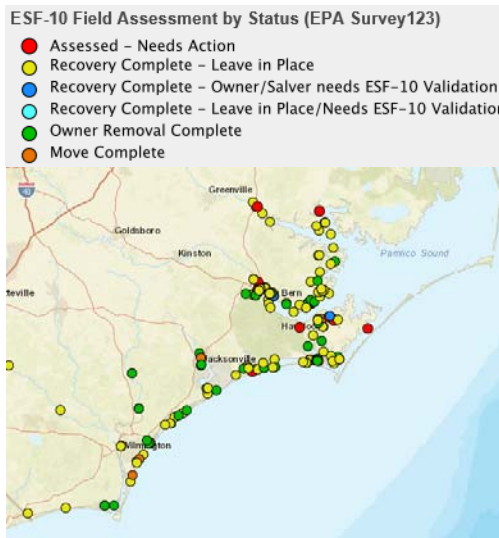
USCG Assessment Grids Status

- Closed
- In Progress
- Needs Action
- ∨ Unassigned



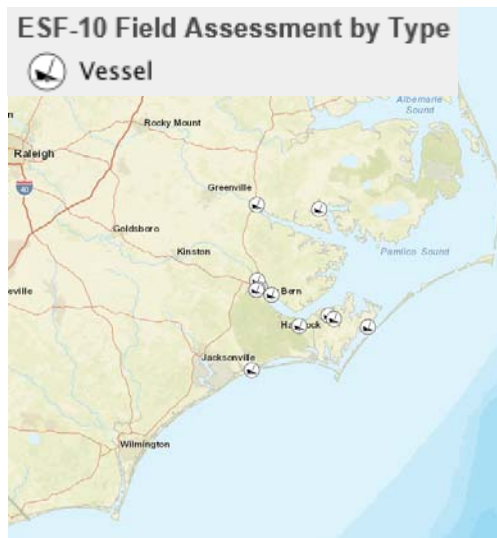
ESF-10 Field Assessment by Status (EPA Survey123)

- Assessed - Needs Action
- Recovery Complete - Leave in Place
- Recovery Complete - Owner/Salver needs ESF-10 Validation
- Recovery Complete - Leave in Place/Needs ESF-10 Validation
- Owner Removal Complete
- Move Complete



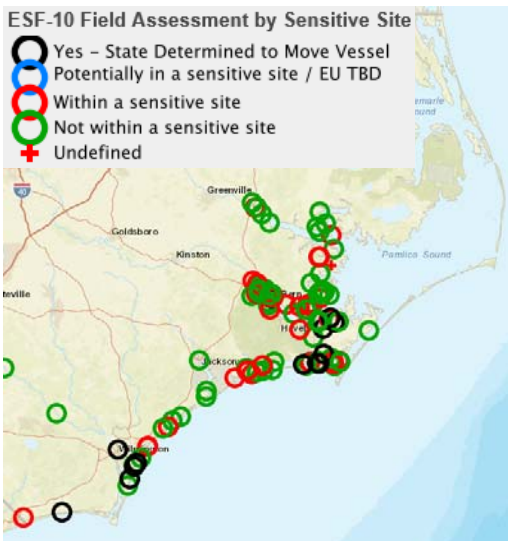
ESF-10 Field Assessment by Type

- Vessel



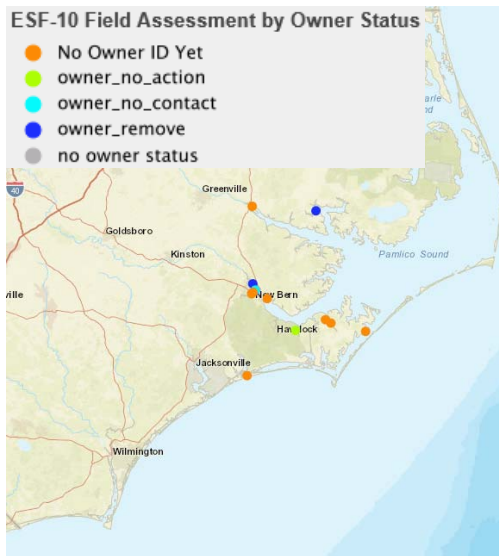
ESF-10 Field Assessment by Sensitive Site

- Yes - State Determined to Move Vessel
- Potentially in a sensitive site / EU TBD
- Within a sensitive site
- Not within a sensitive site
- + Undefined



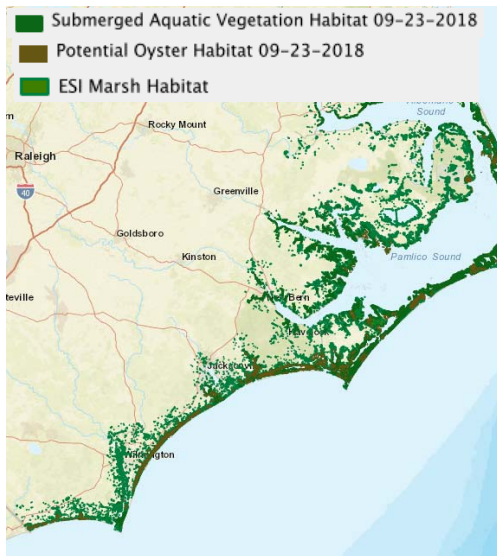
ESF-10 Field Assessment by Owner Status

- No Owner ID Yet
- owner_no_action
- owner_no_contact
- owner_remove
- no owner status



Submerged Aquatic Vegetation Habitat 09-23-2018

- Submerged Aquatic Vegetation Habitat 09-23-2018
- Potential Oyster Habitat 09-23-2018
- ESI Marsh Habitat





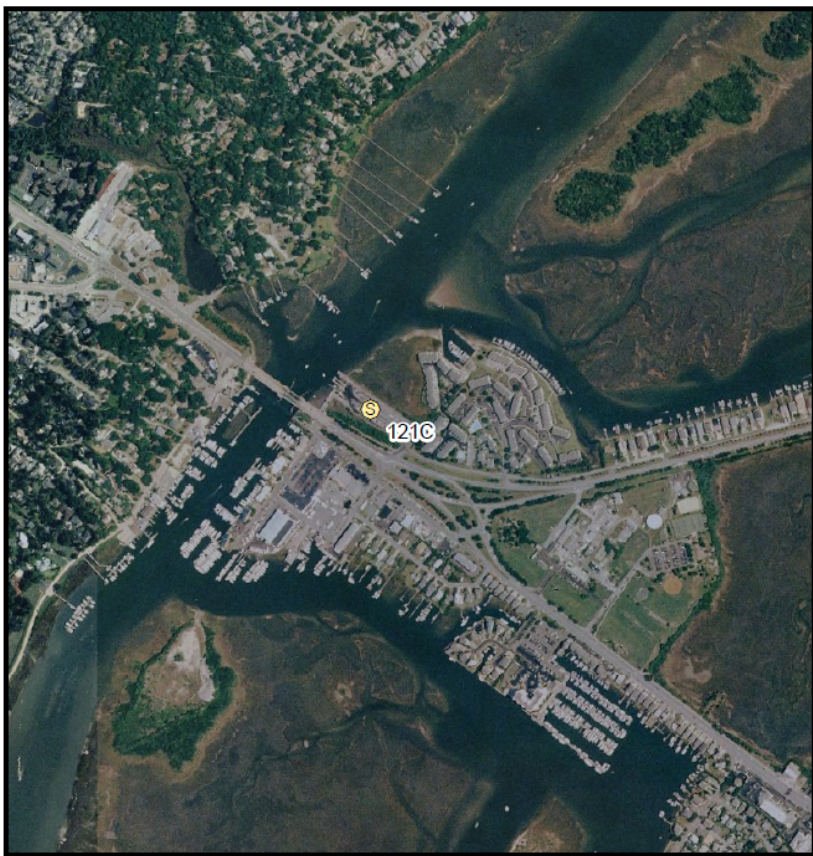
What is a GRS?

- Geographic Response Strategies (GRSs) are part of the Area Contingency Plan.
- GRSs divide NC's coast into squares. Within each square is a different tactical plan on how boom will be deployed in the event a spill occurs within that square.
 - Some GRSs include pre-designated areas to stage response equipment.
- GRSs can be used within the first stages of an incident to facilitate rapid staging of gear & boom deployment.



Example of a GRS

WRIGHTSVILLE BEACH, N.C. BOOMING STRATEGY



0 0.05 0.1 0.2 Miles

S Staging Area

MAP INDEX ICS 204
 WRIGHTSVILLE BEACH, N.C. (1970) ICS 232
 NAUTICAL CHART QRC
 WRIGHTSVILLE BEACH, N.C. (1970) GRP

NC-121



WRIGHTSVILLE BEACH, N.C. (1970) BOOMING STRATEGY



Boom Priority

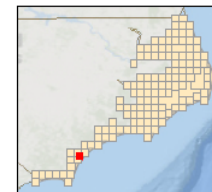
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Skimmer

0 0.05 0.1 0.2 Miles

MAP INDEX ICS 204
 WRIGHTSVILLE BEACH, N.C. (1970) ICS 232
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 WRIGHTSVILLE BEACH, N.C. (1970) GRP

NC-121





GRS Validation Project

- On-site teams confirms:
 - Location Description (including address)
 - Any Noticeable Deviations from GRS
 - Staging Area Size & Conditions
 - Equipment Identified in GRS
- If the GRS has no pre-designated staging areas, the team attempts to id suitable locations.

Internal GRS Review Sheet

GRS #: 26A Date Reviewed: 5/27/2019

Corresponding ESI Map #/s: 26

Description of Area: Mann's Harbor, NC


Deficiencies with the GRS: 26A: No defs.

Staging Area (size, ground type, condition, etc):
26 A- Large cement boat ramp. Large asphalt parking lot. Numerous boat slips.

GRS Listed Equipment (quantity and type) satisfactory: This staging area has the capacity to accommodate large amounts of boom and equipment.

Reviewer: MST2 Noc; MST3 Brunetti

5227 US Highway 64 Mann's Harbor, NC 27953





Testing/Exercising GRSs

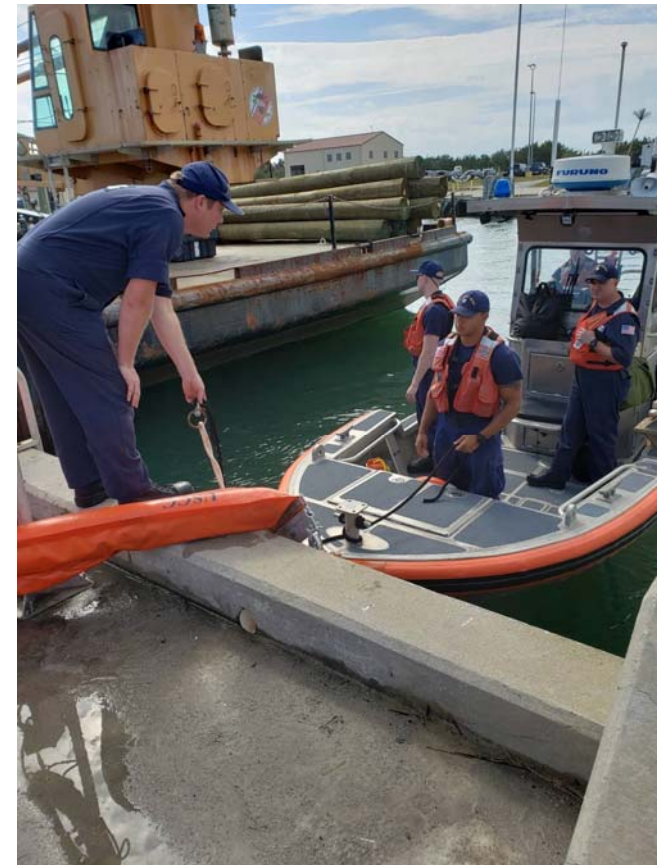
- Sector NC also testing & exercising boom strategies contained w/in the GRSs.
- New process & two conducted this year.
 - Utilizes USCG Response Trailers.
 - Partner w/ state/local agencies & OSROs.
- Determine if the planned strategies are realistic.
- Improve proficiency in deploying spill response equipment.





USCG Response Trailers

- 300' Boom
- Sorbent Pads
- Shackles
- Anchors
- Tools
- Posts
- Marker Lights
- Buoys
- Line





Way Forward

- 72 GRSs left to review.
- Several upcoming validations & exercises in FY20.
- Collaboration w/ stakeholders will only improve the quality of the GRSs & increase proficiency in deploying response equipment.
- Participation encouraged for anyone who is interested.



QUESTIONS?