Hurricane MARIA ESF-10 Puerto Rico

Case Study

CDR Kelly Thorkilson & CDR Brett Workman

















Infrastructure Impact







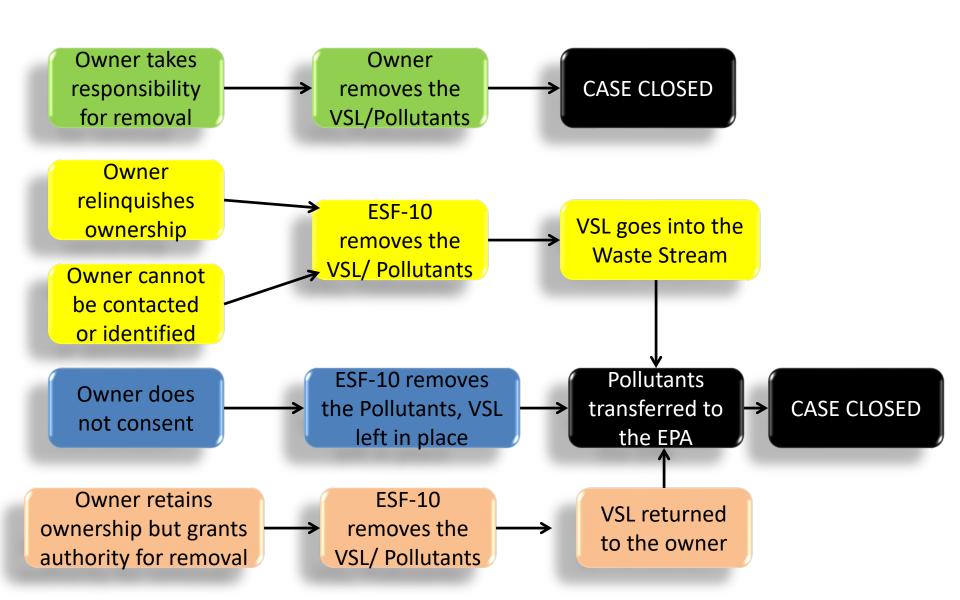
Transition to ESF-10 Maritime Operations

- National Level Response
 - JFO
- FEMA RRF to Mission Assignment
- USCG SECTOR response
- ESF-10 Transition
 - Vessel Mitigation and Removal Plan
- Phased Operations
 - Phase I: Rapid Pollution Assessment & Mitigation
 - Phase II: Vessel Target Assessment
 - Phase III: Vessel Owner Outreach & Notification
 - Phase IV: Vessel Removal Actions
 - Phase V: Demobilization



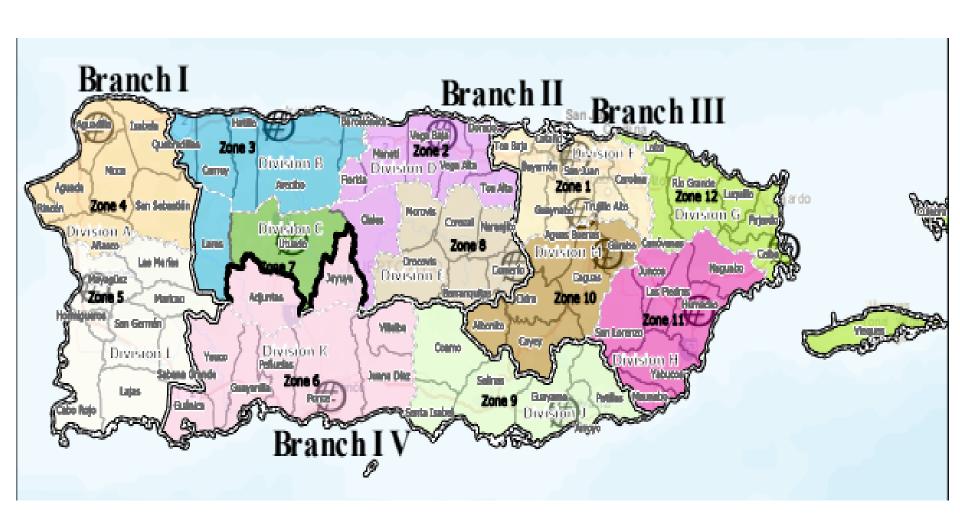


Vessel Removal Protocol





Area of Operations





Phase I: Assessment



Aerial Imagery Identified Debris 31-Oct-2017 (NOAA RPI)

- Automotive
- Construction
- Debris Pile
- Trailer
- o Unknown
- Vessel
- o Oil Hazmat Container

Esri Street Maps





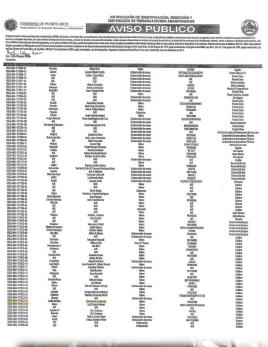
Phase II: Vessel Target Assessment

- NOAA Imagery Verification
- EPA Response Survey 123
- ERMA Common Operating Picture
- Vessel Targeting Manager
- Environmental Unit
 - Best Management Practices
 - Section 7 Consultation
 - State Historical Preservation Office





Phase III: **Vessel Owner Outreach & Notification**



News Release

U.S. Coast Guard PUERTO RICO

Office: 787-729-2381 787-510-7923

Press inquiries: MariaUSCGD7@gmail.com 786-254-6316

Process begins for removal of vessels displaced in Puerto Rico by Hurricane Maria



Editors' Note: Click on images to download high resolution version.

SAN JUAN - The Department of Natural and Environmental Resources and the U.S. Coast Guard in conjunction with the Puerto Rico Environmental Quality Control Board, the Environmental Protection Agency, and the U.S. Fish & Wildlife Service have stood up an Emergency Support Function 10 (ESF



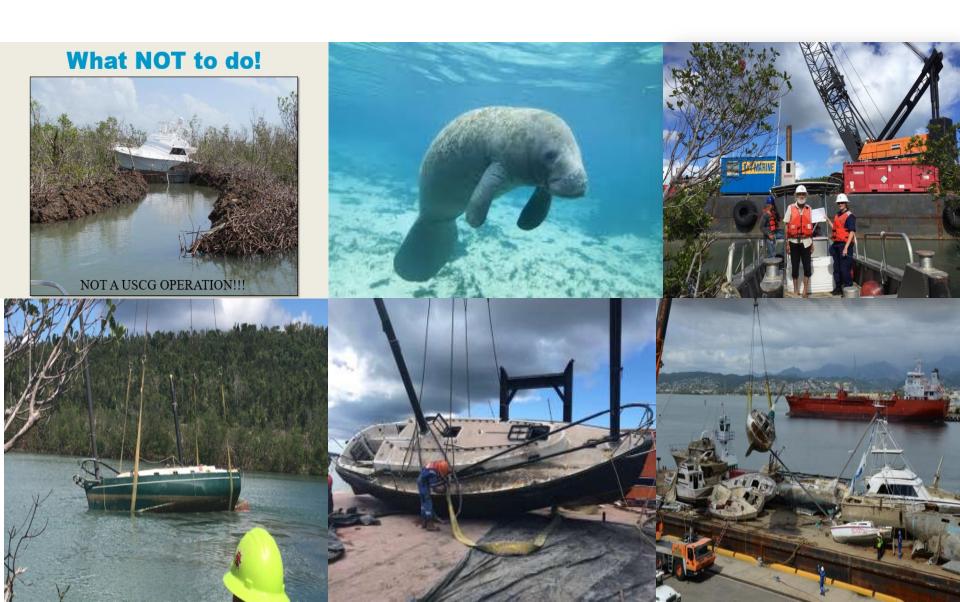






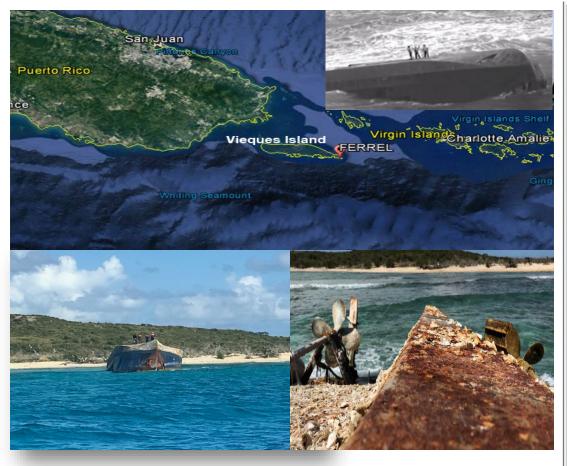


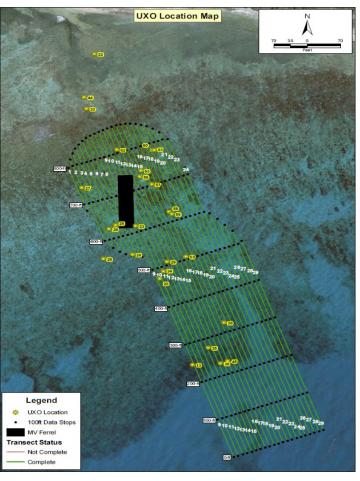
Phase IV: Vessel Removal Actions





Special Project: M/V FERREL







Phase V: Demobilization

Operations complete 3/5/2018

- Final Vessel Documentation
 - USCG Archives
 - Original 377 Case Files to the Commonwealth
 - Electronic copies retained by USCG

Administrative

- FEMA Property
- Cost Documentation
- Recognition
- ICP Breakdown

Personnel

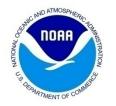
- USCG
- Contractors















Mission Assignment (MA)

Total \$35M

Hazardous Waste Management Totals

Oily water: 38,400 gallons

Maria ESF-10 IMT Total Personnel

ORG	#Personnel		
CAS	1		
Clean Harbors (BCC)	2		
Clean Harbors (CHES)	8		
DNER	3		
EPA	9		
FWS	1		
NOAA	15		
NRC	7		
т&т	17		
TRG	4		
USCG AD	130		
USCG CIV	6		
USCG RES	40		
Weston	41		
TOTAL	284		

USCG Vessel Target Status (As of 03 MAR 2018 1200L)

	Total Targets	Open & Identified	Open & Stickered	Open & Pending	Closed Targets
Branch I	43	0	0	0	43
Branch II	0	0	0	0	0
Branch III#	211	0	1	0	210
Branch IV	123	0	0	0	123
Total	377	0	0	0	377





Incident Lessons Learned

- ESF-10 Processes
- Commonwealth Engagement
 - Abandoned and derelict vessel legislation
- Communications (WhatsApp, Maps.Me)
- Logistics
- Spanish Speakers for Vessel Outreach and Media
- ESF-3 Transition Point
- Data Management
- Environmental Assessments
- Continuity of Staff





USCG Lessons Learned

- Contracting (Hotel, vehicles through SILC)
- NSF Pre-position Team (e.g. cascading resources)
- ICS OJT & PQS Sign-offs
- Single Authorization To Proceed
- IMT Management
- Network PLUMCASE (COMCOM resources) & Blueridge Router
- Resource Ordering



You Think You Could Have an ESF-Response

- Of about 1,000 vessels....
 - 50% will be removed via vessel owners
 - 25% will be removed by insured facilities (marinas)
 - Still leaves at least 250 sunken, submerged, displaced, abandoned and derelict vessels...

2017 Hurricane Season Metrics

- Managed \$156,000,000 ceiling
- Assessed over 4,000 vessels
- Removed 1,566 vessels from environment to transition point for disposal as debris
- Disposed 50,000 gals oil & 1,000 batteries

- Federal Response (NCP)
 - Pre-designated On-Scene Coordinator/Lead Agency for oil spills/hazardous substances
 - USCG Vessel Removal must be approved by COMDT
 - Funding RP/OSLTF/CERCLA
- Federal to State (NRF)
 - Resource Request Form and Mission Assignment
 - Removal of oi/HAZMAT/vessels under Lead Agency IAQ law/reg/policy (Abandoned and Derelict Vessels)
 - Stafford Act
- Federal to Federal
 - Interagency agreement or Mission Assignment



What You Need to Think About....



- Abandoned and Derelict Vessel Legal Framework

- Do you have one? What are the limitations?
- You may have has 10-20 of these in your port before the disaster..... You may have THOUSANDS following the disaster.....

- Additional Authorities to Potentially use

- Vessel registration requirements
- Environmental Protection
- State Land Regulations



What You Need to Think About



- Cost Share
 - 0% versus 10% versus 25% MA cost share
- What are your (the State's) priorities?
 - Remove all vessels?
 - Only remove pollution threats?
 - Remove vessels in Environmentally Sensitive Areas?
 - Remove uninsured vessels?
 - What are the future impacts of not removing all vessels?





Other issues



- Vessels may be on Federal or Tribal lands
- Vessels on private property
- Vessels with no clear owner
- Vessels/Owners with illicit histories
- Vessels that were derelict before the storm and impacted after
- Designated Staging Areas of Transition Points
- "Unicorns"
 - Vessels in area with explosive ordnance...also on CFRCLA sites it happened

So What Can You Do Now?



- Review your ADV authorities and processes
- Develop an ESF-10 Vessel Mitigation and Removal Protocol/Plan Template
 - Outline Authorities
 - Vessel Removal Priorities
 - Data Collection/Management Process
 - Owner Notification Process
 - Vessel Pollution Response and/or Removal Process
 - Identify Staging Areas or Transition Points
- Conduct a tabletop or drill with your partners
- Draft or update ADV Guidance in your ACP













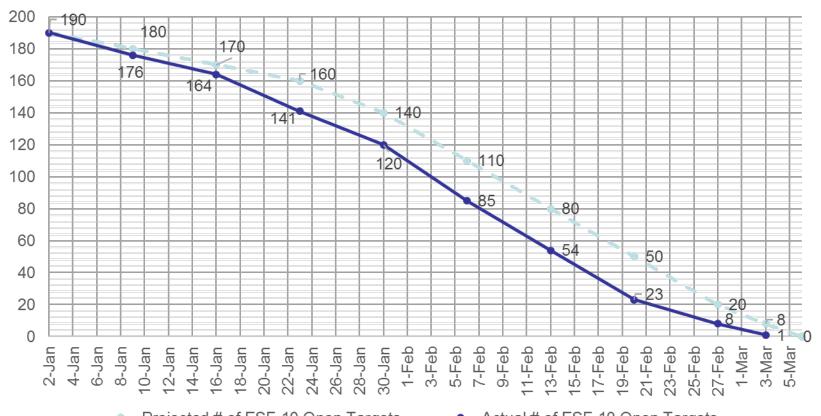








Hurricane Maria ESF-10 PR Glide Slope to Success



Projected # of ESF-10 Open Targets

Actual # of ESF-10 Open Targets



Safety







