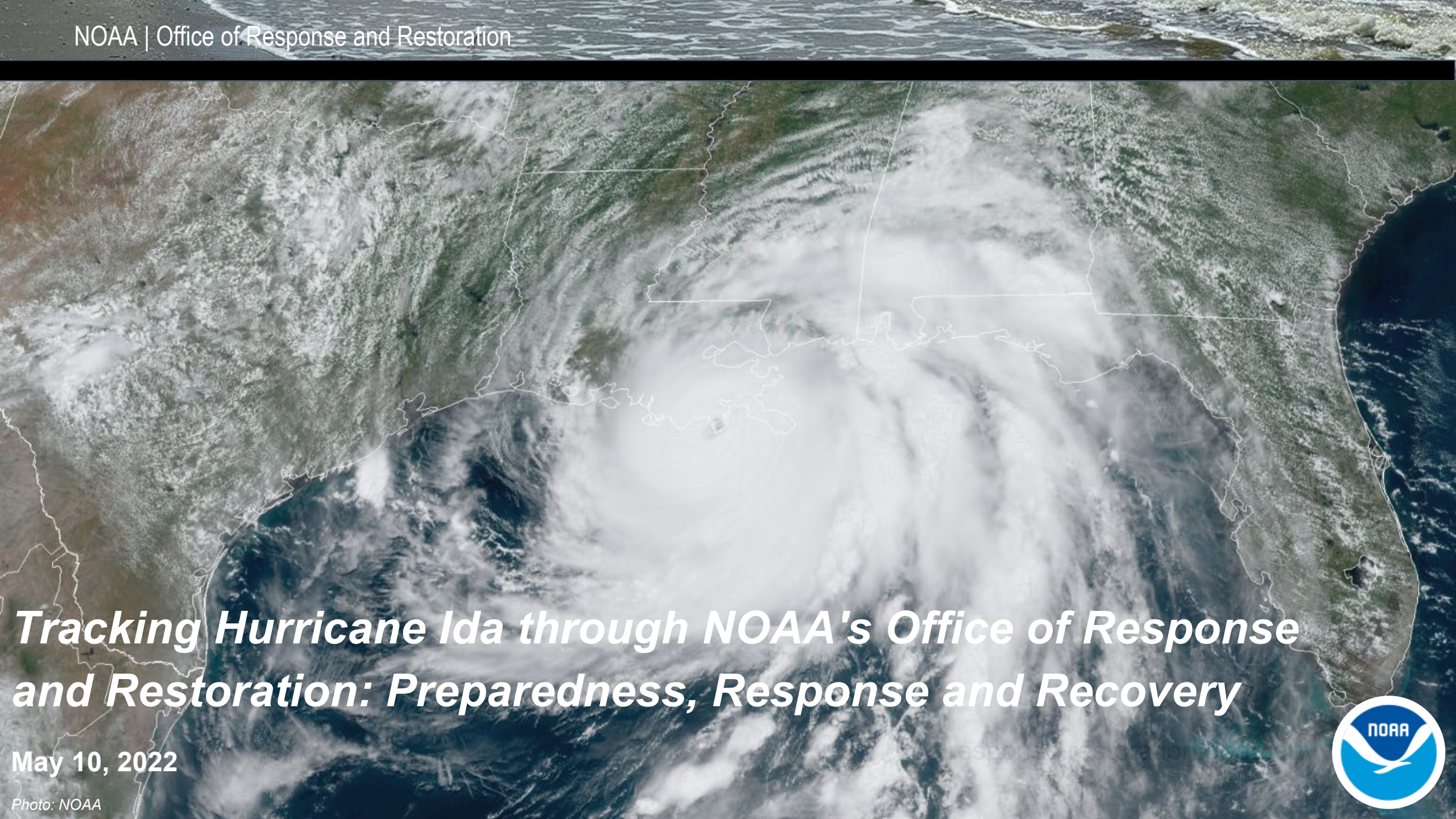

Tracking Hurricane Ida through NOAA's Office of Response and Restoration: Preparedness, Response and Recovery

May 10, 2022

Photo: NOAA

Presenters

Charlie Henry
Director
Gulf of Mexico Disaster Response Center

Brandi Todd
Scientific Support Coordinator
Emergency Response Division

Kevin Kirsch
Southeast Branch Manager
Assessment and Restoration Division

Caitlin Wessel
Gulf of Mexico Regional Coordinator
Marine Debris Program

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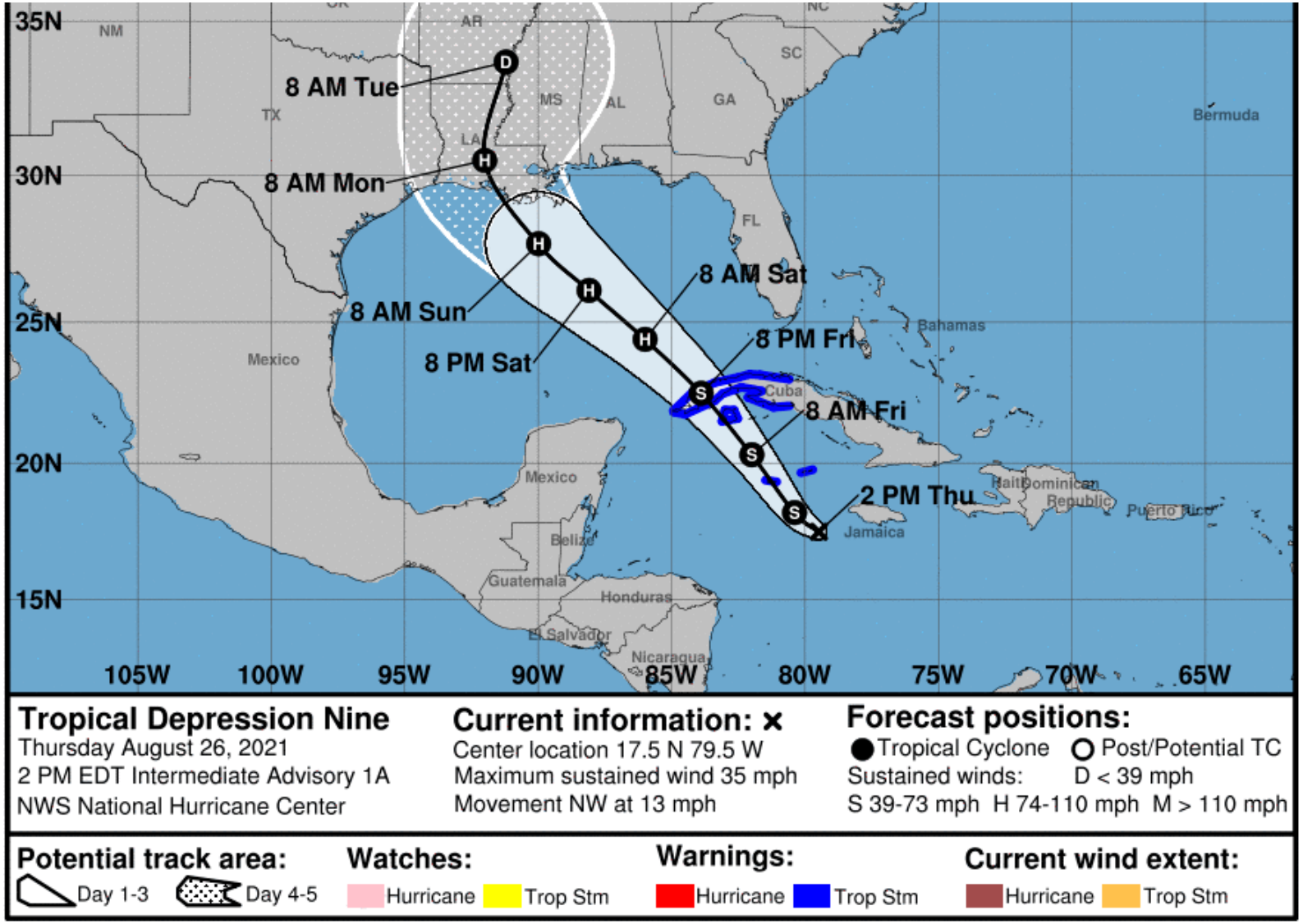
Hurricane Preparedness

About Hurricane Ida



Situational Awareness and Threat/Risk Assessment

Thursday morning, August 26, 2021: Confident in hurricane threat to the Northern Gulf of Mexico with landfall likely in Louisiana.

Friday morning, August 27 2021: NHC predicted Tropical Storm Ida would rapidly intensify into a major hurricane.

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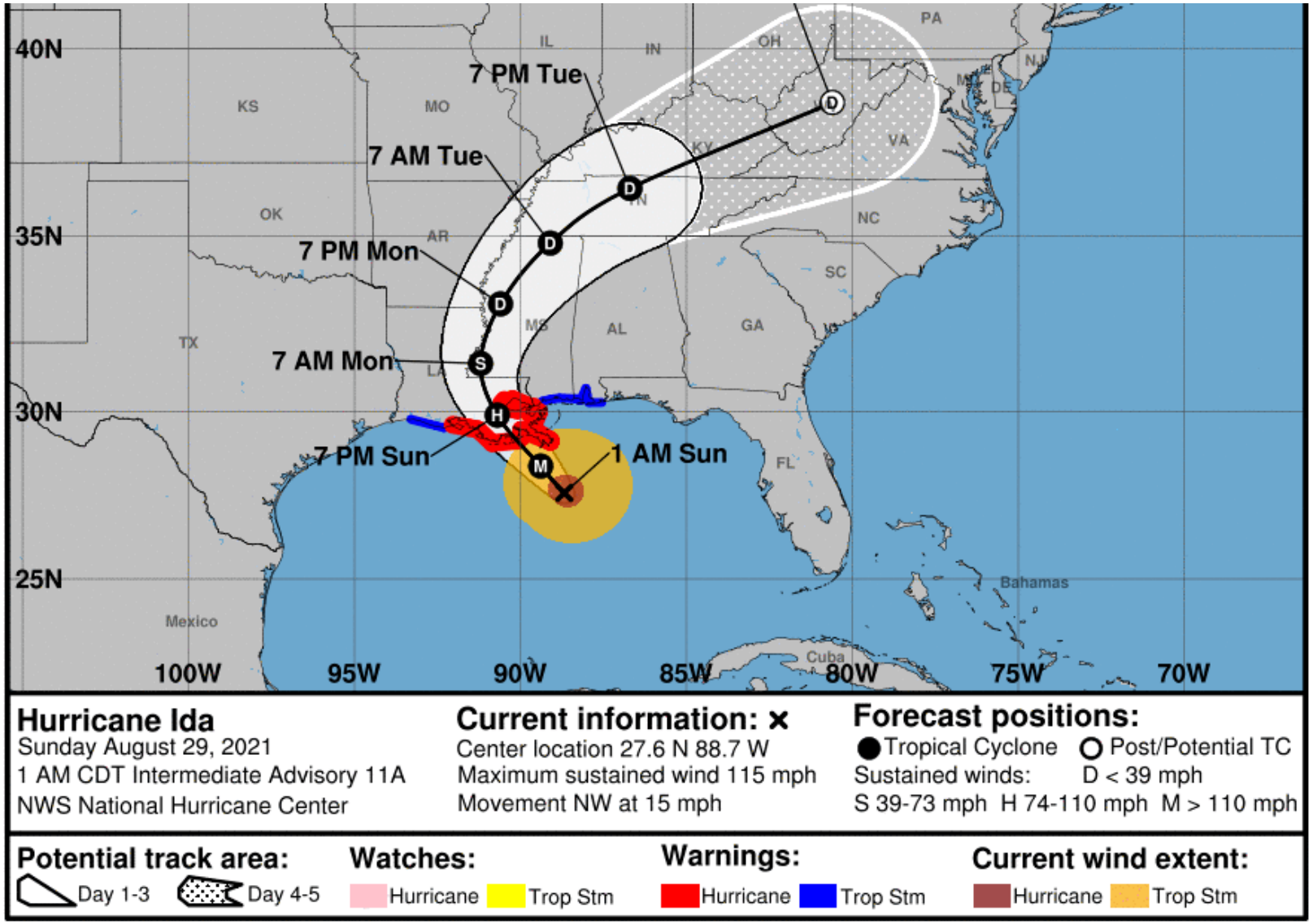

Hurricane Ida

- Cat. 4 w/ 150 mph winds.
- Landfall near Port Fourchon on August 29, 2021 - the 16th anniversary of Katrina
- **Second most destructive storm to hit Louisiana**.
- Second strongest storm to make landfall in Louisiana (tied with Hurricane Laura in 2020).
- 87 U.S. Deaths

Ida was the fourth hurricane to make landfall in Louisiana in less than 13 months.

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Preparing for a Hurricane

The Disaster Preparedness Program (DPP) supported NOS and NOAA preparedness before, during, and after Hurricane Ida.

<u>Before:</u>

- NOS After Action Report from 2020 Storm Season
- Continuous Improvement (Corrective Actions)
- Annual NOAA Hurricane Preparedness Summit
- Pre-Summit Survey (2021 Preseason Survey)
  - Managing COVID-19 was still a challenge
  - Managing pandemic fatigue was identified
- COOP Planning (even at the individual level)
- Coordinate/Lead NOS Incident Management Team
- Situation Awareness and pre-storm coordination

During a Hurricane

NOAA Gulf of Mexico Disaster Response Center (DRC) in Mobile, AL

- Weather Hardened
- Redundant Systems for IT and Power
- Training/Incident Command Center
- Primary COOP for USCG Sector Mobile
- Supports NOAA Missions

During Hurricane Ida, the DRC supported the FEMA/NOAA NGS overflights and mapping mission by providing a base of operations and high speed internet to transfer the overflight image data.

Hurricane Response

Hurricane Support

Assist USCG with response to Oil and Hazmat response post Hurricane

Supporting many simultaneous responses

Remote and On-Site support

- Scientific Support Coordinators
- Spatial Data Managers
- Oceanographers
- Chemists
- Biologists

Bayou Segnette post-Ida, Credit: Jim Richard, GOHSEP

Pollution Target Data Management for USCG

- VaDR (Arc Collector + ERMA)
- Nat Env Satellite, Data & Info Service
- Overflight Imagery

Recommend Best Response Methods/Tools

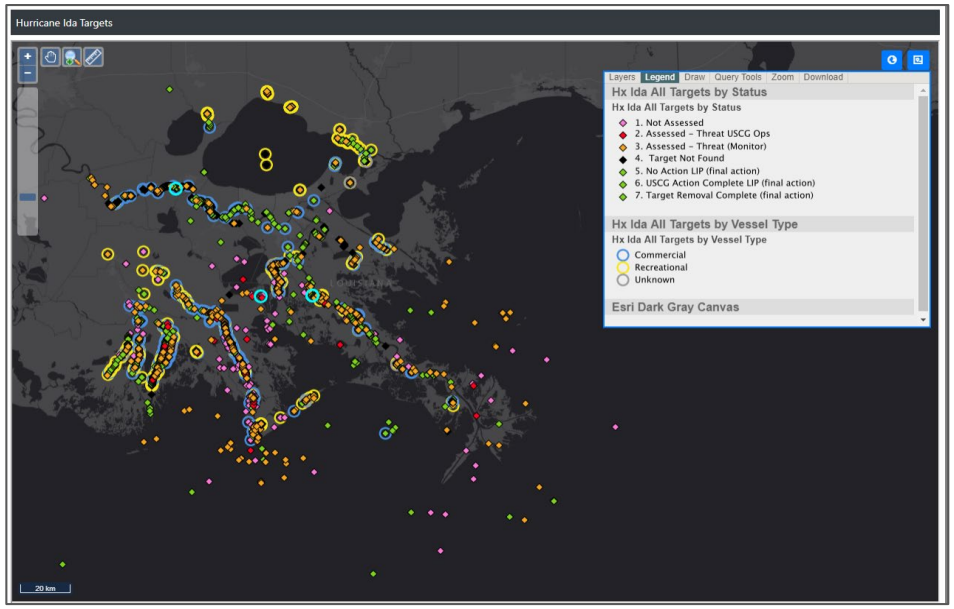
- In-situ burns, sensitive habitats

Information sharing

- USCG, State, BSEE, Trustees

ESF 10 Mission Support

- Oil & Hazmat Response
- Coordinate with other ESF missions



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Responding to Debris

- State Marine Debris Response Guides
- Supporting Joint Field Office, Incident Command Post, and Debris Task Force during response
- Funding
  - Supplemental
  - Removal Grants

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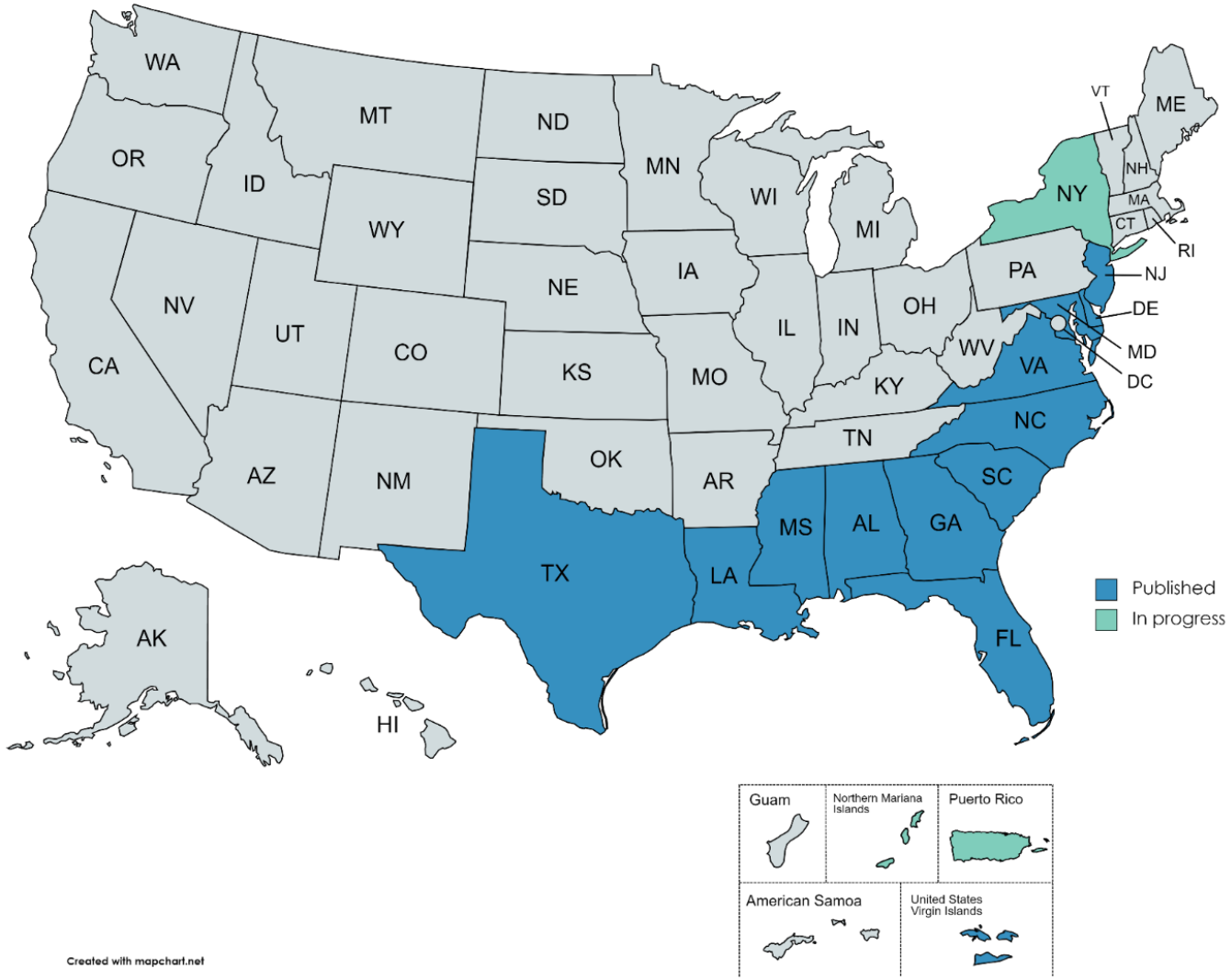
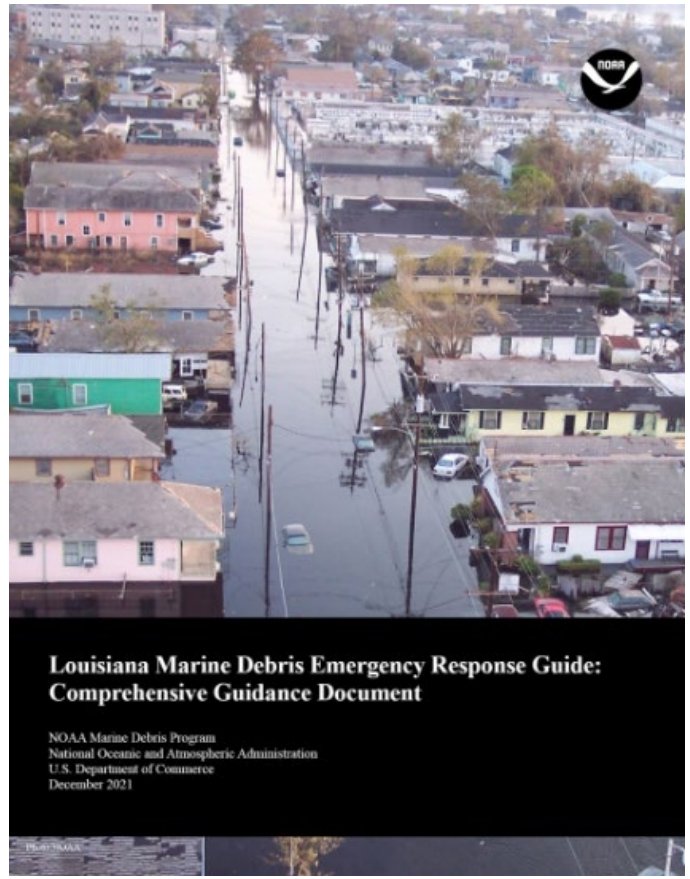
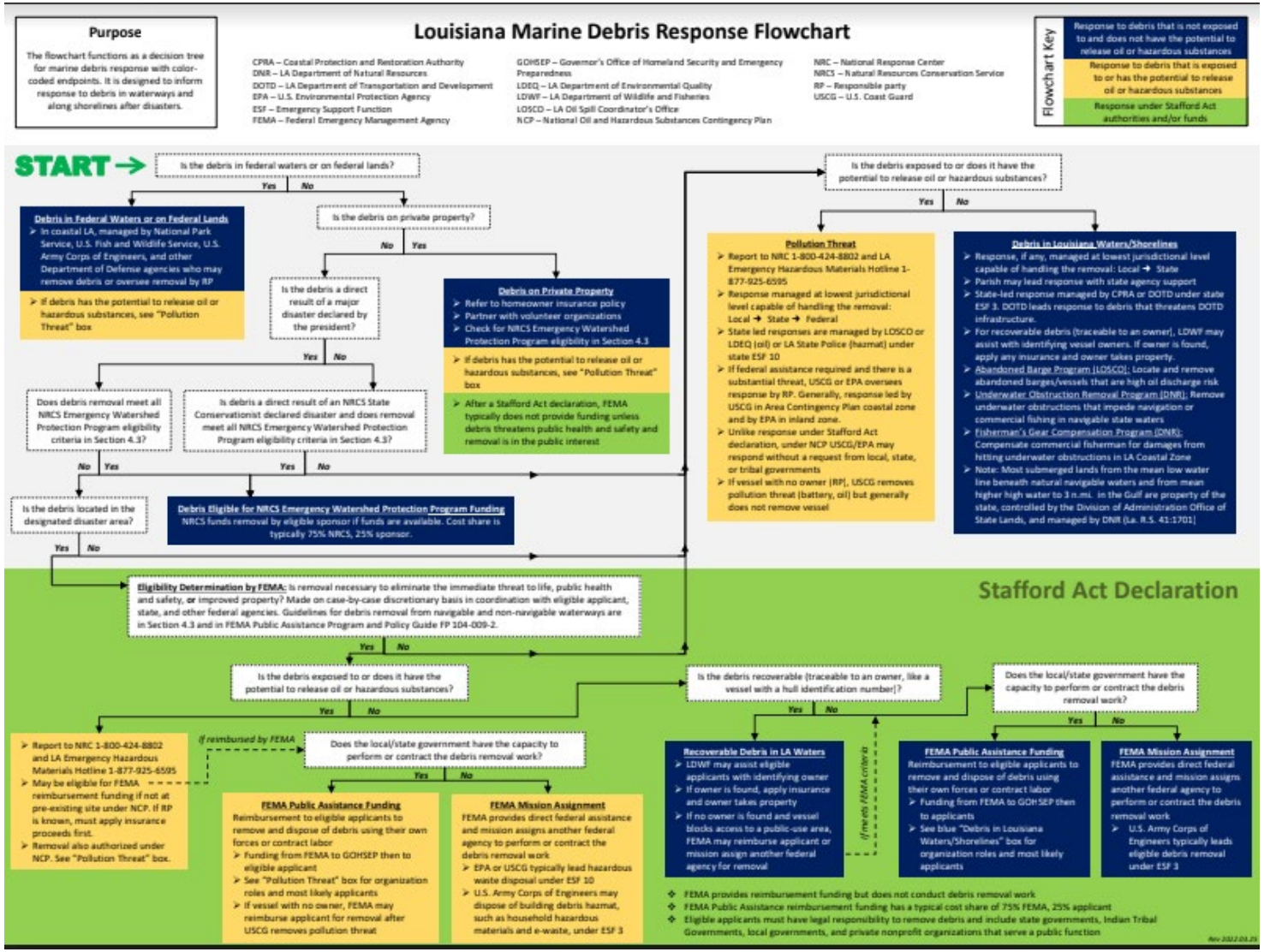
Marine Debris Response Guides







Guide Content

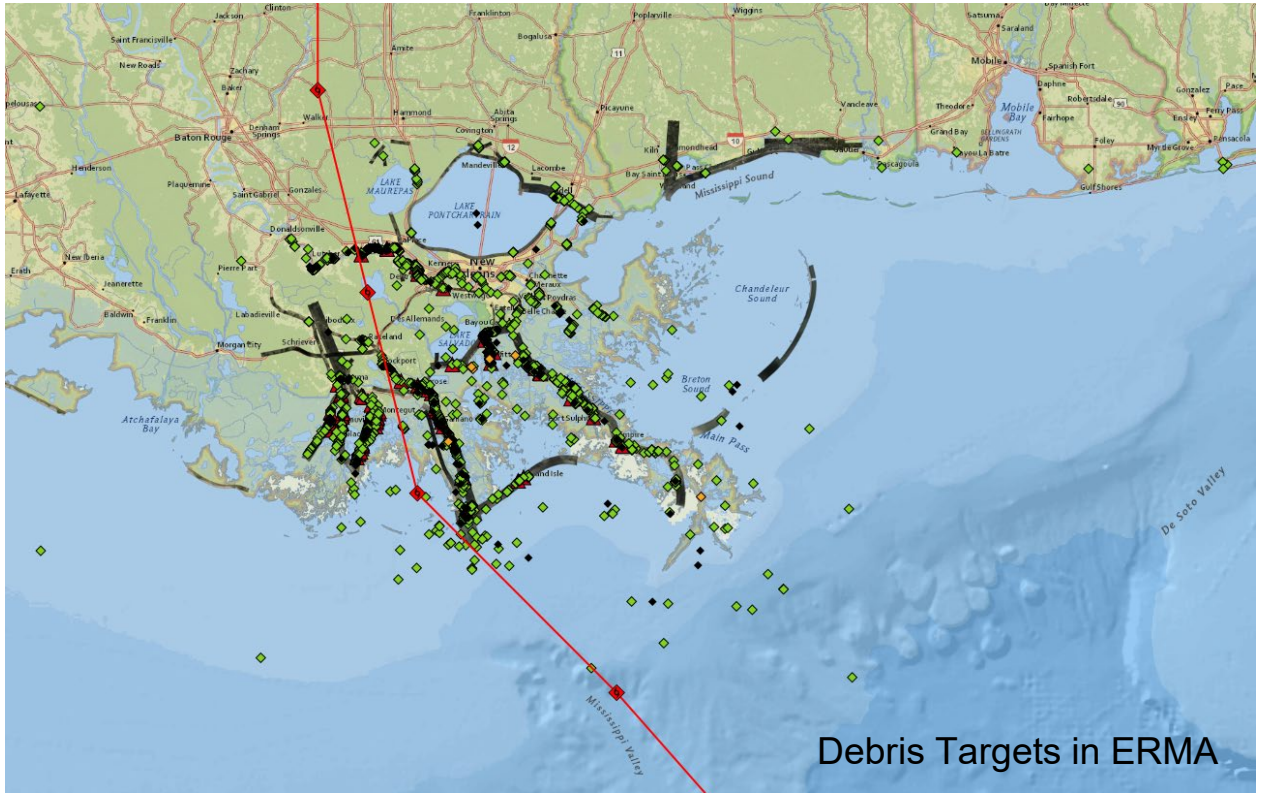
- **Agency Roles and Responsibilities**
- Jurisdiction Map
- Permitting and Compliance Requirements
- Contact Information

https://marinedebris.noaa.gov/our-work/emergency-response

response.restoration.noaa.gov

Supporting Debris Response

- Debris Task force, JFO, and ICP support
- Best management practices for vessel & debris removal
- Louisiana abandoned & derelict vessel law review
- General coordination between agencies and across Essential Support Functions
- Aerial Imagery
  - Pulled together NGS, GIC, and CAP imagery into ERMA (need login)
  - Mapping of debris targets or hotspots (ex. vessels and barges)



Debris Targets in ERMA

Disaster Assessment and Restoration

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Consequences from Ida

Trustees

Trust Resources

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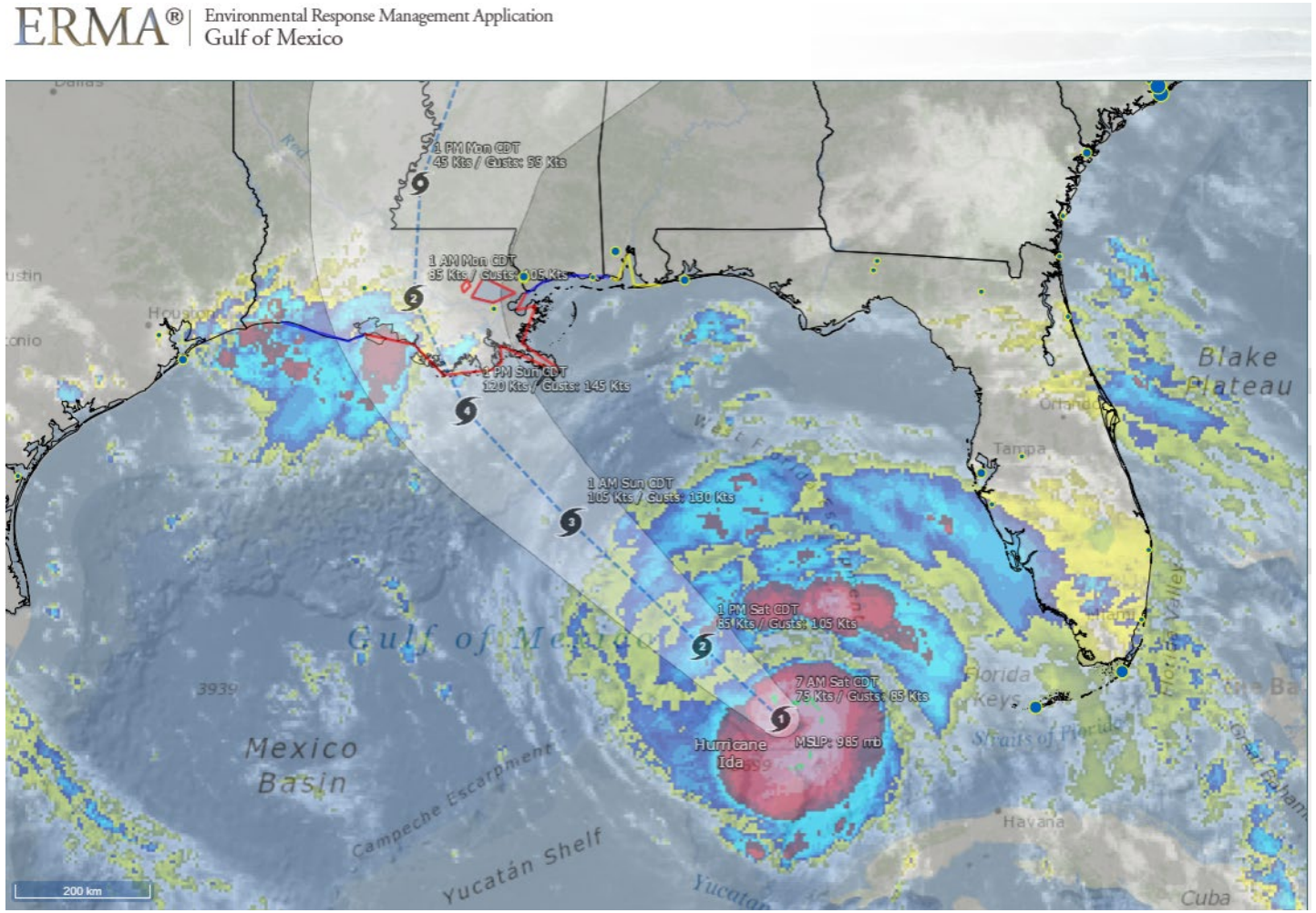

- Base environmental data
- Live data streams
  - Storm tracking, surge modeling, current water levels, ship locations, and more.
- Critical infrastructure
- Pre/post storm imagery
- Quick turnaround post storm data
- Live tracking of ESF-10 targets

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Hurricane Ida Pollution Targets

Total Targets	Threat - USCG Ops	Threat - Monitor	Not Assessed	Target Not Found	No Action - LIP	Target Removal Complete	USCG Action Complete LIP
2,484	79	644	273	319	832	80	257

Commercial vs. Non-Commercial Vessels

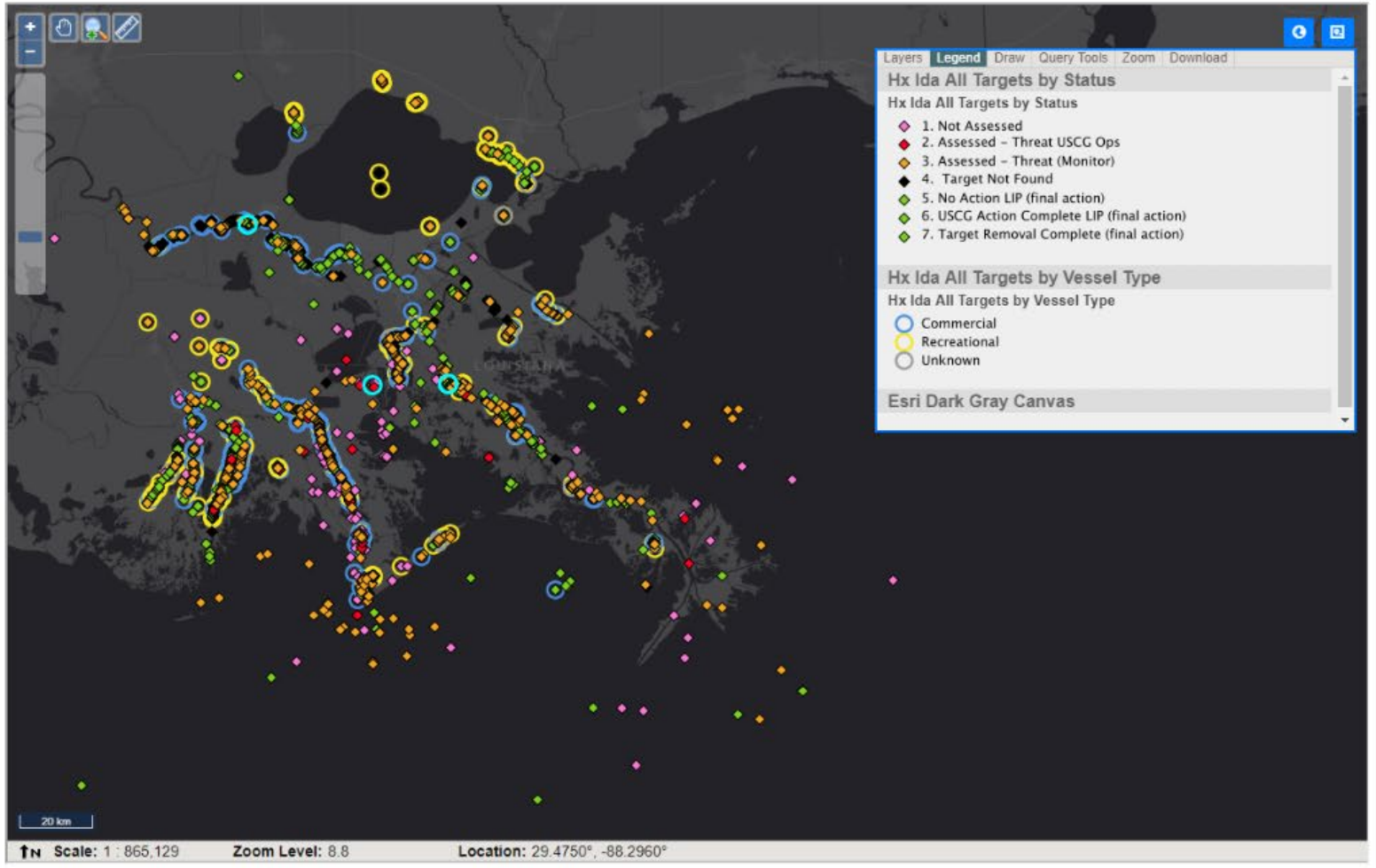
	21
commercial	224
commercial_fishing	382
recreational	329
unknown	204

Debris Targets in View

2 of 2,478

Photo Link
Unique ID
Navigation Hazard
Assessment Type
USCG Unit
NRC Number if Applicable
Date of Updated Assessment
Updated Assessment Type
Updated Assessment Team Lead
Target Type
ESF10

Hurricane Ida Targets



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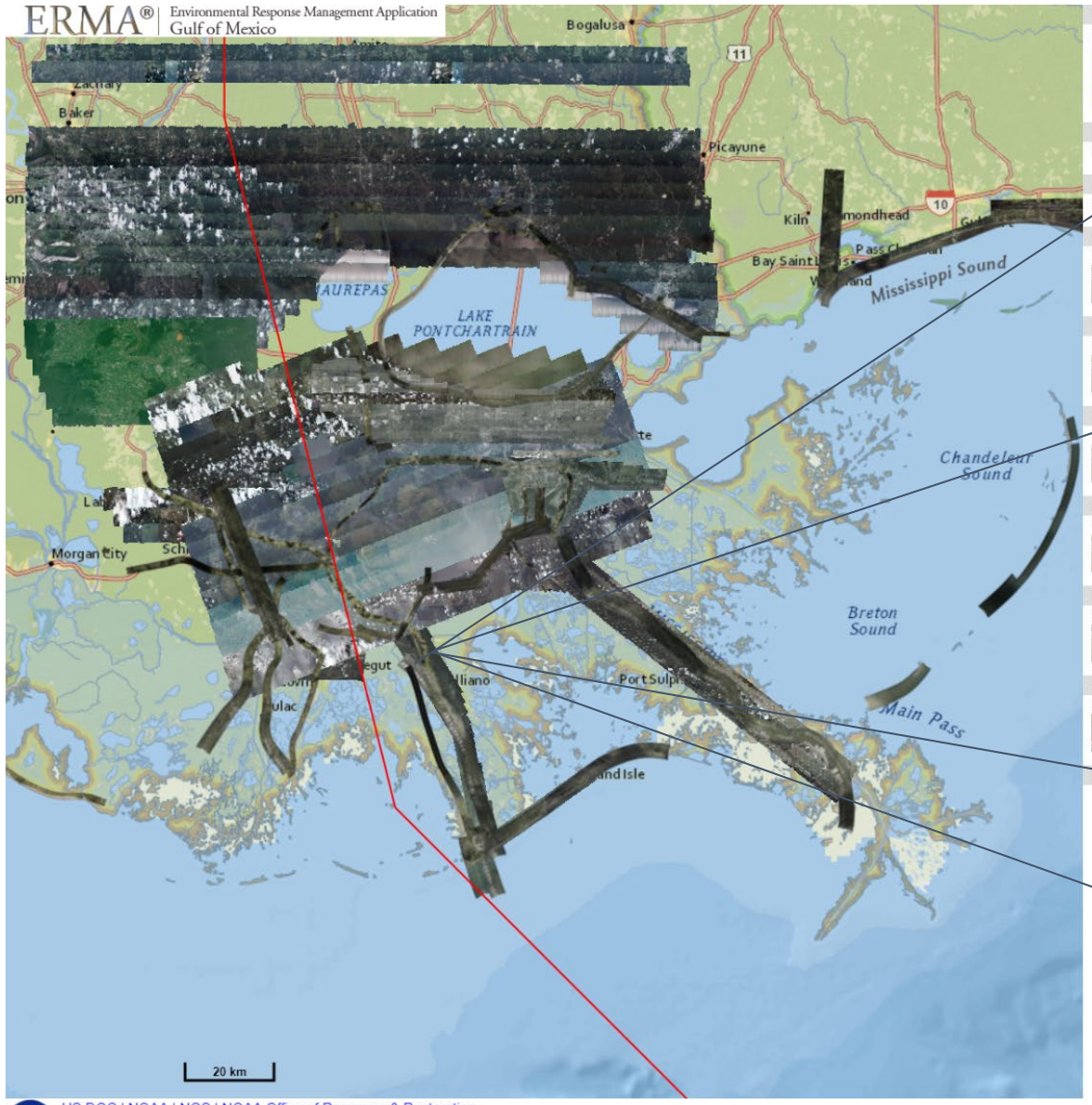

Hurricane Ida - Best Track Line (NHC)

Hurricane Ida - Best Track Line (NHC)

- Tropical Depression
- Tropical Storm
- Hurricane
- Extratropical

Hurricane Ida NOAA Imagery 2021-0

Hurricane Ida NOAA Imagery 2021-09-02b

Hurricane Ida NOAA Imagery 2021-0

Hurricane Ida NOAA Imagery 2021-09-02a

Hurricane Ida NOAA Imagery 2021-0

Hurricane Ida NOAA Imagery 2021-09-01b

Hurricane Ida NOAA Imagery 2021-0

Hurricane Ida NOAA Imagery 2021-09-01a

Hurricane Ida NOAA Imagery 2021-0

Hurricane Ida NOAA Imagery 2021-08-31b

Hurricane Ida NOAA Imagery 2021-0

Hurricane Ida NOAA Imagery 2021-08-31a

Hurricane Ida NOAA Imagery 2021-0

Hurricane Ida NOAA Imagery 2021-08-30a

Hurricane Ida Imagery (GIC)

Hurricane Ida Imagery (GIC)

Esri National Geographic

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Marine Pollution Surveillance Report

MARINE POLLUTION SURVEILLANCE REPORT

Analysis by: The National Oceanic and Atmospheric Administration, Satellite and Information Service (NOAA/NESDIS)

REPORT DATE/TIME: 9/3/2021 0330 (UTC)

DATA SOURCE: SENTINEL2B
MODE: Multispectral
RESOLUTION: 10 meter
IMAGE DATE/TIME: 9/2/2021 1638 (UTC)

Possible Oil

Possible Thicker Oil

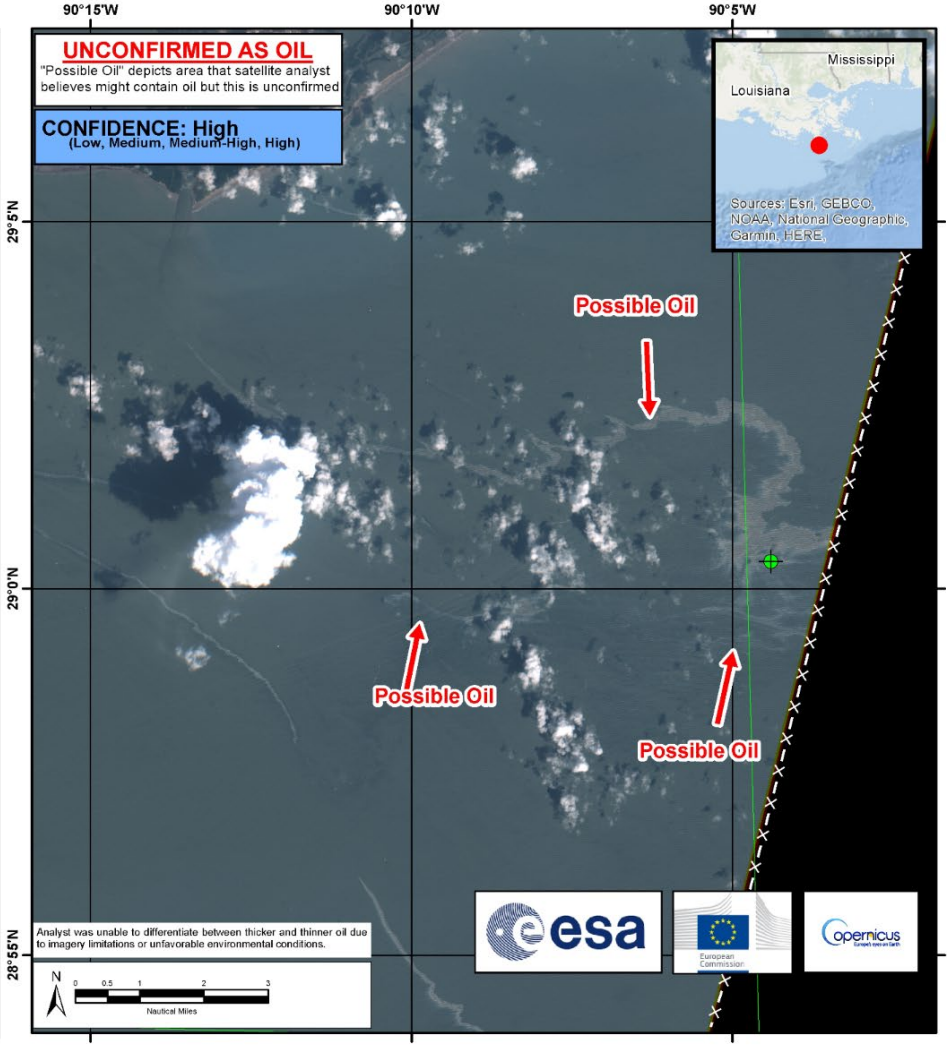
Suspected Point Source: [29°00'21" N/90°04'24" W]

10.60 km² Total Area of Possible Oil

AREA/BLOCK: GRAND ISLE 39

REMARKS: Possible oil was observed in satellite imagery. This anomaly is unconfirmed as oil. The anomaly is silvery in color likely due to sun illumination. It consisted of three sections. The length of these three sections are 13nm, 3nm and 3nm respectively. The anomaly was consistent with the previous reported MSPR (NRC 1315461) using ICEYE imagery taken 1 hour prior, , although with a smaller area. The wind at the time was from WSW at 9kt.

UNCERTAINTIES:There were uncertainteis related to the exact source. The point source was chosen as it was located near where were large areas of oil, but it was not definite that this was the source. Also, the anomaly was near the edge of the imagey, so the actual content might be larger



MARINE POLLUTION SURVEILLANCE REPORT

Analysis by: The National Oceanic and Atmospheric Administration, Satellite and Information Service (NOAA/NESDIS)

REPORT DATE/TIME: 9/3/2021 0030 (UTC)

DATA SOURCE: ICEYE
MODE: SCAN VV
RESOLUTION: 15 meter
IMAGE DATE/TIME: 9/2/2021 1539 (UTC)

Possible Oil

Possible Thicker Oil

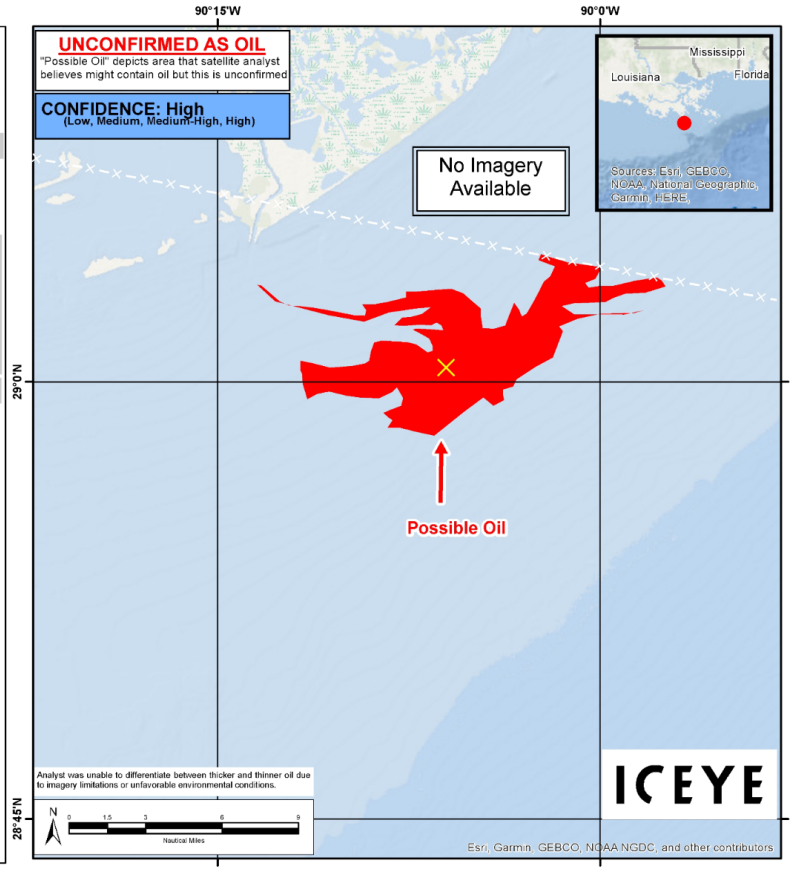
Center Point of Oil Slick: [29°00'28" N/90°06'01" W]

92.32 km² Total Area of Possible Oil

AREA/BLOCK: GRAND ISLE 38

REMARKS: Possible oil was observed in satellite imagery. This anomaly is unconfirmed as oil. The anomaly was 12nm at the longest dimension and 5nm wide in the other dimension. The anomaly had a good contrast with the surroundings, and was located close to many oil facilities, however, it was not clear which one is the source. The wind at the time was from WSW at 9kt.

UNCERTAINTIES: It is not possible to pin down the point source. Also, the actually extent of the anomaly could be larger since the anormaly was at the northern edge of the imagery. The other thing to note is that the western and southern part of the anomaly had a more diffuse edge, indicating a slight likelyhoold that this part might be false positive due to low wind. But at the same time, some feathering can be seen in these area as well, so that likelyhood was small.



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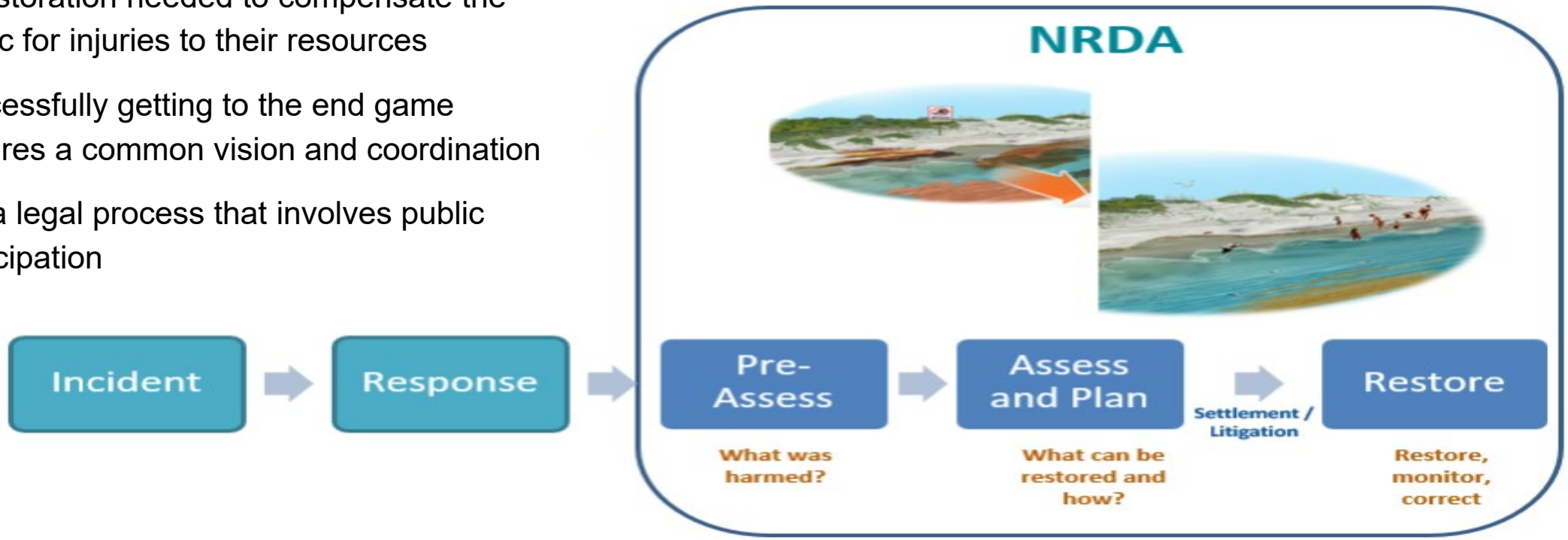
Natural Resource Damage Assessment (NRDA) Overview

- Purpose is to determine type and amount of restoration needed to compensate the public for injuries to their resources
- Successfully getting to the end game requires a common vision and coordination
- It is a legal process that involves public participation



Hurricane Recovery

Hurricane Ida Recovery

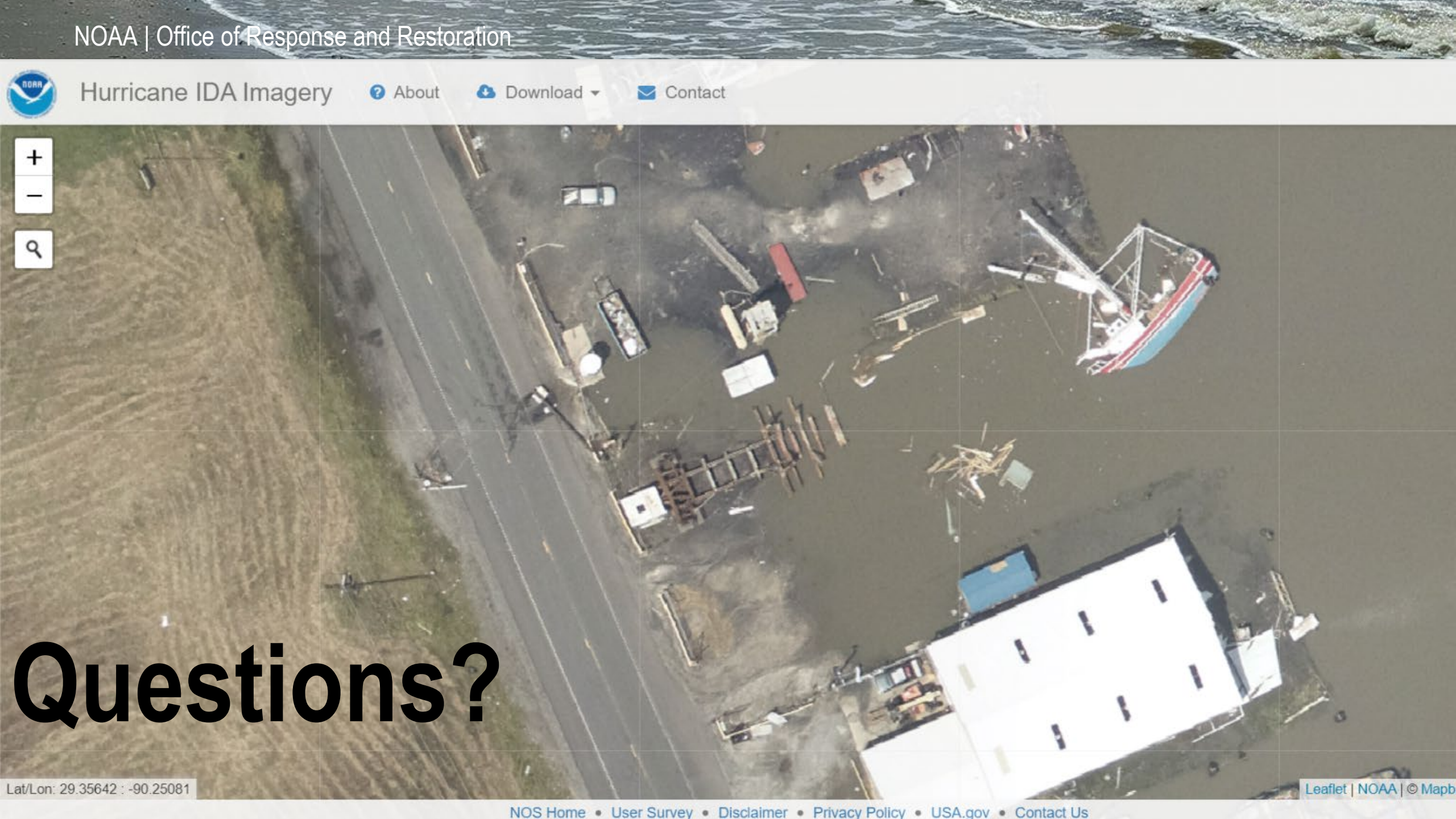
OR&R continues to work with federal, state, and local partners to assist with the long-term impacts of Hurricane Ida, and ensure efficient and effective recovery

Recovery Activities

- DPP serving as NOAA liaison to the interagency Recovery Support Functions (RSFs) activated for Hurricane Ida, which coordinate federal disaster recovery support to the State and impacted communities
- NOAA supports Natural and Cultural Resources, Economic, and Community Planning and Capacity Building RSFs

Marine Debris Disaster Supplemental Funds:

- Funding opportunity for assessment and removal of debris from Hurricane Ida should be announced soon.


Hurricane IDA Imagery
About
Download
Contact
Lat/Lon: 29.35642 : -90.25081
Leaflet | NOAA | © Mapb
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Questions?