




Tim Osborn, NOAA Coast Survey, Central Gulf of America

**ADVANCEMENTS IN TECHNOLOGY IN REAL TIME
FOR INCIDENT RESPONSE, HYDRO SURVEYING,
AERIAL IMAGERY COLLECTION AND USE**

Mobility, Deployment, Real Time Data Streaming, Processing and Reporting Are Now Key Across the Gulf and Nationally



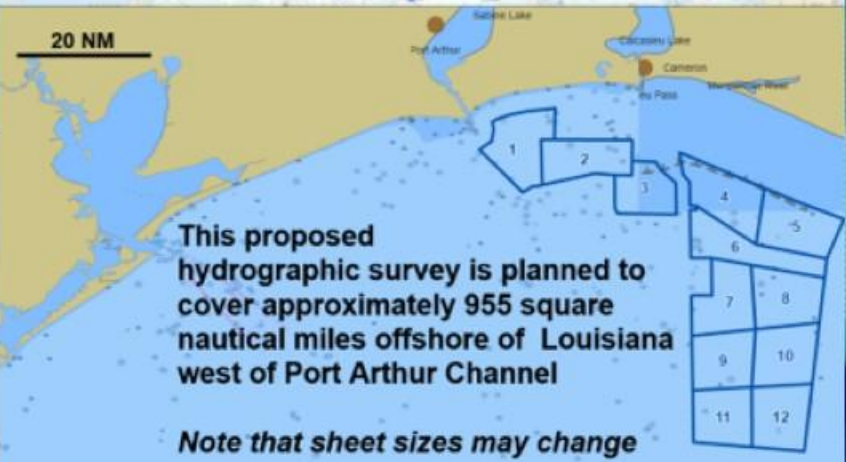
Reopening of the Ports of Tampa Bay in about 48 Hours from Landfall

The Ports of Tampa Bay- the State's Largest- See Over 8 Billion Gallons of Fuel Delivered to the State Each Year



Hydrographic Survey Offshore of Calcasieu OPR-K356-KR-23, Proposed for 2023

20 NM



This proposed hydrographic survey is planned to cover approximately 955 square nautical miles offshore of Louisiana west of Port Arthur Channel

Note that sheet sizes may change



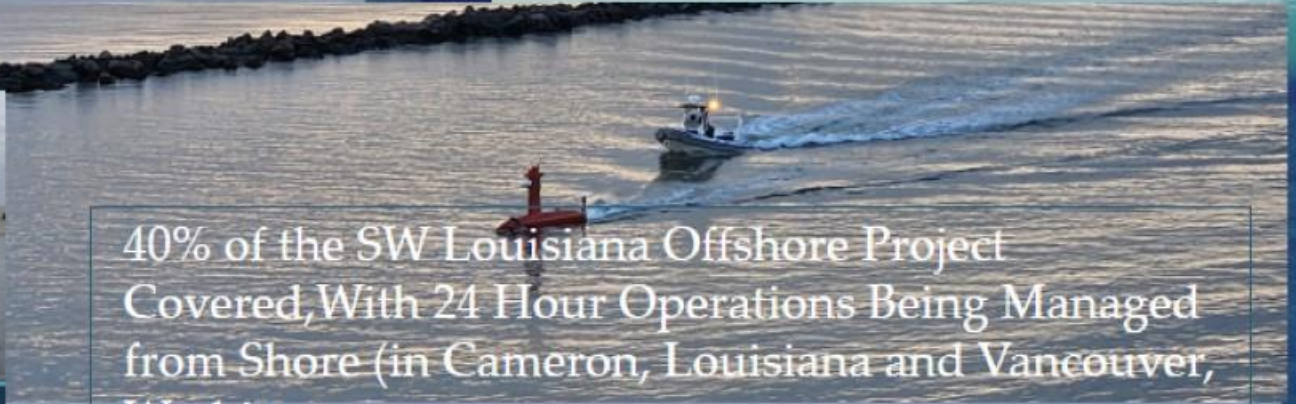
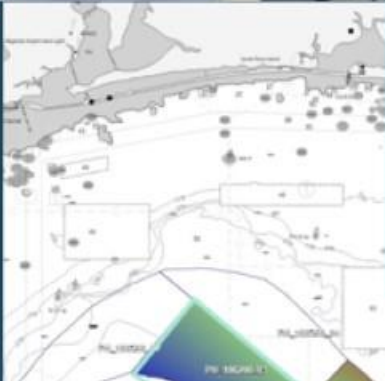
Office of Coast Survey
National Oceanic and Atmospheric Administration

Compared to Now (in Just Months)

Resources



Night and Day Operations With A Crew Of 7 And All Data Being Streamed To Shore For Real Time Processing and Production of Reports



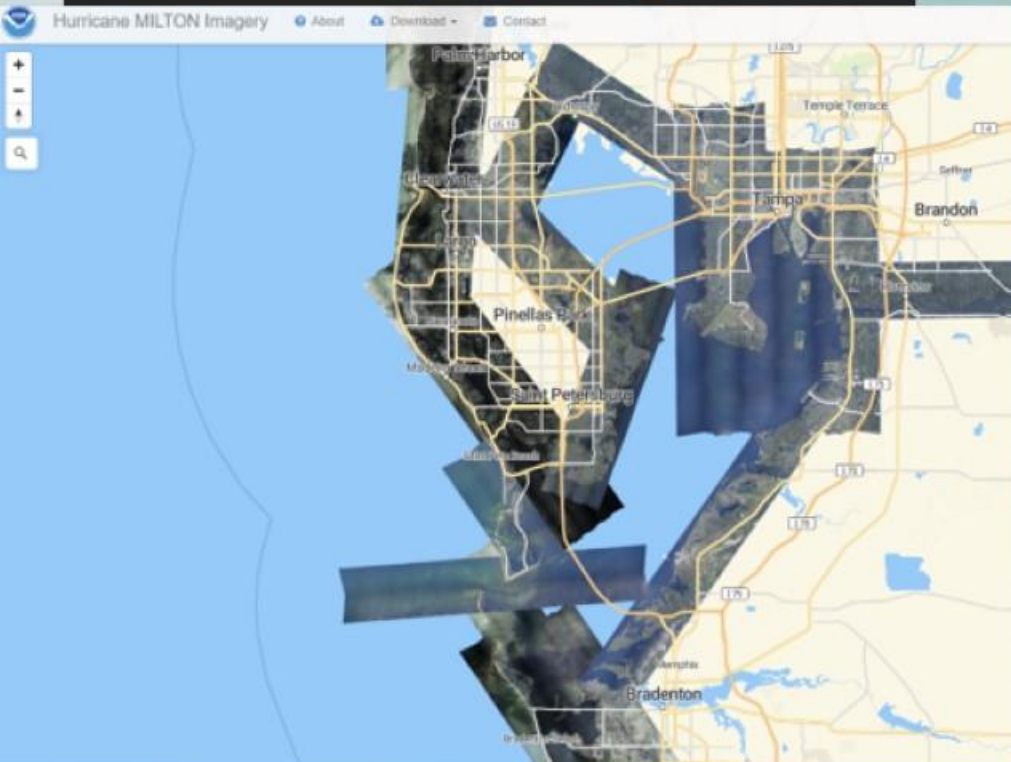
40% of the SW Louisiana Offshore Project Covered, With 24 Hour Operations Being Managed from Shore (in Cameron, Louisiana and Vancouver, Washington)

Over 200 square miles in 8 days of coverage. Operational Practice of 10 Days of Nonstop Surveying With A Return To Port For Checks And Any Updates

Collected in dead of winter, through 6-8 ft seas

560 km² collected in 8 days of nonstop 24-hour operations without refueling

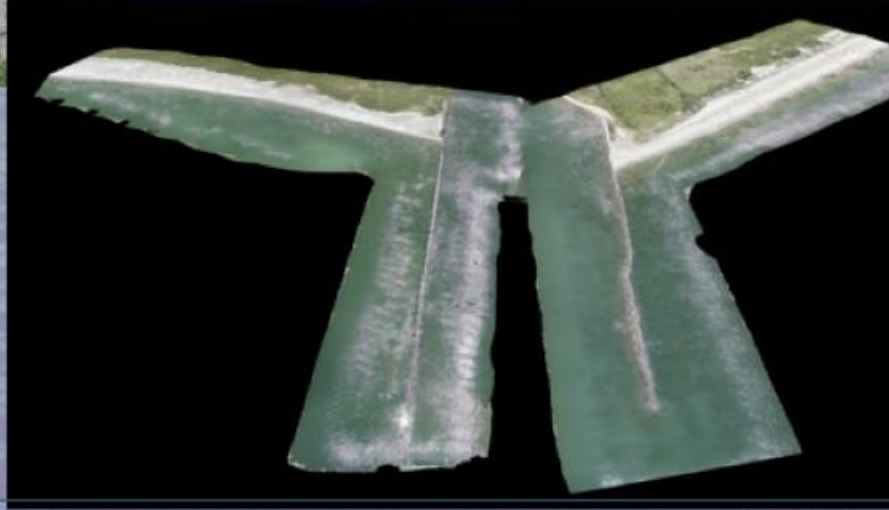
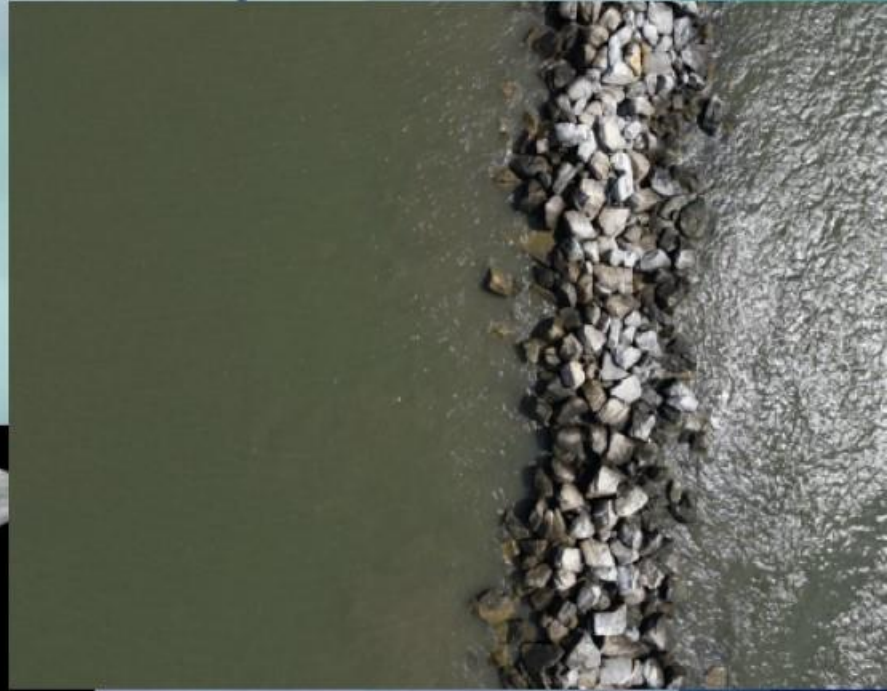
Incident Response Imagery



Powerful images captured from space by a Colorado company. So these are taken

Rapid Large Area Acquisition By Aerial and Satellite Resources, Seen In The Hurricane Milton Response

However- One Time Postings and Acquisitions Are Not Enough In Many Cases



Very High-Resolution Drone Imagery Program for Shoreline And Coastal Habitats Support
Coastal Louisiana (Port Fourchon Area)

Repeat Acquisition Of Infrastructure Projects



Monthly Updates To The State Of
Louisiana Highway LA-1 Project

Construction Of An Elevated
Causeway To Replace A Flooding
Ground Based Highway To Port
Fourchon And Grand Isle, Louisiana



The Take Home And Moving Forward

- ⦿ Response and Recovery Is Expected To Occur In Hours, Not Days
- ⦿ Resources Moving To Much Higher Resolution Imagery And Hydrographic Data
- ⦿ Personnel On Board Platforms Is Being Reduced Or Moving To Autonomous Vehicles
- ⦿ Owning Technology Is Transitioning To Utilizing Vehicles And Tech Focused On Need And Product To Be Provided
- ⦿ Real Time Data Streaming To Onshore Operations Are Replacing Onboard Operations And Data Collection
- ⦿ Smaller Organizations, With Expertise and Gathering And Utilizing Sophisticated Technology With Capabilities To Stream The Data To Your Offices (Or Your Clients) Is Now The Reality

Thank You All!

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