

The Port of Morgan City and Central Louisiana

2024 Hurricane Season Preparedness and Partnership Meeting



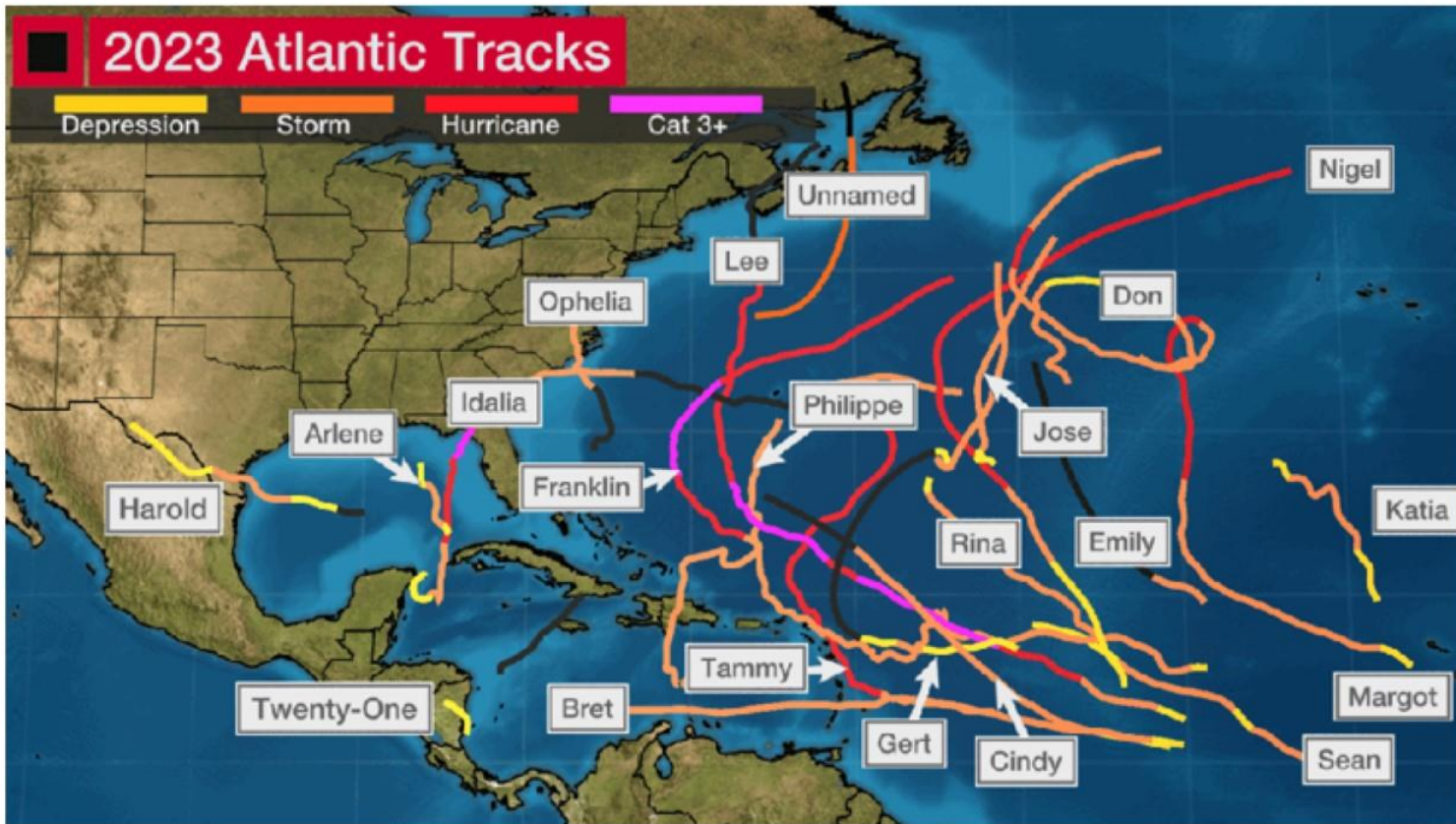
2023 Atlantic Tracks

Depression

Storm

Hurricane

Cat 3+

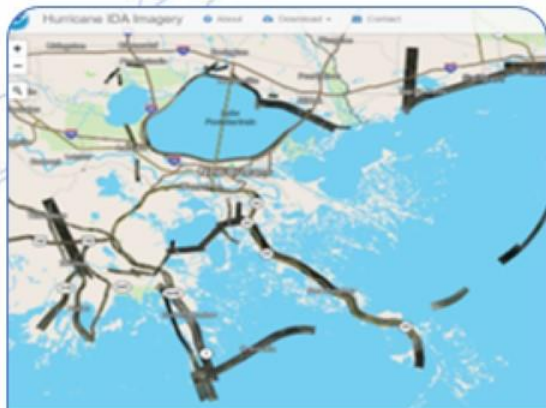


- NOAA's Emergency Response – Navigation Response,
- Post Storm Imagery Acquisition
- Coastal Inundation Dashboard Resources



National Response Framework Emergency Support Functions

- Pre-Scripted Mission Assignments (PSMA) with FEMA to Support ESF #5 Information and Planning



Transportation

ESF
#1



Search and
Rescue

ESF
#9



Oil and Hazardous
Materials
Response

ESF
#10

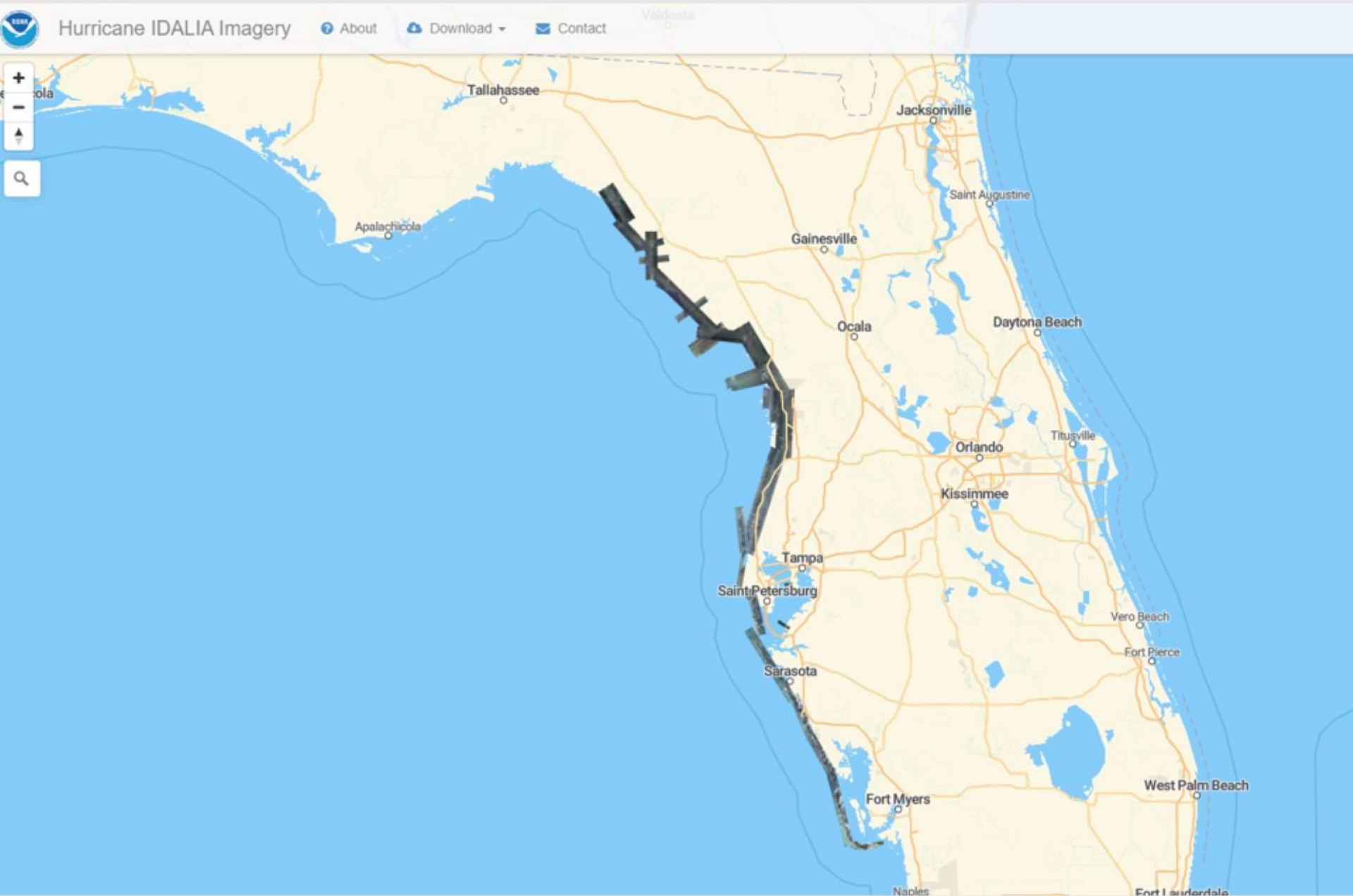


Hurricane IDALIA Imagery

[About](#)

[Download](#)

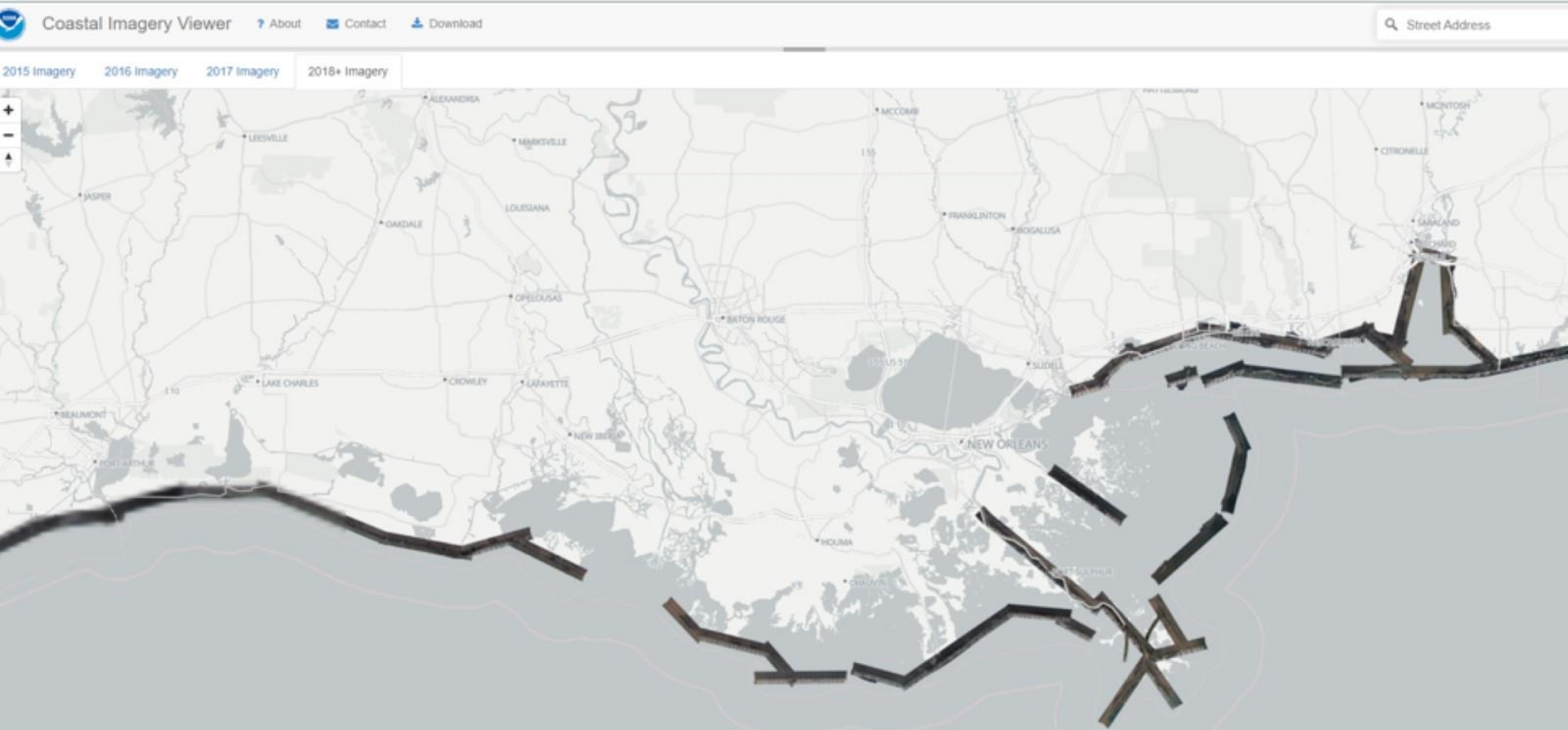
[Contact](#)





Pre Storm-Season Imagery is Very Valuable

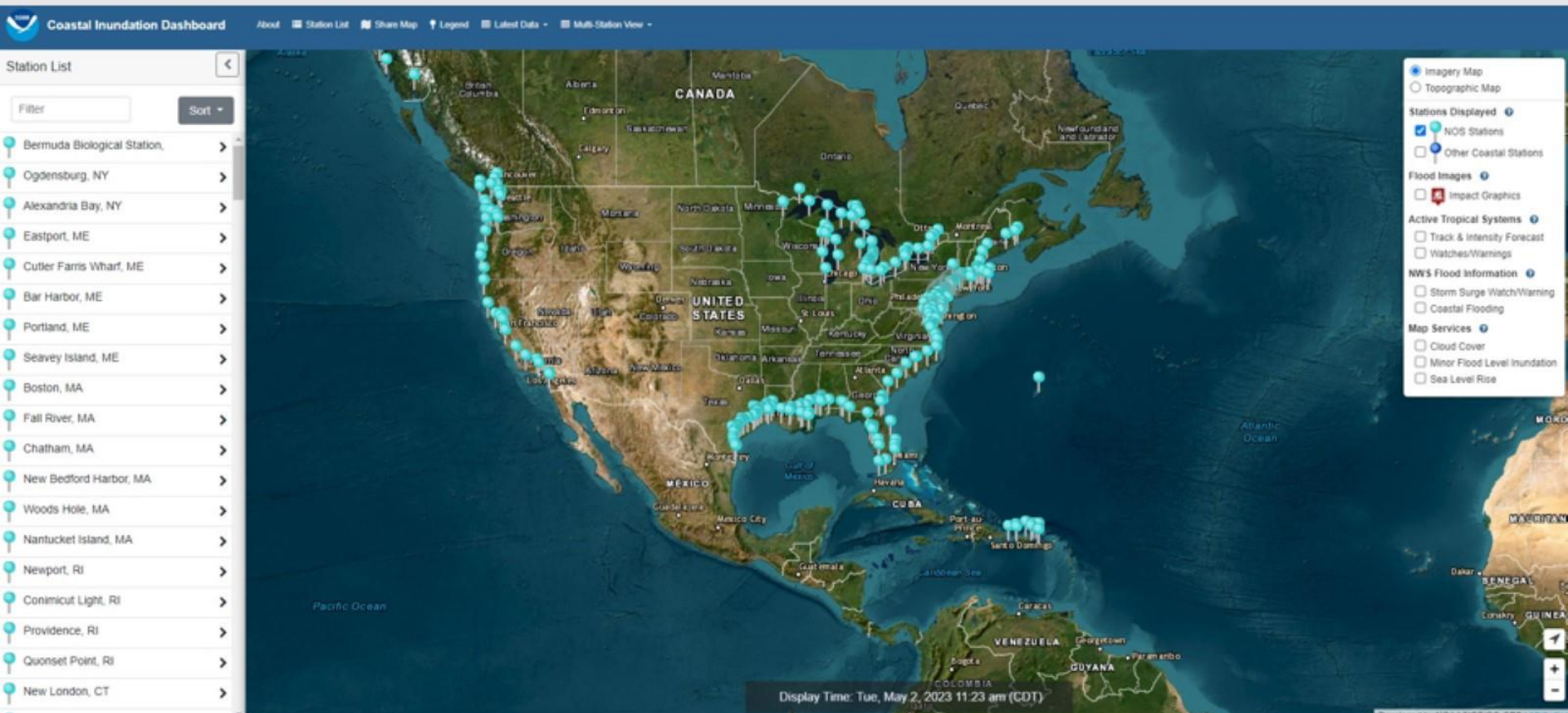
https://geodesy.noaa.gov/storm_archive/coastal/viewer/index.html



An Encouragement to Obtain Imagery Across the Port Areas, Waterways, Facilities

NOAA Coastal Inundation Dashboard, Responding to Coastal Storm Events and Storm Surge Monitoring

<https://tidesandcurrents.noaa.gov/inundationdb/>



Tracking Hurricane Idalia's Record Water Levels

September 15, 2023



Satellite image of Hurricane Idalia a few hours before it made landfall near Keaton Beach, FL. Photo credit: NOAA

Silver Spring, MD — On August 30, 2023 Hurricane Idalia made landfall in Florida — the ninth named storm and first major hurricane to make landfall during the 2023 Atlantic hurricane season. Hurricane Idalia brought significant storm surge and heavy rain to the Southeast U.S., resulting in extensive flooding and significant damage.

Throughout the storm, NOAA's Center for Operational Oceanographic Products and Services tracked water levels in real-time through a custom dashboard in the [Coastal Inundation Dashboard](#). These custom storm dashboards allow users to monitor water levels in the path of a storm, highlighting stations that may experience coastal flooding. CO-OPS' network of water level stations along the coast captured record water levels at multiple locations across Southeast as Hurricane Idalia bore down on the region.

Idalia's Peak Water Levels in Florida

Idalia formed near the Yucatán Peninsula on August 26, 2023, moving northward towards the Gulf of Mexico and prompted the National Hurricane Center to issue tropical storm watches for Florida. Fueled by the record warm sea surface temperatures in the Gulf of Mexico, Hurricane Idalia rapidly intensified as it passed by the western tip of Cuba continuing on its northward path to Florida. During this period, Idalia strengthened from a strong tropical storm with sustained winds of 70 miles per hour to a Category 3 hurricane with sustained winds of 120 miles per hour.

As Hurricane Idalia underwent this intensification period, CO-OPS' water level stations along Florida's Gulf Coast observed record or near-record-setting water levels relative to [mean higher high water \(MHHW\)](#) as Idalia passed about 125 miles to the west, including:

Throughout the storm, NOAA's Center for Operational Oceanographic Products and Services tracked water levels in real-time through a custom dashboard in the [Coastal Inundation Dashboard](#). These custom storm dashboards allow users to monitor water levels in the path of a storm, highlighting stations that may experience coastal flooding. CO-OPS' network of water level stations along the coast captured record water levels at multiple locations across Southeast as Hurricane Idalia bore down on the region.

Idalia's Peak Water Levels in Florida

Idalia formed near the Yucatán Peninsula on August 26, 2023, moving northward towards the Gulf of Mexico and prompted the National Hurricane Center to issue tropical storm watches for Florida. Fueled by the record warm sea surface temperatures in the Gulf of Mexico, Hurricane Idalia rapidly intensified as it passed by the western tip of Cuba continuing on its northward path to Florida. During this period, Idalia strengthened from a strong tropical storm with sustained winds of 70 miles per hour to a Category 3 hurricane with sustained winds of 120 miles per hour.

As Hurricane Idalia underwent this intensification period, CO-OPS' water level stations along Florida's Gulf Coast observed record or near-record-setting water levels relative to [mean higher high water \(MHHW\)](#) as Idalia passed about 125 miles to the west, including:

- [8725520 Fort Myers, FL](#) – **3.20 feet** above MHHW (5th highest on record). The record at this station is 7.26 feet, set during Hurricane Ian (2022). This station dates back to 1965.
- [8726384 Port Manatee, Tampa Bay, FL](#) – **3.69 feet** above MHHW (New Record). The previous peak water level was 3.04 feet during Tropical Storm Eta (2020). This station dates back to 1990.
- [8726520 St. Petersburg, Tampa Bay, FL](#) – **3.85 feet** above MHHW. This is the second highest on record behind Hurricane Elena (1985, 3.97 feet). This station dates back to 1947.
- [8726674 East Bay, Tampa Bay, FL](#) – **4.56 feet** above MHHW (New Record). Previous peak water levels (at the nearby historic station 8726667 McKay Bay Entrance) was 4.43 feet during Tropical Storm Josephine (1996). Data dates back to 1990.
- [8726607 Old Port Tampa, FL](#) – **4.18 feet** above MHHW (New Record). Previous peak water level was 3.87 feet during Tropical Storm Eta (2020). This station dates back to 1996.
- [8726724 Clearwater Beach, FL](#) – **4.05 feet** above MHHW (New Record) – Previous peak water level was 4.02 feet during the [1993 Storm of the Century](#). This station dates back to 1973.

On the morning of August 30th around 7:30 AM EDT, Hurricane Idalia made landfall as a Category 3 hurricane near Keaton Beach in Florida's Big Bend area. As Hurricane Idalia made landfall, the highest water level observed at NOS stations of **6.89 feet** above MHHW occurred at [8727520 Cedar Key, FL](#), roughly 60 miles southeast of Keaton Beach, FL.

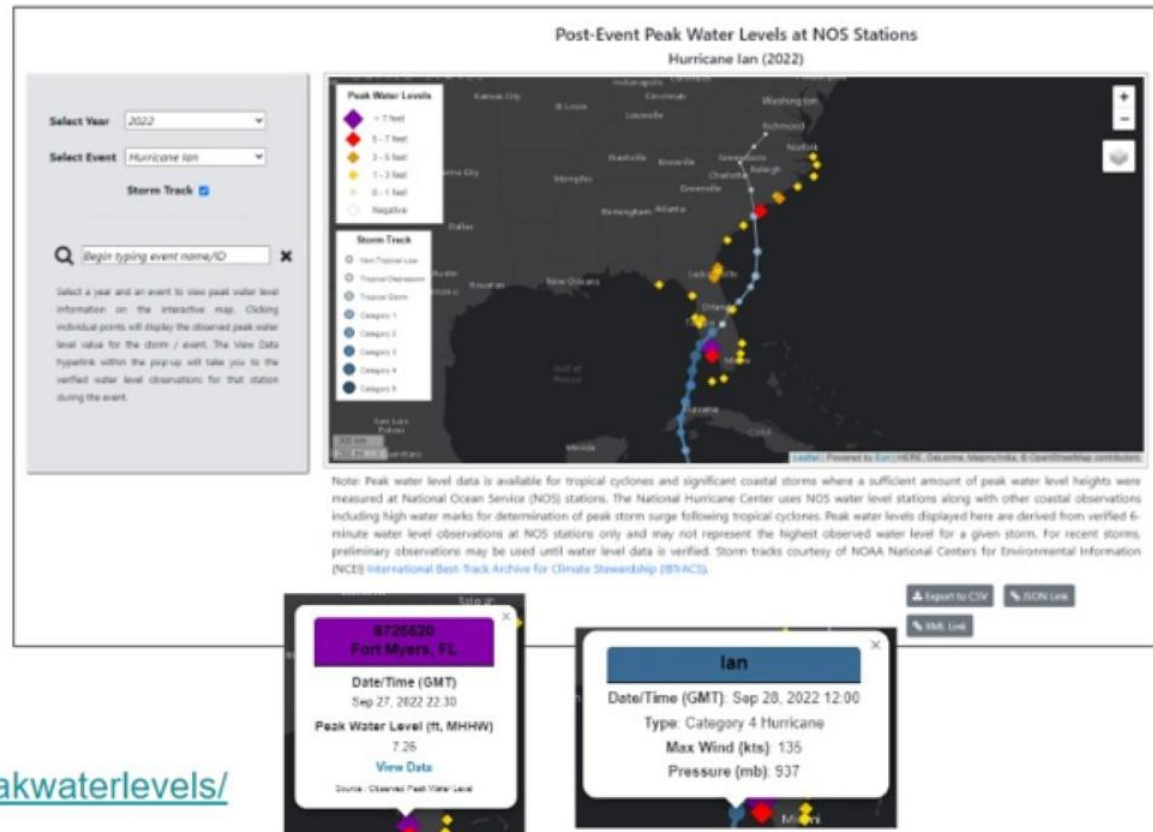
Idalia's Water Level Impacts along the Atlantic Coast

Hurricane Idalia then trudged northeast across Florida, Georgia, and South Carolina. At Charleston, SC, Idalia passed through during high tide which compounded the storm's surge resulting in a peak water level of **3.47 feet** above MHHW— the fifth highest on record. Images captured from a [WebCOOS](#) webcam located at the [8665530 Charleston, SC](#) water level station when water levels reach the MHHW mark and the peak water level illustrate the major flooding caused by Idalia's storm surge.

Peak Water Levels Records- Storm Events Since 2004
<https://tidecurrents.noaa.gov/peakwaterlevels/>

CO-OPS Post-Storm Peak Water Level Map

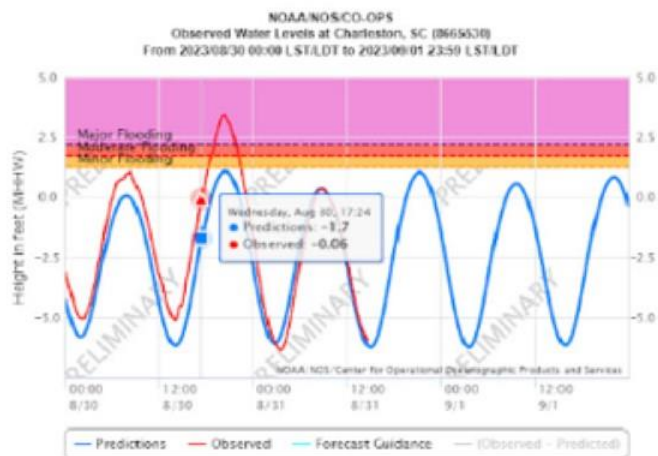
- Peak water levels at NOS stations for tropical cyclones dating back to 2004
 - Data relative to Mean Higher High Water (MHHW)
- Preliminary data available within days following a storm
 - Verified observations the following month
- Links to download data in CSV along with buttons to access data through CO-OPS API
- Planned future enhancement
 - Include observations relative to NAVD88 and MSL datums



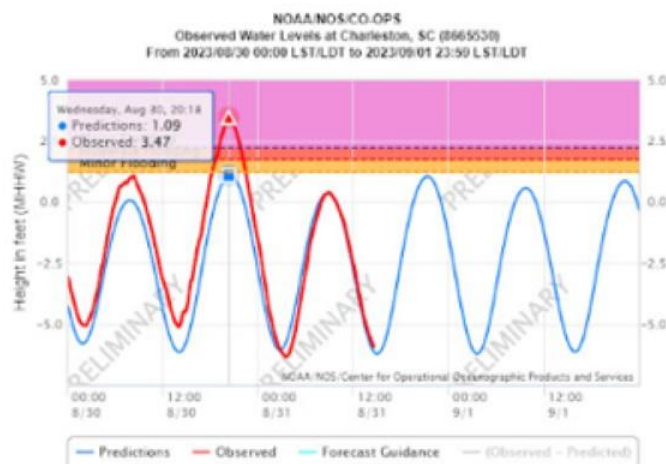
<https://tidesandcurrents.noaa.gov/peakwaterlevels/>

Idalia's Water Level Impacts along the Atlantic Coast

Hurricane Idalia then trudged northeast across Florida, Georgia, and South Carolina. At Charleston, SC, Idalia passed through during high tide which compounded the storm's surge resulting in a peak water level of **3.47 feet** above MHHW—the fifth highest on record. Images captured from a [WebCOOS](#) webcam located at the [8665530 Charleston, SC](#) water level station when water levels reach the MHHW mark and the peak water level illustrate the major flooding caused by Idalia's storm surge.



CO-OPS water level data accompanied by imagery from a WebCOOS webcam, taken as water levels reached the mean higher high water mark (MHHW) as Hurricane Idalia approached Charleston, SC.



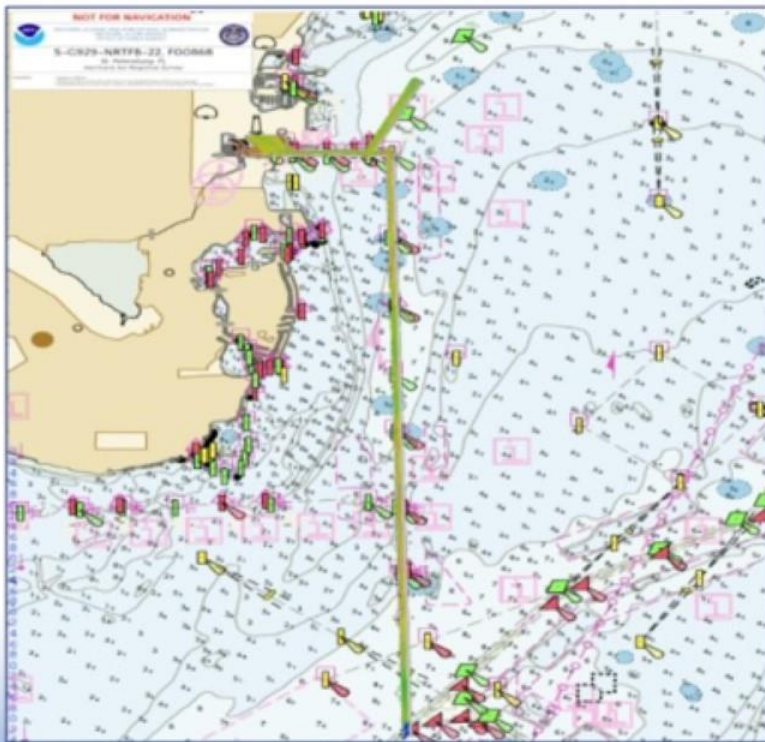
CO-OPS water level data accompanied by imagery from a WebCOOS webcam, taken as water levels peaked as Hurricane Idalia passed by Charleston, SC.

Webcams and images like these are valuable tools that can support coastal flooding observations and risk communication during storms and other events. Learn more about CO-OPS' efforts to engage in webcam research in our [recent web story](#).

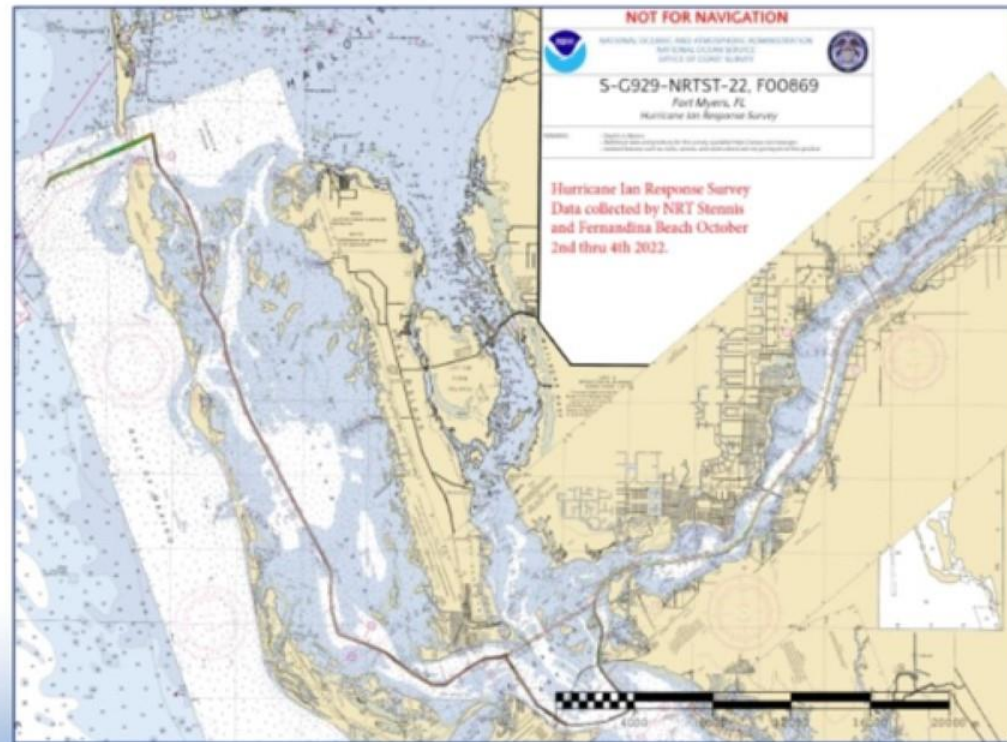




St. Petersburg, Florida



Fort Myers, Florida





Navigation Services Division

Response personnel

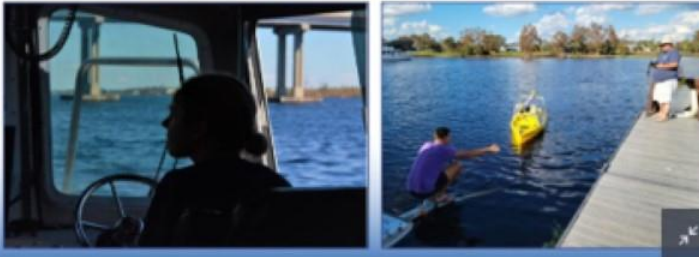
NRT-Fernandina Beach

- James Kirkpatrick (Lead)
- Michael Coughlin
- Doug Wood (PS, HSD Ops)
- LTJG Carly Robbins (BH2)
- LTJG Jane Saunders (BH2)
- Dr. Nicolas Alvarado



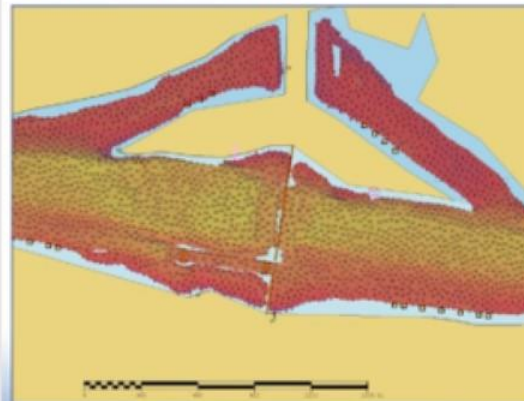
NRT-Stennis

- LTJG Collin Mcmillan (Lead)
- Alex Ligon
- Dan Jacobs
- Josh Bergeron



Navigation Services Division

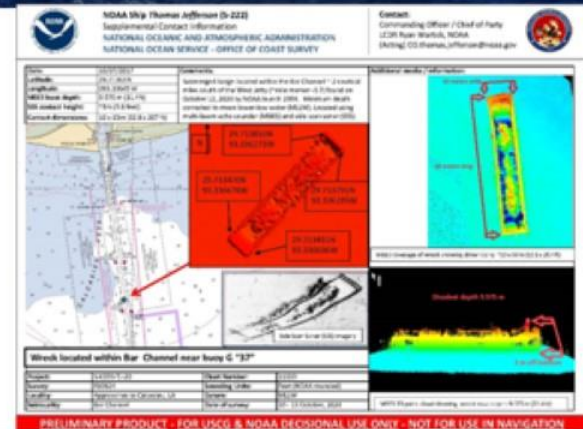
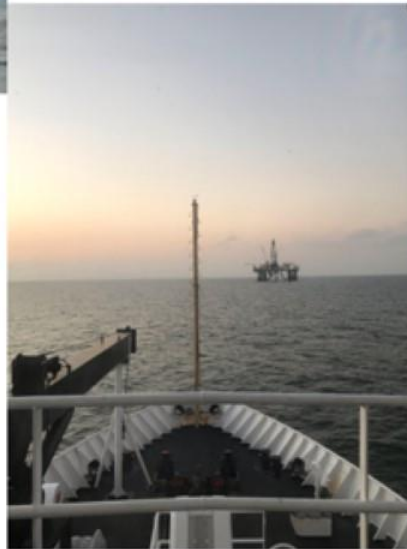
Franklin Lock and Dam



Marco Island, Florida



Offshore Channel Response/Surveying



Sector North Carolina
Kyle Ward
kyle.ward@noaa.gov
301-651-4852



GULF OF MEXICO

Sector Lower Mississippi
Tim Osborn
tim.osborn@noaa.gov
337-254-5933

Sector Charleston
Kyle Ward
kyle.ward@noaa.gov
301-651-4852

Sector Houston - Galveston
Quentin Stubbs
quentin.stubbs@noaa.gov
202-253-9180

Sector New Orleans
Tim Osborn
tim.osborn@noaa.gov
337-254-5933

Sector Mobile
Tim Osborn
tim.osborn@noaa.gov
337-254-5933

Sector Jacksonville
Kyle Ward
kyle.ward@noaa.gov
301-651-4852

Sector Corpus Christi
Quentin Stubbs
quentin.stubbs@noaa.gov
202-253-9180

Sector St. Petersburg
Nic Alvarado
nicolas.alvarado@noaa.gov
202-253-9536

Sector Miami
Nic Alvarado
nicolas.alvarado@noaa.gov
202-253-9536

Sector Key West
Nic Alvarado
nicolas.alvarado@noaa.gov
202-253-9536



NOAA Navigation Manager AORs
By USCG Sector
2022 Hurricane Season

Puerto Rico Inset

Sector Puerto Rico
Nic Alvarado
nicolas.alvarado@noaa.gov
202-253-9536