

# Beach Impacts of Hurricane Sally in the Florida Panhandle and Alabama

FSBPA National Conference  
on Beach Preservation  
Technology  
St. Augustine Beach, FL  
3 February 2021

**Albert E. Browder, Ph.D., P.E., D.CE**  
**Sergio A. Pena, E.I.**  
**Krista J. Egan, P.E.**



olsen associates, inc.  
2618 Herschel St.  
Jacksonville, FL 32204  
904.387.6114

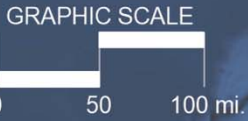
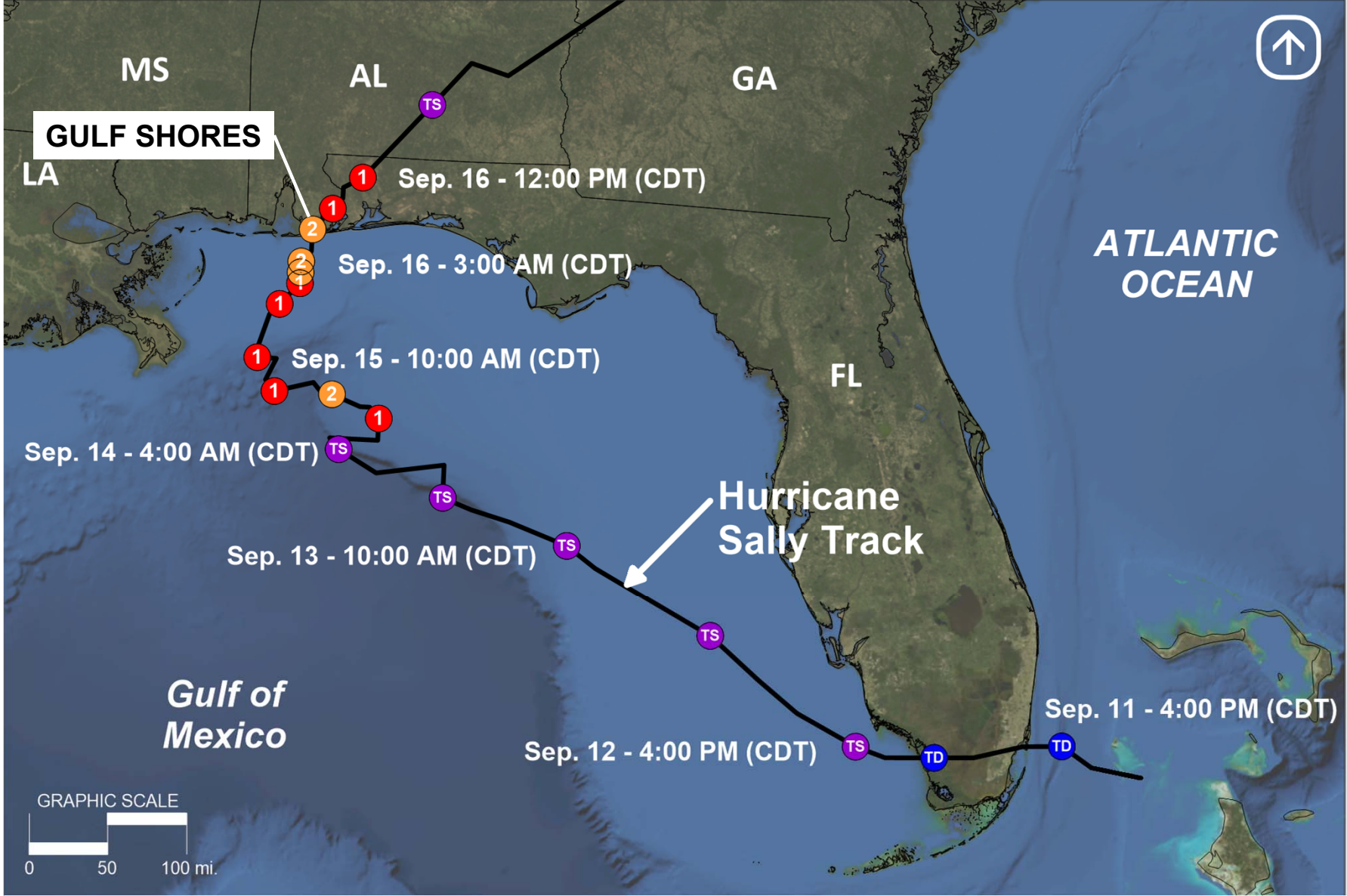
olsen  
associates, inc.  
Coastal Engineering

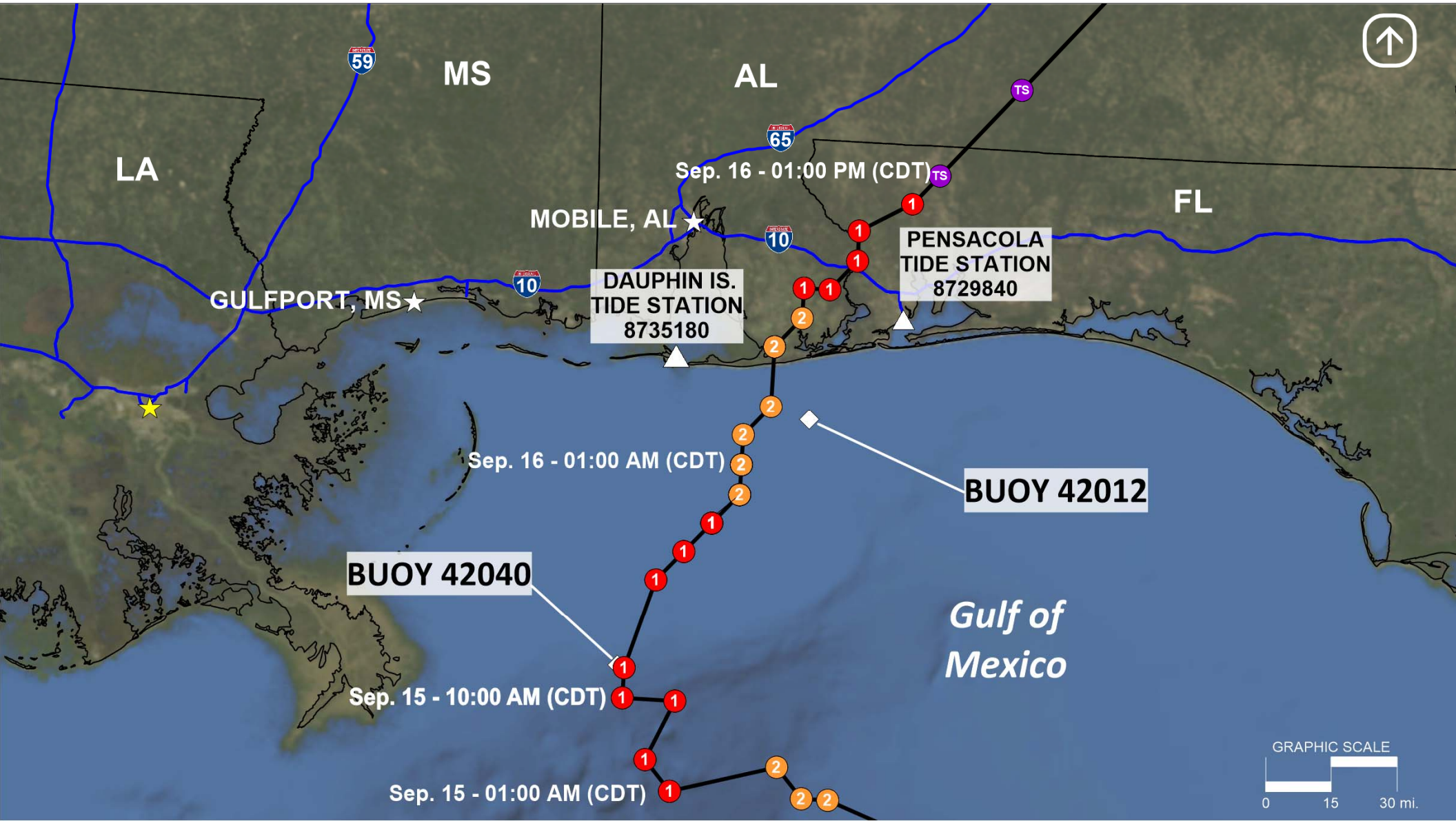
[www.olsen-associates.com](http://www.olsen-associates.com)

September 2020

# Discussion

- Storm Summary
- Storm Damages
- Beach Volume Changes
- Discussion
  - FEMA Review





MS

AL

LA

FL

GULFPORT, MS ★

MOBILE, AL ★

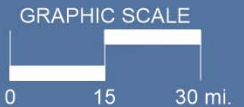
DAUPHIN IS.  
TIDE STATION  
8735180

PENSACOLA  
TIDE STATION  
8729840

BUOY 42040

BUOY 42012

*Gulf of Mexico*



Sep. 15 - 10:00 AM (CDT)

Sep. 15 - 01:00 AM (CDT)

Sep. 16 - 01:00 PM (CDT)

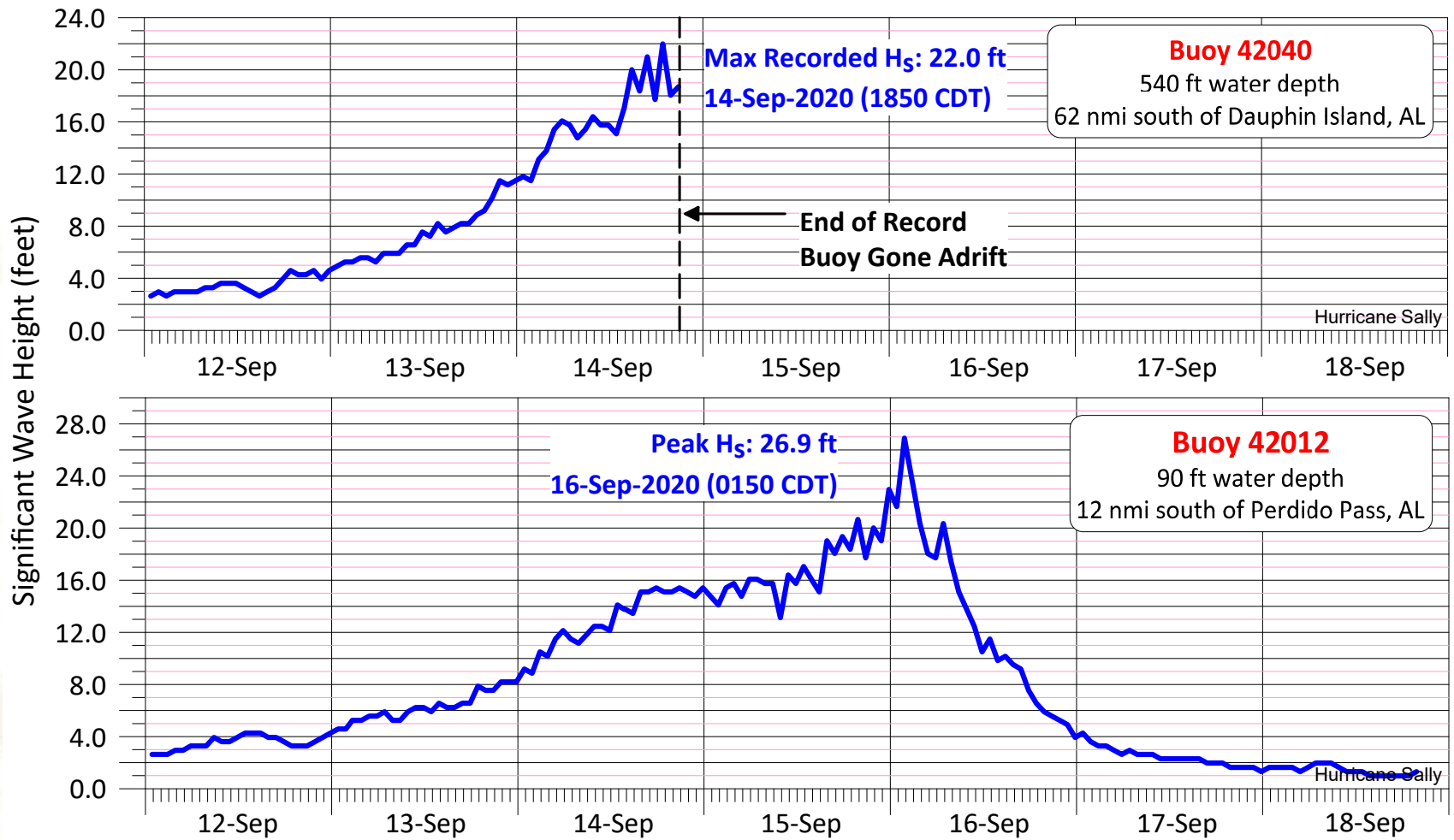
Sep. 16 - 01:00 AM (CDT)



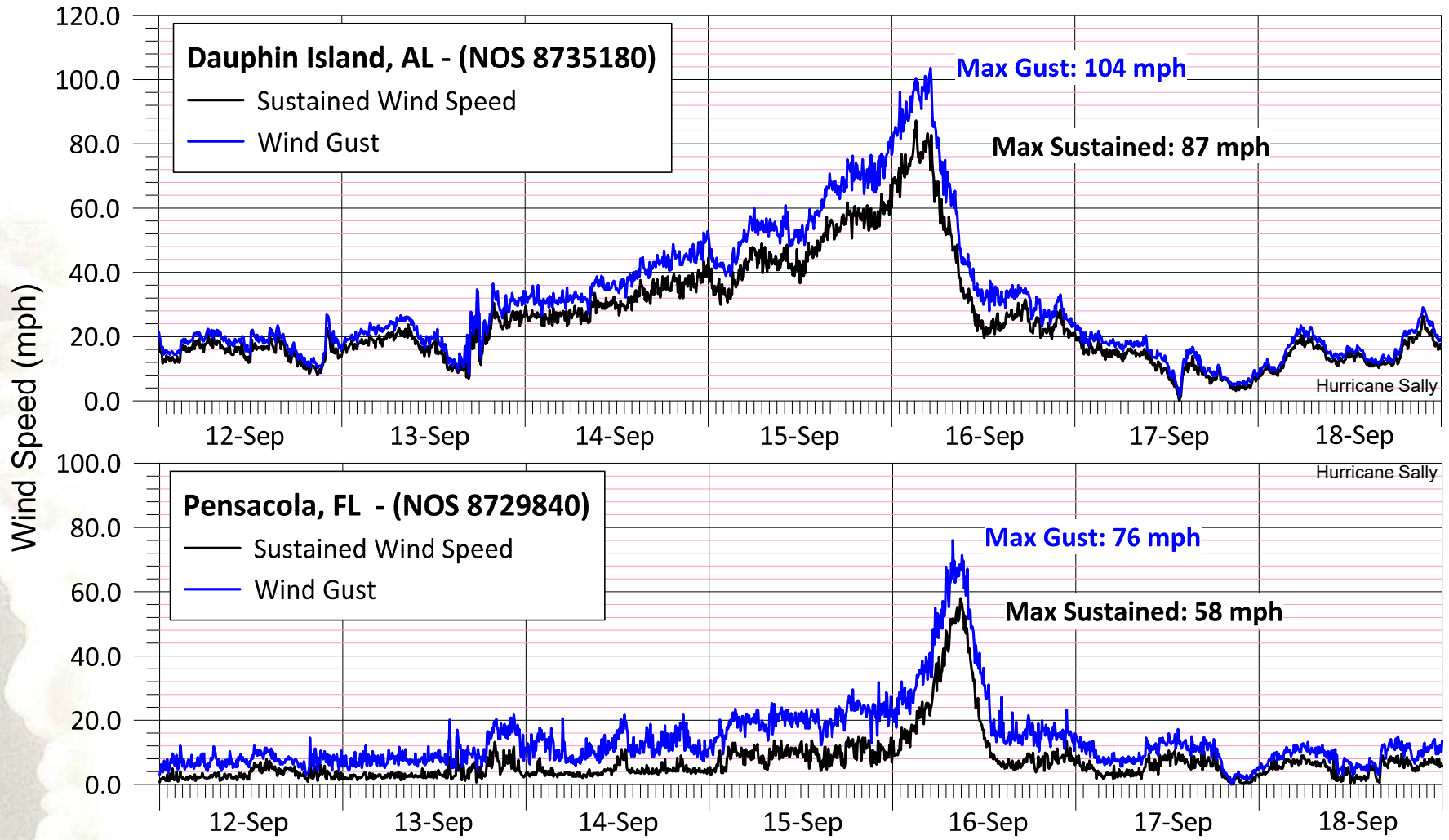
TS



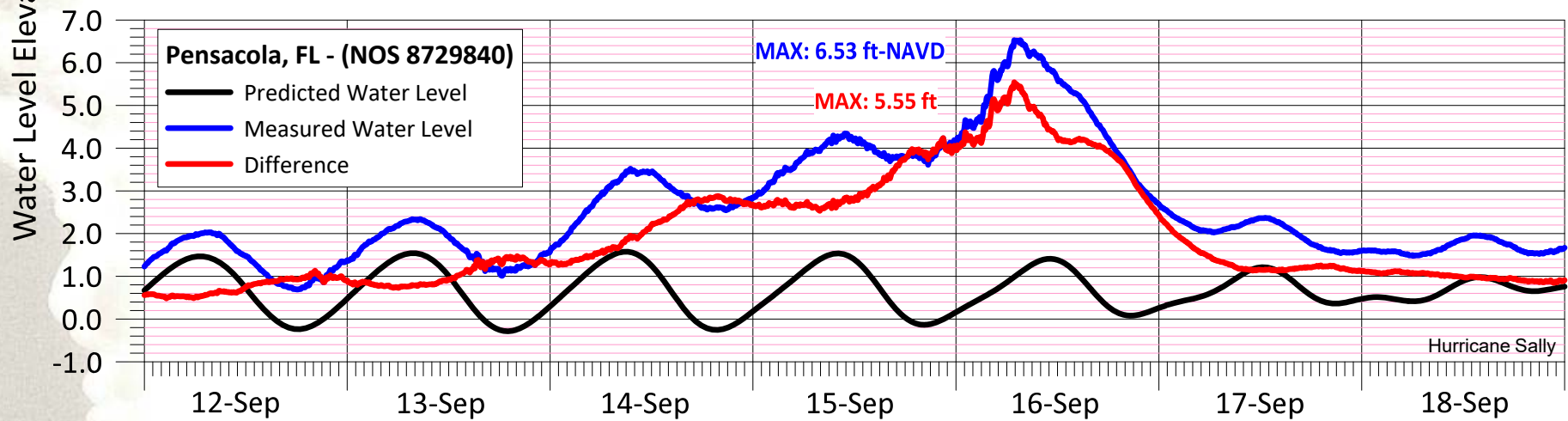
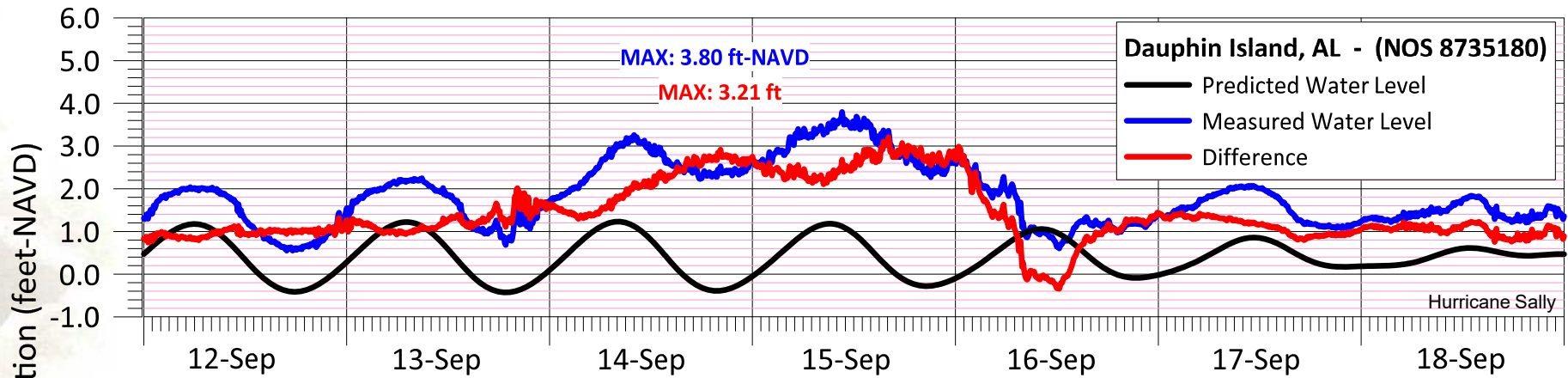
# Waves



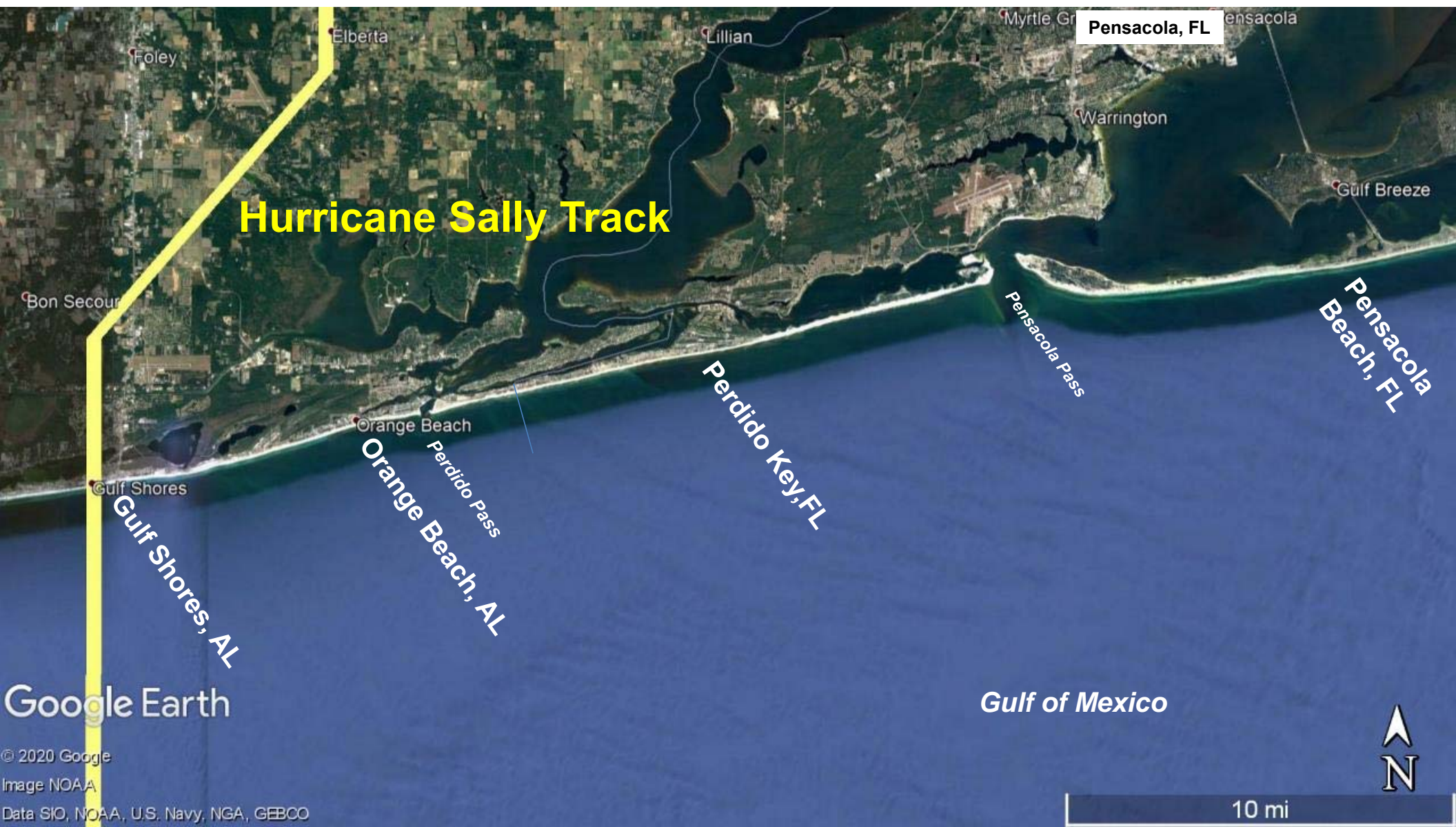
# Winds



# Surge



# Hurricane Sally Track



Google Earth

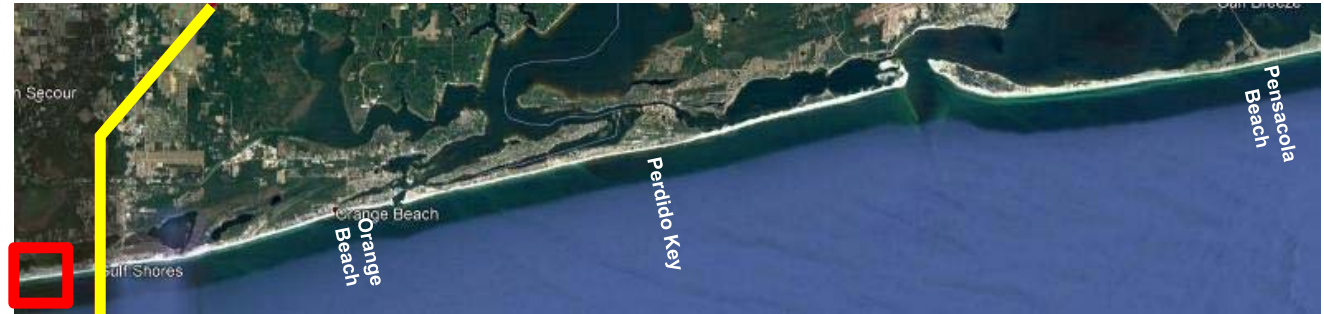
Gulf of Mexico

© 2020 Google  
Image NOAA  
Data SIO, NOAA, U.S. Navy, NGA, GEBCO





# Gulf Shores



1200 block of West Beach Blvd.  
A-13

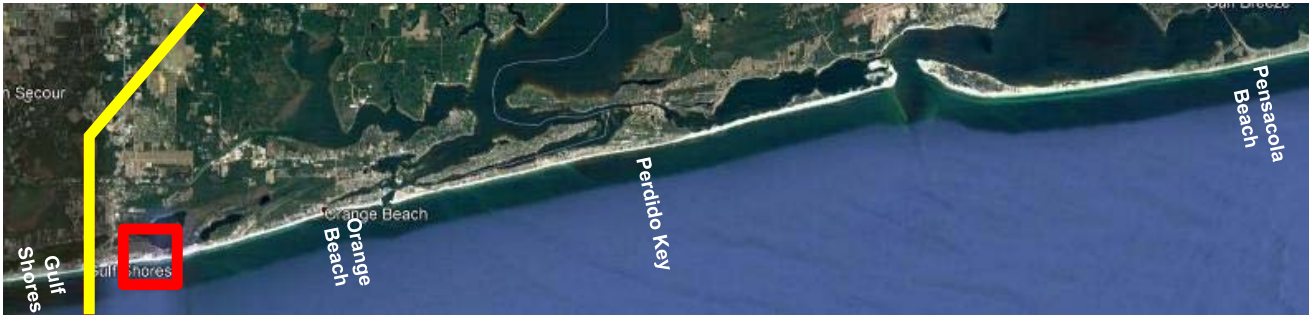


28 August 2020  
City of Gulf Shores

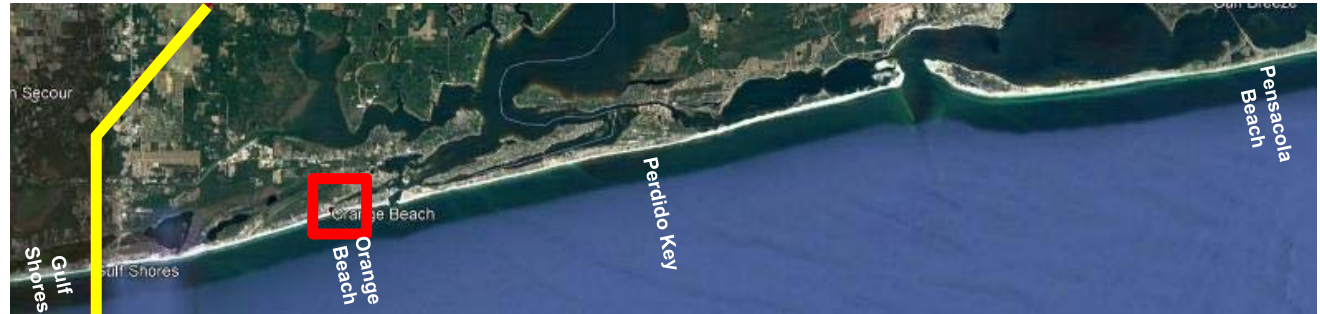


17 September 2020  
City of Gulf Shores

# Gulf State Park

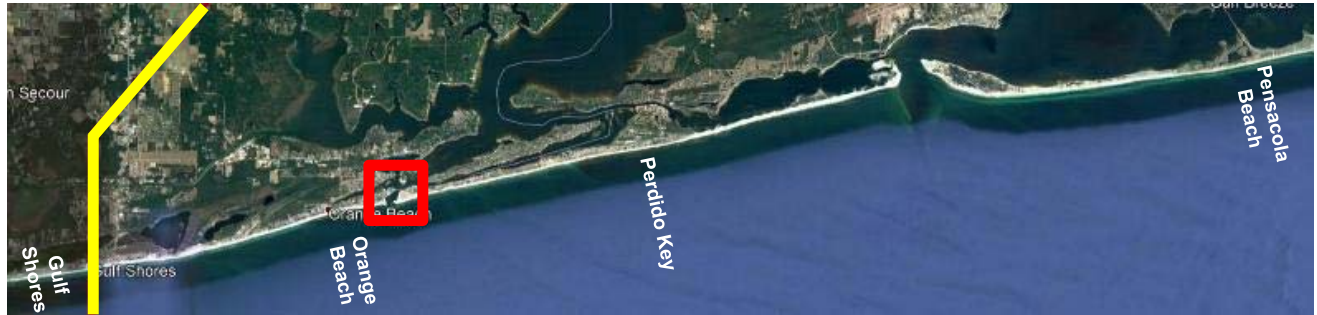


# Orange Beach



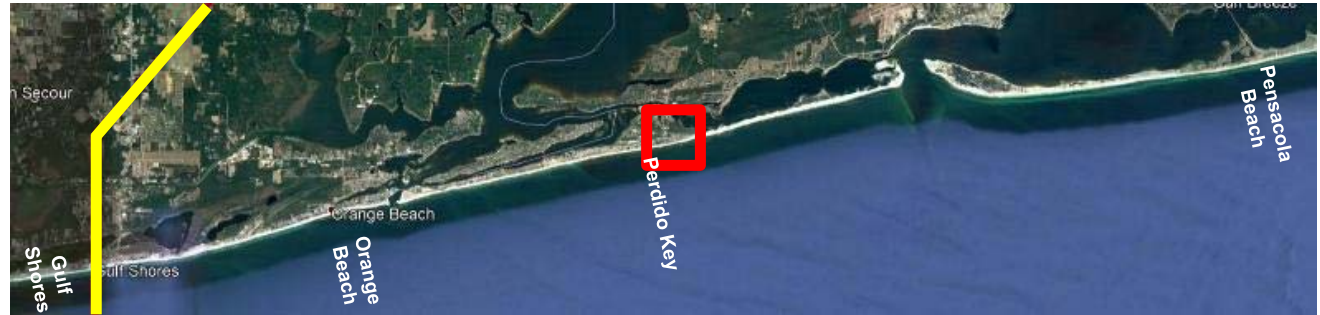
**Beach Side A63  
17 September 2020  
City of Orange Beach**

# Orange Beach



Perdido Pass  
17 September 2020  
City of Orange Beach

# Perdido Key

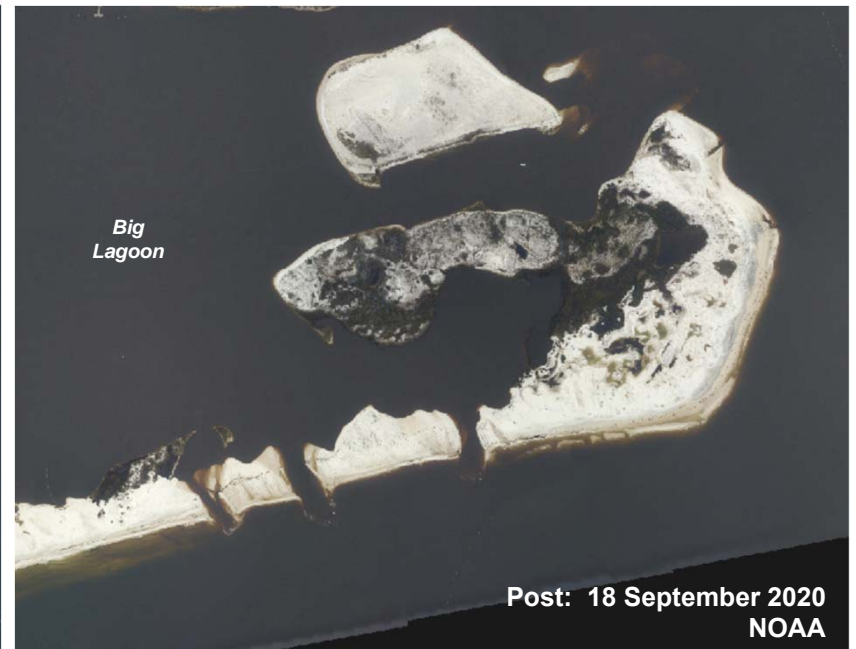
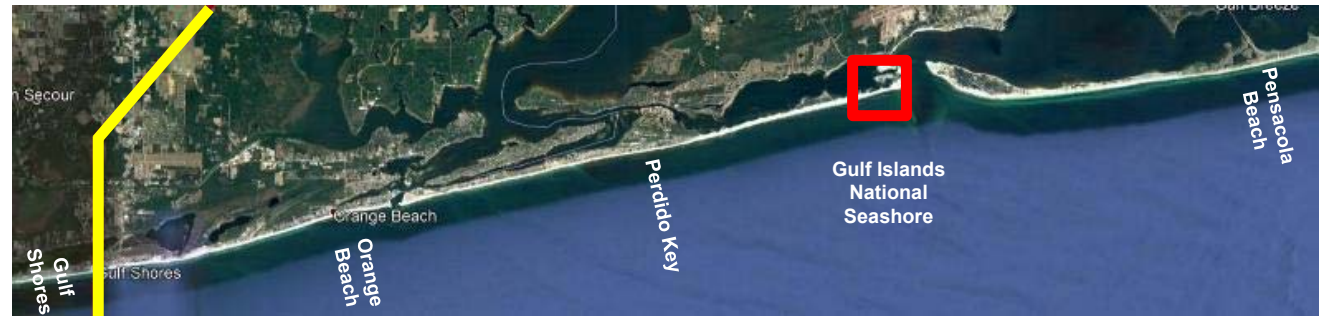


R-30  
17 September 2020  
Escambia County, FL



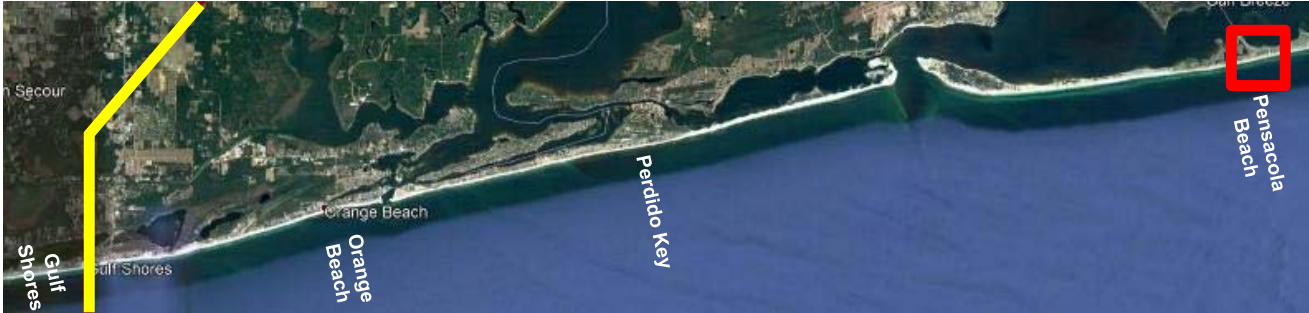
R-30  
17 September 2020  
Escambia County, FL

# Perdido Key



**Perdido Key unit of the Gulf Islands National Seashore**

# Pensacola Beach

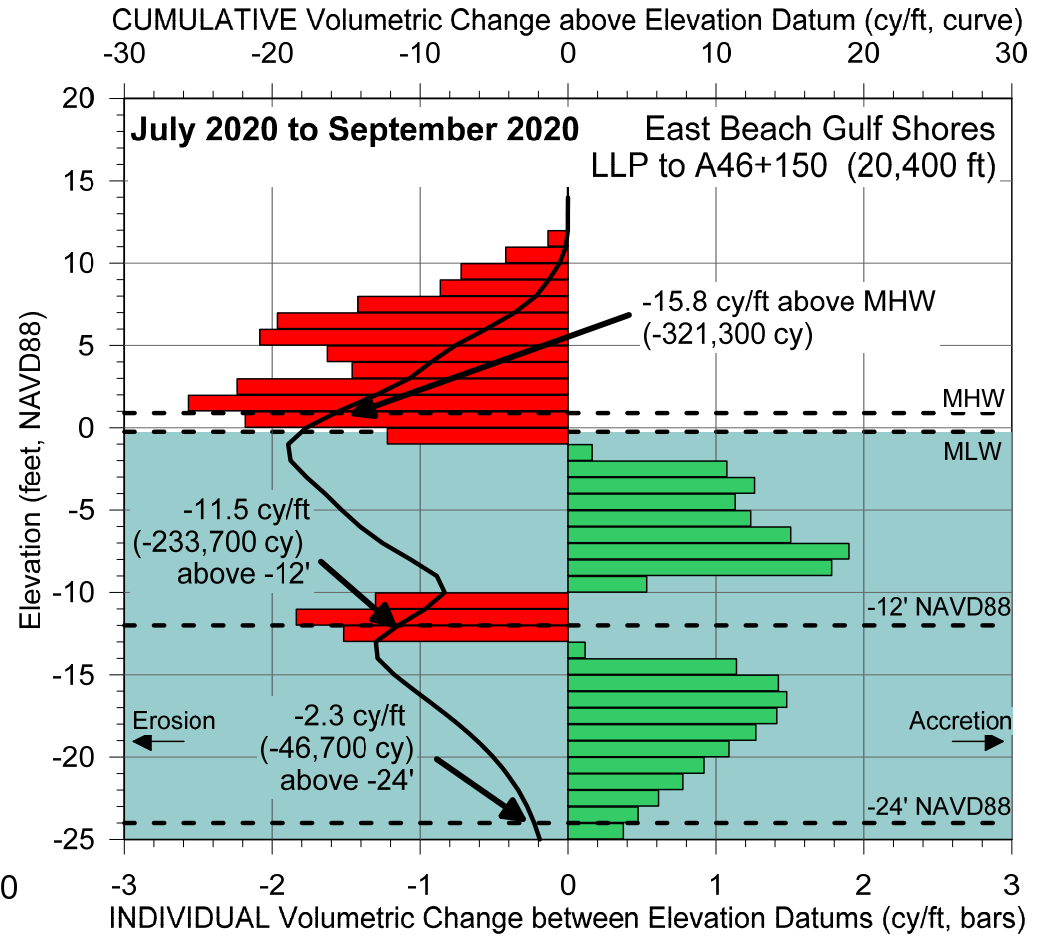
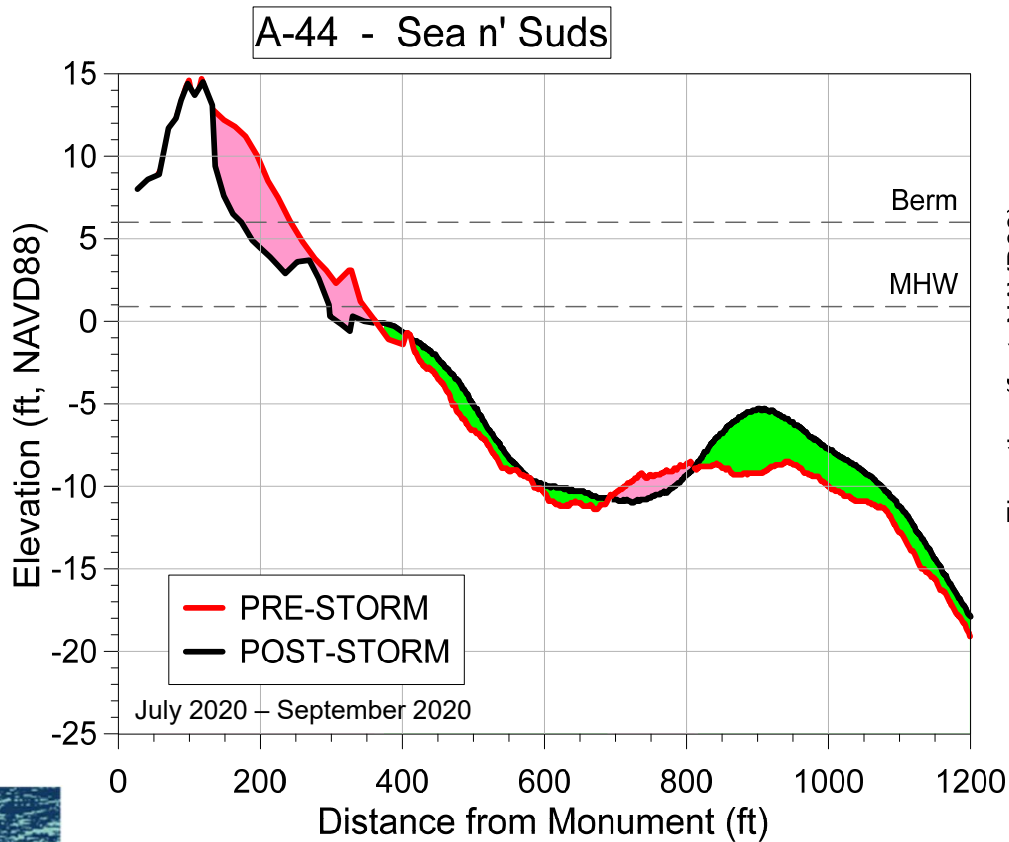


**Park West R-108**  
**18 September 2020**  
**Escambia County**



**The Cross R-115**  
**18 September 2020**  
**Escambia County**

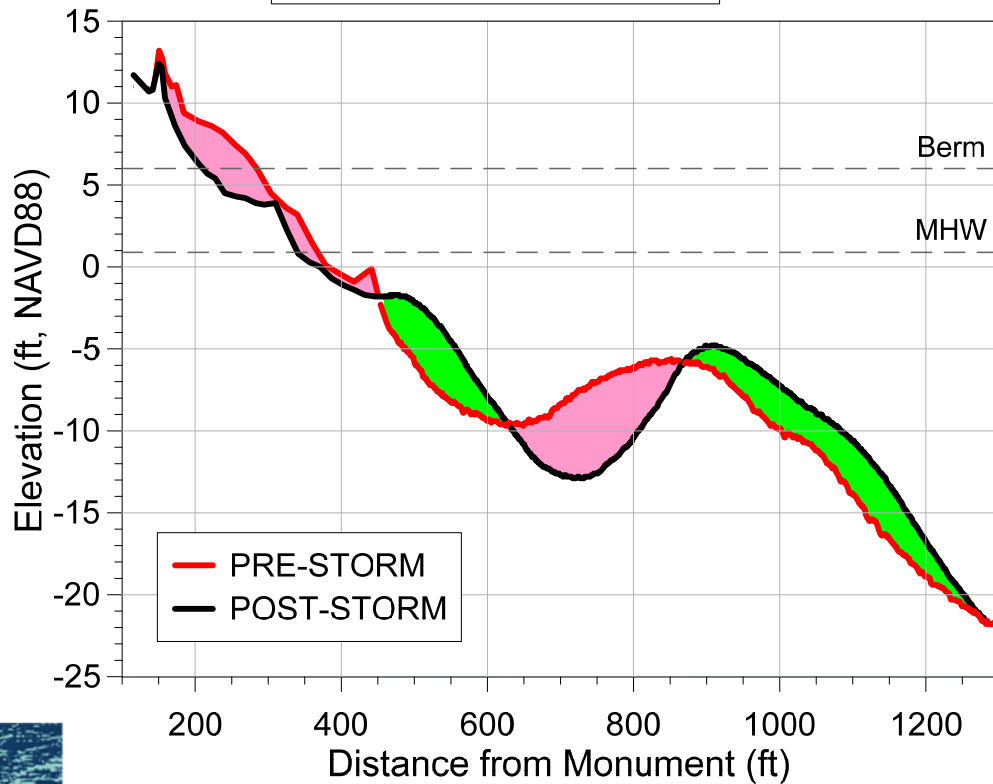
# Volume Changes: Gulf Shores



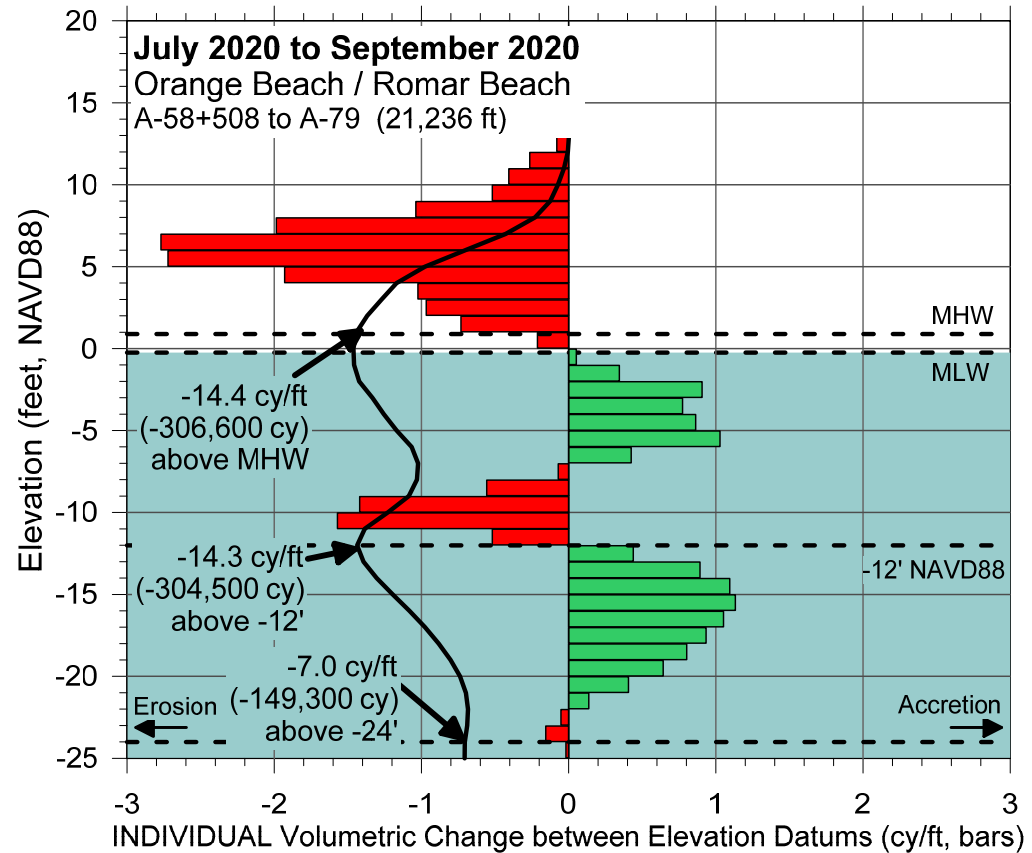


# Volume Changes: Orange Beach

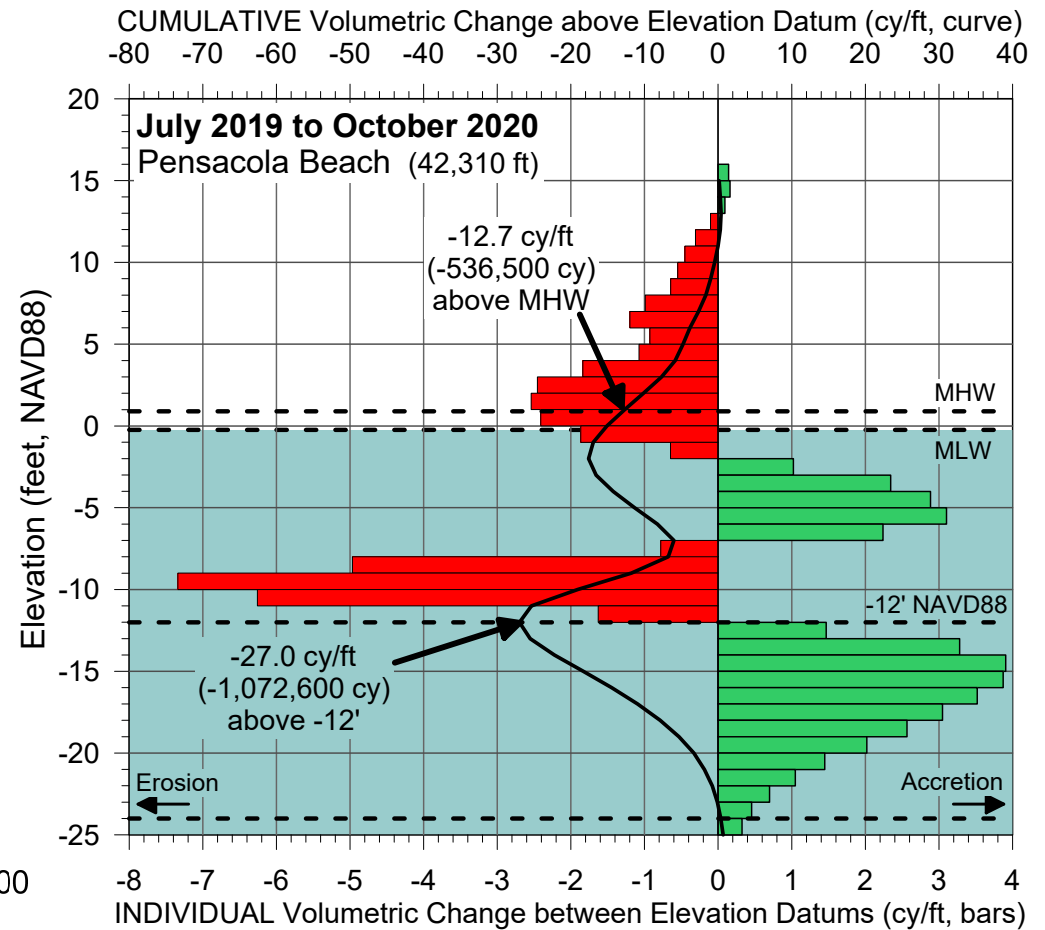
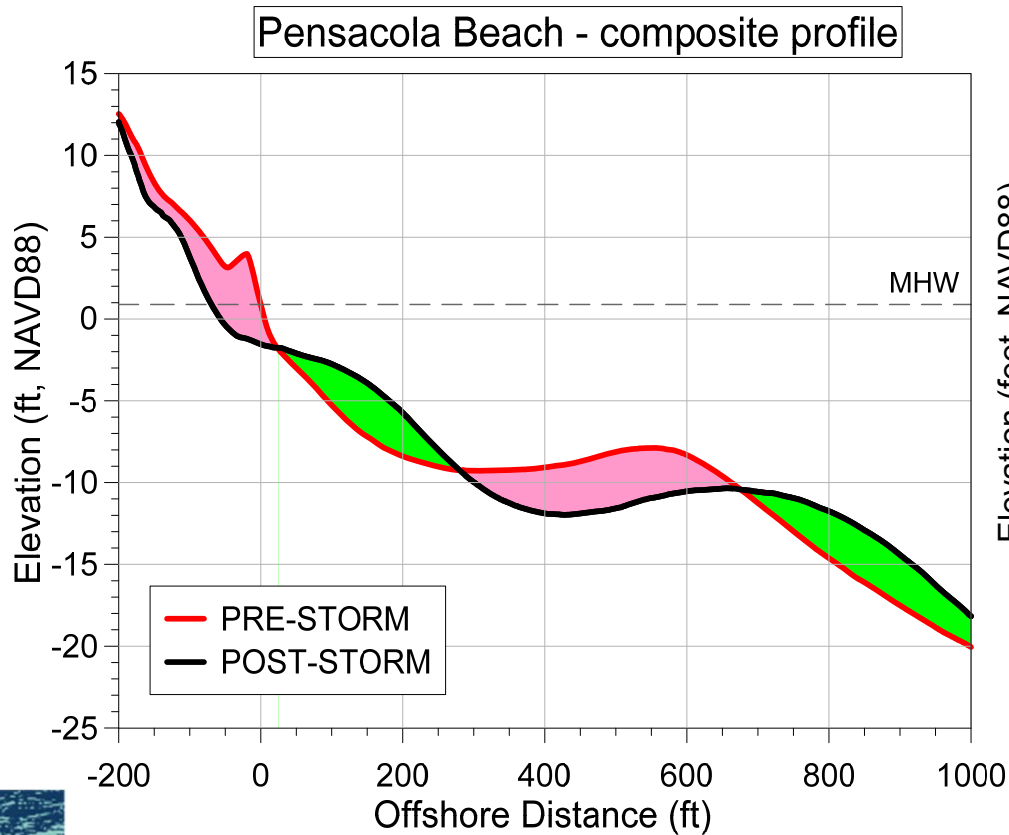
A-67 - Phoenix Condos



CUMULATIVE Volumetric Change above Elevation Datum (cy/ft, curve)



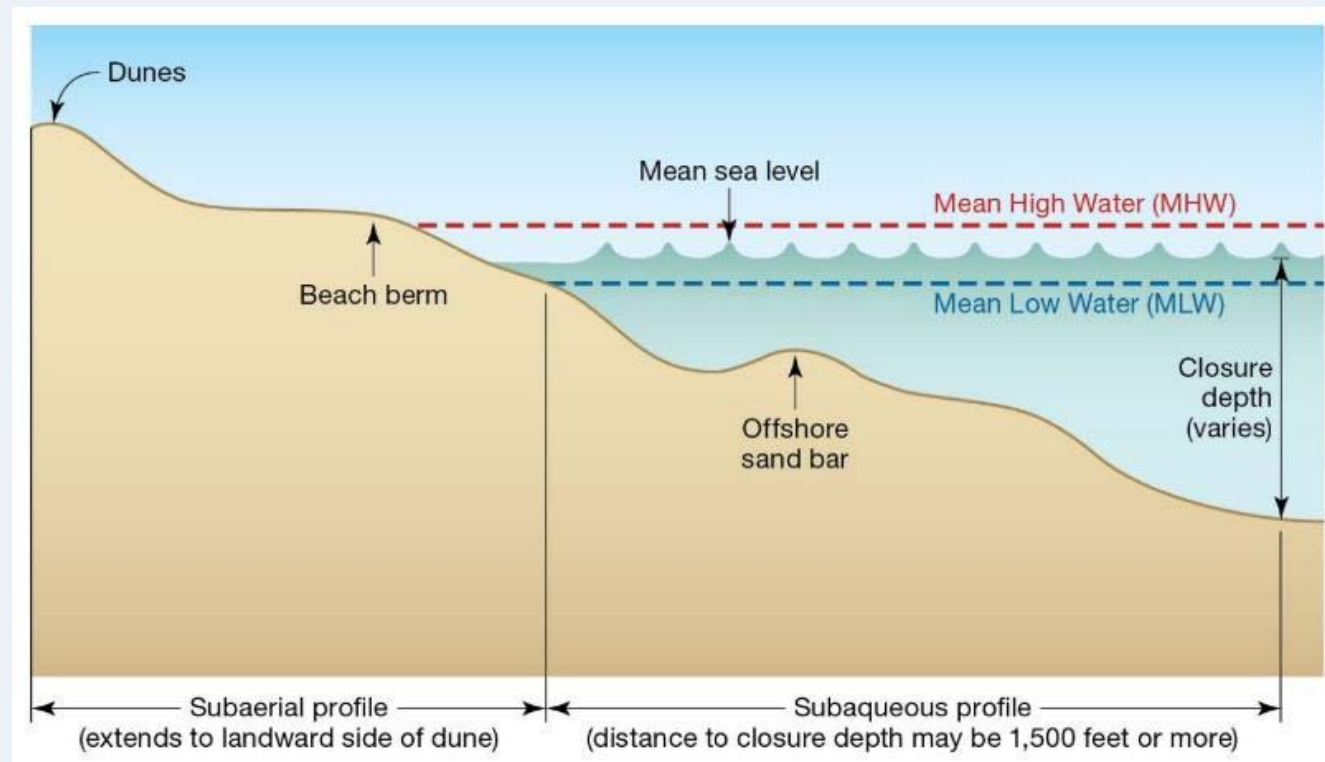
# Volume Changes: Pensacola Beach



# Discussion

## FEMA Public Assistance Program and Policy Guide V4:

“The amount of sand eligible for replacement is limited to the amount lost due to the incident. The Applicant needs to substantiate the amount of sand claimed with pre-and post-incident profiles that extend at least to the seaward edge of the subaqueous nearshore zone (**Depth of Closure**)”





# Beach Impacts of Hurricane Sally in the Florida Panhandle and Alabama

FSBPA National Conference  
on Beach Preservation  
Technology  
St. Augustine Beach, FL  
3 February 2021

Albert E. Browder, Ph.D., P.E., D.CE  
Sergio A. Pena, E.I.  
Krista J. Egan, P.E.

## ***QUESTIONS?***



olsen associates, inc.  
2618 Herschel St.  
Jacksonville, FL 32204  
904.387.6114  
[www.olsen-associates.com](http://www.olsen-associates.com)