



National Weather Service Marine Forecast Program

Emma Weston and Mark Wool

Meteorologists, NWS Tallahassee, FL



24 / 7 / 365

Continuously Staffed

- February 9, 1870: Signal Corps formed by President Grant. (147 years ago)
- October 1, 1890: President Benjamin Harrison creates the “U.S. Weather Bureau”. (127 years ago)
- 1901: Official 3-day forecasts begin for the North Atlantic. (116 years ago)
- 1970: The Weather Bureau is renamed the National Weather Service. (47 years ago)



Mission



Meteorological support to enhance:

- The protection of life and property
- The efficiency of governmental, recreational, and commercial maritime operations.



Importance



- More than 90% of goods imported into US arrive via oceans.
- Maritime commerce worth about \$78.6 billion annually.
- About 77 million Americans are involved in recreational boating

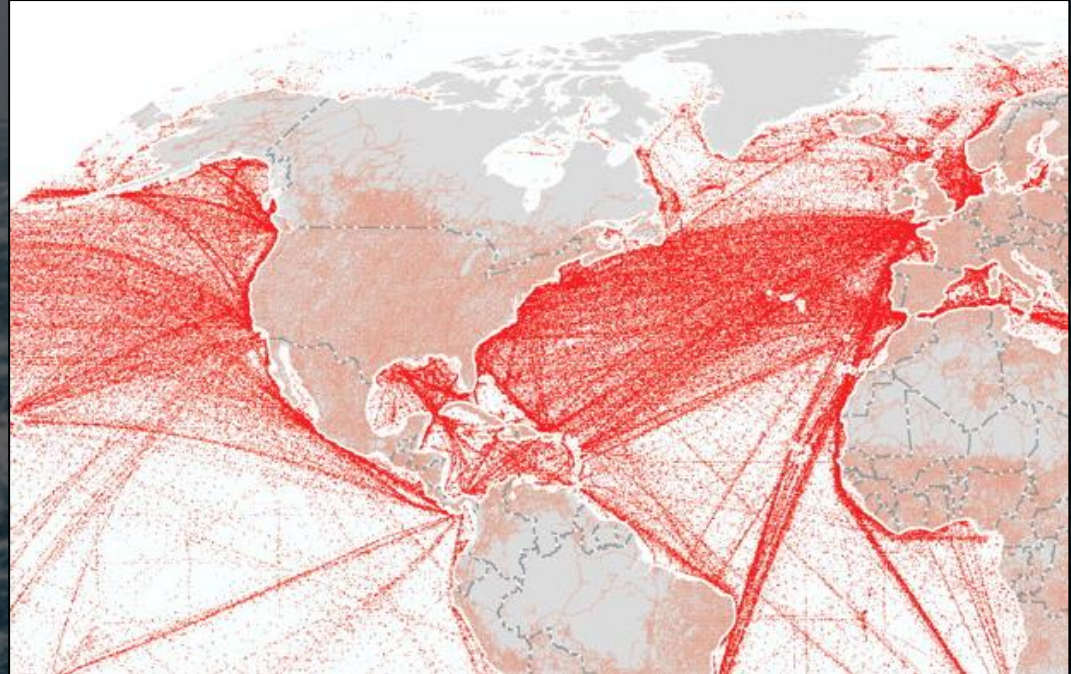
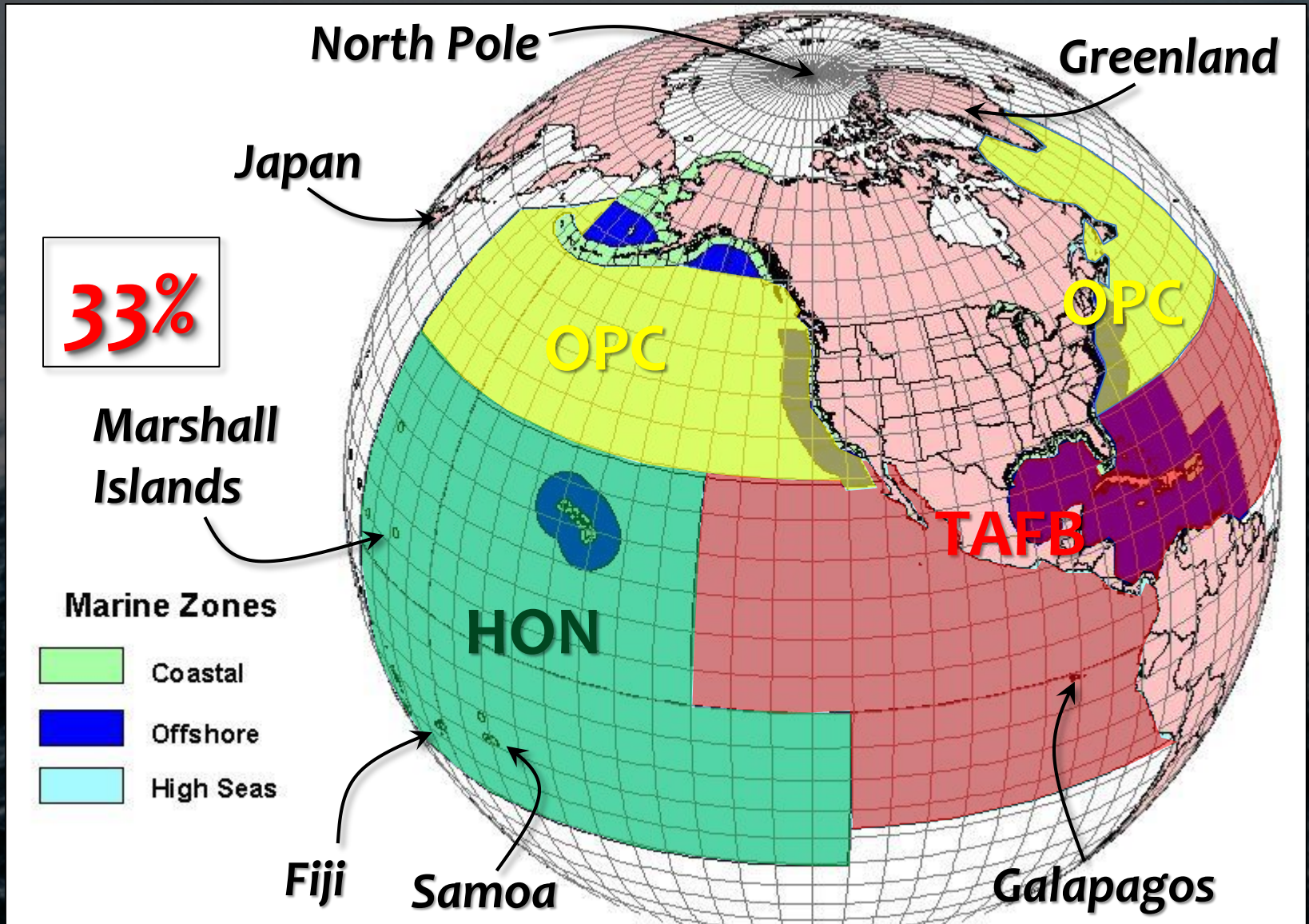


Image Source: <http://billjaquette.net/top-major-shipping-lanes-and-ports-in-the-world>
Information from NWS Office of Climate, Water, and Weather Services.

Accurate marine forecasts have a lot of value

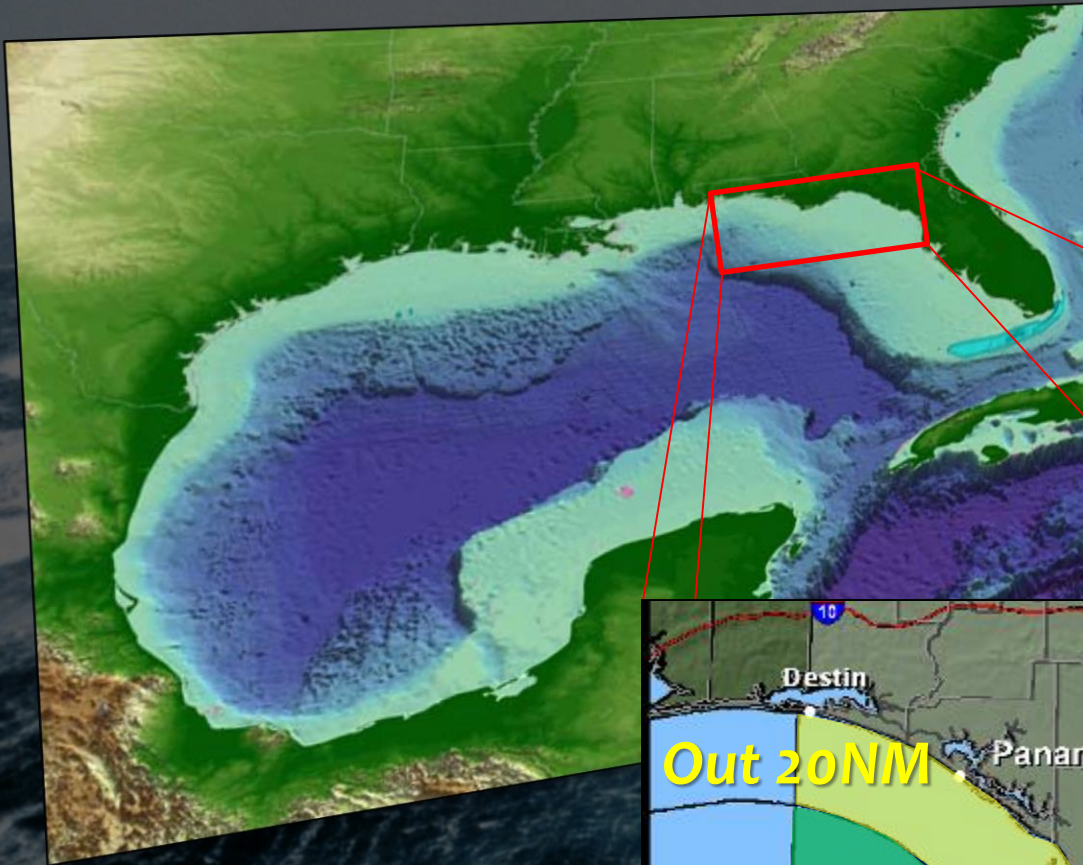


NWS Marine Forecast Areas





NWS Tallahassee Area



One of 46 NWS offices with local marine responsibility (out of 125)

37% of NWS offices have marine responsibility.





Marine Products We Issue...



Coastal Waters Forecast (CWF)

- Tailored to a wide variety of users. Issued 4x/day. Goes out 5 days.

Area Forecast Discussion (AFD)

- Regularly includes a marine section to describe the reasoning behind the forecast.

Surf Zone Forecast (SRF)

- Forecasts of surf heights, beach conditions, and rip current risk. Issued once a day in the pre-dawn hours. Goes out 2 days.



Find It On Our Website

weather.gov/tae

NATIONAL WEATHER SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

HOME FORECAST PAST WEATHER SAFETY INFORMATION EDUCATION NEWS SEARCH ABOUT

Local forecast by "City, St" or ZIP code
Enter location ...
[Location Help](#)

News Headlines

- Flood Stage Changes for the Choctawhatchee River at Caryville (US-90) take effect February 8th. [Click here for more.](#)
- Tornadoes and Damaging Wind Event - January 2, 2017

NWS Forecast Office Tallahassee, FL
[Weather.gov > Tallahassee, FL](#)

Tallahassee, FL
Weather Forecast Office

Current Hazards Current Conditions Radar **Forecasts** Rivers and Lakes Climate and Past Weather Local Programs

Today Tomorrow

Today 1/15/2017

Forecaster's Discussion

Marine

Panama City 70 Tallahassee 70 Valdosta 75

Area Forecast Discussion (AFD)

Coastal Waters Forecast (CWF)
and Surf Zone Forecast (SRF)



Further Down The Page...



Point-and-Click Map

Click on a point over the marine areas to get a marine forecast!

weather.gov/tae

Navigate to a Neighboring WFO

Click a location below for detailed forecast.



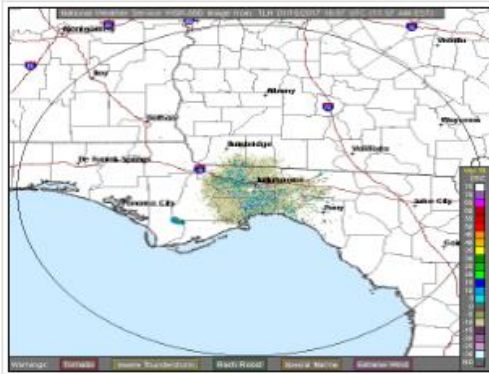
Last Map Update: Sun, Jan. 15, 2017 at 12:57:33 pm EST

[Watches, Warnings & Advisories](#)

[Hazardous Weather Outlook](#)

Zoom Out

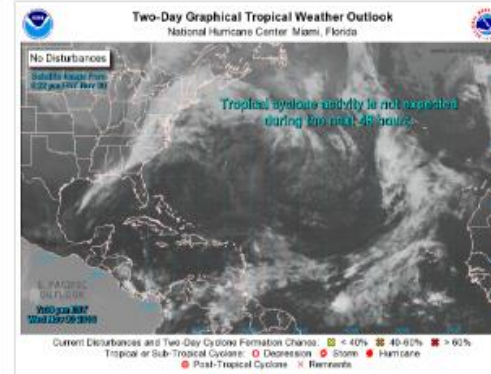
Active Hazard Products Across The Area



Local Radar



Weather Map



Tropical Weather



Hazardous Wx: Winds/Seas



Small Craft Exercise Caution (Headline in CWF)

- Winds of 15-20 knots, and/or seas of 6 feet.

Small Craft Advisory

- 20 to 33 knot winds, and/or seas of at least 7 feet.

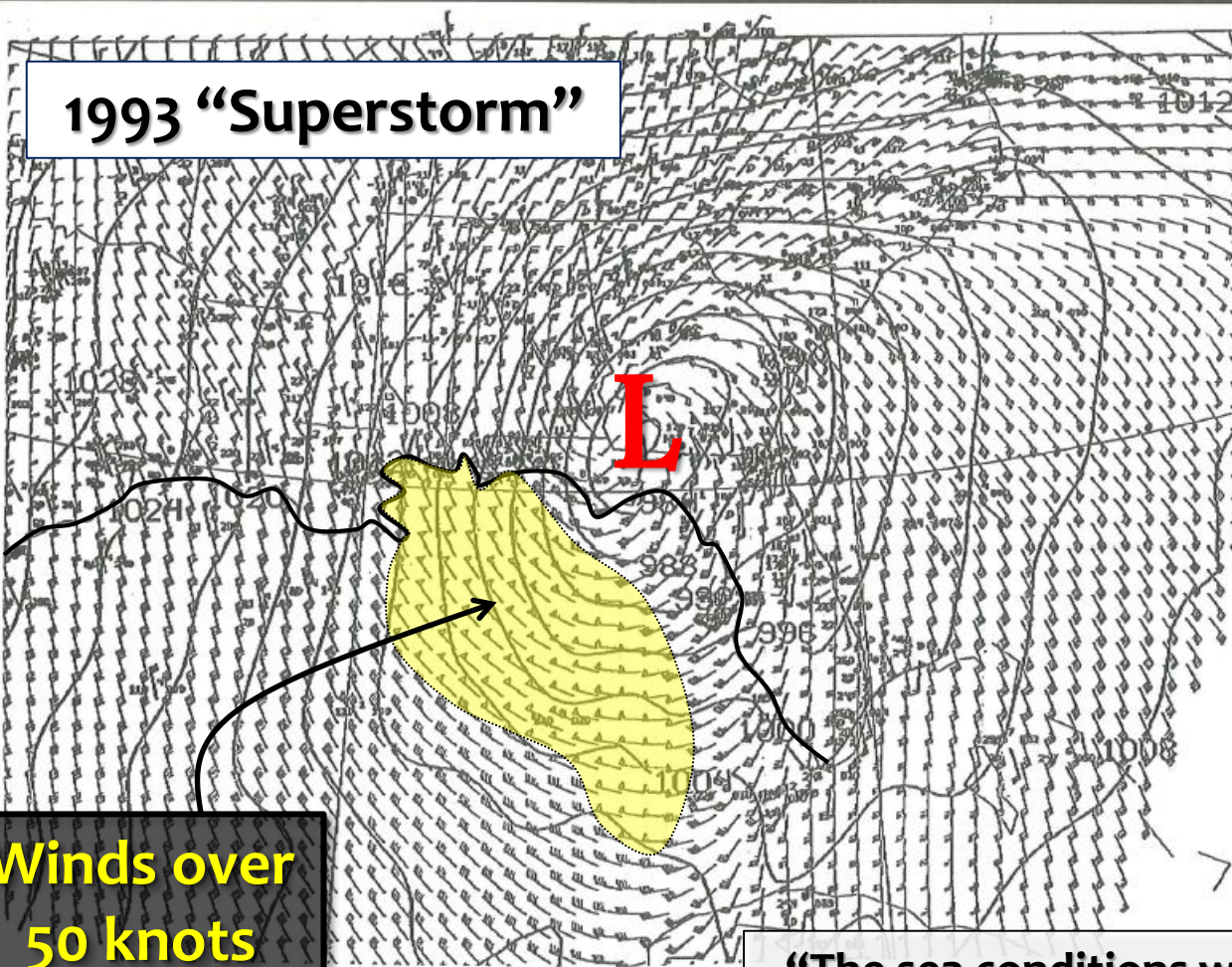
Higher End Wind Threat

- Gale Warning: winds of 34 to 47 knots expected.
- Storm Warning: winds of 48 to 63 knots expected.

Tropical Cyclone Watches and Warnings

Storm Force Winds Rare

1993 "Superstorm"



Winds over 50 knots

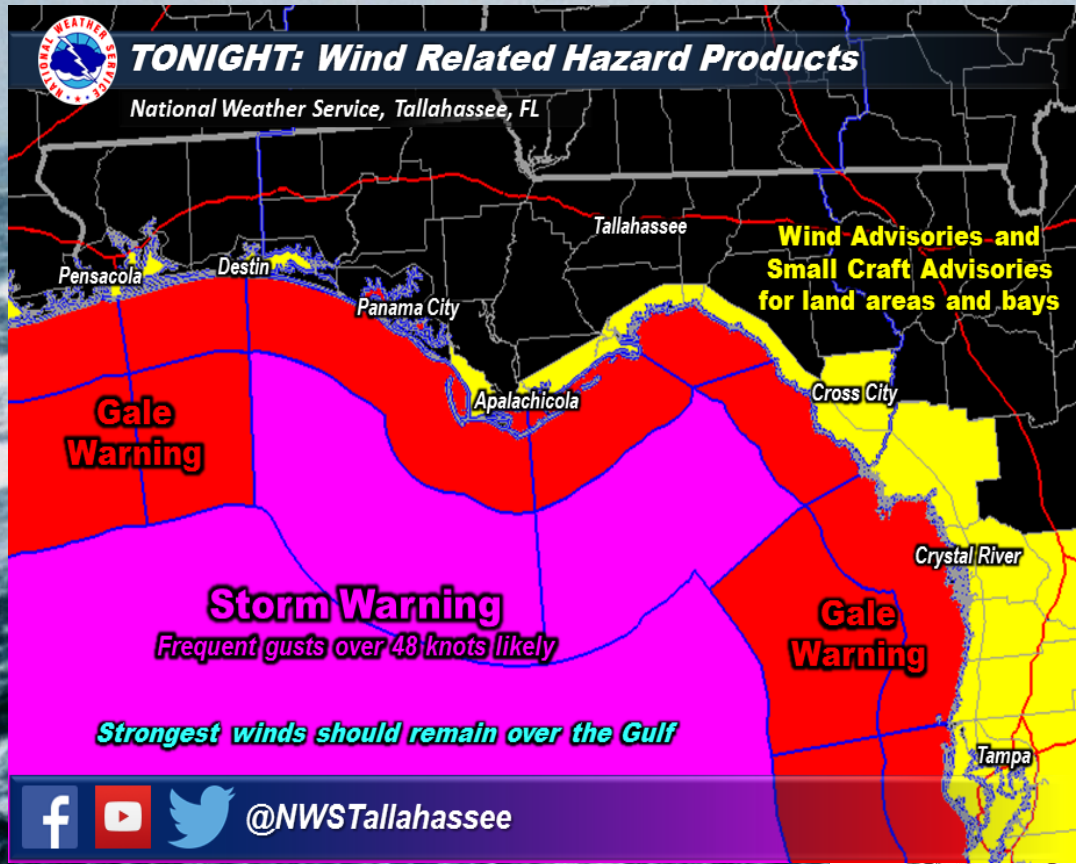
Figure 2-8. ETA Model Mesoscale Surface Analysis

- March 1993 Superstorm is one example.
- Popular Mechanics Article (2009): "200-ft freighter sunk 70 miles off Ft. Myers, FL" AND "Coast Guard rescued 235 people on more than 100 boats"

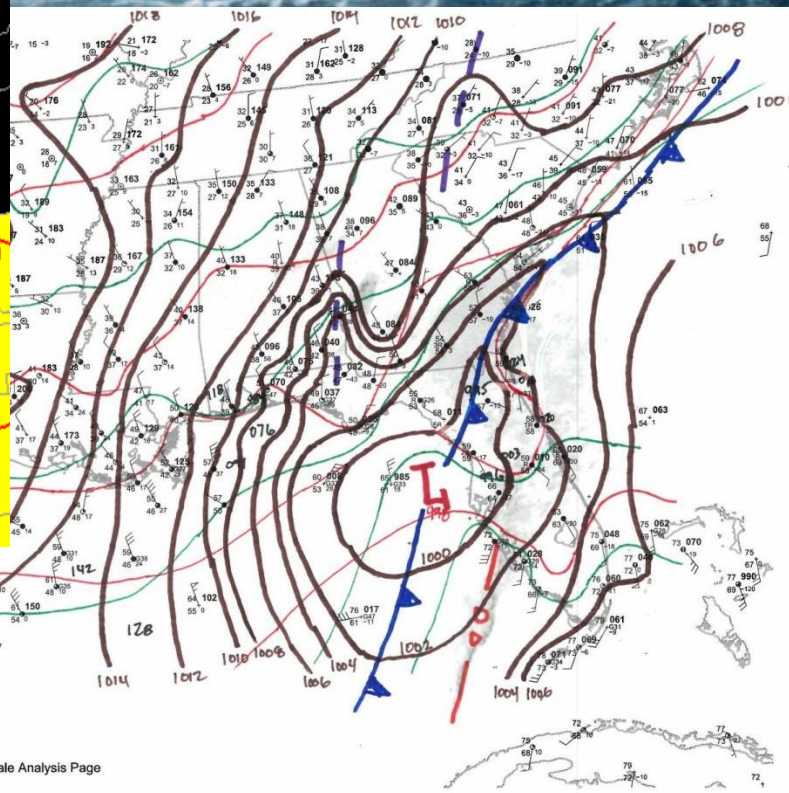
"The sea conditions were absolutely incredible, unbelievable," Coast Guard Petty Officer Rob Wyman told the *Washington Post*. "It looked like a big washing machine. There were huge waves"



January 16, 2016 998 mb Gulf Low

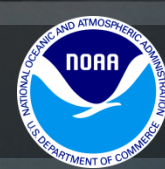


- Buoy 42036 (eastern buoy)
Max gust 41 kts
- Buoy 42039 (western buoy)
Max gust 47 kts





Other Hazardous Weather



Special Marine Warning

- Thunderstorms with wind gusts of at least 34 knots, hail of at least $\frac{3}{4}$ inch in diameter, or waterspouts.

Dense Fog Advisory

- Visibility in fog one nautical mile or less.

High Surf Advisory

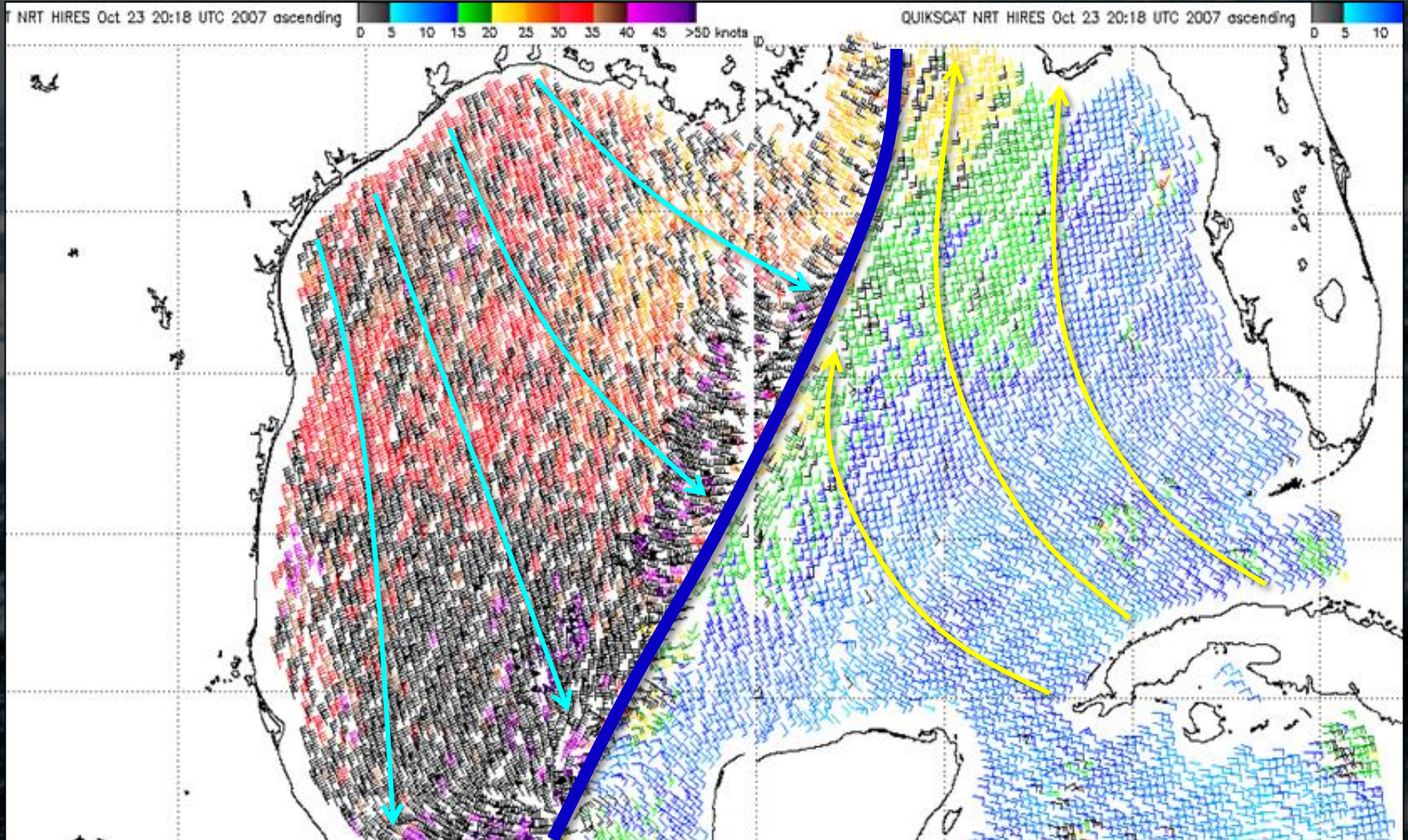
- Issued when surf heights are expected to reach 6 feet or higher along the coastline.



Common Weather Patterns That Favor Elevated Winds and Seas

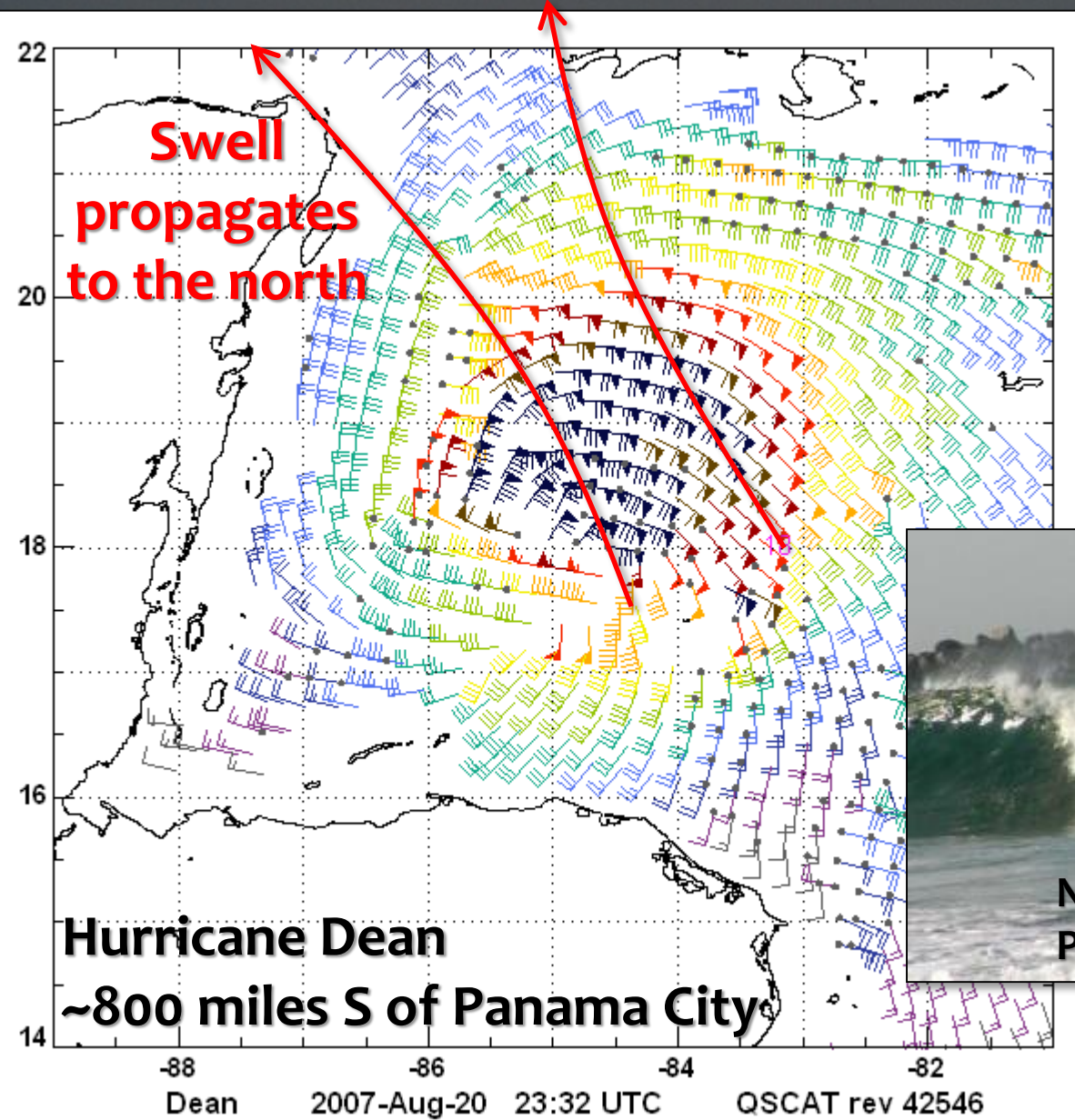


Cold Fronts





Tropical Cyclones



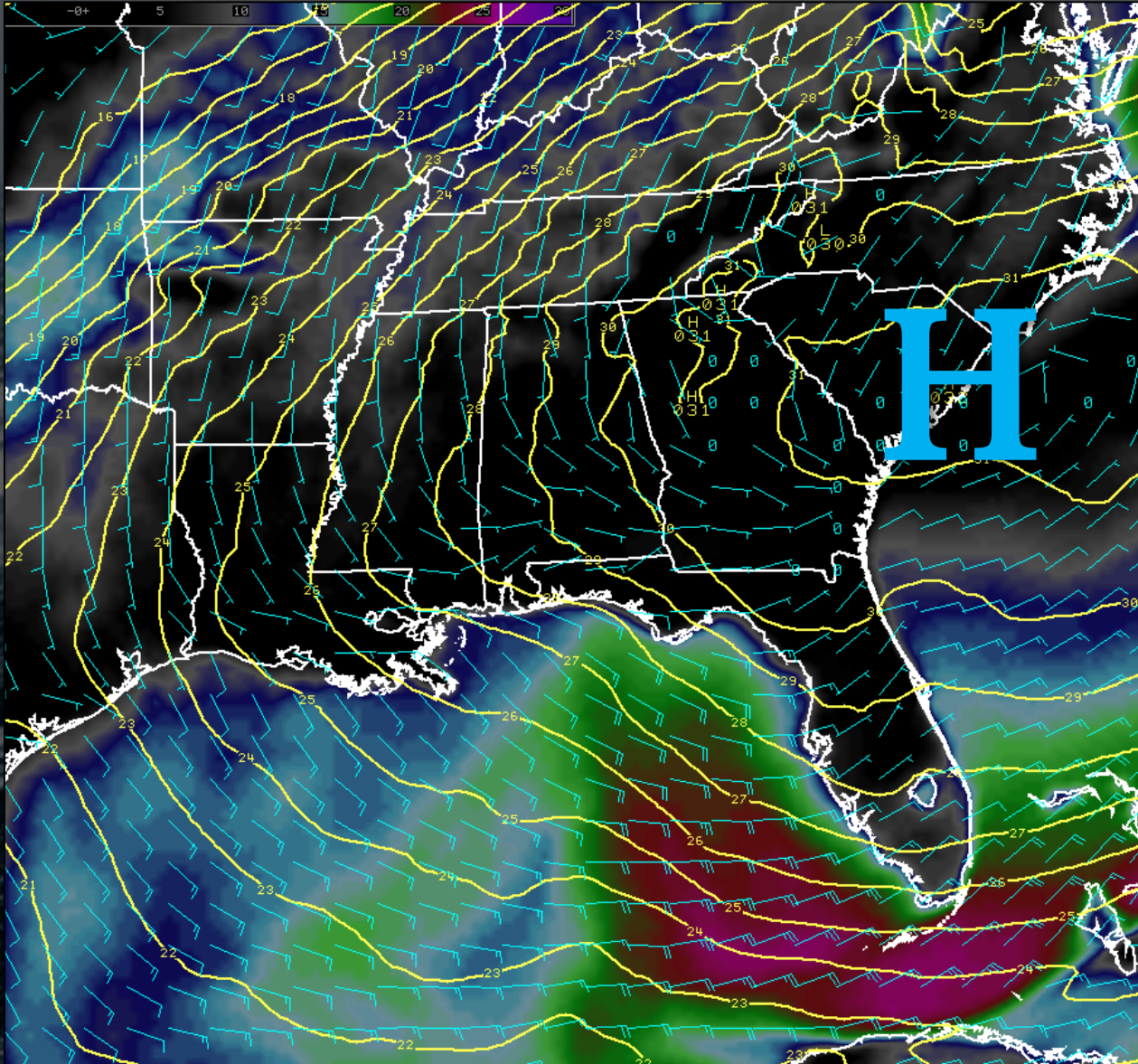
Even a tropical cyclone in western Caribbean can generate swell that will reach Florida Panhandle



Near Panama City, 8/22/2007
Photo: mrsurfs.com



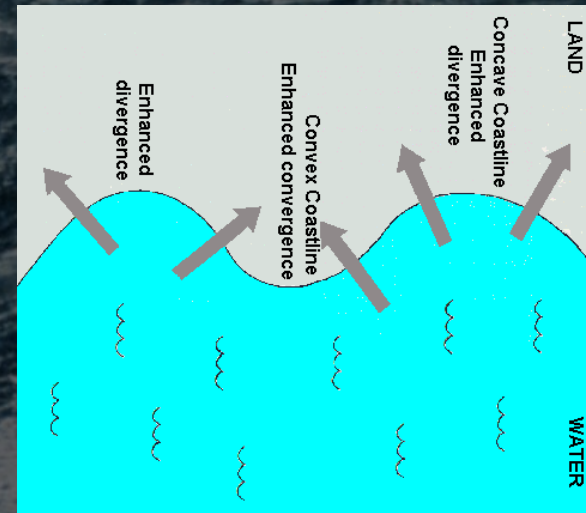
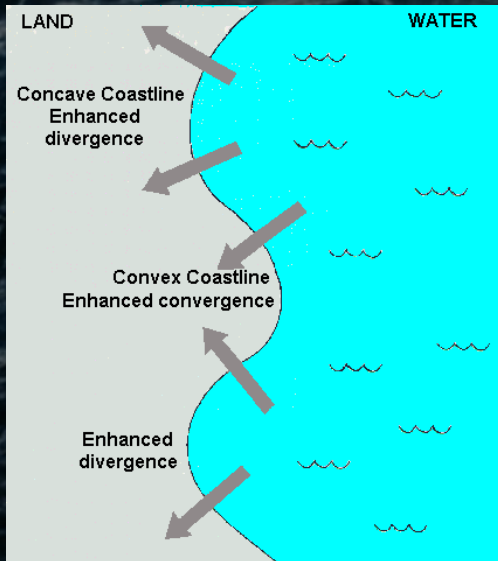
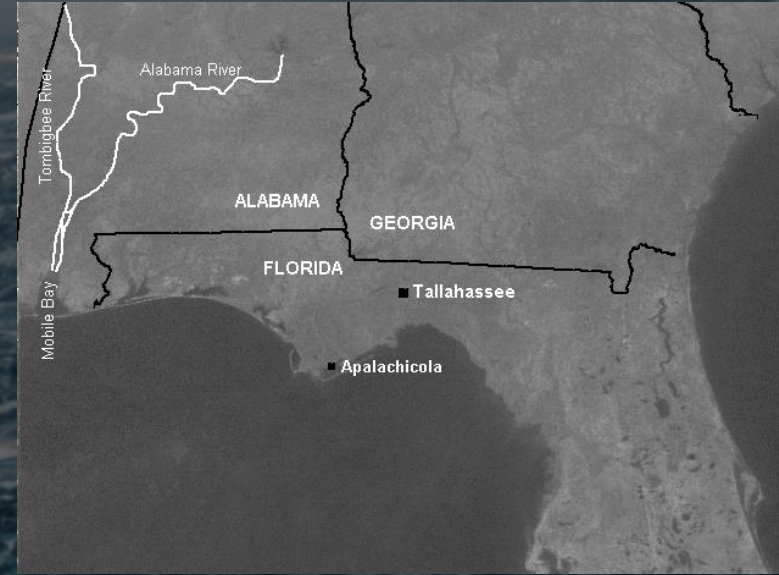
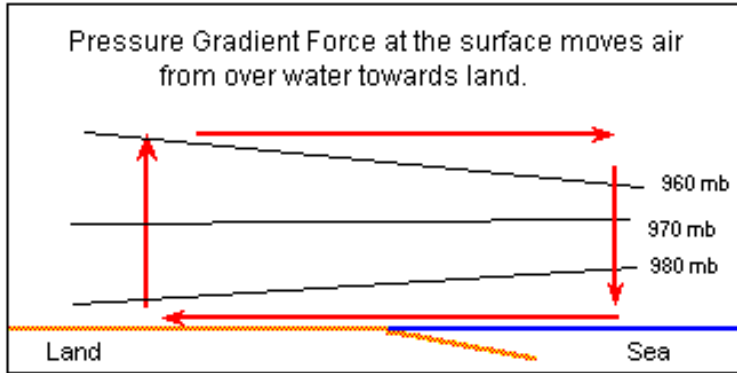
Easterly Flow Regime



- Ridge of high pressure across the Southeast.
- Typical lower pressures in Caribbean and southern Gulf
- Increases the pressure gradient in our area.
- Maximizes at night & in a.m.

Local Effects (Sea Breeze)

Figure 5.





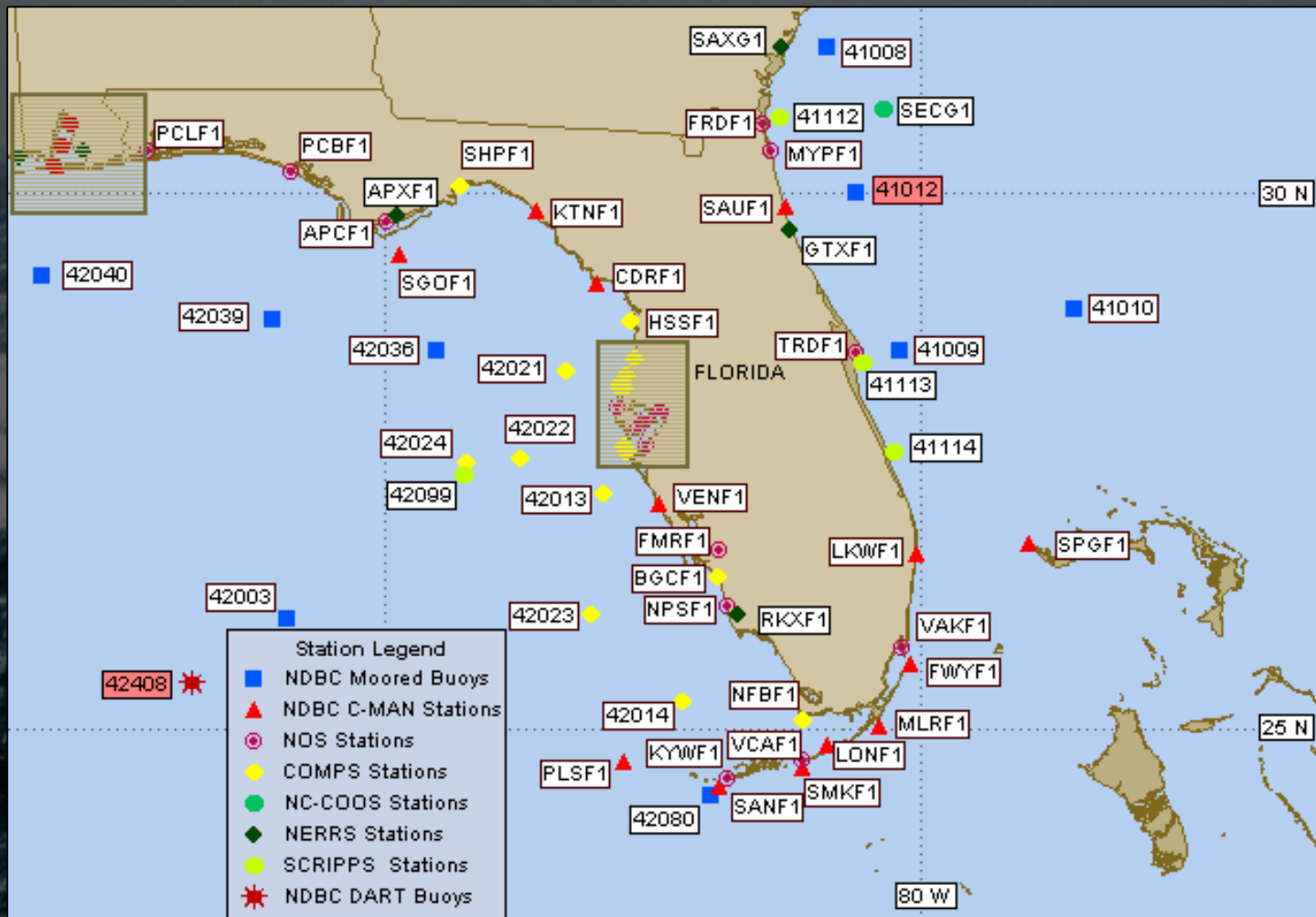
Tools That We Use For The Marine Forecast



Marine Observations



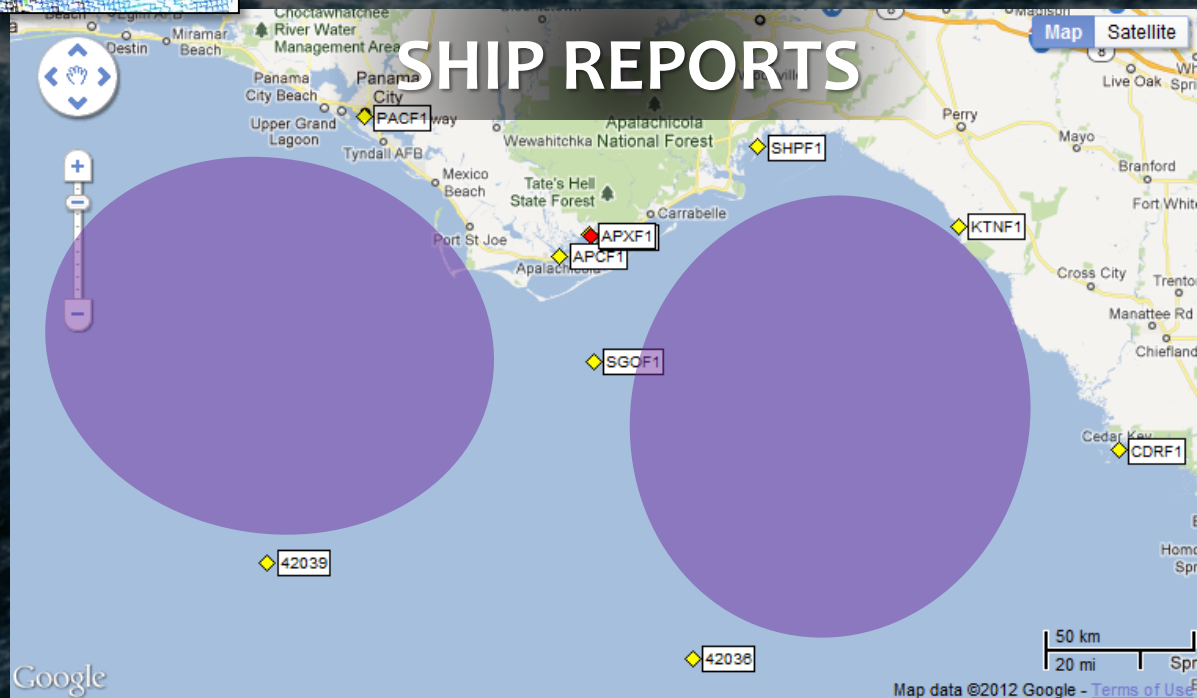
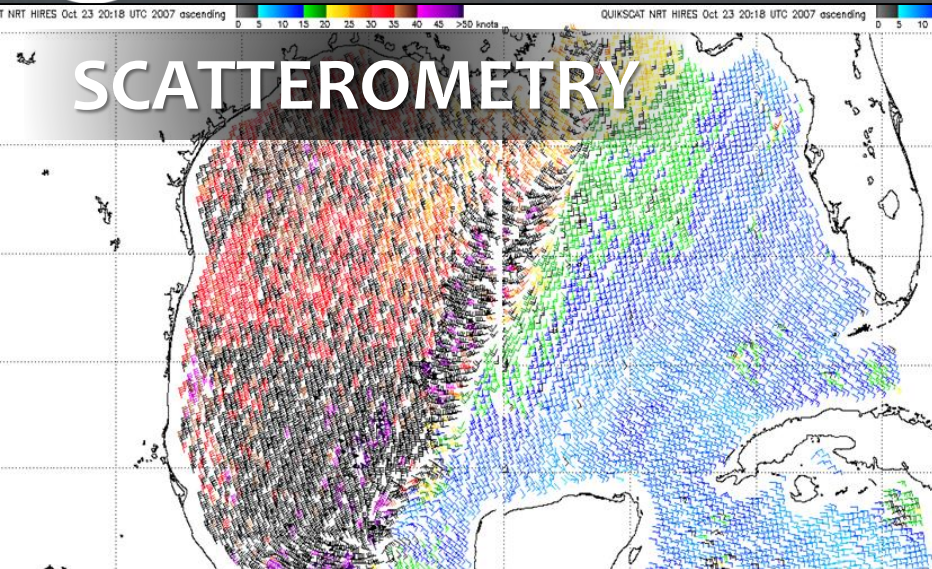
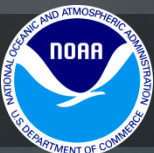
<http://www.ndbc.noaa.gov/maps/Florida.shtml>



Dial-a-Buoy: 888-701-8992 and then punch in the ID [example: 42039]



We Also Consider...





Volunteer Observing Ship (VOS) Program



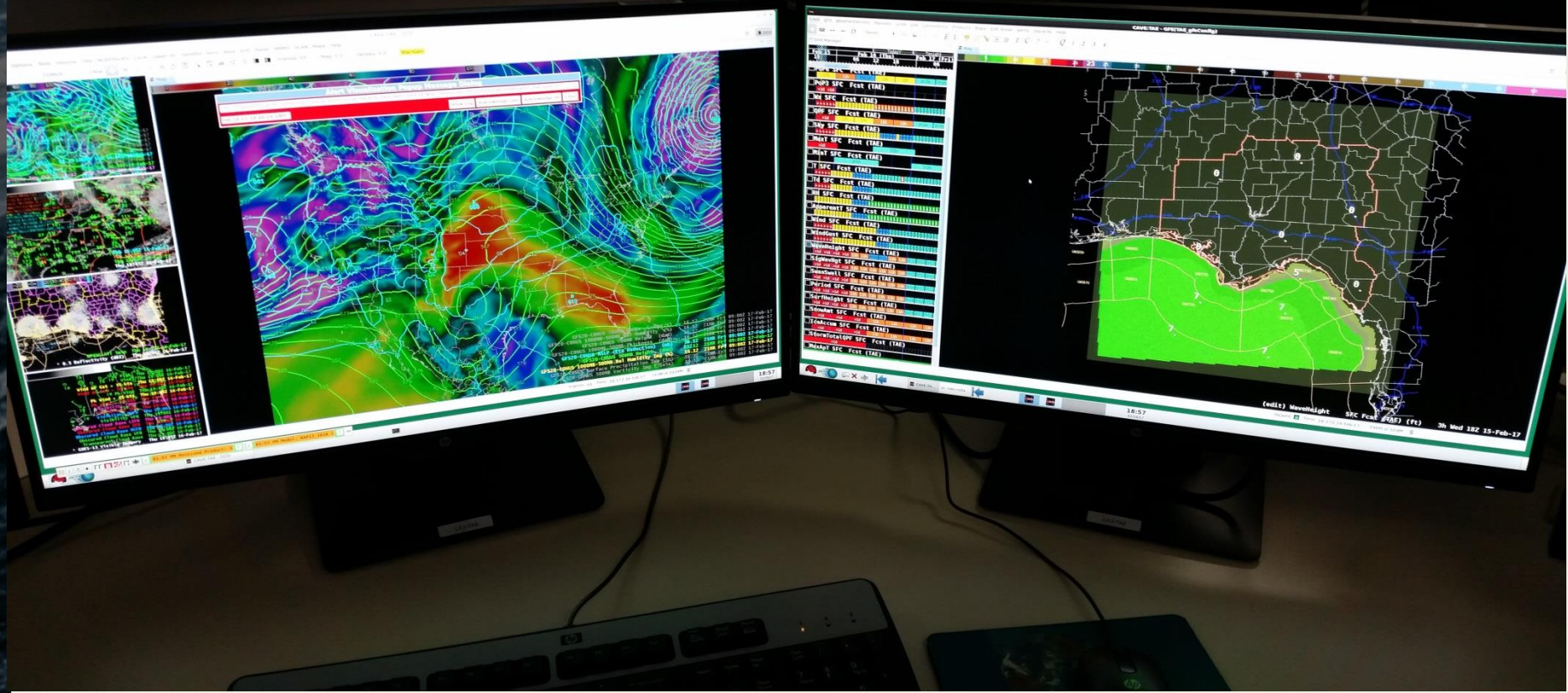


AWIPS Workstation



Computer model
forecast data

Graphical Forecast
Editor





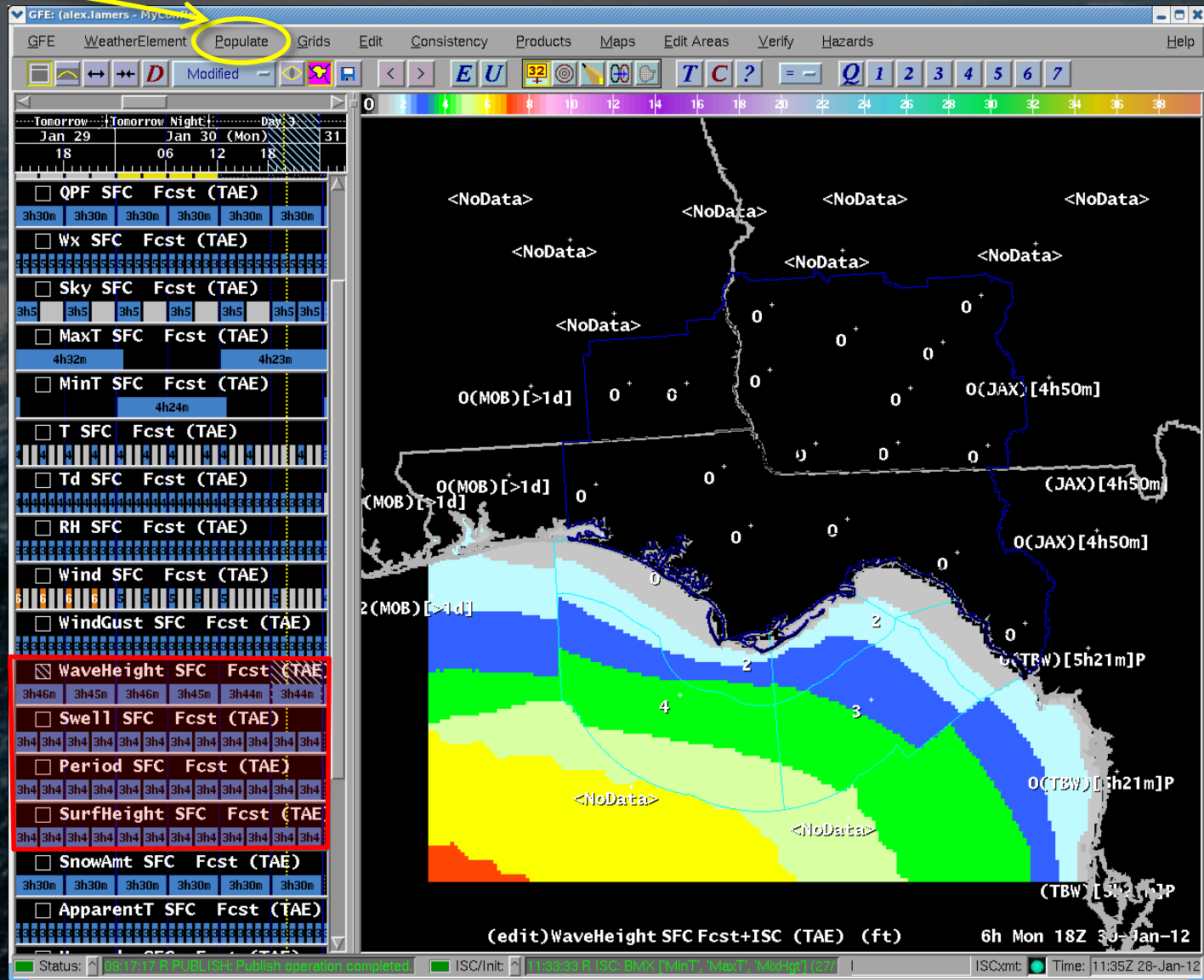
Graphical Forecast Editor



We can load model data and then manipulate it graphically

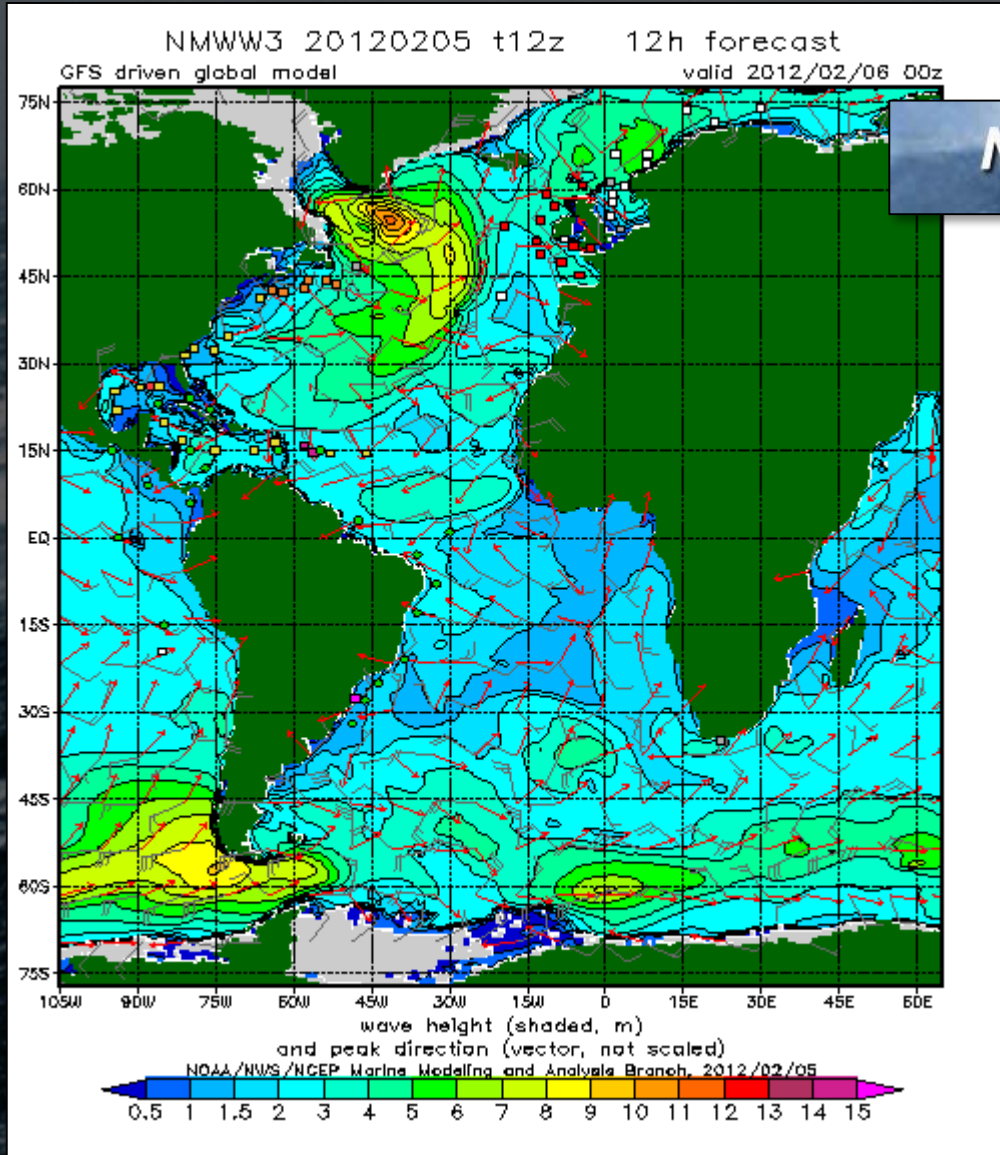
Editing is sort of like a “fancy coloring book”

We produce grids of wave height, swell, wave period, and surf height





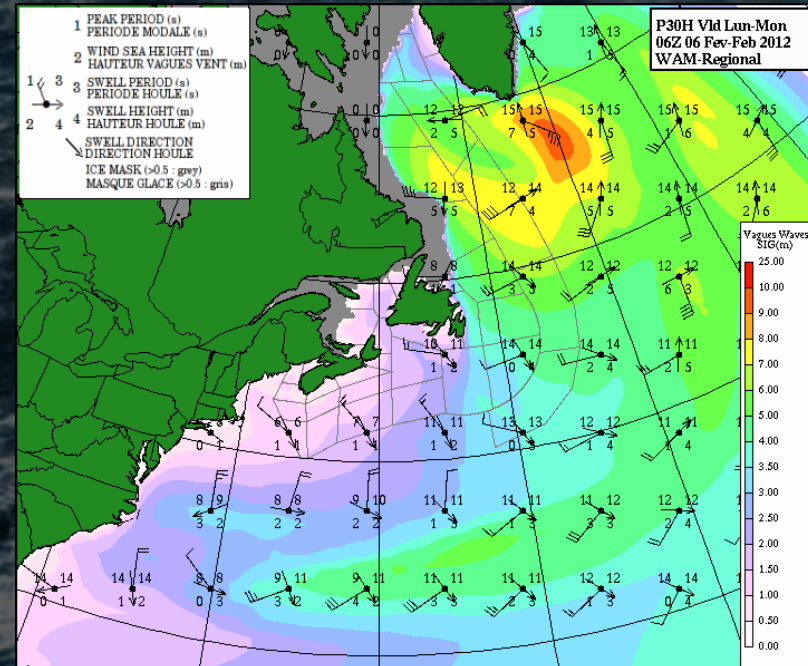
Global Wave Models



Primarily used by NWS:

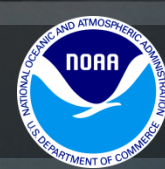
NOAA WAVEWATCH III[®]

Other wave models do exist,
including this one from
Environment Canada

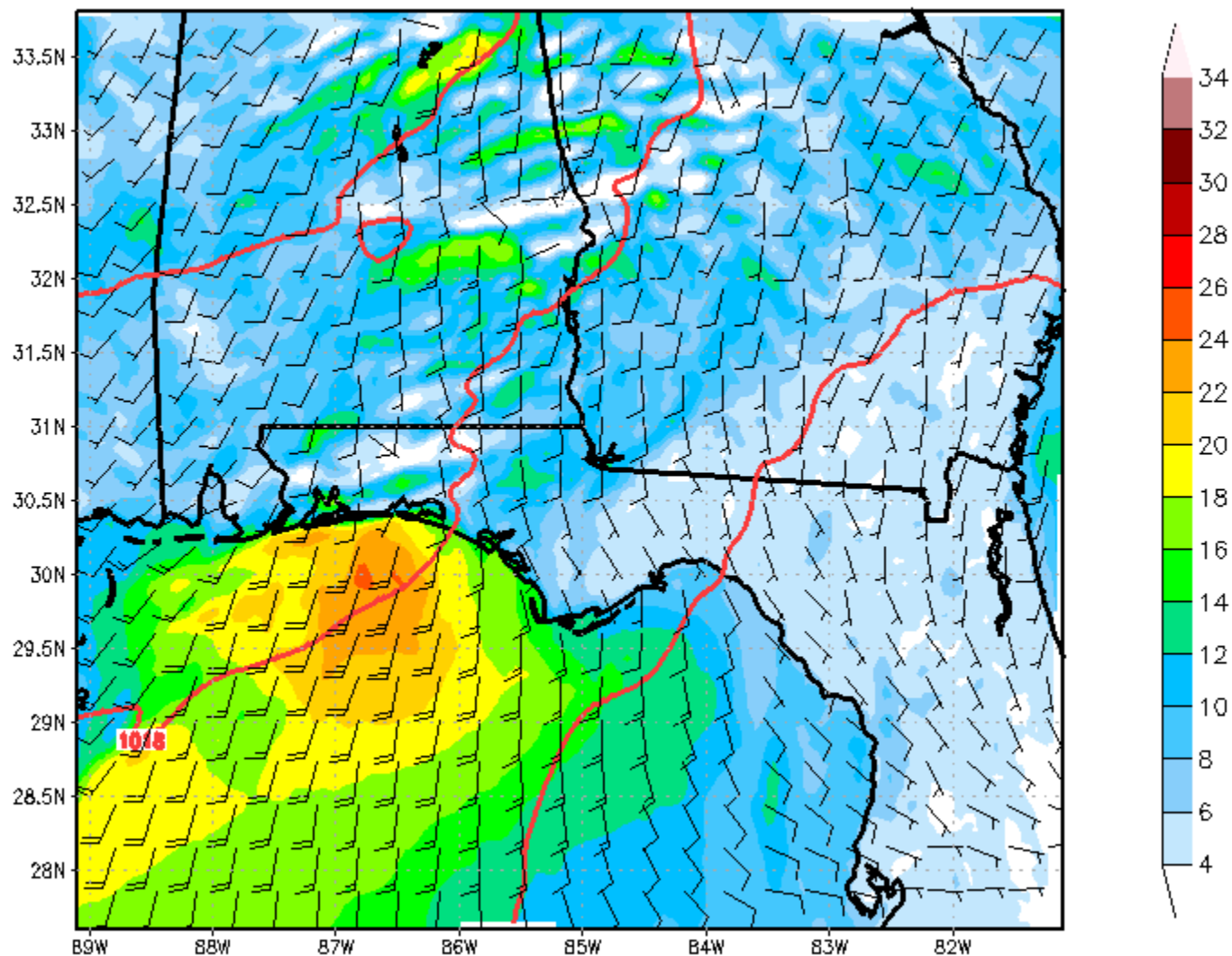




Mesoscale Models (WRF)

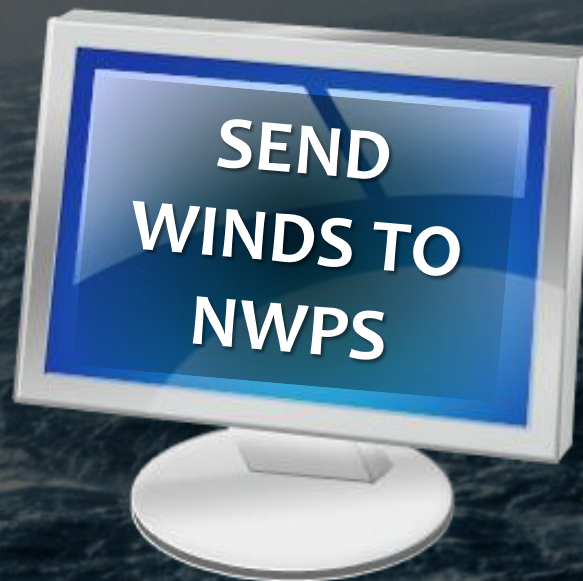
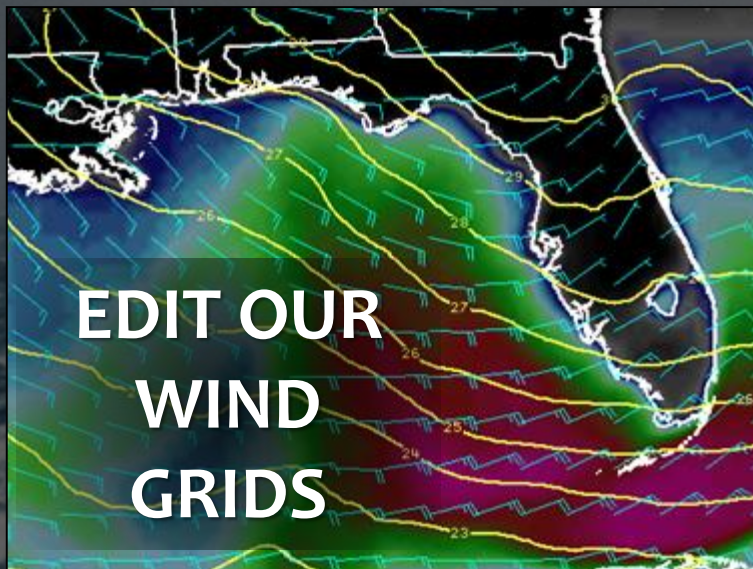
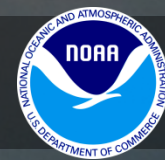


WRF-ARW 4KM MSLP and 10 meter Winds (mph)
Hour 36 (06Z20JAN2012)





Nearshore Wave Prediction System



Generates waves by wind stress, propagation, shoaling, refraction, bottom friction, and breaking.

Produces forecasts of...

- significant wave height
- primary swell height and direction
- primary period

Surf heights are then calculated and used to assess rip current risk



Nearshore Wave Prediction System



www.weather.gov/tae/models

NWS Forecast Office Tallahassee, FL
[Weather.gov](#) > Tallahassee, FL

Current Hazards Current Conditions Radar **Forecasts** Rivers and Lakes

Today

Today
2/16/2017

- Fire
- Forecaster's Discussion
- Activity Planner
- Hourly View
- Marine
- Tropical
- Aviation
- Local Models**

- Under the forecast menu, click Local models
- On Local Models page, click on NWPS image

Local Models Page

[Weather.gov](#) > [Tallahassee, FL](#) > Local Models Page

Tallahassee, FL
Weather Forecast Office

NATIONAL WEATHER SERVICE TALLAHASSEE
Local Models Page

	4KM WRF-ARW	4KM WRF-NMM
SURFACE FIELDS		
MSLP & 10m Wind	LOOP	LOOP
2M Temperature	LOOP	LOOP
2m Dewpoint	LOOP	LOOP
Visibility / Fog	LOOP	LOOP
MIDDLE AND UPPER LEVEL FIELDS		
	4KM WRF-ARW	4KM WRF-NMM
850mb Temps	LOOP	LOOP
850mb Winds	LOOP	LOOP
Precipitable Water	LOOP	LOOP
PRECIPITATION AND CONVECTIVE FIELDS		
	4KM WRF-ARW	4KM WRF-NMM
Hourly Precip	LOOP	LOOP
Run Accum Precip	LOOP	LOOP
Surface CAPE	LOOP	LOOP
0-6KM Layer Shear	LOOP	LOOP
0-3KM SR Helicity	LOOP	LOOP
Max Wind Gust	MAX	MAX
Max 1km AGL Radar	LOOP	LOOP
Max Updraft Helicity	MAX	MAX
Max Updraft Velocity	MAX	MAX
BUFKIT Files		
Perry, FL: NMM · ARW	Apalachicola, FL: NMM · ARW	Ashburn, GA: NMM · ARW
Bainbridge, GA: NMM · ARW	Blakely, GA: NMM · ARW	Blountstown, FL: NMM · ARW
Cairo, GA: NMM · ARW	Camilla, GA: NMM · ARW	Crestview, FL: NMM · ARW
C-Tower, FL: NMM · ARW	Cross City, FL: NMM · ARW	Dawson, GA: NMM · ARW
Elba, AL: NMM · ARW	Eufaula, AL: NMM · ARW	Fort Gaines, GA: NMM · ARW
Fitzgerald, GA: NMM · ARW	Geneva, AL: NMM · ARW	Albany, GA: NMM · ARW
Dothan, AL: NMM · ARW	Panama City, FL: NMM · ARW	Tallahassee, FL: NMM · ARW
Tifton, GA: NMM · ARW	Valdosta, GA: NMM · ARW	Madison, FL: NMM · ARW
Marianna, FL: NMM · ARW	Nashville, GA: NMM · ARW	Panacea, FL: NMM · ARW
Thomasville, GA: NMM · ARW	Wausau, FL: NMM · ARW	Wewahitchka, FL: NMM · ARW

Sea Surface Temperatures (SSTs)

NASA SPoRT Sea Surface Temperature Analysis
Date: 16Z19FEB17

Nearshore Wave Prediction System (NWPS)

NWPS Significant Wave Height (Hs) and Peak Wave Direction
Hour 0 (18Z16FEB17)



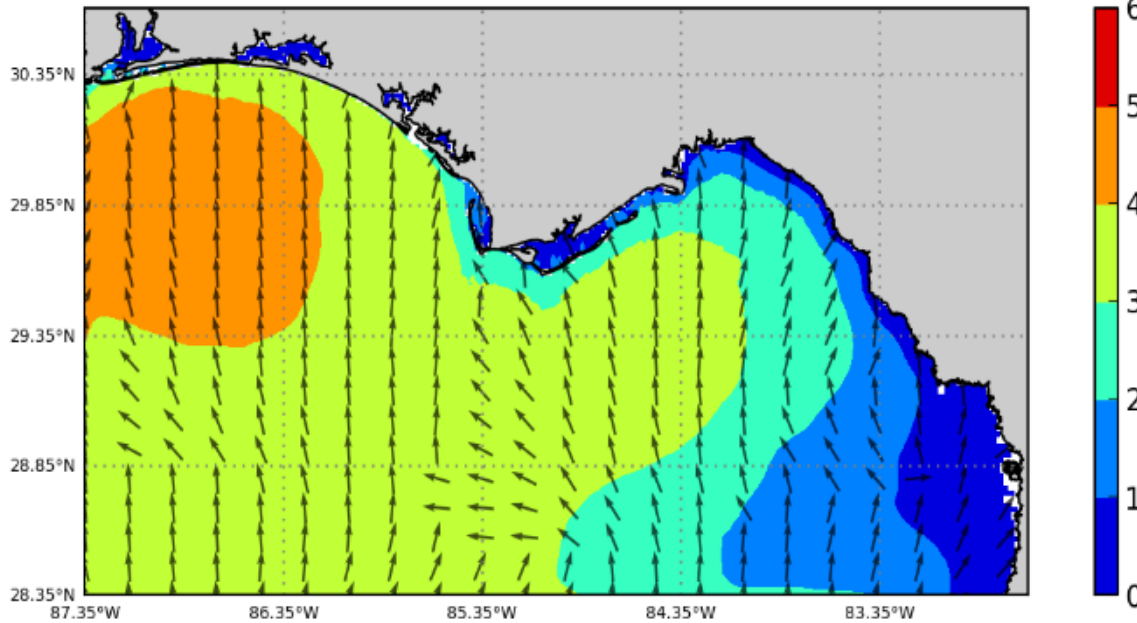
Nearshore Wave Prediction System

polar.ncep.noaagov/nwps/nwpsloop.php?site=tae

Tallahassee, Florida



NWPS Significant Wave Height (ft) and Peak Wave Direction
Hour 51 (21Z18FEB2017)



Wave Height

Wind Speed

Swell

Wave Period

Wave Length

Ocean Depth

Current

Tide+Surge

< Step Step >

< >

<< >>

Current

Stop

Close Window

[Project Details](#) • [Product Description](#) • [Survey](#)



Wave Generation Basics



Some Definitions



Wind Waves

- Short period (4-8 seconds) waves generated from the action of the wind on the local water surface.

Swell

- Wind generated waves that have traveled out of their source region. Swells are characterized as having smoother, more uniform crests, and longer periods (8+ seconds) than wind waves.

Seas

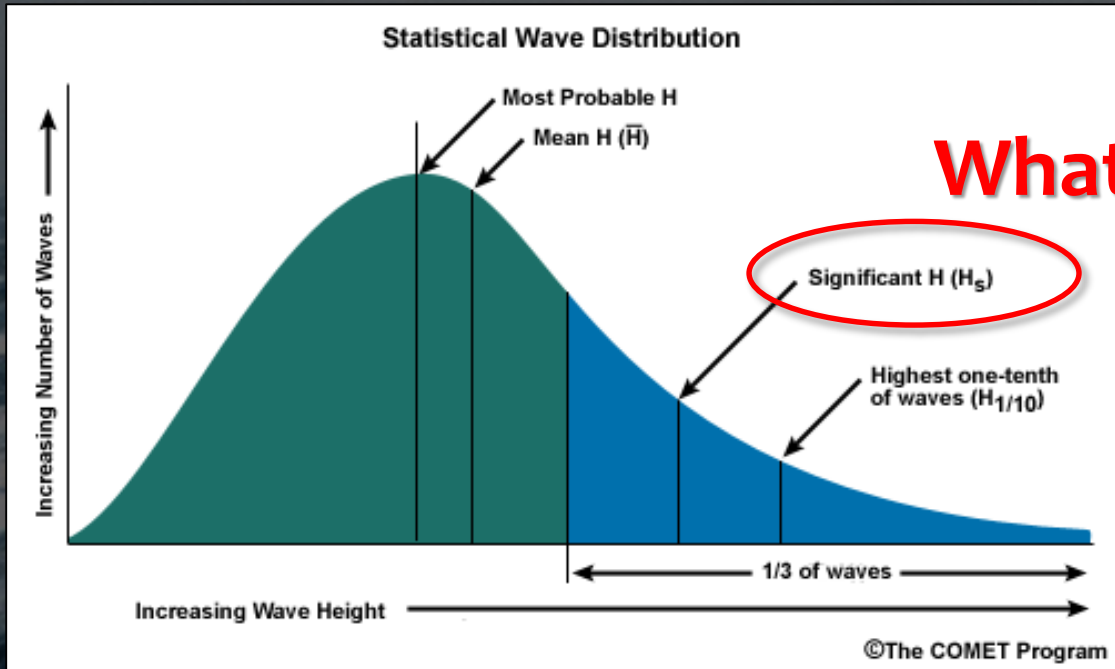
- The combination of wind waves and swell.

Fetch

- An area of uniform wind speed and direction over a water body. Also, the distance over water that a fetch of wind travels.

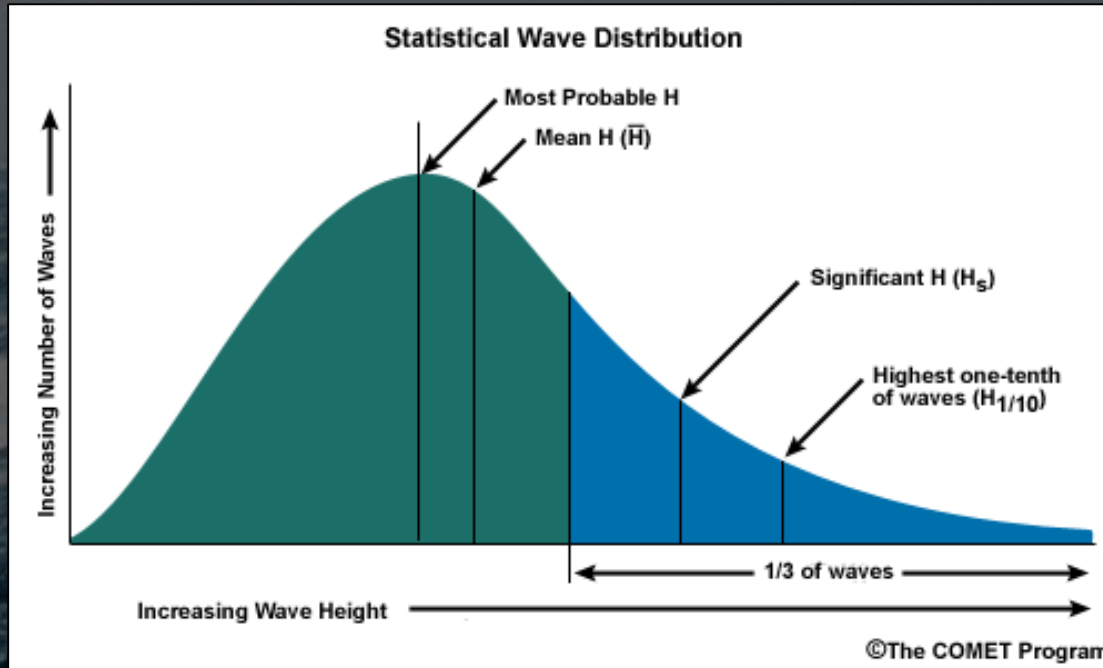


Rayleigh Distribution



Description	Percentage of H_s	If $H_s = 5$ feet
Mean wave height	64%	3.2 feet
Significant wave height	---	5 feet
Highest 10% of waves	127%	6.4 feet
Highest 1% of waves	167%	8.4 feet
Theoretical maximum	~190%	9.5 feet

Think of the 'Wave Spectrum'



- Mariners should prepare for a range of wave heights, rather than focusing on the one value in the forecast.
- For a 5-second period, highest 1% wave will occur on average every 10 mins.



Enhanced CWF



...SMALL CRAFT ADVISORY IN EFFECT FROM 10 PM EST THIS EVENING THROUGH FRIDAY AFTERNOON...

.TONIGHT...NORTH WIND 5 TO 10 KNOTS INCREASING TO AROUND 20 KNOTS. SEAS 2 TO 3 FEET BUILDING TO 5 TO 6 FEET OCCASIONALLY UP TO 8 FEET. **DOMINANT PERIOD 4 SECONDS.** PROTECTED WATERS SMOOTH INCREASING TO CHOPPY.

.FRIDAY...NORTHEAST WIND AROUND 20 KNOTS BECOMING 5 TO 10 KNOTS. SEAS 4 TO 6 FEET **OCCASIONALLY UP TO 8 FEET.** DOMINANT PERIOD 4 SECONDS. PROTECTED WATERS CHOPPY BECOMING SMOOTH.

.FRIDAY NIGHT...EAST WIND AROUND 10 KNOTS BECOMING SOUTHWEST AFTER MIDNIGHT. SEAS 1 TO 2 FEET. DOMINANT PERIOD 4 SECONDS. PROTECTED WATERS SMOOTH.

.SATURDAY...WEST WIND 10 TO 15 KNOTS INCREASING TO AROUND 20 KNOTS IN THE AFTERNOON. SEAS 3 TO 4 FEET OCCASIONALLY UP TO 5 FEET. DOMINANT PERIOD 3 SECONDS. PROTECTED WATERS A LIGHT TO MODERATE CHOP INCREASING TO CHOPPY IN THE AFTERNOON. A SLIGHT CHANCE OF RAIN IN THE AFTERNOON.

.SATURDAY NIGHT...WEST WIND AROUND 20 KNOTS BECOMING NORTHWEST 10 TO 15 KNOTS AFTER MIDNIGHT...THEN BECOMING NORTH 5 TO 10 KNOTS LATE. SEAS 4 TO 5 FEET OCCASIONALLY UP TO 6 FEET. DOMINANT PERIOD 4 SECONDS. PROTECTED WATERS CHOPPY BECOMING A LIGHT TO MODERATE CHOP AFTER MIDNIGHT...THEN BECOMING SMOOTH LATE. A CHANCE OF RAIN AFTER MIDNIGHT.

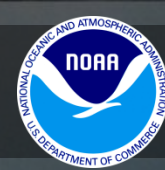
.SUNDAY...NORTHEAST WIND AROUND 10 KNOTS BECOMING SOUTH IN THE LATE MORNING AND AFTERNOON. SEAS 2 TO 3 FEET. PROTECTED WATERS SMOOTH. A CHANCE OF RAIN.

New Parameters Added:

- **Dominant wave period**
- **Height of the highest 1/10 of the waves (occasional wording)**

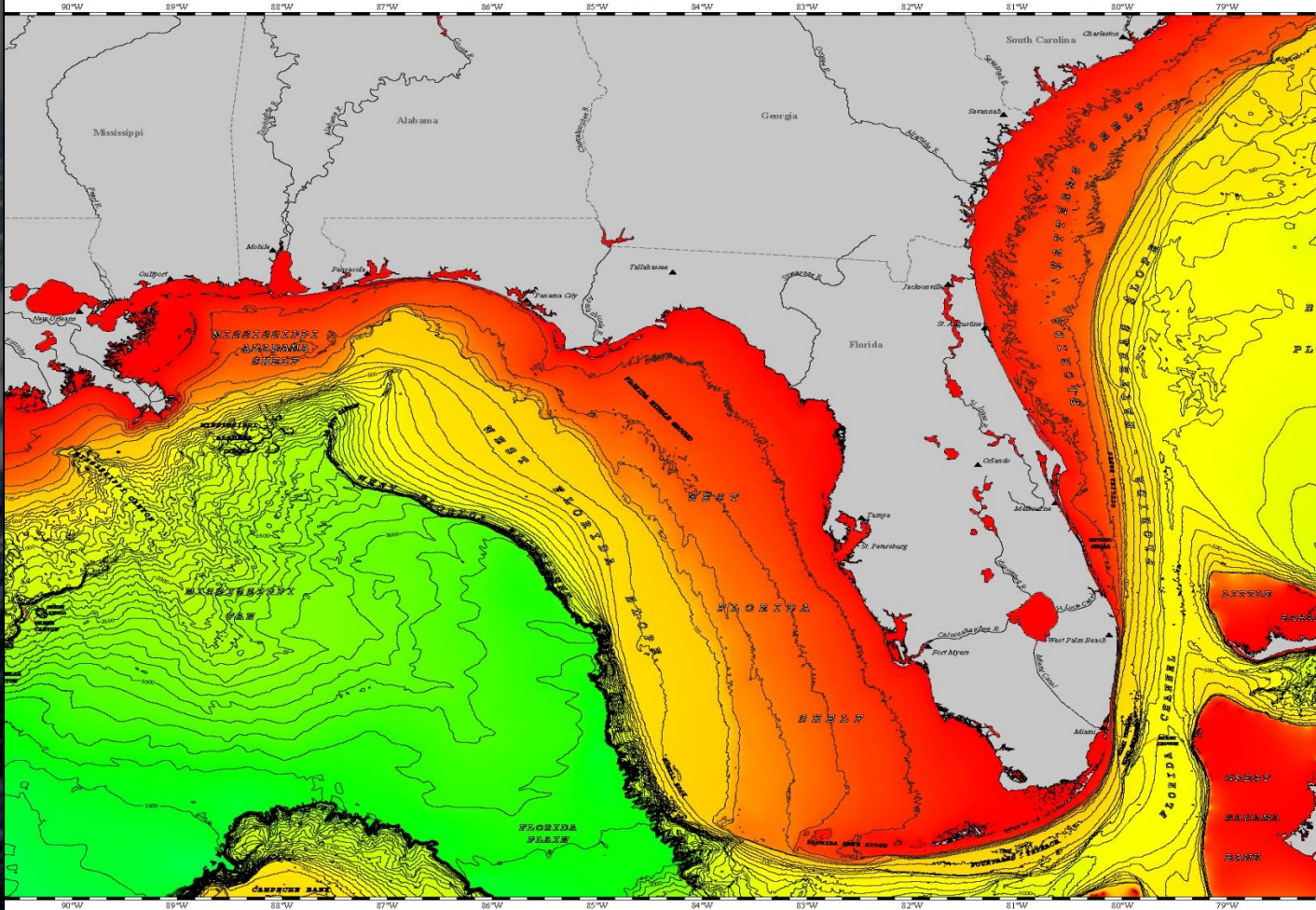


Eastern Gulf Bathymetry



BATHYMETRY OF THE NORTHERN GULF OF MEXICO AND THE ATLANTIC OCEAN EAST OF FLORIDA

Lisa A. Taylor*, Troy L. Holcombe** and William R. Bryant***

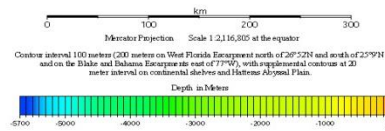


* National Geophysical Data Center, Boulder, CO 80535
** National Geophysical Data Center, Boulder, CO 80535 - present address: Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, CO 80509
*** Department of Oceanography, Texas A&M University, College Station, TX 77843

The authors wish to thank D. Truesdell and W. Dillon of the U.S. Geological Survey, David Drake and Tracy Prater of the University of Colorado, Peter Flood of the State University of New York at Stony Brook, the U.S. Coast and Geodetic Survey, and Jay Lutz Blue of the Institute for Coastal & Estuarine Studies, Oregon State University for valuable assistance with various phases of compilation, review, and preparation for publication.

File names have been approved by the U.S. Board on Geographic Names (USBRGN) or approved pending. Always complete list of file names for this site upon the USBRGN website at http://www.nmfs.gov/bgn/whr_data.

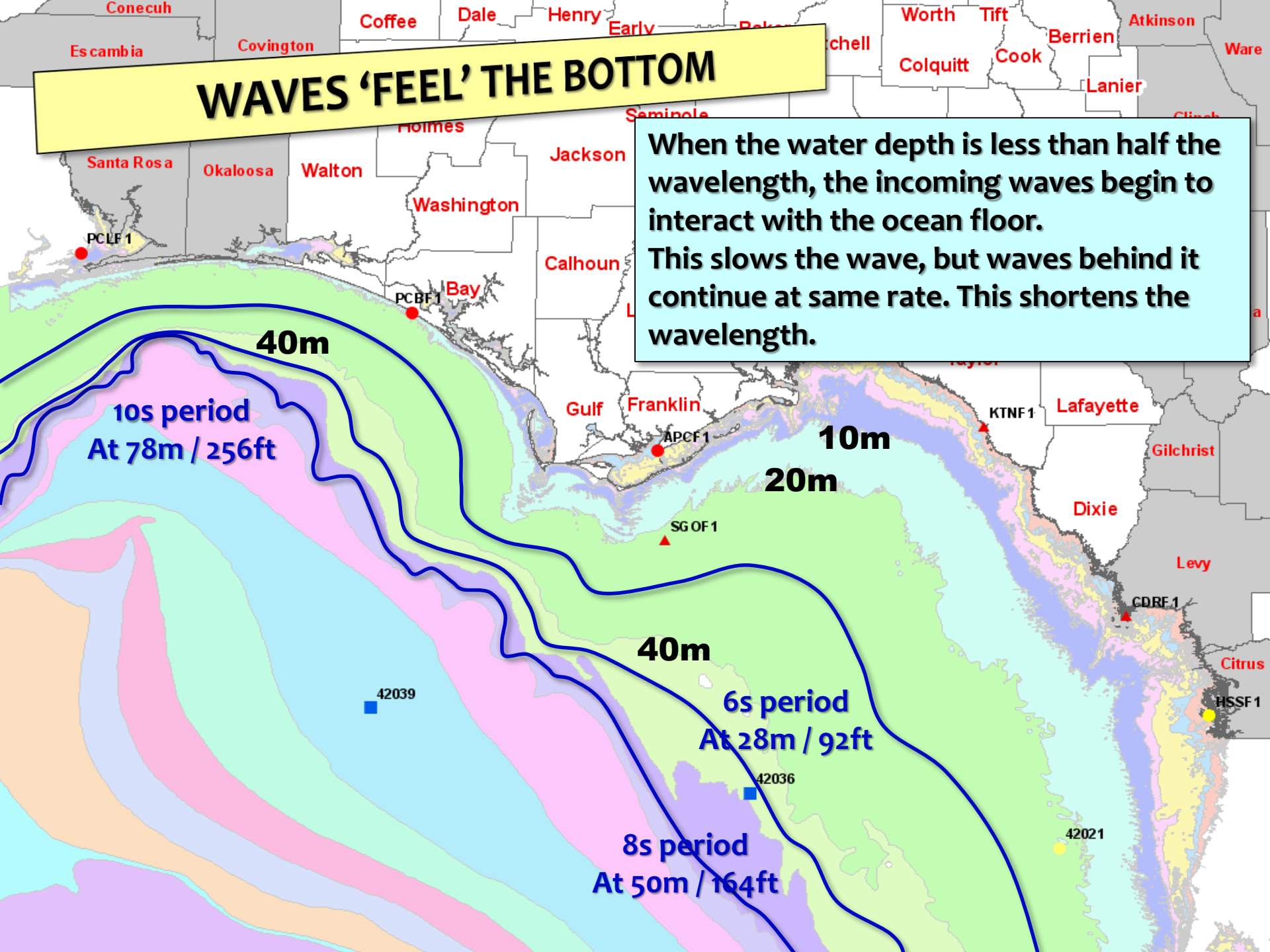
Published by the National Geophysical Data Center
World Data Center for Marine Geology and Geophysics, Boulder Report MGG-16
Code EATC-3.25 Broadway, Boulder, CO 80303-3326
info@ngdc.noaa.gov
<http://www.ngdc.noaa.gov/mgg>



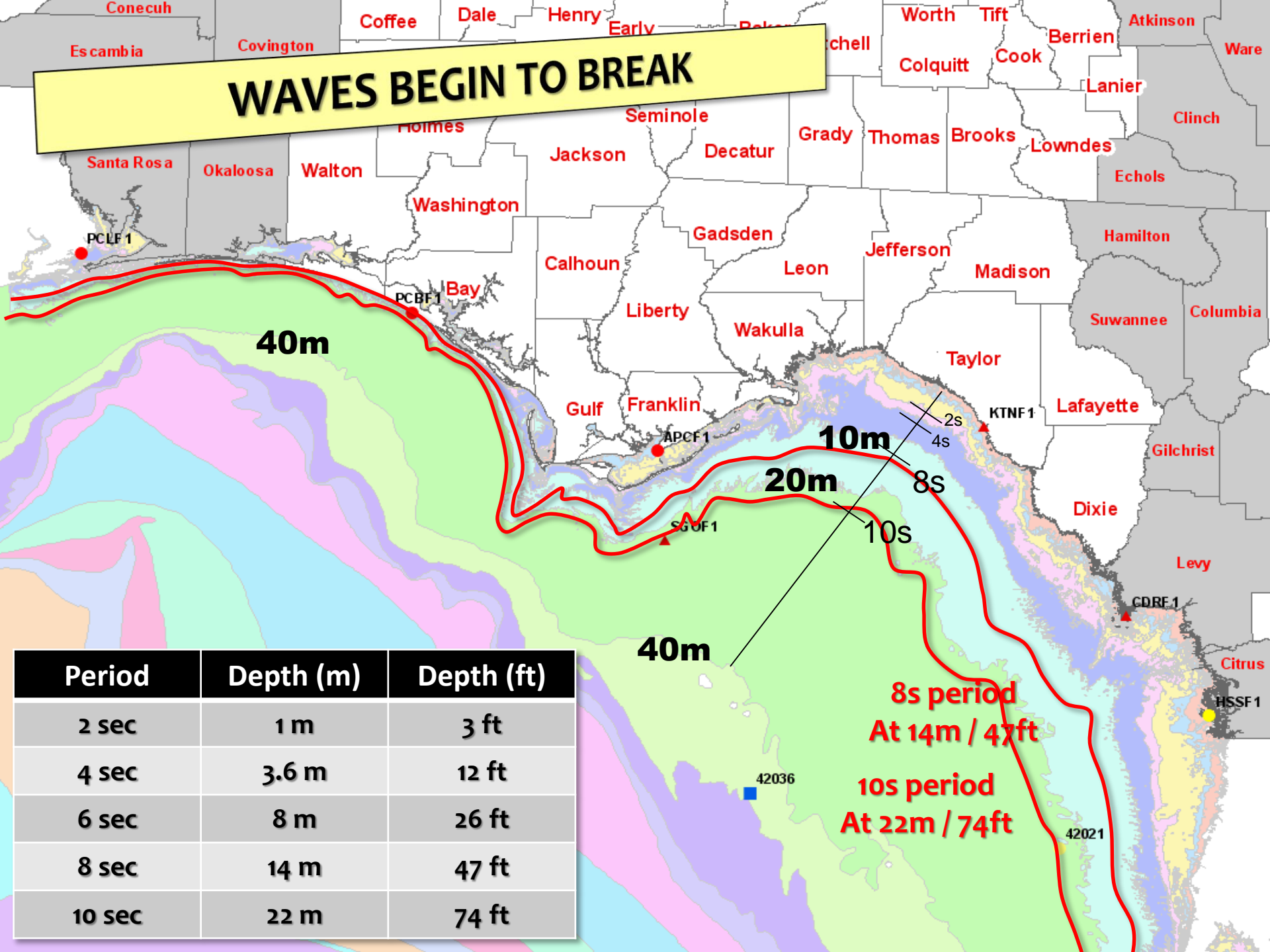
This map is intended to show ocean floor topography and is not to be used for navigation.

WAVES 'FEEL' THE BOTTOM

When the water depth is less than half the wavelength, the incoming waves begin to interact with the ocean floor. This slows the wave, but waves behind it continue at same rate. This shortens the wavelength.



WAVES BEGIN TO BREAK



Period	Depth (m)	Depth (ft)
2 sec	1 m	3 ft
4 sec	3.6 m	12 ft
6 sec	8 m	26 ft
8 sec	14 m	47 ft
10 sec	22 m	74 ft

8s period
At 14m / 47ft

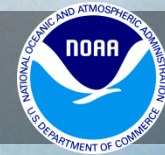
10s period
At 22m / 74ft



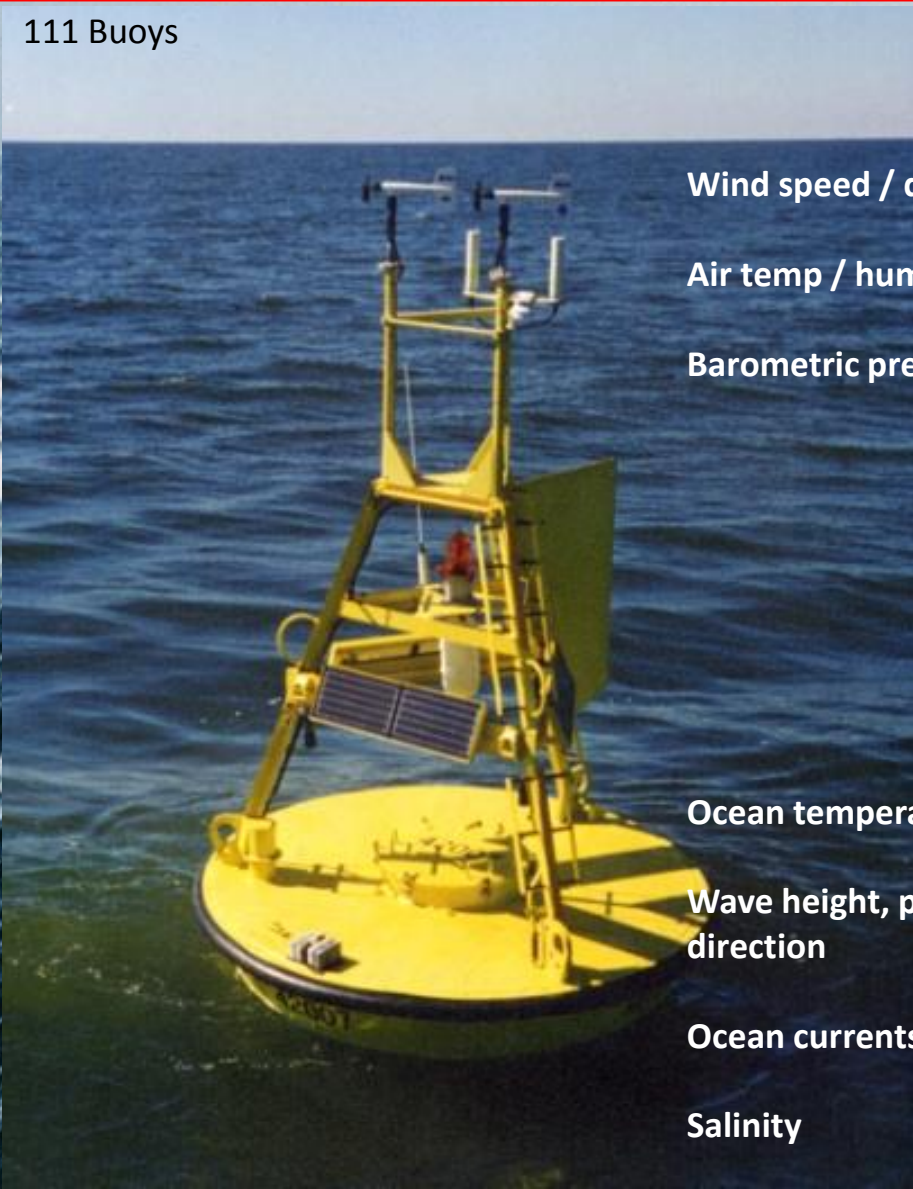
National Data Buoy Center



Weather/Ocean Observing Platforms



111 Buoys



Wind speed / direction

Air temp / humidity

Barometric pressure

Ocean temperature

Wave height, period,
direction

Ocean currents

Salinity



Coastal-Marine Automated Network
51 C-MAN Stations

On Lighthouses, offshore structures,
fishing piers, beaches



National Oceanic and Atmospheric Administration's
National Data Buoy Center
 Center of Excellence in Marine Technology

Home News Organization Search Search

Station ID Search
 Station List

Observations
 Mobile Access
 Obs via Google
 Maps

Classic Maps
 Recent
 Historical
 DART®
 Oil & Gas ADCP
 Obs Search
 Ship Obs Report
 Gliders
 BuoyCAMs
 APEX
 TAO
 DODS
 OceansITES
 HF Radar
 OSC
Dial-A-Buoy
 RSS Feeds
 Obs Web Widget
 Email Access

Program Filter:
 NDBC Meteorological/Ocean
 International Partners
 IOOS Partners

Owner Filter:
 NDBC
 Alaska Ocean Observing System
 Amerasia Hess

To save the current map view, [right click on this link](#), and select either "Add to Favorites" or "Bookmark this link".
 To view observations, left-click a marker on the map.
 To zoom the map, use the zoom slider on the map; or hold down the **Shift** key while dragging a box; or click the magnifying glass below the zoom slider to turn drag zoom on and off.

Select a region:
 • [Atlantic \(Tropical\)](#)
 • [Atlantic \(West\)](#)
 • [Australia](#)
 • [Bay of Bengal](#)
 • [Caribbean Sea](#)
 • [Central America](#)
 • [Chile](#)
 • [Europe](#)
 • [Gulf of Mexico \(West\)](#)
 • [Gulf of Mexico \(East/Florida\)](#)
 • [Nova Scotia](#)
 • [Pacific \(North\)](#)
 • [Pacific \(West\)](#)
 • [USA-Alaska](#)
 • [USA-Hawaii](#)
 • [USA-Great Lakes \(East\)](#)
 • [USA-Lake Superior](#)
 • [USA-Northeast](#)
 • [USA-Northwest](#)
 • [USA-Southeast](#)
 • [USA-Southwest](#)
 • [World](#)

Mouse Cursor Coordinates:
 1268 stations deployed
 934 have reported in the past 8 hours

Disclaimer
[Get Observations by Program as KML](#)

Program Info
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 About NDBC
 Met/Ocean
 Moored Buoy
 C-MAN
 TAO
 DART®
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 CSP
 IOOS® Program
 IOOS® DAC

Publications
 NDBC DQC
 Handbook

Dial-A-Buoy

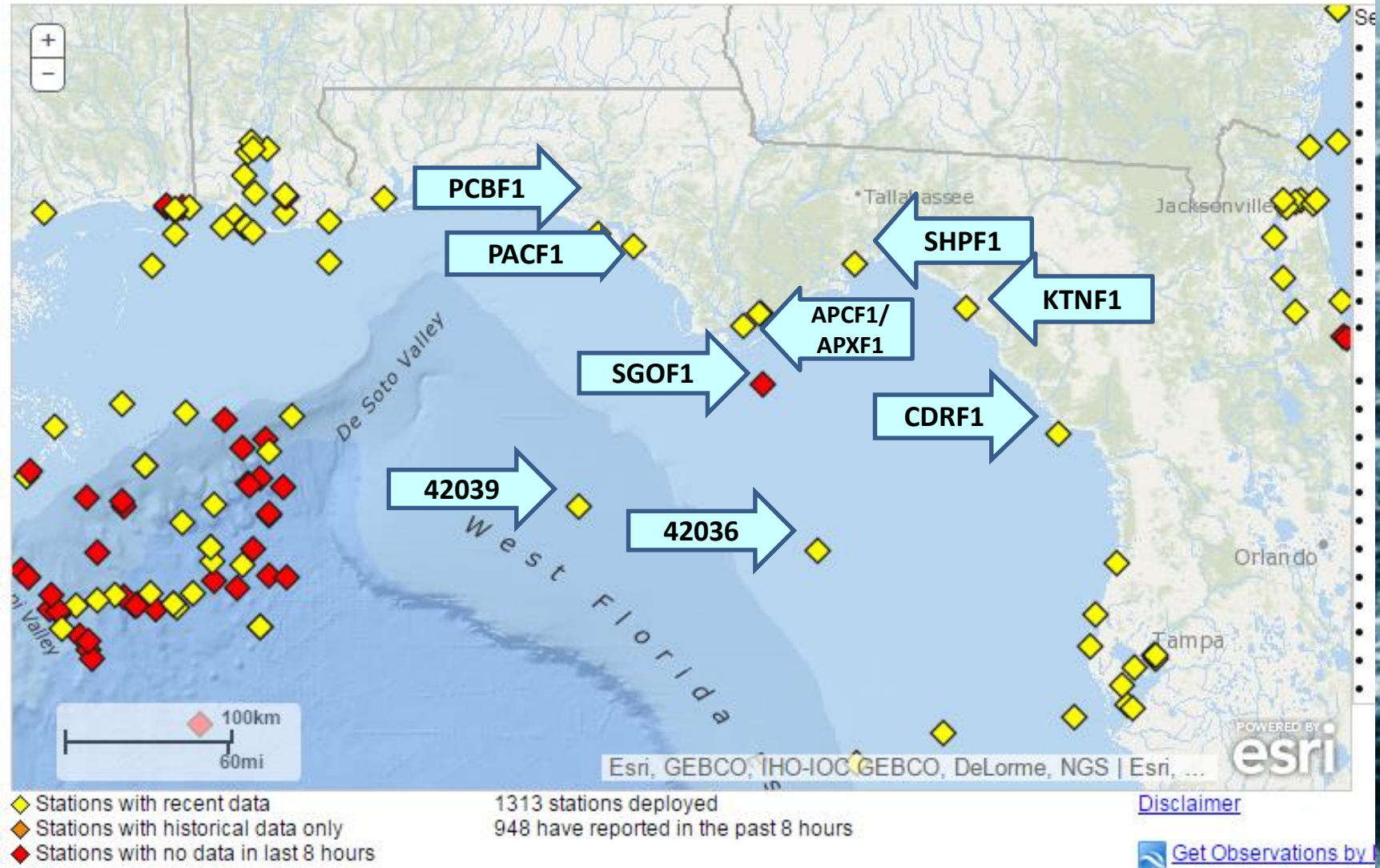
888-701-8992

Dial-A-Buoy
 Call 888-701-8992
 Commercial 301-713-9620

What is Dial-A-Buoy?
 How Does Dial-A-Buoy Work?
 How Do I Use Dial-A-Buoy?
 What Should I Do If...?

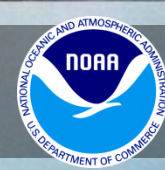


Northern Gulf Stations





Current Observations at a Glance



National Oceanic and Atmospheric Administration's
National Data Buoy Center
Center of Excellence in Marine Technology

Home News Organization Search

Recent Data Historical Data Show Labels

Program Filter:
 NDBC Meteorological/Ocean
 International Partners
 IOOS Partners

Owner Filter:
 NDBC
 Alaska Ocean Observing System
 Amerada Hess

To save the current map view, [right click on this link](#) and select either "Add to Favorites" or "Bookmark this link".
To view observations, left-click a marker on the map.
To zoom the map, use the zoom slider on the map; or hold down the **Shift** key while dragging a box; or click the magnifying glass below the zoom slider to turn drag zoom on and off.

Select a region:
[Atlantic \(Tropical\)](#)
[Atlantic \(West\)](#)
[Australia](#)
[Bay of Bengal](#)
[Caribbean Sea](#)
[Central America](#)
[Chile](#)
[Europe](#)
[Gulf of Alaska](#)
[Gulf of Mexico \(West\)](#)
[Gulf of Mexico \(East/Florida\)](#)
[Nova Scotia](#)
[Pacific \(North\)](#)
[Pacific \(West\)](#)
[USA-Alaska](#)
[USA-Hawaii](#)
[USA-Great Lakes \(East\)](#)
[USA-Lake Superior](#)
[USA-Northeast](#)
[USA-Northwest](#)
[USA-Southeast](#)
[USA-Southwest](#)
[World](#)



Buoy Pages



Station 42039 (LLNR 141) - PENSACOLA - 115NM ESE of Pensacola, FL

Owned and maintained by National Data Buoy Center
3-meter discus buoy
ARES payload
28.739 N 86.006 W (28°44'22" N 86°0'23" W)

Site elevation: sea level
Air temp height: 4 m above site elevation
Anemometer height: 5 m above site elevation
Barometer elevation: sea level
Sea temp depth: 0.6 m below site elevation
Water depth: 274.3 m
Watch circle radius: 533 yards

[Latest NWS Marine Forecast 1](#) and [Latest NWS Marine Forecast 2](#)

[Important Notice to Mariners](#)

[Search And Rescue \(SAR\) Data](#)

[Meteorological Observations from Nearby Stations and Ships](#)



Topographic



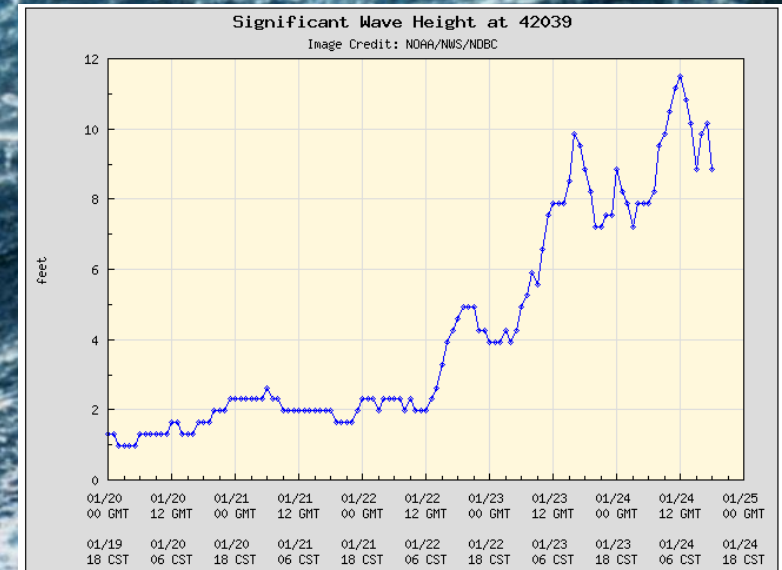
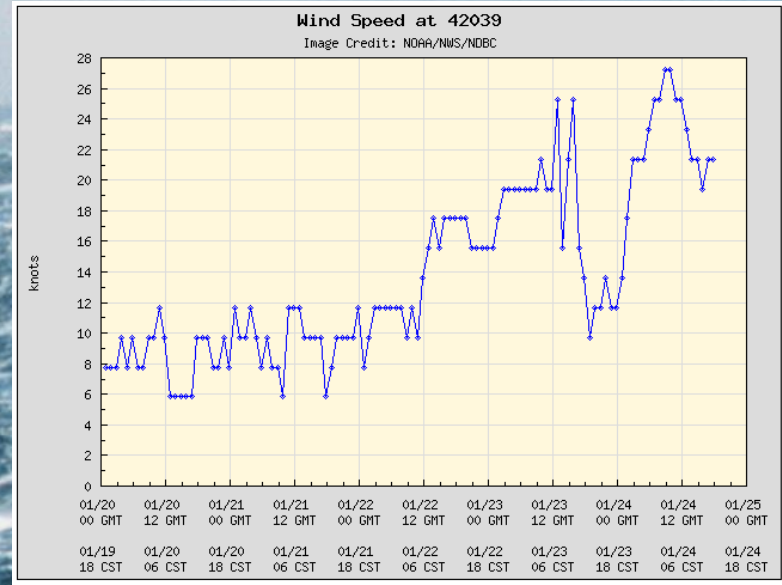
Large icon indicates selected station. [Disclaimer](#)
◆ Stations with recent data
◆ Stations with no data in last 8 hours
(24 hours for tsunami stations)

Conditions at 42039 as of (11:50 am CST) 1750 GMT on 01/24/2015:

Unit of Measure: Time Zone:

Click on the graph icon in the table below to see a time series plot of the last five days of that observation.

	Wind Direction (WDIR):	NW (310 deg true)
	Wind Speed (WSPD):	21.4 kts
	Wind Gust (GST):	25.3 kts
	Wave Height (WVHT):	8.9 ft
	Dominant Wave Period (DPD):	8 sec





Observations



Combined plot of Wind Speed, Gust, and Air Pressure

Continuous Winds

TIME (CST)	WDIR	WSPD
10:50 am	WNW (297 deg)	2.9 kts
10:40 am	WNW (286 deg)	2.7 kts
10:30 am	NW (322 deg)	2.9 kts
10:20 am	NW (321 deg)	4.1 kts
10:10 am	WNW (302 deg)	4.1 kts
10:00 am	NW (308 deg)	4.1 kts

Supplemental Measurements

Highest 1-minute Wind Speed

Time (CST)	WSPD	WDIR
10:50 am	5.8 kts	NW (310 deg true)

Peak gust during the measurement hour

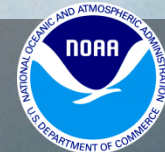
TIME (CST)	GDR	GST
9:50 am	NW (310 deg)	5.8 kts

Previous observations

MM DD	TIME (CST)	WDIR	WSPD kts	GST kts	WVHT ft	DPD sec	APD sec	MWD	PRES in	PTDY in	ATMP °F	WTMP °F	DEWP °F	SAL psu	VIS nmi	TIDE ft
02 17	9:50 am	NW	3.9	5.8	3.0	5	4.4	WNW	30.18	+0.06	65.8	69.1	54.5	-	-	-
02 17	8:50 am	N	3.9	3.9	3.0	5	4.1	WNW	30.16	+0.07	66.0	68.5	53.6	-	-	-
02 17	7:50 am	NNW	9.7	11.7	3.0	4	4.1	WNW	30.15	+0.09	65.8	68.4	53.8	-	-	-
02 17	6:50 am	NW	11.7	15.5	3.0	4	3.9	WNW	30.12	+0.08	66.0	68.2	55.2	-	-	-
02 17	5:50 am	NW	13.6	17.5	2.6	8	4.0	SSE	30.09	+0.08	65.8	67.8	55.4	-	-	-
02 17	4:50 am	WNW	13.6	15.5	2.3	8	4.0	SSE	30.06	+0.05	66.2	68.2	55.0	-	-	-
02 17	3:50 am	WNW	13.6	15.5	2.6	8	4.2	S	30.03	+0.03	66.4	68.4	53.8	-	-	-
02 17	2:50 am	WNW	11.7	13.6	2.3	8	4.4	S	30.02	+0.01	66.4	68.2	52.9	-	-	-
02 17	1:50 am	W	11.7	13.6	2.3	8	4.3	S	30.01	-0.01	66.4	68.5	51.3	-	-	-
02 17	12:50 am	W	11.7	13.6	2.3	8	4.4	SSE	30.01	-0.02	66.2	68.9	50.5	-	-	-
02 16	11:50 pm	WSW	11.7	13.6	2.6	7	4.8	SSE	30.01	-0.03	65.8	69.1	49.3	-	-	-
02 16	10:50 pm	WSW	11.7	13.6	2.6	7	5.0	S	30.02	+0.00	65.5	68.9	48.7	-	-	-
02 16	9:50 pm	W	9.7	11.7	2.6	6	4.8	S	30.03	+0.03	64.9	68.5	48.9	-	-	-
02 16	8:50 pm	W	9.7	13.6	3.0	8	5.2	S	30.04	+0.07	64.6	69.1	49.3	-	-	-
02 16	7:50 pm	WNW	9.7	11.7	3.3	6	5.3	SSW	30.03	+0.09	64.2	69.1	49.3	-	-	-
02 16	6:50 pm	W	9.7	11.7	3.6	6	5.5	WSW	30.00	+0.07	63.9	69.1	48.7	-	-	-
02 16	5:50 pm	W	7.8	9.7	3.3	6	5.4	WSW	29.96	+0.03	63.0	69.6	48.7	-	-	-
02 16	4:50 pm	W	5.8	7.8	3.6	6	5.4	WNW	29.94	+0.00	63.0	69.8	48.7	-	-	-
02 16	3:50 pm	W	3.9	5.8	3.9	6	5.5	W	29.93	-0.01	62.4	70.2	49.5	-	-	-
02 16	2:50 pm	WNW	1.9	3.9	3.9	6	5.3	WNW	29.93	-0.04	62.4	70.3	49.8	-	-	-
02 16	1:50 pm	-	0.0	3.9	4.3	7	5.4	W	29.94	-0.06	61.3	70.2	50.2	-	-	-
02 16	12:50 pm	-	0.0	3.9	4.6	6	5.5	WNW	29.95	-0.05	60.6	69.8	50.5	-	-	-



Wave observations



02 10 10:00 am W 3.0 3.7 4.8 0 3.3 W 30.00 10.04 35.4 09.3 30.4

Detailed Wave Summary for 42039 as of (11:00 am CST) 1700 GMT on 02/17/2016:

These wave data are displayed in [rounded times](#).

Unit of Measure: Time Zone:

Click on the graph icon in the table below to see a time series plot of the last five days of that observation.

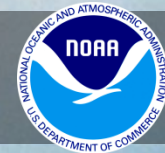
	Significant Wave Height (WVHT):	3.0 ft
	Swell Height (SwH):	2.6 ft
	Swell Period (SwP):	4.5 sec
	Swell Direction (SwD):	WNW
	Wind Wave Height (WWH):	1.3 ft
	Wind Wave Period (WWP):	3.6 sec
	Wind Wave Direction (WWD):	WNW
	Wave Steepness (STEEPNESS):	VERY_STEEP
	Average Wave Period (APD):	4.5 sec

Previous observations

MM DD	TIME (CST)	WVHT ft	SwH ft	SwP sec	SwD	WWH ft	WWP sec	WWD	STEEPNESS	APD sec
02 17	10:00 am	3.0	2.3	4.8	WNW	1.3	3.8	WNW	VERY_STEEP	4.4
02 17	9:00 am	3.0	2.3	4.8	WNW	1.6	3.8	WNW	VERY_STEEP	4.1
02 17	8:00 am	3.0	2.0	4.8	WNW	2.0	4.2	WNW	VERY_STEEP	4.1
02 17	7:00 am	3.0	1.3	6.2	SSW	2.6	4.0	WNW	VERY_STEEP	3.9
02 17	6:00 am	2.6	1.3	7.7	SSE	2.3	3.8	WNW	N/A	4.0
02 17	5:00 am	2.3	1.3	7.7	SSE	2.0	3.8	WNW	N/A	4.0
02 17	4:00 am	2.6	1.6	8.3	S	2.0	5.9	SSW	N/A	4.2
02 17	3:00 am	2.3	1.6	7.7	S	2.0	5.6	SSW	N/A	4.4
02 17	2:00 am	2.3	1.6	7.7	S	1.6	5.3	SSW	N/A	4.3
02 17	1:00 am	2.3	1.6	7.7	SSE	1.6	4.5	W	N/A	4.4
02 17	12:00 am	2.6	2.0	7.1	SSE	1.3	5.3	SSW	N/A	4.8
02 16	11:00 pm	2.6	2.3	7.1	S	1.3	4.8	W	N/A	5.0
02 16	10:00 pm	2.6	2.3	6.2	S	1.3	4.2	W	AVERAGE	4.8
02 16	9:00 pm	3.0	2.6	7.7	S	1.3	4.2	NW	AVERAGE	5.2
02 16	8:00 pm	3.3	3.0	6.2	SSW	1.0	4.0	NW	STEEP	5.3
02 16	7:00 pm	3.6	3.3	5.9	WSW	1.0	3.8	WNW	STEEP	5.5
02 16	6:00 pm	3.3	3.3	6.2	WSW	1.0	3.8	WNW	STEEP	5.4



Additional Information



02 16 2:00 pm	4.3	3.9	6.7	W	1.3	3.6	NNW	STEEP	5.4
02 16 1:00 pm	4.6	4.6	5.9	WNW	1.3	3.7	N	VERY_STEEP	5.5
02 16 12:00 pm	4.9	4.6	5.9	WNW	1.6	3.2	N	VERY_STEEP	5.3
02 16 11:00 am	4.9	4.6	6.2	W	1.6	4.0	N	STEEP	5.3

[Plot of wave energy versus frequency \(and period\)](#)

[Description of Measurements](#)

Links which are specific to this station are listed below:

[Real Time Data](#) in tabular form for the last forty-five days.

[Historical Data & Climatic Summaries](#) for quality controlled data for the current month, previous months, and previous years.

The [weekly status report](#) and the [weekly maintenance report](#) also provide valuable station information.

Note that the [payload types](#) and the station locations occasionally change. Please refer to the [NDBC data inventory](#) for the data history of each station.

[U.S. Dept. of Commerce](#)
[National Oceanic and Atmospheric Administration](#)
[National Weather Service](#)
National Data Buoy Center
Bldg. 3205
Stennis Space Center, MS 39529

[Contact Us](#)

Page last modified: October 20, 2015

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How to get warnings



To receive marine weather statements and special marine warnings:

Turn VHF to WX channel

Panama City: WX1 (162.550 MHz)

NOAA Weather Radio Frequencies

162.400 MHz (WX2)

162.425 MHz (WX4)

162.450 MHz (WX5)

162.475 MHz (WX3)

162.500 MHz (WX6)

162.525 MHz (WX7)

162.550 MHz (WX1)

Wireless Emergency Alerts

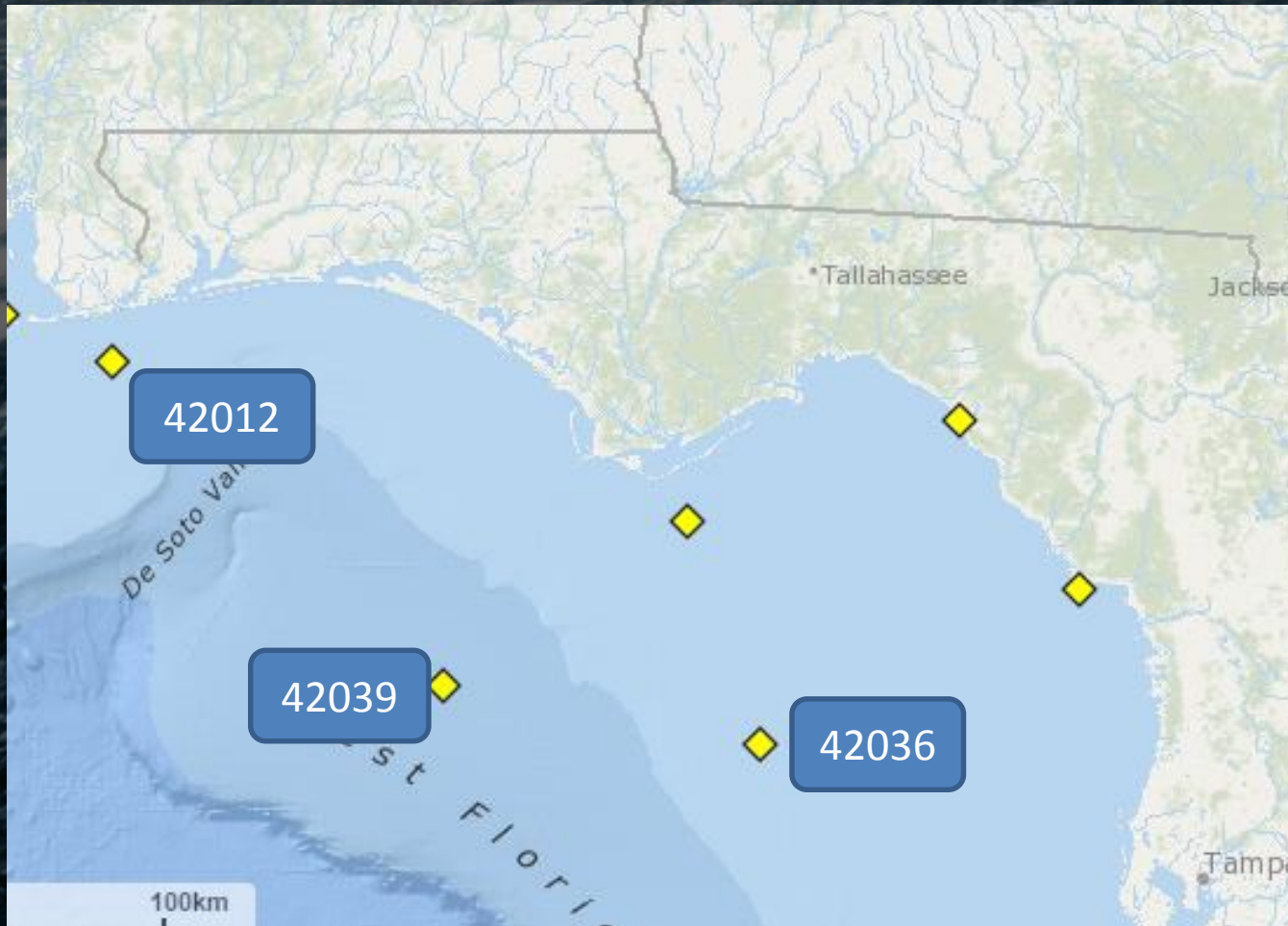
- Most smartphones set up, make sure under settings
- Will alarm for tornado and flash flood warnings





Why we need reports:

- Very few marine observations
- Only 2 buoys in area that report wave heights

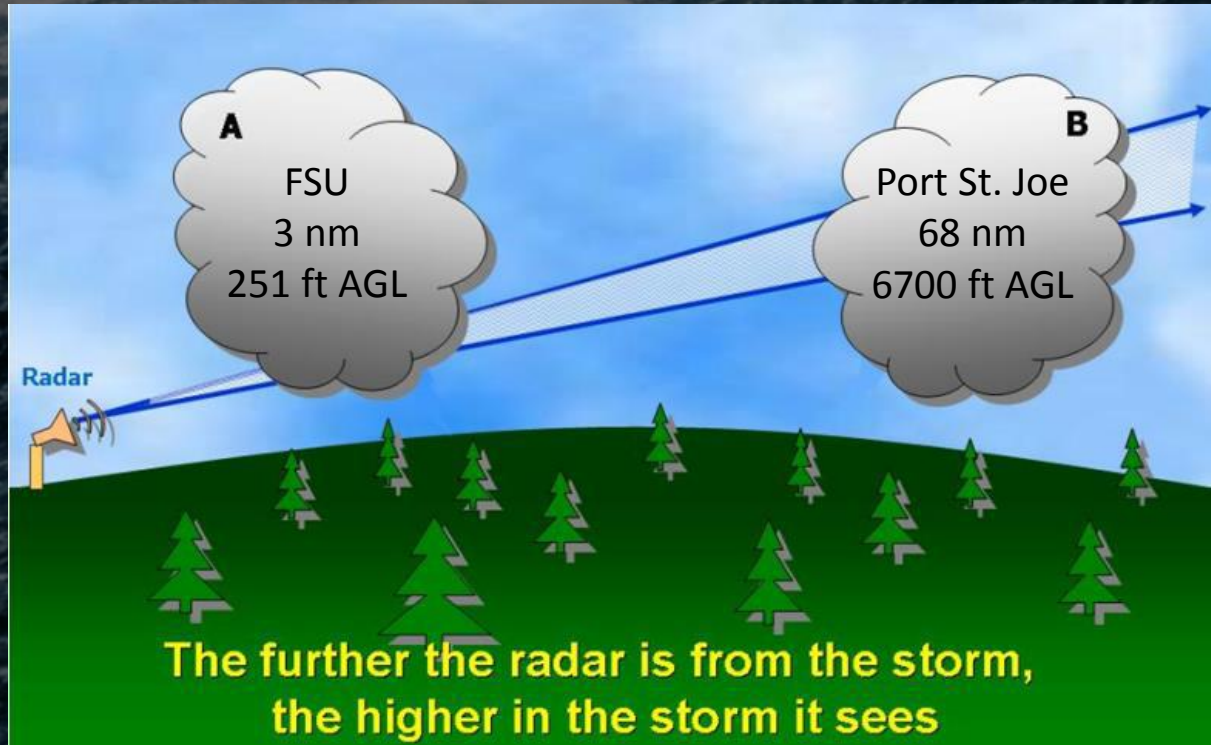




Why we need reports:



- Storms can form very quickly, especially in summer
- The further storm is from radar, harder it is to see lower levels of storm
- Waterspouts form in these lower levels, spin up quickly and can be hard to detect on radar





Sending Marine Reports



- Call a forecaster at (850)942-8833 option 9
- Marine Report Form (internet)
- mPING (app)
- Social media (Twitter and Facebook)





Storm Report Form



- Found on marine website: <http://www.weather.gov/tae/marine>
- Direct link to form:
<http://innovation.srh.noaa.gov/StormReport/SubmitReport.php?site=tae>

NWS Storm Report Home Now ▾ About Contact

  **NATIONAL WEATHER SERVICE**
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Submit a **Storm Report**
to the National Weather Service Tallahassee, Florida


Local detailed forecast by "City, St" or ZIP code

This interface is intended to be used solely for the relay of storm information to the NWS. Other comments or information should be sent to the [National Weather Service Tallahassee, Florida](#).

1. Event Location
Enter **date/time/location of event**. Please reference to major roadway or intersection for events within towns/cities.

Date: Feb ▾ 06 ▾ 2017 ▾
Time: 07 ▾ 15 ▾ AM ▾ Eastern
Place: --Select a County-- ▾

Unable to perform automatic geolocation.
Error Message: [geolocation permission denied]

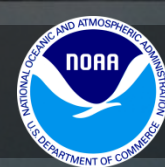


Click on the map to set your location for the report.

2. Event Type (Select all that apply) **3. Additional Details**



Marine Report Form



2. Event Type (Select all that apply)

- Flood >
- Hail >
- High Wind Speed >
- Tornado/Funnel Cloud >
- Wind Damage >
- Winter Precipitation >
- Snow >
- Freezing Rain/Icing >
- Heavy Rain >

3. Additional Details

Provide any additional information that you feel is pertinent to your submission (500 characters maximum).

You may also pass along additional information by [e-mailing](#) them to the National Weather Service Tallahassee, Florida separately. (WFO TAE)

4. Contact Information

VOLUNTARY and **WILL NOT** be distributed.

Your Name:

Spotter Id (if assigned):

E-mail address:

Phone number:

Observer Profile:

Review Report

Reset Report

NOTE: If you have any questions about reporting weather and/or using this reporting form, please contact the [TAE Webmaster](#).



mPING



- Free app created by the National Severe Storms Lab
- Available in the Apple App store and Google Play
- <http://mping.nssl.noaa.gov/>





mPING



[← Back](#) Report Types

Test

None

Rain/Snow

Hail

Wind Damage

Tornado

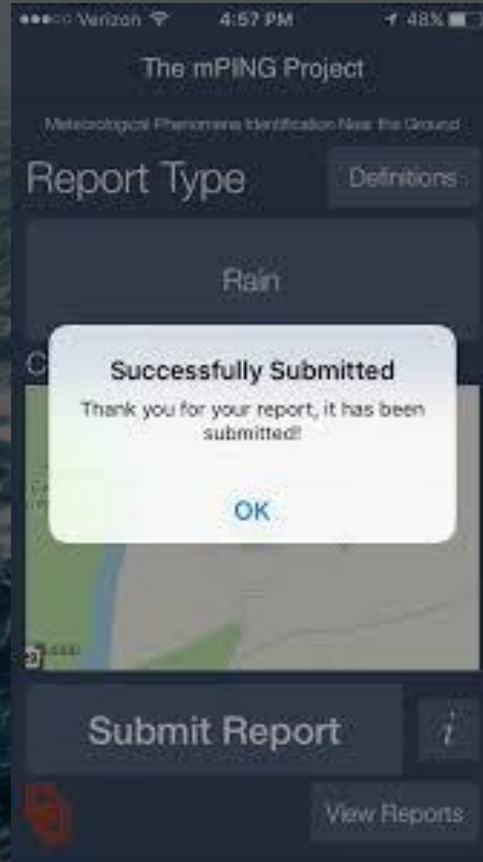
Flood

Mudslide

Reduced Visibility



mPING

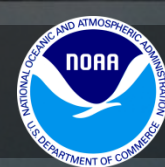




Receiving Reports



When reports are sent using the marine report form or the mPING app forecasters are alerted immediately on their workstations.



Social Media

NWS Tallahassee is active on Facebook and Twitter. The best way to send reports is to tweet @NWSTallahassee or use the #TLHspotter hashtag.

#TLHspotter

Be Sure To Include
What, When, and Where
...and photos if you have them

Join the conversation
and send us your
weather reports! On
social media, add the
hashtag
#TLHspotter



On Twitter, you can use the hashtag, or simply mention us in your tweet: @NWSTallahassee



On Facebook, it is best to post directly to our page, but you can add the hashtag too. If you are posting on your own account and using the hashtag, the privacy must be set to "public" for us to be able to see it.

You can also submit a storm report using our electronic form!

www.srh.noaa.gov/StormReport/SubmitReport.php?site=tae



Get the latest weather info on the go at mobile.weather.gov



NWS Tallahassee
weather.gov/tallahassee



@NWSTallahassee



www.facebook.com/NWSTallahassee



Things to include in reports



- Location
- Time
- Type of weather
- Magnitude (wave height, wind speed estimate)
- Duration
- Direction of storms or waterspouts



Thanks!



Ground truth from boaters like you helps us to continue to improve our forecasts and warnings.

Help us keep everyone safe by being our eyes and ears on the water!



Thanks For Your Attention!



NWS Tallahassee: www.weather.gov/tae

Buoys: <http://www.ndbc.noaa.gov/rmd.shtml>

Wavewatch: <http://polar.ncep.noaa.gov/waves/viewer.shtml?-gmex->

NWPS: polar.ncep.noaa.gov/nwps.nwpsloop.php?site=tae

COMET: http://deved.meted.ucar.edu/marine/mod2_wlc_gen/print.htm

NWS Tallahassee - 850-942-8833 (answered 24/7; press 9 to ring through)

Dial-A-Buoy - 888-701-8992 (Buoy ID: ex: 42039)

NWR (recording) - 850-942-8851

Marine Focal Point

emma.weston@noaa.gov

Warning Coordination Met.

mark.wool@noaa.gov