

**GREAT LAKES
SURF FORECASTING
WORKSHOP
PRESENTED BY THIRD COAST SURF SHOP**

RYAN'S FORECASTING RITUAL

After 20 years surfing the Great Lakes,
this is how I forecast waves on a daily basis

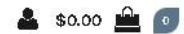


FORECASTING TOOLS

- The Radio Shack weather radio days are gone
- A million options...keep it simple
- Using these links gives me a solid idea what's coming in the next week (within minutes)
- FYI: the further out the forecast, the less accurate it is
- All of these links can be found on our Surf Forecast page
(thirdcoastsurfshop.com/resources/surf-forecast)

THIRD COAST'S SURF FORECAST PAGE

LAKE MICHIGAN SURF FORECAST UPDATED BY "DR. FRESH" TWICE WEEKLY



- SHOP ▾
- LESSONS | RENTALS | CAMPS ▾
- RESOURCES ▾
- BRANDS ▾
- BLOG ▾

Home ▶ Resources ▶ Surf Forecast

Shop +

LESSONS | RENTALS | CAMPS +

Resources -

Lake Surfing 101

Surf Forecast

Events

Press

Meet Our Team

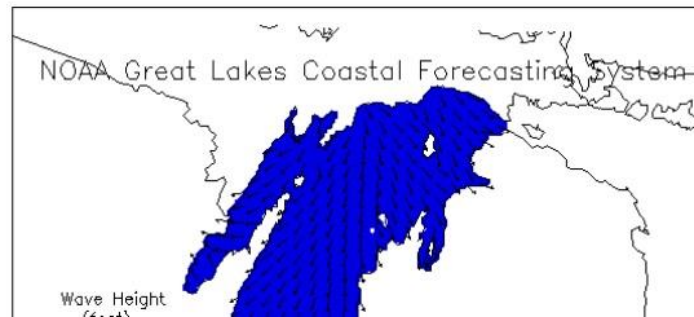
FAQ

Work With Us

Lake Michigan Surf Forecast

LAKE MICHIGAN SURF FORECAST

Updated by Dr. Fresh on Sunday July 29, 2018



Dinosaur



TOOL #1: iwindsurf

- I don't windsurf, but surfing here relies on wind to make waves, and this is a simple, trusted wind forecasting source
- I prefer the "classic" version (link below)
- Steps:
 - Click your region = current wind data
 - Hover over a data station & click "view forecast" = 7 day wind meteogram forecast
 - Link:
<http://www.iwindsurf.com/windandwhere.iws?regionID=210>

Classic iWindsurf is here to stay. Our new Wind & Weather tools are also available to you. More info

Hi guest · [Get your free membership now](#) · [Log In](#) ·

[xt Great Lakes](#)

Home : [xt_USA](#) : [xt_Great Lakes](#) : Wind Obs

Real-Time Data

- > [Dynamic Map](#)
- > [Wind Obs Map](#)
- > [Radar + Satellite Map](#)
- > [Wind Obs Summary](#)

Computer Forecasts

- > [Model Tables](#)
- > [Wind Vector Fx Map](#)
- > [Wind Flow Viz Fx Map](#)

More Maps

Other Resources

- Wind Graphs**
- Meteograms**

Watches/Warnings

- > [Winter Weather](#)
- > [Watch/Warning/Advisory](#)
- > [Non-Precipitation](#)
- > [Watch/Warning/Advisory](#)
- > [Special Weather Statement](#)
- > [Coastal/Lakeshore Hazard Messages](#)
- > [Flood Statement](#)

New iWindsurf: Select your region for wind observations & forecasts:

[North America](#) | [Europe](#) | [South America](#) | [Australia & Oceania](#) | [Asia](#) | [Africa](#)

Map Time:



REGIONAL

- > [Wind Obs Map](#)
- > [Radar + Satellite Map](#)
- > [Wind Obs Summary](#)

Computer Forecasts

- > [Model Tables](#)
- > [Wind Vector Fx Map](#)
- > [Wind Flow Viz Fx Map](#)

More Maps

Other Resources

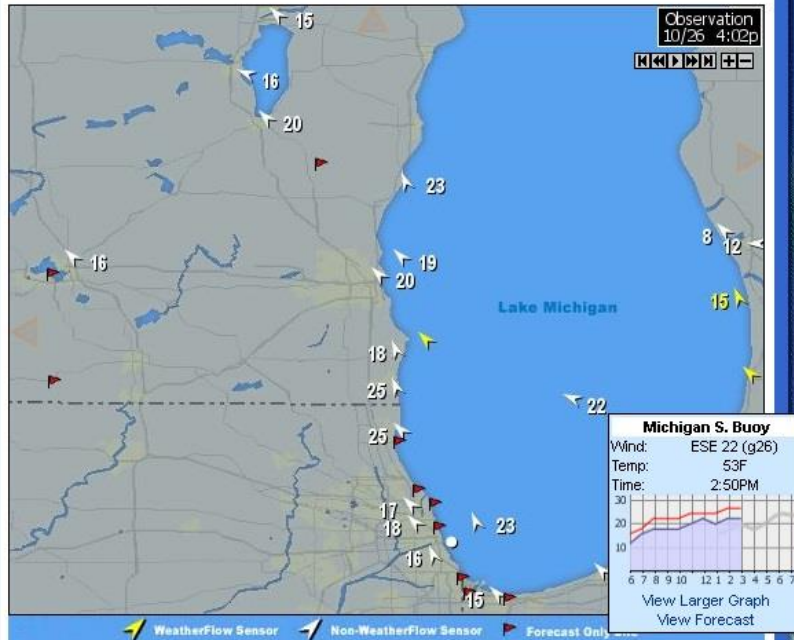
- Wind Graphs**
- Meteograms**

Watches/Warnings

- > [Flood Statement](#)
- > [Marine Weather Warning](#)

Switch Region

Map Time:



FOCUSED

Michigan S. Buoy Computer Forecast Table - Meteogram

Help us improve this product by taking the survey!

Quick Look More Hours	WF-WRF 3km - Lake Michigan	NAM 12km	GFS 0.5 Deg	Help													
Date	Thursday, October 26								Friday, October 27								
Time																	
Wind (mph)	16	21	28	28	25	20	28	24	24	24	24	27	27				
Direction	↖	↖	↗	↗	↖	↗	→	↗	↗	↗	↗	↗	↗				
Temperature (F)	53	55	56	55	55	53	46	43	42	42	42	42	42				
Additional Data	Show Additional Data																
Date	Saturday, October 28								Sunday, October 29								
Time	1am	4am	7am	10am	1pm	4pm	7pm	10pm	1am	4am	7am	10am	1pm	4pm	7pm	10pm	
Wind (mph)	26	25	23	22	23	21	22	23	21	18	15	12	12	13	17	21	
Direction	↗	↗	↗	→	↘	↘	↘	↘	↘	↘	↘	↘	→	↗	↗	↗	
Temperature (F)	41	41	42	43	43	43	44	44	45	44	43	42	41	43	45	46	
Additional Data	Show Additional Data																
Date	Monday, October 30								Tuesday, October 31								
Time	1am	4am	7am	10am	1pm	4pm	7pm	10pm	1am	4am	7am	10am	1pm	4pm	7pm	10pm	
Wind (mph)	22	27	26	26	26	27	28	28	26	26	26	22	20	19	20	17	
Direction	↗	↗	→	→	→	→	→	→	→	→	→	→	→	→	→	→	
Temperature (F)	48	49	46	45	47	48	47	45	43	43	43	43	44	46	46	44	
Additional Data	Show Additional Data																
Date	Wednesday, November 01								Thursday, November 02								
Time	1am	4am	7am	10am	1pm	4pm	7pm	10pm	1am	4am	7am	10am	1pm	4pm	7pm		
Wind (mph)	16	15	16	19	21	23	27	31	32	30	33	32	27	26	24		
Direction	→	↗	↗	↗	↗	↗	↗	↗	↗	↗	→	→	→	→	↘		
Temperature (F)	44	44	44	46	47	50	51	50	51	51	47	44	45	47	46		

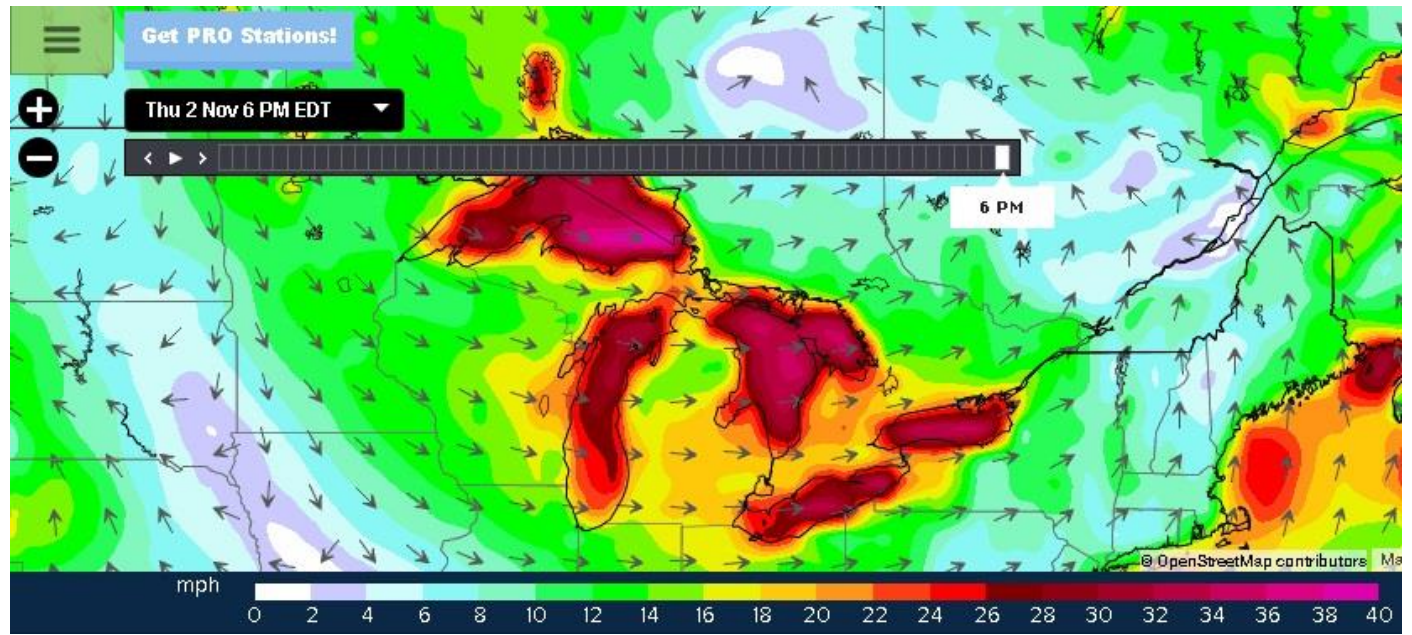
DETAILED

TOOL #2: sailflow

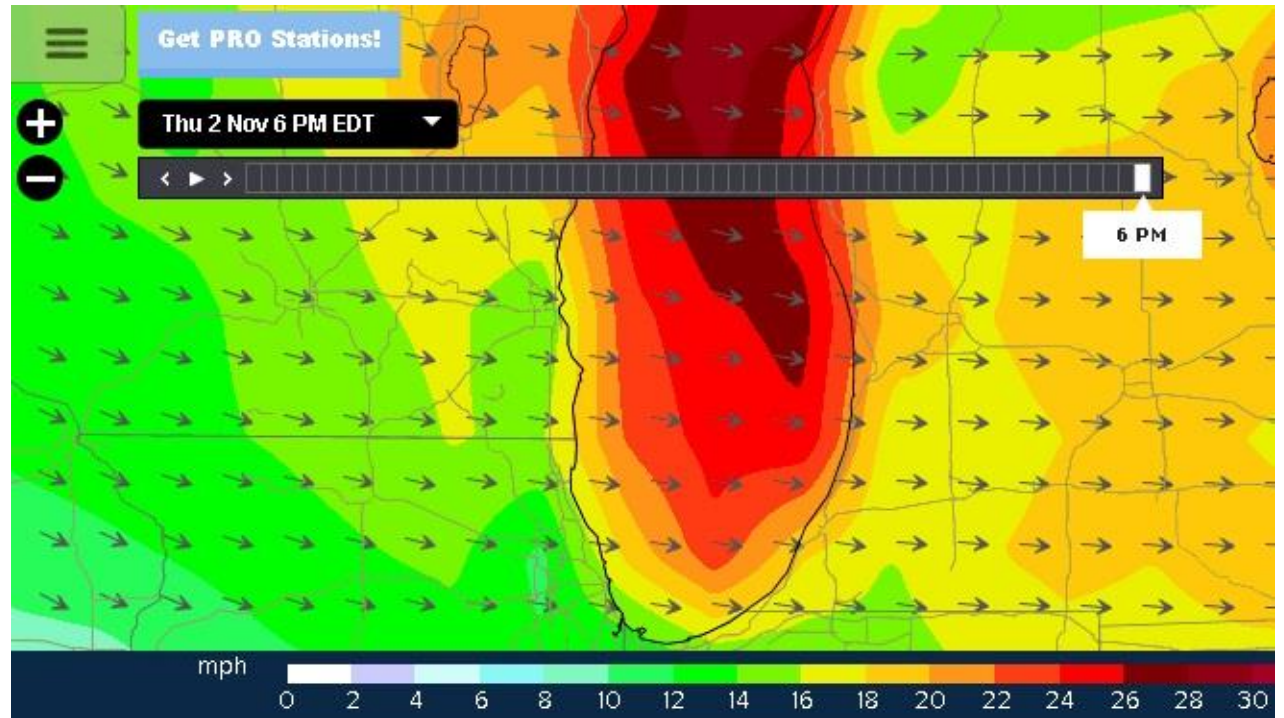
- Similar to iwindsurf, but different; gives a better “overall” picture of expected wind
- Steps:
 - Scroll to zoom
 - Click > for next 3 hours (goes 7 days out)
 - Link:

<http://www.sailflow.com/map#45.61,-82.661,5,2>

REGIONAL



FOCUSED



TOOL #3: NOAA - GLERL (GLFCFS)

- Yeah, I know. Here's what each means:
 - National Oceanic and Atmospheric Administration (NOAA)
 - Great Lakes Environmental Research Laboratory (GLERL)
 - Great Lakes Coastal Forecasting System (GLCFS)
- This one forecasts wind *and* waves, and works on a different “model” than iwindsurf & sailflow
- A solid option to compare wind forecasts to the other two, and the best option to get an idea of wave height
- Also forecasts surface water temps, ice cover, etc.
- Link: <https://www.glerl.noaa.gov//res/glcfs/>

TOOL #3: NOAA - GLERL (GLFCFS)

- Steps:
 - Under GLCFS Forecast (Experimental), click the appropriate link. For example, “Great Lakes” > “Waves”. You can then click your lake
 - Click through by the hour or use the animation
 - Forecast maps go out 5 days

REGIONAL

GLCFS FORECAST: 10/27/2017 (DOY 300) 1200 GMT - *Experimental*

Forecasts updated by about 0130 and 1330 GMT (subtract 4 for EDT, 5 for EST)



Other Wave Forecasts: [WaveWatch III](#), [NWS Great Lakes](#), [NWS NDFD](#)

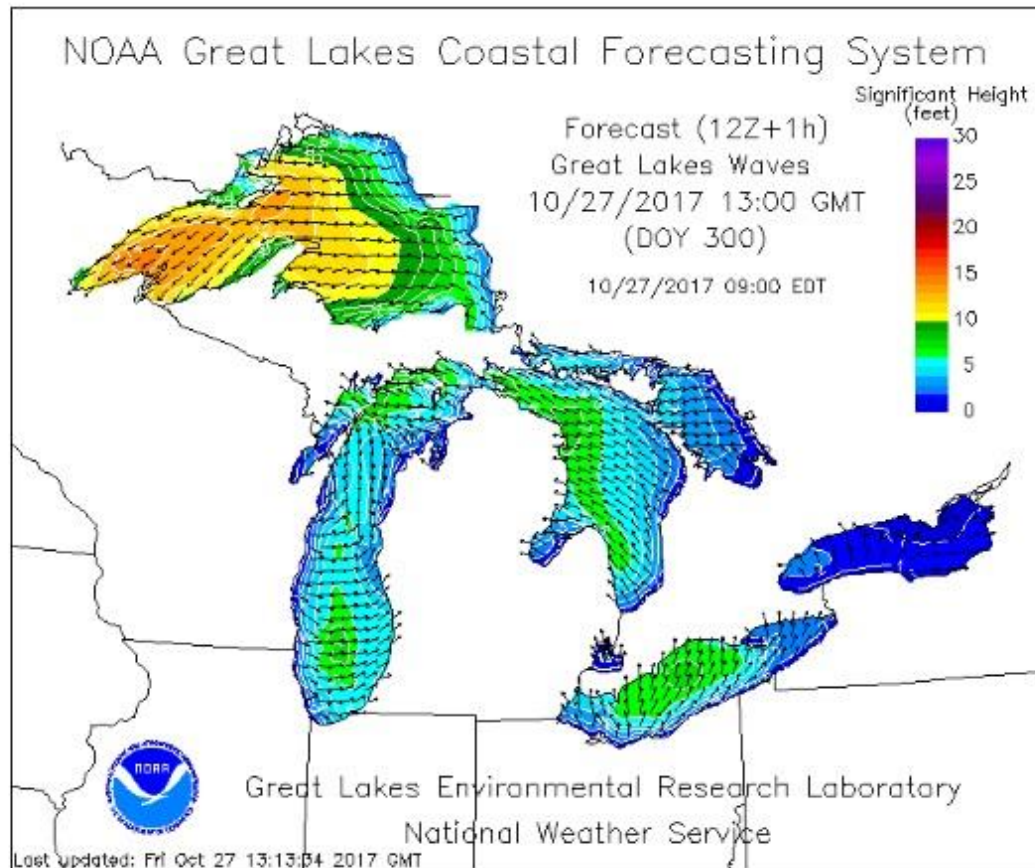
REGIONAL

Great Lakes Waves (Forecast)

[Animation](#) [+01](#) [+02](#) [+03](#) [+04](#) [+05](#) [+06](#) [+07](#) [+08](#) [+09](#) [+10](#) [+11](#) [+12](#) [+15](#) [+18](#) [+21](#) [+24](#) [+27](#) [+30](#) [+33](#) [+36](#) [+39](#) [+42](#) [+45](#) [+48](#)
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[View animated gif](#) (right click to download)

[Step Earlier](#) | [Later](#)

NEW Click on lake to zoom in



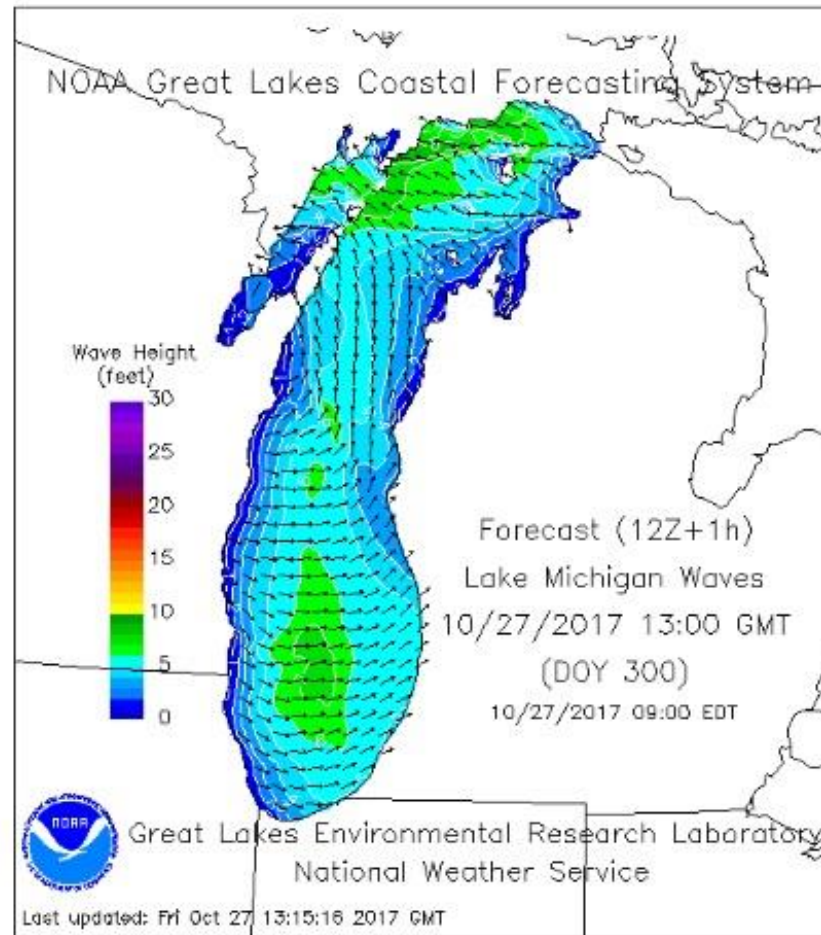
FOCUSED

Lake Michigan Waves (Forecast)

[Animation](#) [+01](#) [+02](#) [+03](#) [+04](#) [+05](#) [+06](#) [+07](#) [+08](#) [+09](#) [+10](#) [+11](#) [+12](#) [+15](#) [+18](#) [+21](#) [+24](#) [+27](#) [+30](#) [+33](#) [+36](#) [+39](#) [+42](#) [+45](#) [+48](#)
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[View animated gif](#) (right click to download)

[Step Earlier](#) | [Later](#)



WHAT, WHERE, & WHEN?

- Where do I go, when do I go there, and what will I find?
- This is the hard part, and don't expect it to be handed to you on a silver platter; it takes time, effort, and experience (and gas money) to figure out where the good waves will be, and when they will be there
- Factors such as fetch (how far the wind is blowing over water), wave height/period/direction, wind speed/direction, shoreline geography, and bathymetry (type of bottom and bottom contour) all factor in to what makes a spot good for surfing
- This is also the coolest part about Great Lakes surfing. The search. It feels so good to find great waves after you've put the time and effort in. Winning!
- P.s. being friendly and meeting the right people may expedite the process 😊

DECISIONS, DECISIONS

- Once you start to get the hang of it, you have some decisions to make...
- On many days, you have a choice: quality or quantity
 - Quality = typically smaller waves but “cleaner” conditions
 - Quantity = typically bigger waves but “junkier” conditions
- There’s nothing wrong with either. Surfing is cool because there are no rules (do whatever the hell you want)!
- On the best days, you can have both (big waves and clean conditions). This is the holy grail of Lake surfing

QUALITY



QUANTITY



SOMETIMES YOU DON'T HAVE A CHOICE (TAKE WHAT YOU CAN GET 😊)



HOLY GRAIL



NOWCASTING

- It's a surf day. Now what? Hopefully you already have a good idea of where to be and when to be there (you put the time in). Now it's time to check the "real-time" wind and wave data to confirm you're right
- Yeah, buoy! Buoys and other stations that collect data will help do that. There are a couple good sites for that
 - NDBC (National Data Buoy Center)
 - Western GL = <http://www.ndbc.noaa.gov/maps/WestGL.shtml>
 - Eastern GL = <http://www.ndbc.noaa.gov/maps/EastGL.shtml>
 - GLOS (Great Lakes Observing System)
 - <http://glbuoys.glos.us/>

Conditions at 45007 as of
(12:50 pm EDT)
1650 GMT on 10/27/2017:

Unit of Measure: English ▼

Time Zone: Station Local Time ▼

Select

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










**NDBC
BUOY 45007
FOCUSED**

	Wind Direction (WDIR):	W (260 deg true)
	Wind Speed (WSPD):	19.4 kts
	Wind Gust (GST):	25.3 kts
	Wave Height (WVHT):	5.2 ft
	Dominant Wave Period (DPD):	6 sec
	Average Period (APD):	4.6 sec
	Mean Wave Direction (MWD):	WSW (247 deg true)
	Atmospheric Pressure (PRES):	29.77 in
	Pressure Tendency (PTDY):	+0.05 in (Rising)
	Air Temperature (ATMP):	41.0 °F
	Water Temperature (WTMP):	57.6 °F
	Wind Chill (CHILL):	31.3 °F
	Wind Speed at 10 meters (WSPD10M):	21.4 kts
	Wind Speed at 20 meters (WSPD20M):	21.4 kts
	Combined plot of Wind Speed, Gust, and Air Pressure	

South Lake Michigan (45007)

12:50 PM EDT Fri, Oct 27

**GLOS
BUOY 45007
FOCUSED**

 Wind Speed	19.4 kts
 Wind Gust	25.3 kts
 Wind Direction	W (260°)
 Water Temp.	57.6°F
 Wave Height	5.2 ft
 Mean Wave Direction	WSW (247°)
 Wave Period	4.6 sec
 Air Temp.	41.0°F
 Air Pressure	1008.0 mBar

BUOYS: WHAT TO SEE

- I'm looking at a few key variables
 - Wind direction, duration, and speed/gust
 - Higher wind with longer duration = bigger waves
 - Wave height, wave period (time between waves), and mean wave direction
 - Wave period and direction are just as important as height. Example: a buoy wave height of 2' with a period of 9 seconds, at an angle/direction favorable to a certain spot, will be bigger than a buoy wave height of 4' at 6 seconds with an unfavorable angle/direction

HAPPY HUNTING!

