2017 Season Improvement Process

Brian Hirsch Marine Program Manager National Weather Service

Marine Weather Discussion

http://www.weather.gov/greatlakes/afd

Forecaster Comments



Marine Weather Discussion

- Provides a large picture focus
- Provides insight into the forecast
- Similar to the summary in the Open Lake
 Forecast

Forecast Changes

Meteorologists will make the simple hard



OK, Class who can tell me how Barometric Pressure affects your shadow?



GLFLH

OPEN LAKE FORECAST FOR LAKE HURON NATIONAL WEATHER SERVICE DETROIT/PONTIAC MI 944 AM EST MON FEB 13 2017

FOR WATERS BEYOND FIVE NAUTICAL MILES OFF SHORE ON LAKE HURON

WAVES ARE THE SIGNIFICANT WAVE HEIGHT - THE AVERAGE OF THE HIGHEST 1/3 OF THE WAVE SPECTRUM. OCCASIONAL WAVE HEIGHT IS THE AVERAGE OF

GT.FT.H

EXPERIMENTAL TABULAR OPEN LAKE FORECAST FOR LAKE HURON NATIONAL WEATHER SERVICE DETROIT/PONTIAC MI 1005 AM EST MON FEB 13 2017

WAVES ARE THE SIGNIFICANT WAVE HEIGHT - THE AVERAGE OF THE HIGHEST 1/3 OF THE WAVE SPECTRUM. OCCASIONAL WAVE HEIGHT IS THE AVERAGE OF THE HIGHEST 1/10 OF THE WAVE SPECTRUM.

We want your support this season in evaluating this change.

.TUESDAY...WEST WINDS 10 TO 15 KNOTS INCREASING TO 15 TO 20 KNOTS IN THE LATE MORNING AND AFTERNOON. A CHANCE OF SNOW SHOWERS. WAVES 3 TO 5 FEET.

.TUESDAY NIGHT...WEST WINDS 15 TO 20 KNOTS WITH GUSTS UP TO 30 KNOTS BECOMING NORTHWEST 20 TO 25 KNOTS WITH GUSTS UP TO 35 KNOTS AFTER MIDNIGHT. SCATTERED SNOW SHOWERS. WAVES 4 TO 6 FEET. WAVES OCCASIONALLY AROUND 8 FEET.

.WEDNESDAY...NORTHWEST WINDS 20 TO 25 KNOTS WITH GUSTS UP TO 35 KNOTS BECOMING NORTH 10 TO 15 KNOTS. SCATTERED SNOW SHOWERS EARLY IN THE MORNING, WAVES 4 TO 6 FEET SUBSIDING TO 2 TO 4 FEET LATE IN THE EVENING. WAVES OCCASIONALLY AROUND 8 FEET. ..THURSDAY...NORTHWEST WINDS 5 TO 10 KNOTS BECOMING LIGHT AND

.FRIDAY...SOUTHEAST WINDS 5 TO 10 KNOTS. WAVES 2 FEET OR LESS.

VARIABLE, WAVES 1 TO 3 FEET.

.TONIGHT...

WEATHER.....MOSTLY CLOUDY WITH CHANCE OF SNOW SHOWERS.

SFC WINDS......SOUTHWEST 15 TO 20 KNOTS.

100-FT WINDS.....SOUTHWEST 20 TO 25 KNOTS.

SIG WAVES......3 TO 5 FEET / 1-2 METERS /.

OCNL WAVES.....AROUND 6 FEET / 2 METERS /.

.TUESDAY...

WEATHER.....CLOUDY WITH CHANCE OF SNOW SHOWERS.

Web Changes

More - Better

To provide the state of the science provides more resolution than we can convey in words.

As we add more data and better resolution our challenge is to phase out some products or formats over time. This is both old reliable text formats and old graphical webpages.

We need to change and we want your help to make sure our changes are well received.





iPad 3, 2012

We have been making an effort to transition to a new web platform.

Weather.gov/GreatLakes

Problem, we are mostly meteorologists and not web designers and some of the new we understand you find it difficult or too slow to load.

For you to access many of these improvements in forecasts, down to hourly data, require Web updates.

I'm going to need your help



www.crh.noaa.gov/greatlakes?



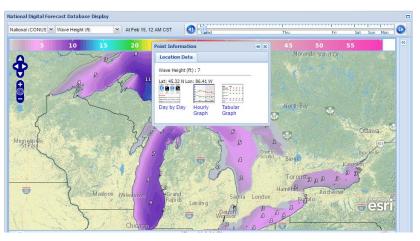
weather.gov/greatlakes?

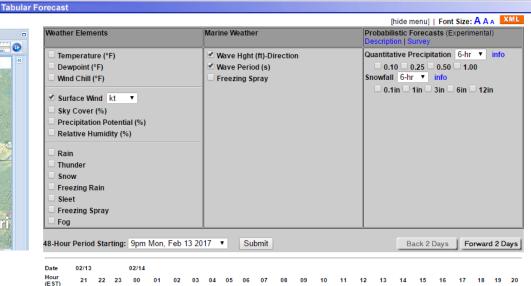


Next... Tabular Forecast Anywhere YOU Click

Wave Height (ft)

(°)





48-Hour	Period	d Starting: 9pm Mon, Feb 13 2017 ▼ Submit								Back 2 Days			Forward 2 Days											
Date	02/13			02/14																				
Hour (EST)	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
Surface Wind (kt)	20	21	21	21	21	20	19	17	16	15	14	14	13	13	13	13	13	13	13	13	13	13	12	13
Wind Dir	SSW	SW	SW	SW	SW	SW	SW	SW	SW	SW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	WSW	W	W	W
Gust																								
Wave Height (ft)	3	4	4	4	4	4	4	4	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
Wave Period (sec)	4	4	4	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	2	2
Wave Direction (°)	190	190	190	180	180	180	180	180	180	180	180	180	170	170	170	170	170	170	170	180	180	180	250	270
Date				02/15																				
Hour (EST)	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
Surface Wind (kt)	14	15	16	18	20	23	26	28	28	28	27	26	26	25	24	24	23	23	23	23	23	22	22	22
Wind Dir	W	W	W	WNW	WNW	WNW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW	NW
Gust				23	25	28	32	36	37	38	37	36	35	34	33	33	32	31	31	31	31	30	30	29
Wave Height (ft)	2	2	2	3	3	3	4	5	5	6	6	6	6	6	5	5	5	4	4	4	4	4	4	4
Wave Period (sec)	2	3	3	3	3	3	4	4	5	6	6	6	6	6	6	6	6	5	5	5	5	5	5	5
Wave Direction (°)	280	280	280	300	310	330	350	0	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10

Background Slides

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KDTX 160905
OPEN LAKE FORECAST FOR LAKE HURON
NATIONAL WEATHER SERVICE DETROIT/PONTIAC MI
                                                              OLFLH
342 AM EST THU FEB 16 2017
                                                               EXPERIMENTAL TABULAR OPEN LAKE FORECAST FOR LAKE
FOR WATERS BEYOND FIVE NAUTICAL MILES OFF SHORE ON
                                                              HURON
LAKE HURON
                                                              NATIONAL WEATHER SERVICE DETROIT/PONTIAC MI
WAVES ARE THE SIGNIFICANT WAVE HEIGHT - THE AVERAGE
                                                              405 AM EST THU FEB 16 2017
OF THE HIGHEST
1/3 OF THE WAVE SPECTRUM. OCCASIONAL WAVE HEIGHT IS
                                                              WAVES ARE THE SIGNIFICANT WAVE HEIGHT - THE AVERAGE
THE AVERAGE OF
                                                              OF THE HIGHEST
THE HIGHEST 1/10 OF THE WAVE SPECTRUM.
                                                              1/3 OF THE WAVE SPECTRUM. OCCASIONAL WAVE HEIGHT IS
.SYNOPSIS...A RIDGE OF SURFACE HIGH PRESSURE...30.00
                                                              THE AVERAGE OF
INCHES...WILL
                                                              THE HIGHEST 1/10 OF THE WAVE SPECTRUM.
PUSH EAST OVER THE GREAT LAKES TODAY. THE GREAT LAKES
WILL REMAIN
                                                               .SYNOPSIS...A RIDGE OF SURFACE HIGH
UNDER THE INFLUENCE OF BROAD HIGH PRESSURE THROUGHOUT
                                                              PRESSURE...30.00 INCHES...WILL
WEEKEND...ALBEIT SLIGHTLY WEAKENING TO 29.80 INCHES
                                                              PUSH EAST OVER THE GREAT LAKES TODAY. THE GREAT
ON SATURDAY.
                                                              LAKES WILL REMAIN
SURFACE PRESSURE WILL AGAIN INCREASE NEAR 30.00
                                                              UNDER THE INFLUENCE OF BROAD HIGH PRESSURE
INCHES SUNDAY INTO
                                                              THROUGHOUT THE
MONDAY.
                                                              WEEKEND...ALBEIT SLIGHTLY WEAKENING TO 29.80 INCHES
LHZ361-162115-
                                                              ON SATURDAY.
LAKE HURON FROM 5NM EAST OF MACKINAC BRIDGE TO
                                                               SURFACE PRESSURE WILL AGAIN INCREASE NEAR 30.00
PRESOUE ISLE LT
                                                              INCHES SUNDAY INTO
BEYOND 5 NM OFF SHORE-
                                                              MONDAY.
342 AM EST THU FEB 16 2017
.TODAY...NORTH WINDS 10 TO 15 KNOTS DECREASING TO 5
                                                              LHZ361-162100-
TO 10 KNOTS
                                                              LAKE HURON FROM 5NM EAST OF MACKINAC BRIDGE TO
LATE IN THE MORNING, THEN BACKING TO THE NORTHWEST IN
                                                              PRESQUE ISLE LT
THE
                                                               BEYOND 5 NM OFF SHORE-
AFTERNOON, WAVES 1 TO 3 FEET.
.TONIGHT...LIGHT AND VARIABLE WINDS BECOMING
                                                               405 AM EST THU FEB 16 2017
SOUTHEAST 5 TO
10 KNOTS AFTER MIDNIGHT, THEN BECOMING SOUTH 10 TO 15
                                                               .TODAY . . .
KNOTS EARLY
                                                              WEATHER......PARTLY SUNNY.
IN THE MORNING. WAVES 2 FEET OR LESS.
                                                               SFC WINDS......NORTHWEST 10 TO 15 KNOTS.
.FRIDAY...SOUTHEAST WINDS 10 TO 15 KNOTS. WAVES 1 TO
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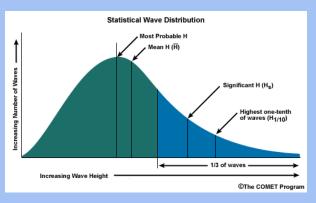
OPEN LAKE FORECAST FOR LAKE HURON NATIONAL WEATHER SERVICE DETROIT/PONTIAC MI 342 AM EST THU FEB 16 2017		KDTX 160905 OLFLH	
LHZ361-132100- FOR WATERS BEYOND FIVE NAUTICAL MILES OFF SHORE ON LAKE HURON FROW LAKE HURON BEYOND 5 NM OFF 944 AM EST MON WAVES ARE THE SIGNIFICANT WAVE HEIGHT - THE AVERAGE OF THE HIGHEST	LHZ: LAKI BEY(100!	EXPERIMENTAL TABULAR OPEN LAKE FORECAST FOR LAKE HURON NATIONAL WEATHER SERVICE DETROIT/PONTIAC MI 405 AM EST THU FEB 16 2017	LT
GALE WATCH ITHE AVERAGE OF AFTERNOON THE HIGHEST 1/10 OF THE WAVE SPECTRUM.	AFTI	WAVES ARE THE SIGNIFICANT WAVE HEIGHT - THE AVERAGE OF THE HIGHEST 1/3 OF THE WAVE SPECTRUM. OCCASIONAL WAVE HEIGHT IS	NESDAY
REST OF TODAY. SYNOPSISA RIDGE OF SURFACE HIGH PRESSURE30.00 SOUTHWEST LATE INCHESWILL TONIGHTSOUT PUSH EAST OVER THE GREAT LAKES TODAY. THE GREAT LAKES	.RE! WEA1 SFC 100-	THE AVERAGE OF THE WAVE SPECTRUM.	
20 KNOTS IN THE UNDER THE INFLUENCE OF BROAD HIGH PRESSURE THROUGHOUT TO 10 TO 15 KNC THE WAVES 1 TO 3 FEWEEKENDALBEIT SLIGHTLY WEAKENING TO 29.80 INCHES	SIG OCNI	SYNOPSISA RIDGE OF SURFACE HIGH PRESSURE30.00 INCHESWILL PUSH EAST OVER THE GREAT LAKES TODAY. THE GREAT LAKES WILL REMAIN	
.TUESDAYWEST SURFACE PRESSURE WILL AGAIN INCREASE NEAR 30.00 IN THE LATE MOR MONDAY. WAVES 3 TO 5 FE .TUESDAY NIGHT.LHZ361-162115-	WEAT SFC 100-	UNDER THE INFLUENCE OF BROAD HIGH PRESSURE THROUGHOUT THE WEEKENDALBEIT SLIGHTLY WEAKENING TO 29.80 INCHES	RS.
30 KNOTS BECOMILAKE HURON FROM 5NM EAST OF MACKINAC BRIDGE TO 35 KNOTS AFTER PRESQUE ISLE LT	OCNI .TUI	ON SATURDAY. SURFACE PRESSURE WILL AGAIN INCREASE NEAR 30.00 INCHES SUNDAY INTO MONDAY.	
6 FEET. WAVES CBETOND 3 NW OFF SHOREWEDNESDAYNC 342 AM EST THU FEB 16 2017 35 KNOTS BECOMI .TODAYNORTH WINDS 10 TO 15 KNOTS DECREASING TO 5 EARLY IN THE MC TO 10 KNOTS LATE IN THE EVELATE IN THE MORNING, THEN BACKING TO THE NORTHWEST IN	WEAT SFC 100- SIG	LHZ361-162100- LAKE HURON FROM 5NM EAST OF MACKINAC BRIDGE TO PRESQUE ISLE LT	
.THURSDAYNORTHE VARIABLE. WAVES AFTERNOON. WAVES 1 TO 3 FEETFRIDAYSOUTH .TONIGHTLIGHT AND VARIABLE WINDS BECOMING SOUTHEAST 5 TO	OCNI .TUI	BEYOND 5 NM OFF SHORE- 405 AM EST THU FEB 16 2017	
10 KNOTS AFTER MIDNIGHT, THEN BECOMING SOUTH 10 TO 15 KNOTS EARLY IN THE MORNING. WAVES 2 FEET OR LESS. FRIDAYSOUTHEAST WINDS 10 TO 15 KNOTS. WAVES 1 TO		TODAY WEATHERPARTLY SUNNY. SFC WINDSNORTHWEST 10 TO 15 KNOTS.	

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LHZ361-132100-
    HURON FROM 5NM EAST OF MACKINAC BRIDGE TO PRESQUE ISLE LT
BEYOND 5 NM OFF SHORE-
1005 AM EST MON FEB 13 2017
...GALE WATCH IN EFFECT FROM LATE THESDAY NIGHT THROUGH WEDNESDAY
AFTERNOON...
.REST OF TODAY...
WEATHER.....PARTLY SUNNY.
SFC WINDS......WEST 10 TO 15 KNOTS.
100-FT WINDS......WEST 15 TO 20 KNOTS.
SIG WAVES..... 2 TO 4 FEET / AROUND 1 METER /.
OCNL WAVES.....AROUND 5 FEET / 2 METERS /.
.TONIGHT...
WEATHER.....MOSTLY CLOUDY WITH CHANCE OF SNOW SHOWERS.
SFC WINDS......SOUTHWEST 15 TO 20 KNOTS.
100-FT WINDS......SOUTHWEST 20 TO 25 KNOTS.
SIG WAVES...... 3 TO 5 FEET / 1-2 METERS /.
OCNL WAVES.....AROUND 6 FEET / 2 METERS /.
.TUESDAY...
WEATHER......CLOUDY WITH CHANCE OF SNOW SHOWERS.
SFC WINDS......WEST 15 TO 20 KNOTS.
100-FT WINDS......WEST 20 TO 25 KNOTS.
SIG WAVES..... 3 TO 5 FEET
OCNL WAVES.....AROUND 6 FEET
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THESDAY MIGHT

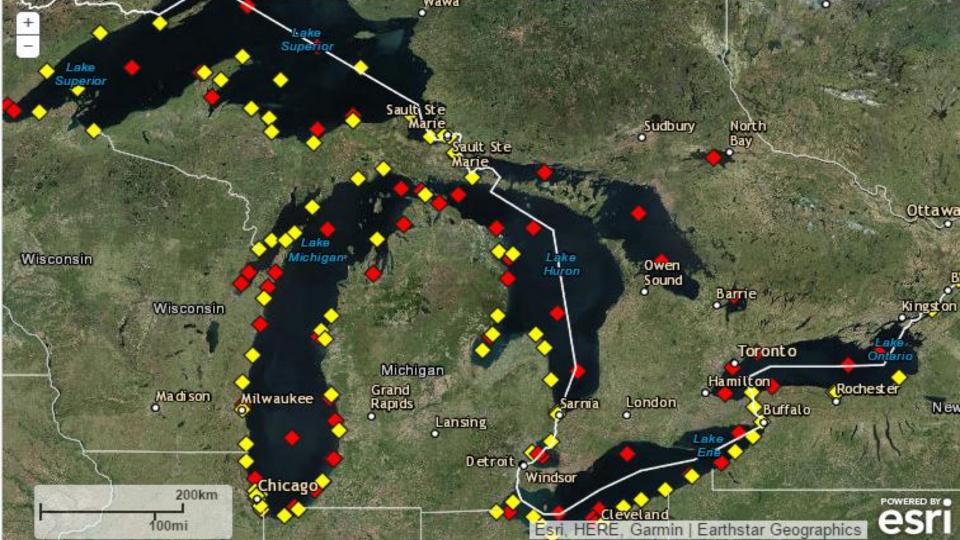
100 Ft Winds, often closely match the wind gust but during some times of the year are winds which may remain just above the surface.

weather.gov/Dtx/Glftable

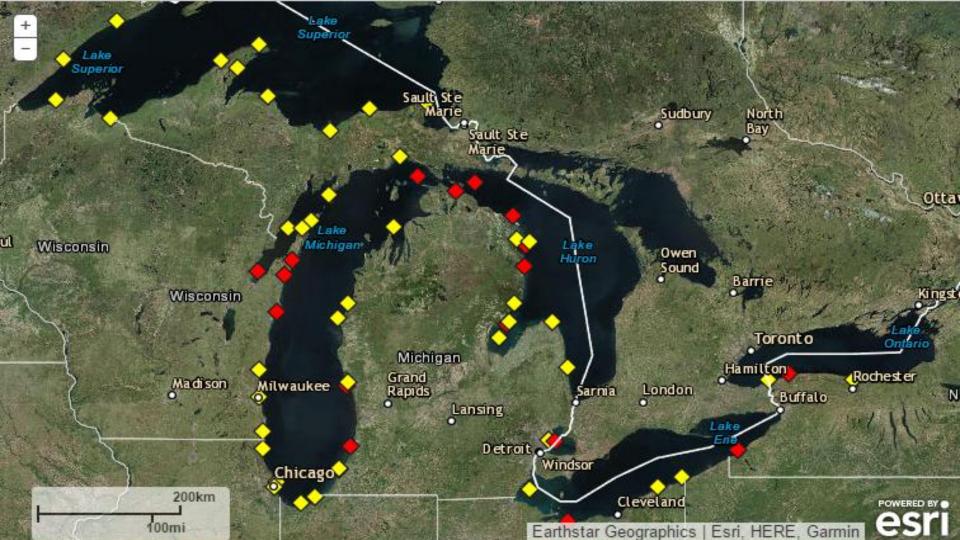


Occasional Waves

Great Lakes Weather NWS Weather Sites VOS Observations









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GLFLH
OPEN LAKE FORECAST FOR LAKE HURON
NATIONAL WEATHER SERVICE DETROIT/PONTIAC MI
944 AM EST MON FEB 13 2017
FOR WATERS BEYOND FIVE NAUTICAL MILES OFF SHORE ON LAKE HURON
WAVES ARE THE SIGNIFICANT WAVE HEIGHT - THE AVERAGE OF THE HIGHEST
1/3 OF THE WAVE SPECTRUM. OCCASIONAL WAVE HEIGHT IS THE AVERAGE OF
THE HIGHEST 1/10 OF THE WAVE SPECTRUM.
.SYNOPSIS...LOW PRESSURE...29.70 INCHES...WILL CONTINUE TO TRACK
FAST THROUGH THE MID ATLANTIC STATES. A RIDGE OF HIGH
PRESSURE...30.20 INCHES...WILL BUILD INTO THE CENTRAL GREAT LAKES
TODAY. A NEW SURFACE TROUGH WILL THEN DEVELOP OVER THE REGION ON
TUESDAY...FOLLOWED BY A STRONG COLD FRONT SWINGING THROUGH ON
TUESDAY NIGHT.
LHZ361-132100-
LAKE HURON FROM 5NM EAST OF MACKINAC BRIDGE TO PRESOUE ISLE LT
BEYOND 5 NM OFF SHORE-
944 AM EST MON FEB 13 2017
...GALE WATCH IN EFFECT FROM LATE TUESDAY NIGHT THROUGH WEDNESDAY
AFTERNOON...
.REST OF TODAY...WEST WINDS 5 TO 10 KNOTS BACKING TO THE
SOUTHWEST LATE IN THE AFTERNOON, WAVES 1 TO 3 FEET.
.TONIGHT...SOUTH WINDS 10 TO 15 KNOTS BECOMING SOUTHWEST 15 TO
20 KNOTS IN THE LATE EVENING AND EARLY MORNING...THEN DECREASING
TO 10 TO 15 KNOTS EARLY IN THE MORNING. A CHANCE OF SNOW SHOWERS.
WAVES 1 TO 3 FEET BUILDING TO 2 TO 4 FEET IN THE LATE EVENING AND
OVERNIGHT.
.TUESDAY...WEST WINDS 10 TO 15 KNOTS INCREASING TO 15 TO 20 KNOTS
IN THE LATE MORNING AND AFTERNOON, A CHANCE OF SNOW SHOWERS.
WAVES 3 TO 5 FEET.
.TUESDAY NIGHT...WEST WINDS 15 TO 20 KNOTS WITH GUSTS UP TO
30 KNOTS BECOMING NORTHWEST 20 TO 25 KNOTS WITH GUSTS UP TO
35 KNOTS AFTER MIDNIGHT, SCATTERED SNOW SHOWERS, WAVES 4 TO
6 FEET, WAVES OCCASIONALLY AROUND 8 FEET.
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.WEDNESDAY...NORTHWEST WINDS 20 TO 25 KNOTS WITH GUSTS UP TO

.THURSDAY...NORTHWEST WINDS 5 TO 10 KNOTS BECOMING LIGHT AND

.FRIDAY...SOUTHEAST WINDS 5 TO 10 KNOTS. WAVES 2 FEET OR LESS.

LATE IN THE EVENING, WAVES OCCASIONALLY AROUND 8 FEET.

VARIABLE, WAVES 1 TO 3 FEET.

35 KNOTS BECOMING NORTH 10 TO 15 KNOTS, SCATTERED SNOW SHOWERS EARLY IN THE MORNING, WAVES 4 TO 6 FEET SUBSIDING TO 2 TO 4 FEET

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GT.FT.H
EXPERIMENTAL TABULAR OPEN LAKE FORECAST FOR LAKE HURON
NATIONAL WEATHER SERVICE DETROIT/PONTIAC MI
1005 AM EST MON FEB 13 2017
WAVES ARE THE SIGNIFICANT WAVE HEIGHT - THE AVERAGE OF THE HIGHEST
1/3 OF THE WAVE SPECTRUM, OCCASIONAL WAVE HEIGHT IS THE AVERAGE OF
THE HIGHEST 1/10 OF THE WAVE SPECTRUM.
.SYNOPSIS...LOW PRESSURE...29.70 INCHES...WILL CONTINUE TO TRACK
EAST THROUGH THE MID ATLANTIC STATES. A RIDGE OF HIGH
PRESSURE...30.20 INCHES...WILL BUILD INTO THE CENTRAL GREAT LAKES
TODAY. A NEW SURFACE TROUGH WILL THEN DEVELOP OVER THE REGION ON
TUESDAY...FOLLOWED BY A STRONG COLD FRONT SWINGING THROUGH ON
TUESDAY NIGHT.
LHZ361-132100-
LAKE HURON FROM 5NM EAST OF MACKINAC BRIDGE TO PRESOUE ISLE LT
BEYOND 5 NM OFF SHORE-
1005 AM EST MON FEB 13 2017
...GALE WATCH IN EFFECT FROM LATE TUESDAY NIGHT THROUGH WEDNESDAY
AFTERNOON...
.REST OF TODAY...
WEATHER.....PARTLY SUNNY.
SFC WINDS......WEST 10 TO 15 KNOTS.
100-FT WINDS......WEST 15 TO 20 KNOTS.
SIG WAVES..... 2 TO 4 FEET / AROUND 1 METER /.
OCNL WAVES.....AROUND 5 FEET / 2 METERS /.
.TONIGHT...
WEATHER.....MOSTLY CLOUDY WITH CHANCE OF SNOW SHOWERS.
SFC WINDS......SOUTHWEST 15 TO 20 KNOTS.
100-FT WINDS......SOUTHWEST 20 TO 25 KNOTS.
SIG WAVES...... 3 TO 5 FEET / 1-2 METERS /.
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.TUESDAY...
WEATHER......CLOUDY WITH CHANCE OF SNOW SHOWERS.
SFC WINDS......WEST 15 TO 20 KNOTS.
100-FT WINDS......WEST 20 TO 25 KNOTS.
                  3 TO 5 WEFT / 1_3 METEDS /
SIG WAVES
```

SIGNIFICANT WAVES – AVG OF HIGHEST 1/3

OCCASIONAL WAVES – AVG OF HIGHEST 1/10

100 FOOT/30 METER WIND SPEEDS ARE ROUGHLY EQUIVALENT TO SURFACE WIND GUSTS

Occasional waves are only listed when predicted values are at or above 5 feet.

Great Lakes VOS Page

.weather.gov/dmawds/



Digital Marine Weather Dissemination System

Welcome to the National Weather Service Great Lakes Digital Marine Weather Dissemination System.

Voluntary Observing Ship Data Entry

Changes to the DMAWDS Site

.weather.gov/dmawds/



Digital Marine Weather Dissemination System

Welcome to the National Weather Service Great Lakes Digital Marine Weather Dissemination System.

Voluntary Observing Ship Data Entry

<u>Text/Graphics Forecasts (Unzipped Version)</u>



.weather.gov/dmawds/vos.php



Ship Observation Entry Form

Welcome to the Voluntary Observing Ship data entry page. Thank you for taking the time to submit your observation. The data you enter here plays a major important role in producing accurate weather and wave forecasts. Your observation is included in the computer models that create weather and wind forecasts. The more initial data in the model, the better the forecast; especially over the data sparse open waters of the Great Lakes.

If you need to make a correction to your observation, click on the back button after you transmitted your observation and make the final correction and retransmit your observation.

Your ship's radio callsign (which is also your login ID here) must be registered with DMAWDS in order to send an observation.

Note: Any element in red denotes mandatory observed entry.

What is the radio call sign (ID) of your ship? (NOTE: USE LETTERS AND NUMBERS ONLY. NO SPACES.)	
What is your DMAWDS password?	
Day of the month in UTC: 09 ▼	
Actual Time of Observation to the Nearest Whole Hour in UTC: 05 ▼	
What is the latitude in tenths of a degree (example: 42.8)?	
What is the longitude in tenths of a degree (example: 82.1)?	
Enter the wind speed to the nearest knot (example: 12)?	
Enter the wind direction in degrees (example: 90, 270): ▼	
Enter the wave height in feet (example: 6, 12)?	

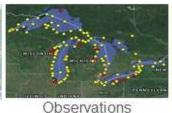
Great Lakes

Web Portal Changes











Ice

Radar Satellite Digital Graphics Observation

Additional Resources for Great Lakes Graphical Forecasts

Text Products

Lake Superior
Lake Michigan
Lake Huron
Lake Erie
Lake Ontario
Area Forecast Discussions

GLERL Great Lakes Coastal Forecast System

Winds Waves Ice Cover

Seasonal

Great Lakes Ice Beach Hazards

Safety & Education

NOAA Weather Radio
Rip Currents
Safe Boating
Beaufort Wind Scale
Marine Forecast FAQ
Sunrise/Sunset Info
Thunderbay National Marine
Sanctuary

Science

CoastWatch
Edmund Fitzgerald
Great Lakes Storm of 1913
NOAA nowCoast
Tides & Currents

Forecast Offices

Buffalo, NY

Cleveland, OH
Chicago, IL
Detroit, MI
Duluth, MN
Gaylord, MI
Green Bay, WI
Grand Rapids, MI
Marquette, MI
Milwaukee, WI
Northern Indiana
Marine Forecast Offices
Nationwide

Partners

GLERL
National Data Buoy Center
National Hurricane Center
National Marine Page
US Coast Guard
Meteorological Services of
Canada

Miscellaneous

Water Temperatures
Water Temperature
GLOFS
Nautical Charts
Bathymetry

Ever Wonder?

What are they thinking?

All Lakes Michigan Huron Erie Ontario Superior Hazards | Wave Height | Wave Period | Wind Speed | Wind Gust | Weather Flood Warning Flood Advisory Small Craft Advisory February 4th, 2016 9:40 AM CST



Additional Resources for Great Lakes Graphical Forecasts Text Products Safety & Education F. Lake Superior NOAA Weather Radio B. Lake Michigan Rip Currents C. Lake Huron Safe Boating C. Lake Erie Beaufort Wind Scale D.

Lake Ontario

Area Forecast Discussions

Great Lakes Portal - All Lakes

 Safety & Education
 Forecast Offices

 NOAA Weather Radio
 Buffalo. NY

 Rip Currents
 Cleveland. OH

 Safe Boating
 Chic ago. IL

 Beaufort Wind Scale
 Detroit. MI

 Marine Forecast FAQ
 Duluth. MN

 Sunrise/Sunset Info
 Gaylord. MI

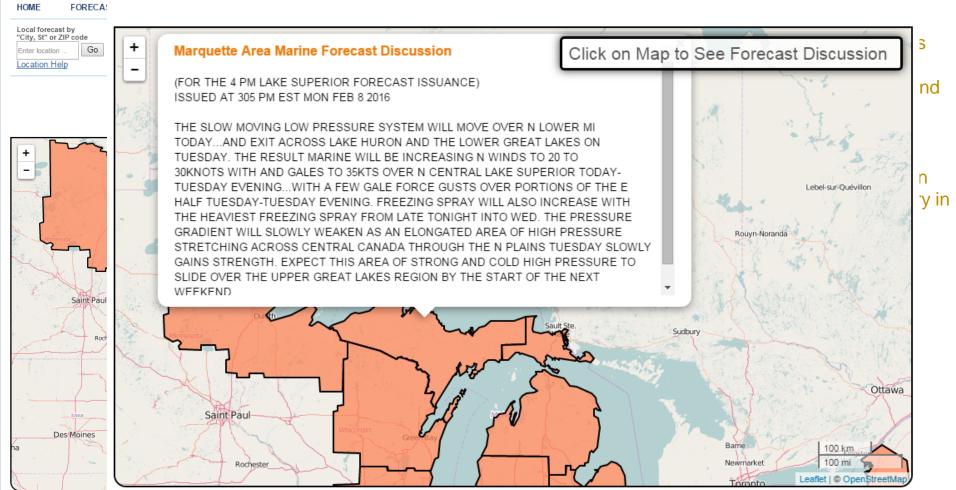
 Thunderbay National Marine
 Green Bay, WI

Partners
GLERL
National Data Buoy Center
National Hurricane Center
National Marine Page
US Coast Guard
Meteorological Services of
Canada

Share | P f V P G



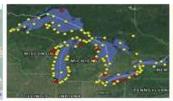
Great Lakes Area Forecast Discussions













Radar Satellite Digital Graphics Observations Ice

Additional Resources for Great Lakes Graphical Forecasts

Text Products

Lake Superior
Lake Michigan
Lake Huron
Lake Erie
Lake Ontario
Area Forecast Discussions

GLERL Great Lakes Coastal Forecast System

Winds Waves Ice Cover

Seasonal

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CoastWatch
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Tides & Currents

Forecast Offices

Buffalo, NY

Cleveland, OH
Chicago, IL
Detroit, MI
Duluth, MN
Gaylord, MI
Green Bay, WI
Grand Rapids, MI
Marquette, MI
Milwaukee, WI
Northern Indiana
Marine Forecast Offices
Nationwide

Partners

GLERL
National Data Buoy Center
National Hurricane Center
National Marine Page
US Coast Guard
Meteorological Services of
Canada

Miscellaneous

Water Temperatures
Water Temperature
GLOFS
Nautical Charts
Bathymetry