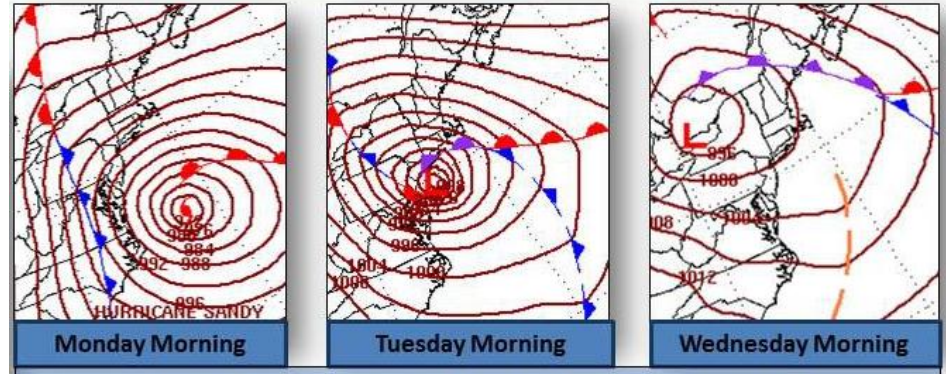


Weather for Offshore Sailing



Outline

- Review of weather basics
 - Cloud types
 - Wind and waves
 - Fronts and air masses
- Weather for day sailing
 - Sources of weather information
 - Tides and currents
 - Practical considerations
- Weather for passage planning
 - Sources of weather information
 - Route planning
 - Practical considerations
- Weather underway
 - Sources of weather information
 - Practical considerations



Force 0: Wind Speed less than 1 knot
Sea: Sea like a mirror



Force 1: Wind Speed 1-3 knots
Sea: Wave height .1m (.25ft); Ripples with appearance of scales, no foam crests



Force 2: Wind Speed 4-6 knots
Sea: Wave height .2-3m (.5-1 ft); Small wavelets, crests of glassy appearance, not breaking



Force 3: Wind Speed 7-10 knots
Sea: Wave height .6-1m (2-3 ft); Large-wavelets, crests begin to break, scattered whitecaps



Force 4: Wind Speed 11-16 knots
Sea: Wave height 1-1.5m (3.5-5 ft); Small waves becoming longer, numerous whitecaps



Force 5: Wind Speed 17-21 knots
Sea: Wave height 2-2.5m (6-8 ft); Moderate waves, taking longer form, many whitecaps, some spray



Force 6: Wind Speed 22-27 knots
Sea: Wave height 3-4m (9.5-13 ft); Larger waves forming, whitecaps everywhere, more spray



Force 7: Wind Speed 28-33 knots
Sea: Wave height 4-5.5m (13.5-19 ft); Sea heaps up, white foam from breaking waves begins to be blown in streaks along direction of wind



Force 8: Wind Speed 34-40 knots
Sea: Wave height 5.5-7.5m (18-25 ft); Moderately high waves of greater length, edges of crests begin to break into spindrift, foam is blown in well marked streaks



Force 9: Wind Speed 41-47 knots
Sea: Wave height 7-10m (23-32 ft); High waves, sea begins to roll, dense streaks of foam along wind direction, spray may reduce visibility



Force 10: Wind Speed 48-55 knots (storm)
Sea: Wave height 9-12.5m (29-41 ft); Very high waves with overhanging crests, sea takes white appearance as foam is blown in very dense streaks, rolling is heavy and shocklike, visibility is reduced.



Force 11: Wind Speed 56-63 knots
Sea: Wave height 11.5-16m (37-52 ft); Exceptionally high waves, sea covered with white foam patches, visibility still more reduced

Outline

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 - Sources of weather information
 - Route planning
 - Practical considerations
- Weather underway
 - Sources of weather information
 - Practical considerations



Start

Rock

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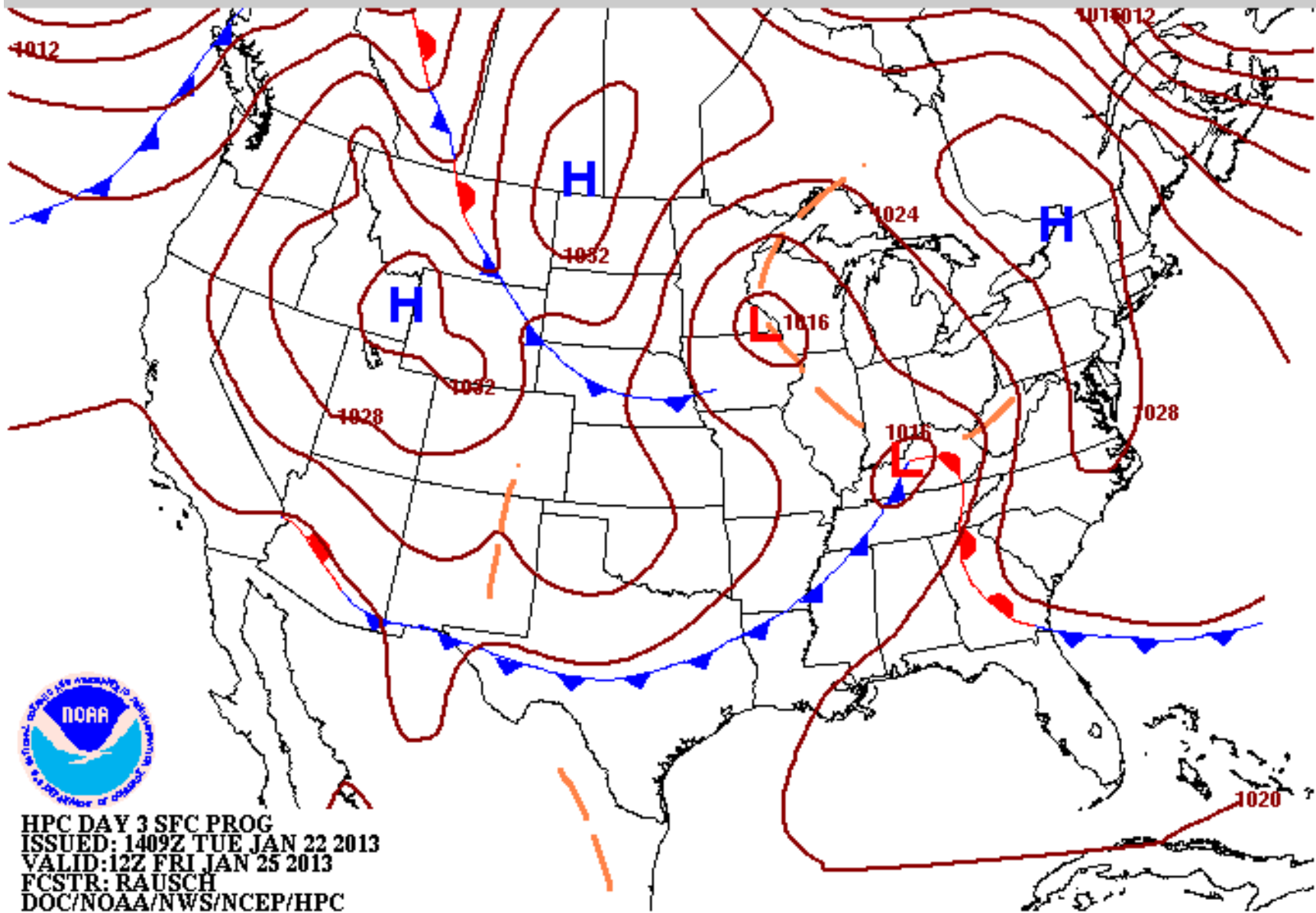
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HPC DAY 3 SFC PROG
 ISSUED: 1409Z TUE JAN 22 2013
 VALID: 12Z FRI JAN 25 2013
 FCSTR: RAUSCH
 DOC/NOAA/NWS/NCEP/HPC

Outline

- Review of weather basics
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- Weather underway
 - Sources of weather information
 - Practical considerations





Local forecast by "City, St"

City, St Go

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Hurricanes

Severe Weather

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Fire Weather

Text Bulletins

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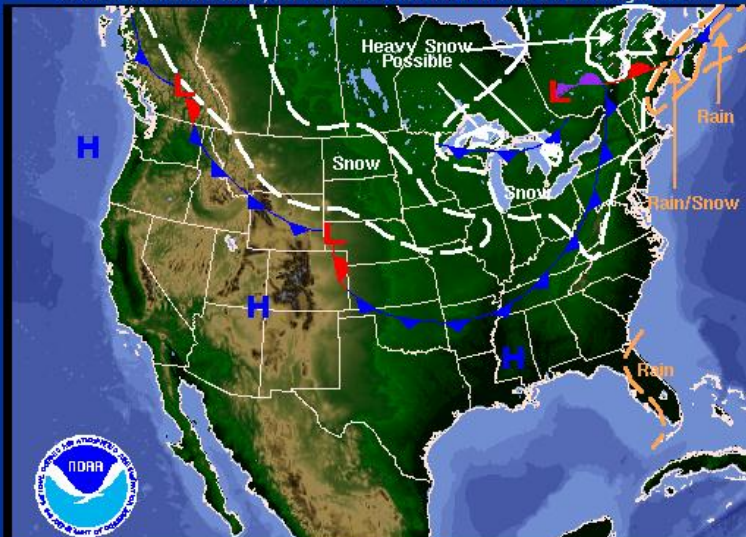
Weather-Ready

Home > National Maps

This current Forecast for North America is produced by the Hydrometeorological Prediction Center of the National Centers for Environmental Prediction. It is normally updated at about 7am US Eastern time.

- Warnings & Forecasts
- Graphical Forecasts
- National Maps
- Radar
- Water
- Air Quality
- Satellite
- Climate

To view local information, select area of interest and click on the image below.



Weather Forecast for Sun, Jan 20, 2013, issued 2:59 AM EST
DOC/NOAA/NWS/NCEP/Hydrometeorological Prediction Center
Prepared by Fanning based on HPC, SPC, and NHC forecasts

[High Resolution Version](#) | [Legend](#) | [About These Maps](#) | [Animated Forecast Maps](#)

[Alaska Maps](#) | [Pacific Islands Map](#) | [Ocean Maps](#) | [Previous Days Weather Maps](#)

- 12 Hour Fronts/Precipitation
- 24 Hour Fronts/Precipitation
- 36 Hour Fronts/Precipitation
- 48 Hour Fronts/Precipitation



Day 3 Fronts



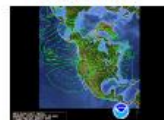
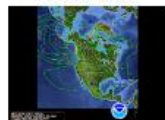
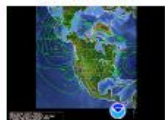
Day 4 Fronts



Day 5 Fronts



Day 6 Fronts



Start

Rock

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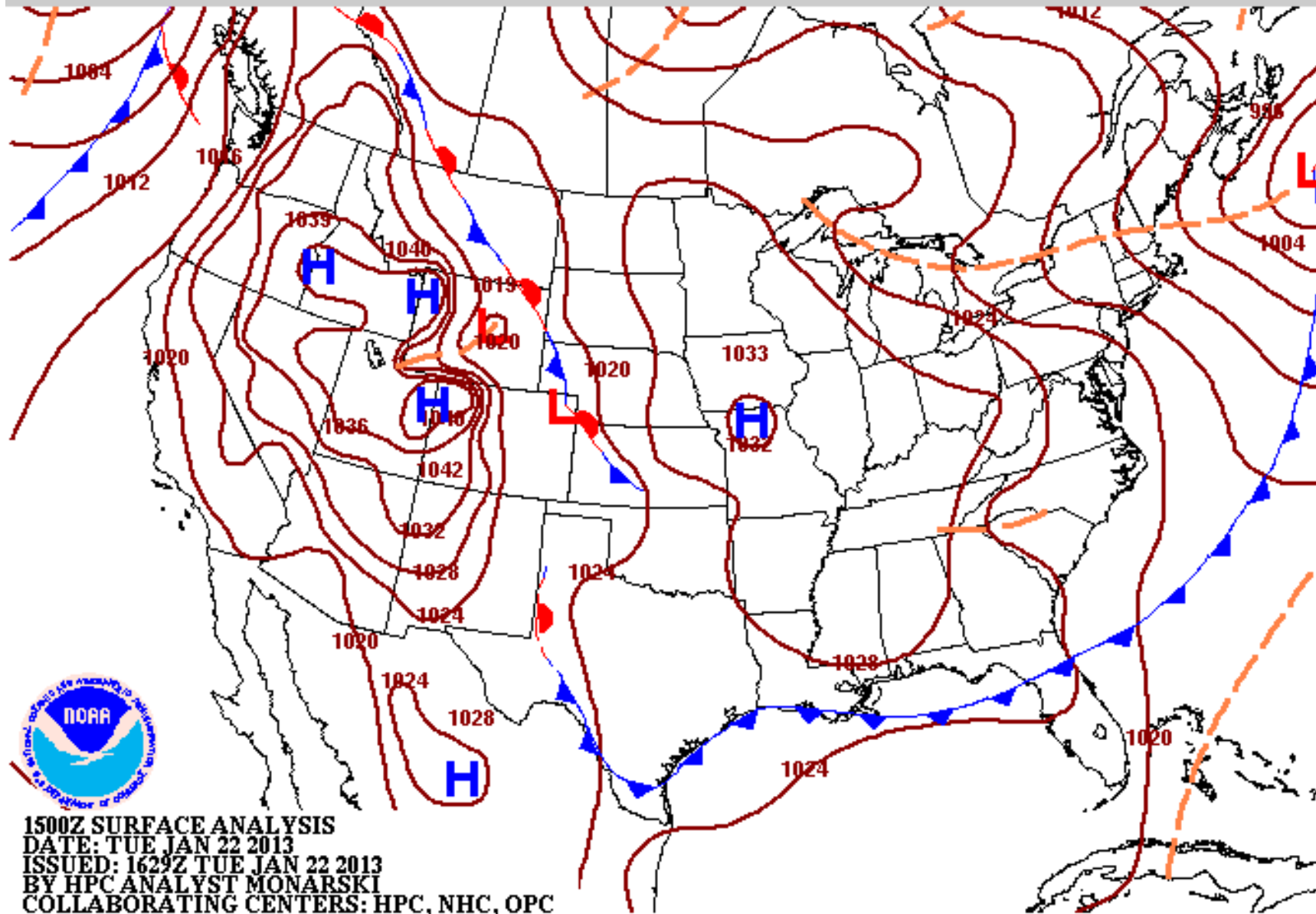
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1500Z SURFACE ANALYSIS
DATE: TUE JAN 22 2013
ISSUED: 1629Z TUE JAN 22 2013
BY HPC ANALYST MONARSKI
COLLABORATING CENTERS: HPC, NHC, OPC

Start

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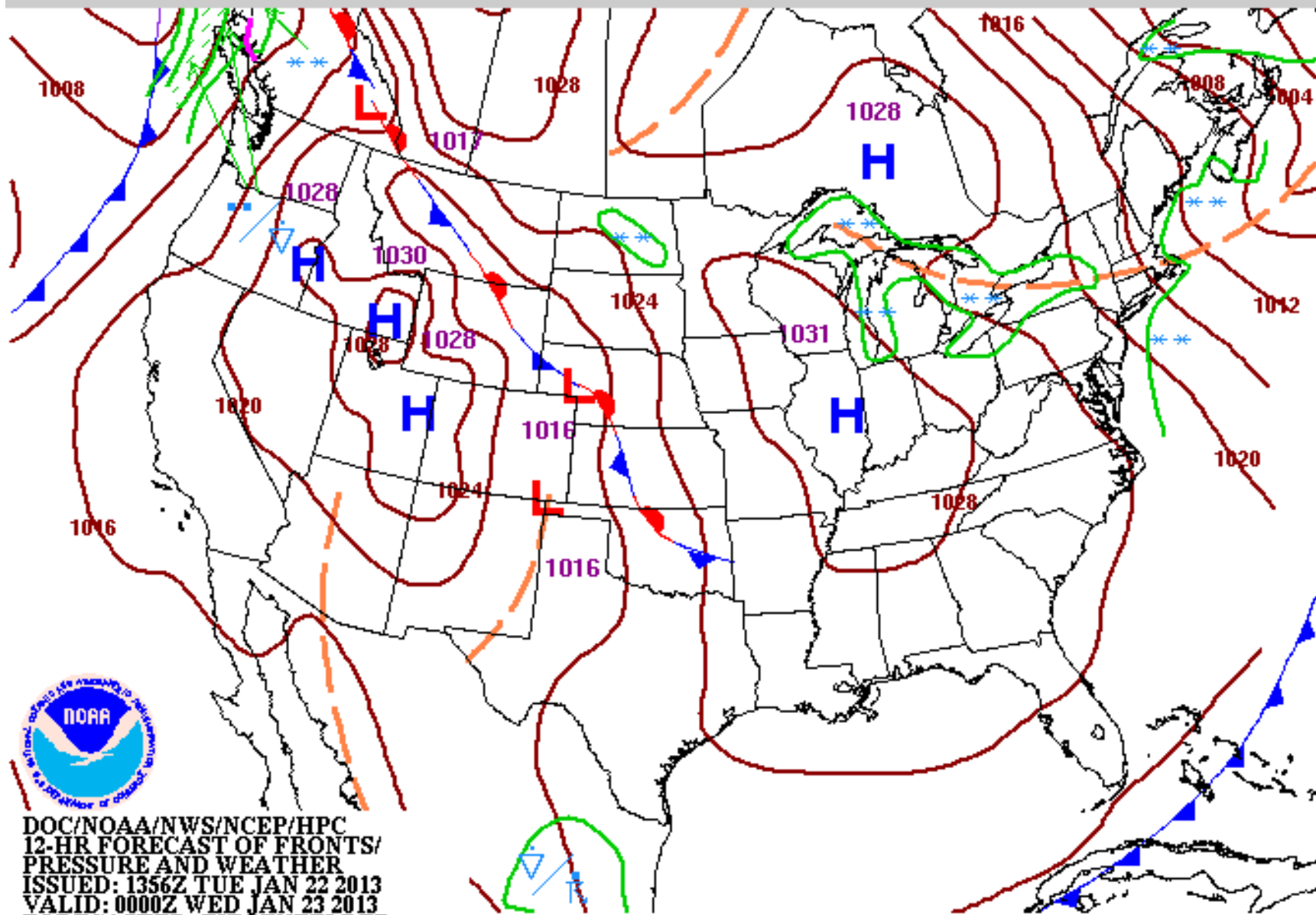
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DOC/NOAA/NWS/NCEP/HPC
 12-HR FORECAST OF FRONTS/
 PRESSURE AND WEATHER
 ISSUED: 1356Z TUE JAN 22 2013
 VALID: 0000Z WED JAN 23 2013
 FORECASTER: ZIEGENFELDER

Start

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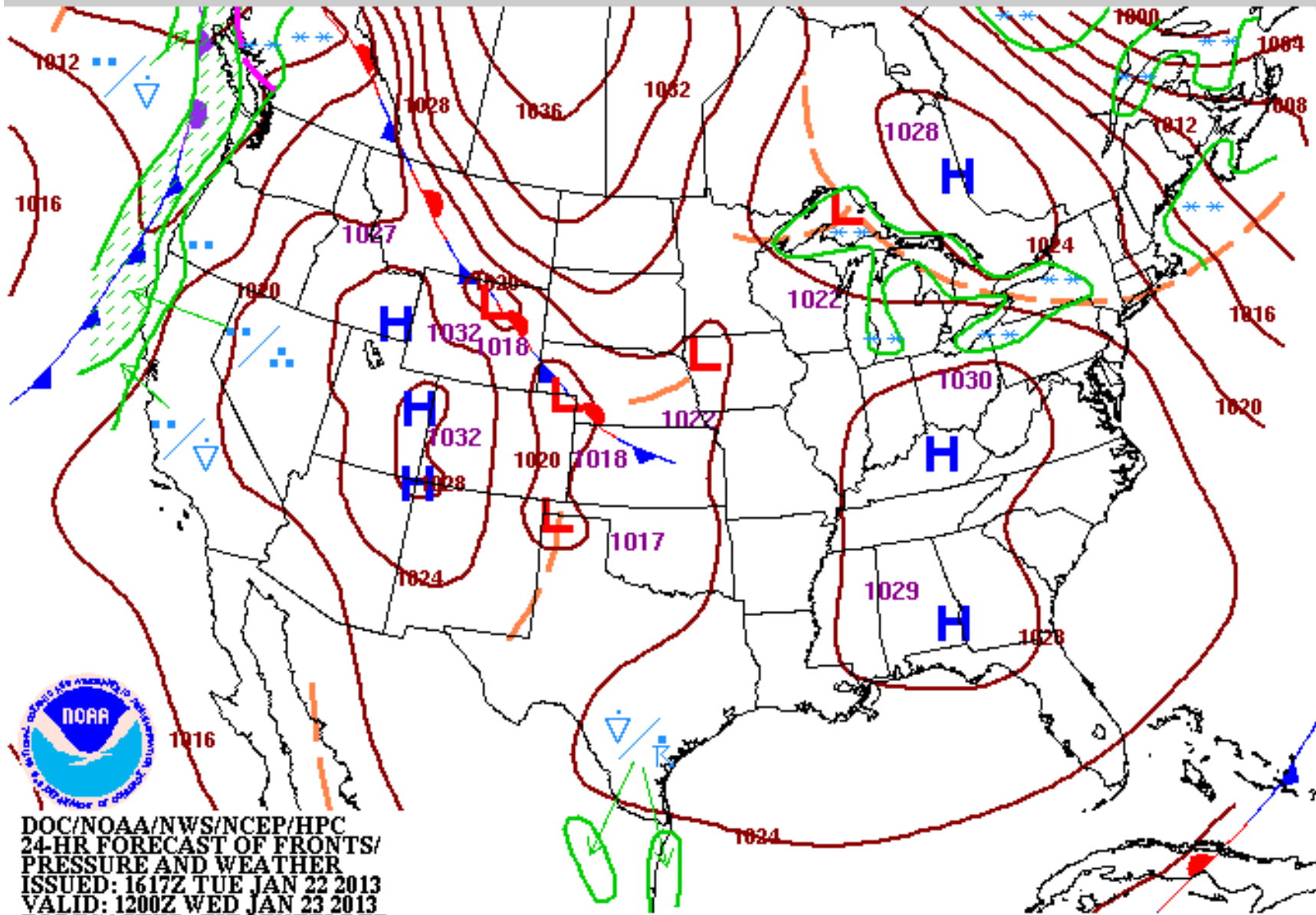
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DOC/NOAA/NWS/NCEP/HPC
 24-HR FORECAST OF FRONTS/
 PRESSURE AND WEATHER
 ISSUED: 1617Z TUE JAN 22 2013
 VALID: 1200Z WED JAN 23 2013
 FORECASTER: ZIEGENFELDER

Start

Rock

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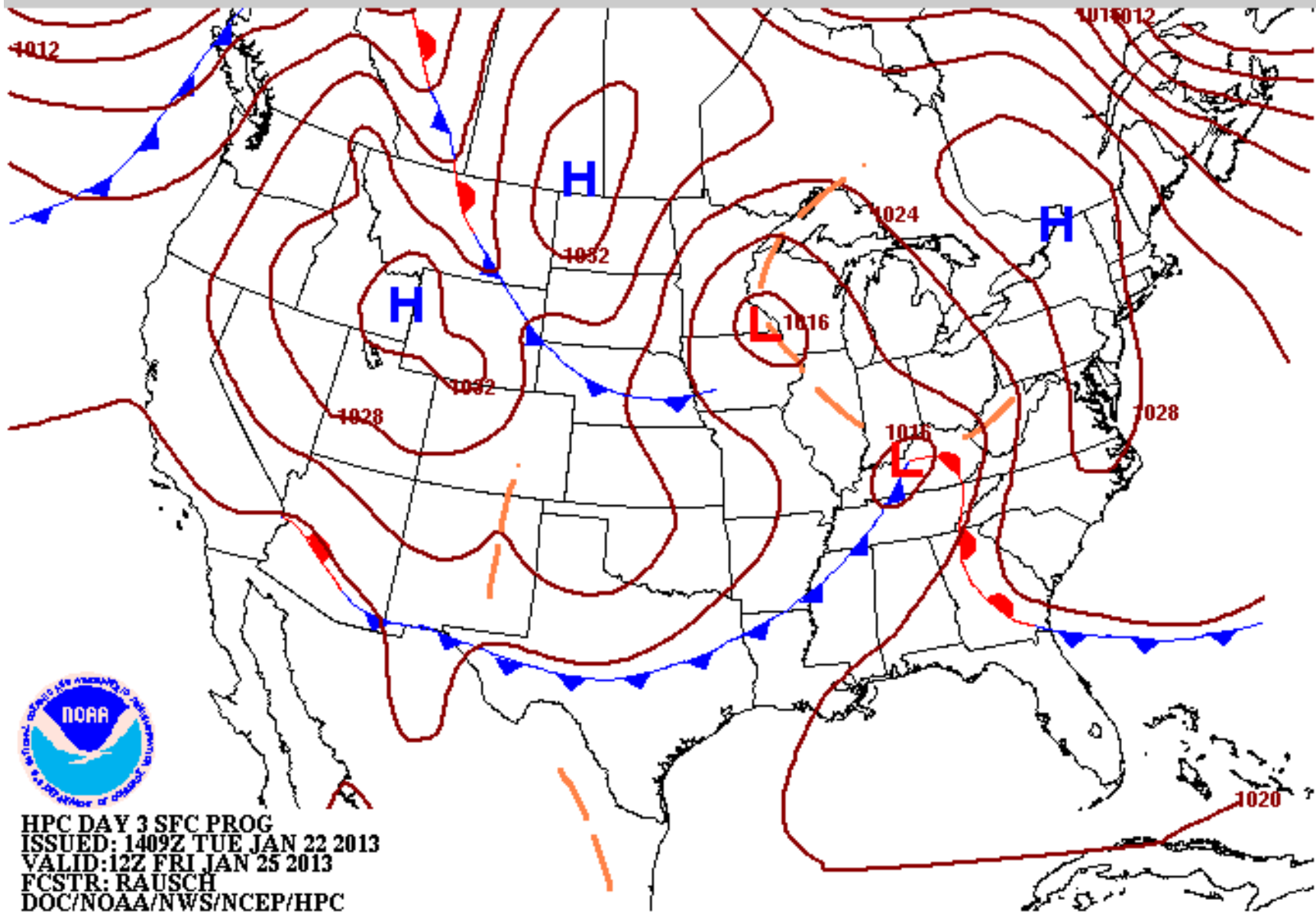
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HPC DAY 3 SFC PROG
 ISSUED: 1409Z TUE JAN 22 2013
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Start

Rock

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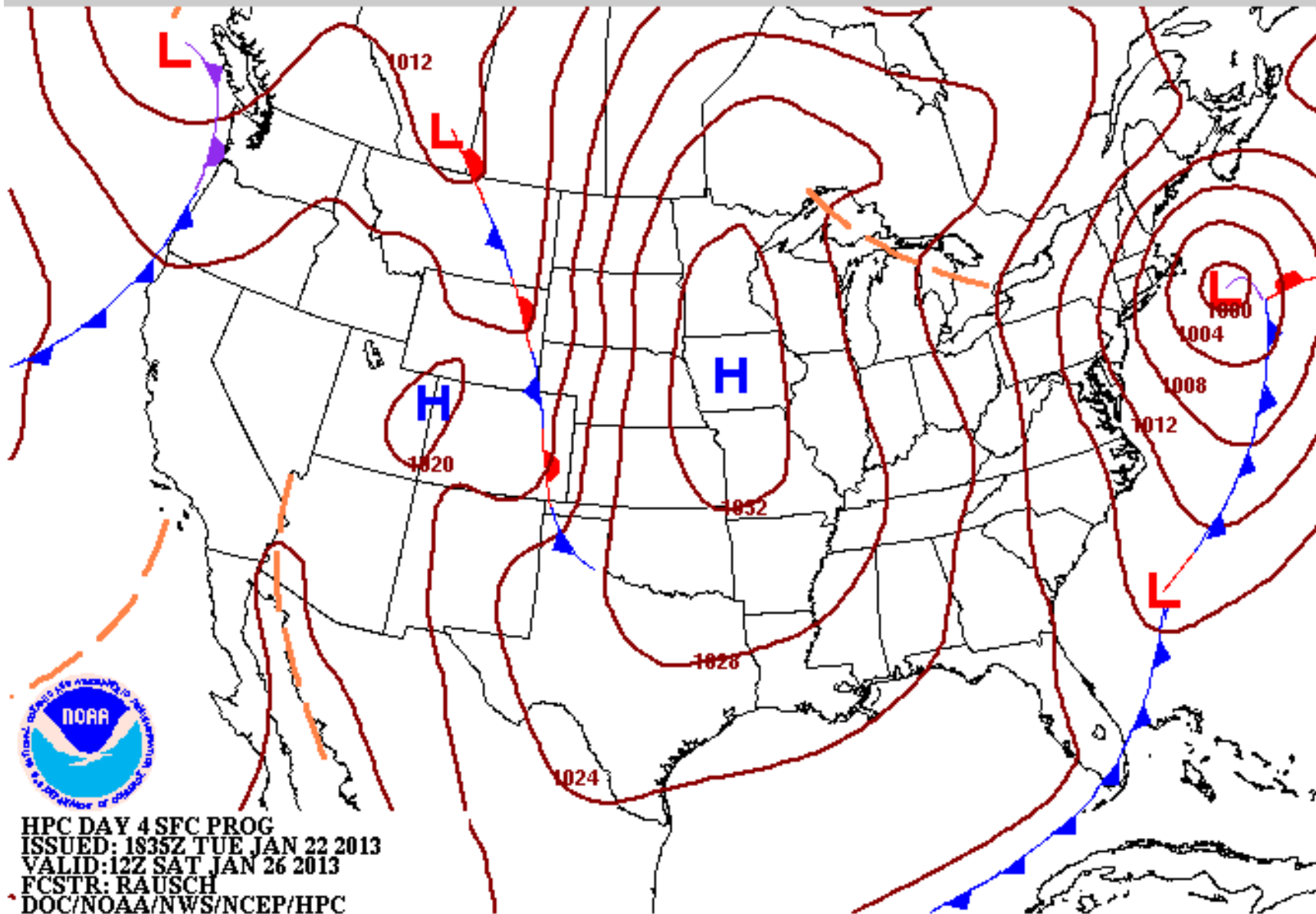
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NOAA
NATIONAL OCEANOGRAPHIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE

HPC DAY 4 SFC PROG
ISSUED: 1835Z TUE JAN 22 2013
VALID: 12Z SAT JAN 26 2013
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Landlubber's forecast:
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Great, Good, Poor

Be Prepared!

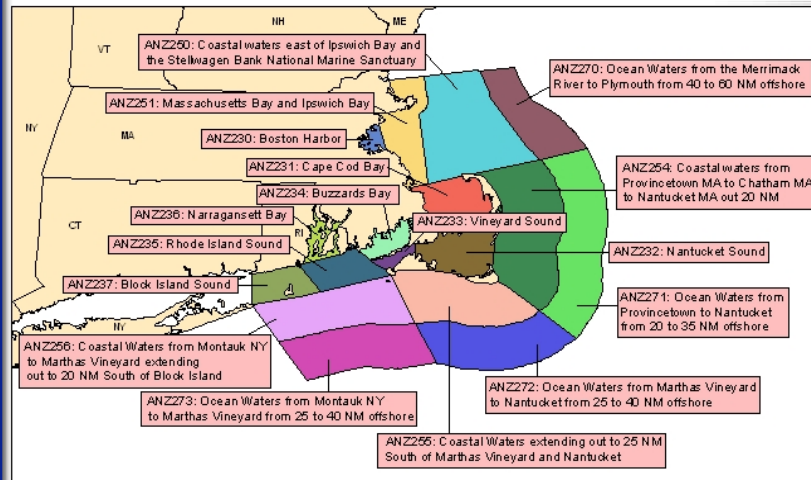
- Boating Safety
- Rip Currents
- Hypothermia
- Hurricanes
- Thunderstorms
- Lightning
- Coastal Flooding
- Tsunami
- 406 EPIRB's

Coastal/Great Lakes Forecasts by Zone - East - Boston, MA

Coastal Marine Zone Forecasts by the Boston, MA Forecast Office

[\(Click on the area of interest\)](#)

COASTAL WATERS FORECAST which includes the synopsis and all these zones
 SPECIAL MARINE WARNING(S) and MARINE WEATHER STATEMENT(S) for these zones
 MARINE WEATHER MESSAGE for these zones
 SURF ZONE FORECAST
 NDFD MARINE GRAPHICS for these zones from which the text forecasts are generated
 Predicted Tides and Currents for these areas



Coastal Waters Forecasts are subdivided by zone, each identified by text description and a Universal Generic Code (UGC). The different colors used in the map above have no meaning and are only intended to assist in differentiating the zones.

These forecasts are also available via [e-mail](#)

NOTICE - Check time and date of forecasts. Linked data may not represent the latest forecast. The Internet is not part of the National Weather Service's operational data stream and should never be relied upon as a means to obtain the latest forecast and warning data. Become familiar with and use other means such as NOAA Weather Radio to obtain the latest forecasts and warnings. Please read our [DISCLAIMER](#)

Visit the [Boston, MA](#) Forecast Office which provide links to additional products as well as regionally focused information such as point-specific marine forecasts, predicted tides and buoy observations.

[Text Interface Version of this page.](#)

[Coastal/Great Lakes Forecasts by Zone](#)

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National Weather Service



NWS Marine Forecast

Local weather forecast by "City, St" or zip code

Cell Phone Weather/Marine Page (wap) URL: cell.weather.gov

PDA Weather/Marine Page URL: mobile.weather.gov

Hazardous marine condition(s):

[Small Craft Advisory](#)

ANZ200-230315-

1023 AM EST TUE JAN 22 2013

.SYNOPSIS FOR MASSACHUSETTS AND RHODE ISLAND COASTAL WATERS...

NORTHWEST WINDS AT OR NEAR GALE FORCE THIS AFTERNOON WILL DIMINISH A LITTLE THIS EVENING. THERE IS THE CHANCE FOR SOME FREEZING SPRAY ESPECIALLY OVER THE WATERS SURROUNDING CAPE COD AND THE ISLANDS FROM LATE AFTERNOON THROUGH TONIGHT. HIGH PRESSURE SLOWLY BUILDS OVER THE WATERS WEDNESDAY THROUGH FRIDAY. A STRONG LOW PRESSURE CENTER MAY AFFECT THE WATERS FRIDAY NIGHT INTO SATURDAY.

FOR INFORMATION ON POSSIBLE HAZARDOUS WEATHER BEYOND THE 24-36 HOUR FORECAST PERIOD...PLEASE VISIT WWW.WEATHER.GOV/BOSTON AND FOLLOW THE HAZARDOUS OUTLOOKS LINK AT THE TOP OF THE BLUE BAR ON THE LEFT.

ANZ230-230315-
BOSTON HARBOR-
1023 AM EST TUE JAN 22 2013

SMALL CRAFT ADVISORY IN EFFECT UNTIL 7 PM EST THIS EVENING

TODAY

NW WINDS 10 TO 15 KT WITH GUSTS UP TO 30 KT. WAVES 2 TO 3 FT. SCATTERED SNOW SHOWERS THIS MORNING. ISOLATED SNOW SHOWERS THIS AFTERNOON.

TONIGHT

W WINDS 10 TO 15 KT WITH GUSTS UP TO 25 KT. WAVES 2 TO 3 FT.

WED

W WINDS 15 TO 20 KT WITH GUSTS UP TO 25 KT. WAVES AROUND 2 FT.

WED NIGHT

W WINDS 10 TO 15 KT WITH GUSTS UP TO 25 KT. WAVES AROUND 2 FT.

THU

NW WINDS 15 TO 20 KT WITH GUSTS UP TO 25 KT. WAVES AROUND 2 FT.

THU NIGHT

NW WINDS 10 TO 15 KT WITH GUSTS UP TO 25 KT. WAVES AROUND 2 FT.

FRI

NW WINDS 5 TO 10 KT. WAVES 1 FOOT OR LESS. A CHANCE OF SNOW. VSBY 1 TO 3 NM.

Team McLube **ANTIFOUL ALTERNATIVE**
 FOR EVERYTHING BELOW THE WATERLINE
 Available at www.sailingsupply.com

★ Save Map

Sun 12 Jan 8 AM EST



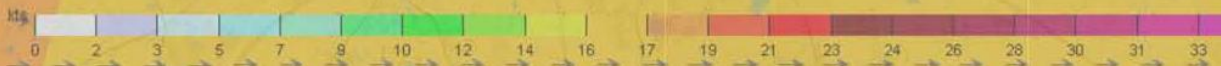
8 AM

Red Sky@Night,
Red Sky@Morning.
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Program Info

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- TAO
- DART@
- VOS
- CSP
- IOOS@ Program
- IOOS@ DAC

Recent Data Historical Data Show Labels

Program Filter:

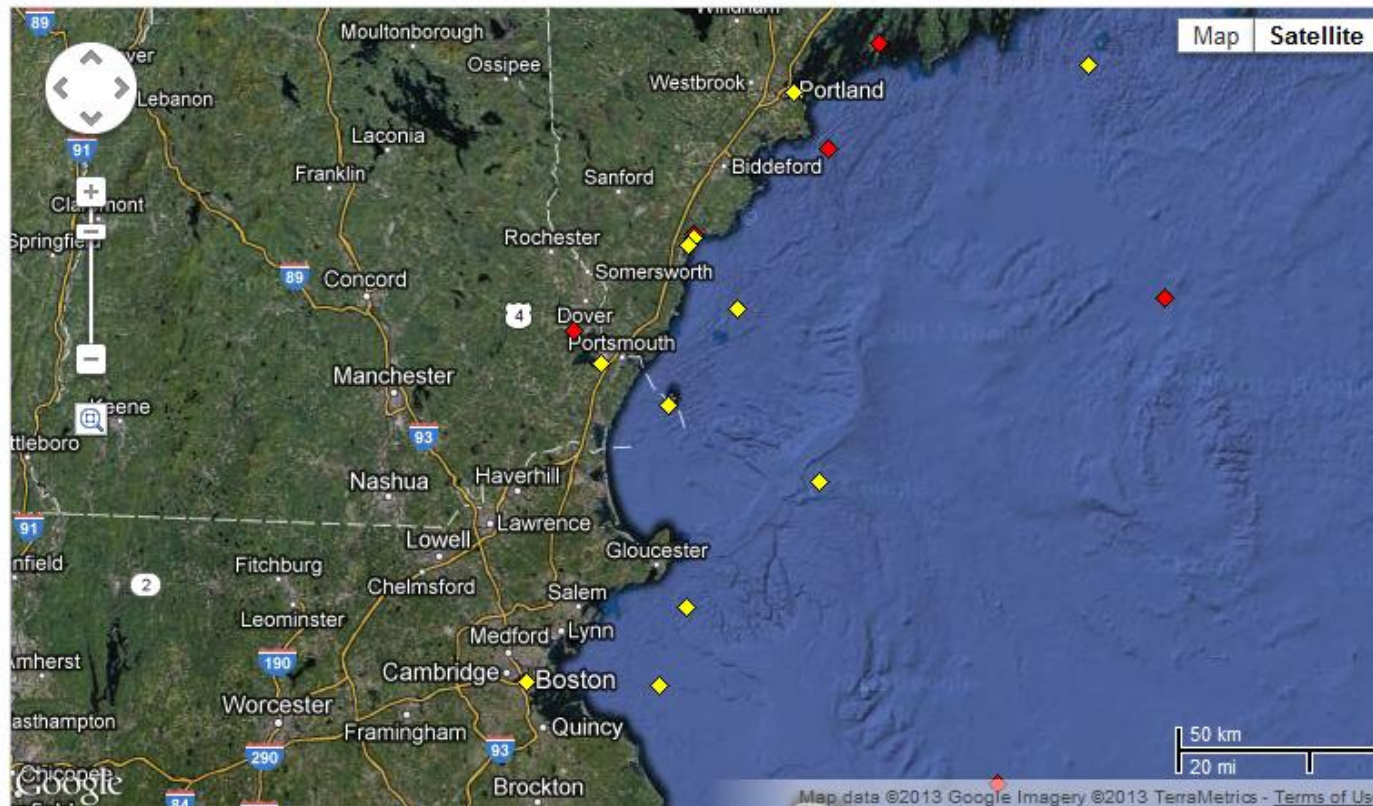
- NDBC Meteorological/Ocean
- International Partners
- IOOS Partners

Owner Filter:

- NDBC
- Amerada Hess
- Anadarko

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:
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 - [Caribbean Sea](#)
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 - [Gulf of Mexico \(East\)/Florida](#)
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 - [USA-Great Lakes \(East\)](#)
 - [USA-Lake Superior](#)
 - [USA-Northeast](#)
 - [USA-Northwest](#)
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National Oceanic and Atmospheric Administration's National Data Buoy Center

Center of Excellence in Marine Technology



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TAO

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VOS

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IOOS® Program

IOOS® DAC

Publications

Check out our new [BuoyCAMs Map](#) - also available at the BuoyCAMs link on the left side menu.

Recent Data Historical Data Show Labels

Program Filter:

- NDBC Meteorological/Ocean
- International Partners
- IOOS Partners

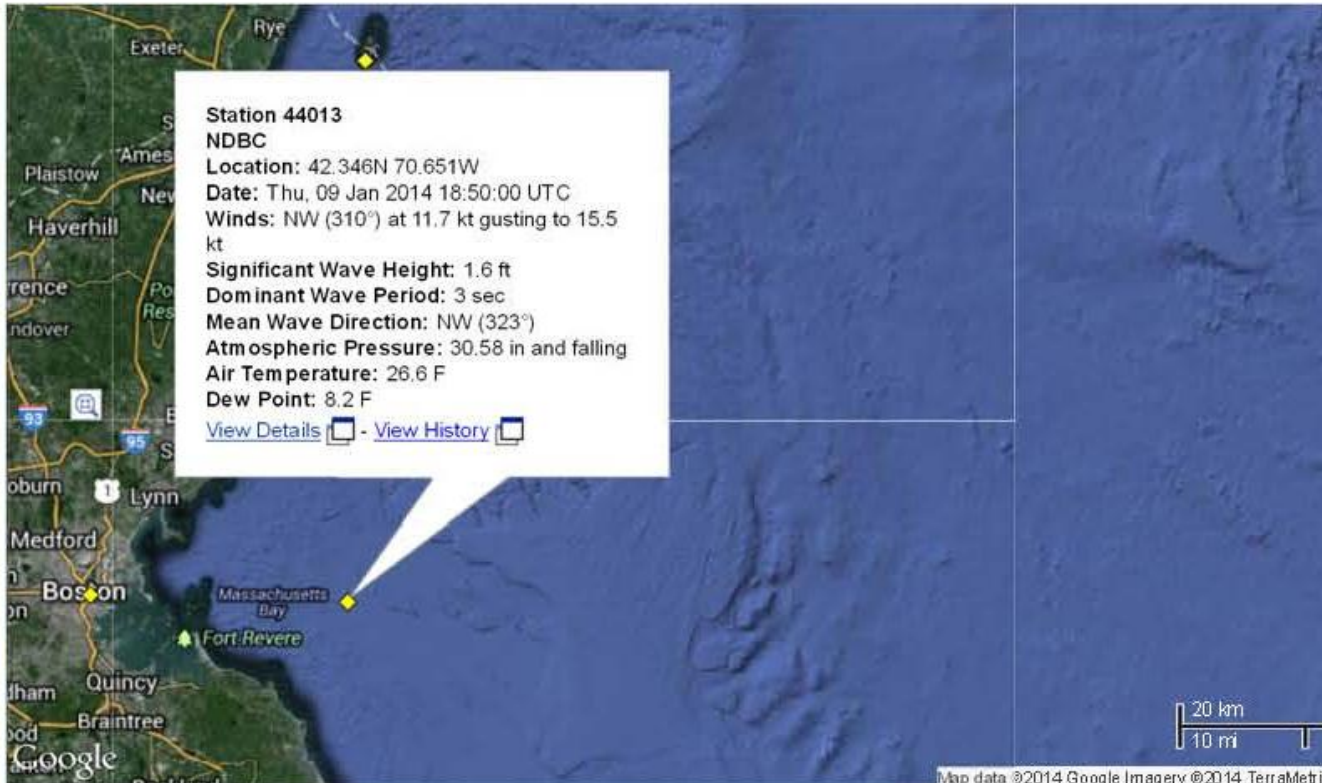
Owner Filter:

- NDBC
- Alaska Ocean Observing System
- Amerada Hess

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- [USA Great Lakes \(East\)](#)
- [USA Lake Superior](#)
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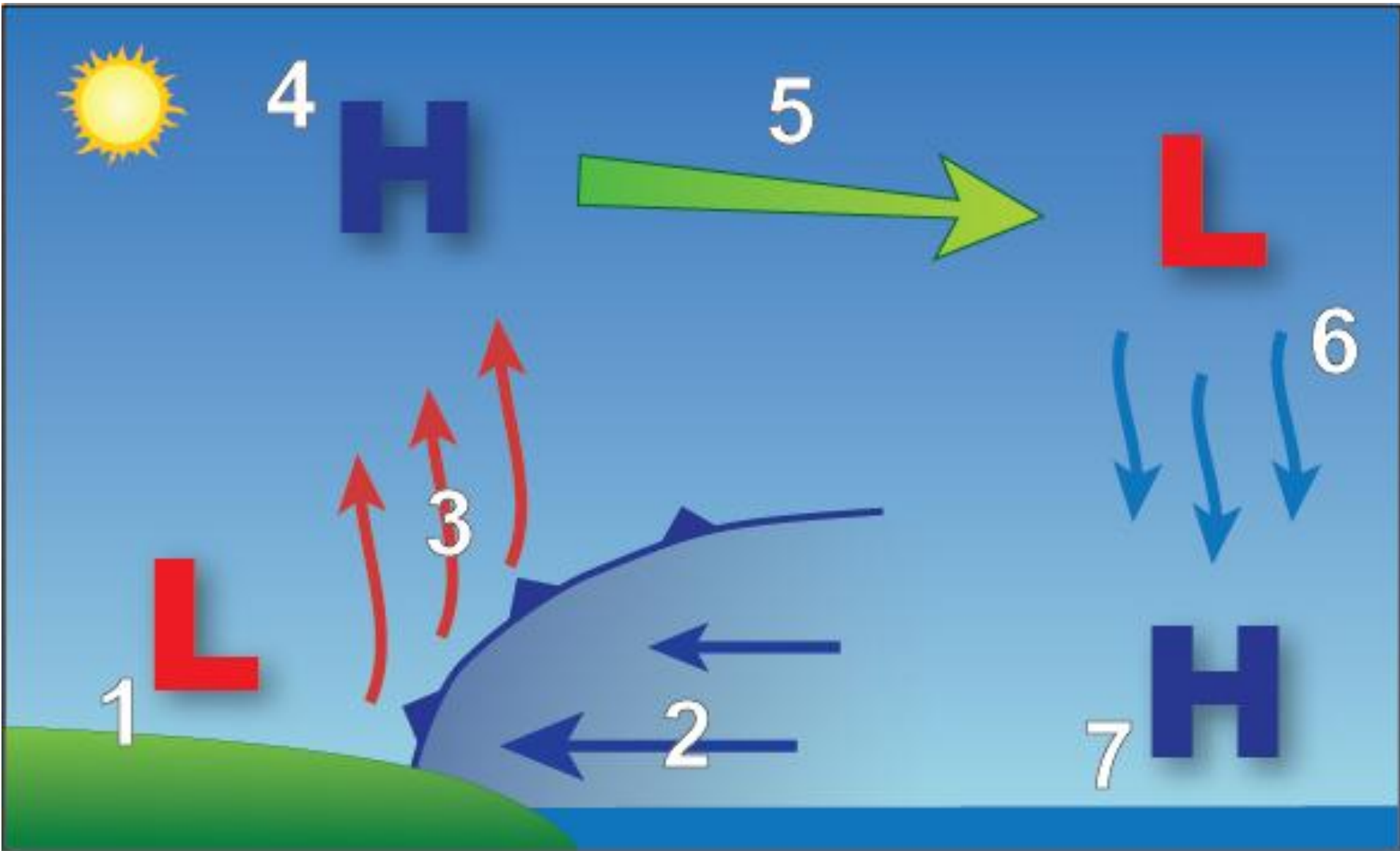


Map data ©2014 Google Imagery ©2014 TerraMetrics

Mouse Cursor Coordinates:

Disclaimer

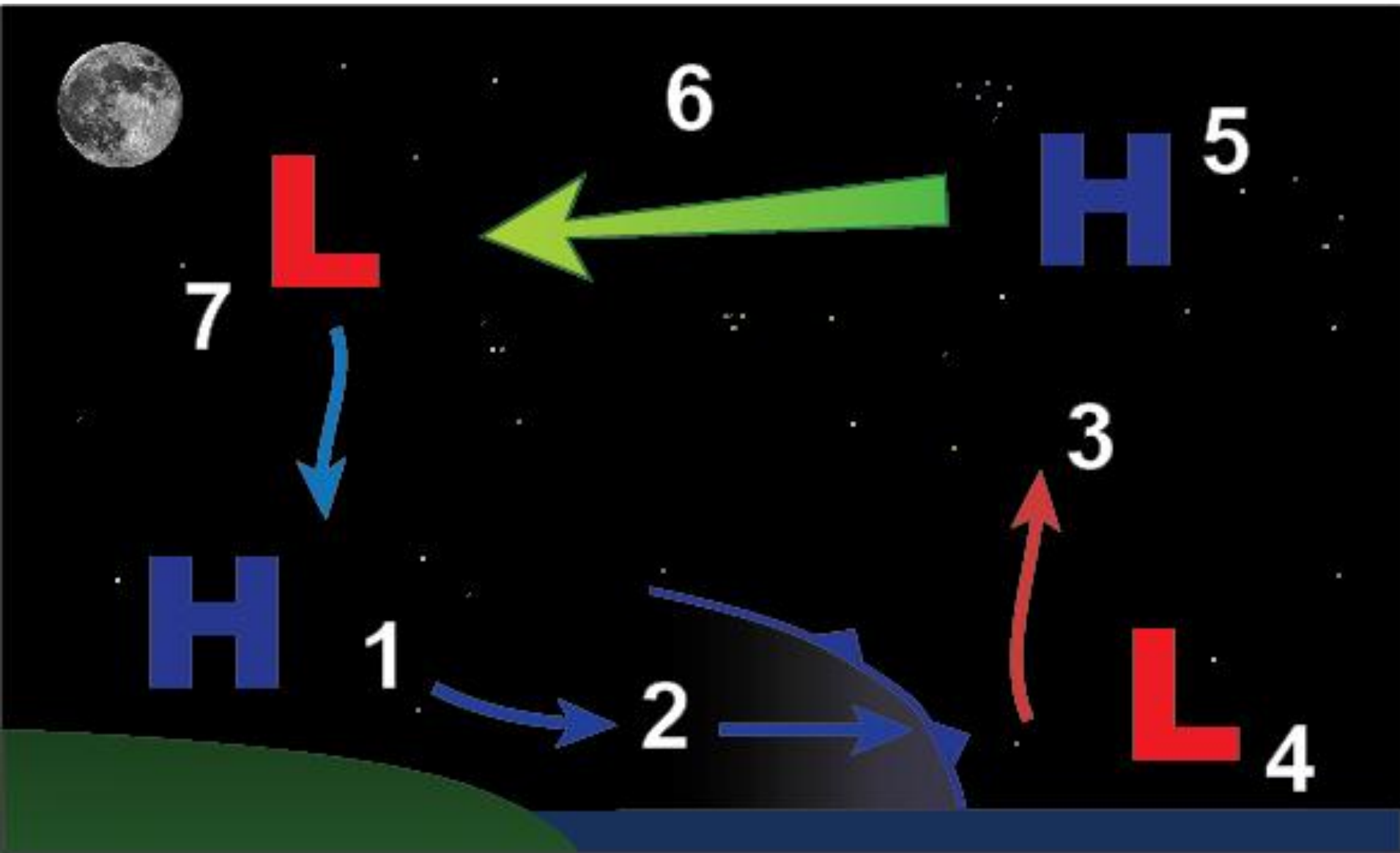
Sea Breeze Front



Sea Breeze Front



Land Breeze Front



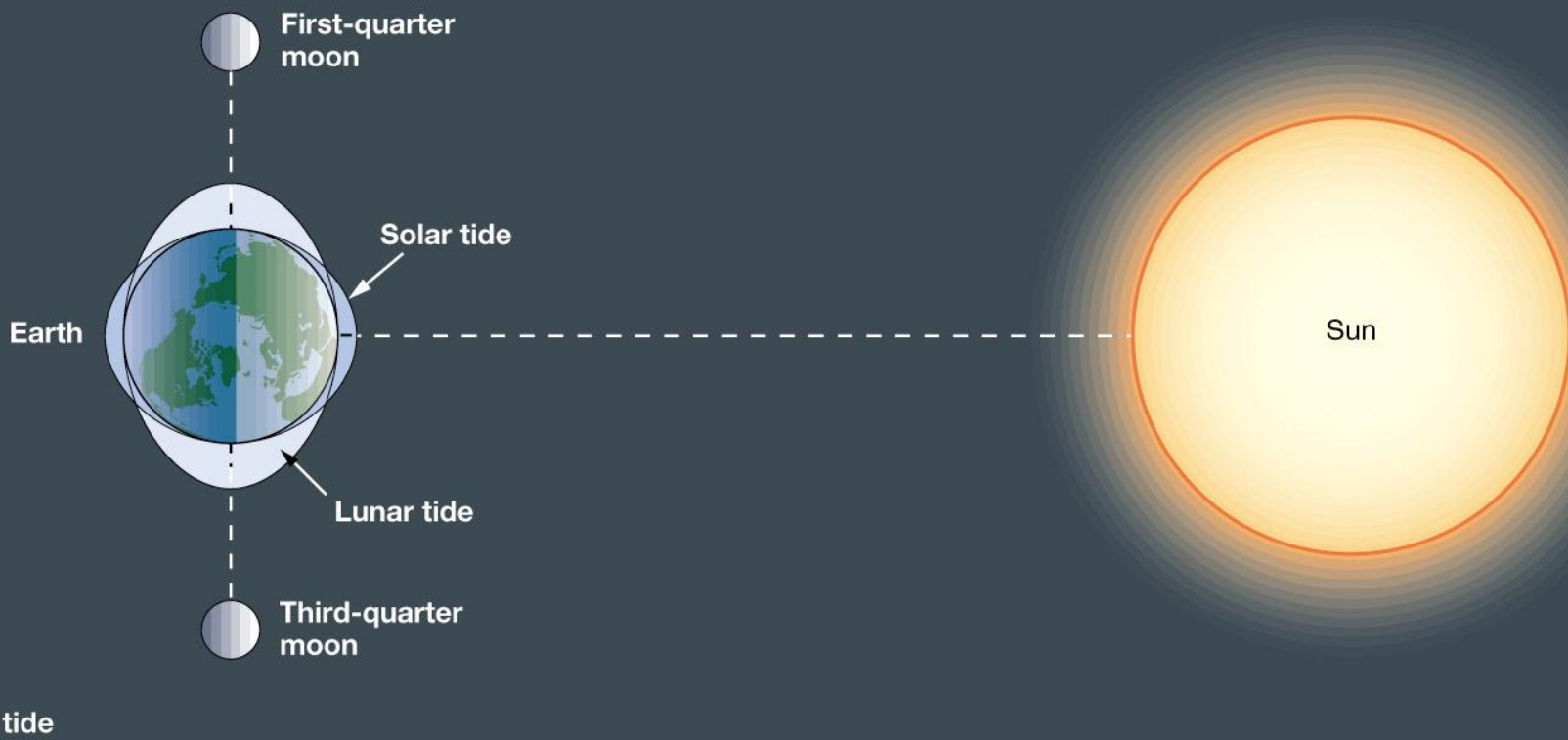
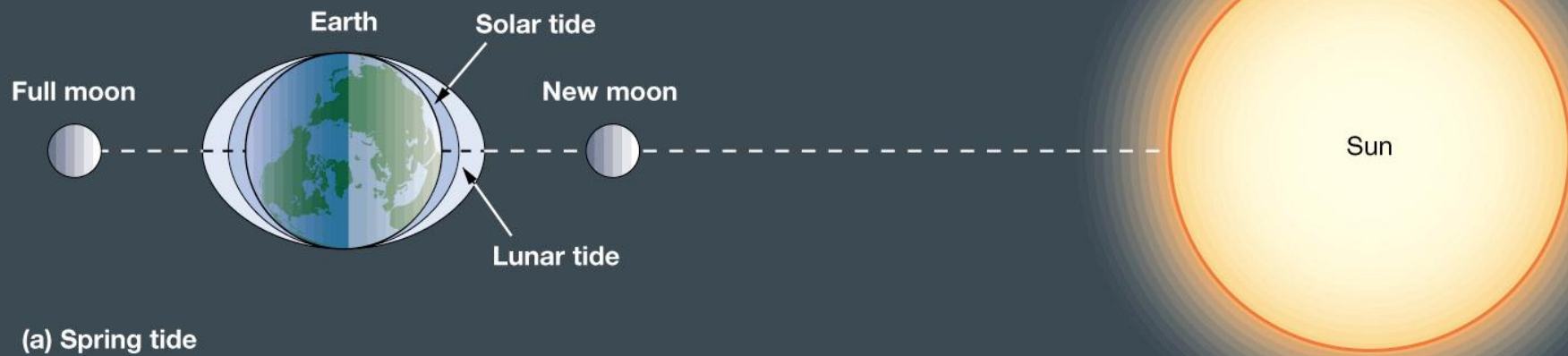
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 - Practical considerations



Tides and Currents

- Tides
 - Tide Tables
 - Rule of 12ths
 - Practical calculations
- Currents (covered in Navigation lecture)
 - Current tables / charts
 - Rule of 3rds and 50/90 rule
 - Practical calculations
















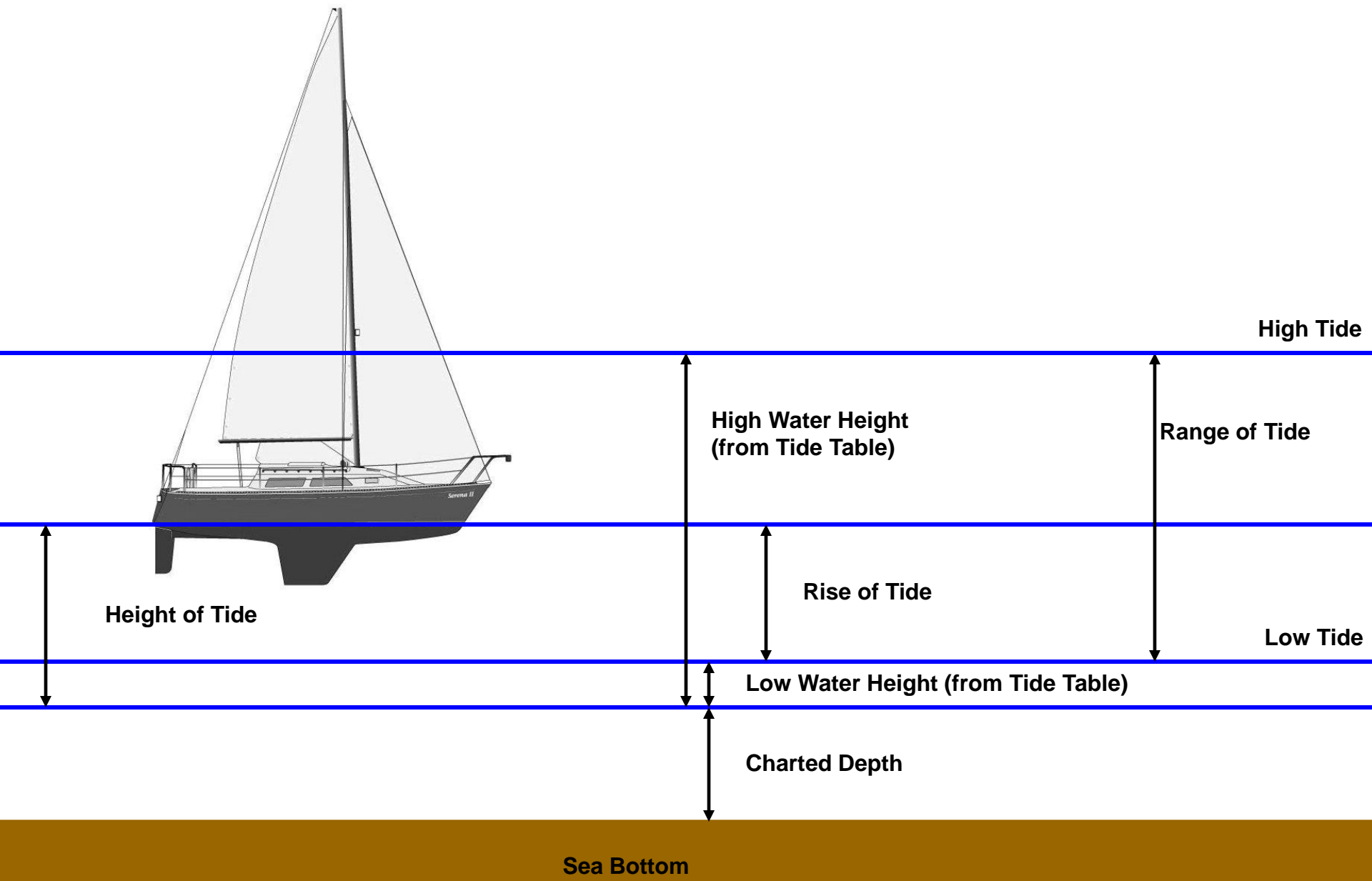
Boston Harbor Tide Table

« Apr/2013

Tidal Data Source: Boston (#8443970)

Jun/2013 »

DATE		HIGH				LOW						
		AM	ft	PM	ft	AM	ft	PM	ft	RISE	SET	MOON
1	Wed	4:07	11.1	4:51	10.0	10:32	-0.7	10:53	0.4	5:36	7:46	
2	Thu	5:09	10.6	5:54	9.8	11:32	-0.3	11:56	0.6	5:35	7:47	
3	Fri	6:14	10.2	6:57	9.8			12:33	0.1	5:33	7:48	
4	Sat	7:20	10.0	7:58	10.0	1:01	0.7	1:34	0.3	5:32	7:49	
5	Sun	8:24	9.8	8:55	10.2	2:05	0.5	2:32	0.4	5:31	7:50	
6	Mon	9:23	9.8	9:46	10.4	3:05	0.3	3:26	0.5	5:29	7:51	
7	Tue	10:16	9.8	10:33	10.5	4:00	0.1	4:15	0.5	5:28	7:52	
8	Wed	11:04	9.7	11:15	10.6	4:48	-0.1	5:00	0.6	5:27	7:53	
9	Thu	11:48	9.7	11:55	10.6	5:32	-0.2	5:42	0.7	5:26	7:54	
10	Fri			12:29	9.6	6:14	-0.2	6:22	0.8	5:25	7:55	
11	Sat	12:34	10.5	1:08	9.5	6:54	-0.1	7:02	0.9	5:24	7:56	



High Tide

High Water Height
(from Tide Table)

Range of Tide

Height of Tide

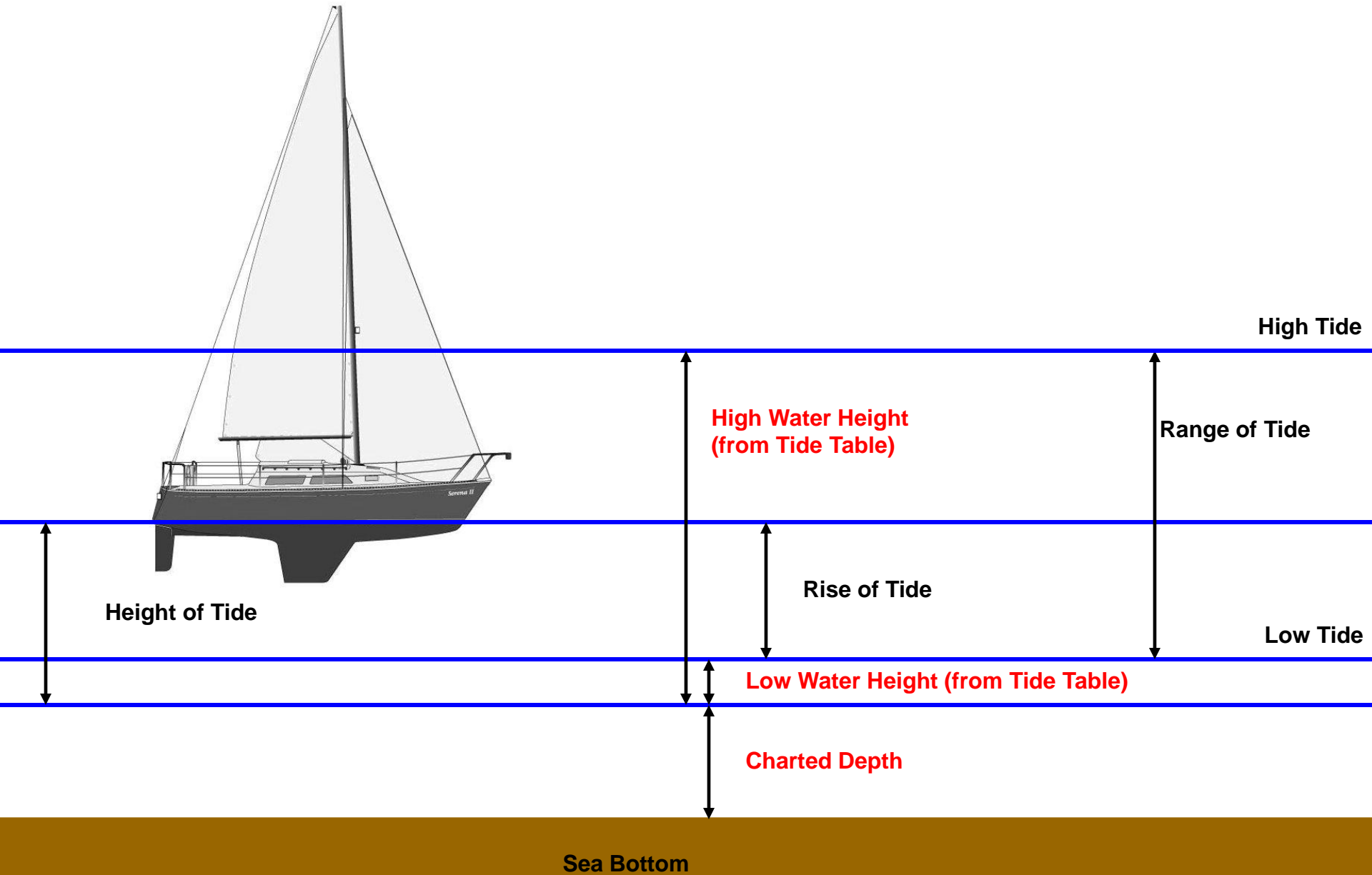
Rise of Tide

Low Tide

Low Water Height (from Tide Table)

Charted Depth

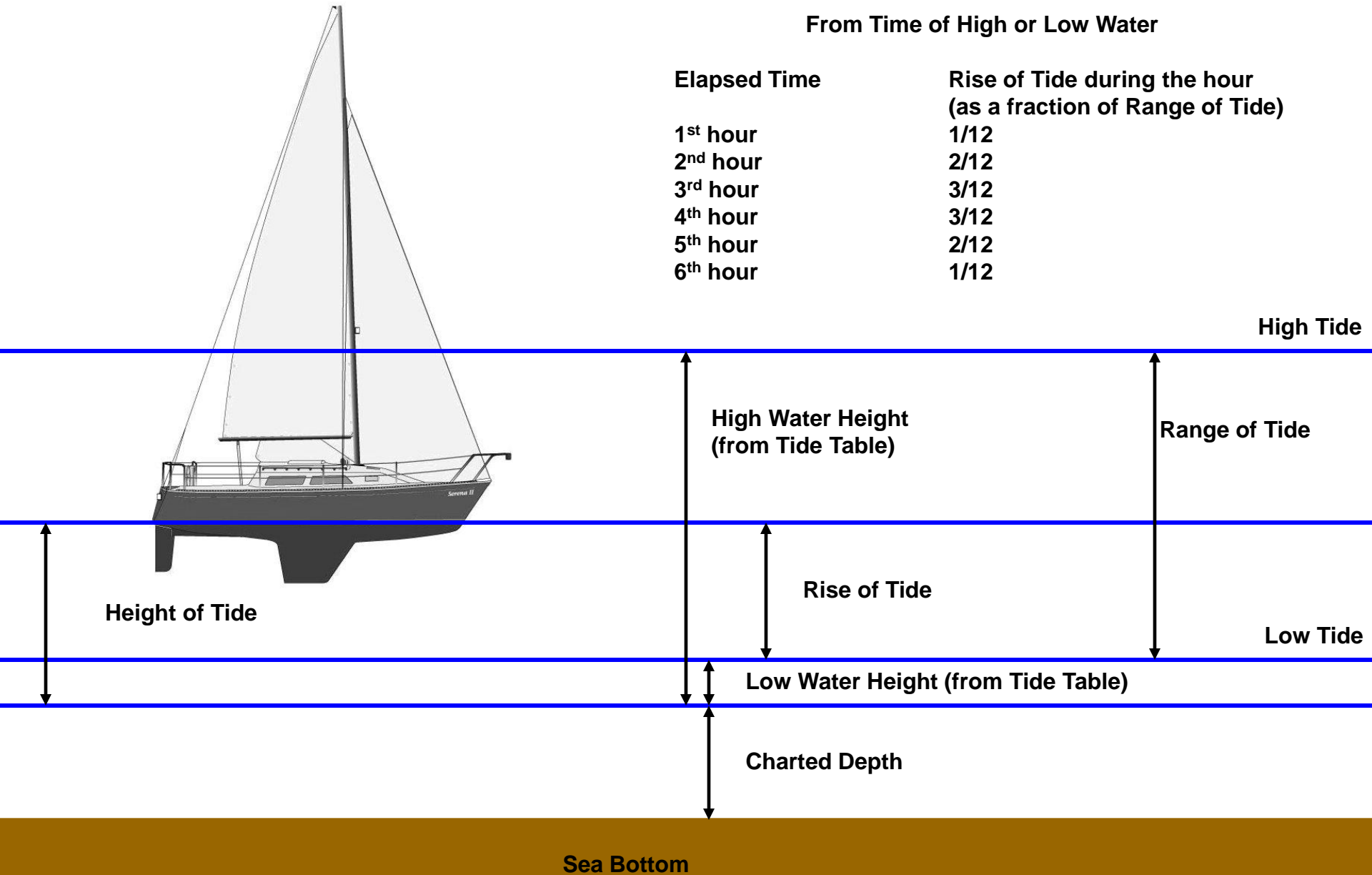
Sea Bottom



Rule of Twelfths

From Time of High or Low Water

Elapsed Time	Rise of Tide during the hour (as a fraction of Range of Tide)
1 st hour	1/12
2 nd hour	2/12
3 rd hour	3/12
4 th hour	3/12
5 th hour	2/12
6 th hour	1/12



Height of Tide

High Water Height
(from Tide Table)

Range of Tide

Rise of Tide

Low Tide

Low Water Height (from Tide Table)

Charted Depth

Sea Bottom

Tide Estimation Example

- What is the latest time on May 10 that X Dimension can depart Crystal Cove Marina in Winthrop?
 - Crystal Cove charted depth is 5 ft
 - Tide Table for Deer Island shows High (9ft) at 1230 and Low (-1ft) at 1830

Tide Estimation Example

- What is the latest time on May 10 that X Dimension can depart Crystal Cove Marina in Winthrop?
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- Tidal range: $9 - (-1) = 10$ ft

Tide Estimation Example

- What is the latest time on May 10 that X Dimension can depart Crystal Cove Marina in Winthrop?
 - Crystal Cove charted depth is 5 ft
 - Tide Table for Deer Island shows High (9ft) at 1230 and Low (-1ft) at 1830
- Tidal range: $9 - (-1) = 10$ ft
- Depth at high water (1230)
 - Charted depth + High Water Height = $5+9 = 14$ ft

Tide Estimation Example

- What is the latest time on May 10 that X Dimension can depart Crystal Cove Marina in Winthrop?
 - Crystal Cove charted depth is 5 ft
 - Tide Table for Deer Island shows High (9ft) at 1230 and Low (-1ft) at 1830
- Tidal range: $9 - (-1) = 10$ ft
- Depth at high water (1230)
 - Charted depth + High Water Height = $5+9 = 14$ ft
- Depth at 3 hours past high water (1530)
 - Rule of 12ths - Tide will fall: $(1/12+2/12+3/12) \times 10\text{ft} = 5\text{ft}$
 - Depth will be $14\text{ft} - 5\text{ft} = 9\text{ft}$


Tide Estimation Example

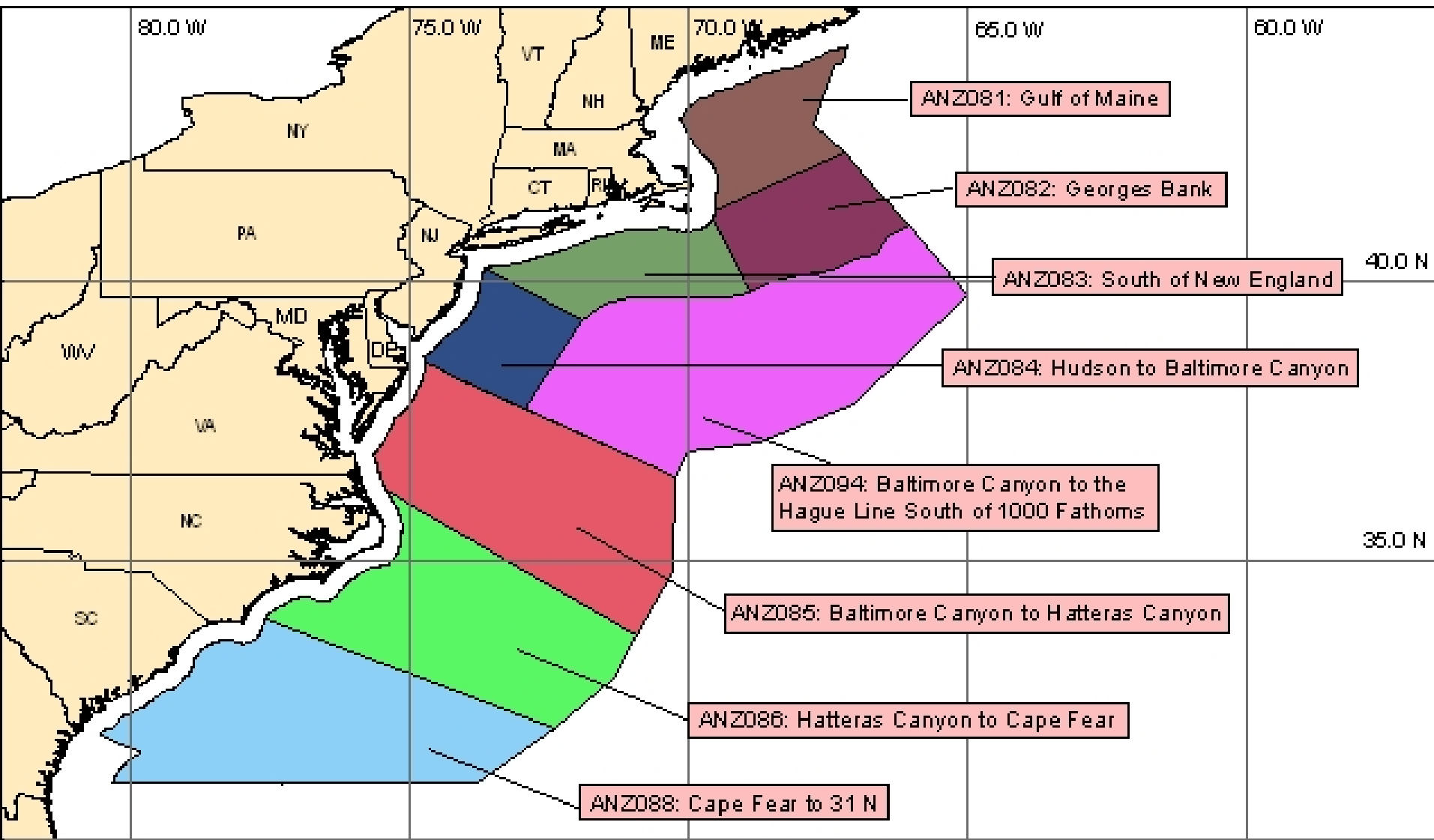
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- Depth at 3 hours past high water (1530)
 - Rule of 12ths - Tide will fall: $(1/12+2/12+3/12) \times 10\text{ft} = 5\text{ft}$
 - Depth will be $14\text{ft} - 5\text{ft} = 9\text{ft}$
 - Depth will decrease about another foot (10") in the subsequent 20 minutes

Day Sailing – Practical Considerations

- Weather forecasts are not always accurate
 - Use your knowledge of synoptic situation to guide your decision making
 - Is the weather tracking the forecast?
 - Which is more hazardous?
 - The weather is better than forecast with worsening synoptic situation
 - The weather is worse than forecast with improving synoptic situation
 - Be observant and consider local effects
 - Consider sea breeze effects
 - Observe other sailboats in area
 - Lee shore
- Actual tides and currents may differ from tables
 - Consider wind and atmospheric pressure
 - Consider potential hazards
 - Shallow water and falling tide
 - Rocky sea floor / shoals

Outline

- Review of weather basics
 - Cloud types
 - Fronts and air masses
 - Wind and waves
- Weather for day sailing
 - Sources of weather information
 - Tides and currents
 - Practical considerations
-  • Weather for passage planning
 - Sources of weather information
 - Route planning
 - Practical considerations
- Weather underway
 - Sources of weather information
 - Practical considerations



ANZ094-111015- BALTIMORE CANYON TO THE HAGUE LINE
SOUTH OF 1000 FM- 345 PM EST FRI JAN 10 2014

...STORM WARNING...

TONIGHT...S TO SW WINDS 5 TO 15 KT...INCREASING TO 15 TO
25 KT. SEAS 3 TO 5 FT

SAT...S WINDS INCREASING TO 25 TO 35 KT. SEAS BUILDING TO
8 TO 12 FT. HIGHEST WINDS AND SEAS SW. .

SAT NIGHT...S WINDS 35 TO 50 KT...THEN FAR NW PORTION
VEERING TO W TO NW AND DIMINISHING TO 25 TO 35 KT. SEAS
BUILDING TO 14 TO 22 FT. HIGHEST WINDS AND SEAS SE.
CHANCE OF RAIN WITH VSBY 1 NM OR LESS IN THE EVENING..

High Seas Forecasts

A LINE
160E

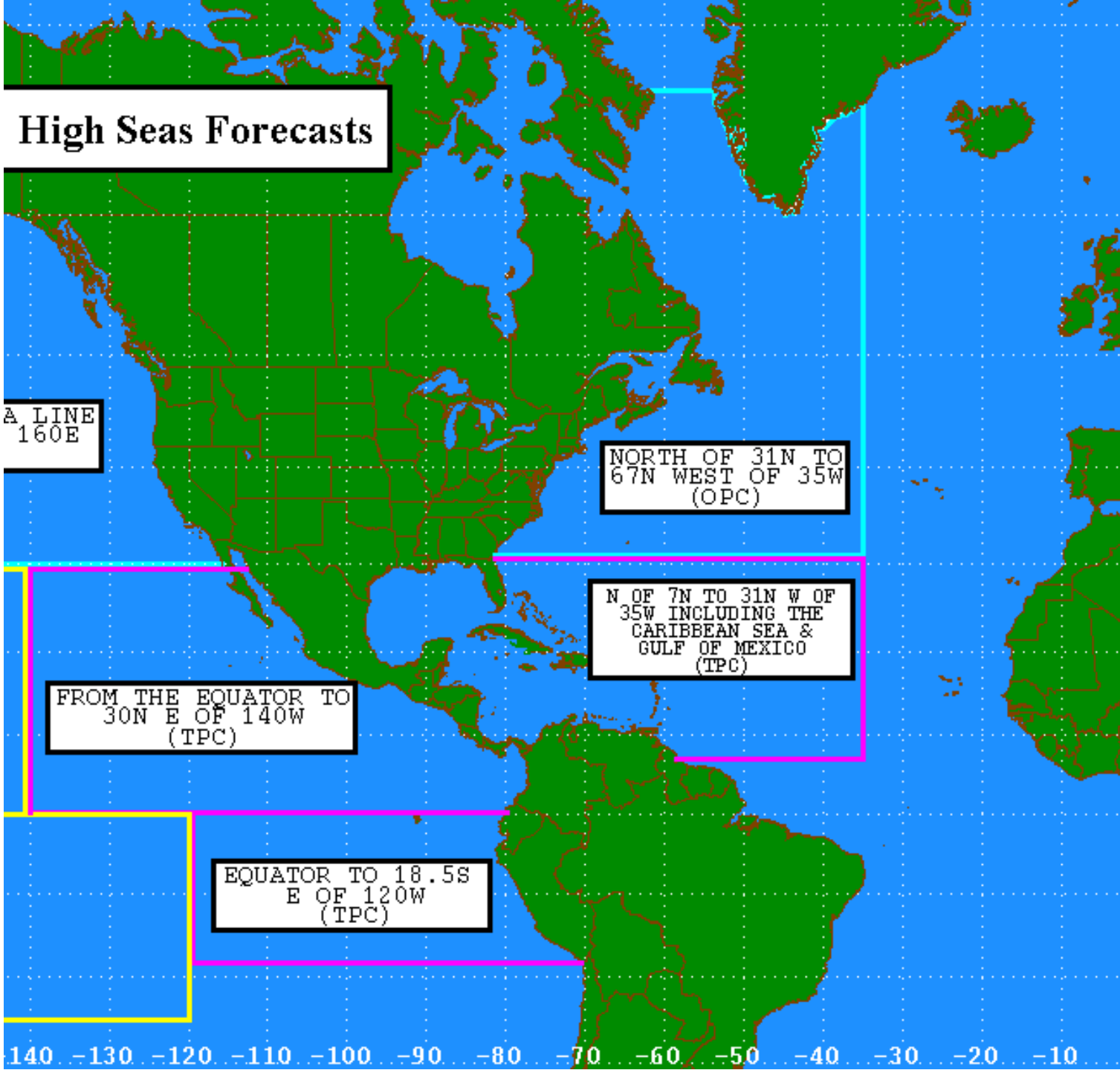
NORTH OF 31N TO
67N WEST OF 35W
(OPC)

N OF 7N TO 31N W OF
35W INCLUDING THE
CARIBBEAN SEA &
GULF OF MEXICO
(TPC)

FROM THE EQUATOR TO
30N E OF 140W
(TPC)

EQUATOR TO 18.5S
E OF 120W
(TPC)

140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10



HIGH SEAS FORECAST FOR METAREA IV

NWS OCEAN PREDICTION CENTER WASHINGTON DC

2230 UTC FRI JAN 10 2014

CCODE/1:31:04:01:00/AOW/NWS/CCODE SUPERSEDED BY NEXT ISSUANCE IN 6 HOURS
SEAS GIVEN AS SIGNIFICANT WAVE HEIGHT...WHICH IS THE AVERAGE HEIGHT OF THE
HIGHEST 1/3 OF THE WAVES. INDIVIDUAL WAVES MAY BE MORE THAN TWICE THE
SIGNIFICANT WAVE HEIGHT

SECURITE

NORTH ATLANTIC NORTH OF 31N TO 67N AND WEST OF 35W

SYNOPSIS VALID 1800 UTC JAN 10

24 HOUR FORECAST VALID 1800 UTC JAN 11

48 HOUR FORECAST VALID 1800 UTC JAN 12 .WARNINGS.

STORM WARNING

.LOW 46N35W 992 MB MOVING NE 15 KT AND RAPIDLY INTENSIFYING.

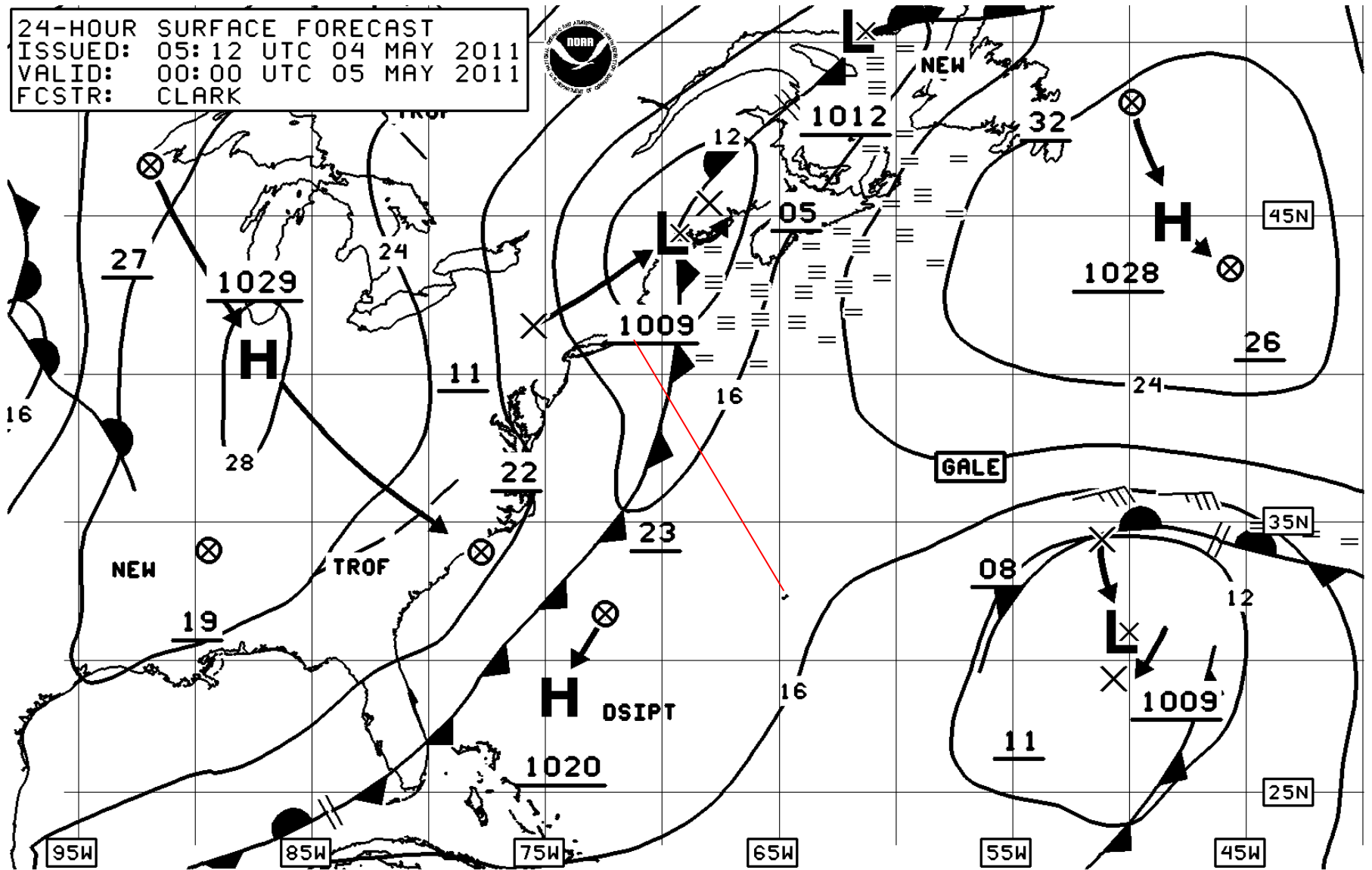
WITHIN 480 NM SW QUADRANT WINDS 35 TO 50 KT. SEAS 12 TO 23 FT.

ELSEWHERE FROM 32N TO 47N BETWEEN 35W AND 51W WINDS 25 TO 35 KT. SEAS 8 TO 16
FT.

.24 HOUR FORECAST LOW E OF AREA 51N27W 968 MB. OVER FORECAST WATERS WITHIN
900 NM SW QUADRANT WINDS 25 TO 35 KT. SEAS 10 TO 21 FT.

.48 HOUR FORECAST LOW E OF AREA 58N23W 955 MB. WITHIN 540 NM W QUADRANT WINDS
35 TO 50 KT. SEAS 13 TO 23 FT. ELSEWHERE E OF A LINE FROM 50N40W TO 57N43W TO
64N38W WINDS 25 TO 35 KT. SEAS 8 TO 16 FT.

24-HOUR SURFACE FORECAST
 ISSUED: 05:12 UTC 04 MAY 2011
 VALID: 00:00 UTC 05 MAY 2011
 FCSTR: CLARK



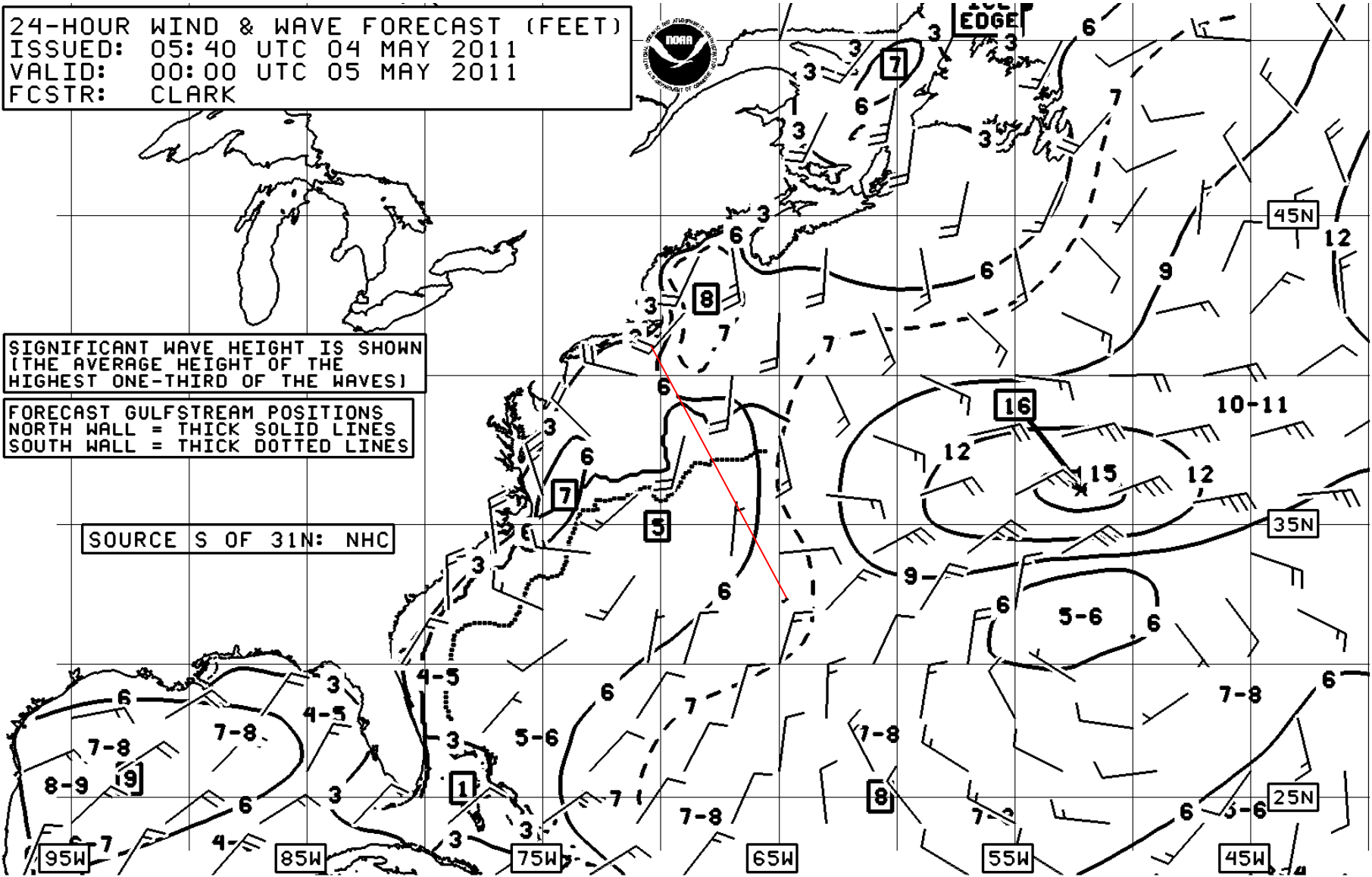
24-HOUR WIND & WAVE FORECAST (FEET)
 ISSUED: 05:40 UTC 04 MAY 2011
 VALID: 00:00 UTC 05 MAY 2011
 FCSTR: CLARK

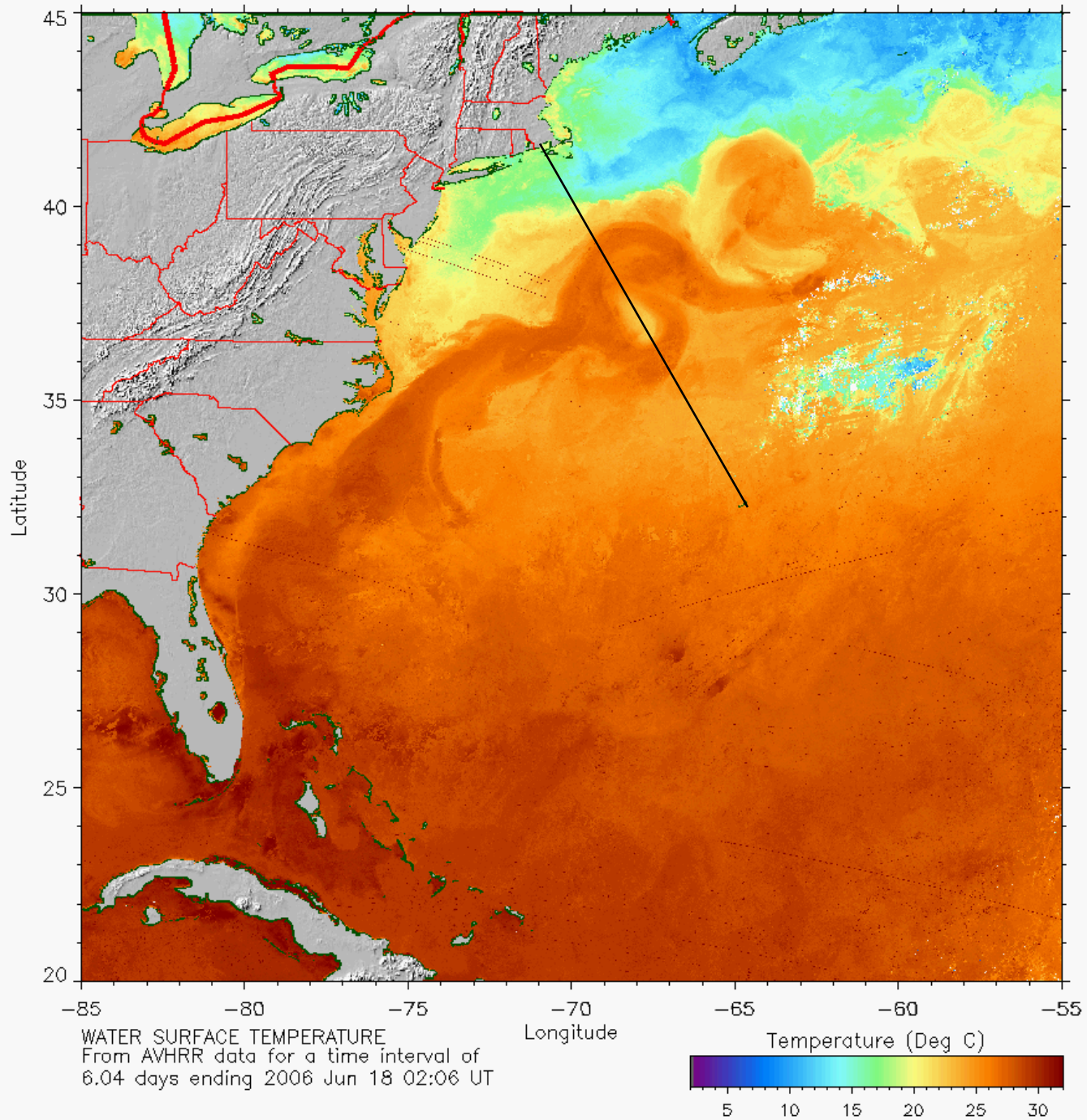


SIGNIFICANT WAVE HEIGHT IS SHOWN
 (THE AVERAGE HEIGHT OF THE
 HIGHEST ONE-THIRD OF THE WAVES)

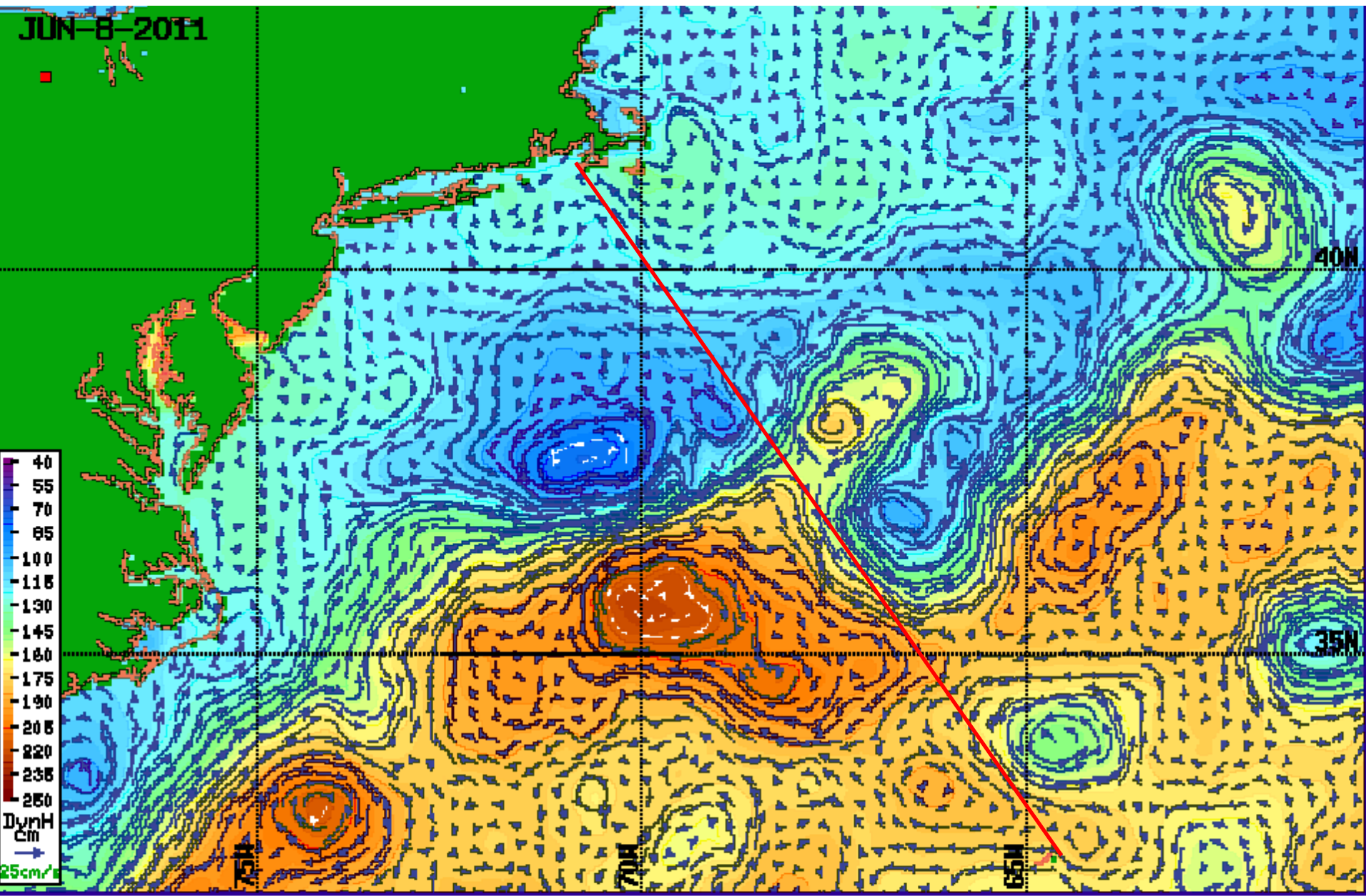
FORECAST GULFSTREAM POSITIONS
 NORTH WALL = THICK SOLID LINES
 SOUTH WALL = THICK DOTTED LINES

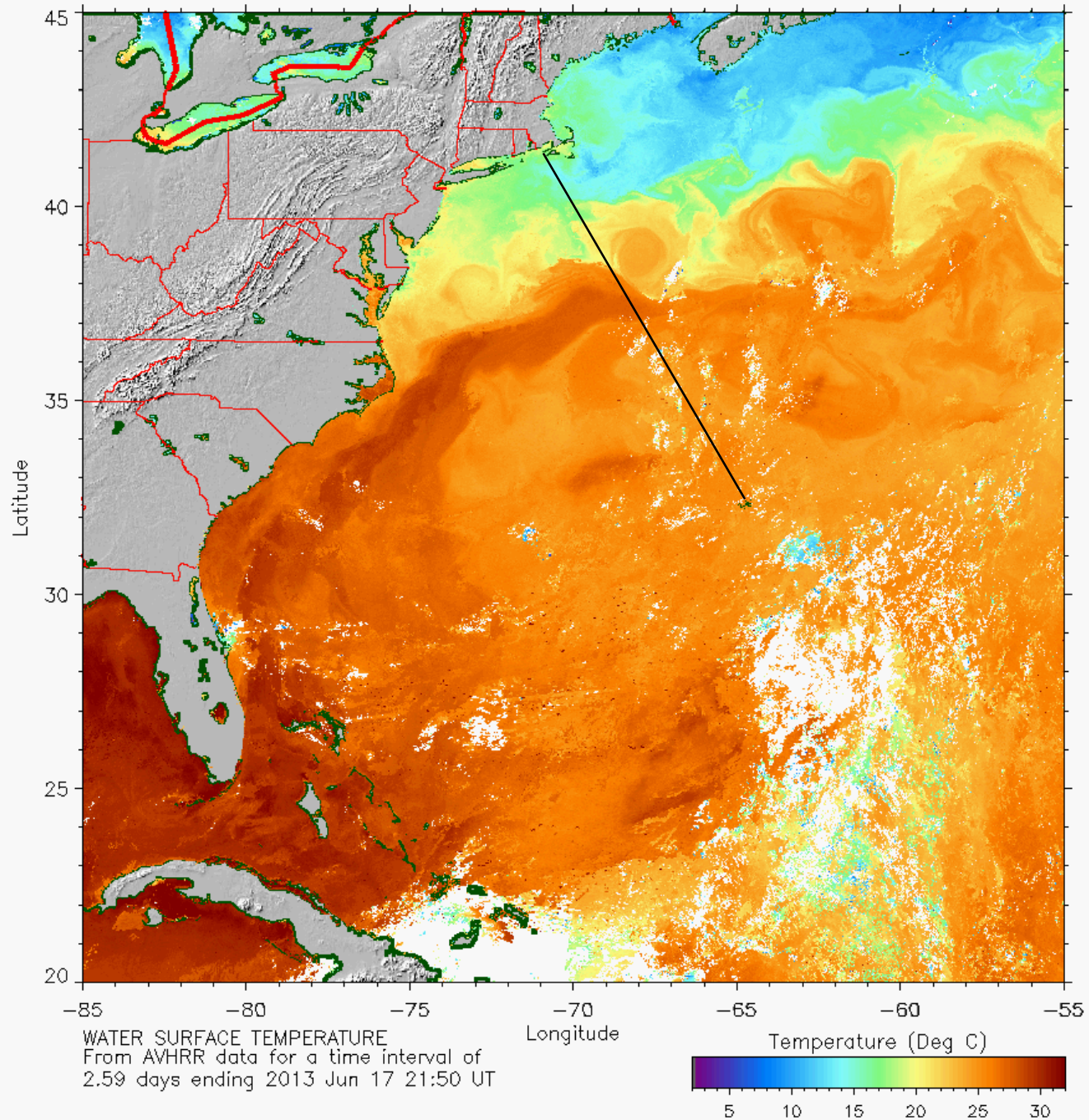
SOURCE S OF 31N: NHC





JUN-8-2011







Selector Map

Mediterranean ▶

West Indies ▶

North Atlantic ▶

South Atlantic ▶

North Pacific ▶

South Pacific ▶

Indian Ocean ▶

Races / Regattas ▶

Tropical Warnings ▶

World Pilot Charts

Gribfiles.com

- Full north Atlantic coverage
- 22 models available
- Offline downloads

Upcoming Races

Pineapple Cup
(Montego Bay Race)

RORC
Caribbean
600

GFS

NAM

Visibility & Precipitation

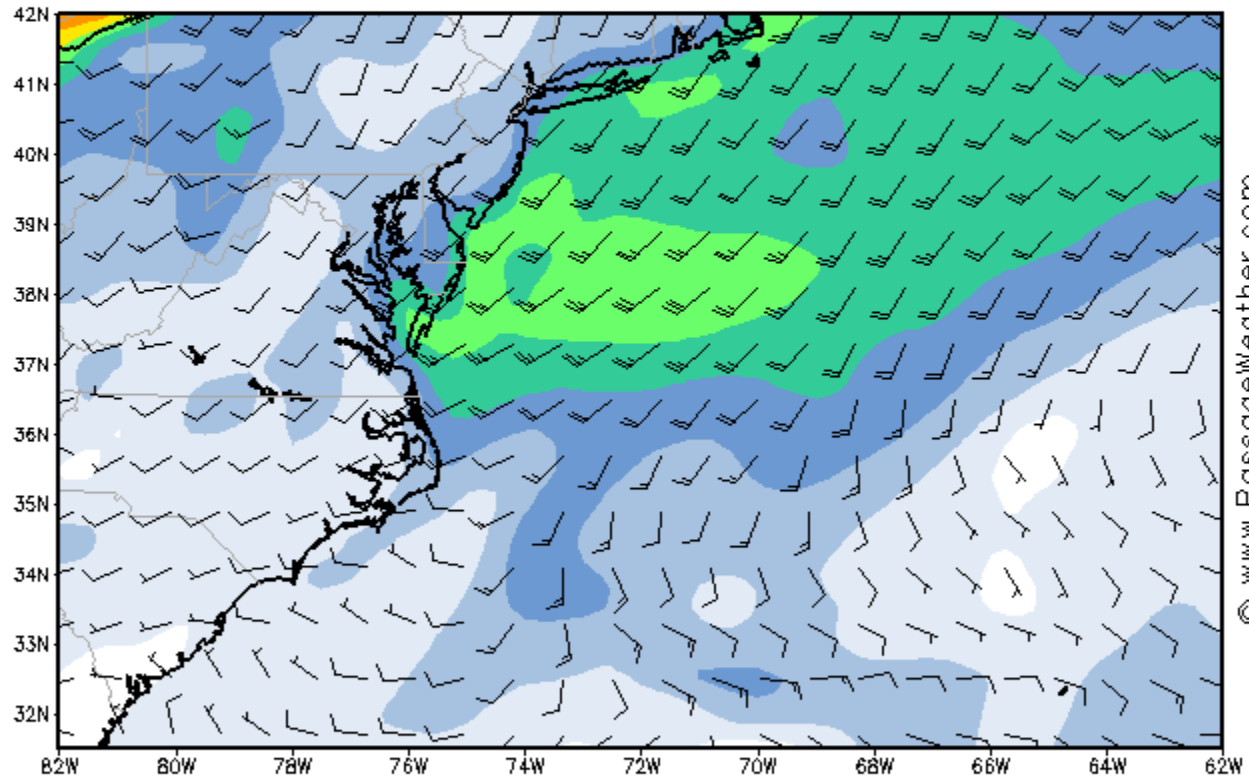
Gulf Stream

Surface Wind (knots)

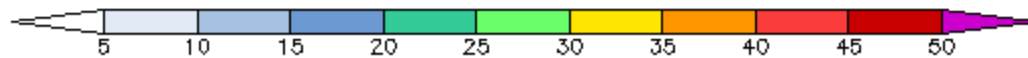
GFS 003 Hour Forecast

Sun 20 Jan 2013

09 UTC



© www.PassageWeather.com



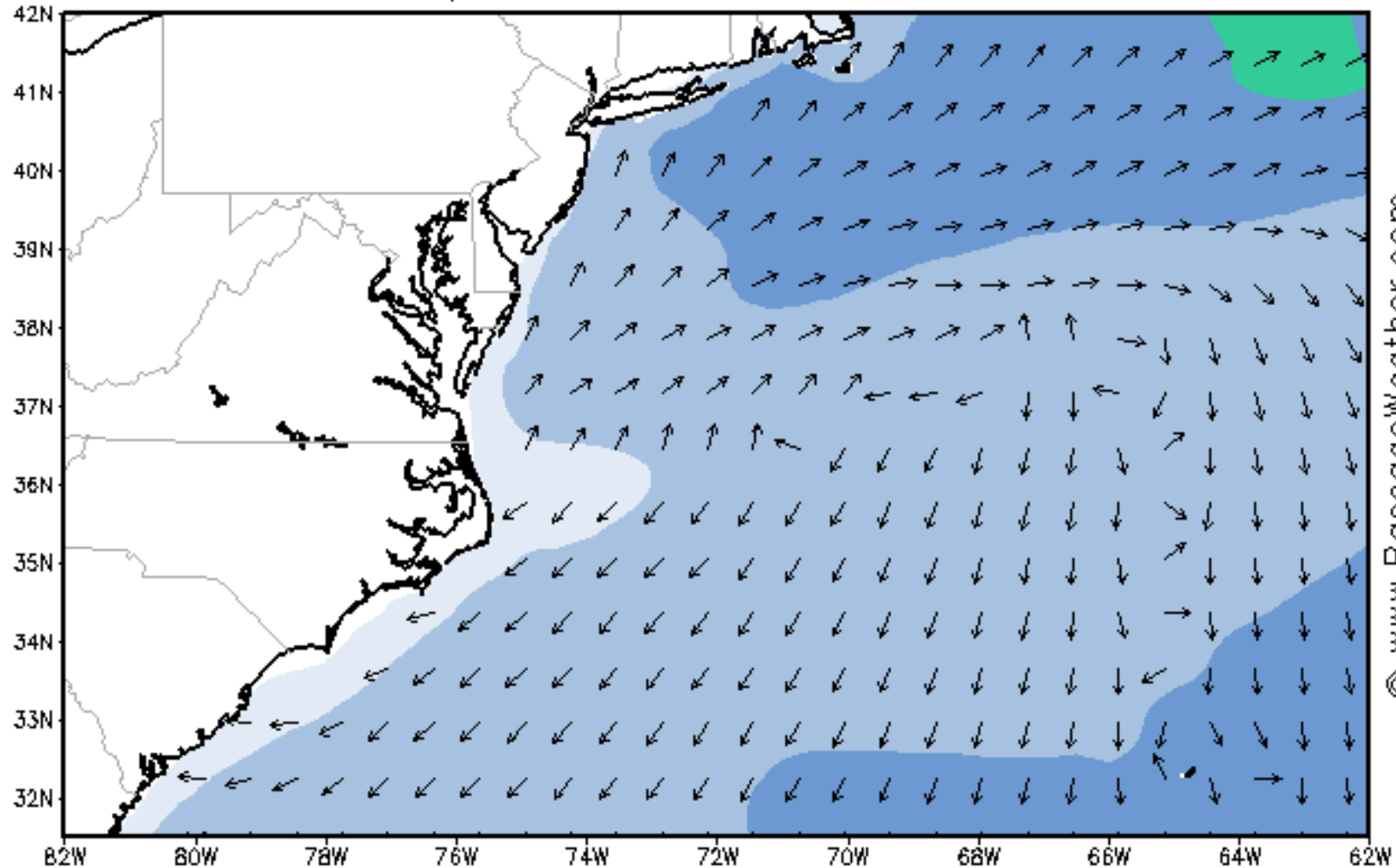
[Previous](#)
[Animate](#)
[Next](#)
Sun 20 Jan - 0900 UTC

[Download all Wind forecast images \(.zip file\)](#)

Wave Height (m) and Direction
WW3 000 Hour Analysis

Sun 20 Jan 2013

06 UTC



Previous


Animate

Next

Sun 20 Jan - 0600 UTC

Download all Wave forecast images (.zip file)

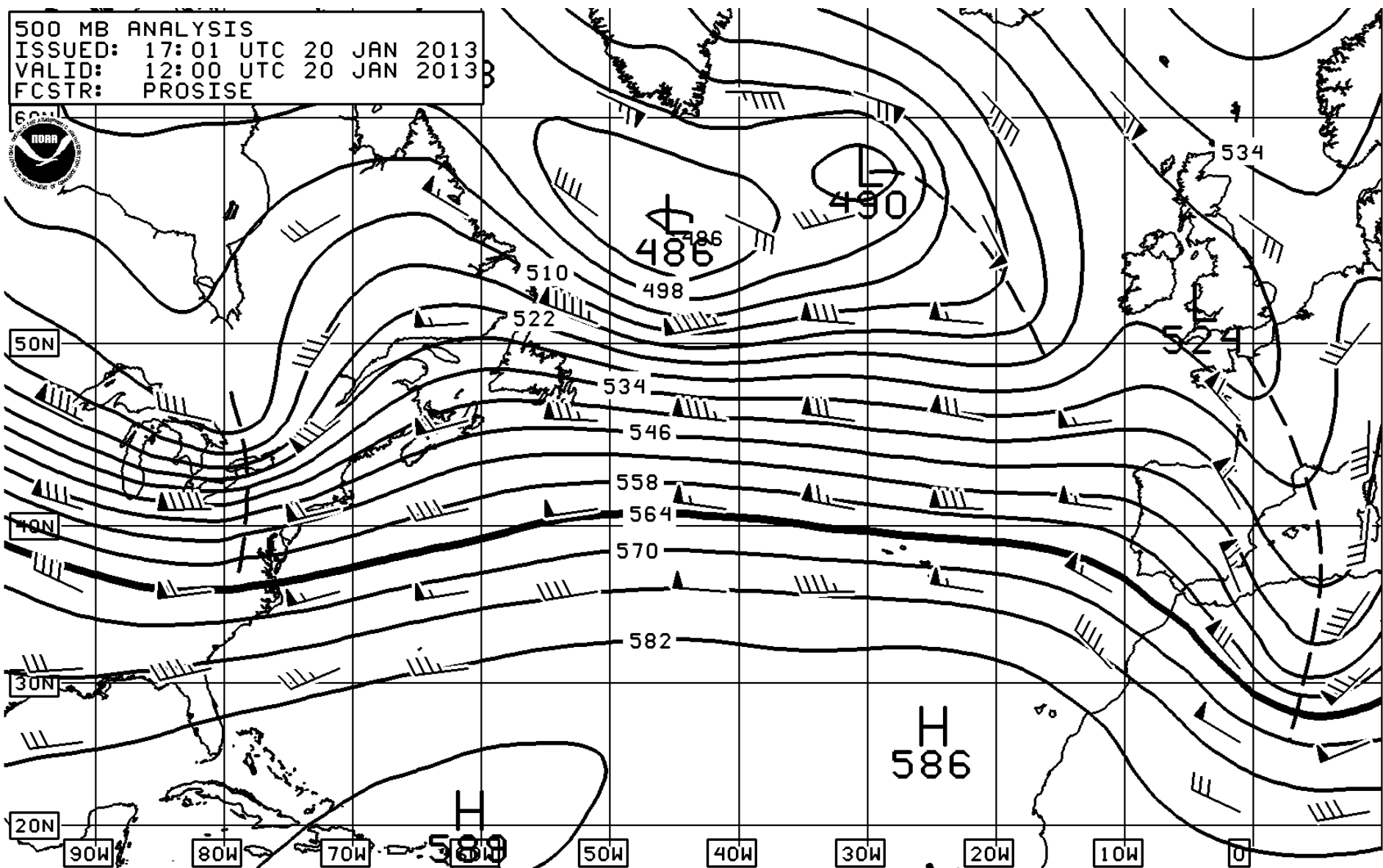
Outline

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- • Weather underway
 - Sources of weather information
 - Practical considerations

Weather Sources Underway

- Voice broadcasts
 - VHF weather channels
 - HF / SSB weather broadcasts / weather nets
- Radiofax
 - Example: North Atlantic Weather Briefing
- Internet
 - Cell phones (near shore)
 - Satcom (e.g., Iridium, Inmarsat, etc.)
 - HF / SSB with digital modem

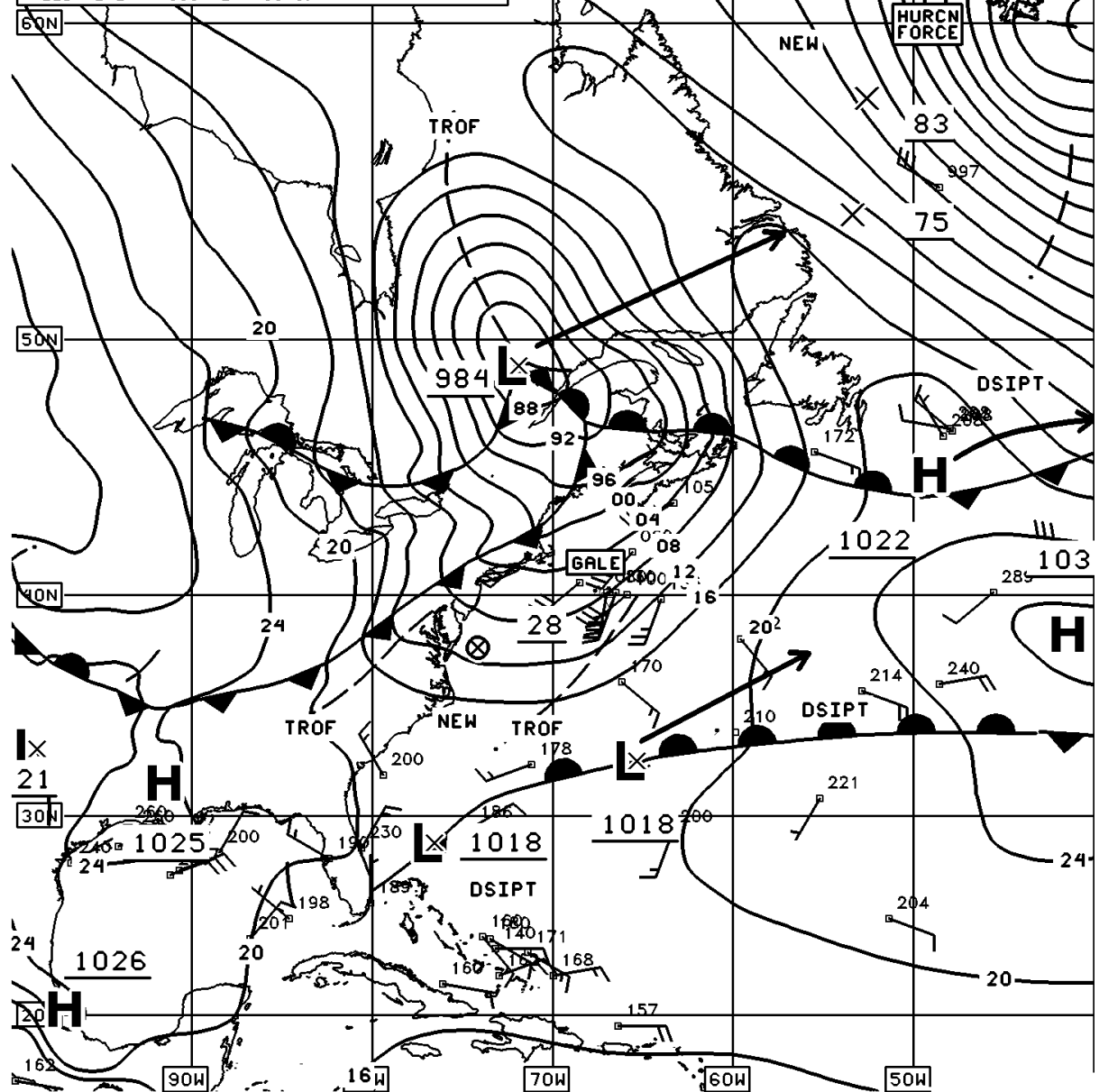
500 MB ANALYSIS
ISSUED: 17:01 UTC 20 JAN 2013
VALID: 12:00 UTC 20 JAN 2013
FCSTR: PROSISE



ATLANTIC SURFACE ANALYSIS
ISSUED: 21:03 UTC 20 JAN 2013
VALID: 18:00 UTC 20 JAN 2013
FCSTR: LEE
SOURCES: OPC NHC HPC



FORECAST TRACKS ARE FOR VALID TIME + 24 HOURS.
WARNING LABELS ARE FOR HIGHEST CONDITIONS FROM
VALID TIME THROUGH 24 HOURS.

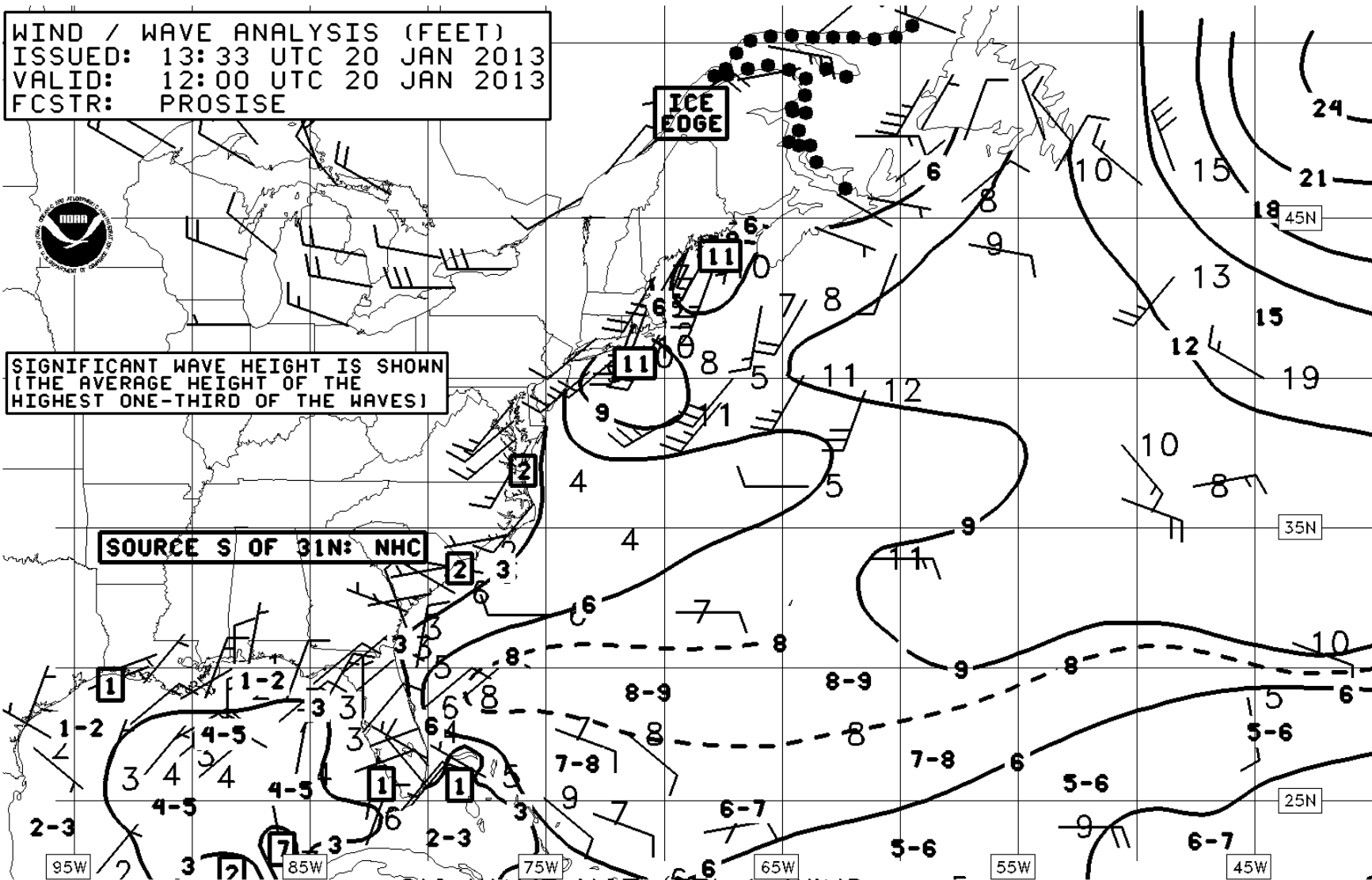


WIND / WAVE ANALYSIS (FEET)
 ISSUED: 13:33 UTC 20 JAN 2013
 VALID: 12:00 UTC 20 JAN 2013
 FCSTR: PROSISE



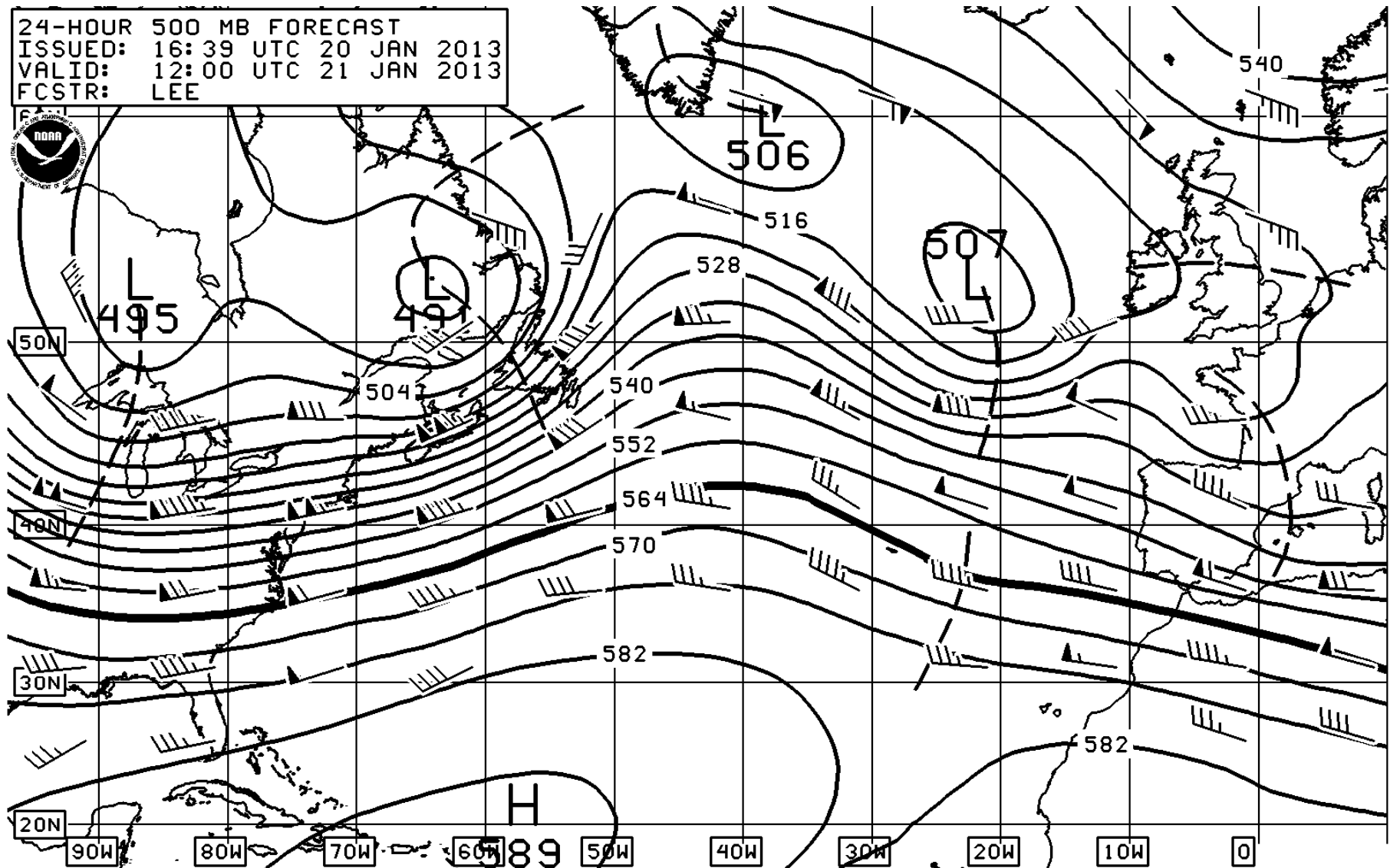
SIGNIFICANT WAVE HEIGHT IS SHOWN
 (THE AVERAGE HEIGHT OF THE
 HIGHEST ONE-THIRD OF THE WAVES)

SOURCE S OF 31N: NHC

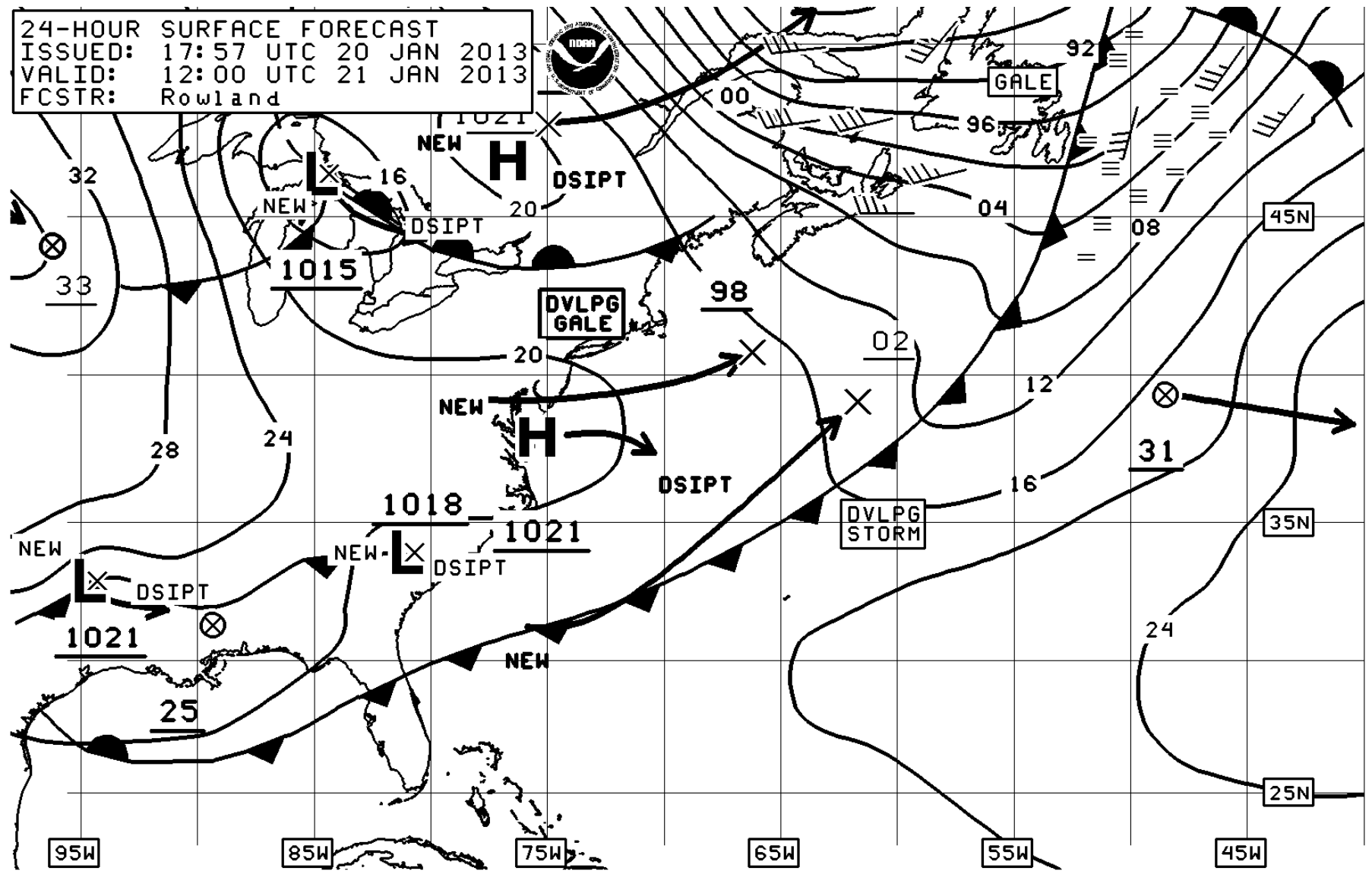


SIG WAVE HGT (FT) & WIND
 NWS/NCEP - OCEAN PREDICTION CENTER
www.opc.ncep.noaa.gov

24-HOUR 500 MB FORECAST
ISSUED: 16:39 UTC 20 JAN 2013
VALID: 12:00 UTC 21 JAN 2013
FCSTR: LEE



24-HOUR SURFACE FORECAST
ISSUED: 17:57 UTC 20 JAN 2013
VALID: 12:00 UTC 21 JAN 2013
FCSTR: Rowland



24-HOUR WIND & WAVE FORECAST (FEET)
 ISSUED: 18:54 UTC 20 JAN 2013
 VALID: 12:00 UTC 21 JAN 2013
 FCSTR: Rowland



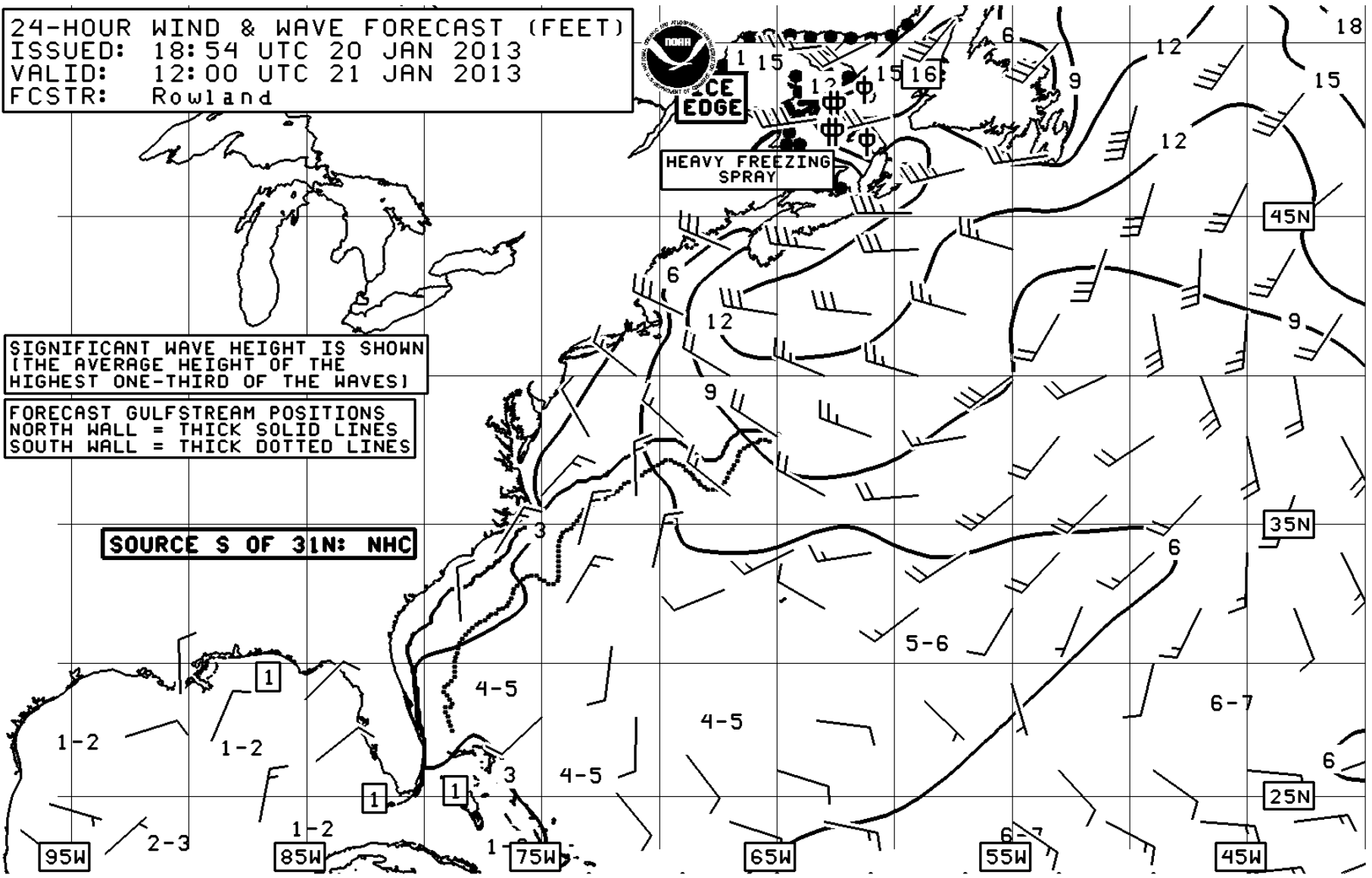
ICE EDGE

HEAVY FREEZING SPRAY

SIGNIFICANT WAVE HEIGHT IS SHOWN
 (THE AVERAGE HEIGHT OF THE
 HIGHEST ONE-THIRD OF THE WAVES)

FORECAST GULFSTREAM POSITIONS
 NORTH WALL = THICK SOLID LINES
 SOUTH WALL = THICK DOTTED LINES

SOURCE S OF 31N: NHC



Closing Thoughts

- In the week before a sail, monitor the synoptic situation
 - Understand where the weather is coming from
 - Pay attention to accuracy of forecasts – how well are they doing?
 - Particularly note changes in the forecast
- In the days before a sail, begin to firm up your expectations
 - Plan the sail for expected weather conditions with contingencies
 - Stability of forecast important in the last 48 hours
- On the day of the sail
 - Compare current conditions to forecast
 - Note changes in wind and cloud cover
 - Take into account local conditions
 - Have a contingency plan for hazardous conditions