

NAAMES

WX Briefing

Tuesday, March 20, 2018

Michael Shook

Forecast Highlights

- Warm, sunny conditions for San Juan departure; calm conditions should persist through the week
- Rainy and windy at Wallops through Wednesday night, but things improve for Thursday-Saturday
- St. John's currently looks okay for arrival on either Friday (3/23) or Saturday (3/24)

Planned Ship Route & Forecast

4/13/18 4/12/18

Monday, 3/26

Waves: WSW 12-15 ft
Winds: SW 20-30 kts
Clouds: Partly cloudy
Precip: Chance of showers

27/18 - 10 UTC S1

Saturday, 3/24

Waves: W 9-15 ft
Winds: SSE 15-25 kts
Clouds: Overcast
Precip: Rain beginning late
(may be heavy overnight)

Sunday, 3/25

Waves: SW 12-18 ft
Winds: S 20-30 kts
Clouds: Overcast
Precip: Rain (may be heavy)

3/25/18 - 12 UTC

Thursday, 3/22

Waves: N 4-5 ft
Winds: ESE 10-15 kts
Clouds: Mostly cloudy
Precip: None

3/24/18 - 12 UTC

Friday, 3/23

Waves: bcmg WNW 5-9 ft
Winds: SE 10-18 kts
Clouds: Partly cloudy
Precip: none

3/23/18 - 12 UTC

Wednesday, 3/21

Waves: NNE 4-5 ft
Winds: ESE 10-15 kts
Clouds: mostly clear
Precip: none

3/21/18 - 12 UTC

Tuesday, 3/20 San Juan

Waves: NNE 3-5 ft
Winds: E 10-12 kts
Clouds: mostly clear
Precip: none

San Juan - 2/20/18 13 UTC

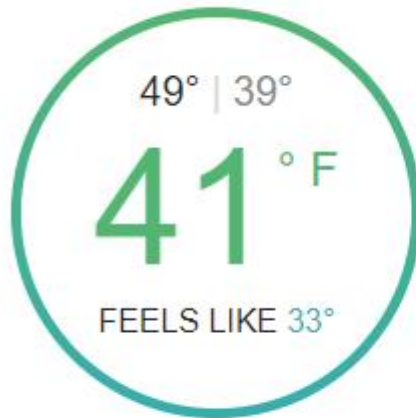
Geographer
avy, NGA, GEBCO

© 2018 Google
Image Landsat / Copernicus

Google Earth

Current Conditions at Wallops

© 10:48 AM EDT on March 20, 2018 (GMT -0400) | Updated a minute ago

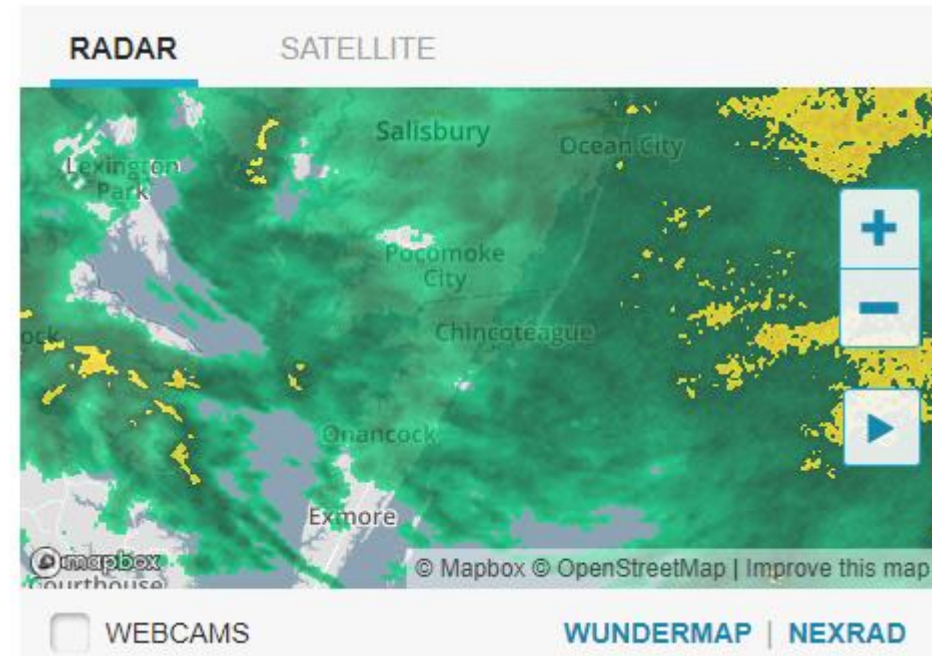


Rain/Wind

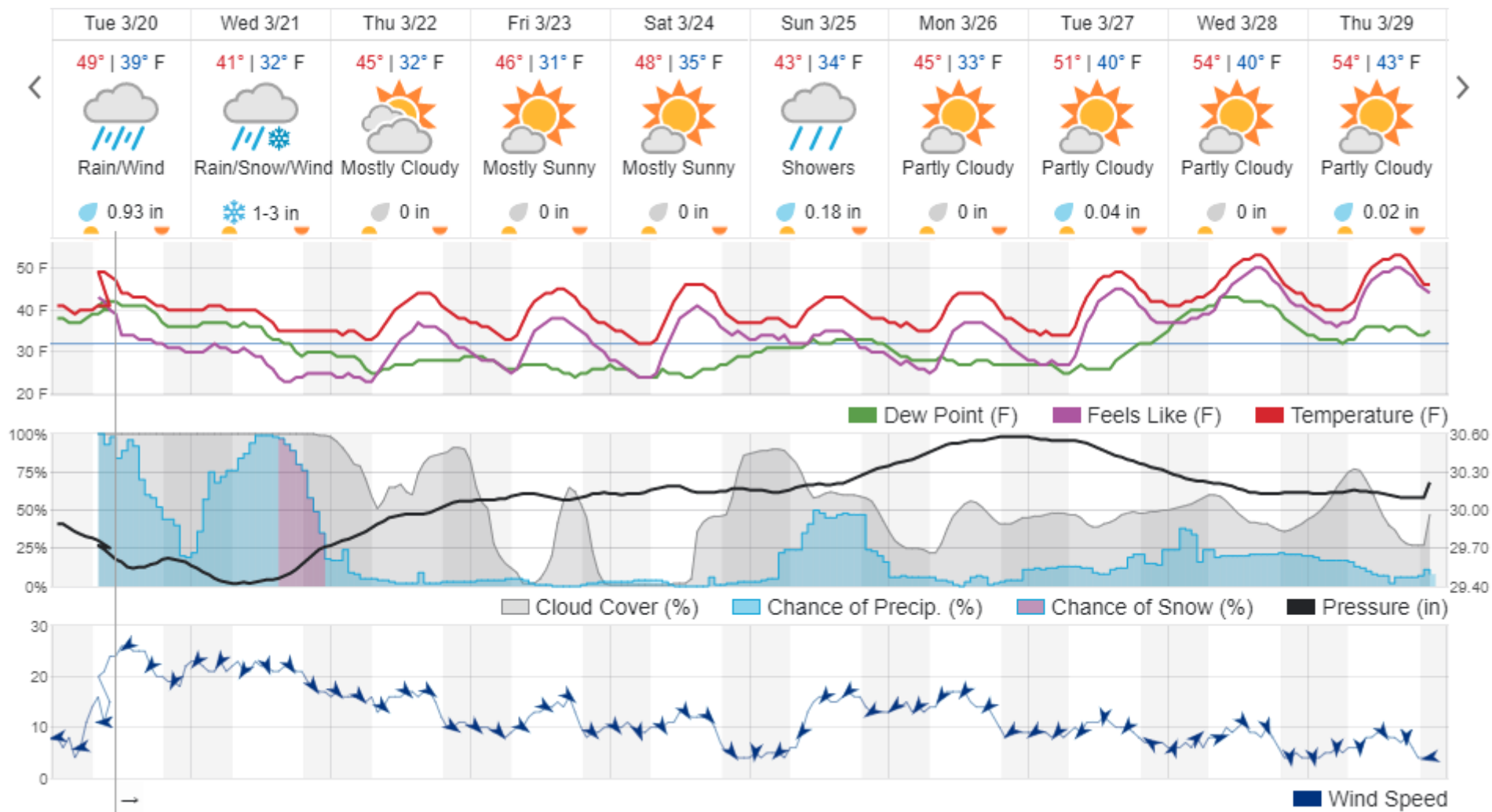


Wind **NE**
Gusts **23 mph**

Today is forecast to be **COOLER** than yesterday.

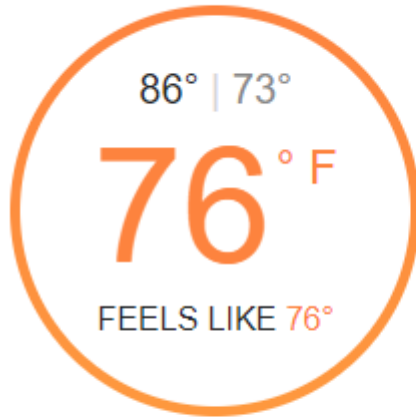


Wallops Forecast

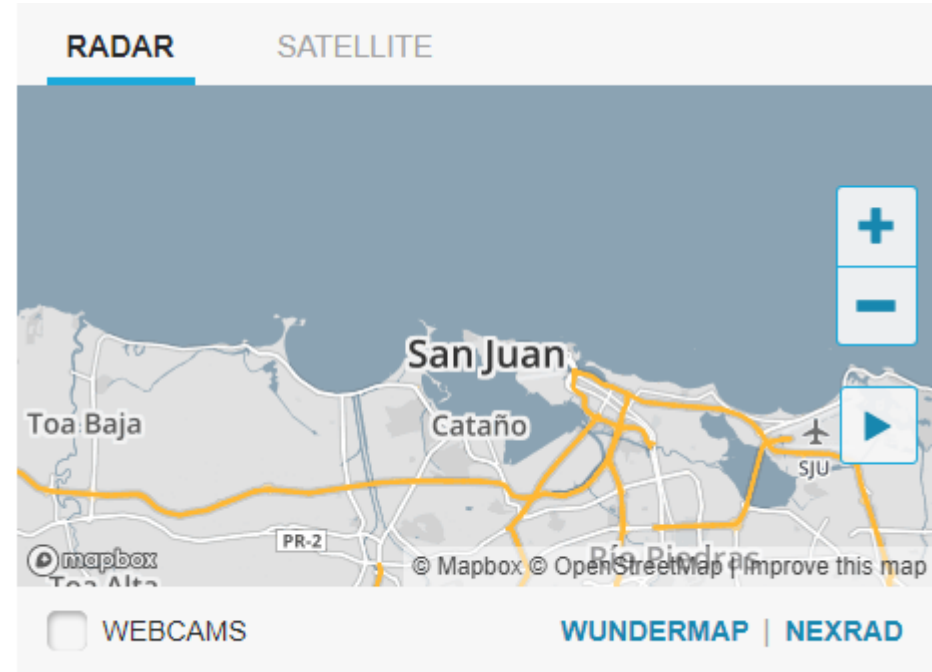


Current Conditions at San Juan

© 10:51 AM AST on March 20, 2018 (GMT -0400) | Updated a minute ago



Today is forecast to be **MUCH WARMER** than yesterday.



Current Conditions at St. John's

© 1:22 PM NDT on March 20, 2018 (GMT -0230) | Updated 5 minutes ago

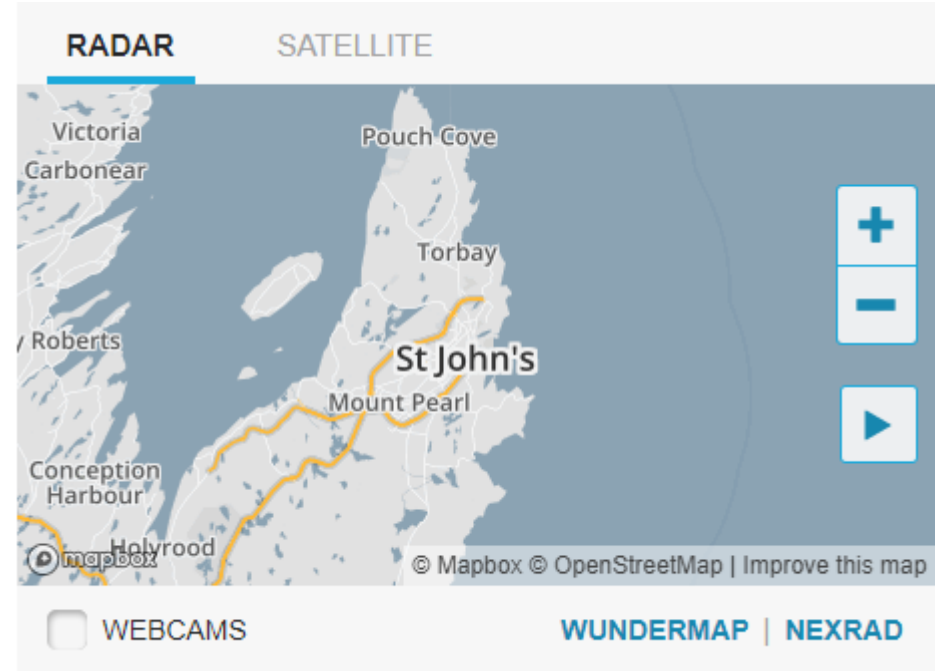


Cloudy/Wind

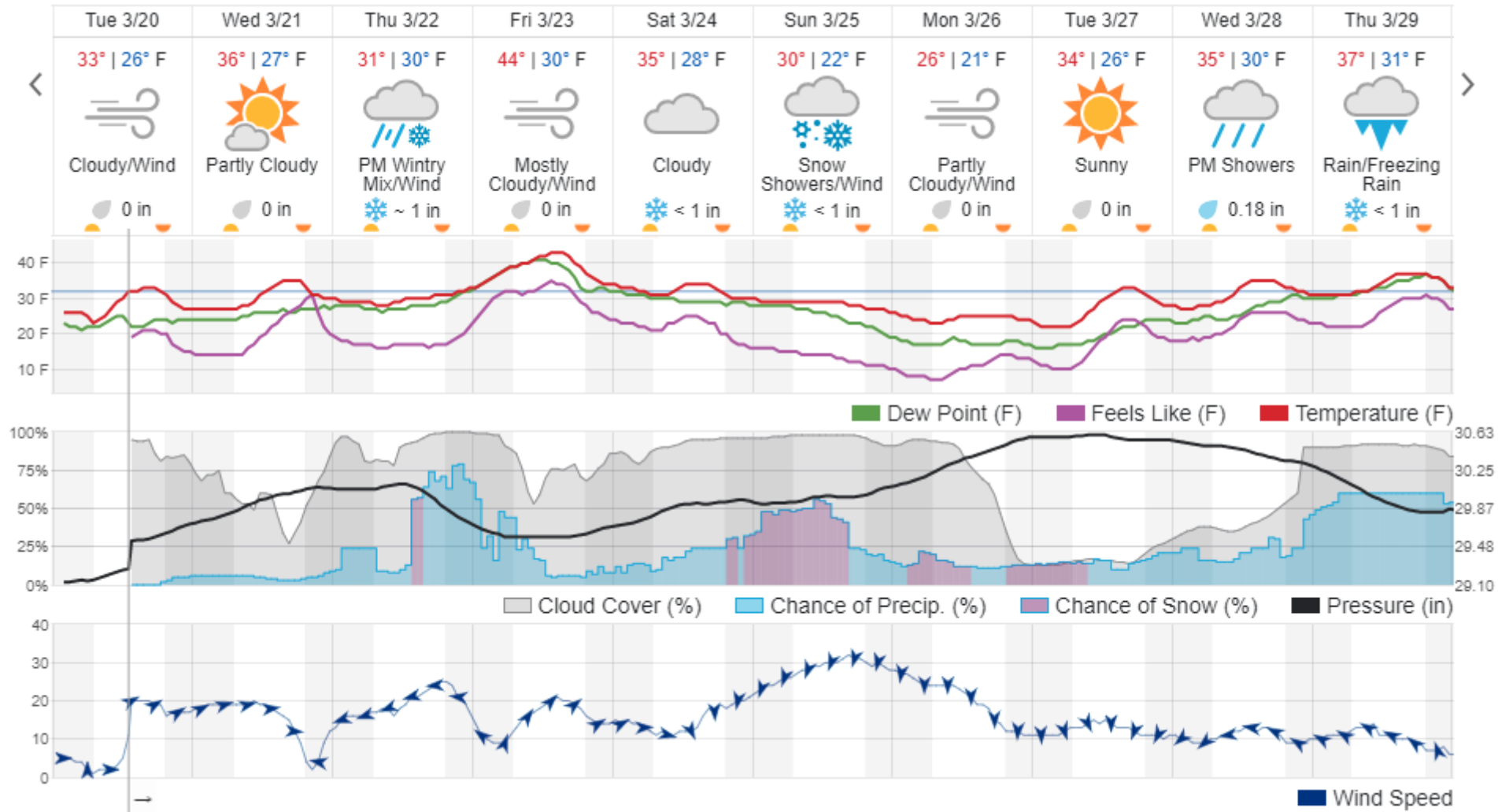


Wind **W**

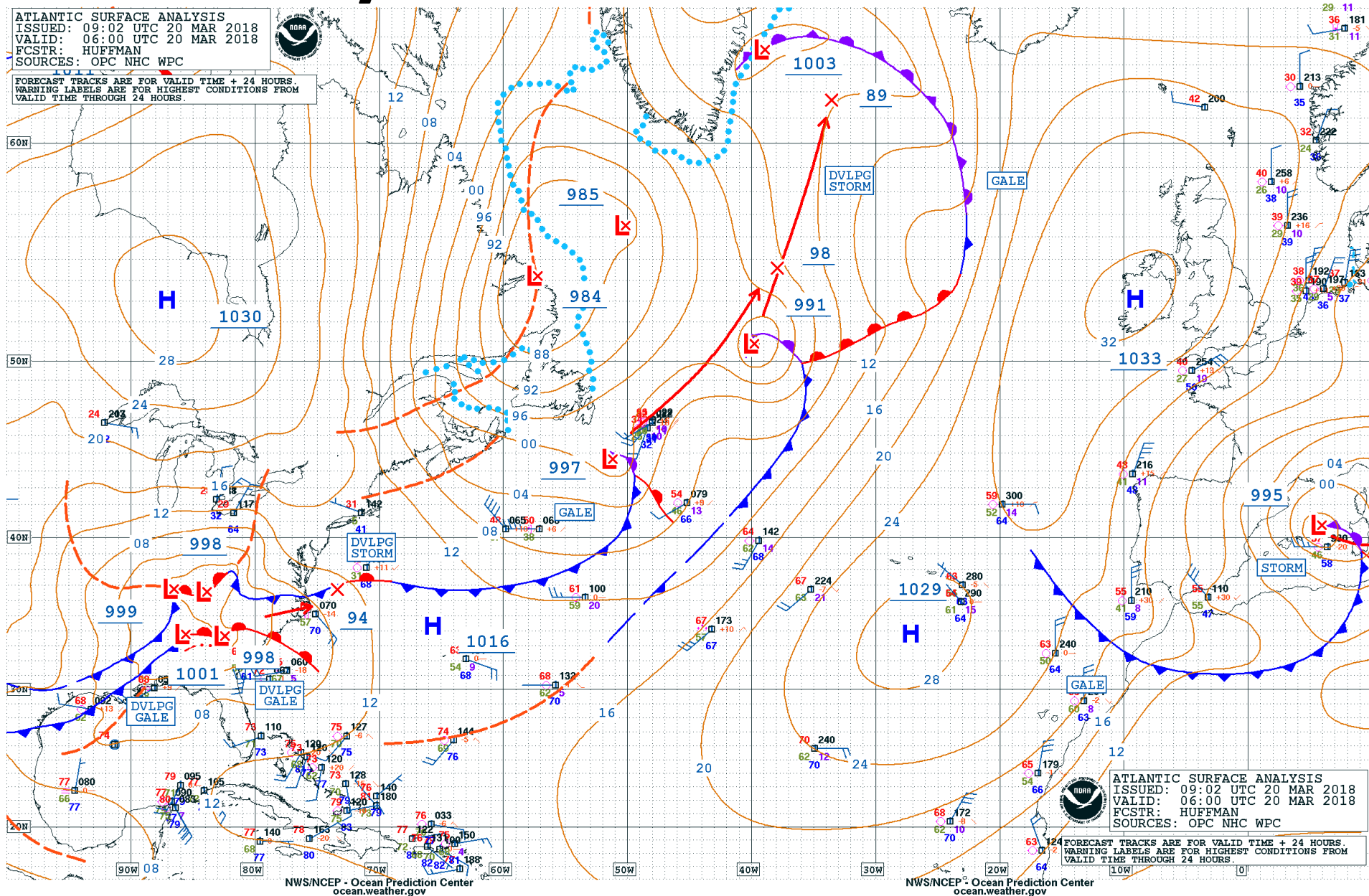
Today is forecast to be **NEARLY THE SAME** temperature as yesterday.



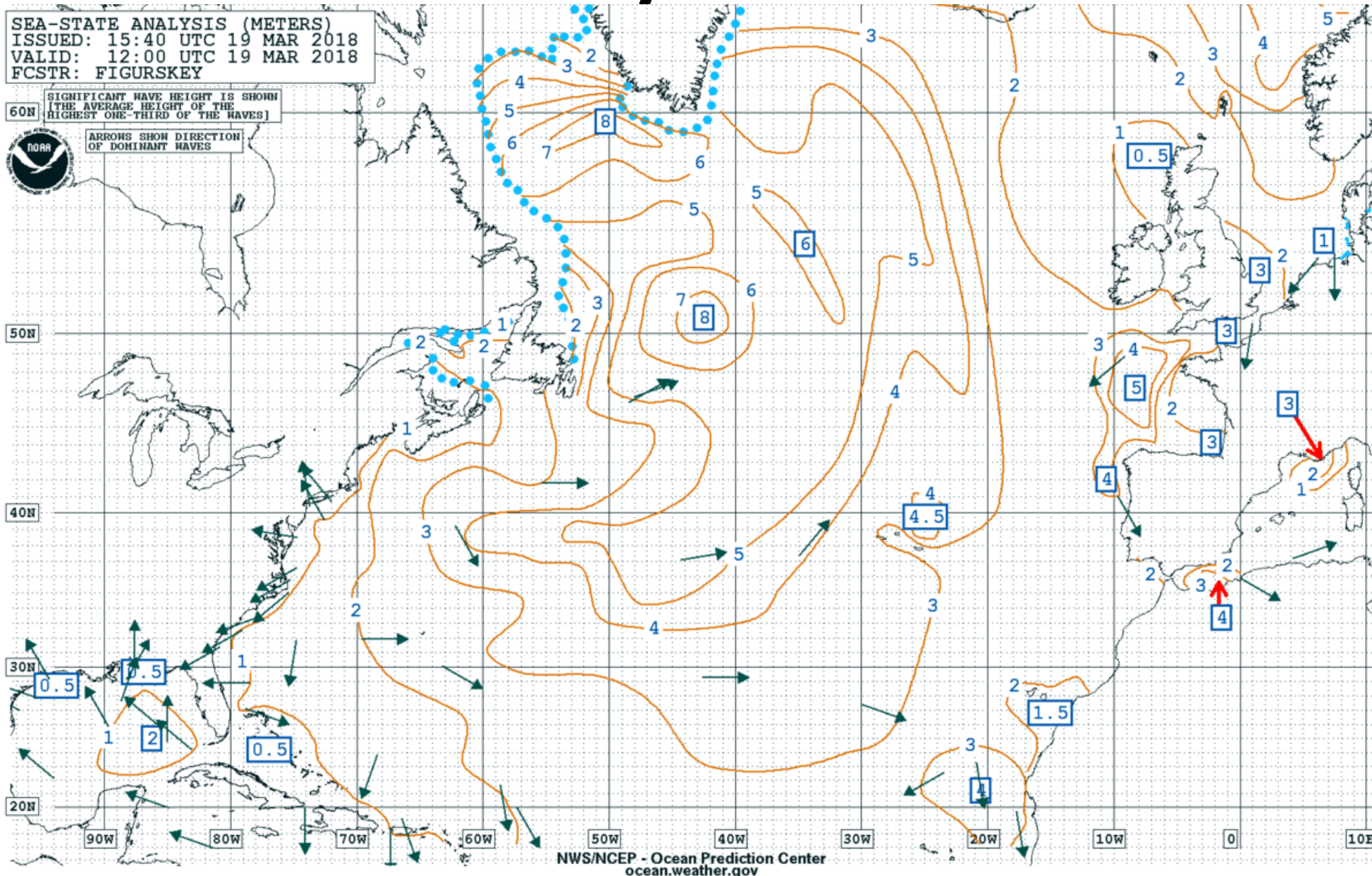
St. John's Forecast



Surface Analysis



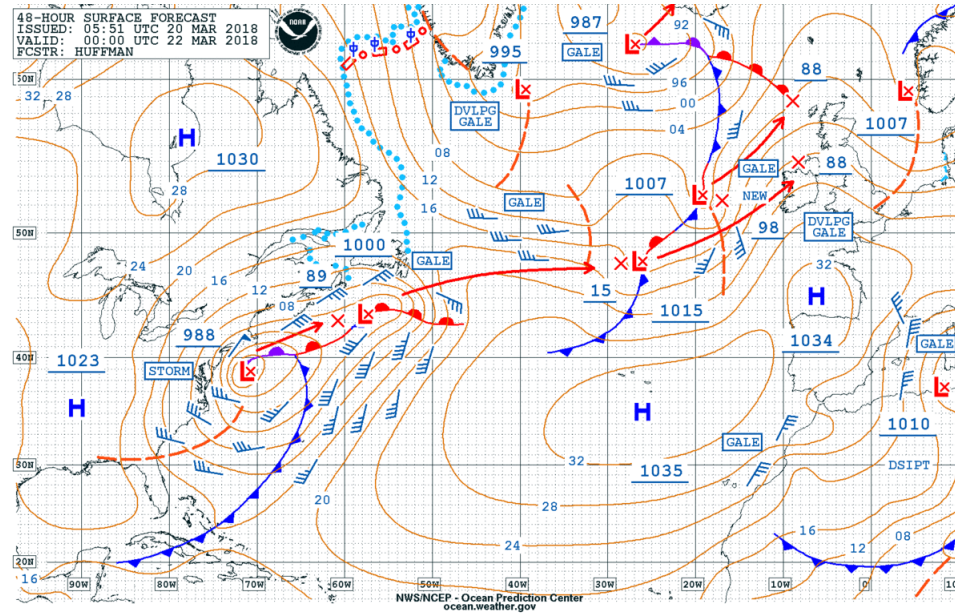
Sea State Analysis



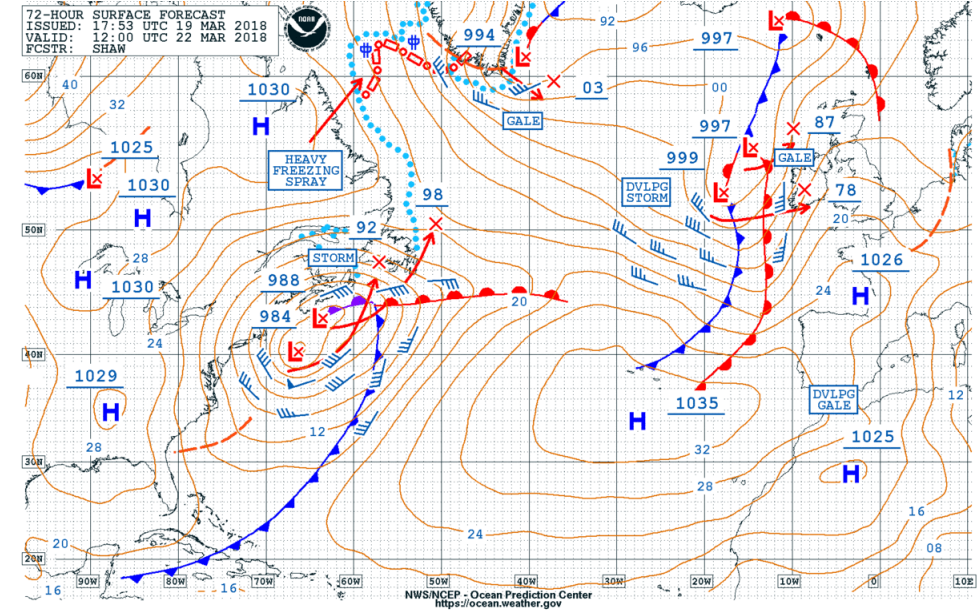
- Significant Wave Height is shown (in meters). This is the average height of the highest one-third of the waves
- Arrows show direction of dominant waves

Synoptic Forecast

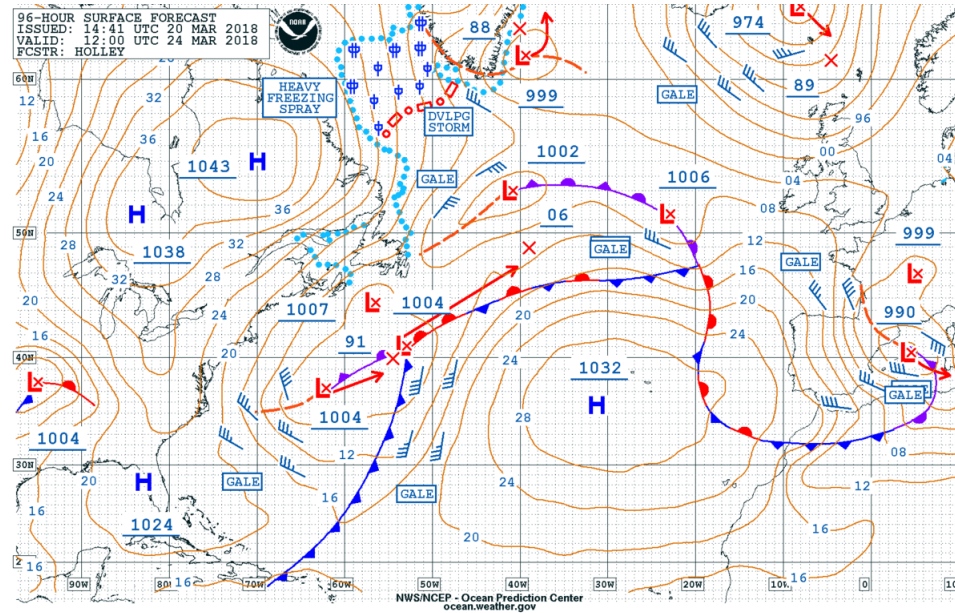
48 Hour Forecast - Wednesday 8pm EDT



72 Hour Forecast - Thursday 8am EDT

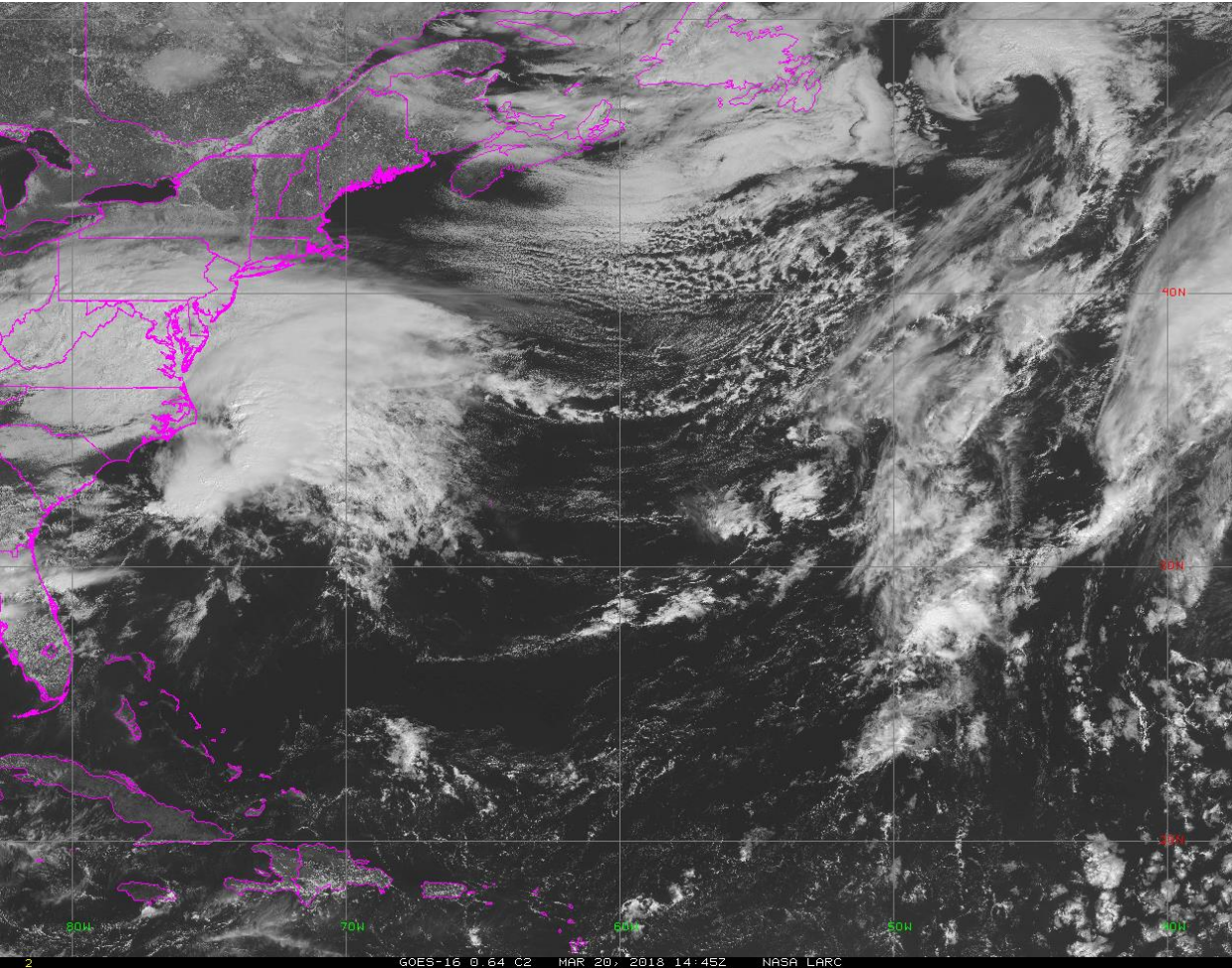


96 Hour Forecast - Saturday 8am EDT

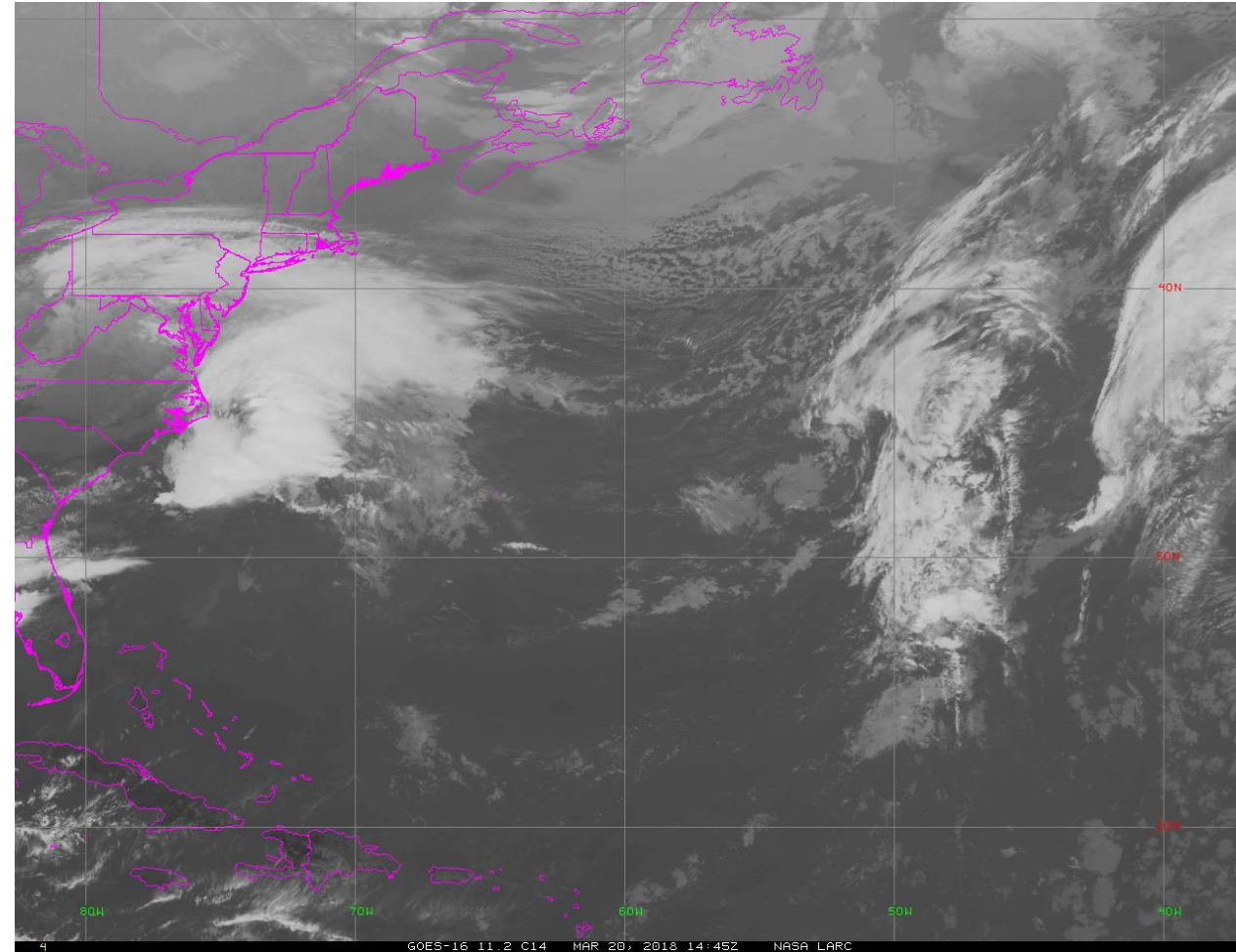


GOES-16 Imagery (3/20 14:45 UTC)

Visible

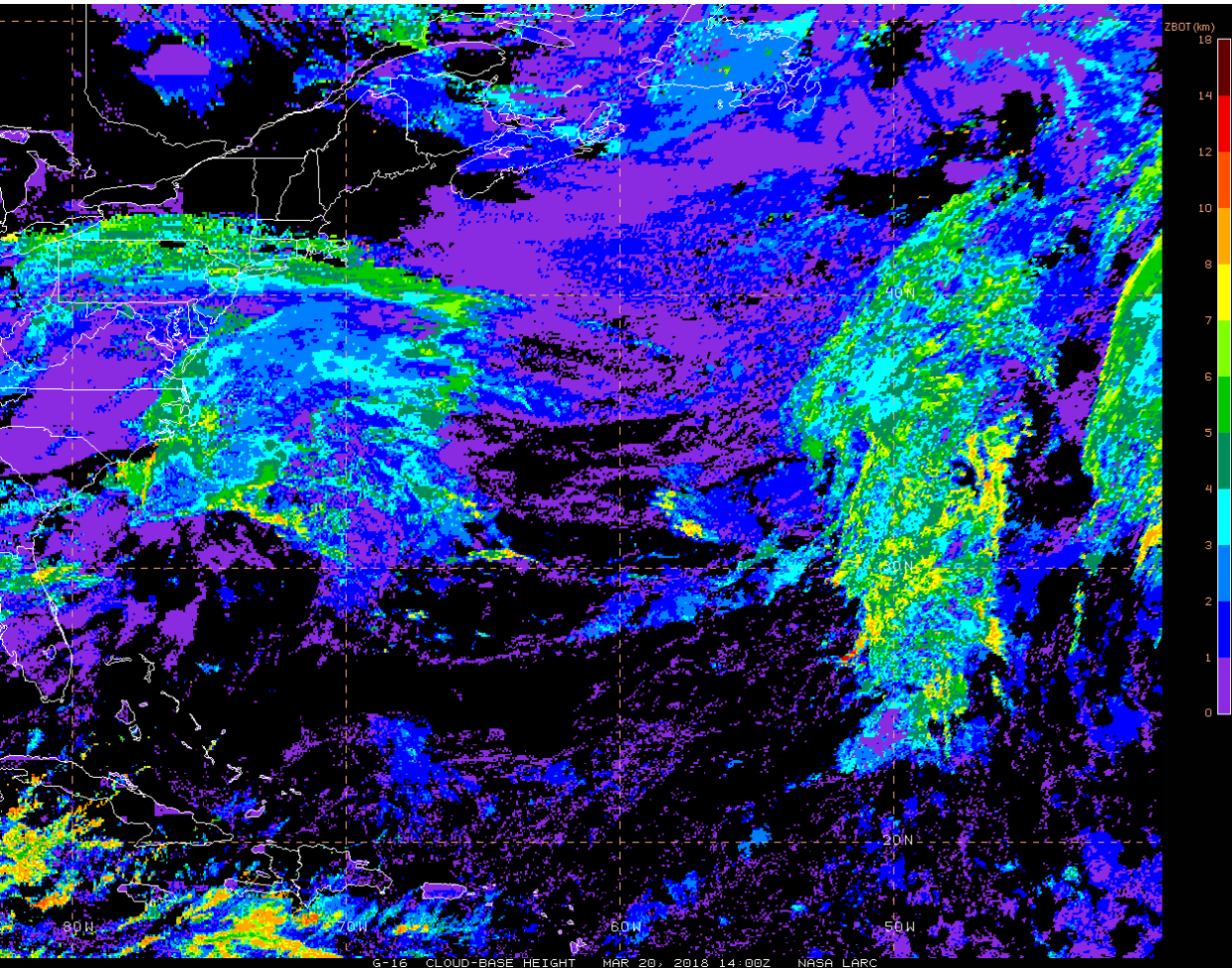


IR

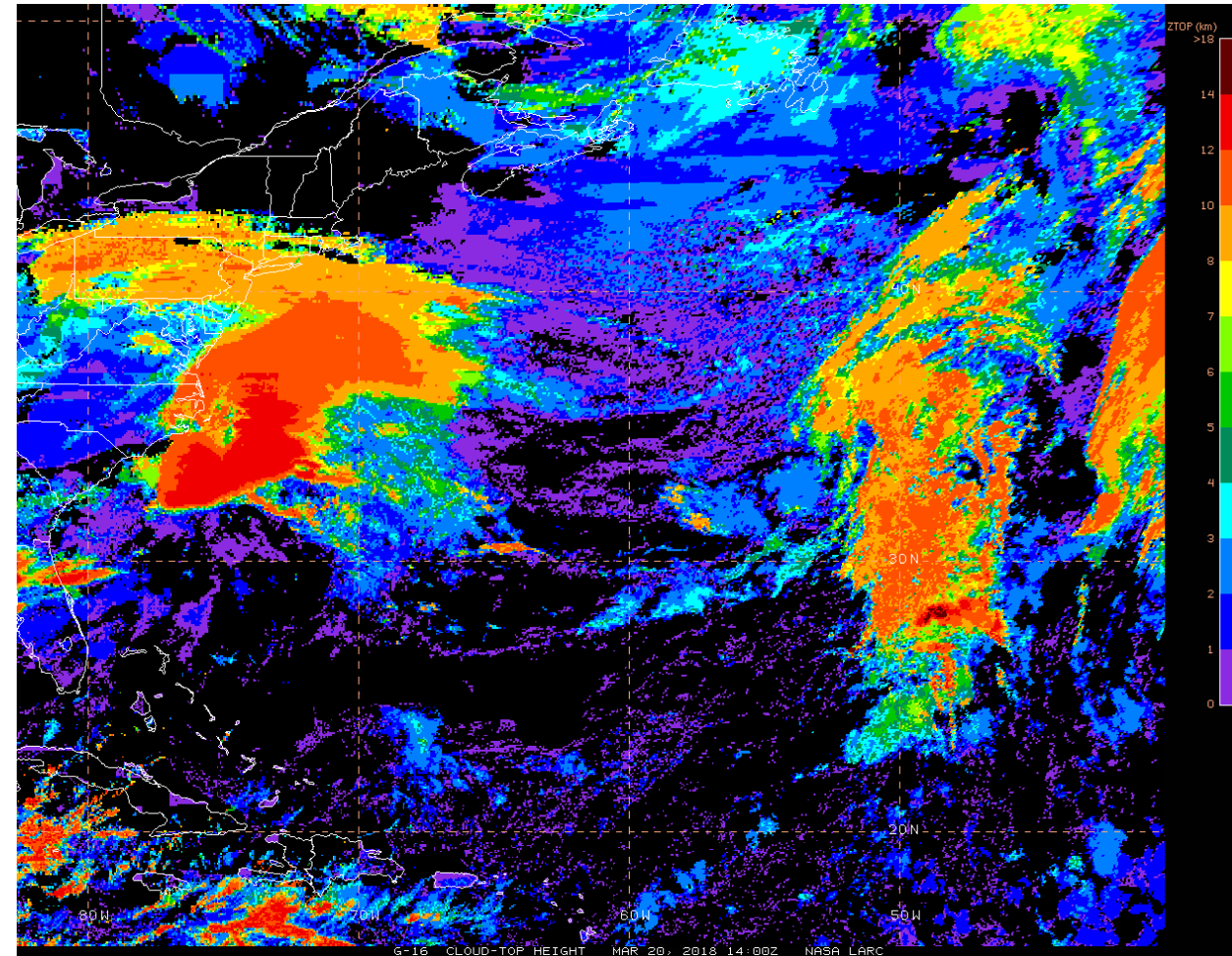


GOES-16 Cloud Products (3/20 14:00 UTC)

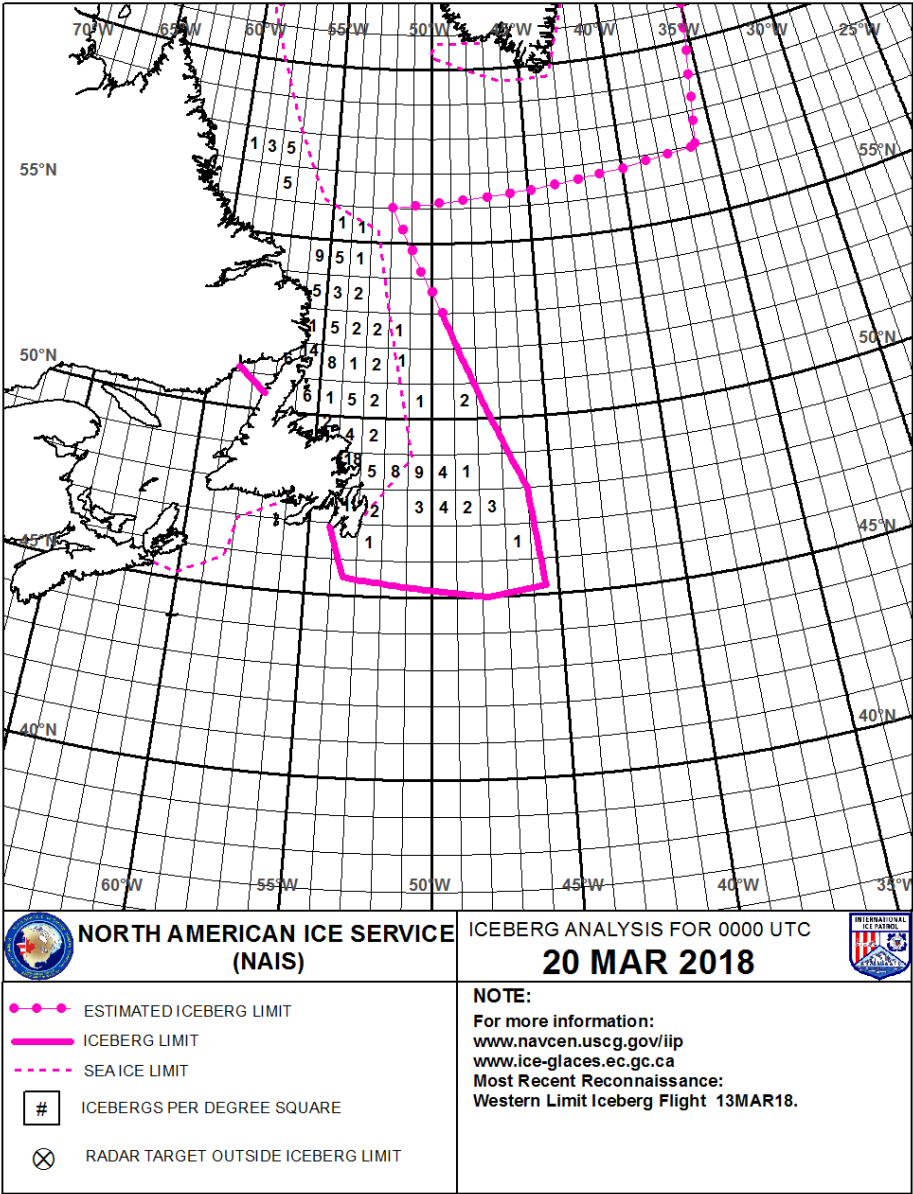
Cloud Base Heights



Cloud Top Heights



Sea Ice and Icebergs



3/23/18 Transit Flight

LOW

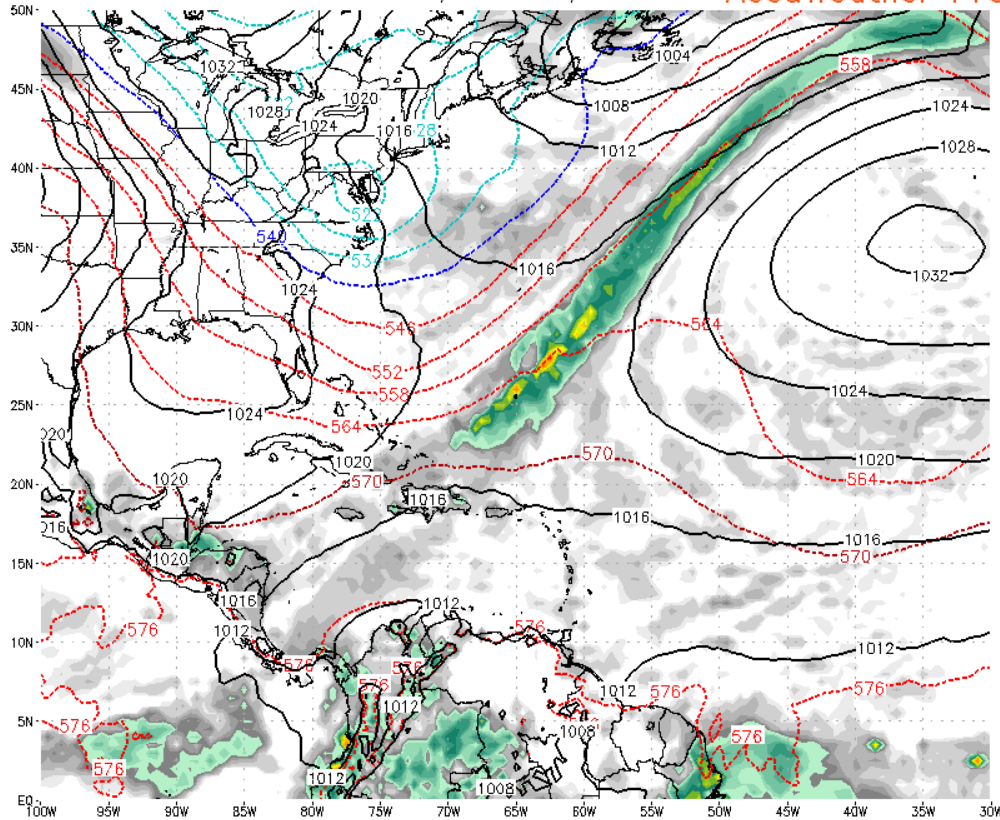
18Z

MID

MSLP (mb), 1000–500 thickness (DM) and 6–hour QPF (inches)
90 hour forecast valid 18Z Fri, MAR 23, 2018
ECMWF Deterministic initialized 00Z Tue, MAR 20, 2018

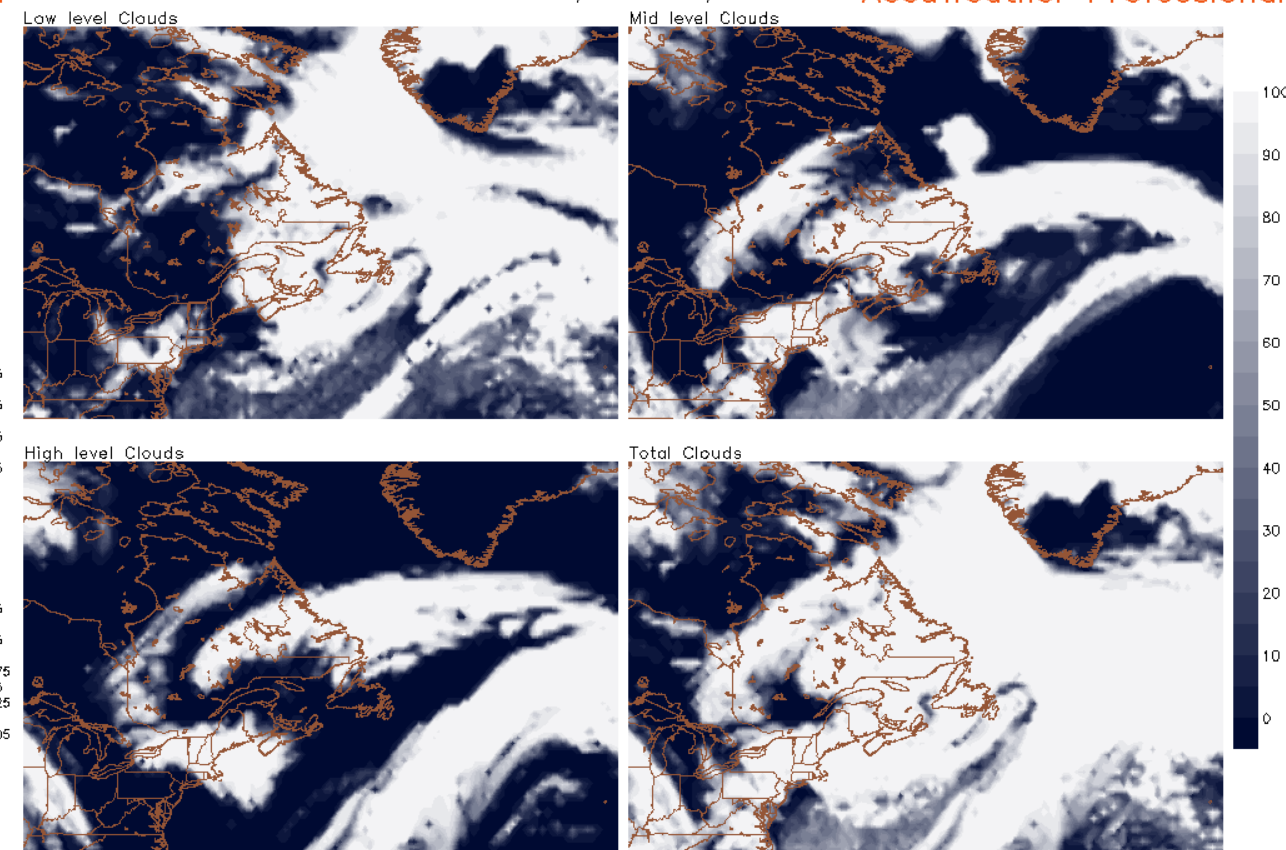
Max/Min MSLP 1037/999

AccuWeather Professional



4-panel Cloud Cover (%)
90 hour forecast valid 18Z Fri, MAR 23, 2018
ECMWF Deterministic initialized 00Z Tue, MAR 20, 2018

AccuWeather Professional



HIGH

TOTAL

3/24/18 Transit Flight

LOW

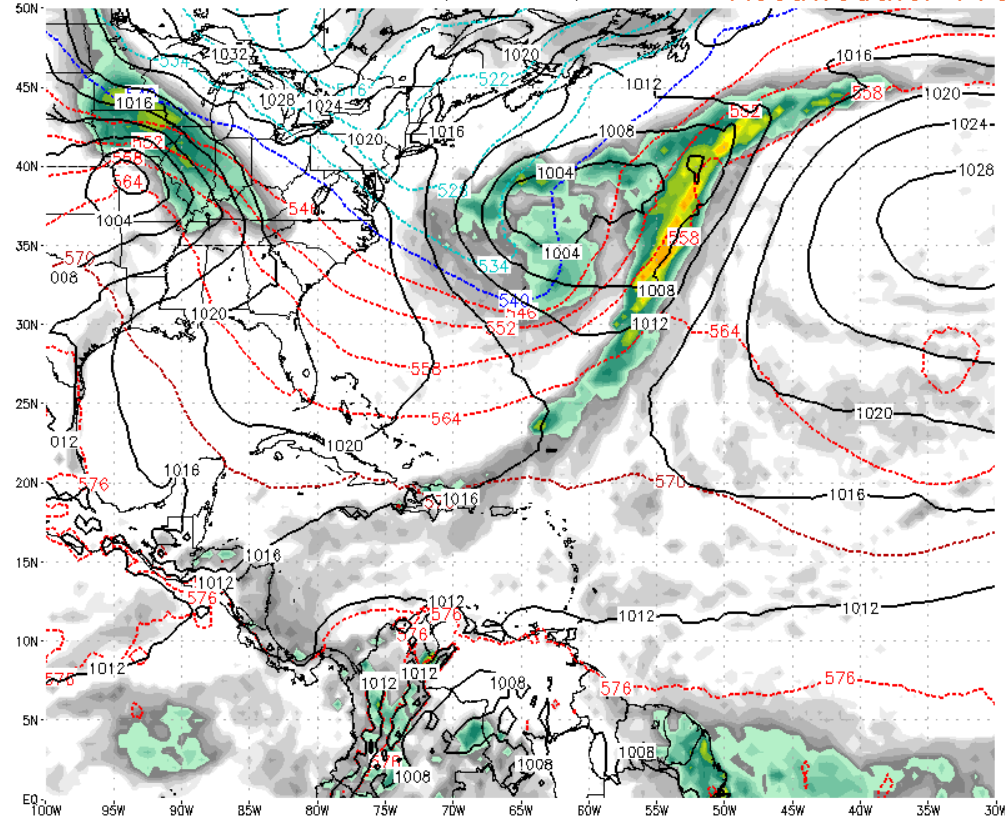
18Z

MID

MSLP (mb), 1000–500 thickness (DM) and 6–hour QPF (inches)
114 hour forecast valid 18Z Sat, MAR 24, 2018
ECMWF Deterministic initialized 00Z Tue, MAR 20, 2018

Max/Min MSLP 1037/998

AccuWeather Professional



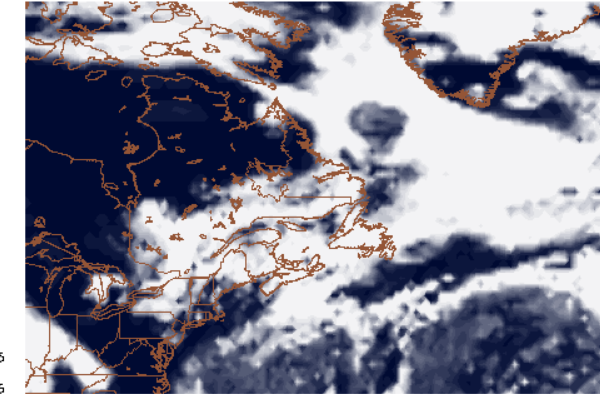
4-panel Cloud Cover (%)

114 hour forecast valid 18Z Sat, MAR 24, 2018

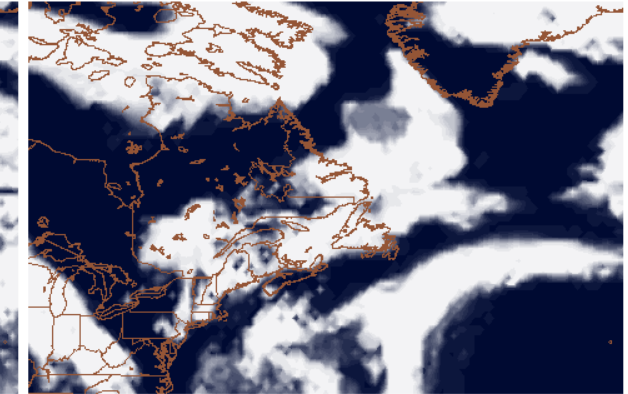
ECMWF Deterministic initialized 00Z Tue, MAR 20, 2018

AccuWeather Professional

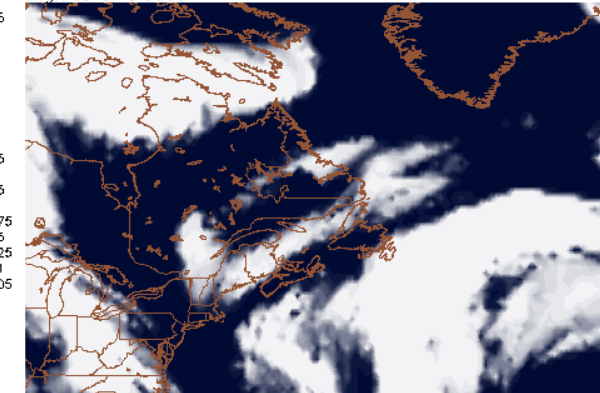
Low level Clouds



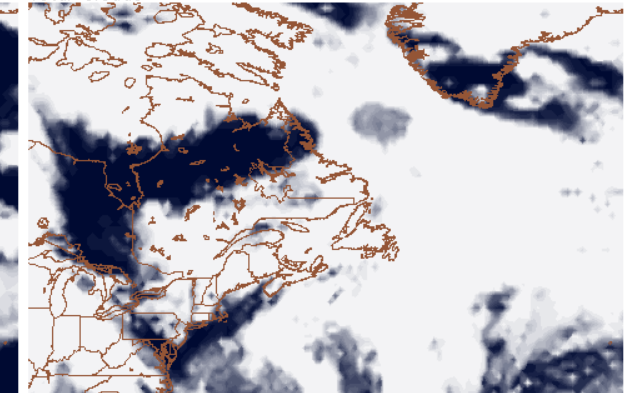
Mid level Clouds



High level Clouds



Total Clouds

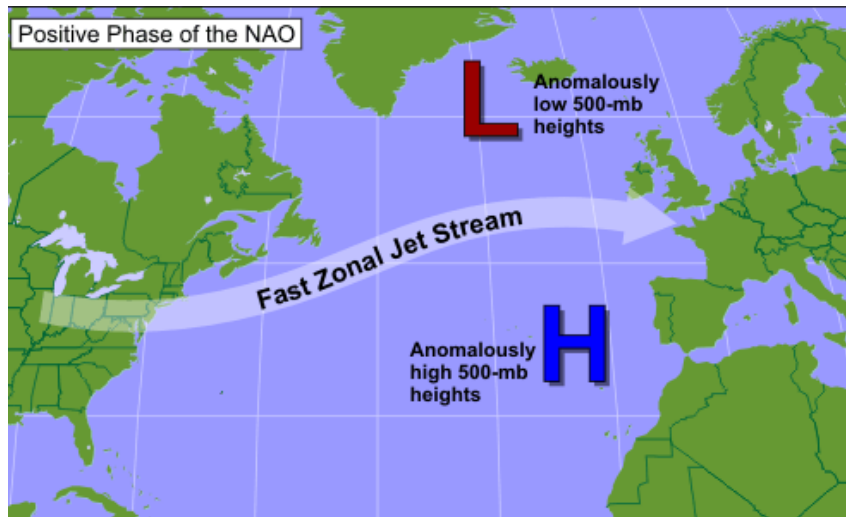


HIGH

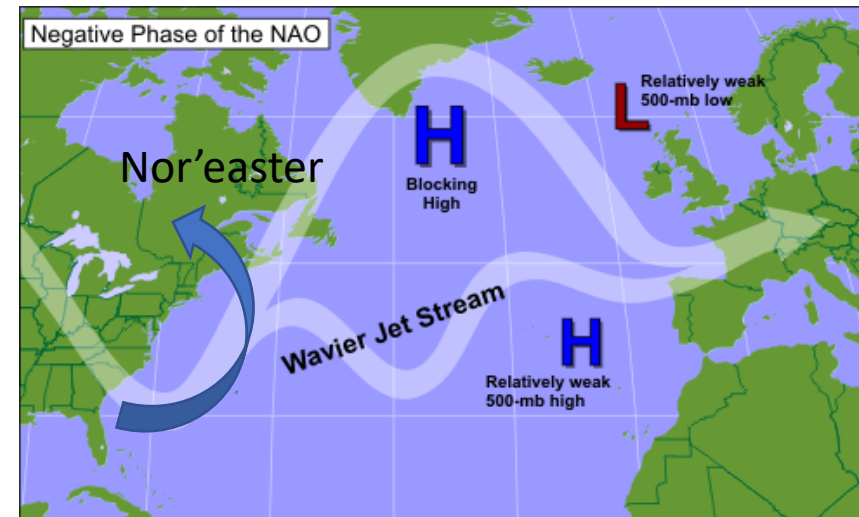
TOTAL

North Atlantic Oscillation

The North Atlantic Oscillation (NAO) is a weather phenomenon in the North Atlantic Ocean of fluctuations in the difference of atmospheric pressure at sea level between the Icelandic low and the Azores high. The fluctuations in the strength of the Icelandic low and the Azores high controls the strength and direction of westerly winds and storm tracks across the North Atlantic, which is important for our mission domain



The positive phase of the NAO is marked by low 500-mb heights near Iceland and high 500-mb heights near the Azores Islands.



The negative phase of the NAO is marked by unusually high 500-mb heights near Iceland, a pattern that typically develops with a blocking ridge or blocking high.

Forecasters track the NAO by comparing the 500-mb heights over the far North Atlantic (near Iceland) with those several thousand miles to the south near the Azores Islands.

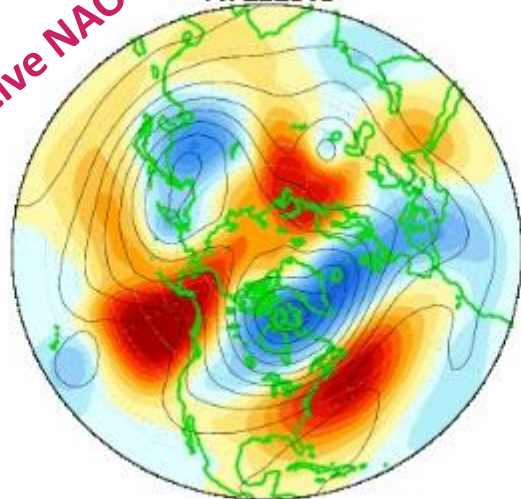
Credit: <https://www.e-education.psu.edu/worldofweather/s15.html>

Current NAO

CDAS 500-hPa HT Anoms (5d rm)

11FEB2018

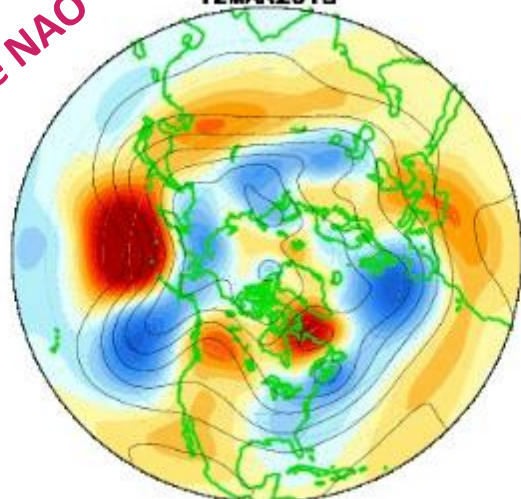
Positive NAO



CDAS 500-hPa HT Anoms (5d rm)

12MAR2018

Negative NAO



NAO: Observed & ENSM forecasts

