

NAAMES WX Briefing

Sunday, March 18, 2018

Michael Shook

Forecast Highlights

- Afternoon/evening rain for Monday, no rain in forecast for Tuesday morning now
- Clear at Wallops now, clouds and rain move in Monday-Thursday, rainy Saturday departure
- St. John's currently looks okay for arrival on Saturday 3/24

Planned Ship Route & Forecast

Saturday, 3/24

Waves: WNW 7-12 ft
Winds: SSE 15-25 kts
Clouds: Overcast
Precip: Rain beginning late
(may be heavy overnight)

Thursday, 3/22

Waves: NE 4-5 ft
Winds: SE 10-15 kts
Clouds: partly cloudy
Precip: None

Tuesday, 3/20 San Juan

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

Friday, 3/23

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

Wednesday, 3/21

Waves: NNE 4-5 ft
Winds: SE 10-15 kts
Clouds: partly cloudy
Precip: none

Geographer
avy, NGA, GEBCO

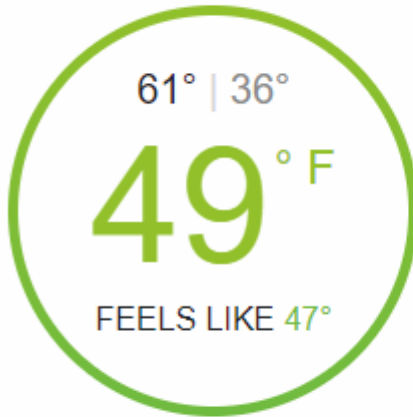
© 2018 Google

Image Landsat / Copernicus

Google Earth

Current Conditions at Wallops

© 12:35 PM EDT on March 18, 2018 (GMT -0400) | Updated a minute ago

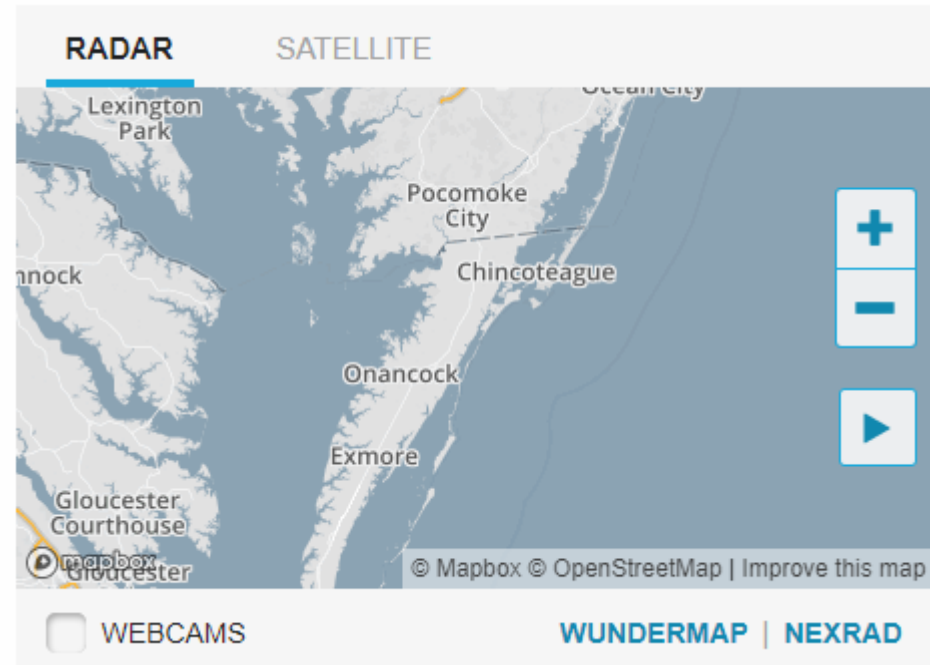


Sunny

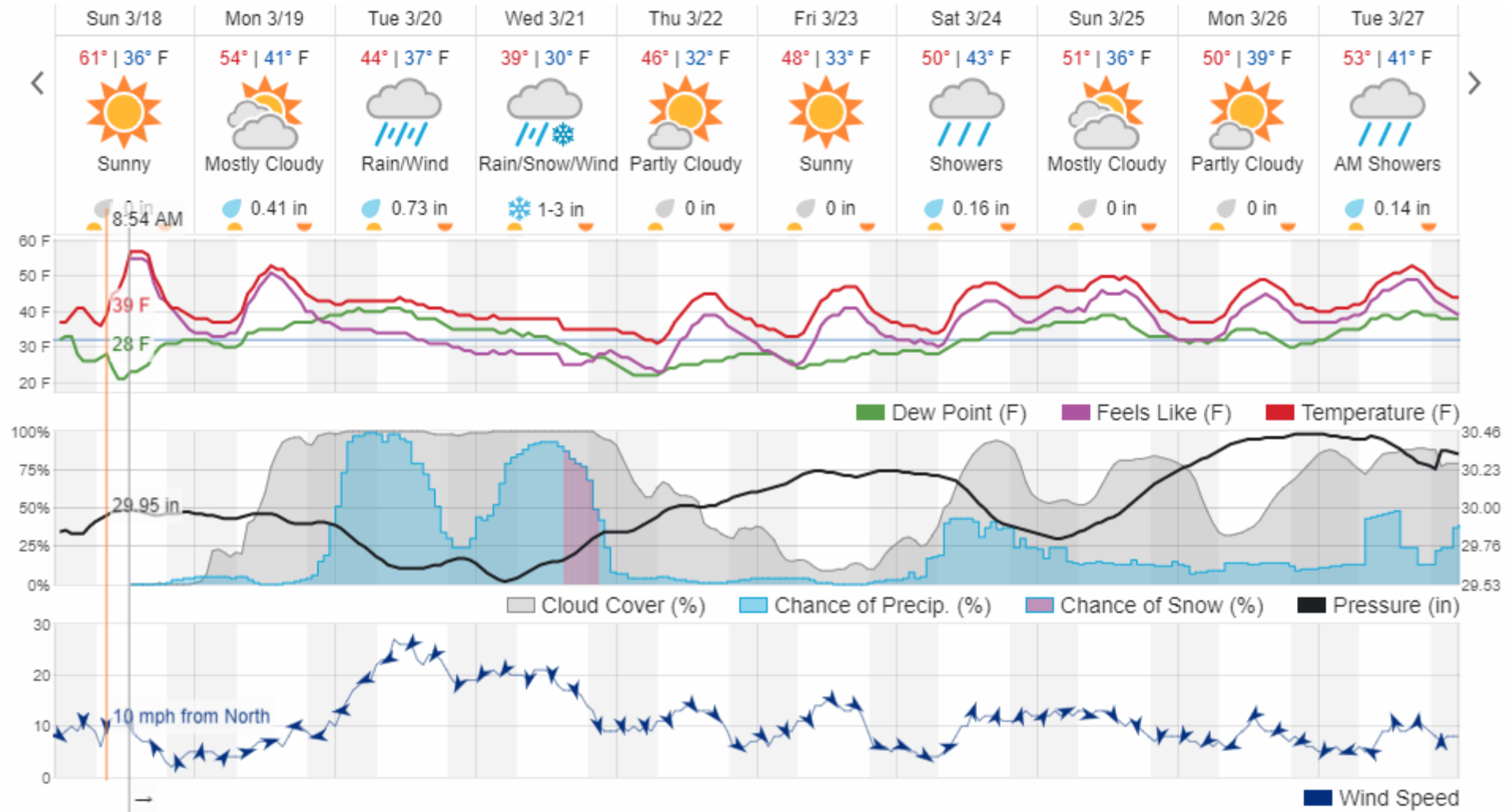


Wind **WNW**
Gusts **12 mph**

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

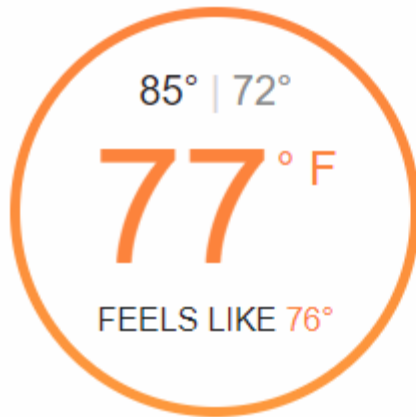


Wallops Forecast



Current Conditions at San Juan

© 12:38 PM AST on March 18, 2018 (GMT -0400) | Updated a few seconds ago

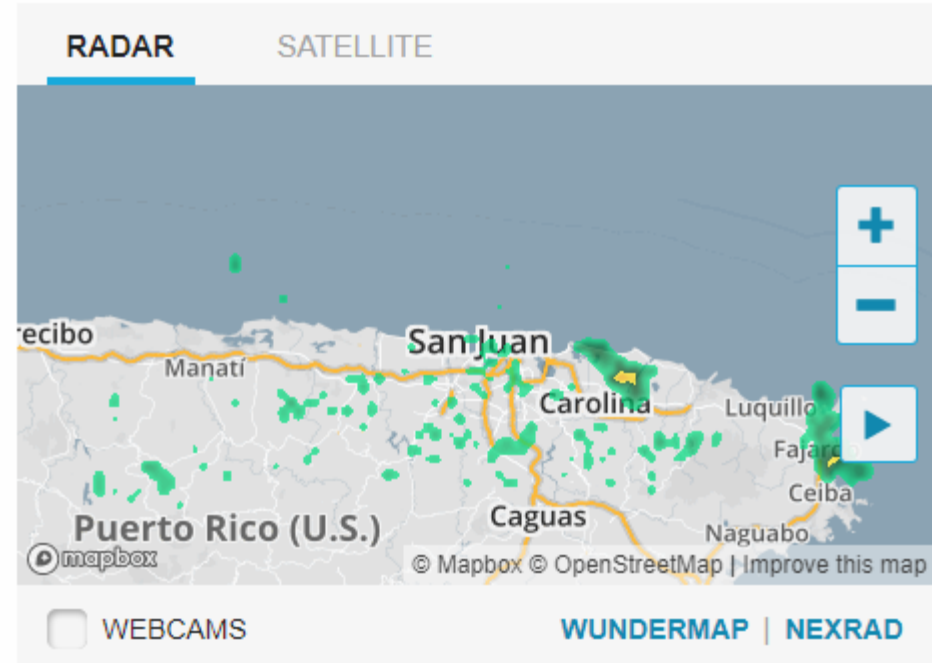


Partly Cloudy

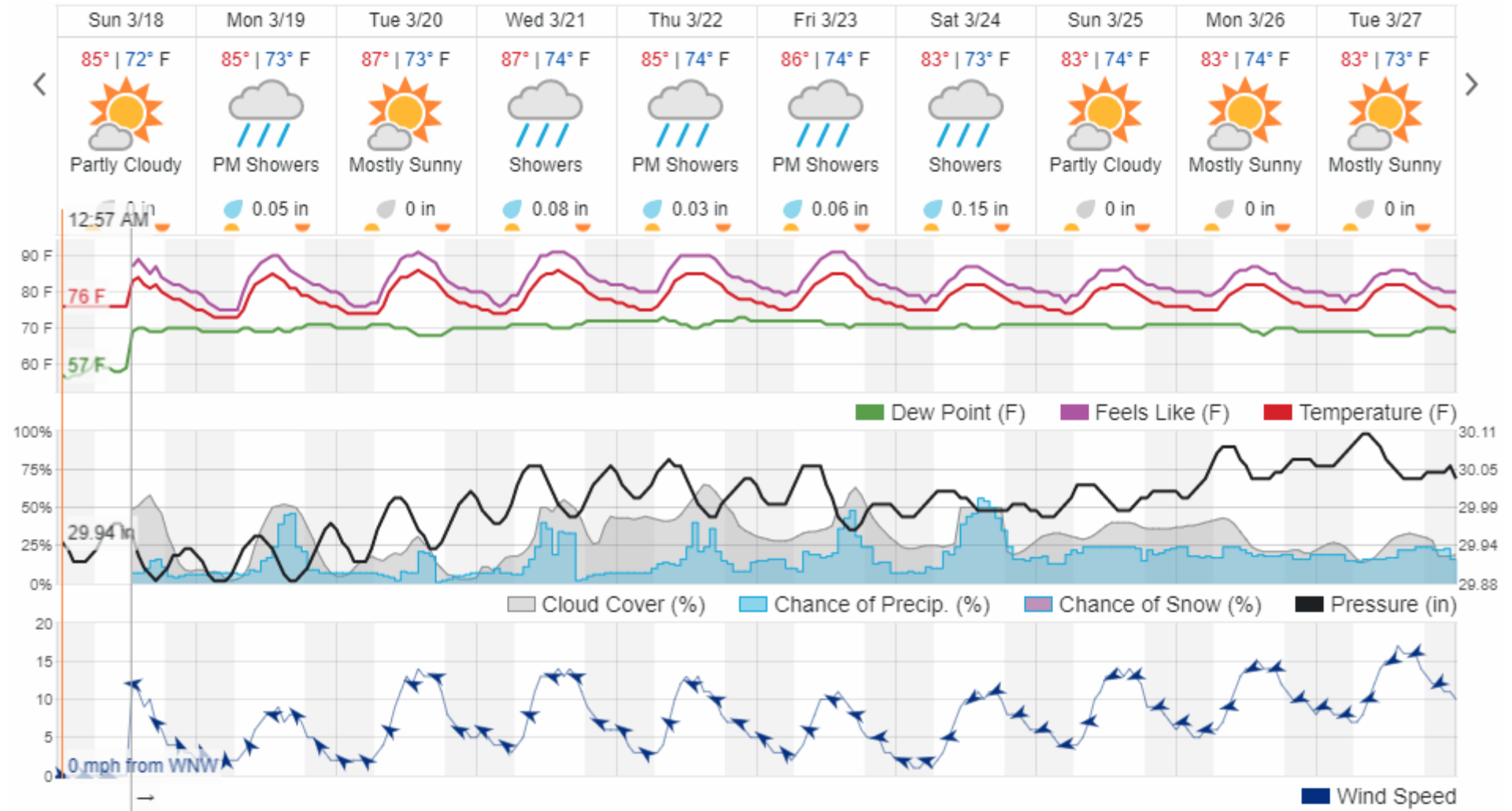


Wind **WNW**

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



San Juan Forecast



Current Conditions at St. John's

© 3:10 PM NDT on March 18, 2018 (GMT -0230) | Updated 8 minutes ago

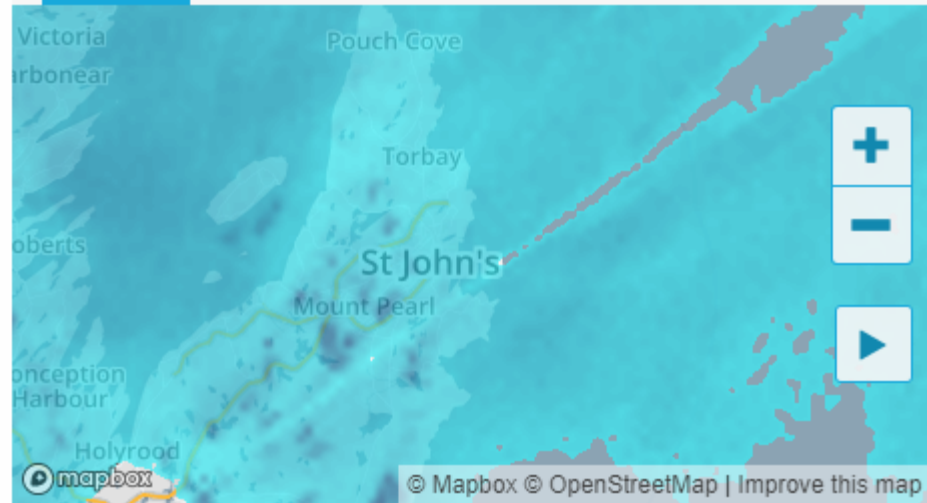


Wind **WNW**
Gusts **14 mph**

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

RADAR

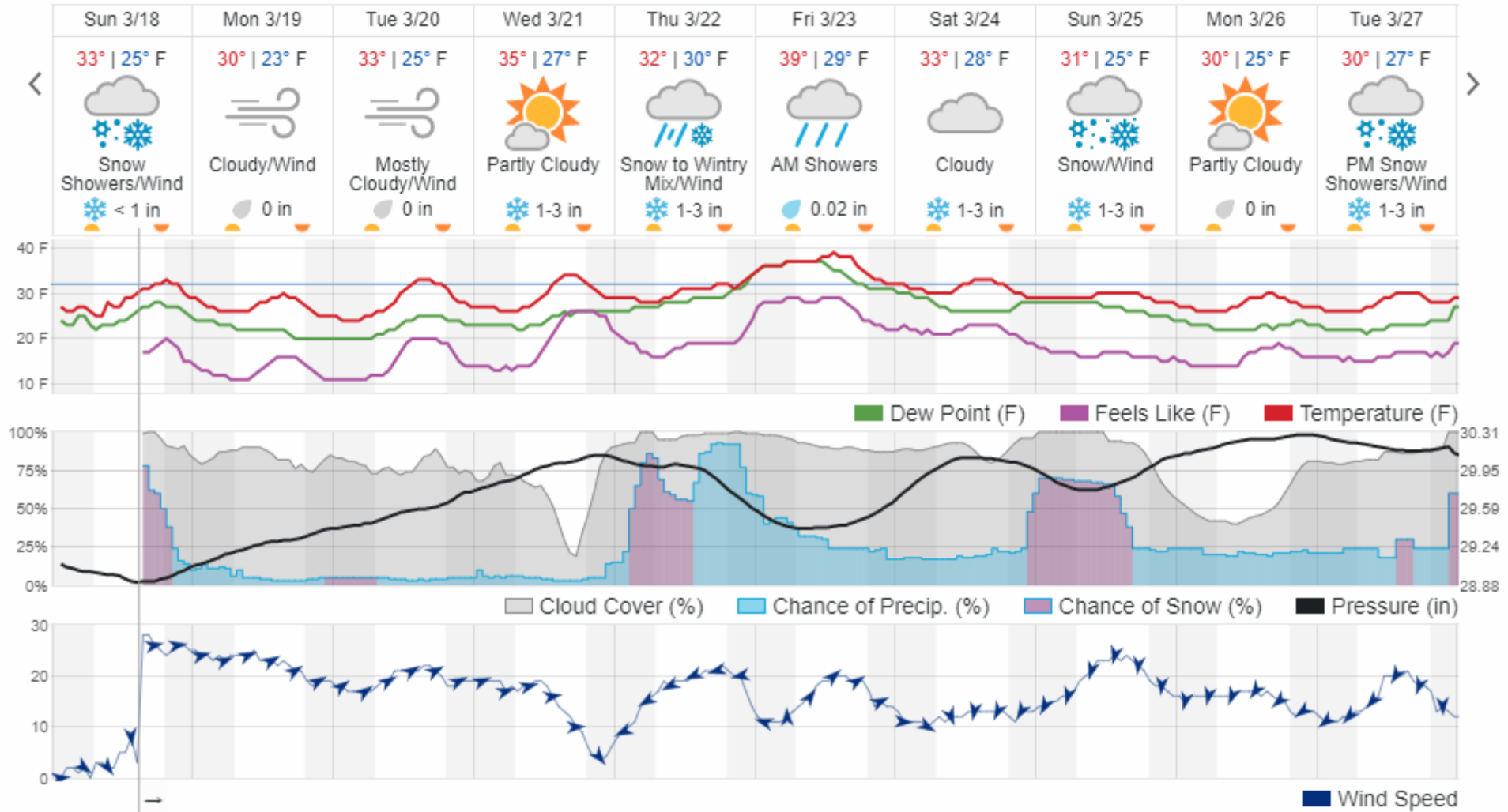
SATELLITE



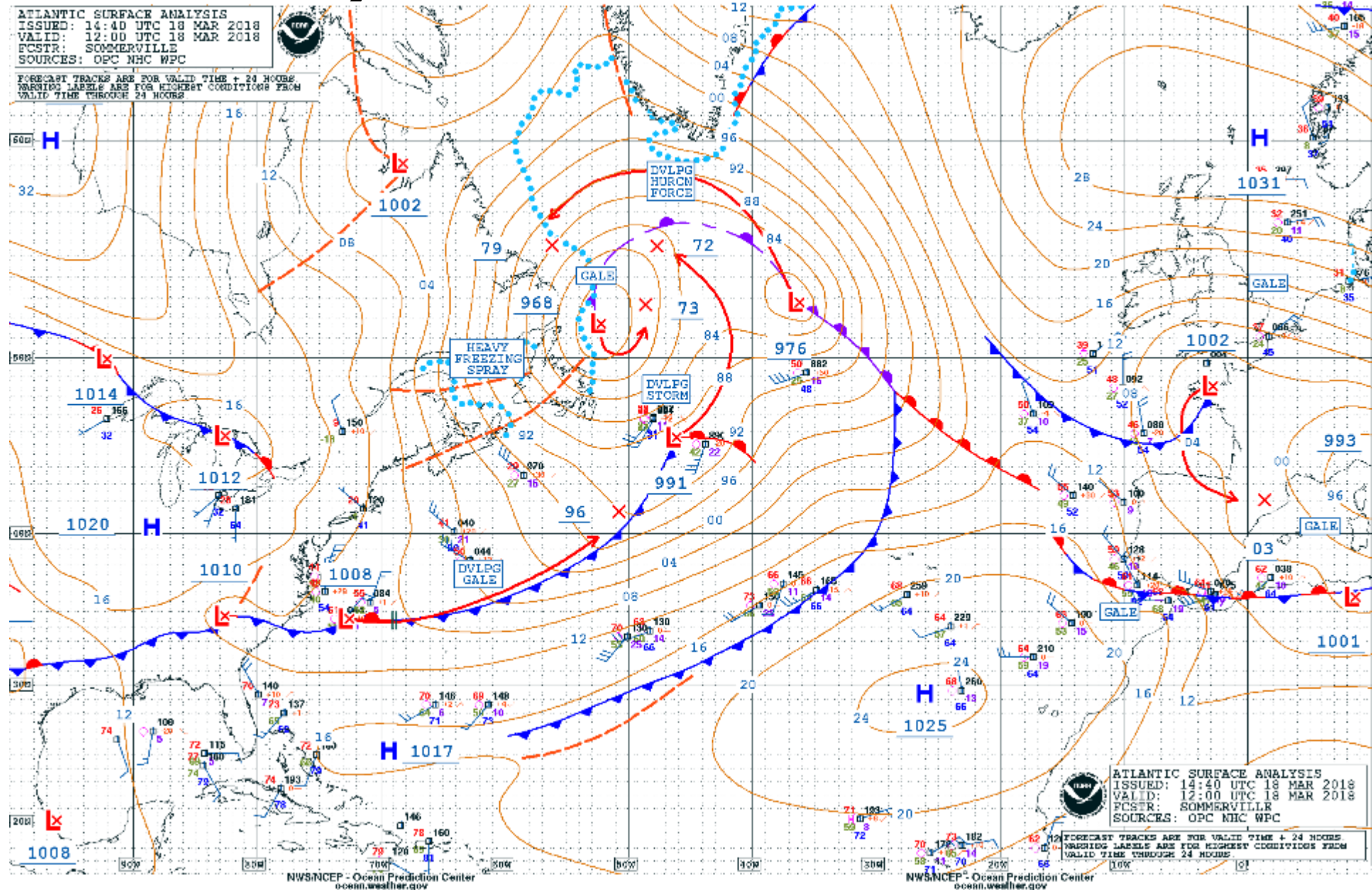
☐ WEBCAMS

WUNDERMAP | **NEXRAD**

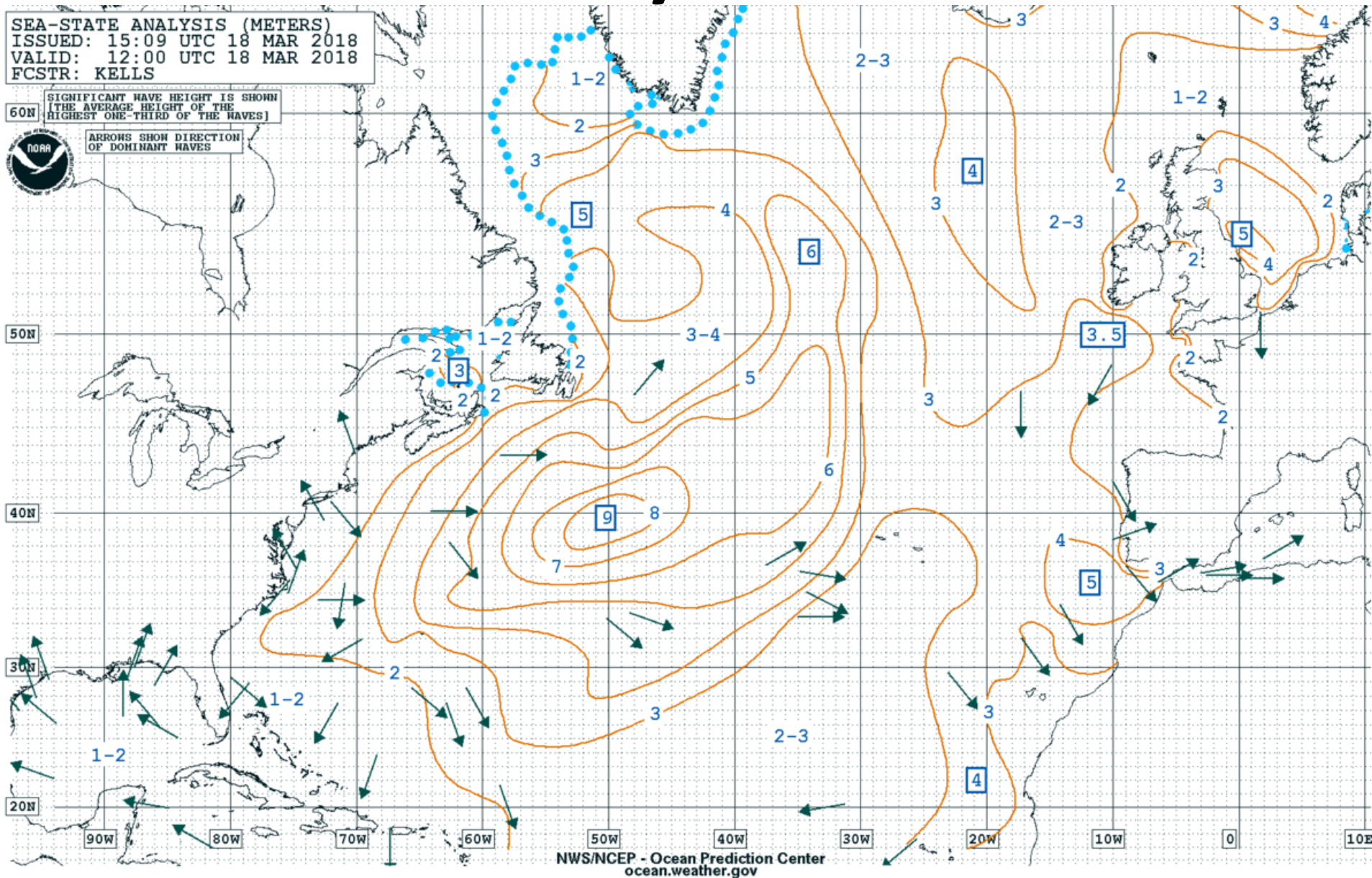
St. John's Forecast



Surface Analysis



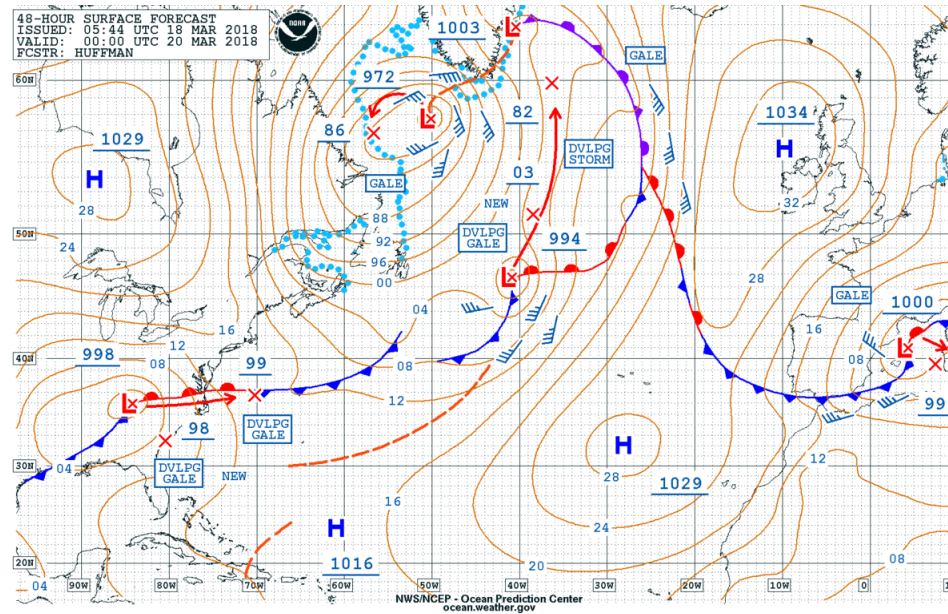
Sea State Analysis



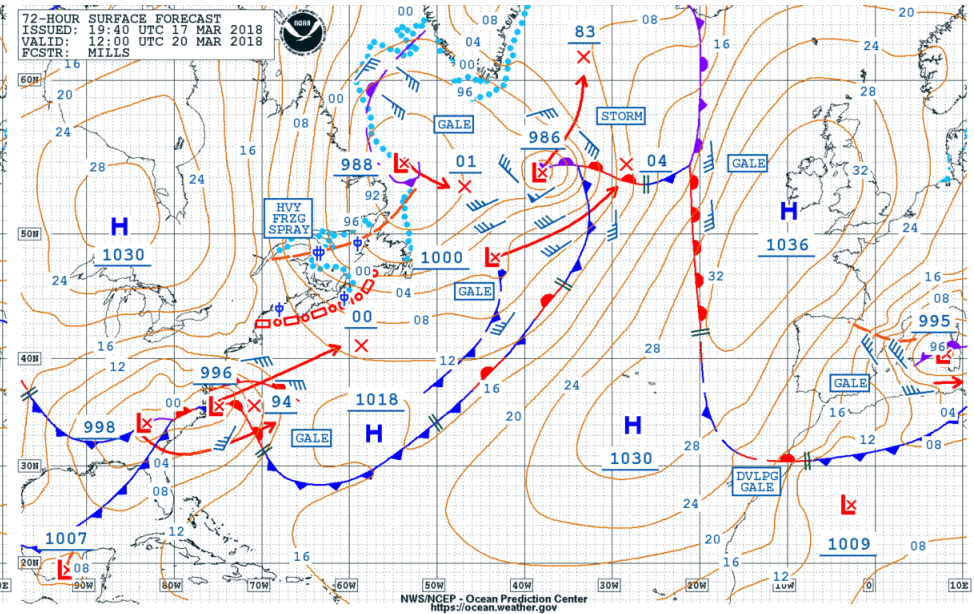
- Significant Wave Height is shown (in meters). This is the average height of the highest one-third of the waves
- Arrows show direction of dominant waves

Synoptic Forecast

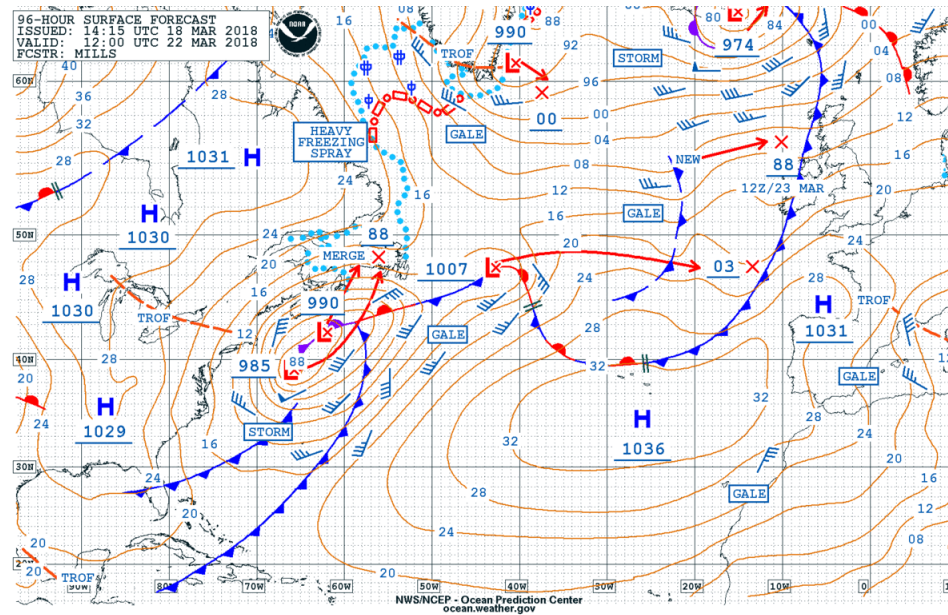
48 Hour Forecast - Monday 8pm EDT



72 Hour Forecast - Tuesday 8am EDT

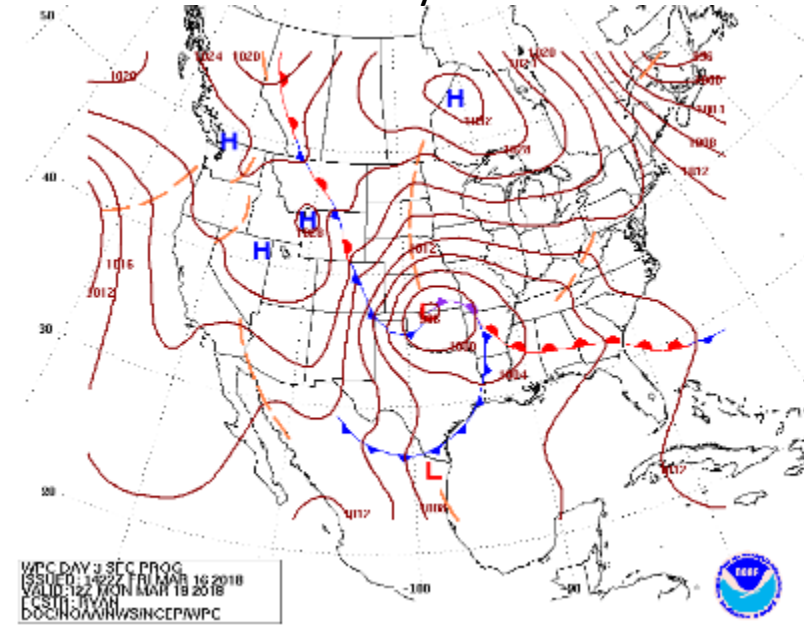


96 Hour Forecast - Thursday 8am EDT

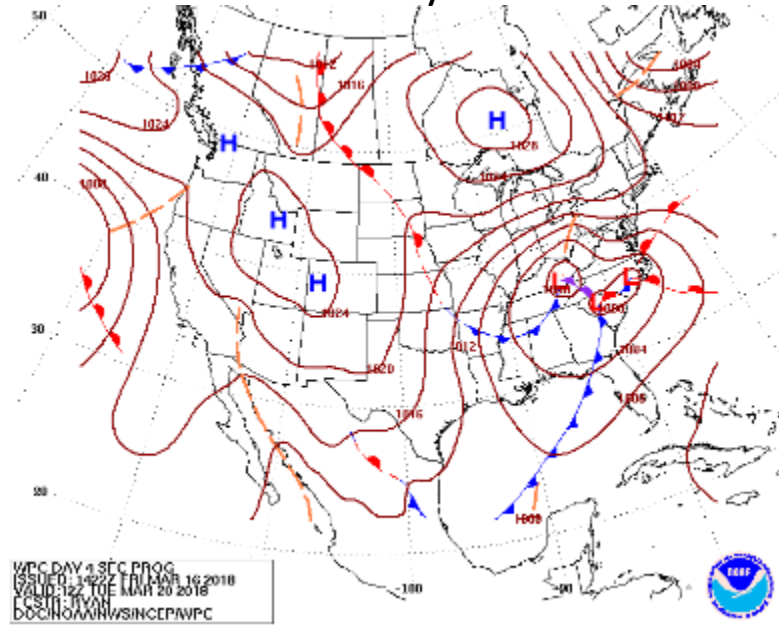


Nor'easter Tracking

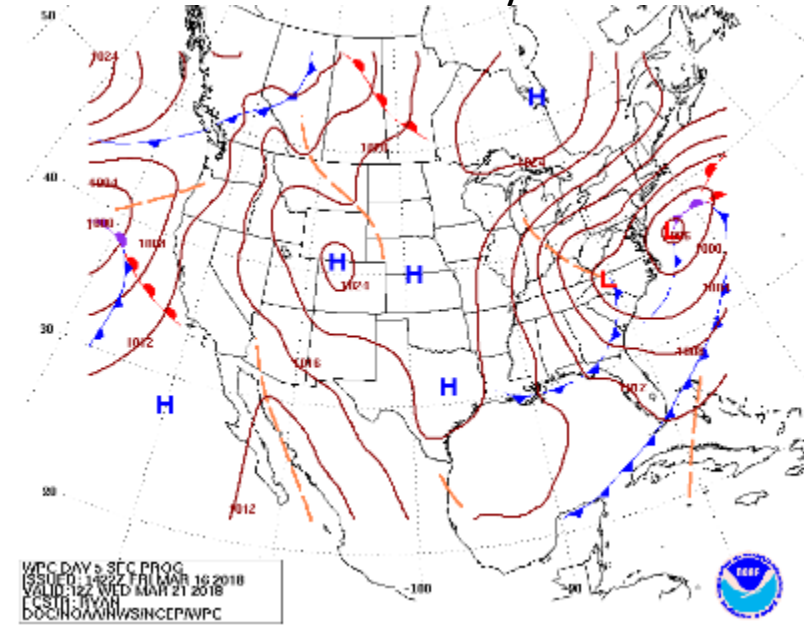
Monday AM



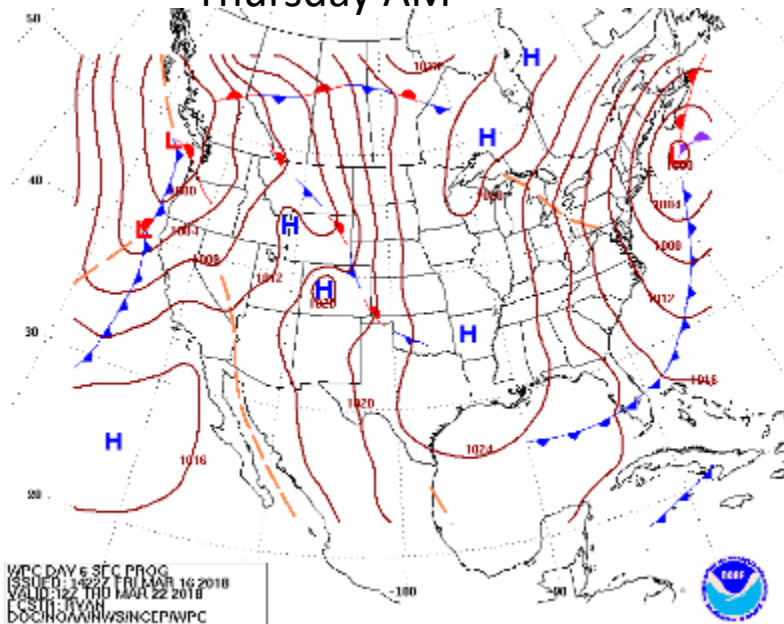
Tuesday AM



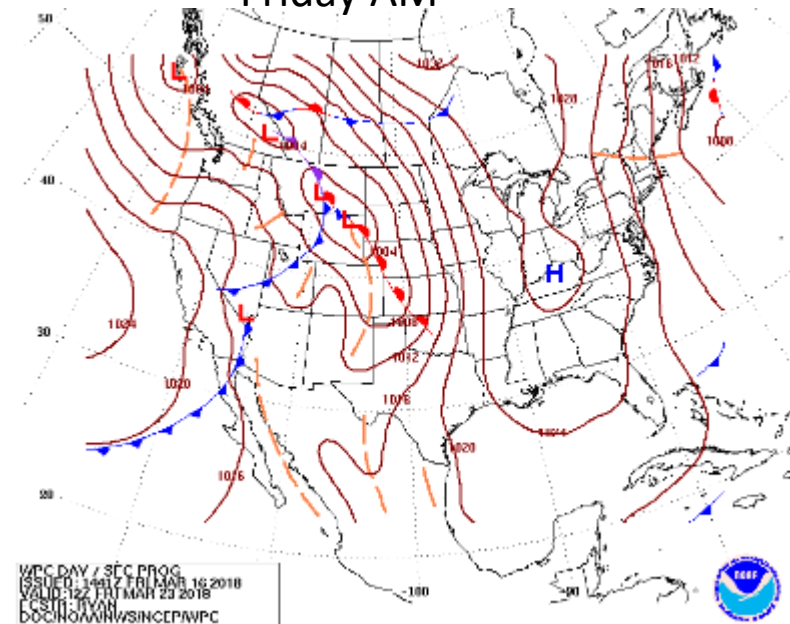
Wednesday AM



Thursday AM

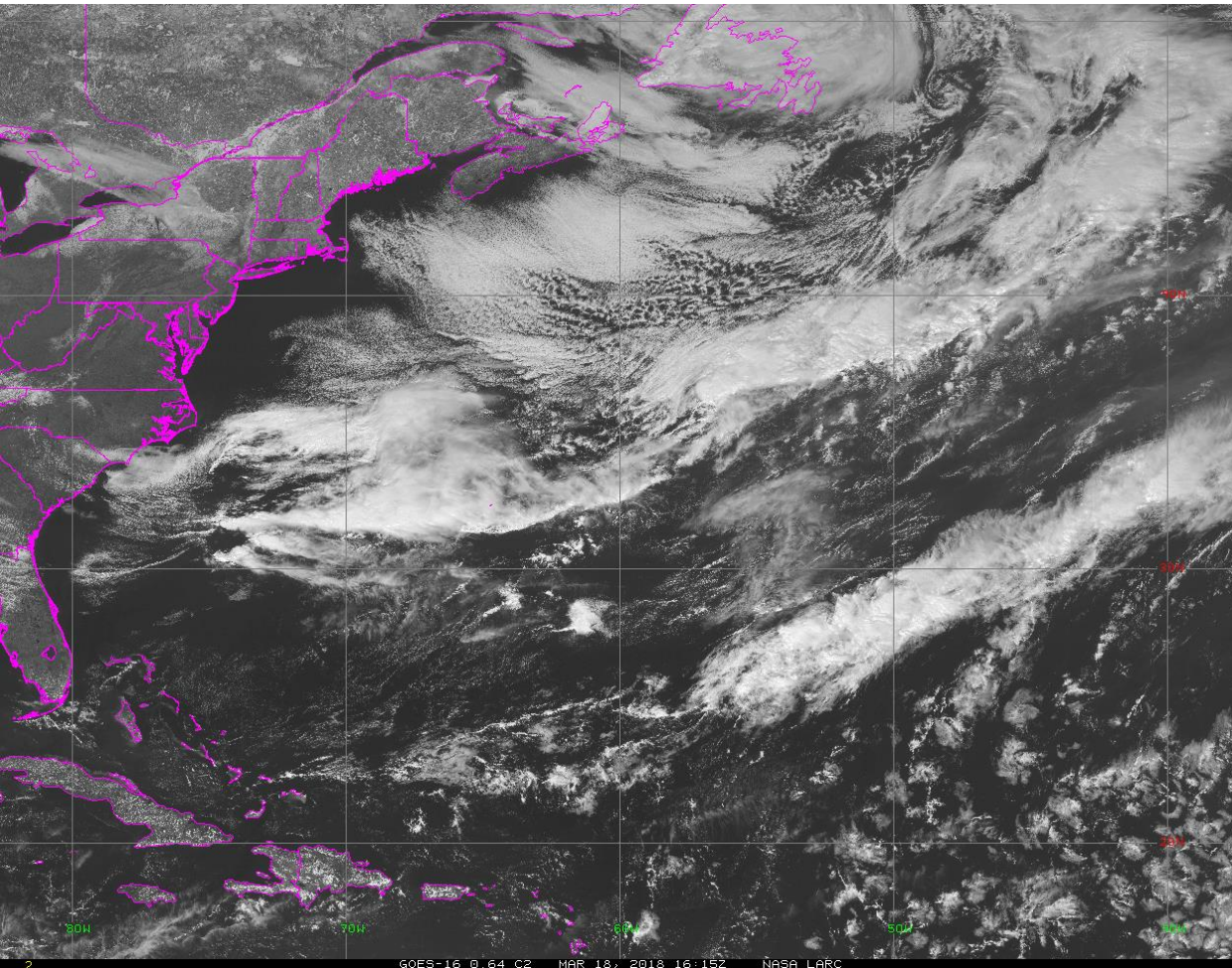


Friday AM

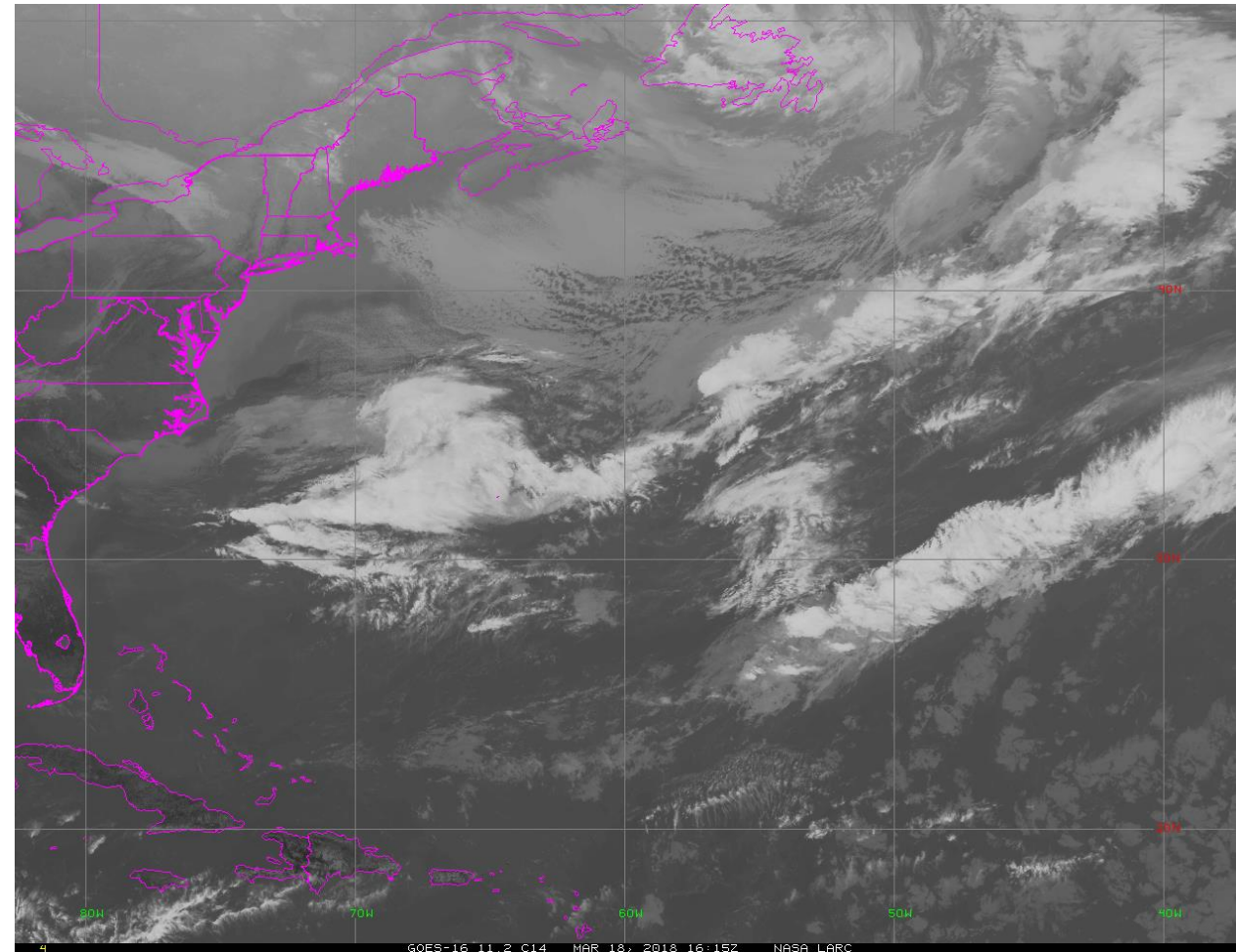


GOES-16 Imagery (3/18 16:15 UTC)

Visible

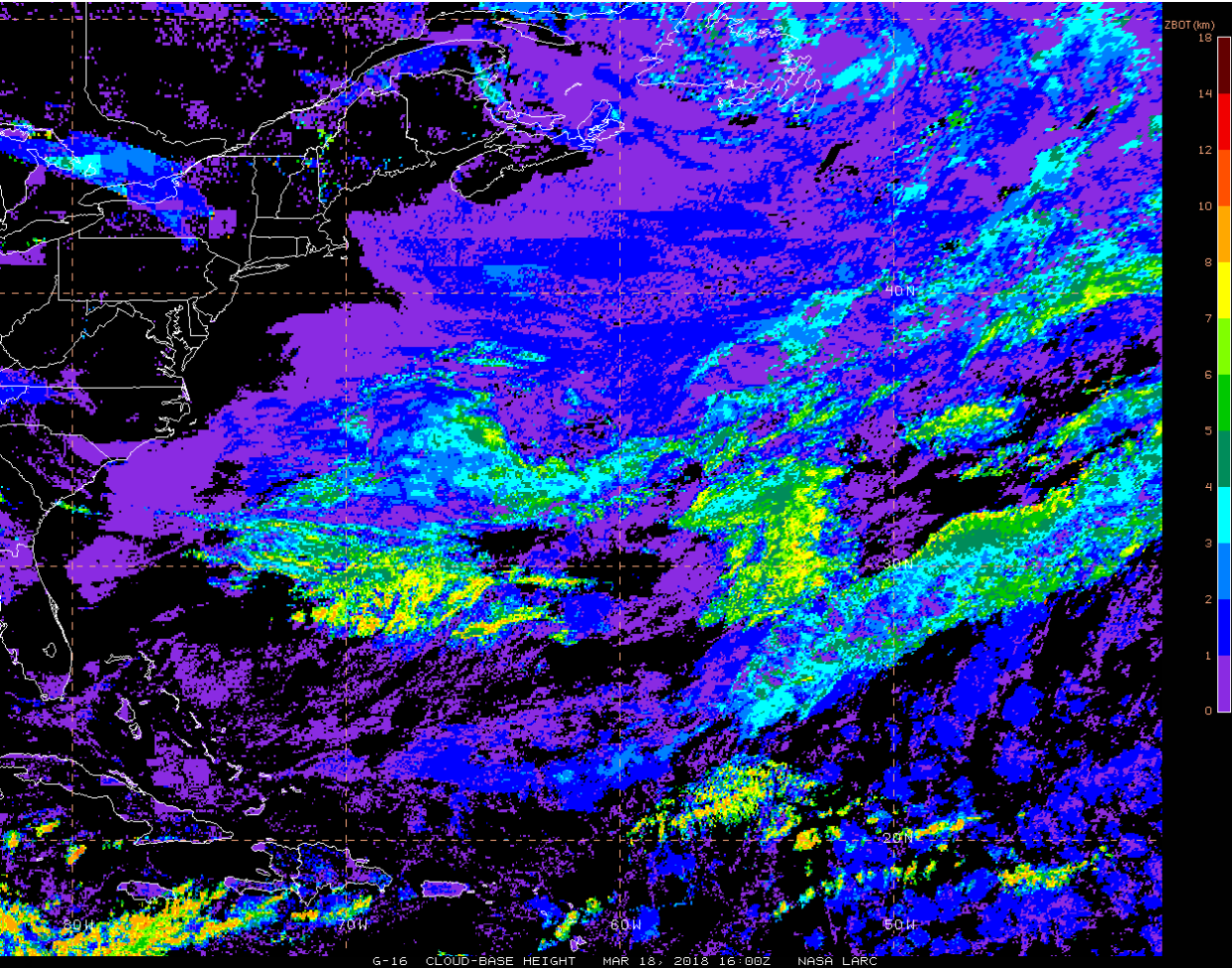


IR

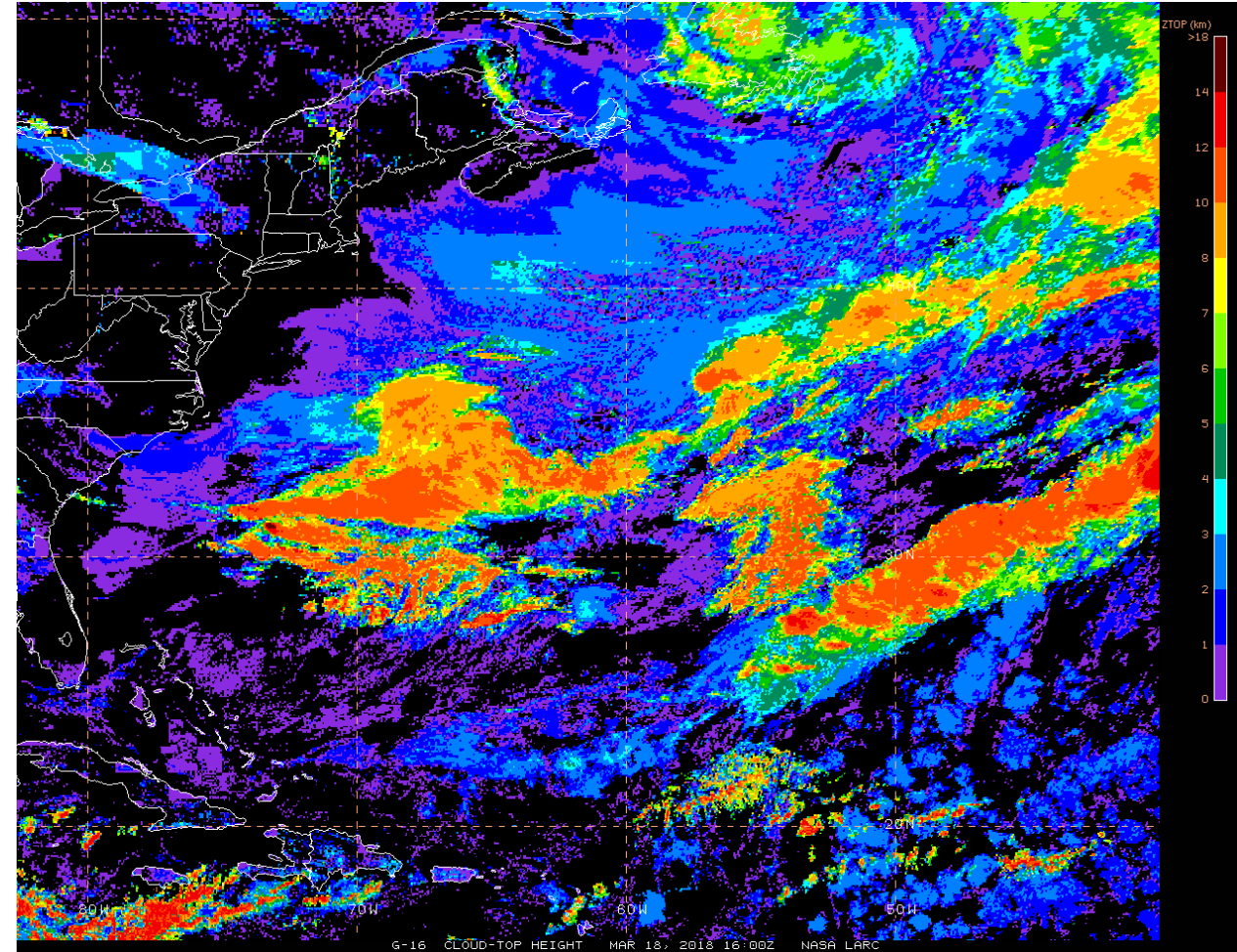


GOES-16 Cloud Products (3/16 14:00 UTC)

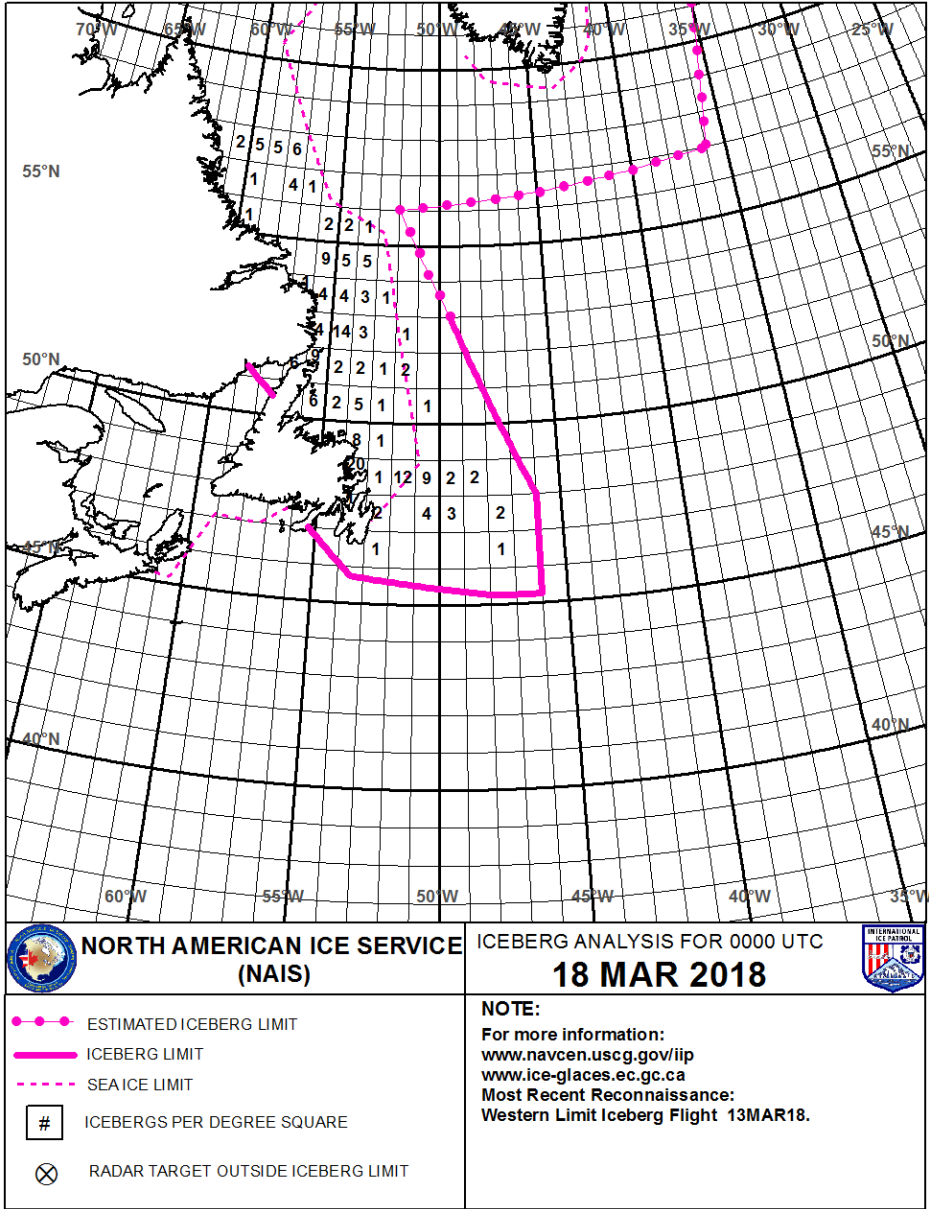
Cloud Base Heights



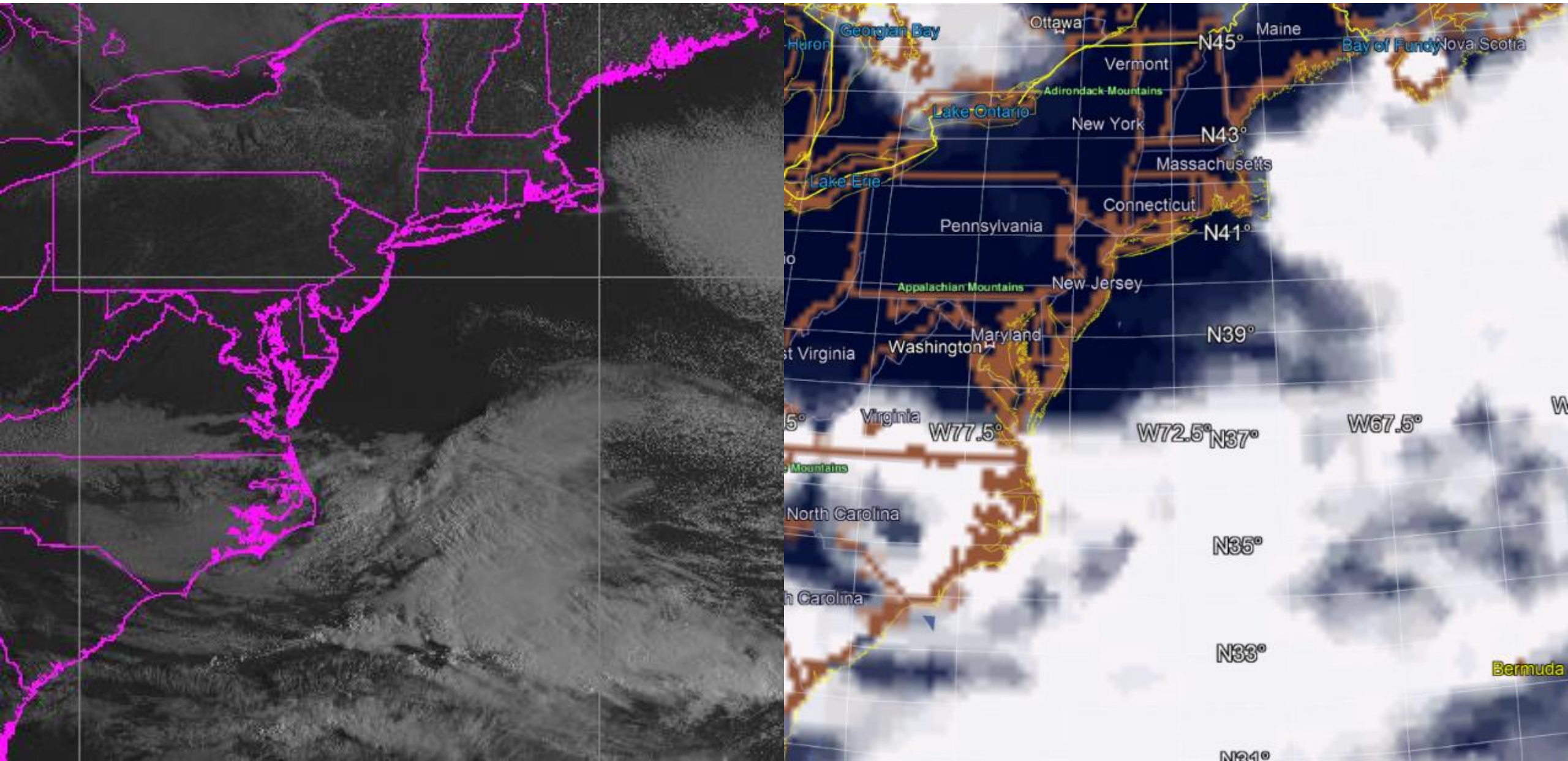
Cloud Top Heights



Sea Ice and Icebergs



Cloud Verification – 12:15z observed/12z 4cast

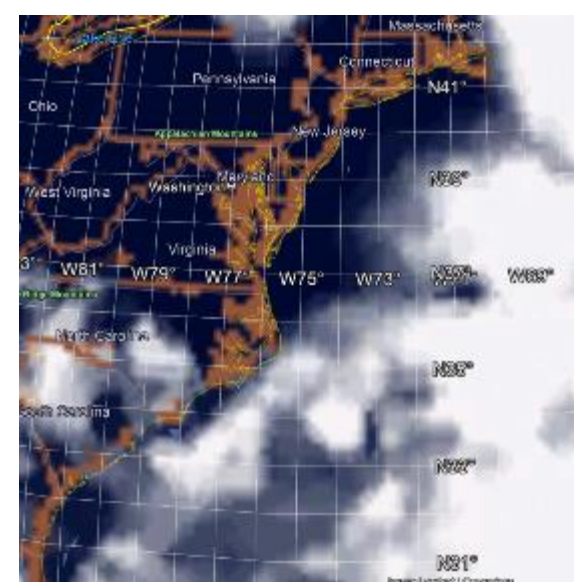
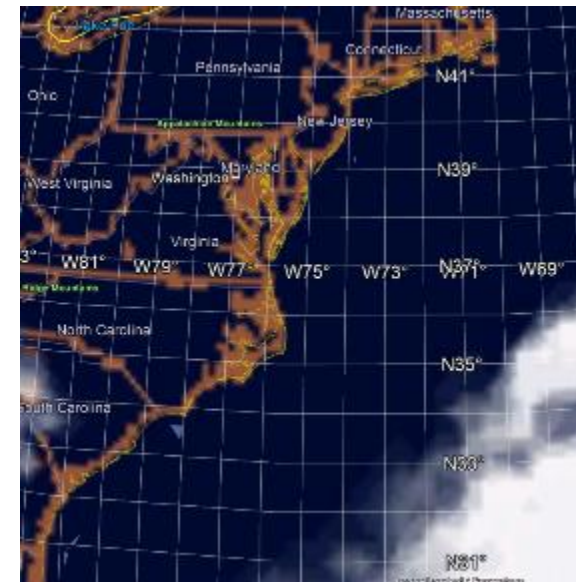
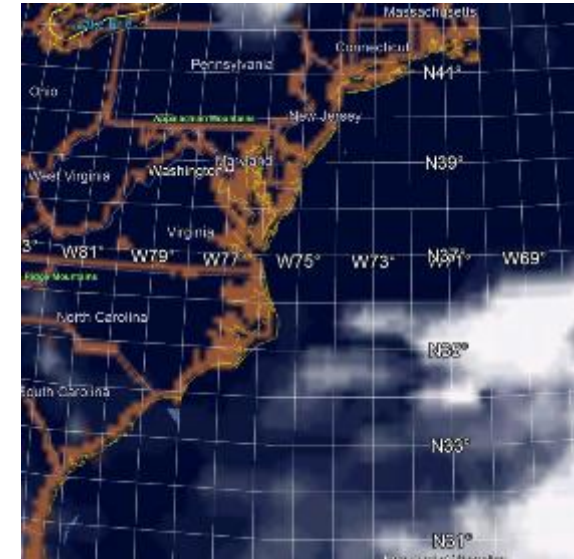
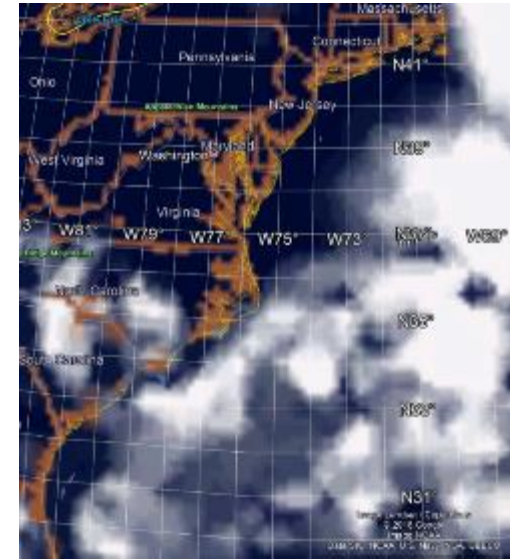
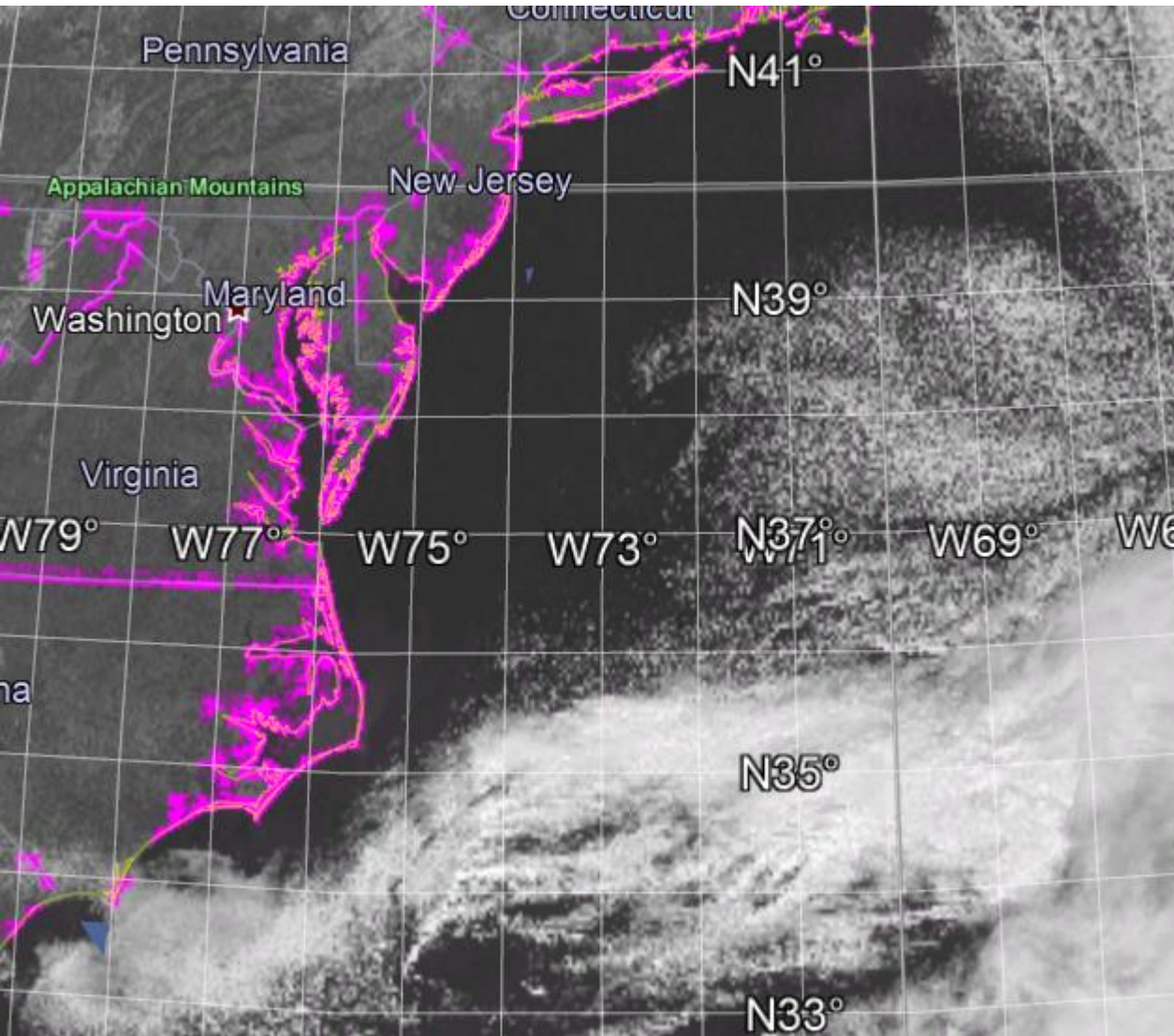


3/18/18 ATF/Science Test Flight

LOW

18Z

MID



HIGH

TOTAL

3/20/18 Test Flight

LOW

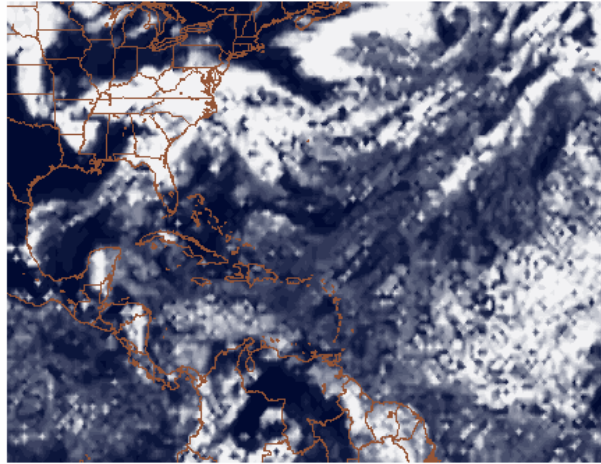
12Z

MID

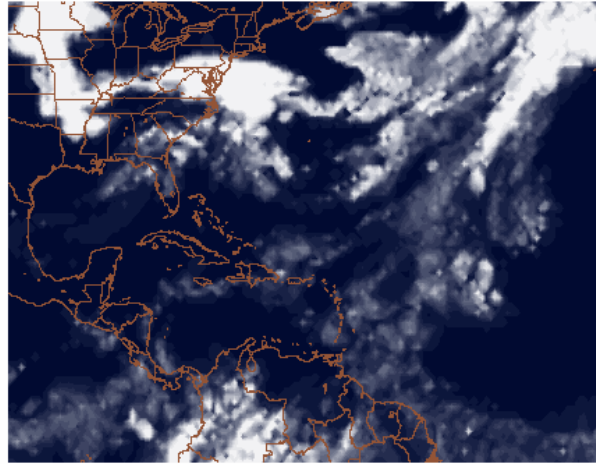
LOW

18Z

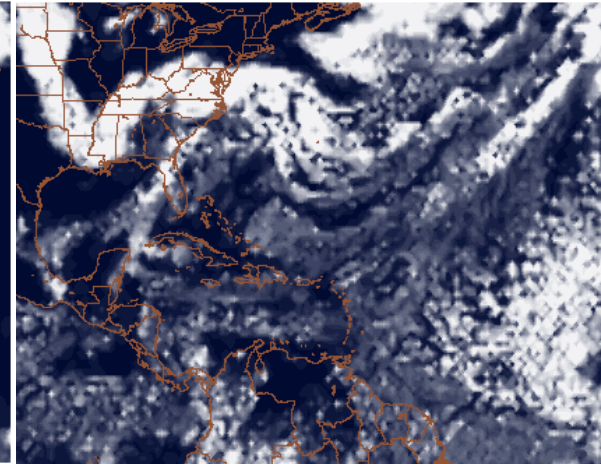
MID



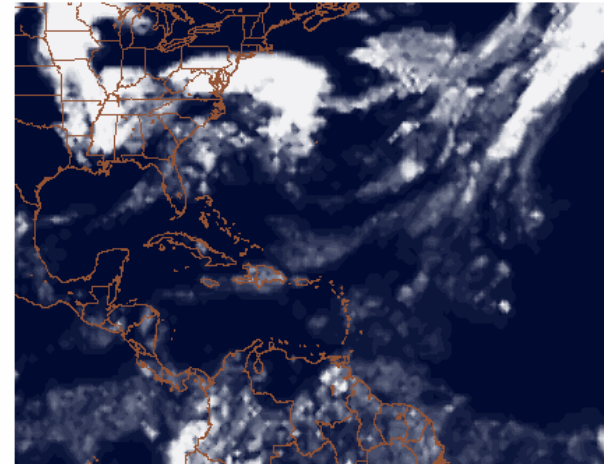
Low level Clouds



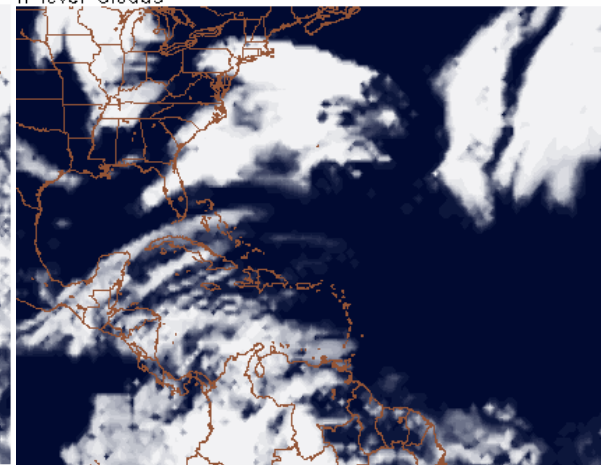
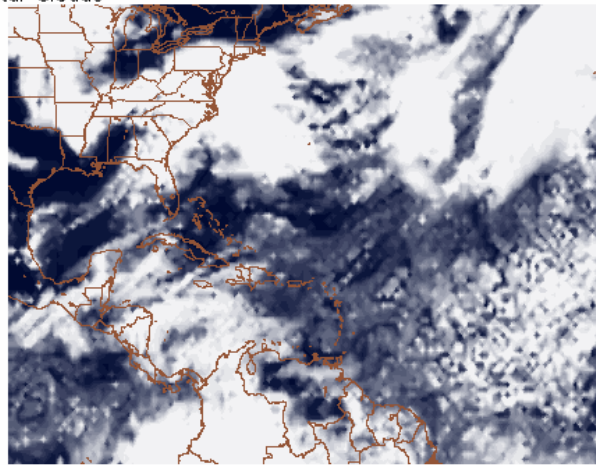
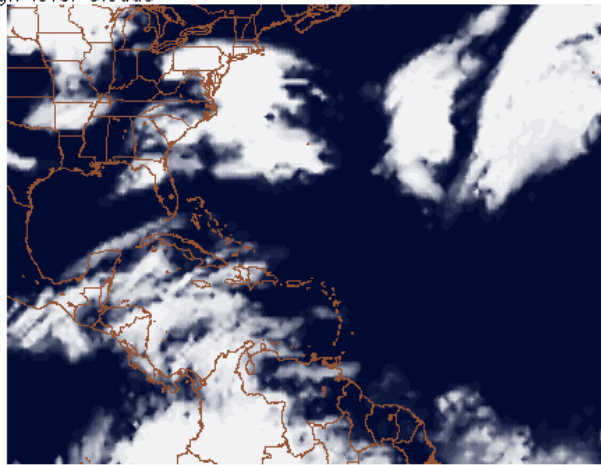
Total Clouds



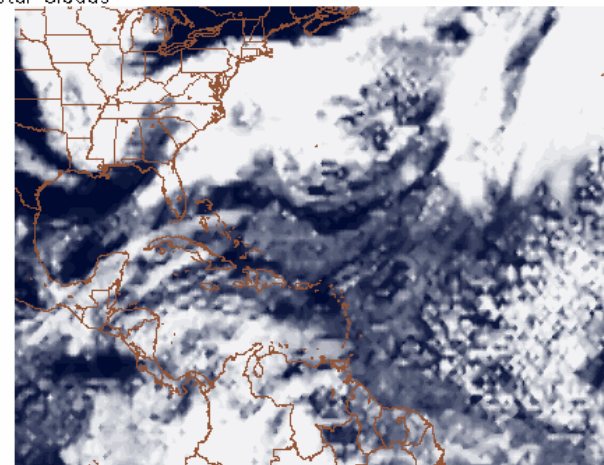
High level Clouds



Total Clouds



High level Clouds



Total Clouds

HIGH

TOTAL

HIGH

TOTAL

3/21/18 Test Flight

LOW

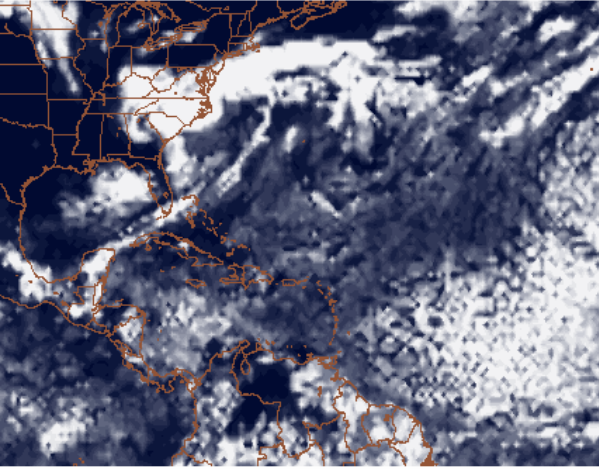
12Z

MID

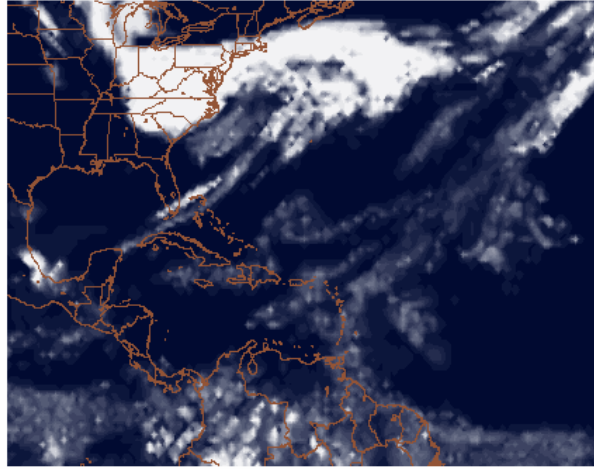
LOW

18Z

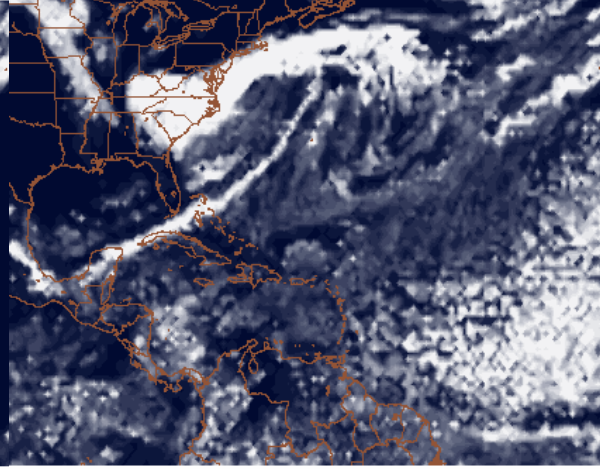
MID



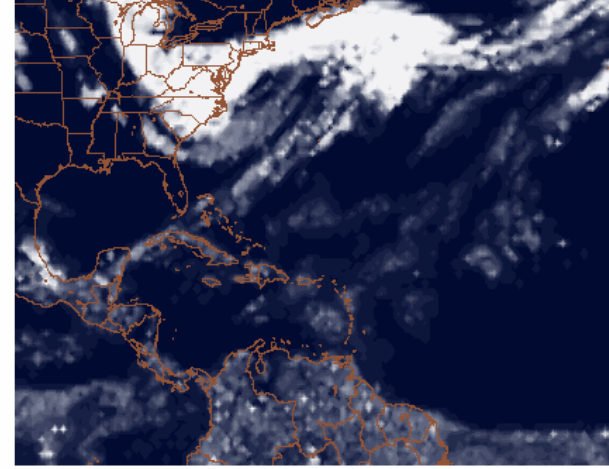
h level Clouds



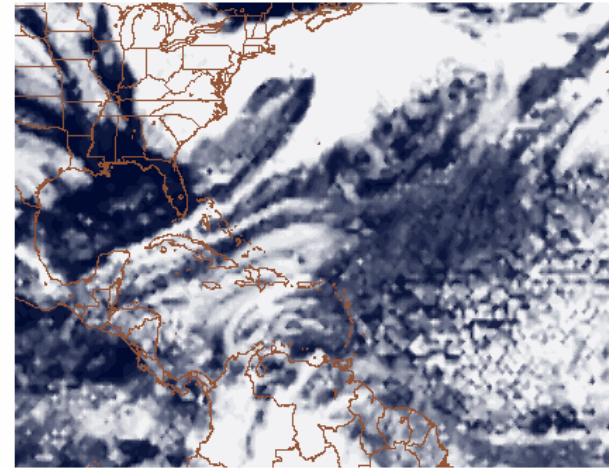
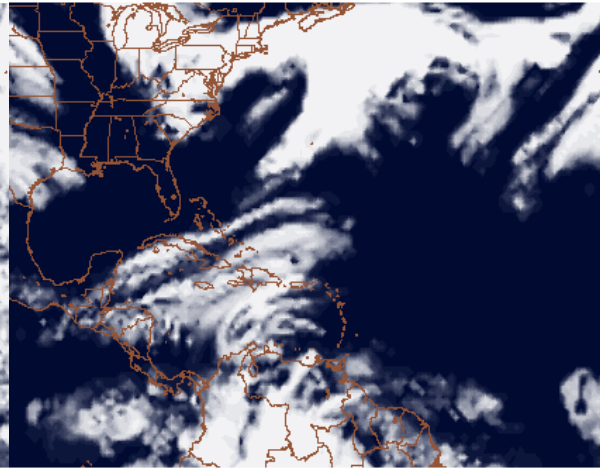
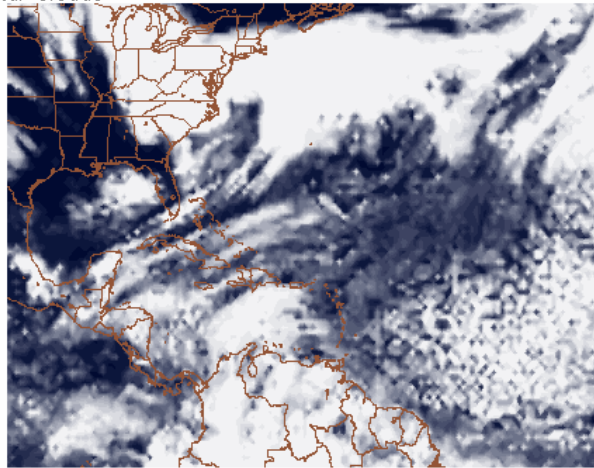
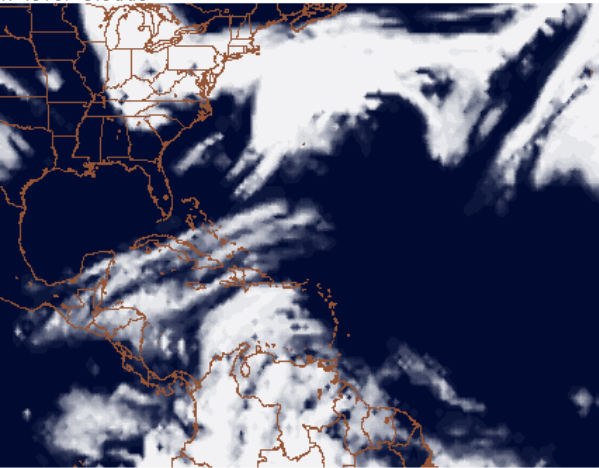
Total Clouds



h level Clouds



Total Clouds



Total Clouds

HIGH

TOTAL

HIGH

TOTAL

3/24/18 Transit Flight

LOW

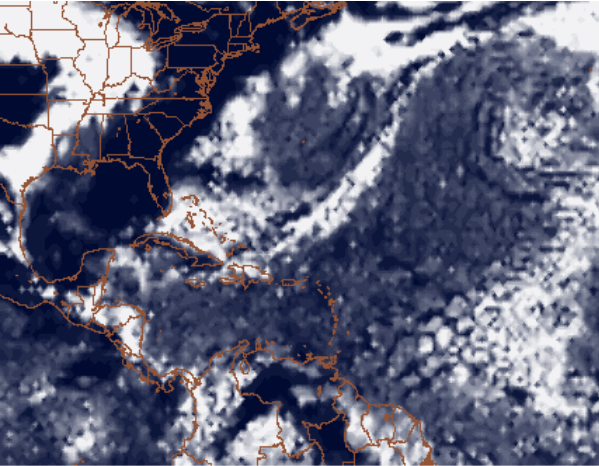
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MID

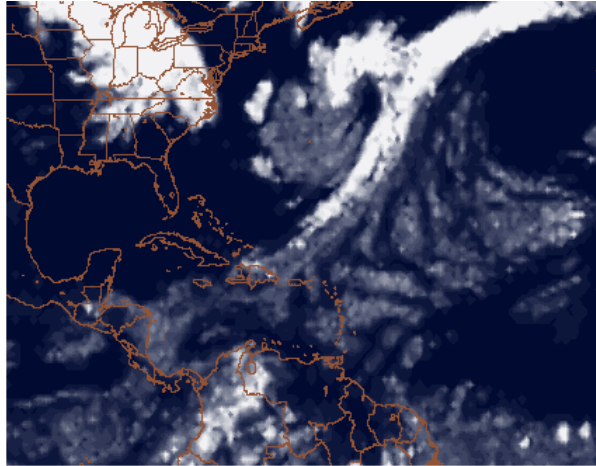
LOW

18Z

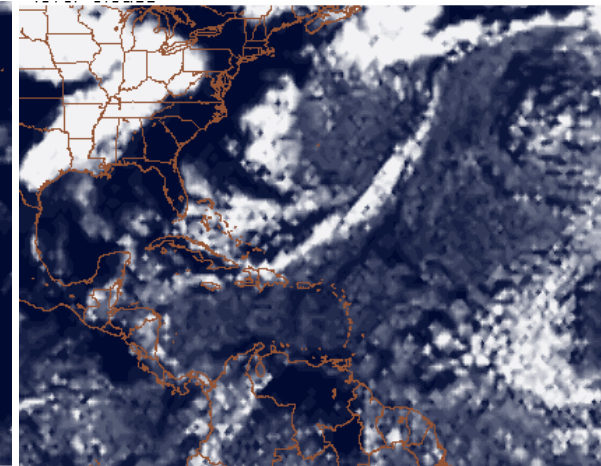
MID



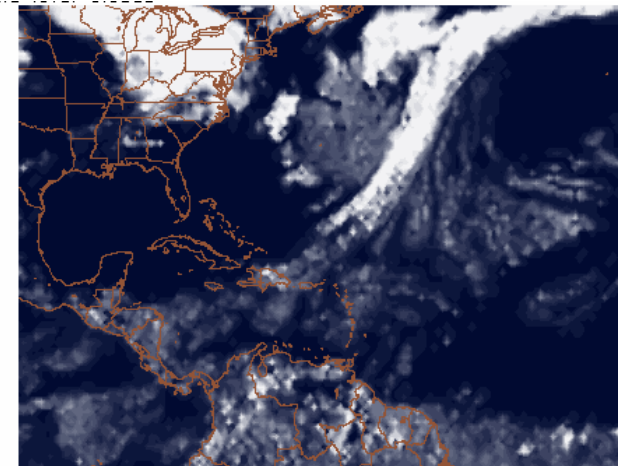
h level Clouds



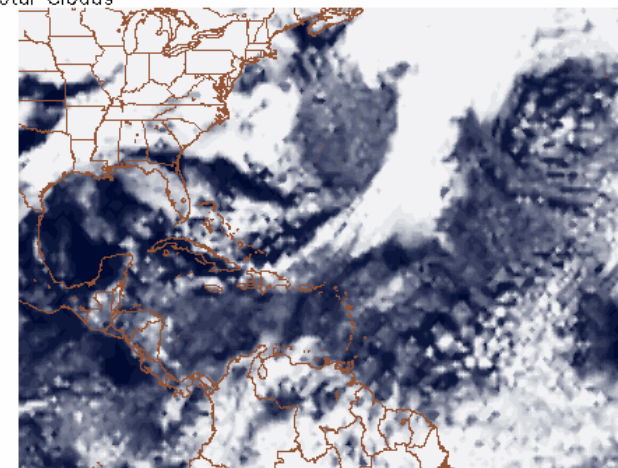
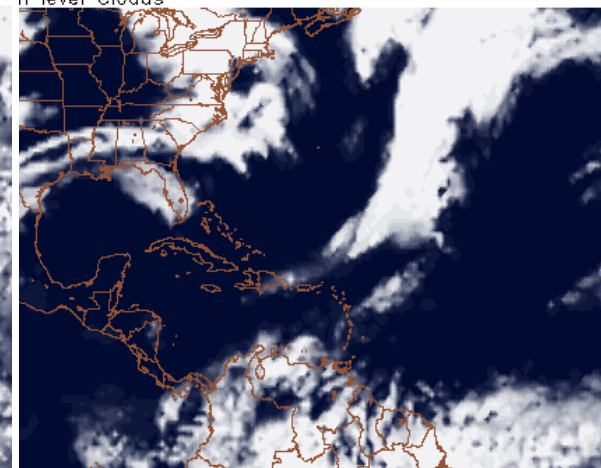
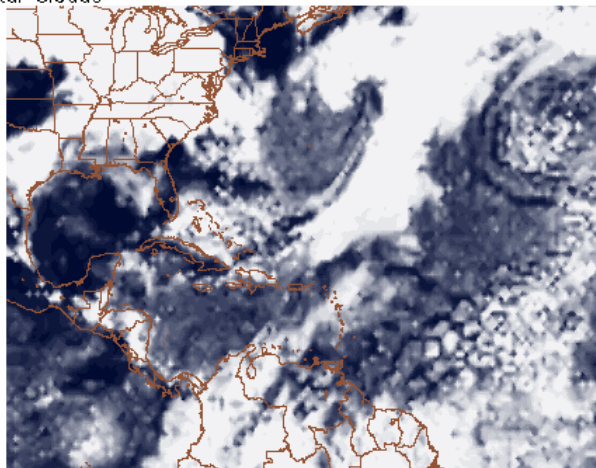
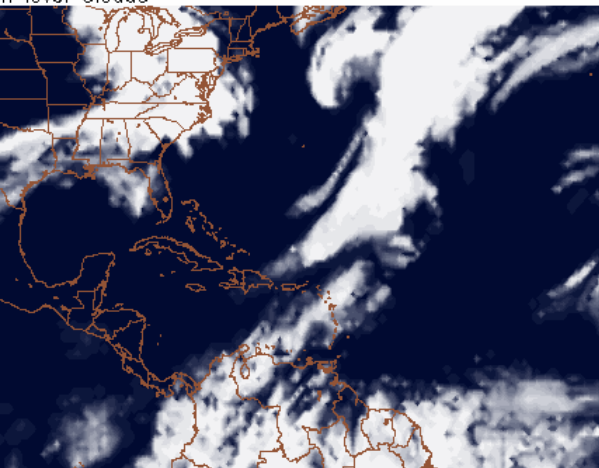
Total Clouds



h level Clouds



Total Clouds



HIGH

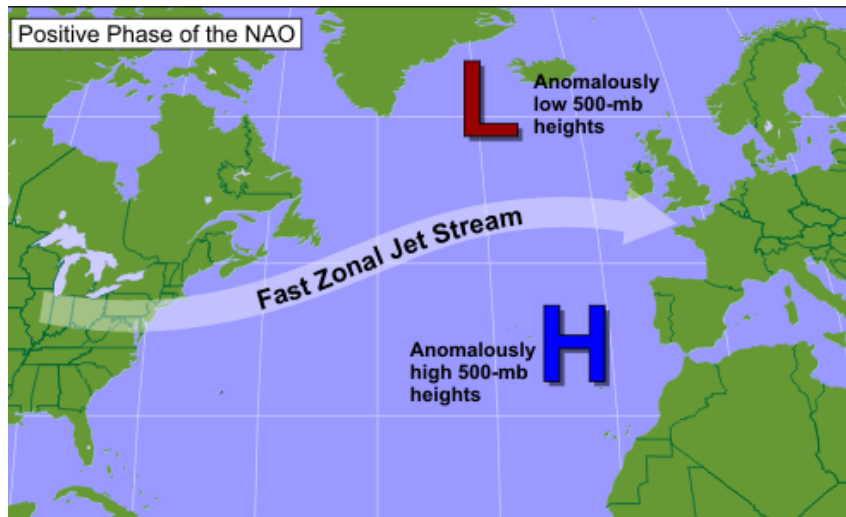
TOTAL

HIGH

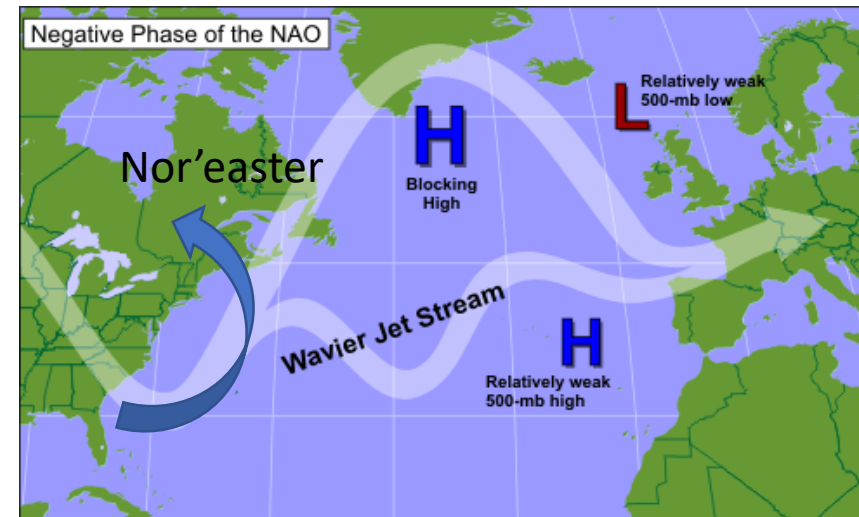
TOTAL

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.

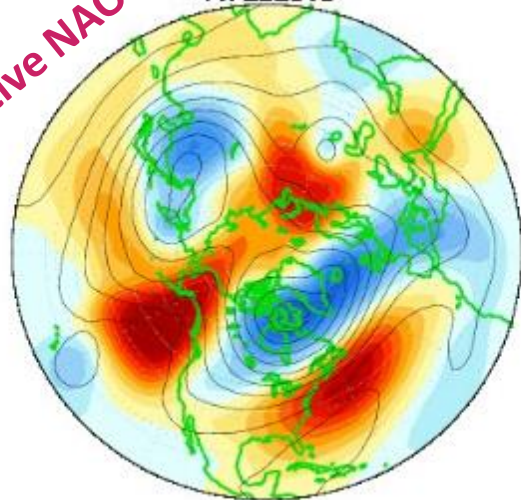
Credit: <https://www.e-education.psu.edu/worldofweather/s15.html>

Current NAO

CDAS 500-hPa HT Anoms (5d rm)

11FEB2018

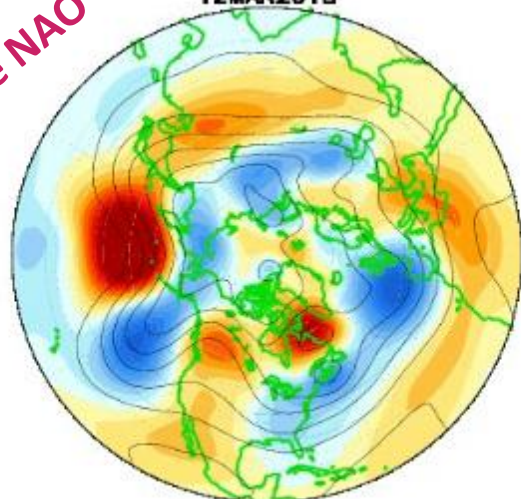
Positive NAO



CDAS 500-hPa HT Anoms (5d rm)

12MAR2018

Negative NAO



NAO: Observed & ENSM forecasts

