

NAAMES

WX Briefing

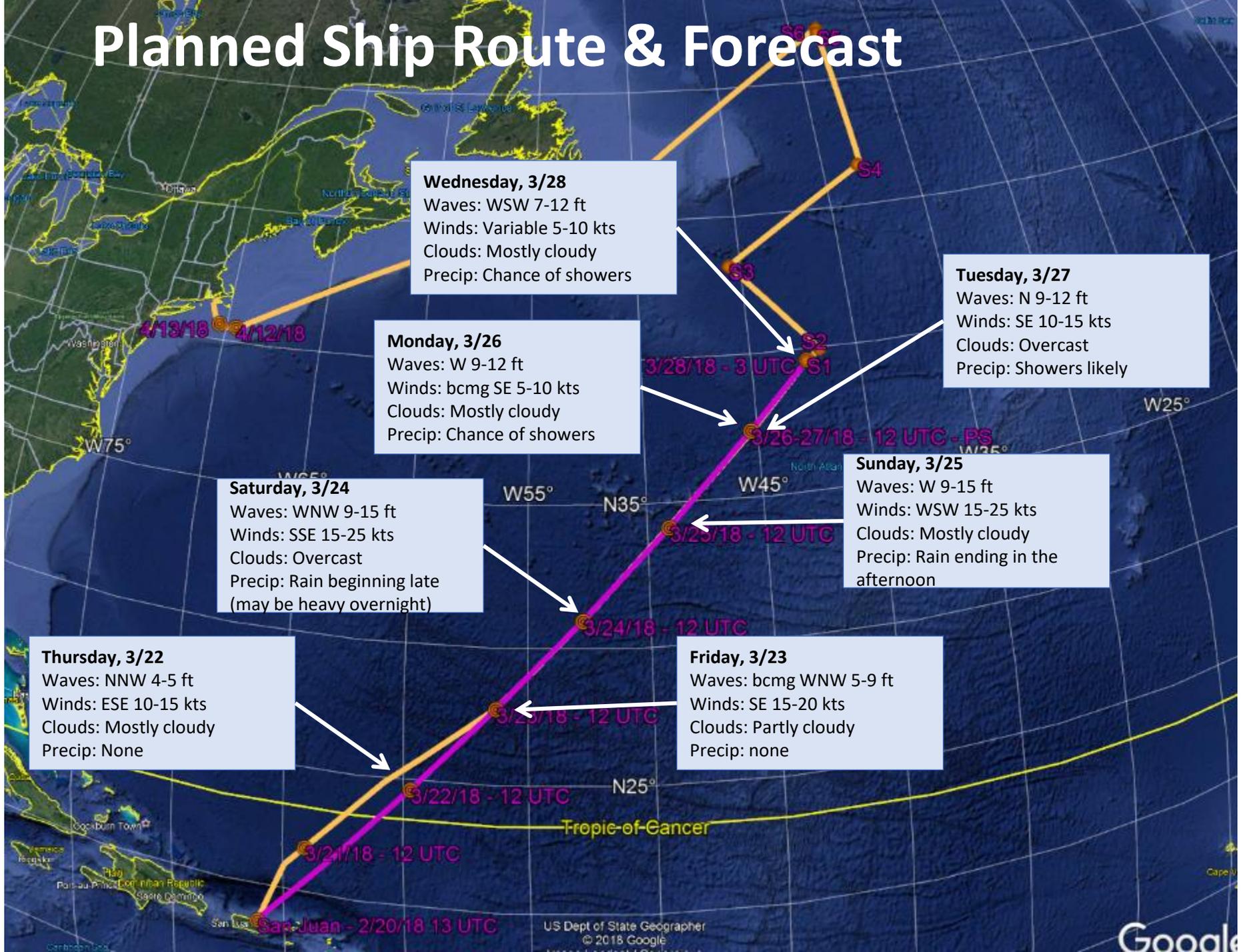
Thursday, March 22, 2018

Michael Shook

Forecast Highlights

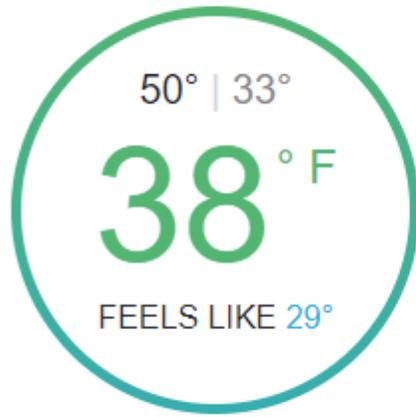
- Ship: wind and waves gradually increase through Sunday with an approaching front; worst conditions stay off to the north and west
- Models now keep potential Monday storm much weaker and move it off quickly to the northeast
- Third system appears to stall in the west Atlantic mid next week
- Wallops: sunny, breezy, and warmer through Sunday
- St. John's currently looks okay for arrival on late Friday (3/23); early Saturday (3/24) arrival also possible, but more uncertain

Planned Ship Route & Forecast



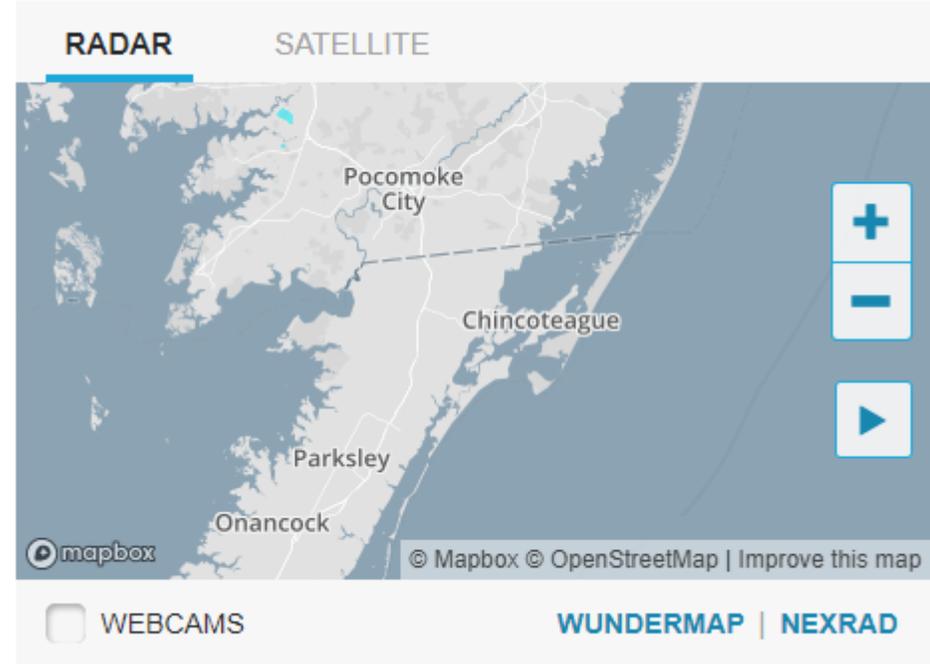
Current Conditions at Wallops

© 10:29 AM EDT on March 22, 2018 (GMT -0400) | Updated a few seconds ago



Wind **NW**
Gusts **15 mph**

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



Wallops METAR/ Salisbury TAF

METAR text: `KSBY 221354Z 31012KT 10SM BKN075 02/M02 A2992 RMK AO2 SLP135 T00221022`

Conditions at: KSBY (SALISBURY , MD, US) observed 1354 UTC 22 March 2018

Temperature: 2.2°C (36°F)

Dewpoint: -2.2°C (28°F) [RH = 73%]

Pressure (altimeter): 29.92 inches Hg (1013.3 mb)
[Sea-level pressure: 1013.5 mb]

Winds: from the NW (310 degrees) at 14 MPH (12 knots; 6.2 m/s)

Visibility: 10 or more miles (16+ km)

Ceiling: 7500 feet AGL

Clouds: broken clouds at 7500 feet AGL

Weather: no significant weather observed at this time

Forecast for: KSBY (SALISBURY , MD, US)

Text: `KSBY 221120Z 2212/2312 31010KT P6SM BKN050`

Forecast period: 1200 to 2300 UTC 22 March 2018

Forecast type: FROM: standard forecast or significant change

Winds: from the NW (310 degrees) at 12 MPH (10 knots; 5.2 m/s)

Visibility: 6 or more miles (10+ km)

Ceiling: 5000 feet AGL

Clouds: broken clouds at 5000 feet AGL

Weather: no significant weather forecast for this period

Text: `FM222300 30009KT P6SM BKN150`

Forecast period: 2300 UTC 22 March 2018 to 1200 UTC 23 March 2018

Forecast type: FROM: standard forecast or significant change

Winds: from the WNW (300 degrees) at 10 MPH (9 knots; 4.7 m/s)

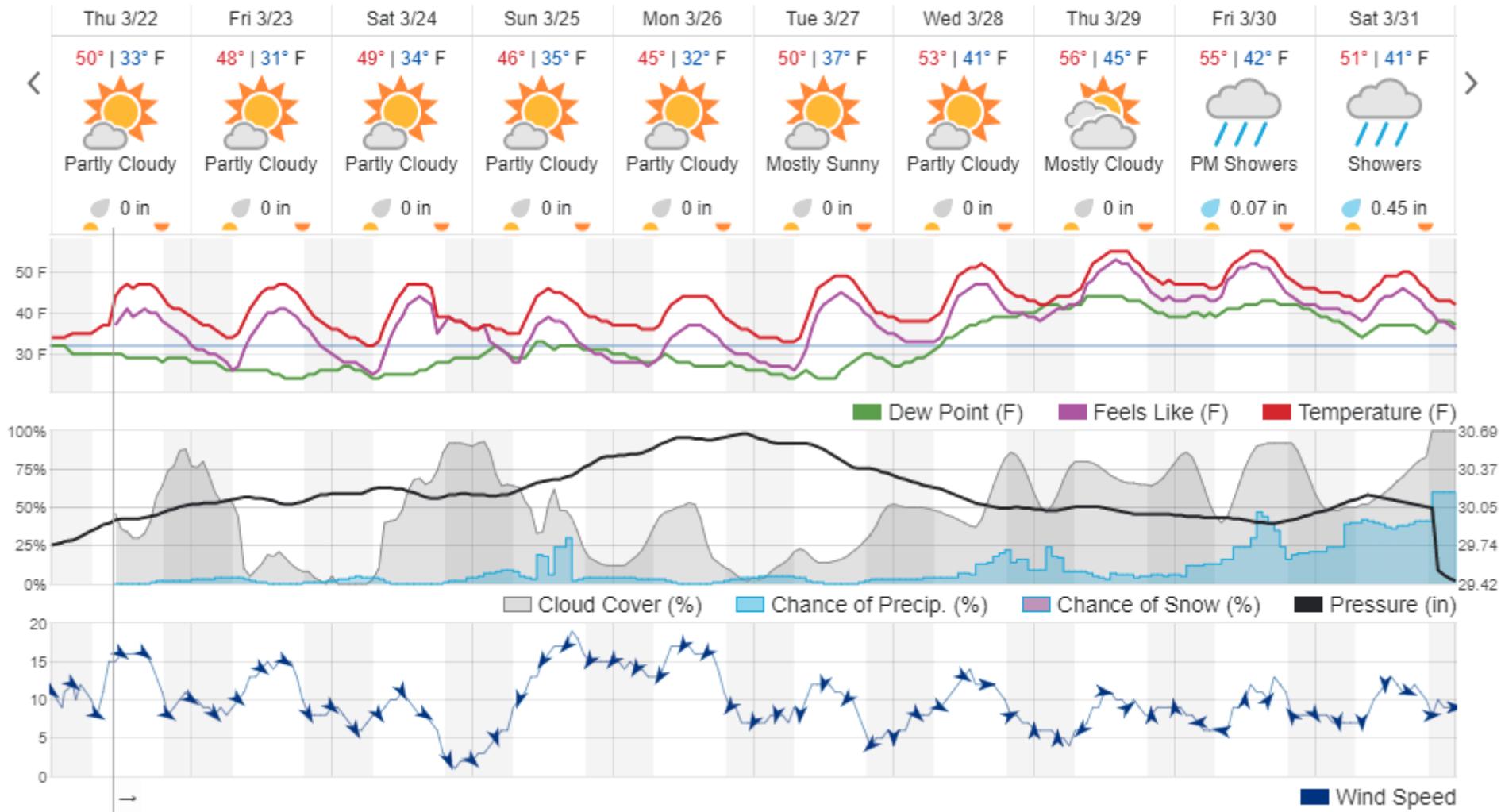
Visibility: 6 or more miles (10+ km)

Ceiling: 15000 feet AGL

Clouds: broken clouds at 15000 feet AGL

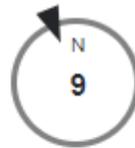
Weather: no significant weather forecast for this period

Wallops Forecast



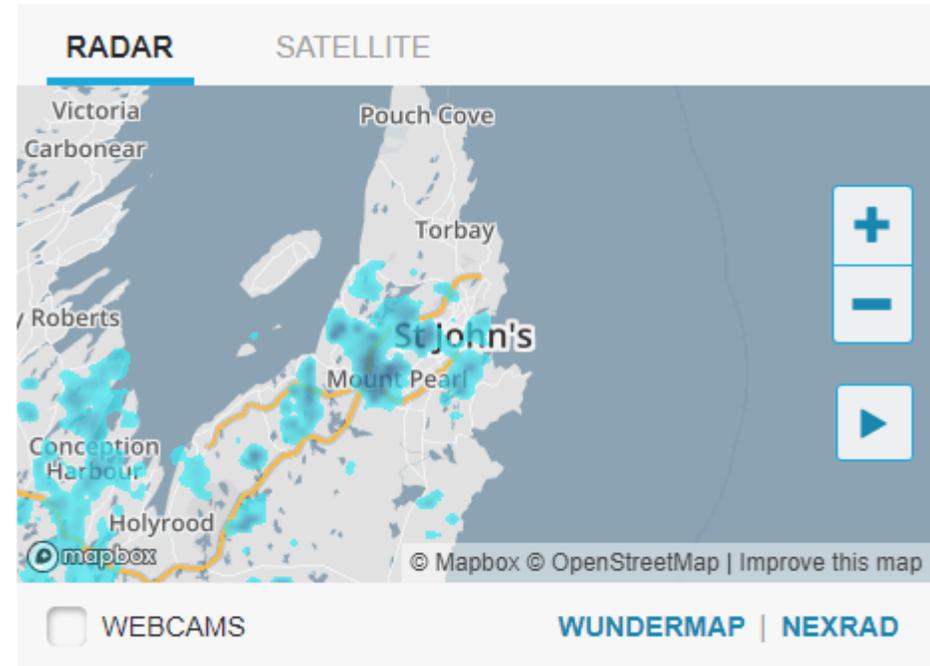
Current Conditions at St. John's

© 1:02 PM NDT on March 22, 2018 (GMT -0230) | Updated a minute ago

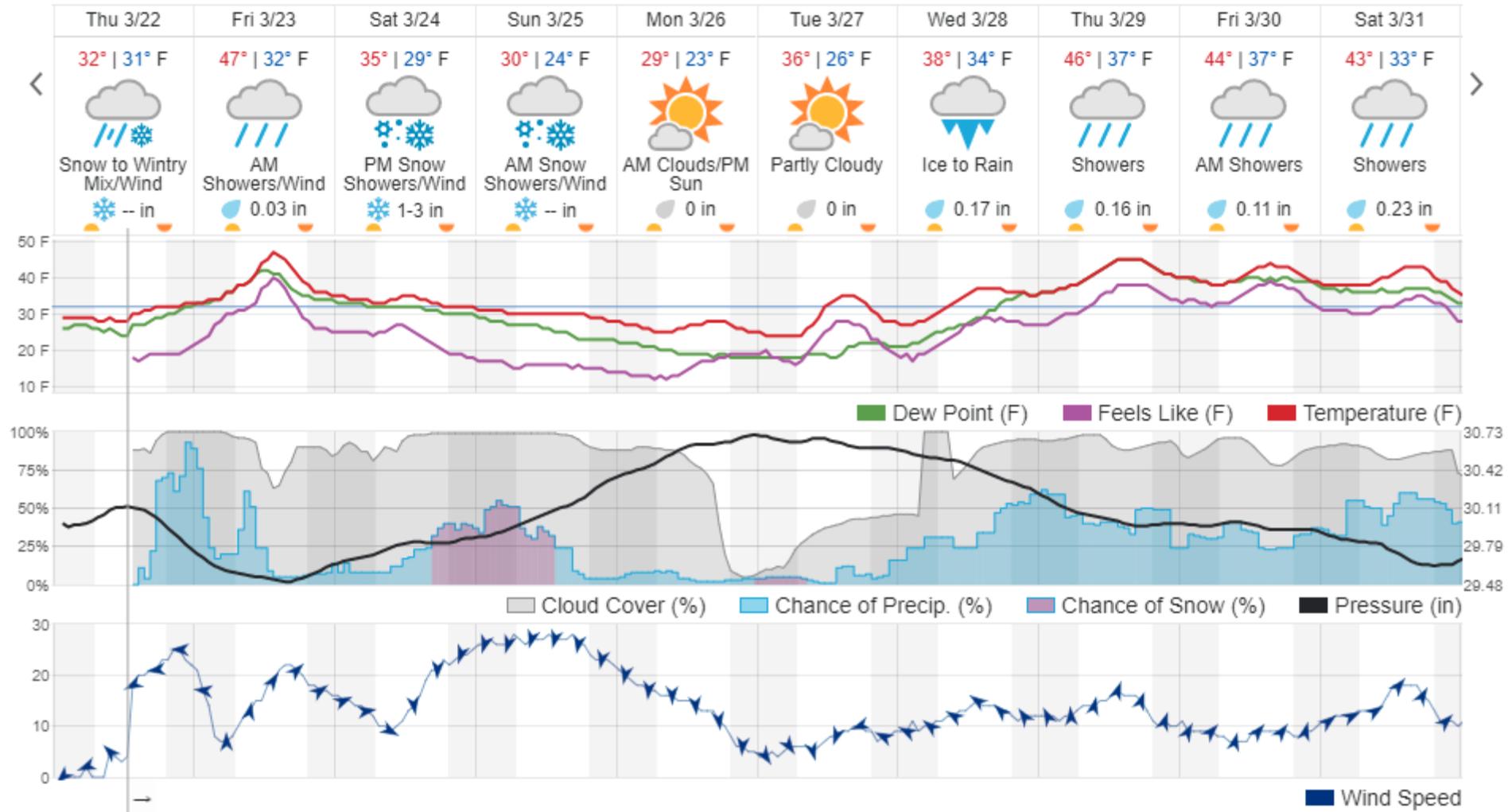


Wind **NNW**

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



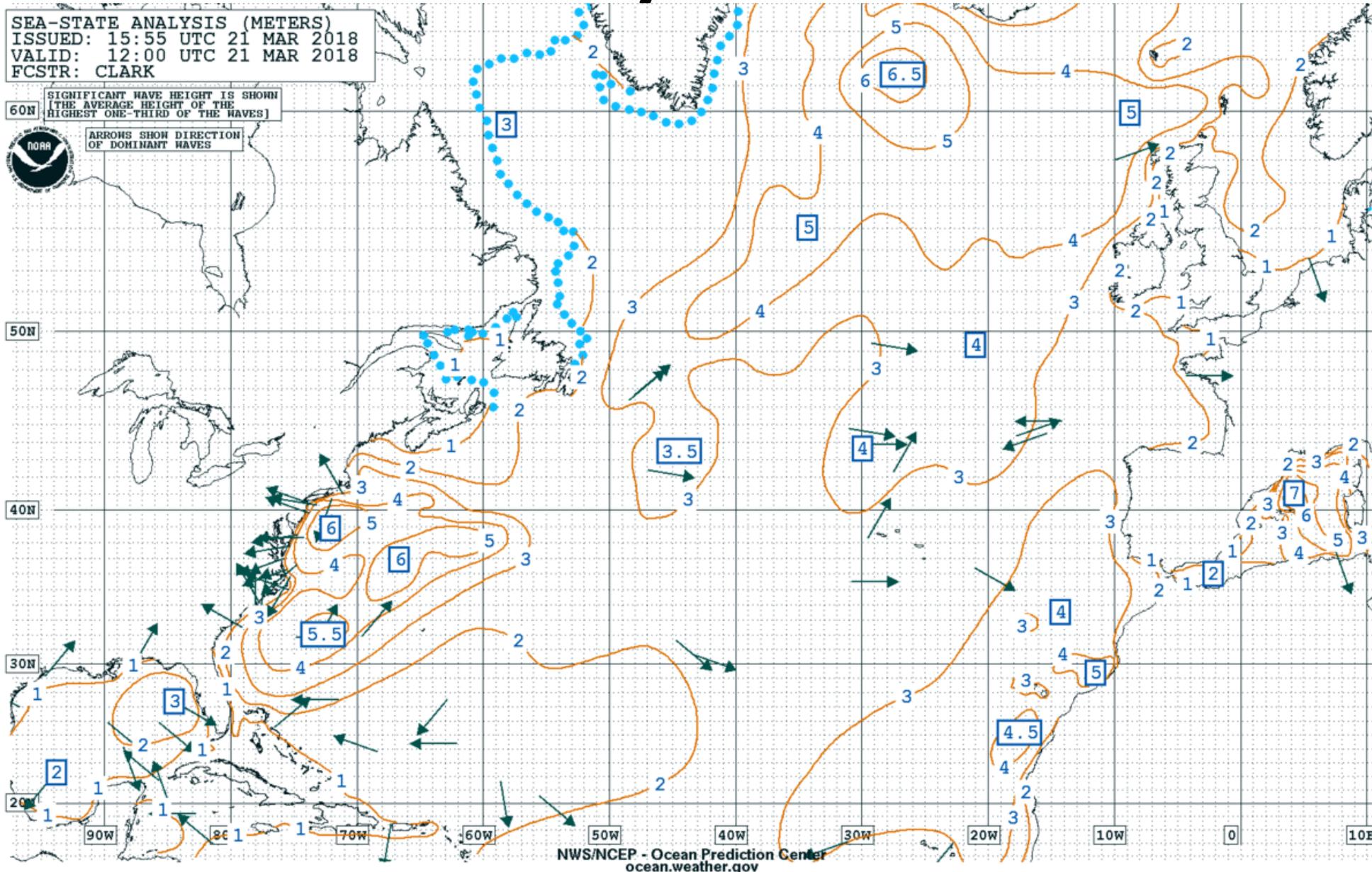
St. John's Forecast



St. John's TAF

TAF CYYT 221141Z 2212/2312 07015G25KT P6SM SCT005 OVC020 TEMPO 2212/2215 5SM -SN BKN006 OVC012 PROB30 2212/2214 3SM -FZDZ BR FM221500 07020G30KT P6SM SCT005 OVC012 TEMPO 2215/2219 5SM -SN BKN005 OVC012 FM221900 08025G35KT 2SM -SNPL BR OVC004 PROB30 2219/2221 3/4SM -FZRA BR OVC003 FM222100 09025G40KT 3/4SM -FZRA BR OVC003 FM230300 10020G35KT 1/2SM -RA FG VV002 FM230500 10012G22KT 1/4SM -DZ FG VV001 BECMG 2307/2309 19015G25KT RMK NXT FCST BY 221800Z=				
TAF		LOCATION		VALIDITY [UTC]
		CYYT - ST. JOHN'S INTL/NL		22 MAR - 1141 to 23 MAR - 1200
TIMES [UTC]	WIND [DEGREES TRUE]	VISIBILITY [STAT. MILES]	WEATHER	CLOUDINESS [FEET AGL]
22 MAR - 1200 to 22 MAR - 1500	70 @ 15 KNOTS GUSTS 25 KNOTS	6+	NIL	500 SCATTERED 2000 OVERCAST
TEMPORARY CHANGES 22 MAR - 1200 to 22 MAR - 1500		5	LIGHT SNOW	600 BROKEN 1200 OVERCAST
30% PROBABILITY 22 MAR - 1200 to 22 MAR - 1400		3	LIGHT FREEZING DRIZZLE MIST	
22 MAR - 1500 to 22 MAR - 1900	70 @ 20 KNOTS GUSTS 30 KNOTS	6+	NIL	500 SCATTERED 1200 OVERCAST
TEMPORARY CHANGES 22 MAR - 1500 to 22 MAR - 1900		5	LIGHT SNOW	500 BROKEN 1200 OVERCAST
22 MAR - 1900 to 22 MAR - 2100	80 @ 25 KNOTS GUSTS 35 KNOTS	2	LIGHT SNOW LIGHT ICE PELLETS MIST	400 OVERCAST
30% PROBABILITY 22 MAR - 1900 to 22 MAR - 2100		3/4	LIGHT FREEZING RAIN MIST	300 OVERCAST
22 MAR - 2100 to 23 MAR - 0300	90 @ 25 KNOTS GUSTS 40 KNOTS	3/4	LIGHT FREEZING RAIN MIST	300 OVERCAST
23 MAR - 0300 to 23 MAR - 0500	100 @ 20 KNOTS GUSTS 35 KNOTS	1/2	LIGHT RAIN FOG	VERTICAL VISIBILITY 200
23 MAR - 0500 to 23 MAR - 1200	100 @ 12 KNOTS GUSTS 22 KNOTS	1/4	LIGHT DRIZZLE FOG	VERTICAL VISIBILITY 100
BECOMING 23 MAR - 0700 to 23 MAR - 0900	190 @ 15 KNOTS GUSTS 25 KNOTS			
REMARKS				
THE NEXT FORECAST WILL BE ISSUED BY 1800 UTC ON DAY 22				

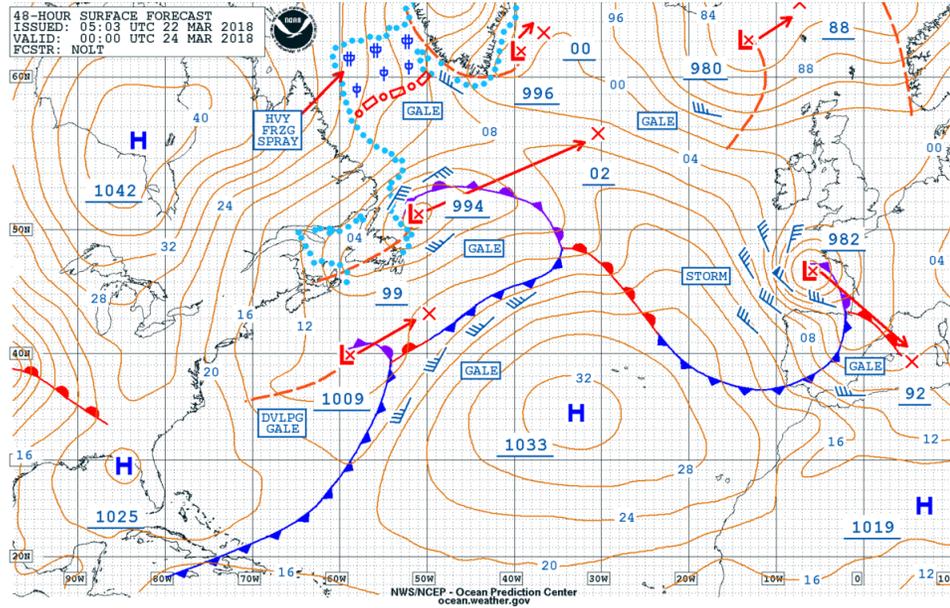
Sea State Analysis



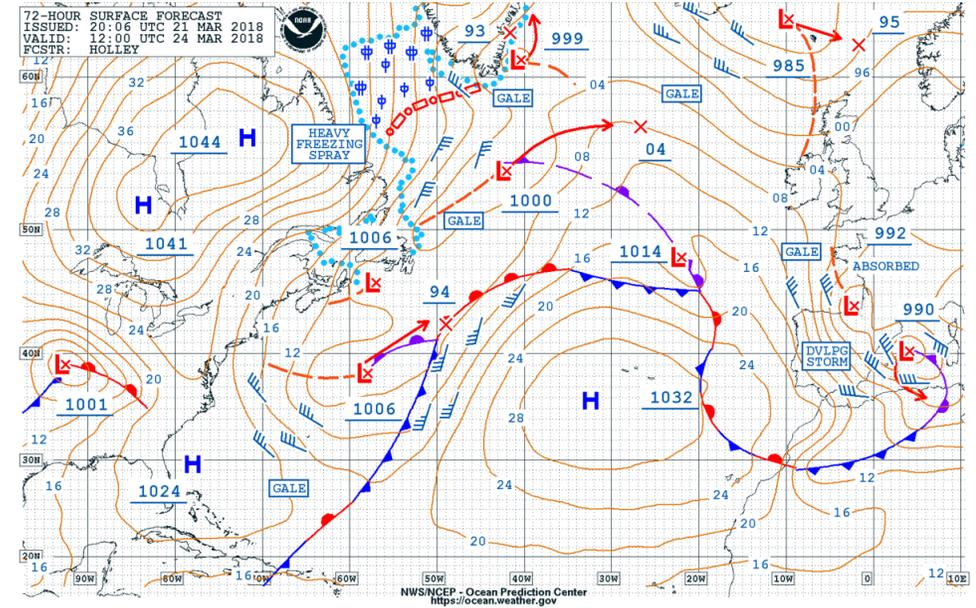
- Significant Wave Height is shown (in meters). This is the average height of the highest one-third of the waves
- Arrows show direction of dominant waves
- Product is a day behind

Synoptic Forecast

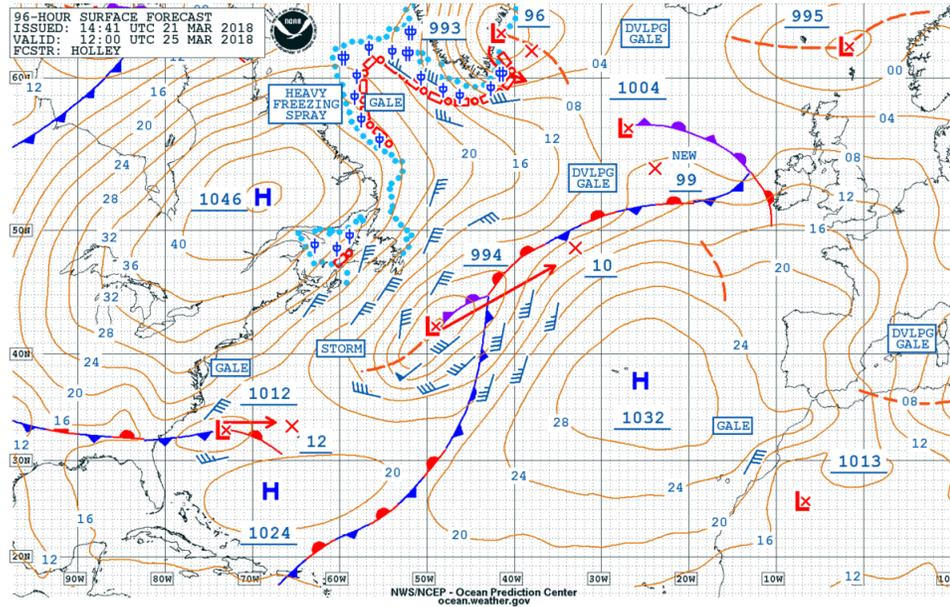
48 Hour Forecast - Friday 8pm EDT



72 Hour Forecast - Saturday 8am EDT



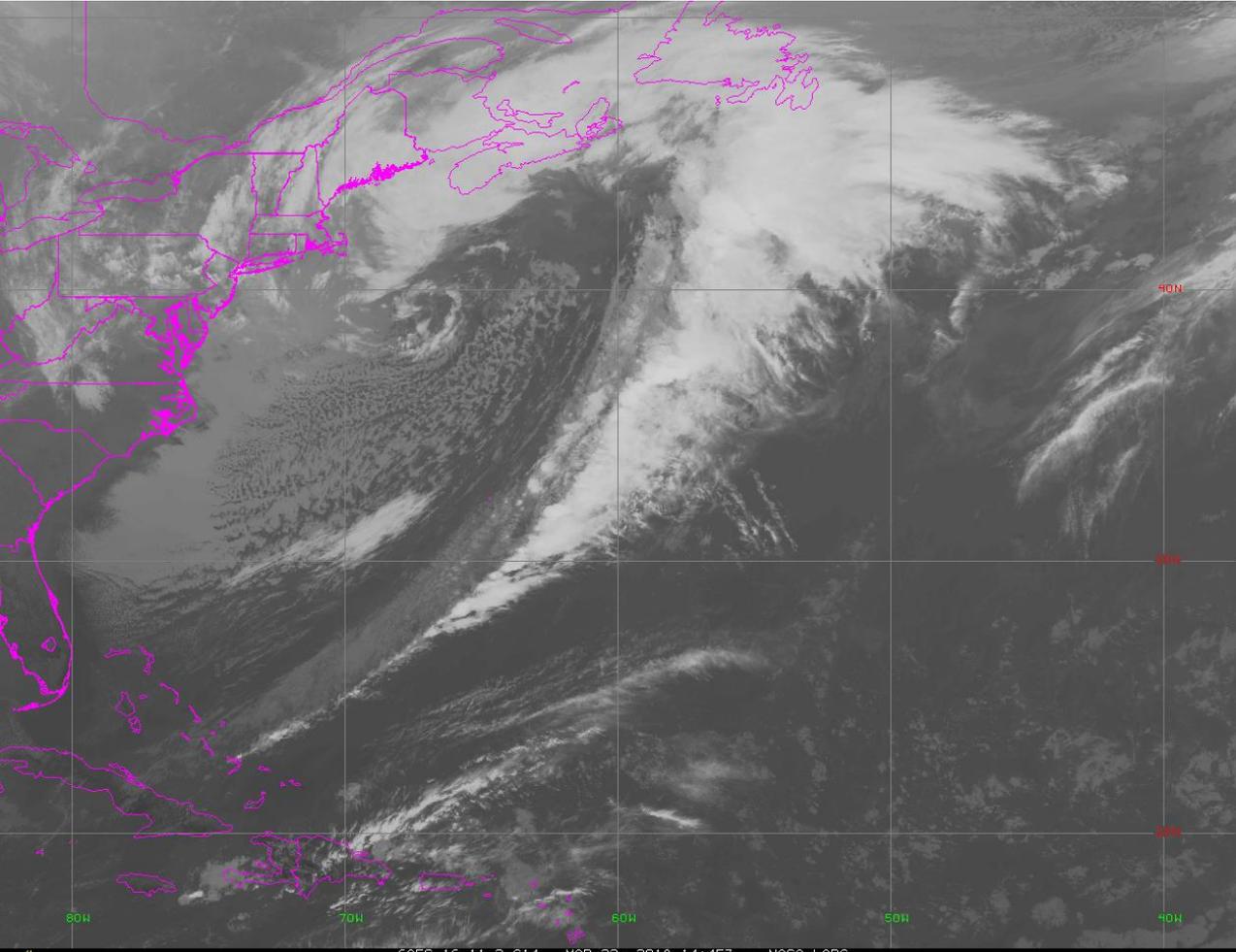
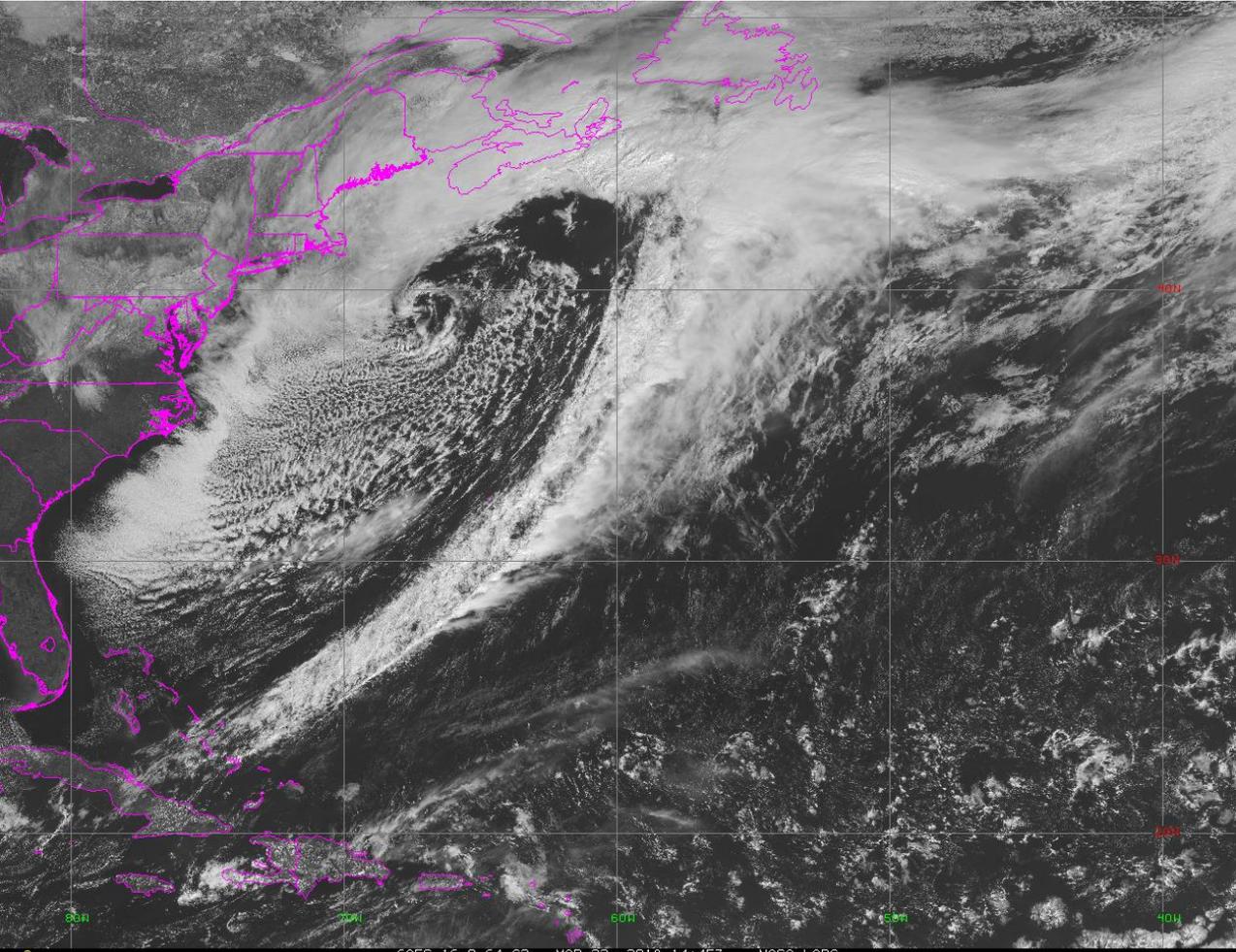
96 Hour Forecast - Sunday 8am EDT



GOES-16 Imagery (3/22 14:45 UTC)

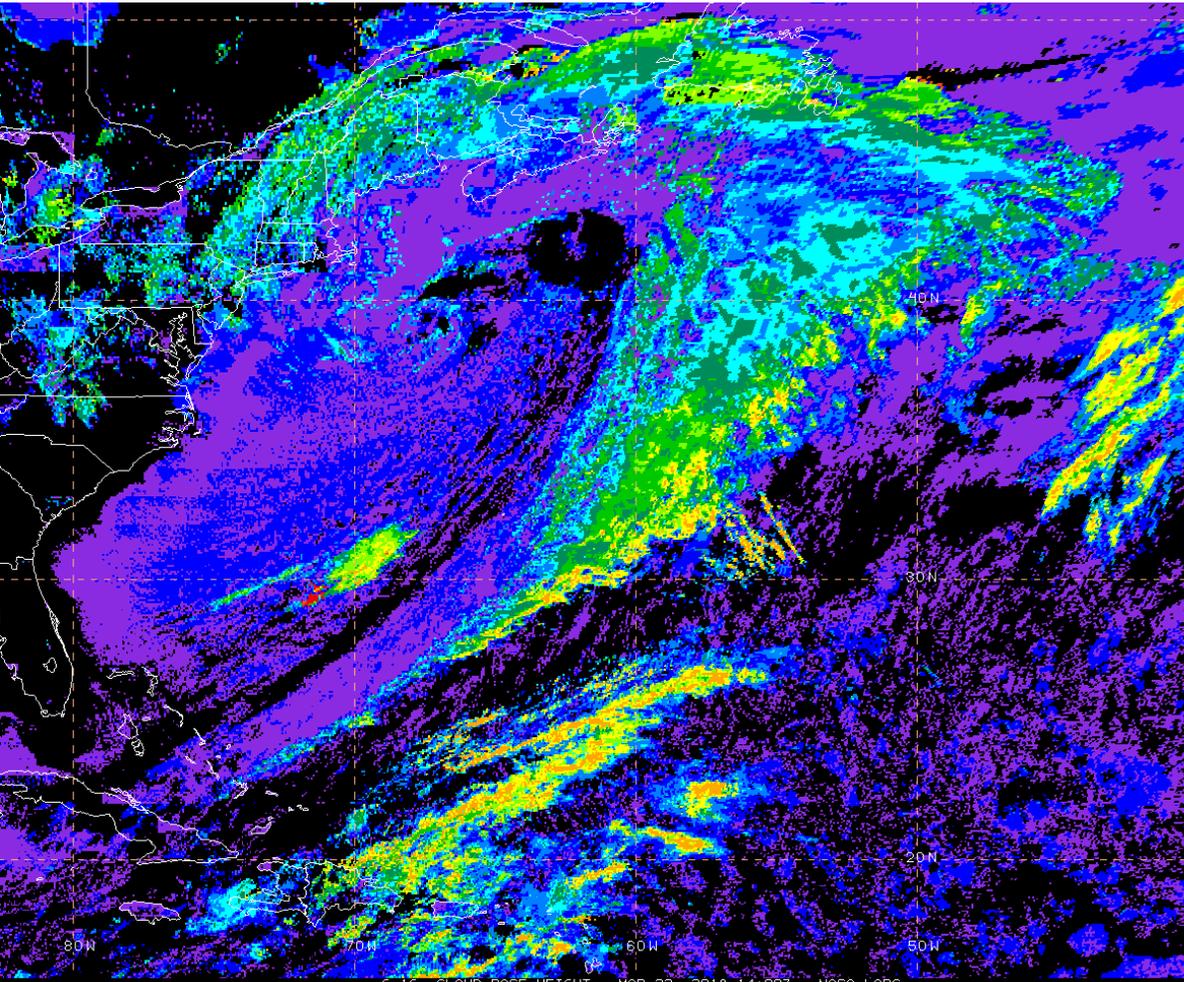
Visible

IR

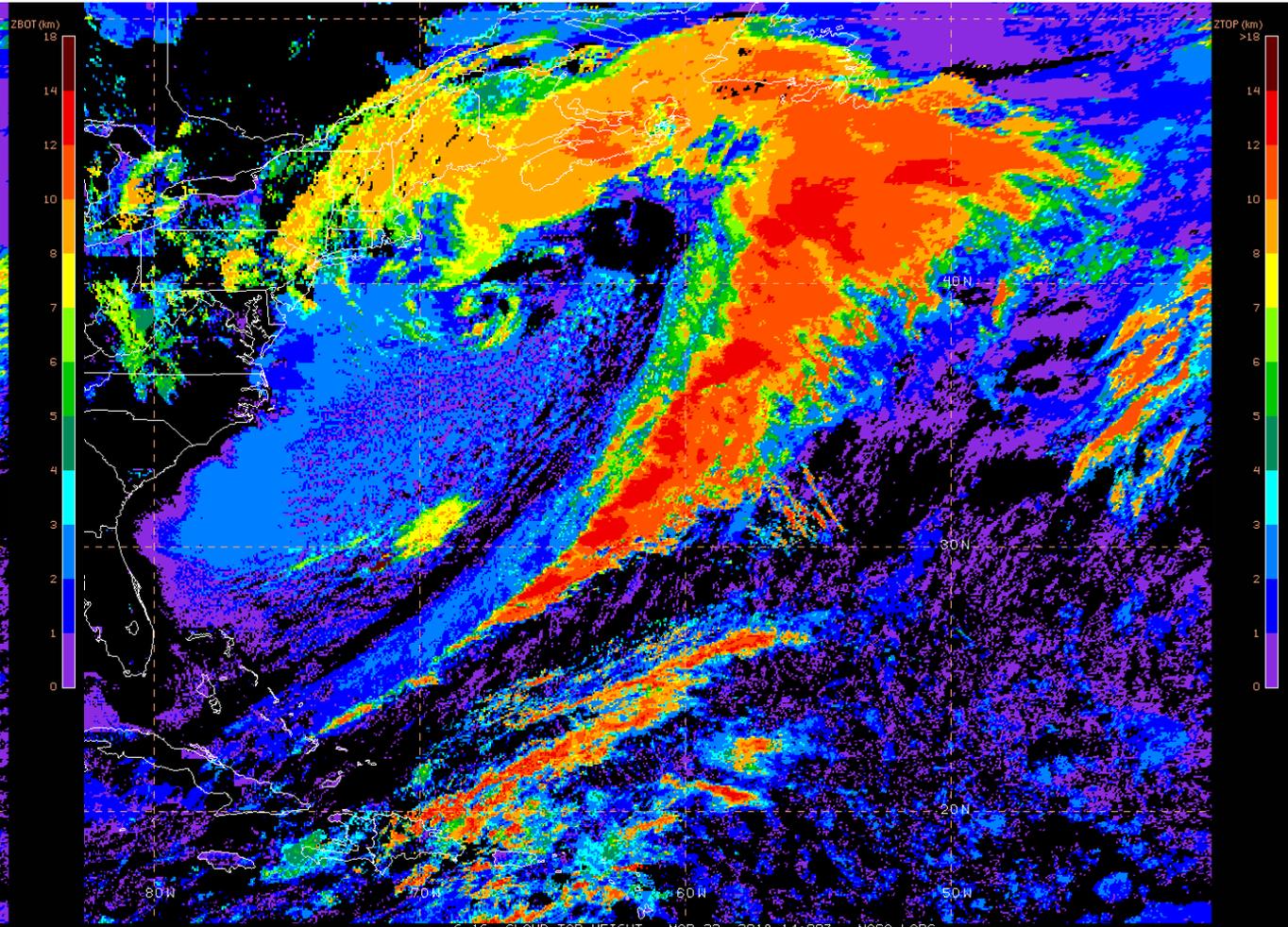


GOES-16 Cloud Products (3/22 14:00 UTC)

Cloud Base Heights



Cloud Top Heights



3/23/18 Transit Flight

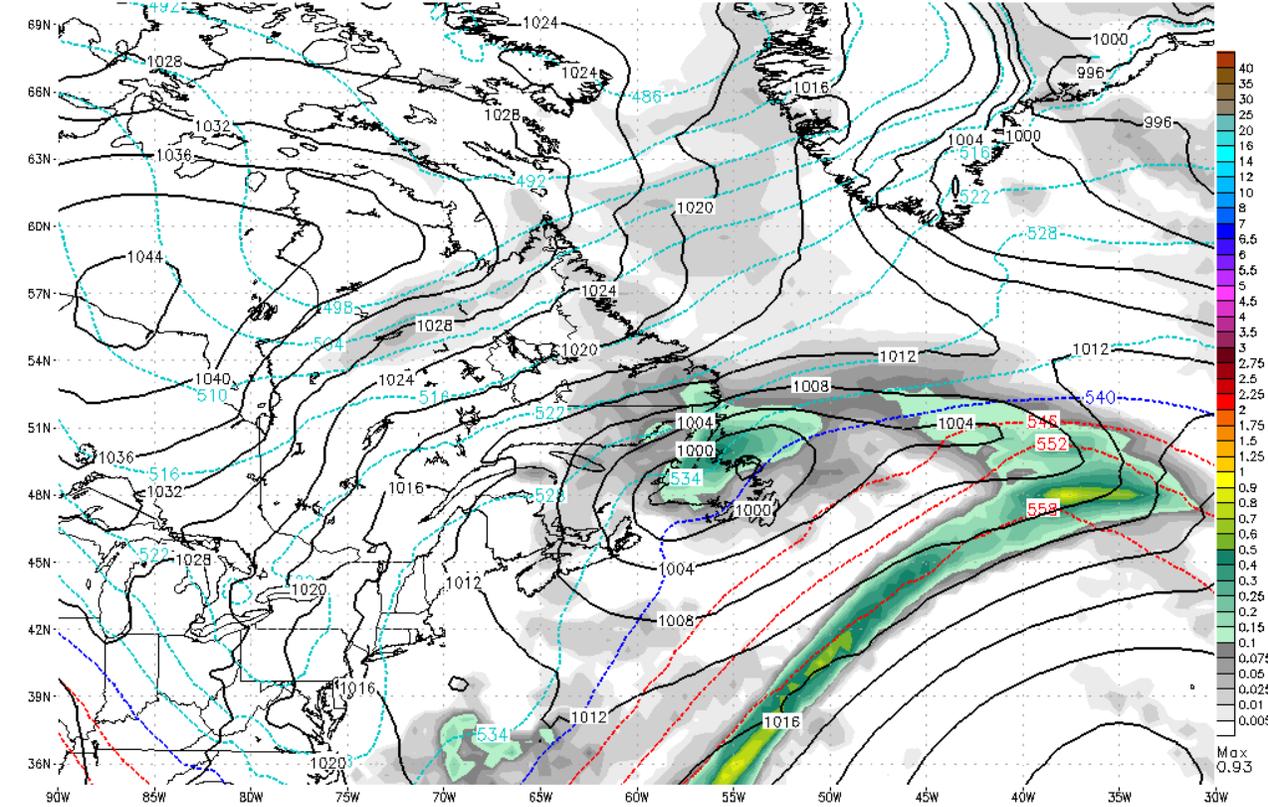
LOW

18Z

MID

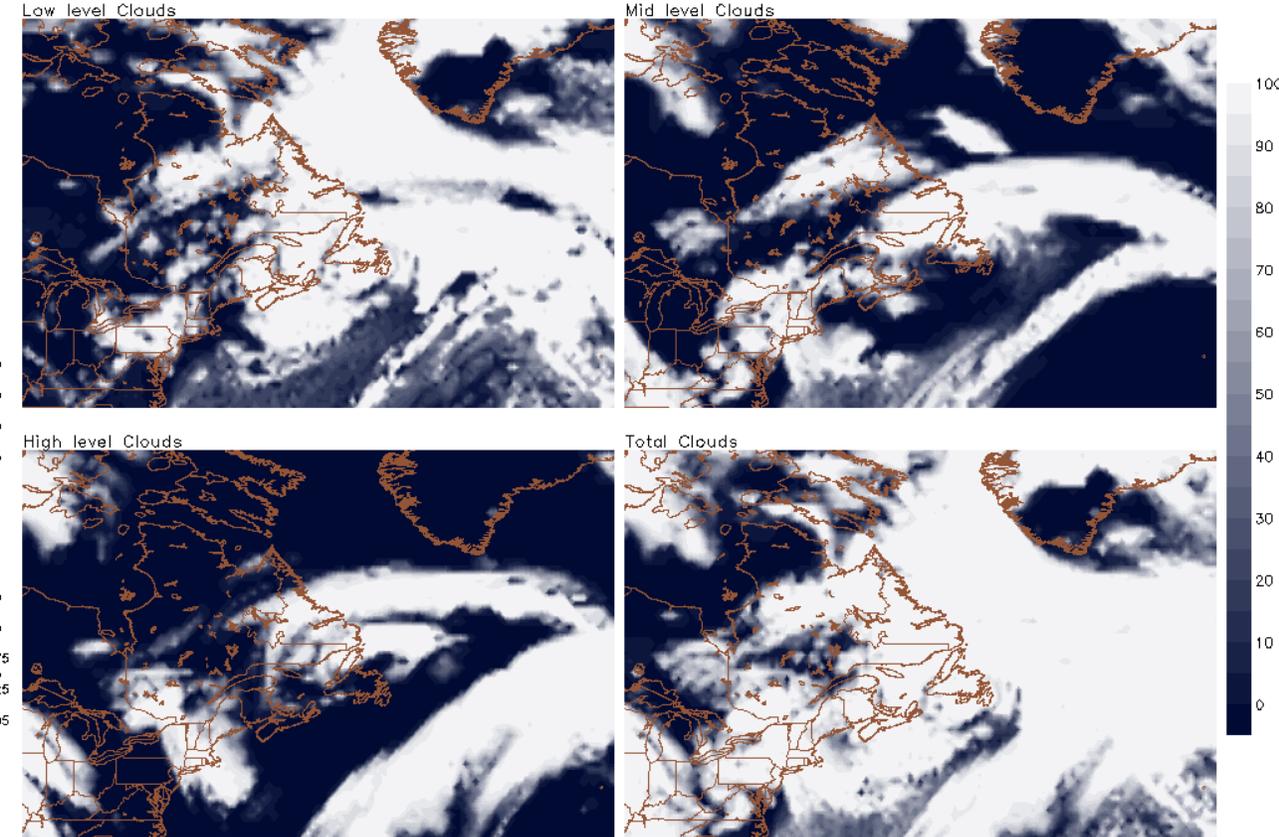
MSLP (mb), 1000–500 thickness (DM) and 6-hour QPF (inches)
42 hour forecast valid 18Z Fri, MAR 23, 2018
ECMWF Deterministic initialized 00Z Thu, MAR 22, 2018

AccuWeather Professional



4-panel Cloud Cover (%)
42 hour forecast valid 18Z Fri, MAR 23, 2018
ECMWF Deterministic initialized 00Z Thu, MAR 22, 2018

AccuWeather Professional



HIGH

TOTAL

3/24/18 Transit Flight

LOW

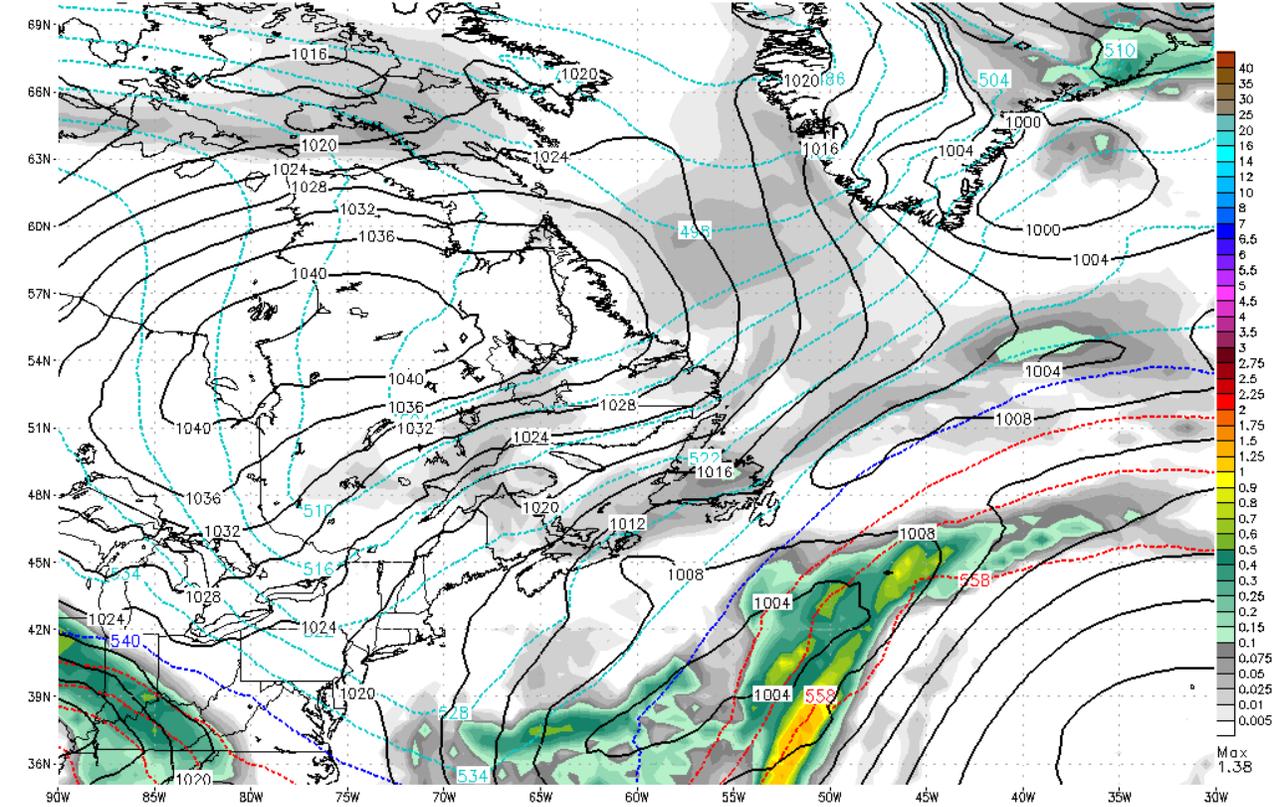
18Z

MID

MSLP (mb), 1000–500 thickness (DM) and 6–hour QPF (inches)
66 hour forecast valid 18Z Sat, MAR 24, 2018
ECMWF Deterministic initialized 00Z Thu, MAR 22, 2018

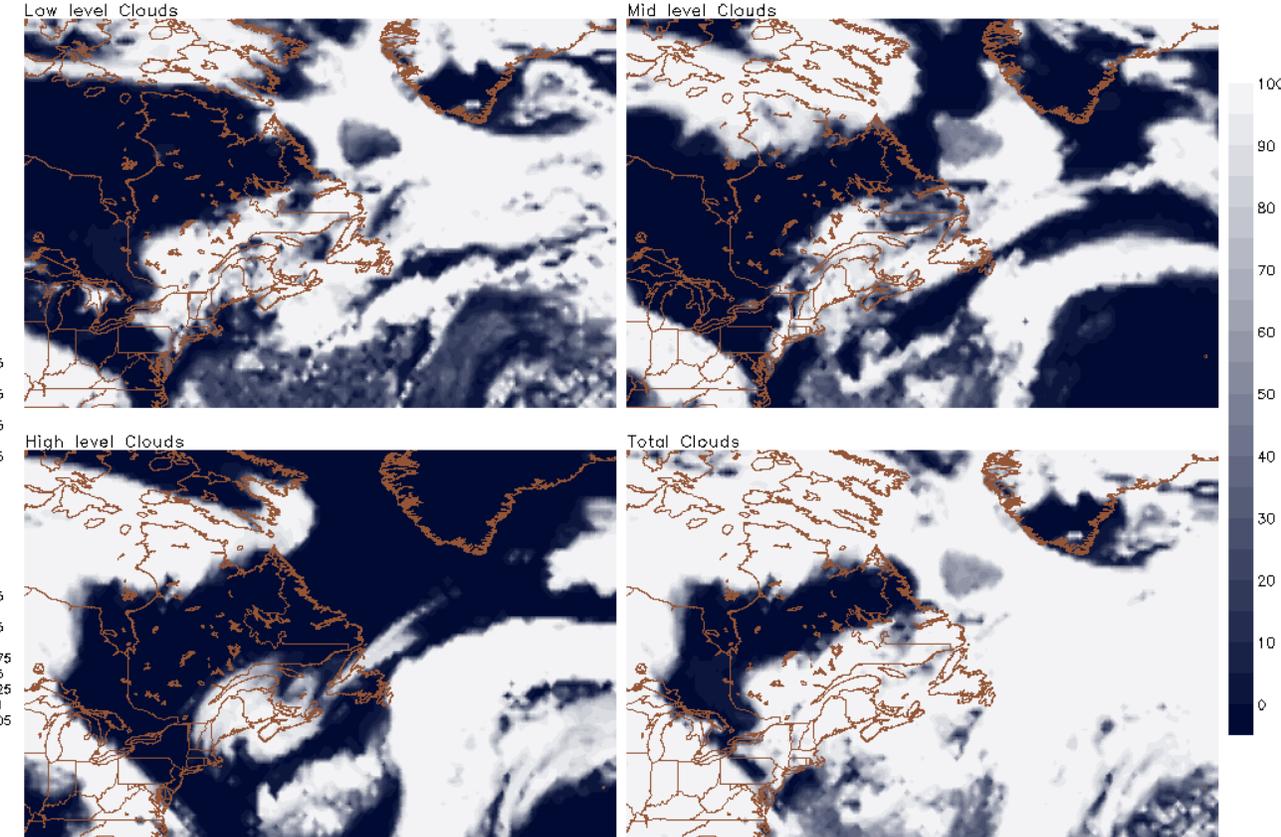
Max/Min MSLP 1043/997

AccuWeather Professional



4–panel Cloud Cover (%)
66 hour forecast valid 18Z Sat, MAR 24, 2018
ECMWF Deterministic initialized 00Z Thu, MAR 22, 2018

AccuWeather Professional

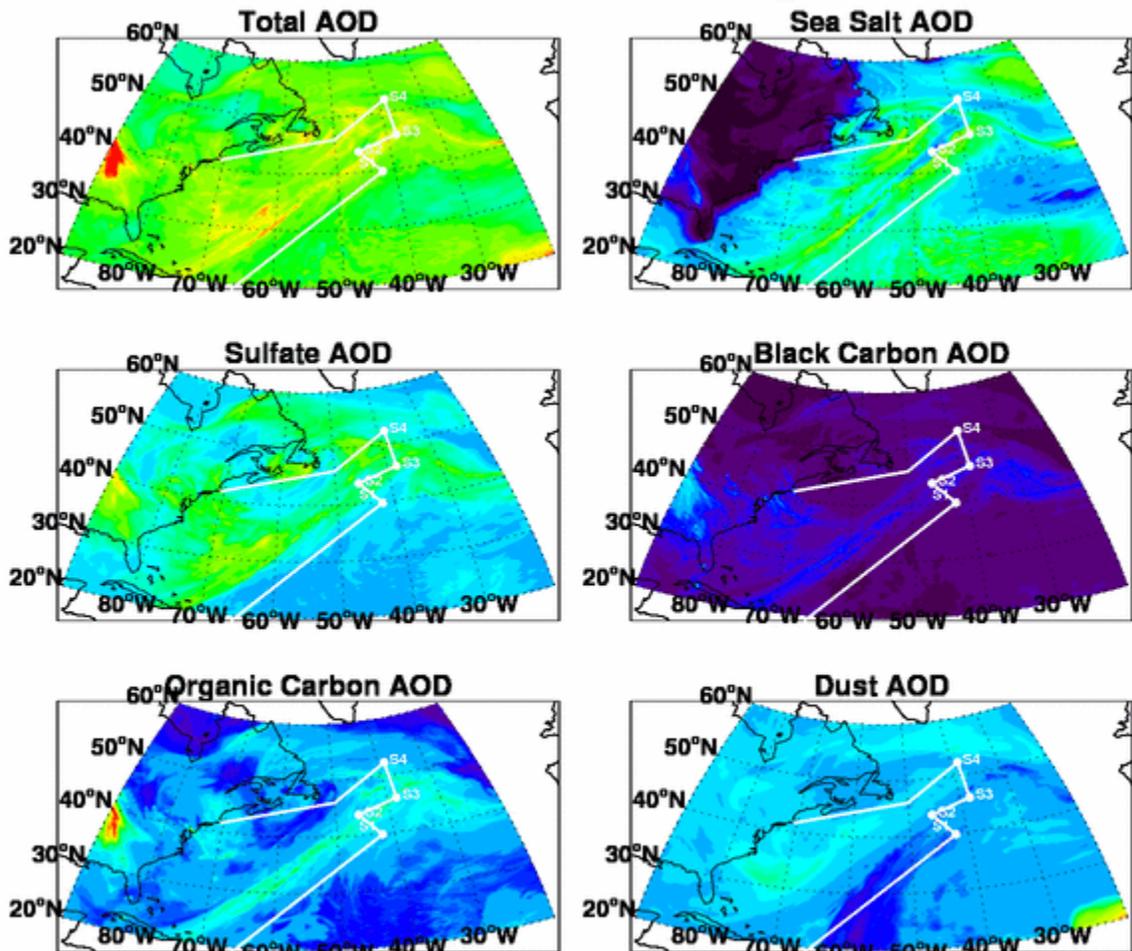


HIGH

TOTAL

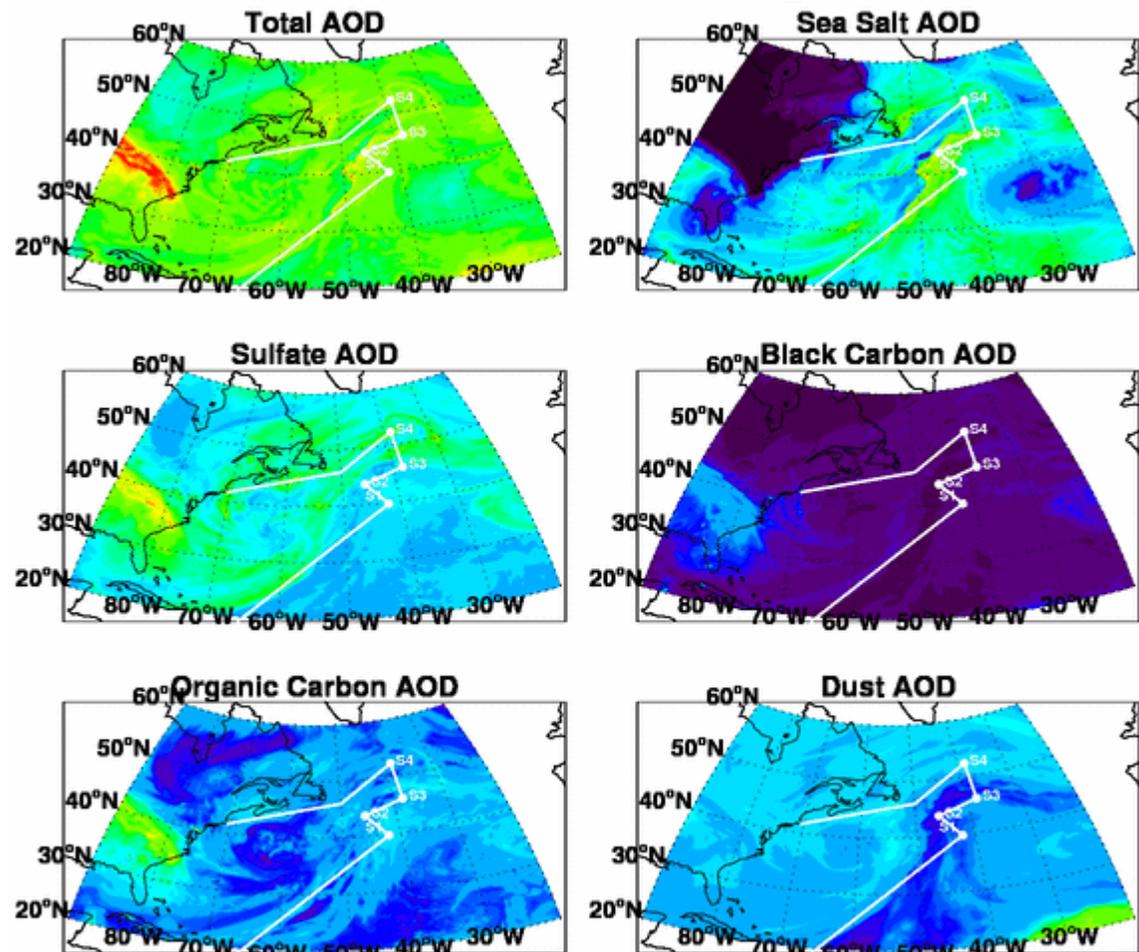
Aerosol Forecast

GEOS-FP Forecast 20180323_1800Z



0.000 0.002 0.004 0.006 0.008 0.010 0.030 0.050 0.070 0.090 0.100 0.200 0.300 0.400 0.500 0.600

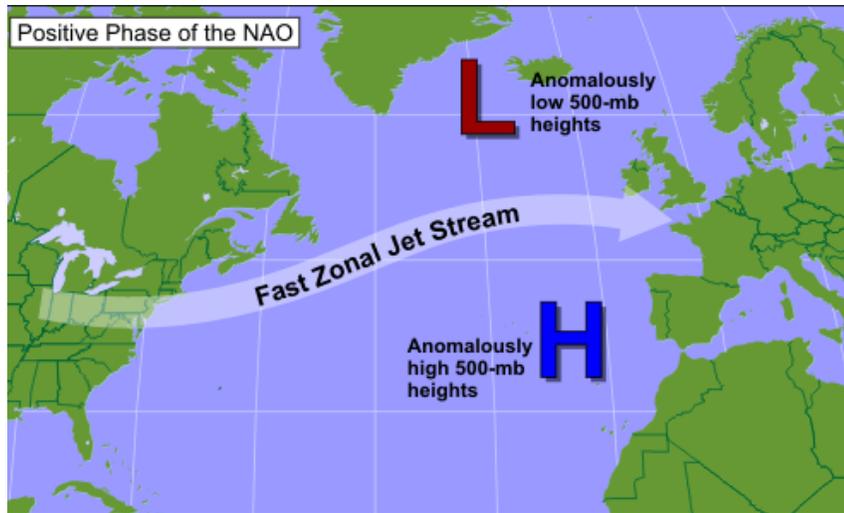
GEOS-FP Forecast 20180324_1800Z



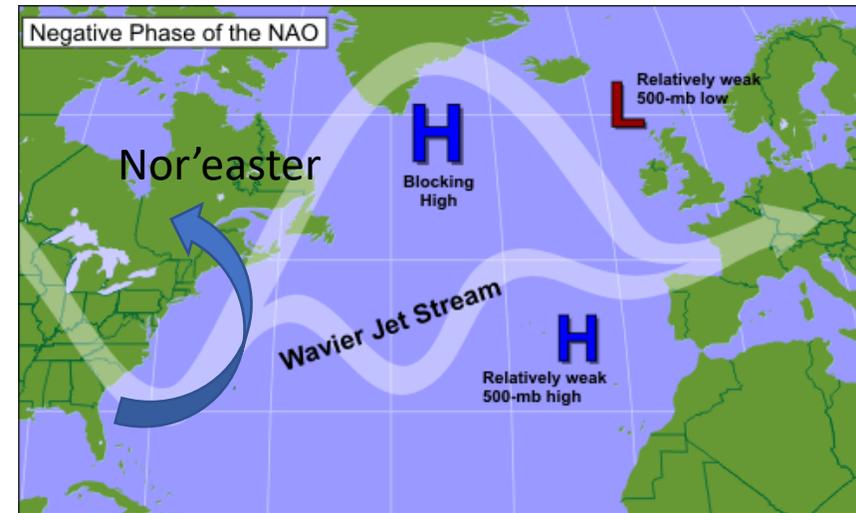
0.000 0.002 0.004 0.006 0.008 0.010 0.030 0.050 0.070 0.090 0.100 0.200 0.300 0.400 0.500 0.600

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.

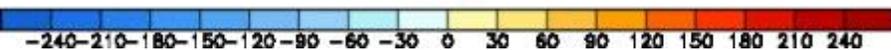
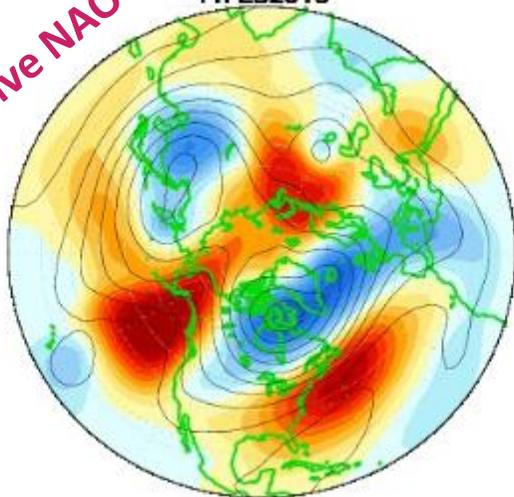
Credit: <https://www.e-education.psu.edu/worldofweather/s15.html>

Current NAO

CDAS 500-hPa HT Anoms (5d rm)

11FEB2018

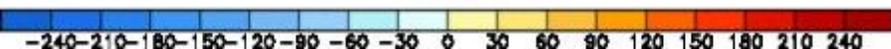
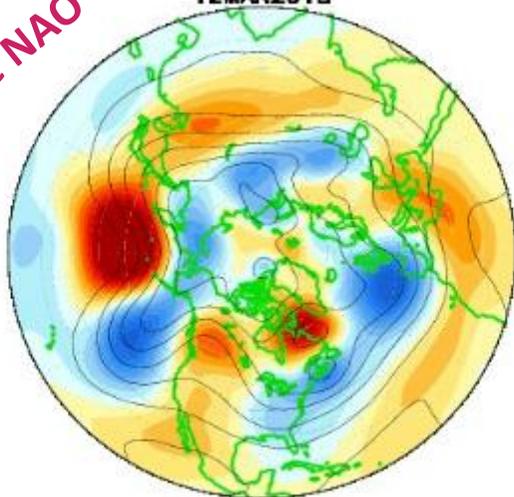
Positive NAO



CDAS 500-hPa HT Anoms (5d rm)

12MAR2018

Negative NAO



NAO: Observed & ENSM forecasts

