

# EUREC<sup>4</sup>A ad hoc briefing 2 Feb 2020

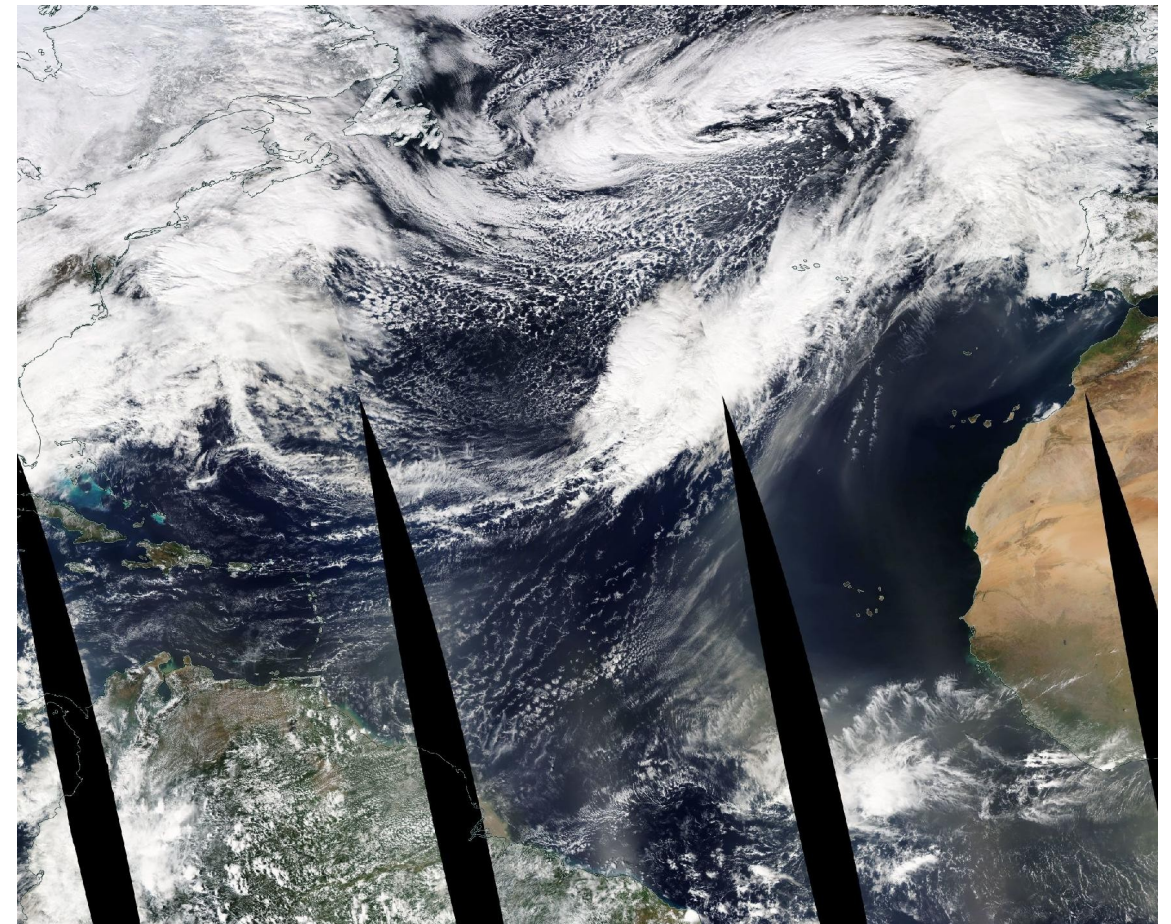
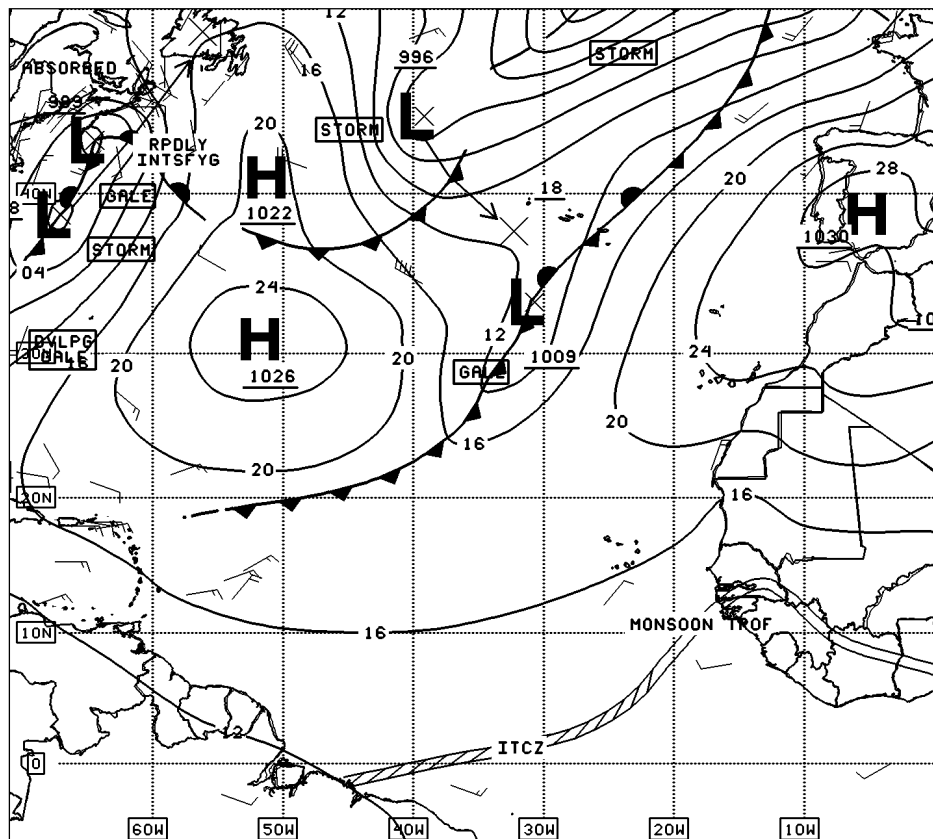
Les loutres et autres

Photo: @RomantiqueFleur CC-BY-ND



# NOAA Synoptic analysis, 0 Z and Aqua 01/02

Synoptic features: High to North and Low west of Cape Verde, cold front.



00Z EASTERN TRPCL SFC ANALYSIS  
ISSUED: Sun Feb 2 02:32:23 UTC 2020

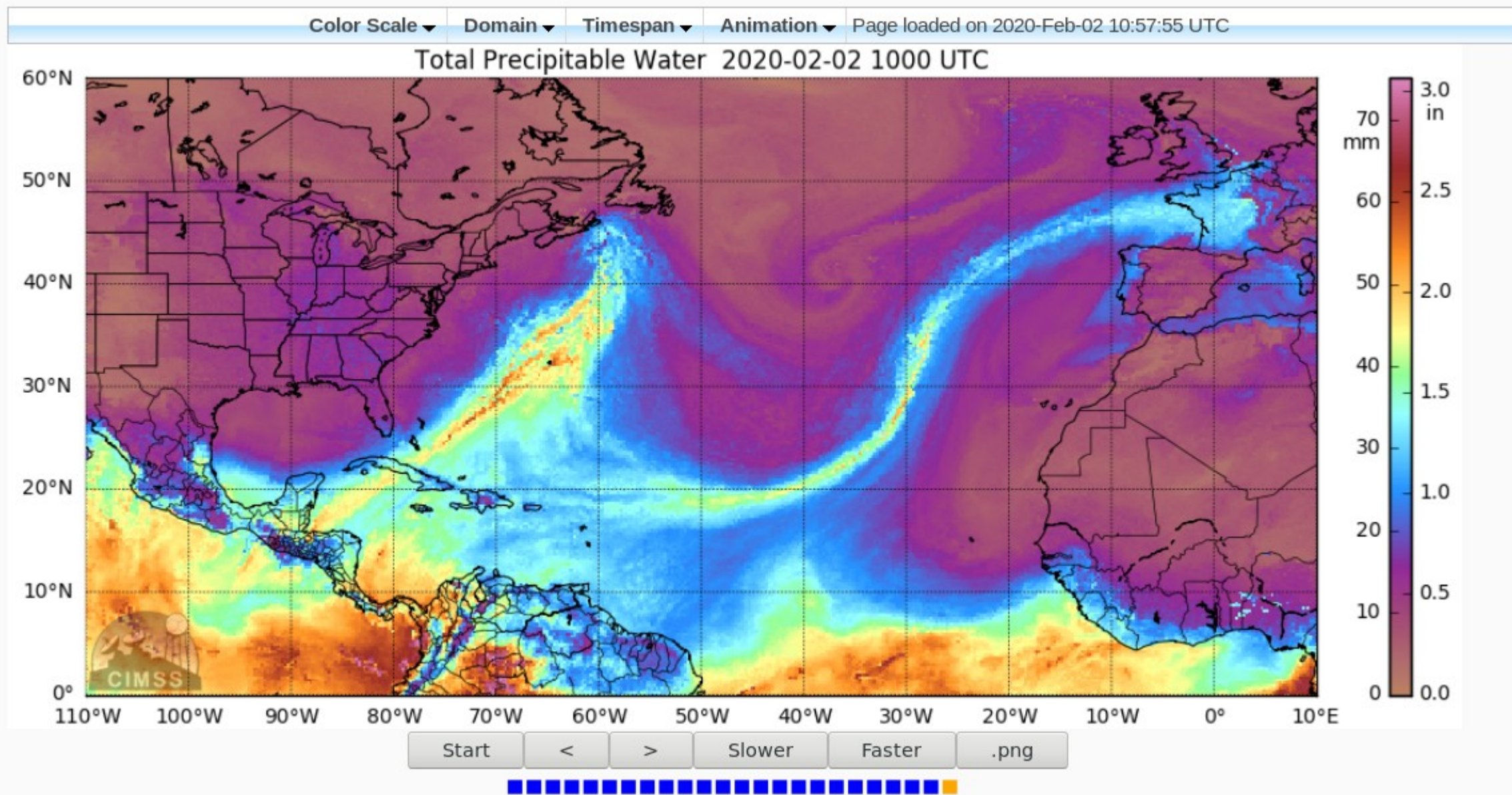


NHC/TROPICAL ANALYSIS AND FORECAST BRANCH  
MIAMI, FLORIDA

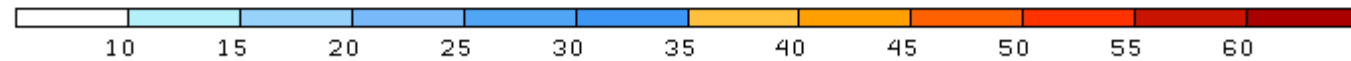
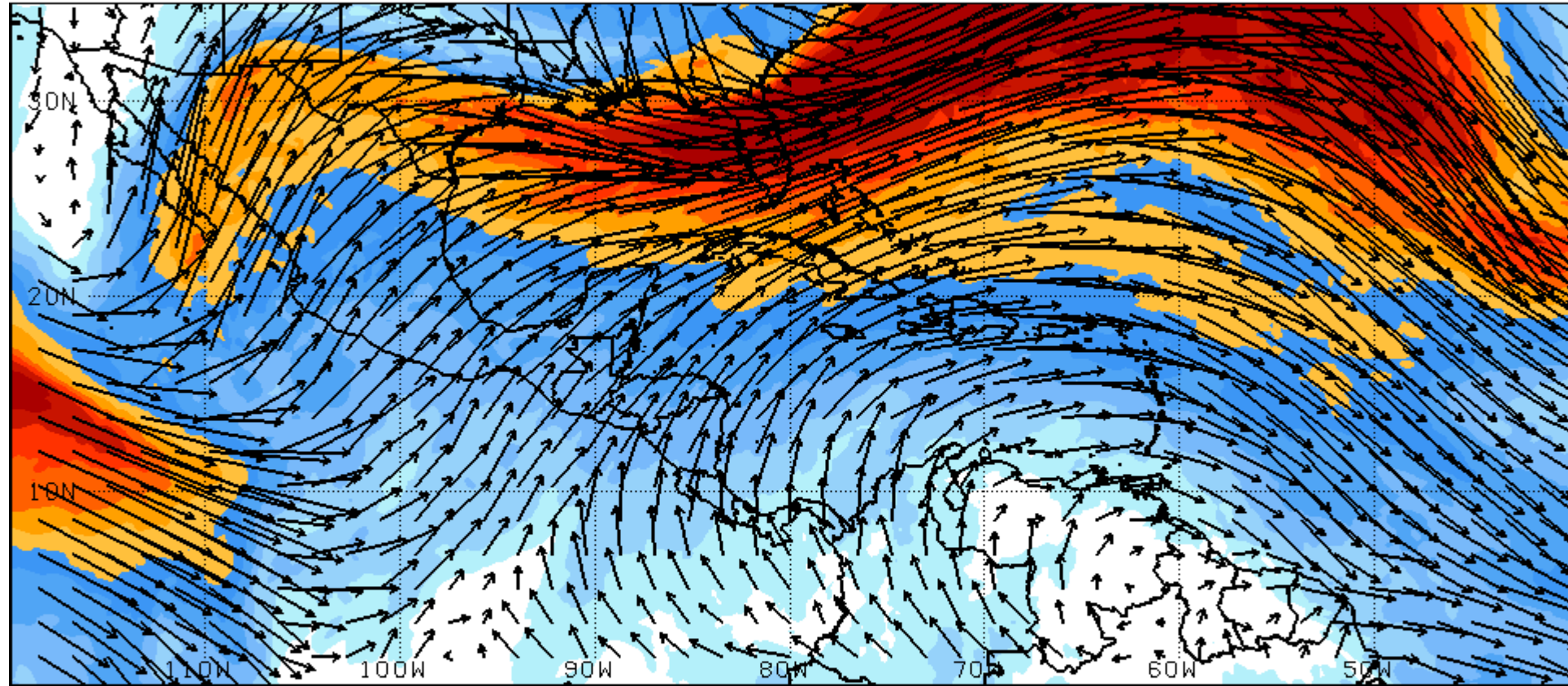
BY TAFB ANALYST FORMOSA  
COLLABORATING CENTERS: NHC OPC WPC



# MIMIC TWVP



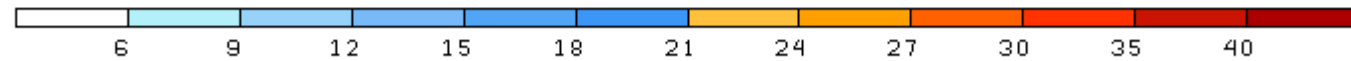
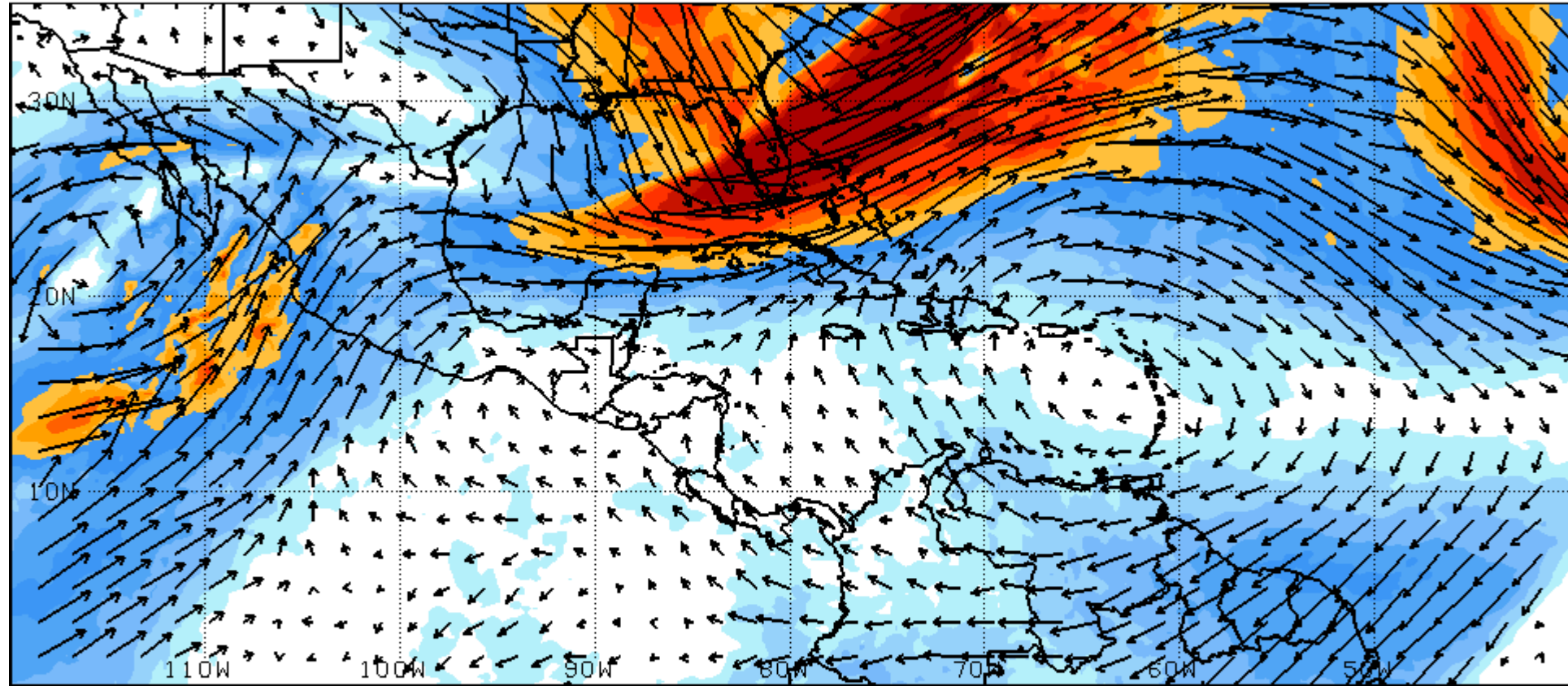
# NCEP 200 hPa winds (6Z)



10 m/s →



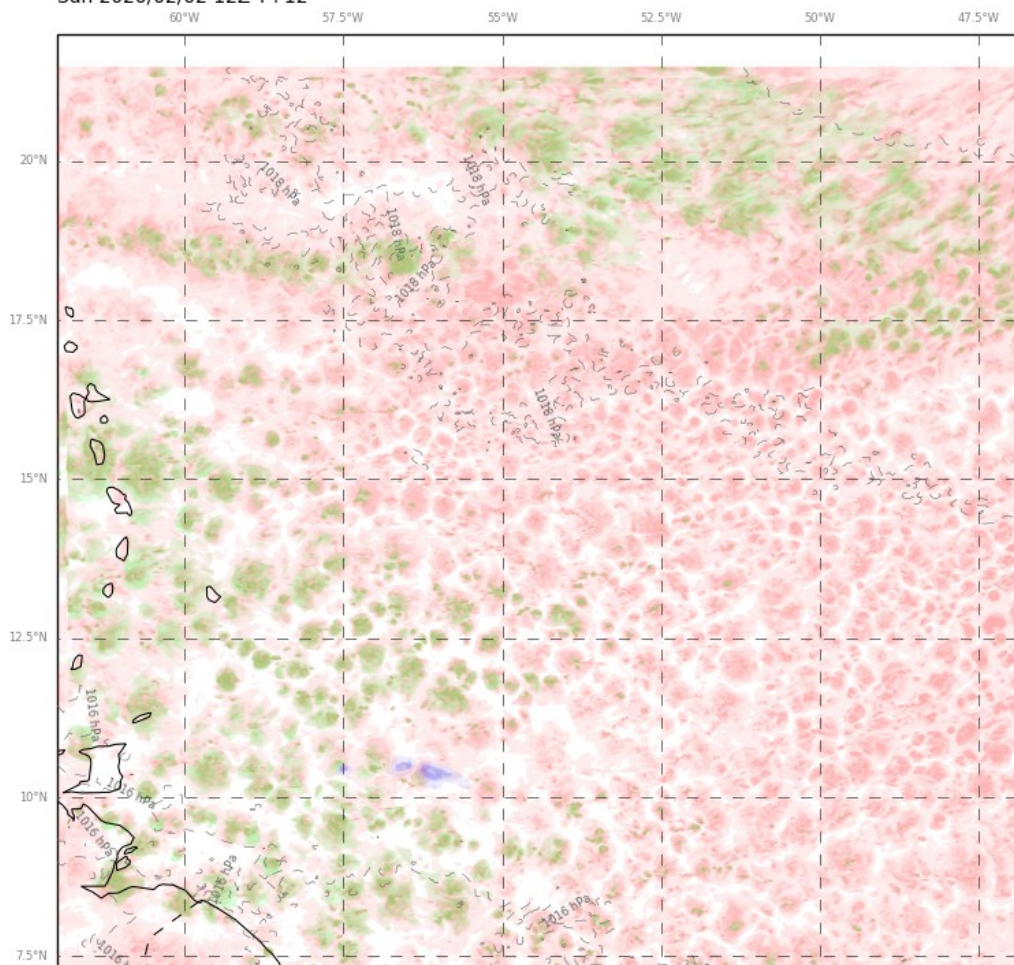
# NCEP 500 hPa winds (6Z)



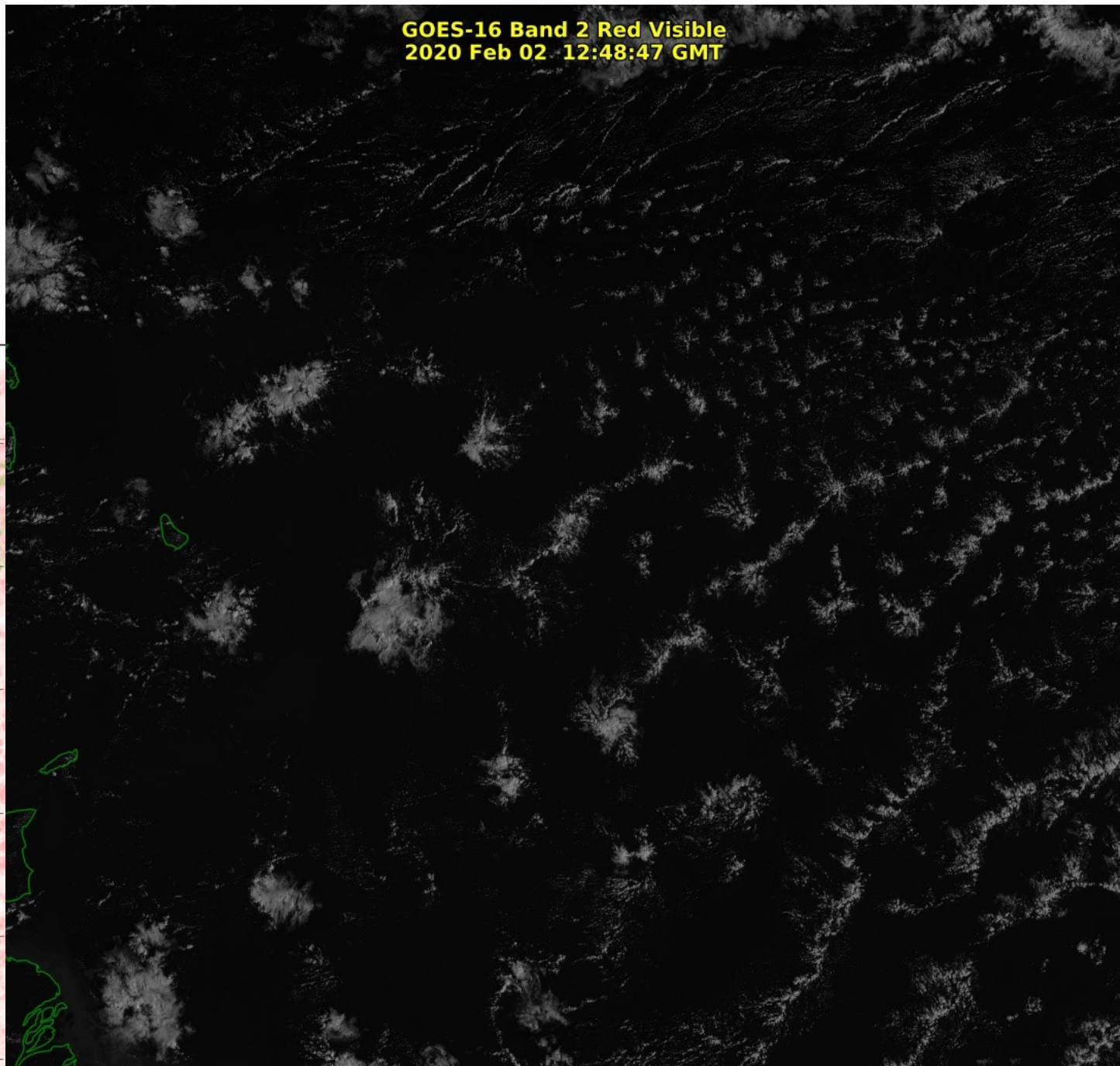
10 m/s →

# Satellite picture (NASA/GOES 16)

Cloud: Low, Medium, High  
Met Office EUREC4A 2km from 2020/02/02 00Z  
Sun 2020/02/02 12Z T+12

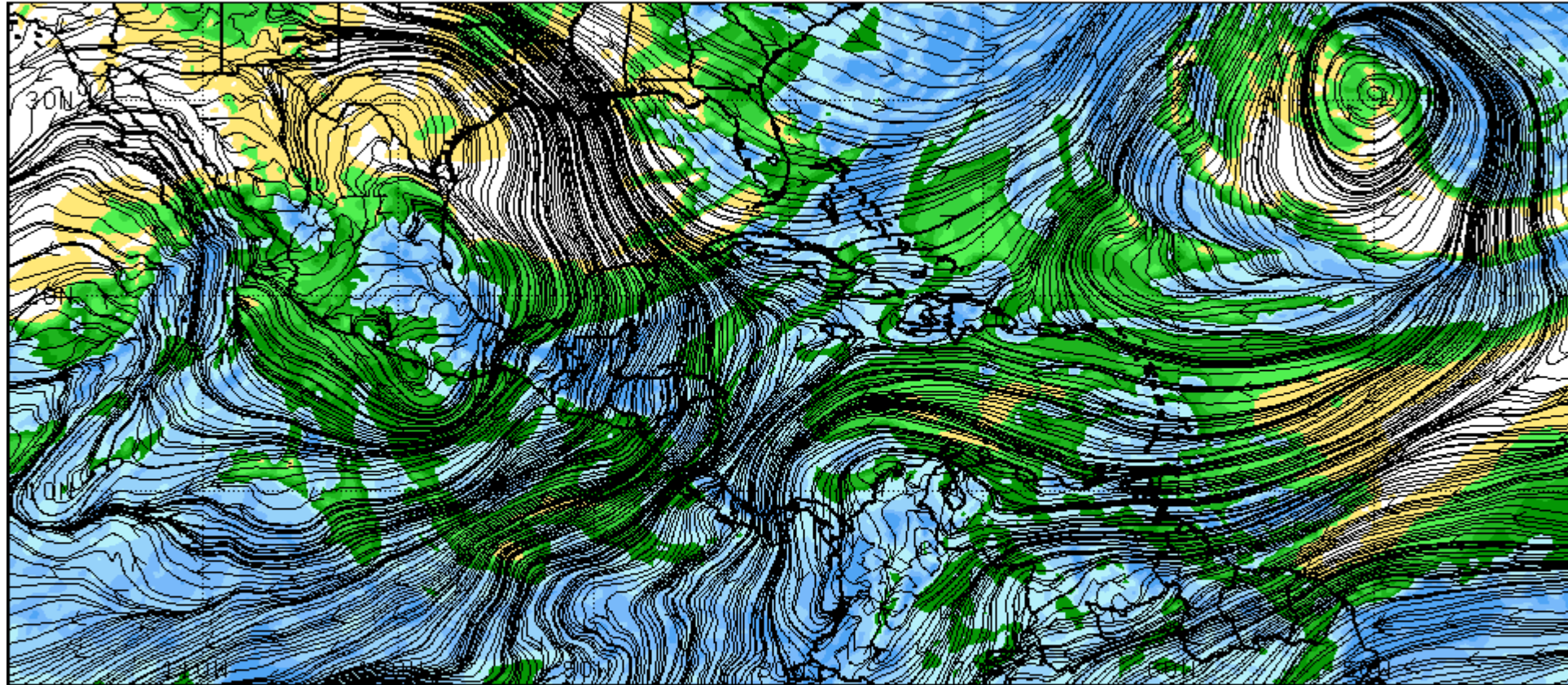


GOES-16 Band 2 Red Visible  
2020 Feb 02 12:48:47 GMT

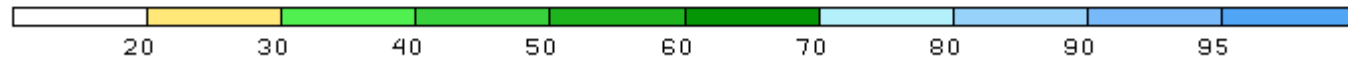




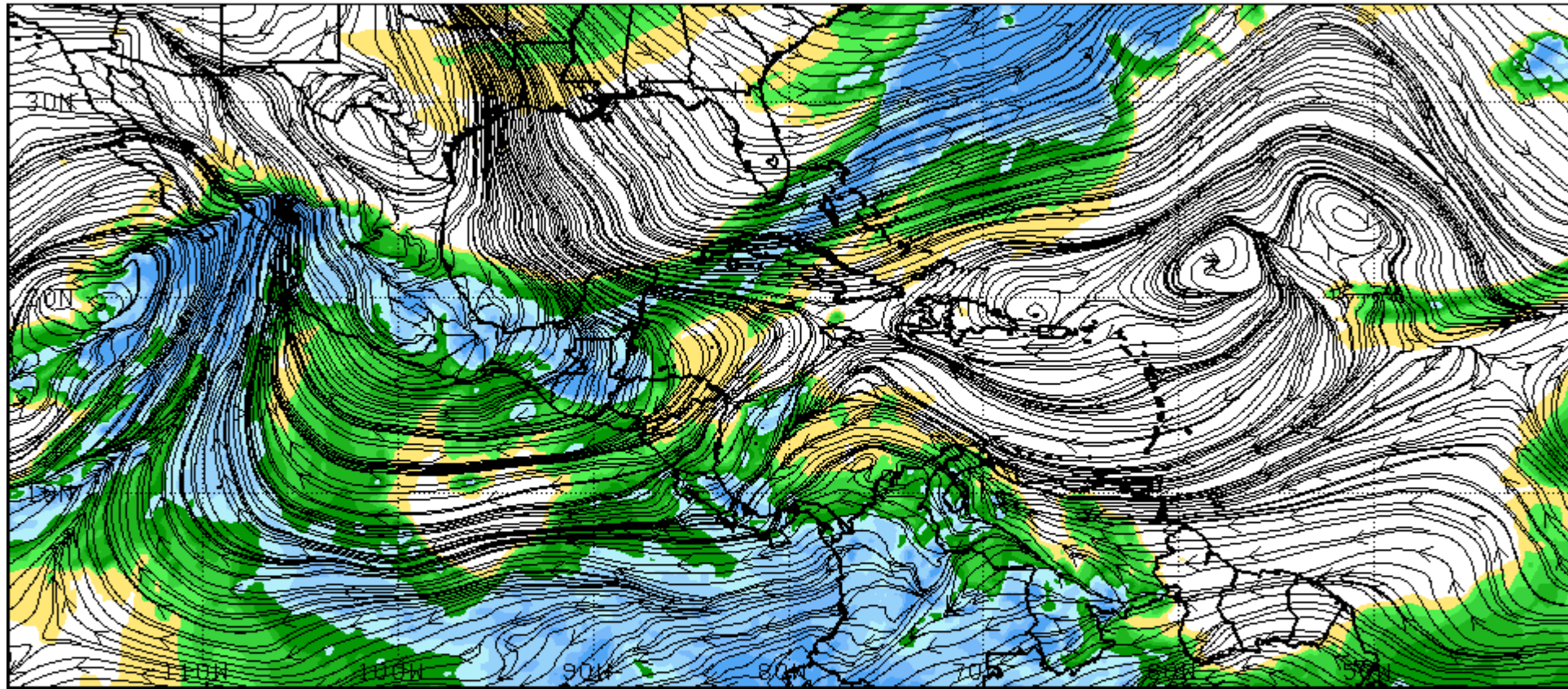
# 850 hPa winds and moisture (6Z)



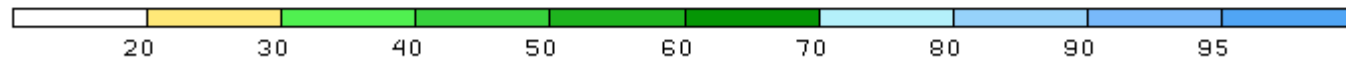
NOAA GFS 20200202 100zCYC FCST 850mb RH (in%) and Streamlines VALID 20200202/0600V006



# 700 hPa winds and moisture (6Z)



NOAA GFS 20200202 100zCYC FCST 700mb RH (in%) and Streamlines VALID 20200202/0600V006



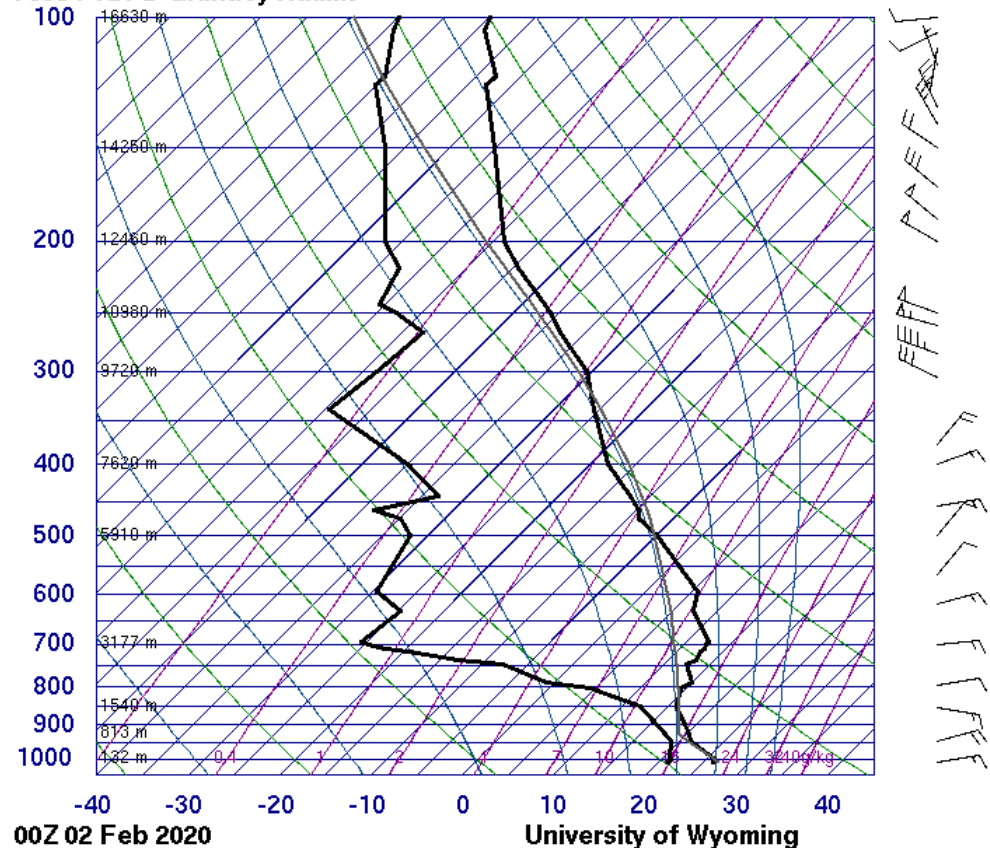


# Soundings for Barbados

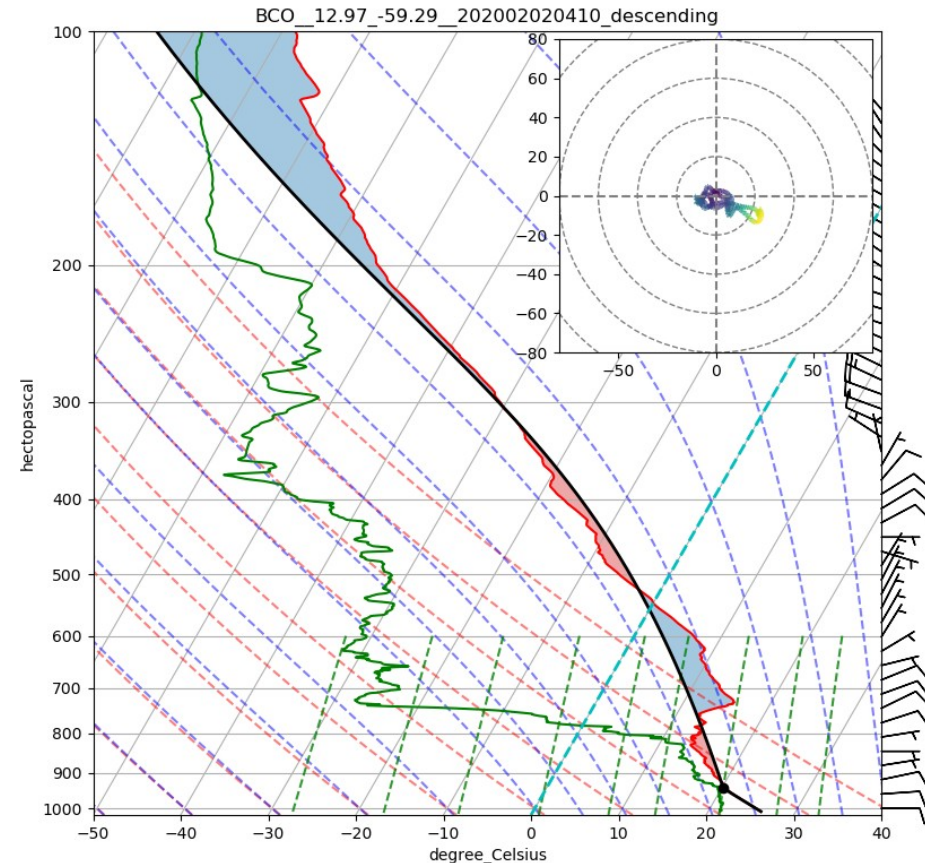
0000Z 02 Feb 2020

0410Z 02 Feb 2020, BCO

78954 TBPB Grantley Adams

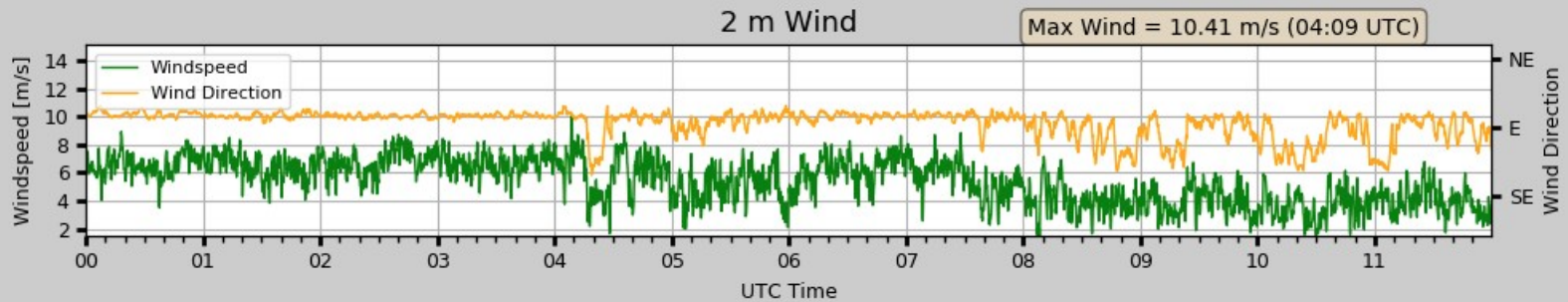
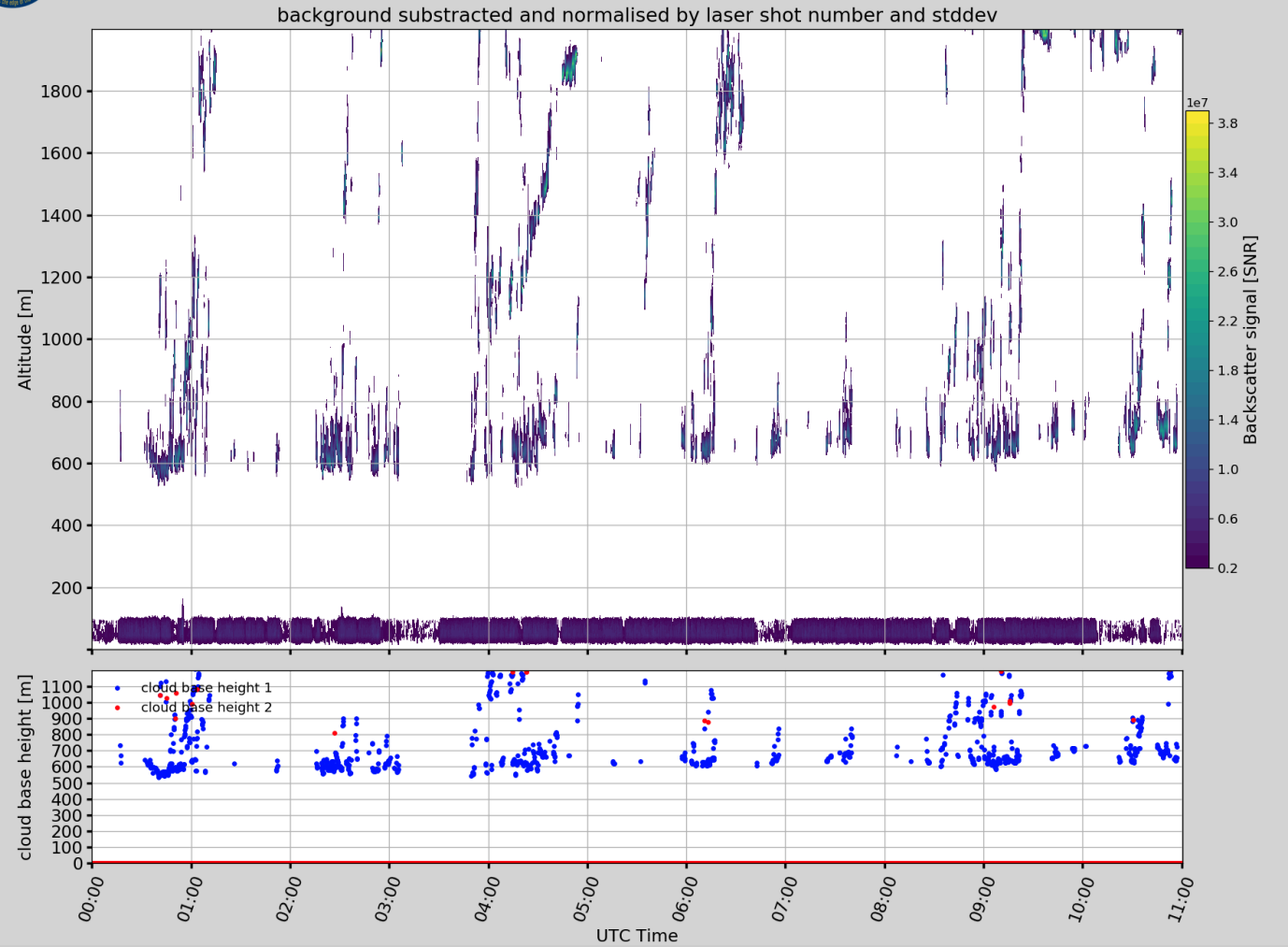


SLAT 13.07  
 SLON -59.50  
 SELV 57.00  
 SHOW 4.48  
 LIFT 0.20  
 LFTV -0.57  
 SWET 184.0  
 KINX -4.10  
 CTOT 16.90  
 VTOT 20.90  
 TOTL 37.80  
 CAPE 172.5  
 CAPV 251.1  
 CINS -15.0  
 CINV -7.86  
 EQLV 318.6  
 EQTV 315.8  
 LFCT 864.0  
 LFCV 888.0  
 BRCH 60.78  
 BRCV 68.49  
 LCLT 292.5  
 LCLP 927.5  
 MLTH 298.9  
 MLMR 15.58  
 THCK 577.8  
 PWAT 31.84





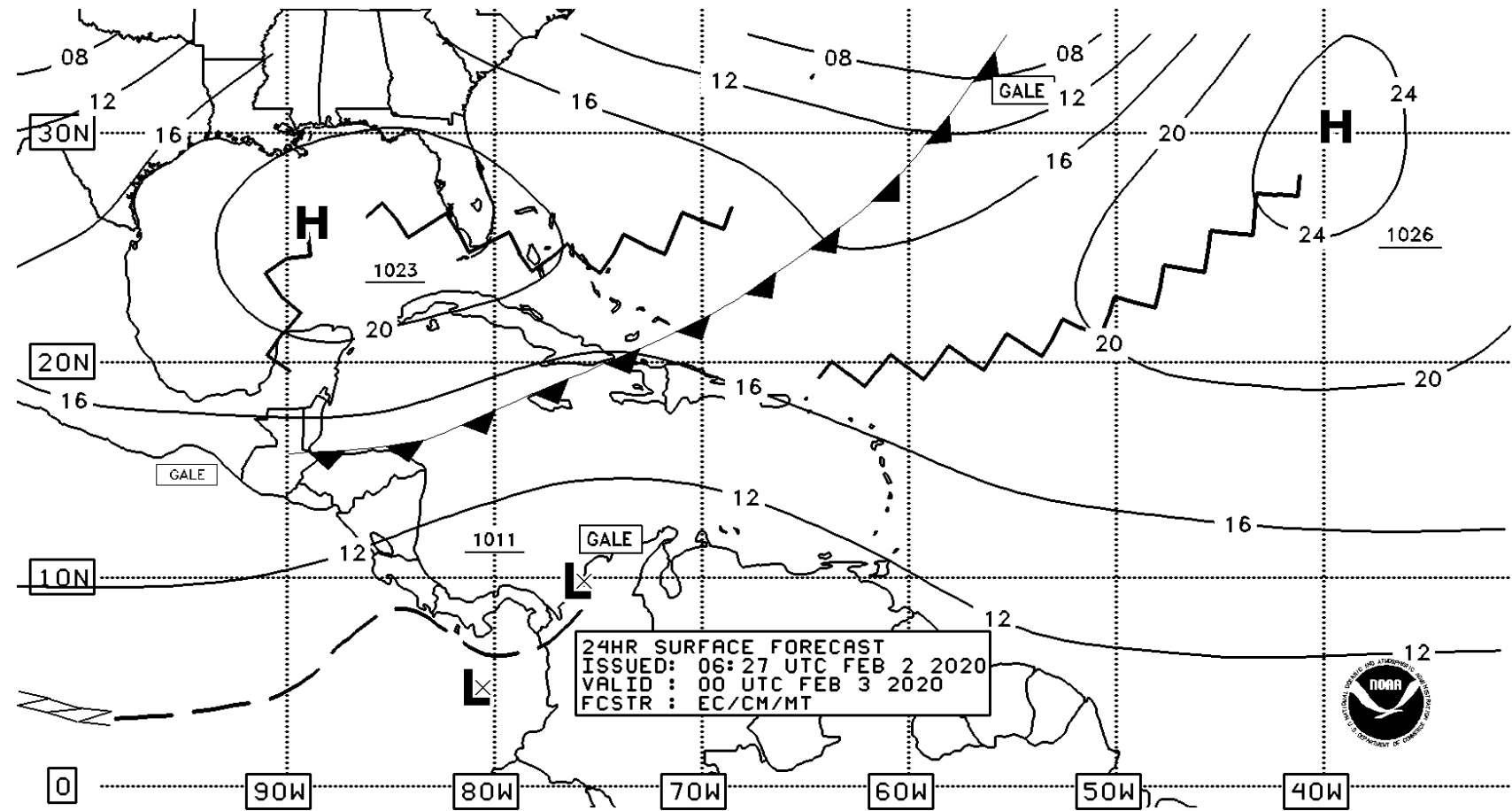
# BCO ceilometer and winds





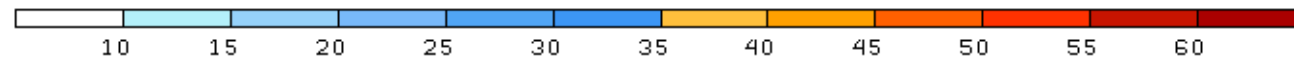
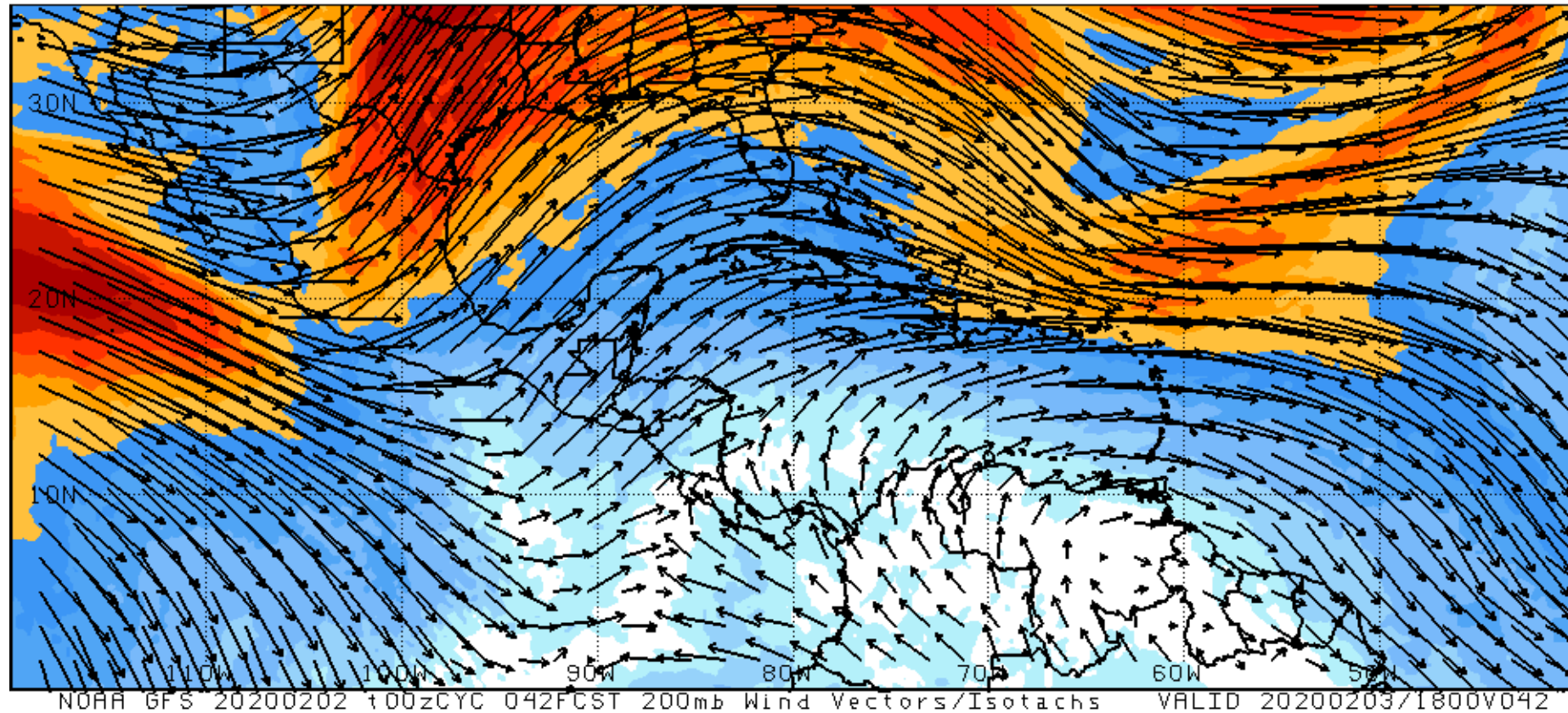
# Synoptic forecast chart 0000 UTC, D+1

- Sfc. ridge



NWS/NHC/TROPICAL ANALYSIS AND FORECAST BRANCH

# 200 hPa winds (D+1)

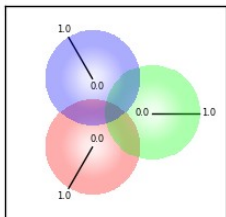
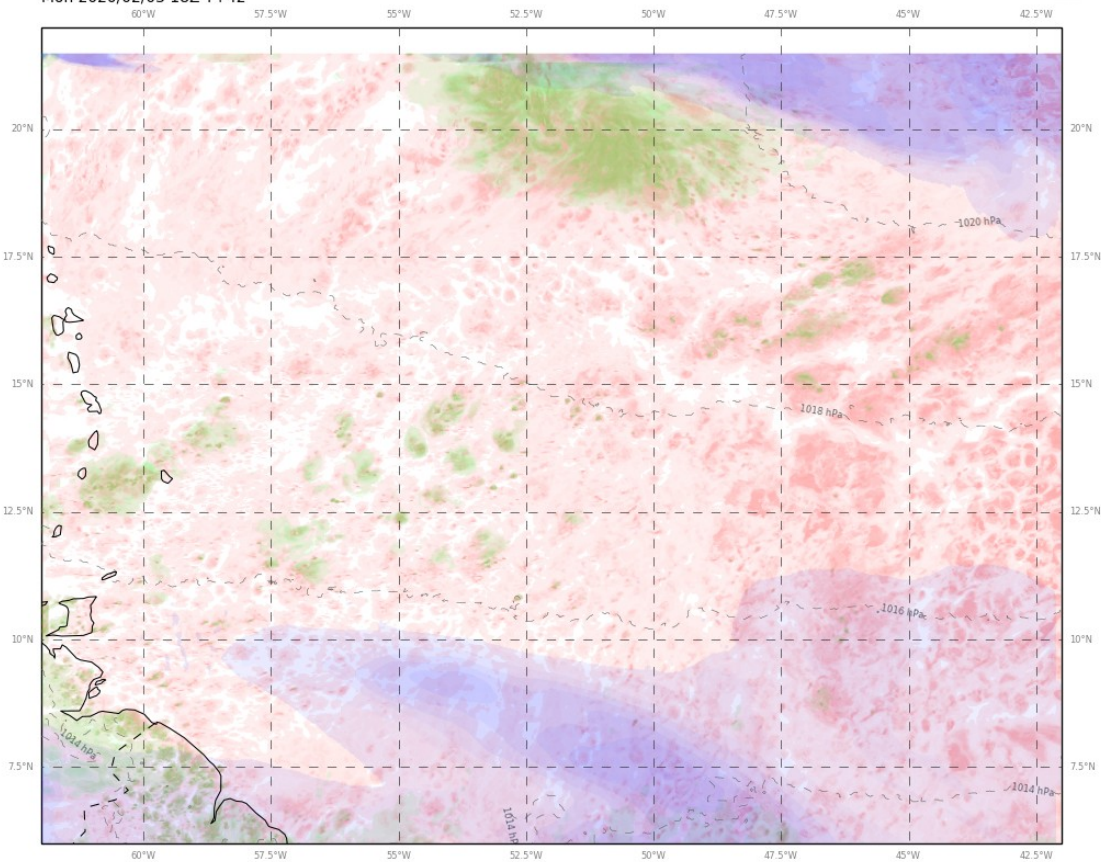


10 m/s →



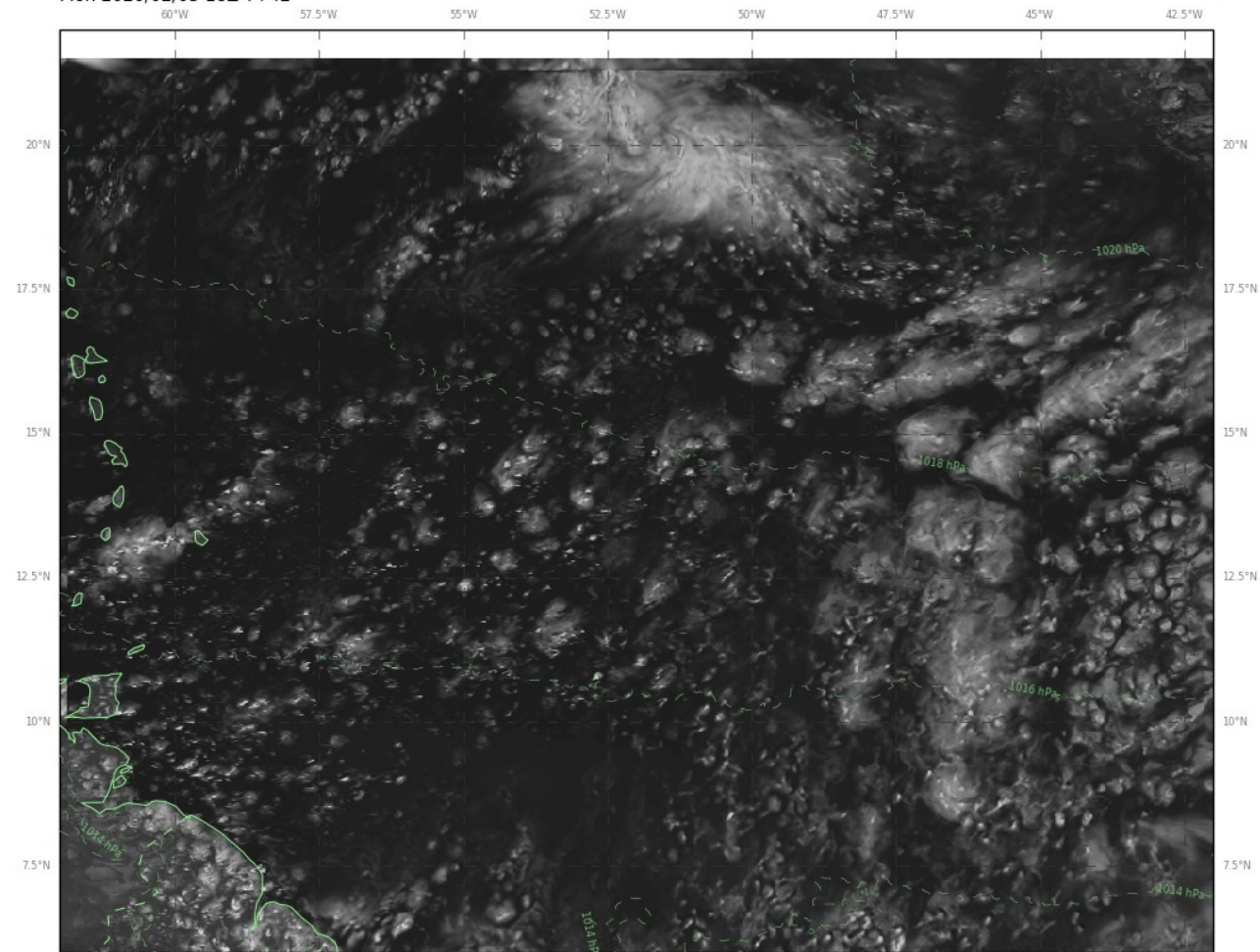
# Clouds D+1 (18Z)

Cloud: Low, Medium, High  
 Met Office EUREC4A 2km from 2020/02/02 00Z  
 Mon 2020/02/03 18Z T+42

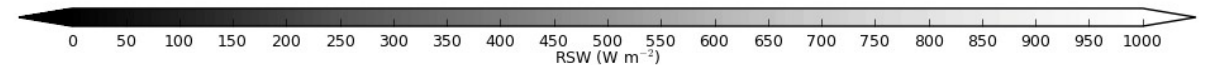


High cloud (~18000ft to ~45000ft) is blue,  
 mid-level cloud (~6000ft to ~18000ft) is green,  
 low cloud (surface to ~6000ft) is red  
 and the cloud types are combined as shown.

Reflected Shortwave Radiation at TOA  
 Met Office EUREC4A 2km from 2020/02/02 00Z  
 Mon 2020/02/03 18Z T+42



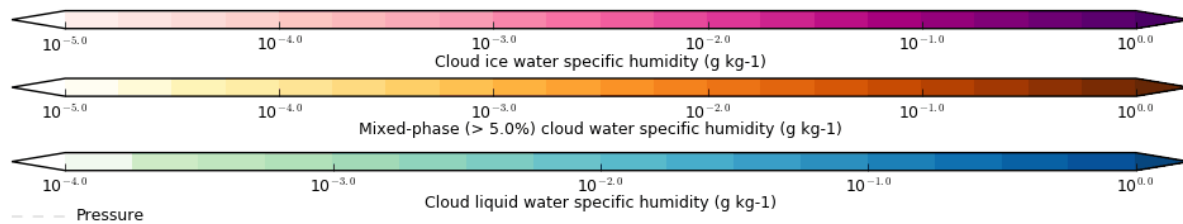
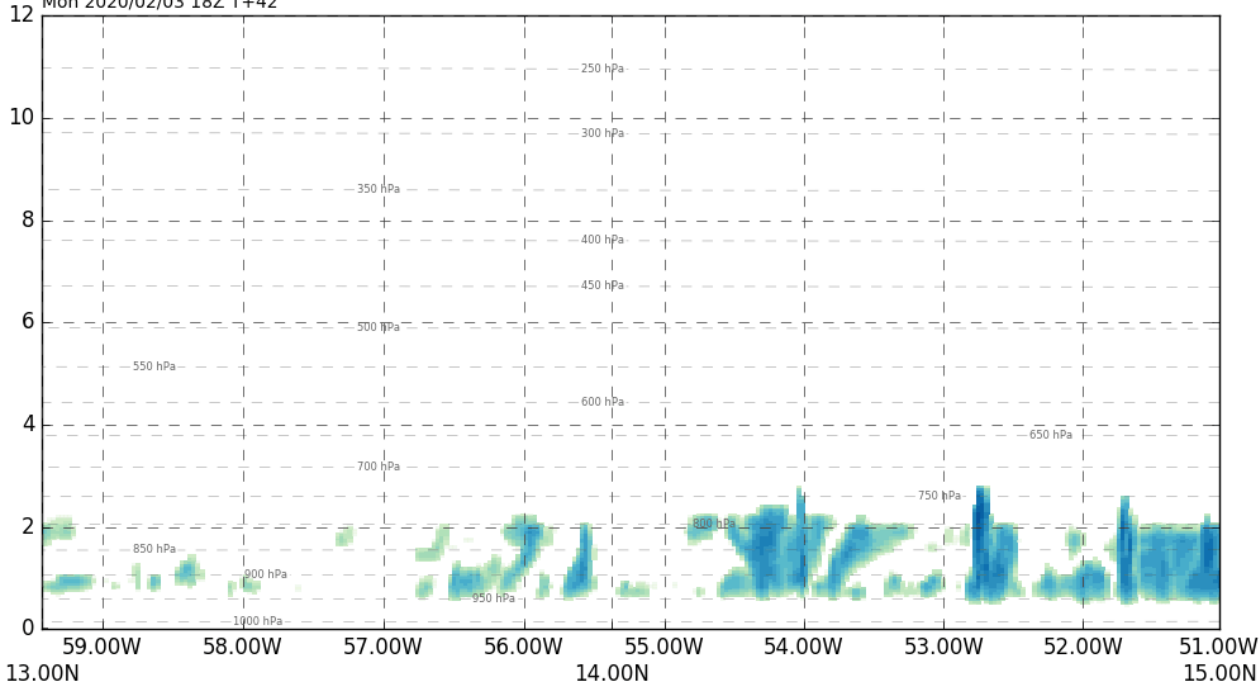
MIN=50.438, MAX=768.266, MEAN=164.962, SD=92.800, RMS=189.273



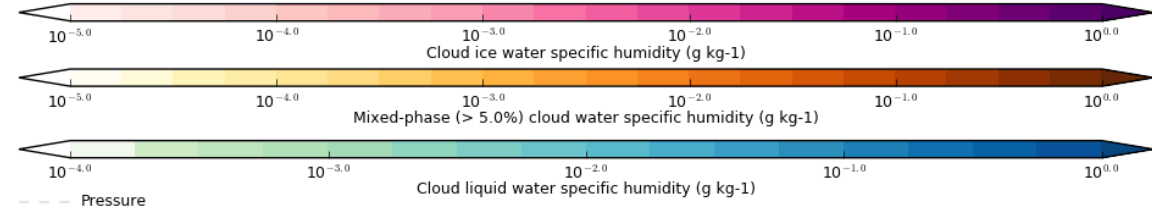
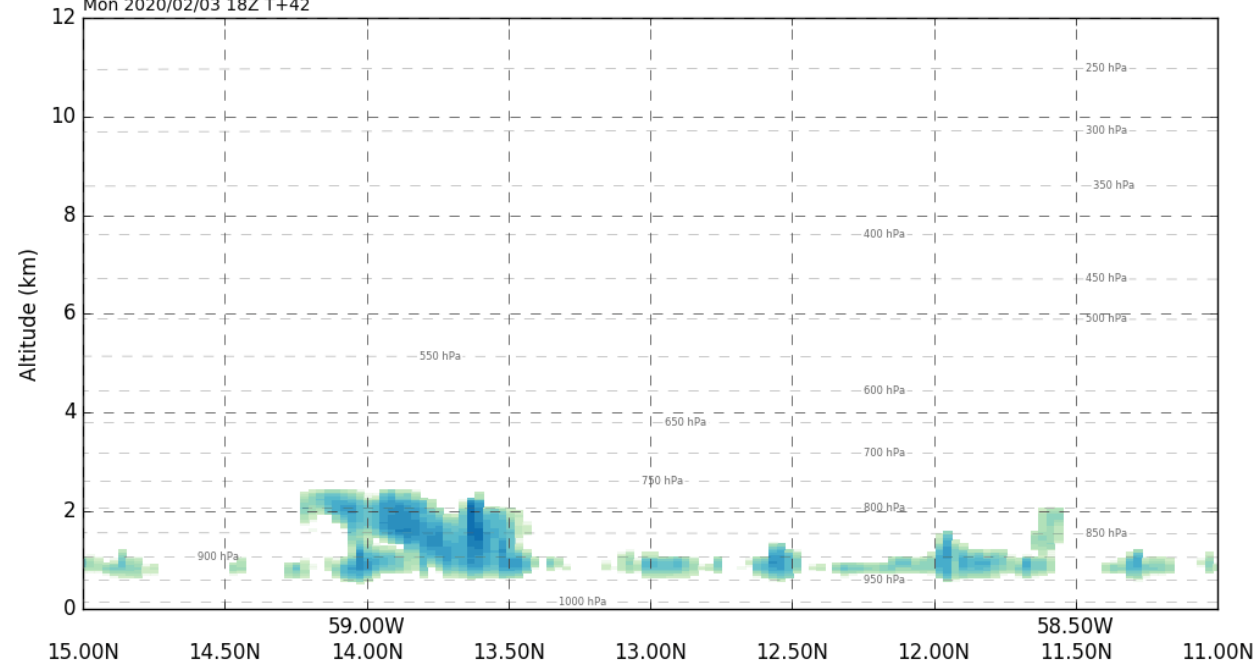
--- Pressure (mean sea level)

# Clouds D+1 (18Z)

Cloud liquid and ice water specific humidity  
 Met Office EUREC4A 2km from 2020/02/02 00Z  
 EUREC1 (59.43W,13.16N to 51.02W,14.82N, 0 to 12km)  
 Mon 2020/02/03 18Z T+42

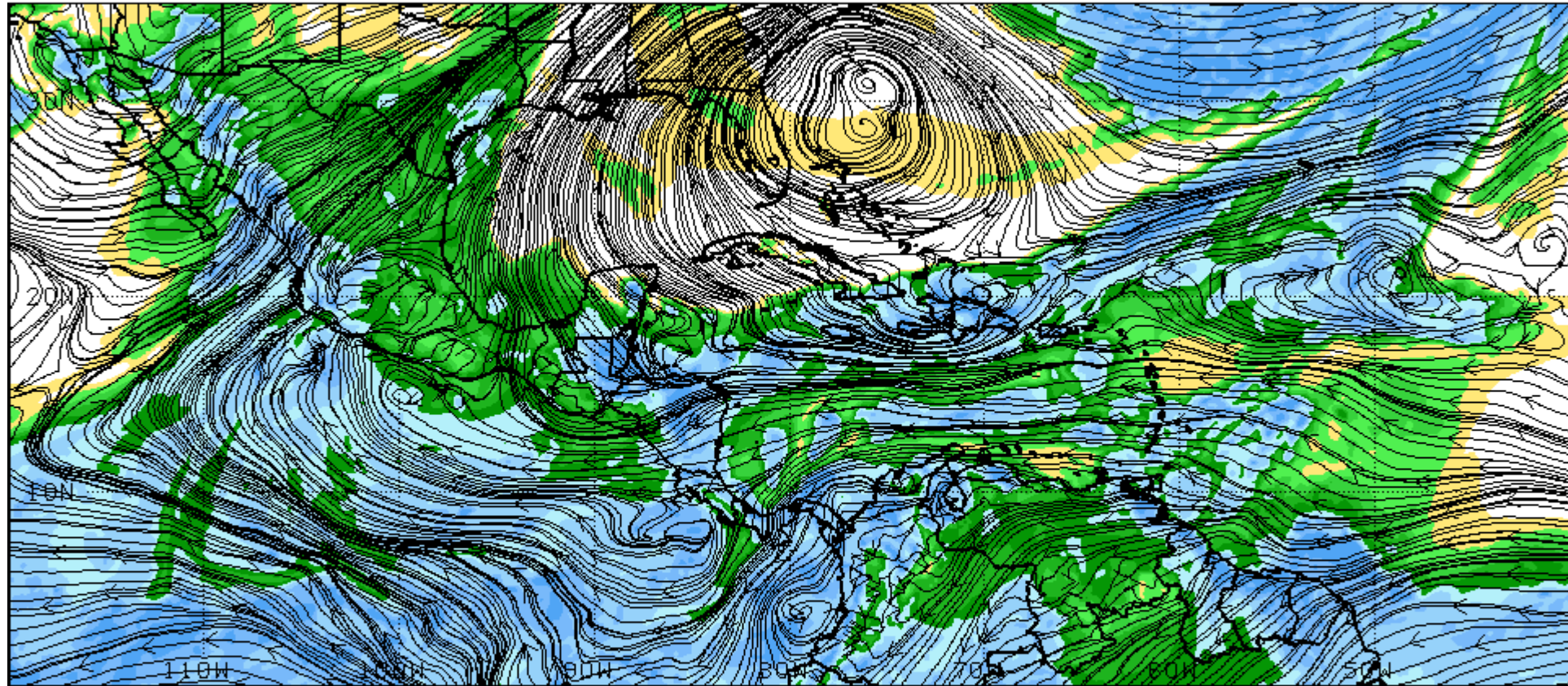


Cloud liquid and ice water specific humidity  
 Met Office EUREC4A 2km from 2020/02/02 00Z  
 EUREC2 (59.2W,15.0N to 58.4W,11.0N, 0 to 12km)  
 Mon 2020/02/03 18Z T+42





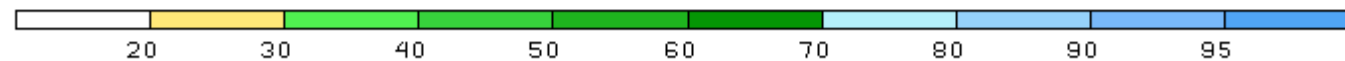
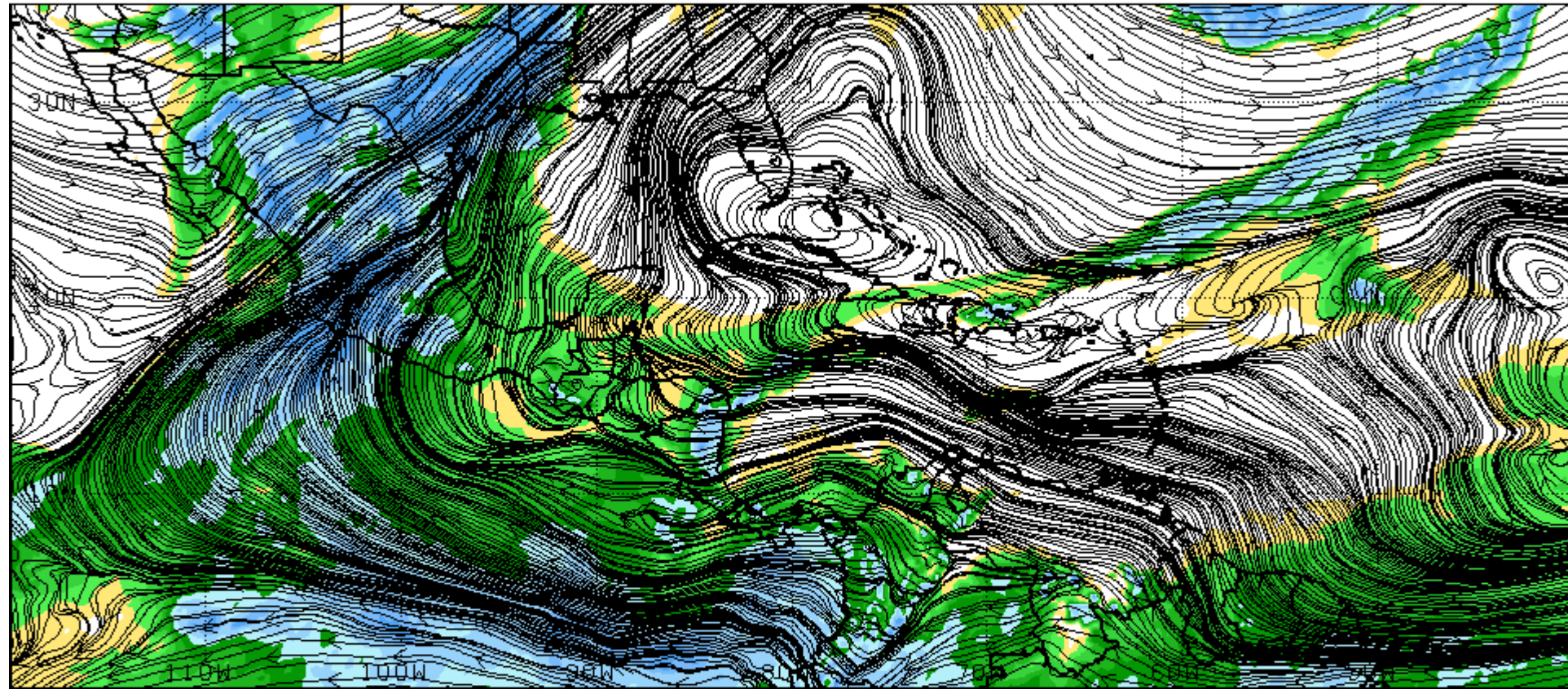
# 850 hPa winds and moisture (D+1)



NOAA GFS 20200202 100zCYC FCST 850mb RH (in%) and Streamlines VALID 20200203/1800V042

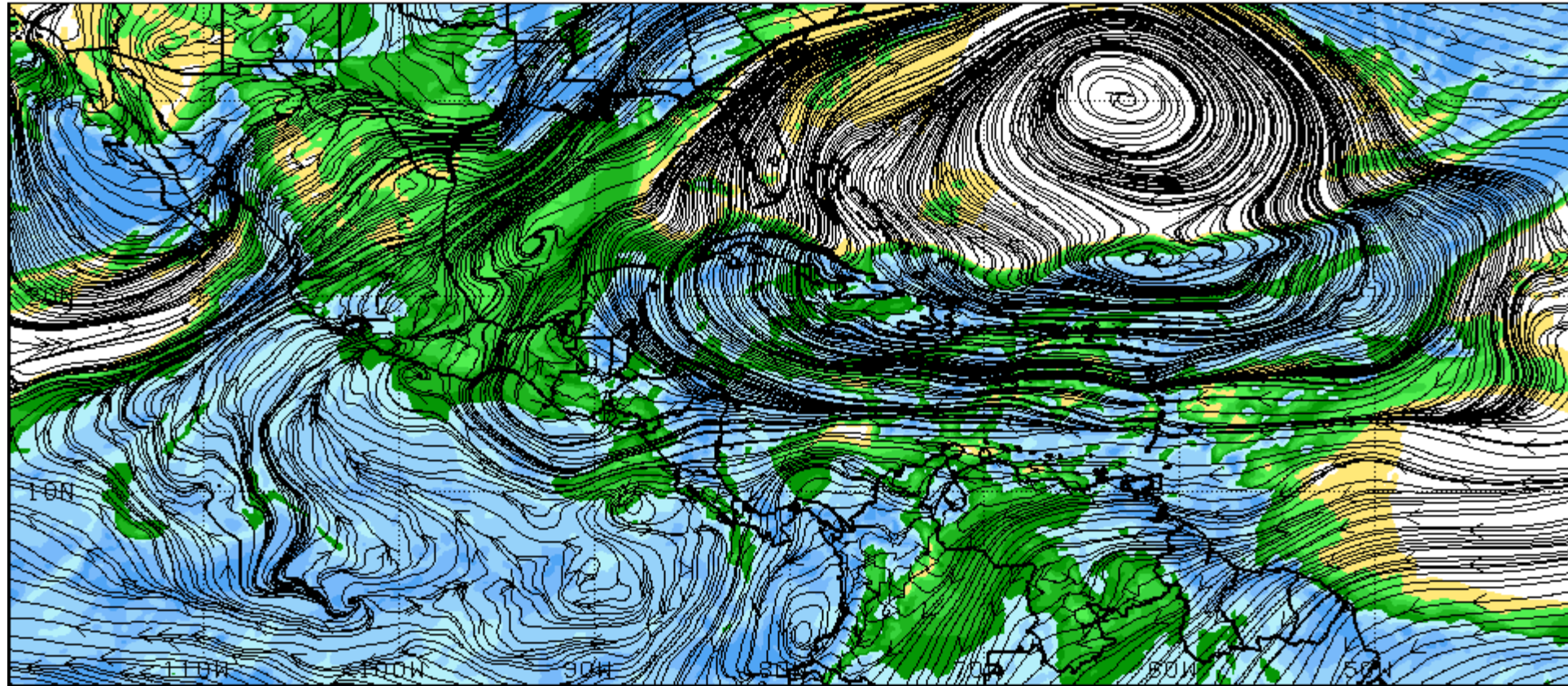


# 700 hPa winds and moisture (D+1)

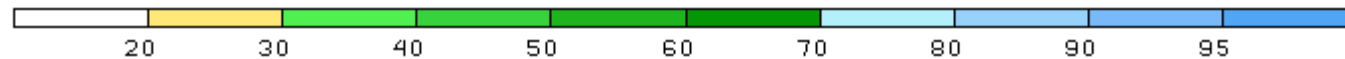




# 850 hPa winds and moisture (D+2)

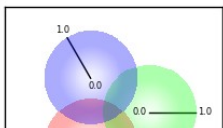
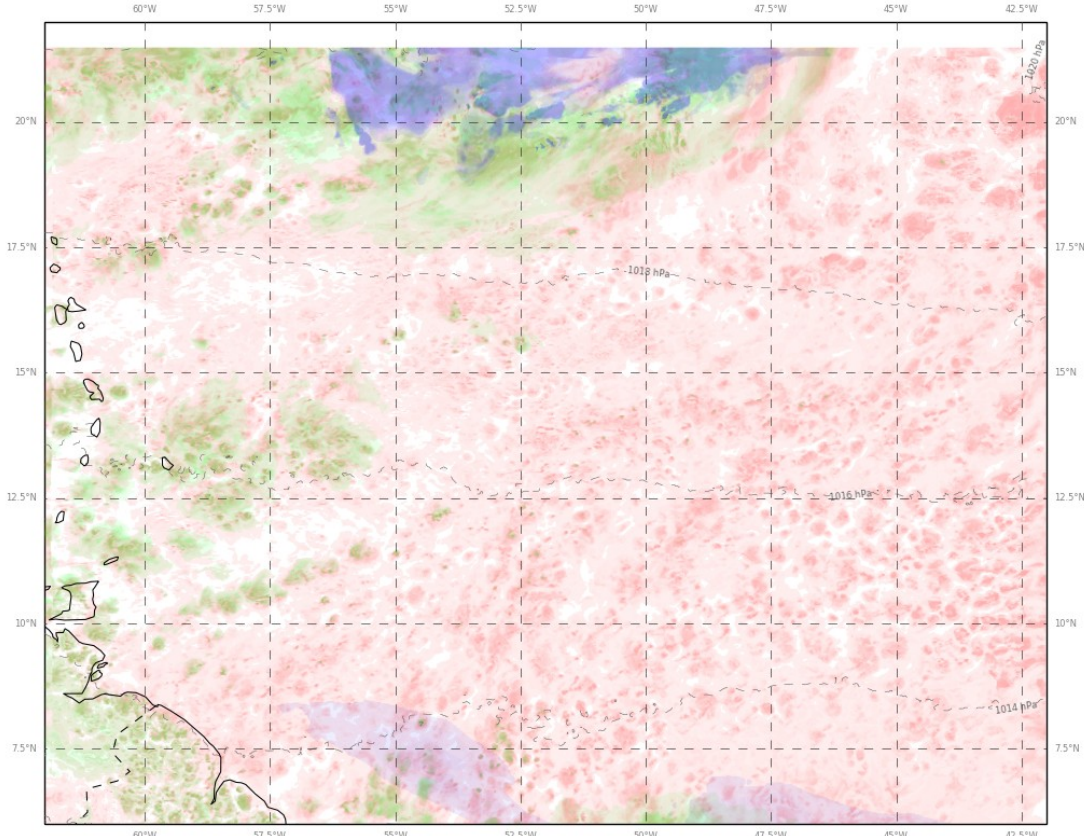


NOAA GFS 20200202 100zCYC FCST 850mb RH (in%) and Streamlines VALID 20200204/1800V066



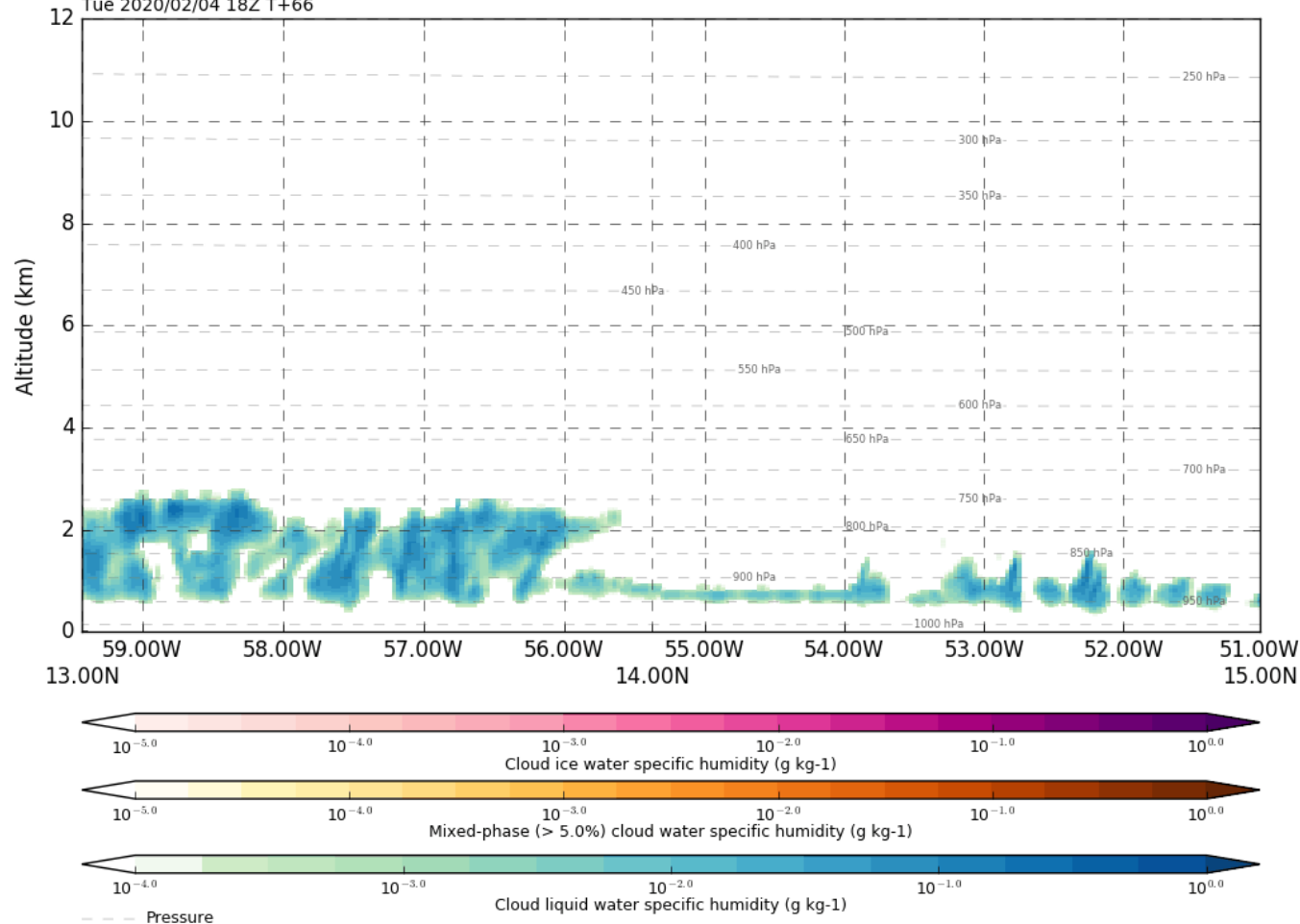
# Cloud (D+2)

Cloud: Low, Medium, High  
 Met Office EUREC4A 2km from 2020/02/02 00Z  
 Tue 2020/02/04 18Z T+66



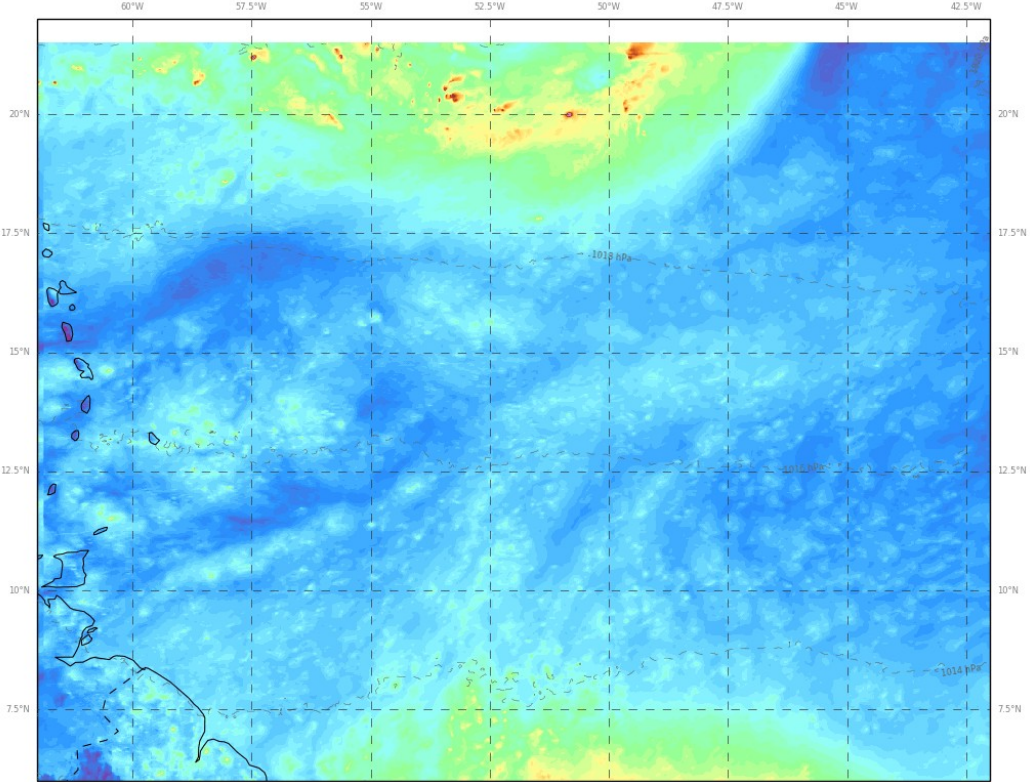
High cloud (~18000ft to ~45000ft) is blue,  
 mid-level cloud (~6000ft to ~18000ft) is green,

Cloud liquid and ice water specific humidity  
 Met Office EUREC4A 2km from 2020/02/02 00Z  
 EUREC1 (59.43W,13.16N to 51.02W,14.82N, 0 to 12km)  
 Tue 2020/02/04 18Z T+66

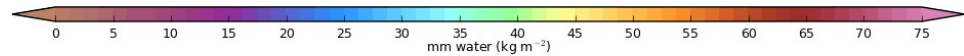




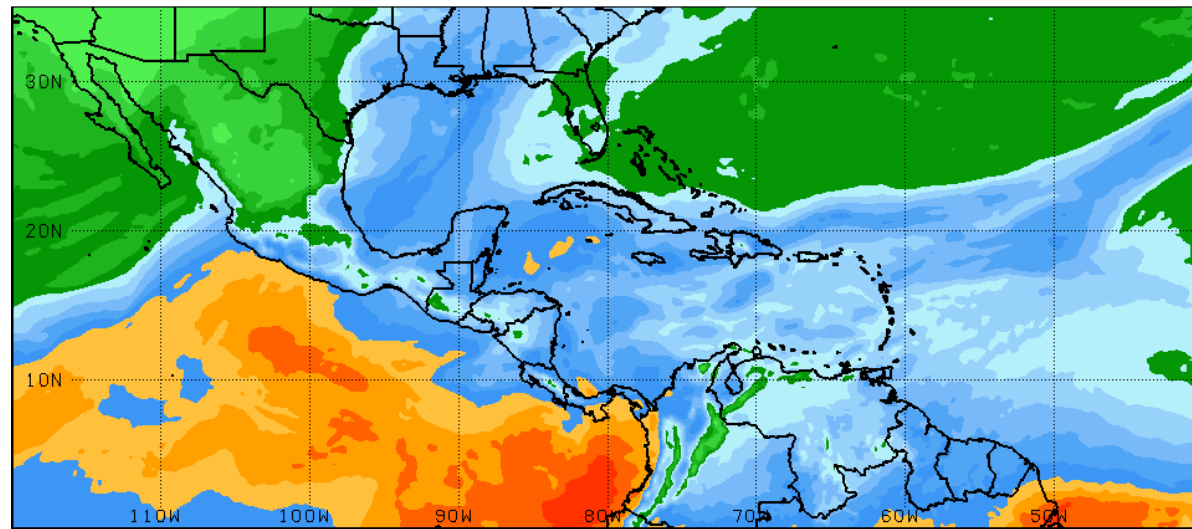
Total Column Water  
 Met Office EUREC4A 2km from 2020/02/02 00Z  
 Tue 2020/02/04 18Z T+66



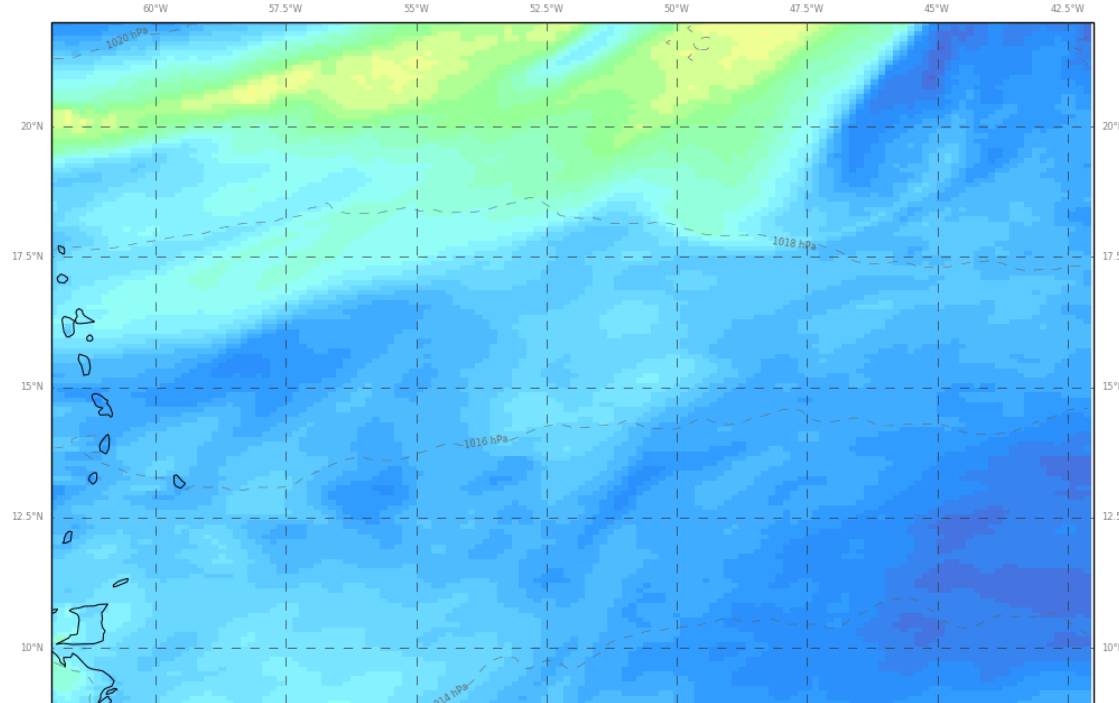
MIN=12.353, MAX=98.337, MEAN=30.782, SD=4.681, RMS=31.136



-- -- Pressure (mean sea level)

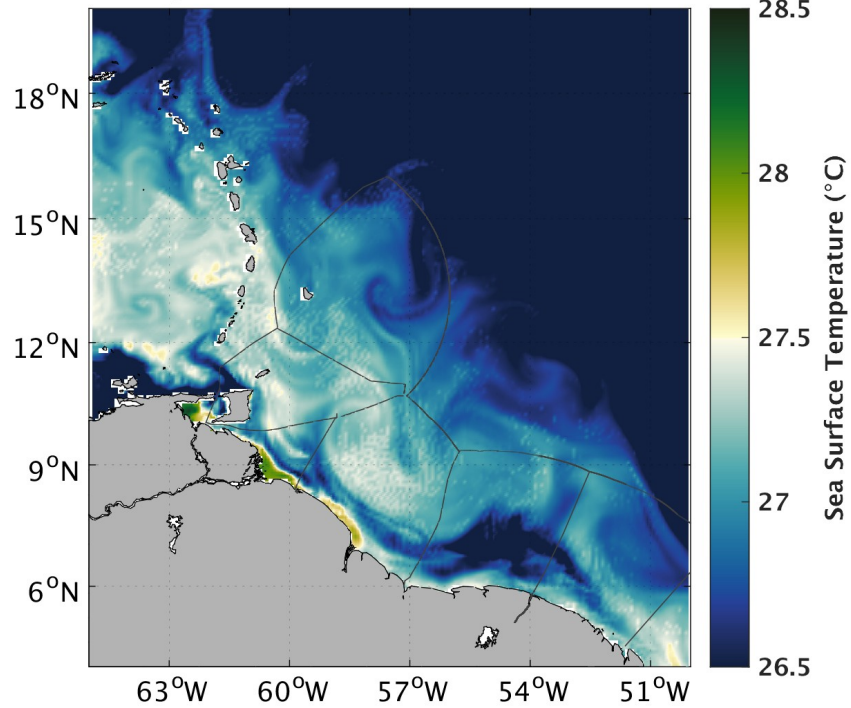


Total Column Water  
 Met Office Oper. Global from 2020/02/02 00Z  
 Tue 2020/02/04 18Z T+66

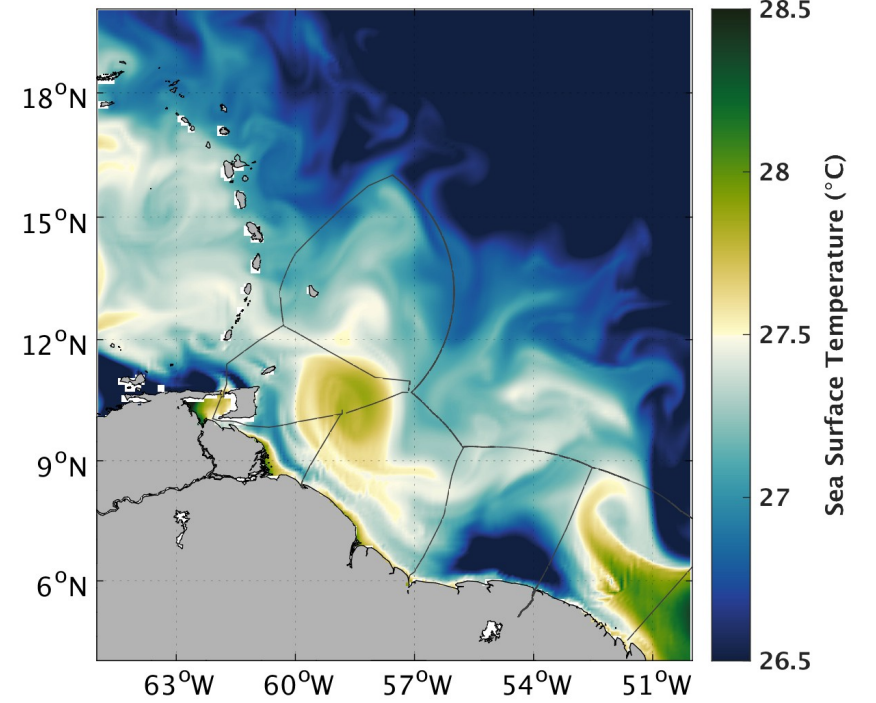


# Ocean T

SST (°C) Hycom 02/02/20 Forecast at +24 hours



SST (°C) Mercator 02/02/20 Forecast at +24 hours





# Summary

Synoptics: High to North and Low west of Cape Verde, cold front.

Uncertainty about clouds on Tuesday