

# **Second WMO RCC-Washington International Training Workshop**

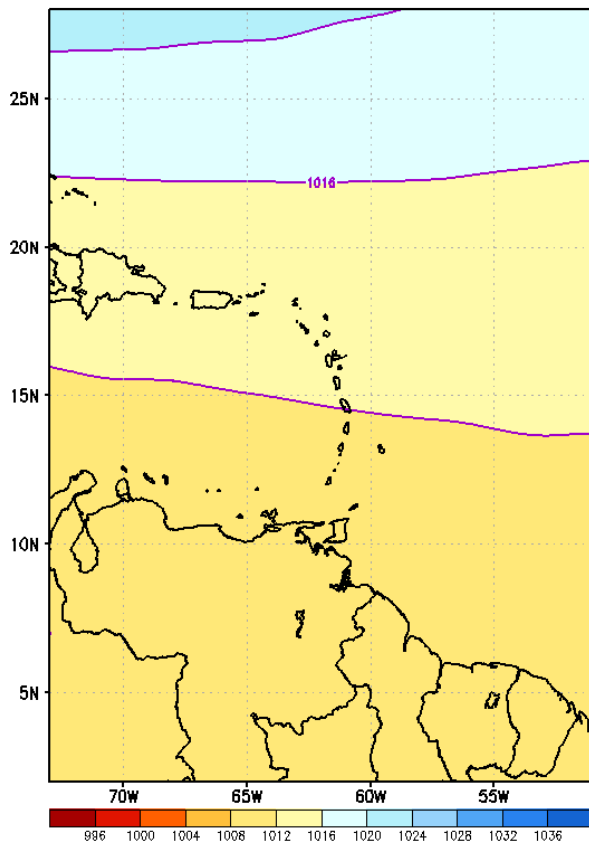
## **Real-time week-2 extreme temperature outlook**

8 – 10 November 2021

# Mean Sea Level Pressure

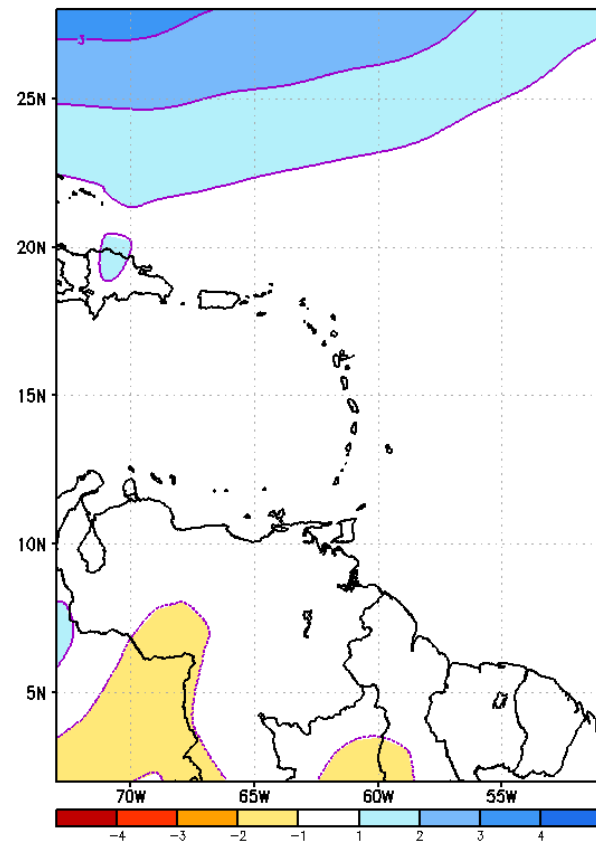
## Total

GEFS Week-2 Mean Sea Level Pressure Total  
Valid: 20210820 - 20211123



## Anomaly

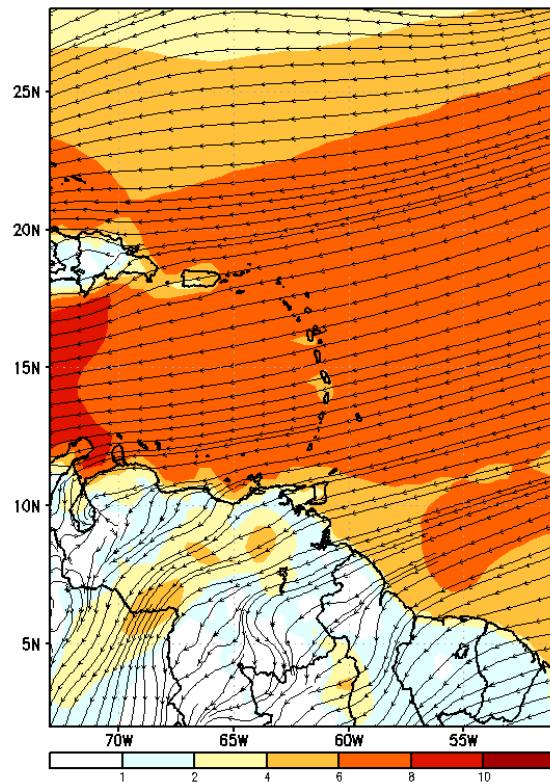
GEFS Week-2 Mean Sea Level Pressure Anomaly  
Valid: 20210820 - 20211123



# 10m Wind

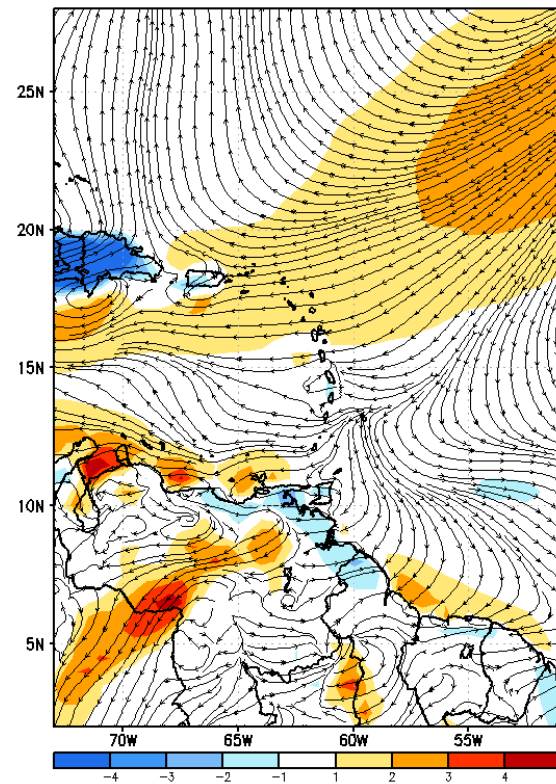
## Total

GEFS Week-2 10m Wind Speed Total  
Valid: 20210820 - 20211123



## Anomaly

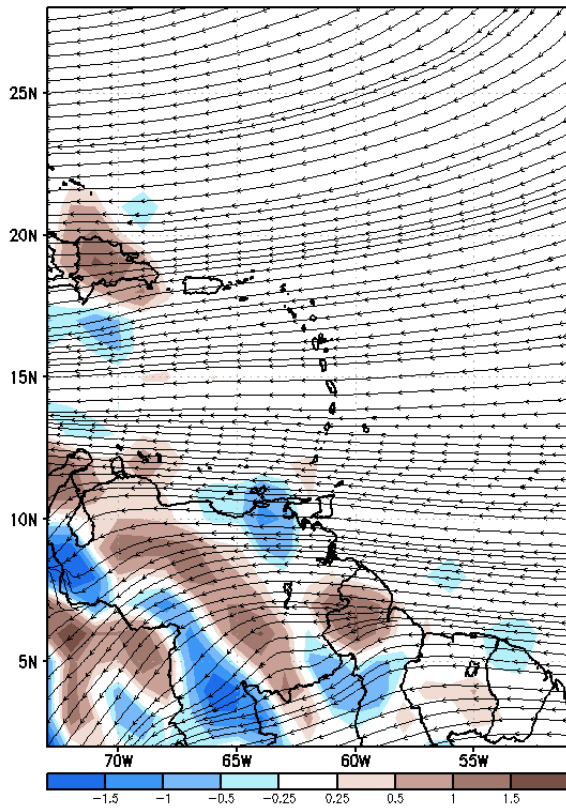
GEFS Week-2 10m Wind Speed Anomaly  
Valid: 20210820 - 20211123



# 850-hPa Wind

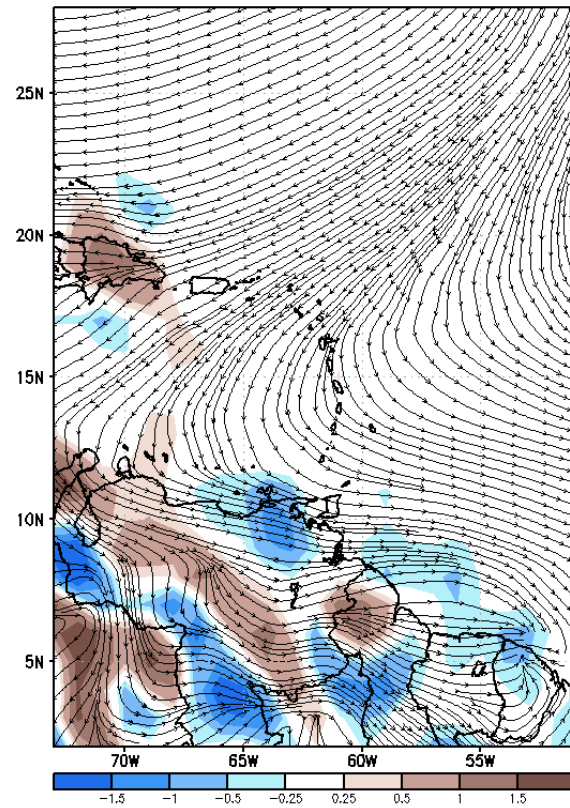
## Total

GEFS Week-2 850-hPa Divergence and Wind Total  
Valid: 20210820 - 20211123



## Anomaly

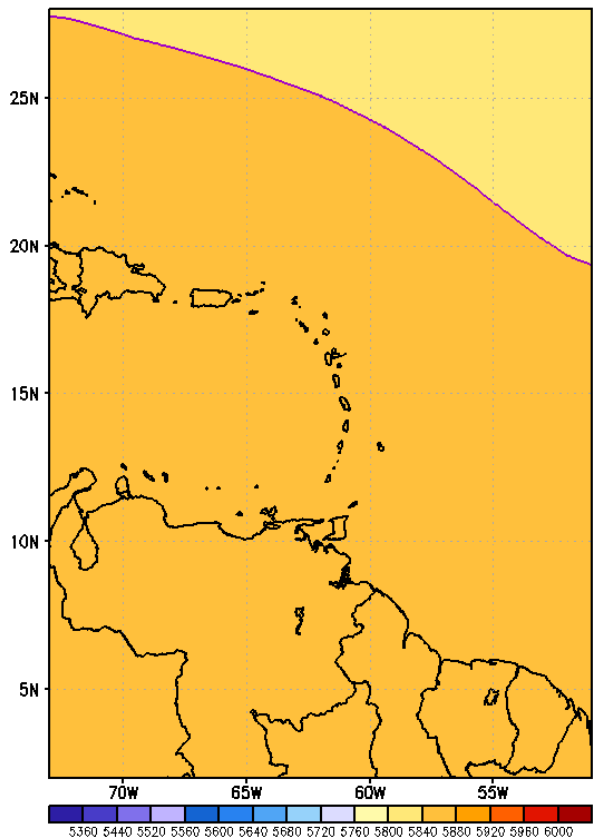
GEFS Week-2 850-hPa Divergence and Wind Anomaly  
Valid: 20210820 - 20211123



# 500-hPa Height

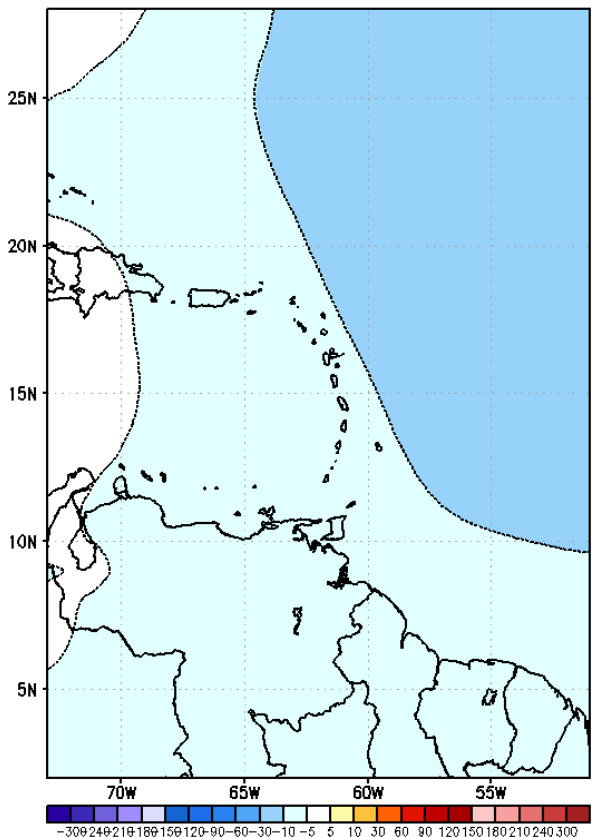
## Total

GEFS Week-2 500-hPa Geo-Potential Height Total  
Valid: 20210820 - 20211123



## Anomaly

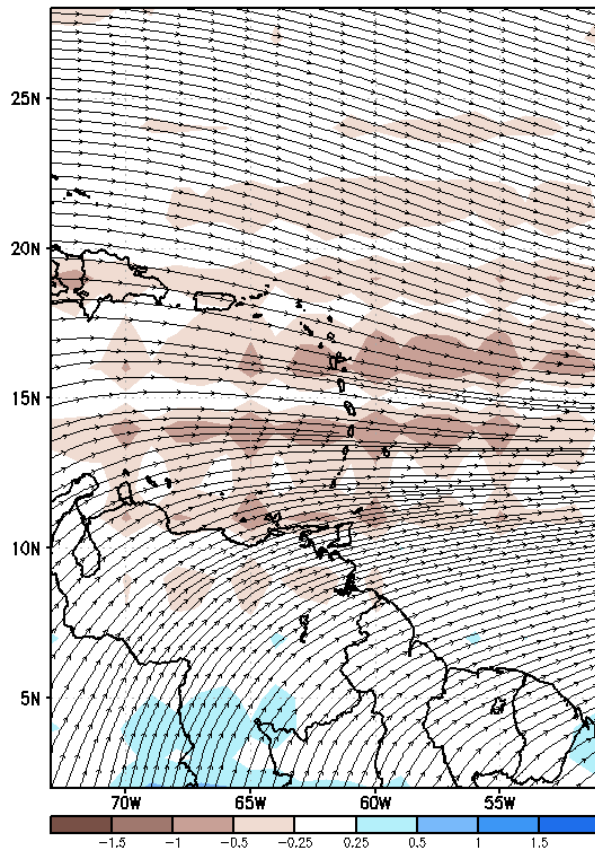
GEFS Week-2 500-hPa Geo-Potential Height Anomaly  
Valid: 20210820 - 20211123



# 200-hPa Wind

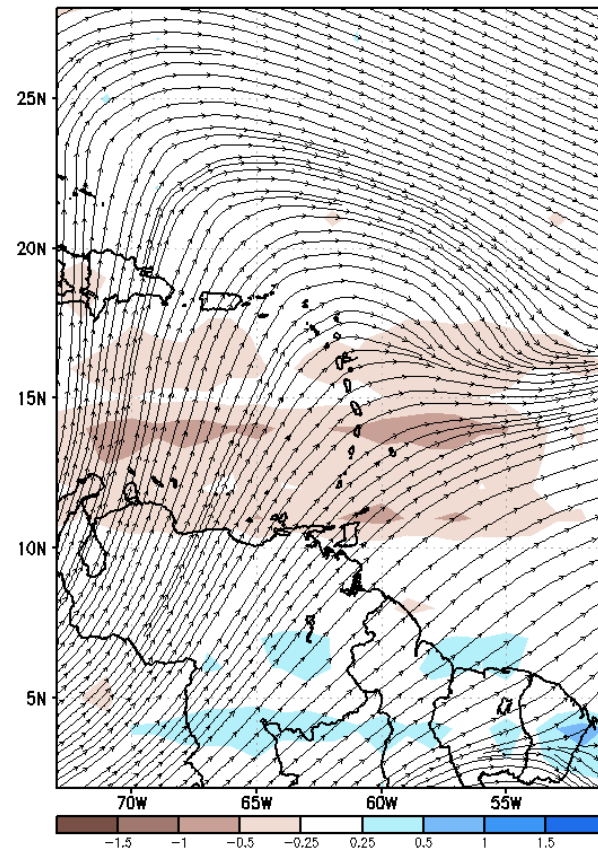
## Total

GEFS Week-2 200-hPa Divergence and Wind Total  
Valid: 20210820 - 20211123



## Anomaly

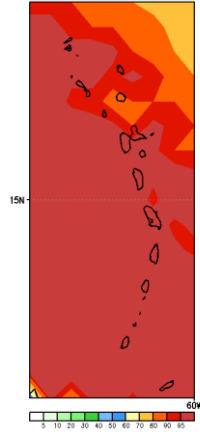
GEFS Week-2 200-hPa Divergence and Wind Anomaly  
Valid: 20210820 - 20211123



# Tmax Exceedance Probability for at least 2 Consecutive Days

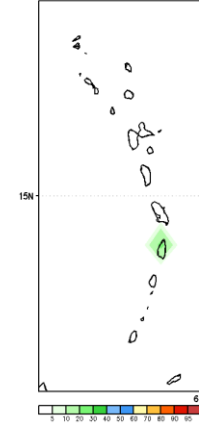
## $\geq 35^{\circ}\text{C}$

GEFS Week-2 Tmax Exceedance Prob.  $\geq 35$  Cels.  
>=2 Consec. Days, Valid: 20210820 - 20211123



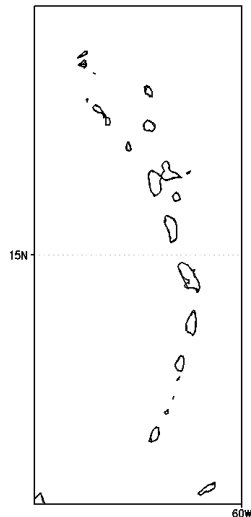
## $\geq 37^{\circ}\text{C}$

GEFS Week-2 Tmax Exceedance Prob.  $\geq 37$  Cels.  
>=2 Consec. Days, Valid: 20210820 - 20211123



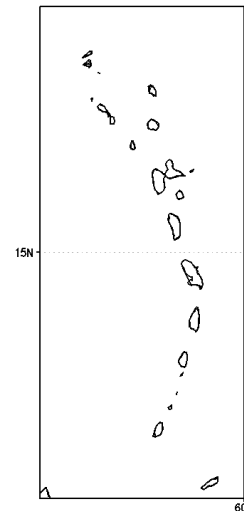
## $\geq 39^{\circ}\text{C}$

GEFS Week-2 Tmax Exceedance Prob.  $\geq 39$  Cels.  
>=2 Consec. Days, Valid: 20210820 - 20211123



## $\geq 41^{\circ}\text{C}$

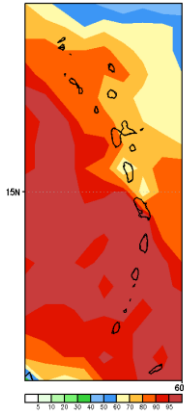
GEFS Week-2 Tmax Exceedance Prob.  $\geq 41$  Cels.  
>=2 Consec. Days, Valid: 20210820 - 20211123



# Tmax Exceedance Probability for at least 3 Consecutive Days

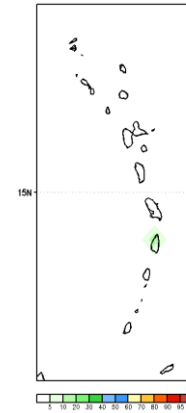
## $\geq 35\text{ }^{\circ}\text{C}$

GEFS Week-2 Tmax Exceedance Prob.  $\geq 35$  Cels.  
>=3 Consec. Days, Valid: 20210820 - 20211123



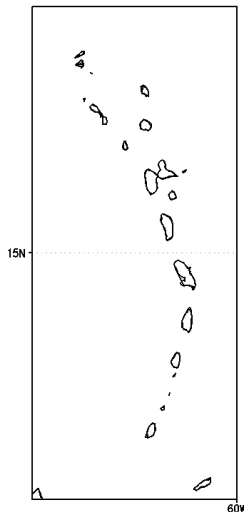
## $\geq 37\text{ }^{\circ}\text{C}$

GEFS Week-2 Tmax Exceedance Prob.  $\geq 37$  Cels.  
>=3 Consec. Days, Valid: 20210820 - 20211123



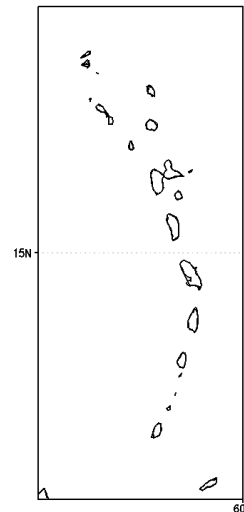
## $\geq 39\text{ }^{\circ}\text{C}$

GEFS Week-2 Tmax Exceedance Prob.  $\geq 39$  Cels.  
>=3 Consec. Days, Valid: 20210820 - 20211123



## $\geq 41\text{ }^{\circ}\text{C}$

GEFS Week-2 Tmax Exceedance Prob.  $\geq 41$  Cels.  
>=3 Consec. Days, Valid: 20210820 - 20211123

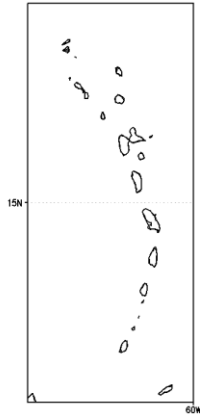




# HI Exceedance Probability for at least 2 Consecutive Days

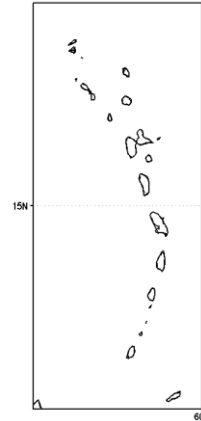
## $\geq 41^{\circ}\text{C}$

GEFS Week-2 HI Exceedance Prob.  $\geq 41$  Deg. Cels.  
>=2 Consec. Days, Valid: 20210820 - 20211123



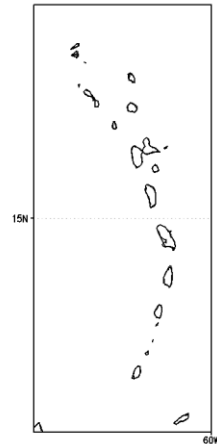
## $\geq 43^{\circ}\text{C}$

GEFS Week-2 HI Exceedance Prob.  $\geq 43$  Deg. Cels.  
>=2 Consec. Days, Valid: 20210820 - 20211123



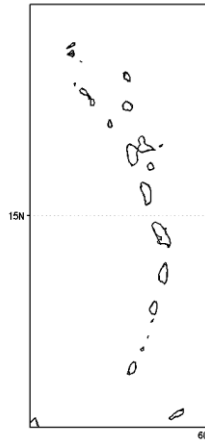
## $\geq 45^{\circ}\text{C}$

GEFS Week-2 HI Exceedance Prob.  $\geq 45$  Deg. Cels.  
>=2 Consec. Days, Valid: 20210820 - 20211123



## $\geq 47^{\circ}\text{C}$

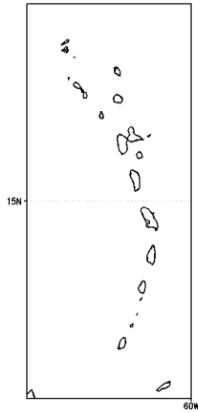
GEFS Week-2 HI Exceedance Prob.  $\geq 47$  Deg. Cels.  
>=2 Consec. Days, Valid: 20210820 - 20211123



# HI Exceedance Probability for at least 3 Consecutive Days

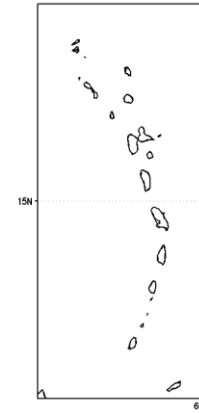
## $\geq 41^{\circ}\text{C}$

GEFS Week-2 HI Exceedance Prob.  $\geq 41$  Deg. Cels.  
>=2 Consec. Days, Valid: 20210820 - 20211123



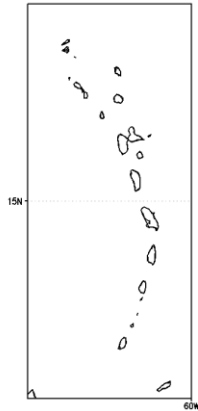
## $\geq 43^{\circ}\text{C}$

GEFS Week-2 HI Exceedance Prob.  $\geq 43$  Deg. Cels.  
>=3 Consec. Days, Valid: 20210820 - 20211123



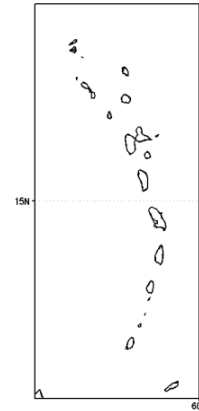
## $\geq 45^{\circ}\text{C}$

GEFS Week-2 HI Exceedance Prob.  $\geq 45$  Deg. Cels.  
>=3 Consec. Days, Valid: 20210820 - 20211123



## $\geq 47^{\circ}\text{C}$

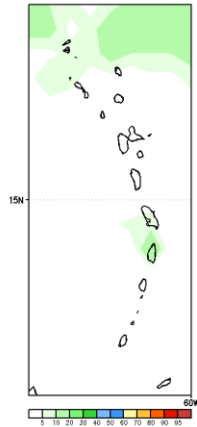
GEFS Week-2 HI Exceedance Prob.  $\geq 47$  Deg. Cels.  
>=2 Consec. Days, Valid: 20210820 - 20211123



# Tmax Exceedance Probability with respect to Percentiles for at least 2 Consecutive Days

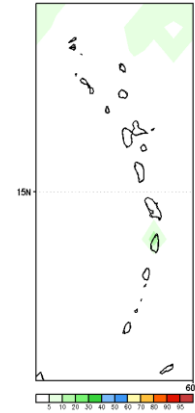
$\geq 80^{\text{th}}$  percentile

GEFS Week-2 Tmax Exceedance Prob.  $\geq 80^{\text{th}}$  Pctl.  
>=2 Consec. Days, Valid: 20210820 - 20211123



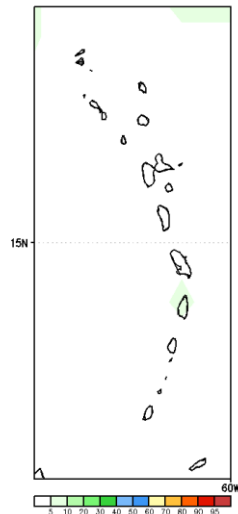
$\geq 85^{\text{th}}$  percentile

GEFS Week-2 Tmax Exceedance Prob.  $\geq 85^{\text{th}}$  Pctl.  
>=2 Consec. Days, Valid: 20210820 - 20211123



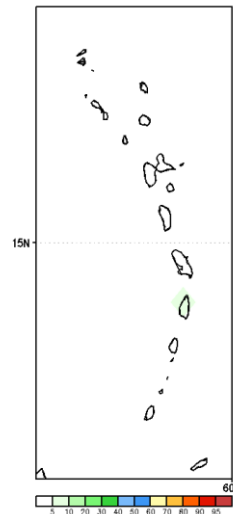
$\geq 90^{\text{th}}$  percentile

GEFS Week-2 Tmax Exceedance Prob.  $\geq 90^{\text{th}}$  Pctl.  
>=2 Consec. Days, Valid: 20210820 - 20211123



$\geq 95^{\text{th}}$  percentile

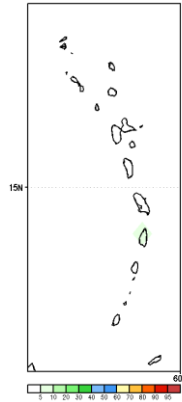
GEFS Week-2 Tmax Exceedance Prob.  $\geq 95^{\text{th}}$  Pctl.  
>=2 Consec. Days, Valid: 20210820 - 20211123



# Tmax Exceedance Probability with respect to Percentiles for at least 3 Consecutive Days

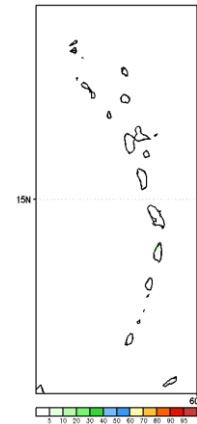
$\geq 80^{\text{th}}$  percentile

GEFS Week-2 Tmax Exceedance Prob.  $\geq 80^{\text{th}}$  Pctl.  
>=3 Consec. Days, Valid: 20210820 - 20211123



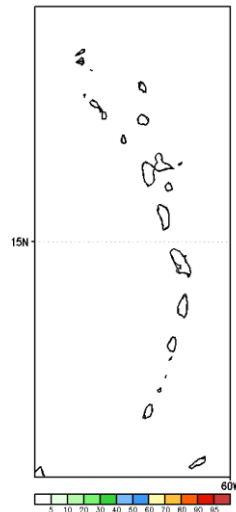
$\geq 85^{\text{th}}$  percentile

GEFS Week-2 Tmax Exceedance Prob.  $\geq 85^{\text{th}}$  Pctl.  
>=3 Consec. Days, Valid: 20210820 - 20211123



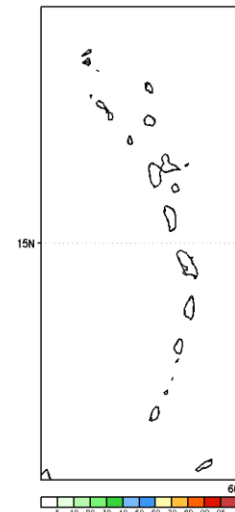
$\geq 90^{\text{th}}$  percentile

GEFS Week-2 Tmax Exceedance Prob.  $\geq 90^{\text{th}}$  Pctl.  
>=3 Consec. Days, Valid: 20210820 - 20211123



$\geq 95^{\text{th}}$  percentile

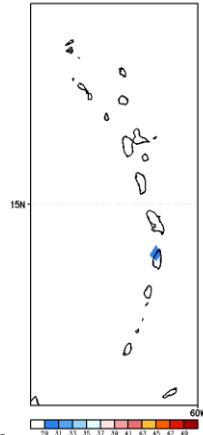
GEFS Week-2 Tmax Exceedance Prob.  $\geq 95^{\text{th}}$  Pctl.  
>=3 Consec. Days, Valid: 20210820 - 20211123



# Tmax Percentile Climatology

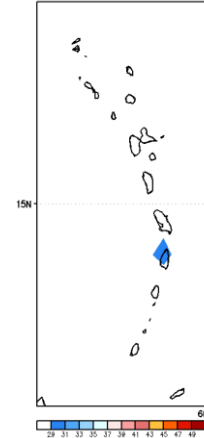
## 80<sup>th</sup> percentile

GEFS Tmax 80th . Model Climo.  
Valid: 17Nov - 23Nov



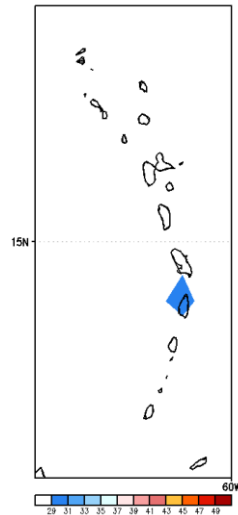
## 85<sup>th</sup> percentile

GEFS Tmax 85th . Model Climo.  
Valid: 17Nov - 23Nov



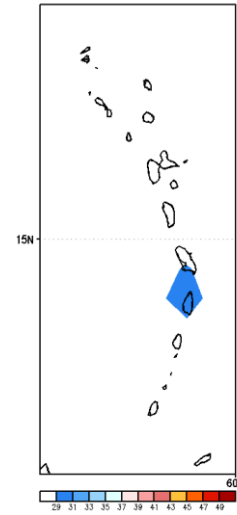
## 90<sup>th</sup> percentile

GEFS Tmax 90th . Model Climo.  
Valid: 17Nov - 23Nov



## 95<sup>th</sup> percentile

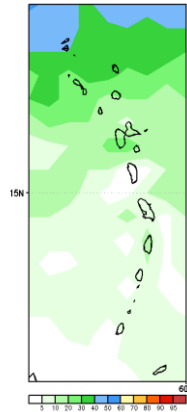
GEFS Tmax 95th . Model Climo.  
Valid: 17Nov - 23Nov



# HI Exceedance Probability with respect to Percentiles for at least 2 Consecutive Days

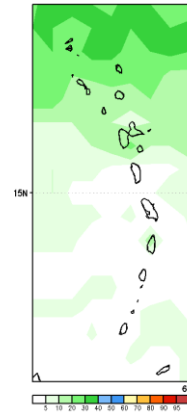
$\geq 80^{\text{th}}$  percentile

GEFS Week-2 HI Exceedance Prob.  $\geq 80^{\text{th}}$  Pctl.  
>=2 Consec. Days, Valid: 20210820 - 20211123



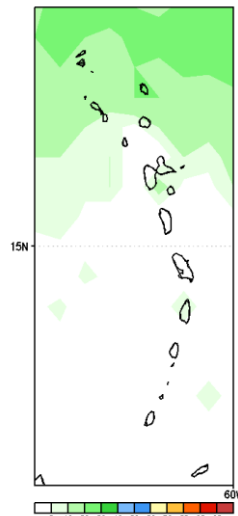
$\geq 85^{\text{th}}$  percentile

GEFS Week-2 HI Exceedance Prob.  $\geq 85^{\text{th}}$  Pctl.  
>=2 Consec. Days, Valid: 20210820 - 20211123



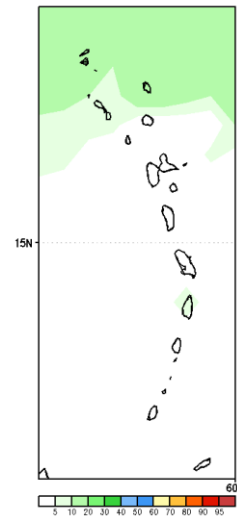
$\geq 90^{\text{th}}$  percentile

GEFS Week-2 HI Exceedance Prob.  $\geq 90^{\text{th}}$  Pctl.  
>=2 Consec. Days, Valid: 20210820 - 20211123



$\geq 95^{\text{th}}$  percentile

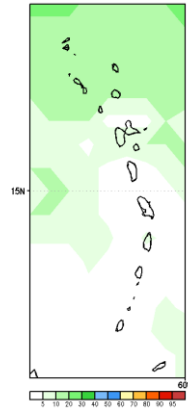
GEFS Week-2 HI Exceedance Prob.  $\geq 95^{\text{th}}$  Pctl.  
>=2 Consec. Days, Valid: 20210820 - 20211123



# HI Exceedance Probability with respect to Percentiles for at least 3 Consecutive Days

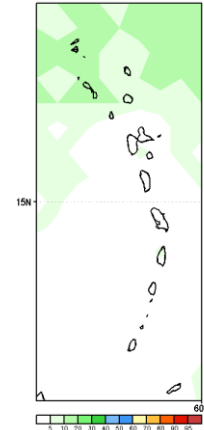
$\geq 80^{\text{th}}$  percentile

GEFS Week-2 HI Exceedance Prob.  $\geq 80^{\text{th}}$  Pct.  
>=3 Consec. Days, Valid: 20210820 - 20211123



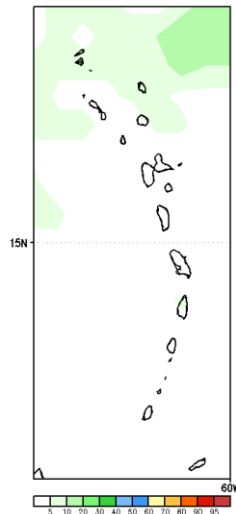
$\geq 85^{\text{th}}$  percentile

GEFS Week-2 HI Exceedance Prob.  $\geq 85^{\text{th}}$  Pct.  
>=3 Consec. Days, Valid: 20210820 - 20211123



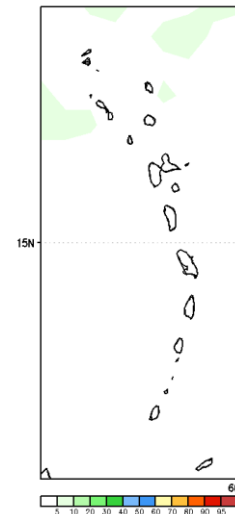
$\geq 90^{\text{th}}$  percentile

GEFS Week-2 HI Exceedance Prob.  $\geq 90^{\text{th}}$  Pct.  
>=3 Consec. Days, Valid: 20210820 - 20211123



$\geq 95^{\text{th}}$  percentile

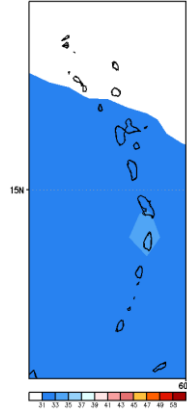
GEFS Week-2 HI Exceedance Prob.  $\geq 95^{\text{th}}$  Pct.  
>=3 Consec. Days, Valid: 20210820 - 20211123



# HI Percentile Climatology

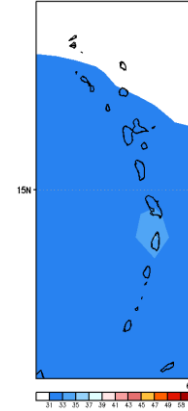
## 80<sup>th</sup> percentile

GEFS HI 80th . Model Climo.  
Valid: 17Nov - 23Nov



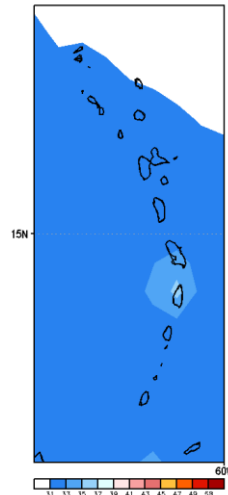
## 85<sup>th</sup> percentile

GEFS HI 85th . Model Climo.  
Valid: 17Nov - 23Nov



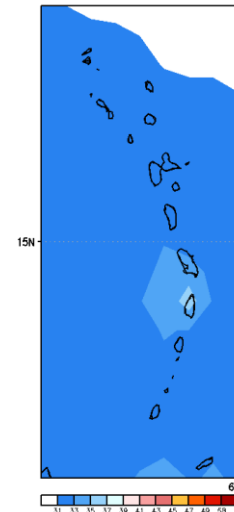
## 90<sup>th</sup> percentile

GEFS HI 90th . Model Climo.  
Valid: 17Nov - 23Nov



## 95<sup>th</sup> percentile

GEFS HI 95th . Model Climo.  
Valid: 17Nov - 23Nov

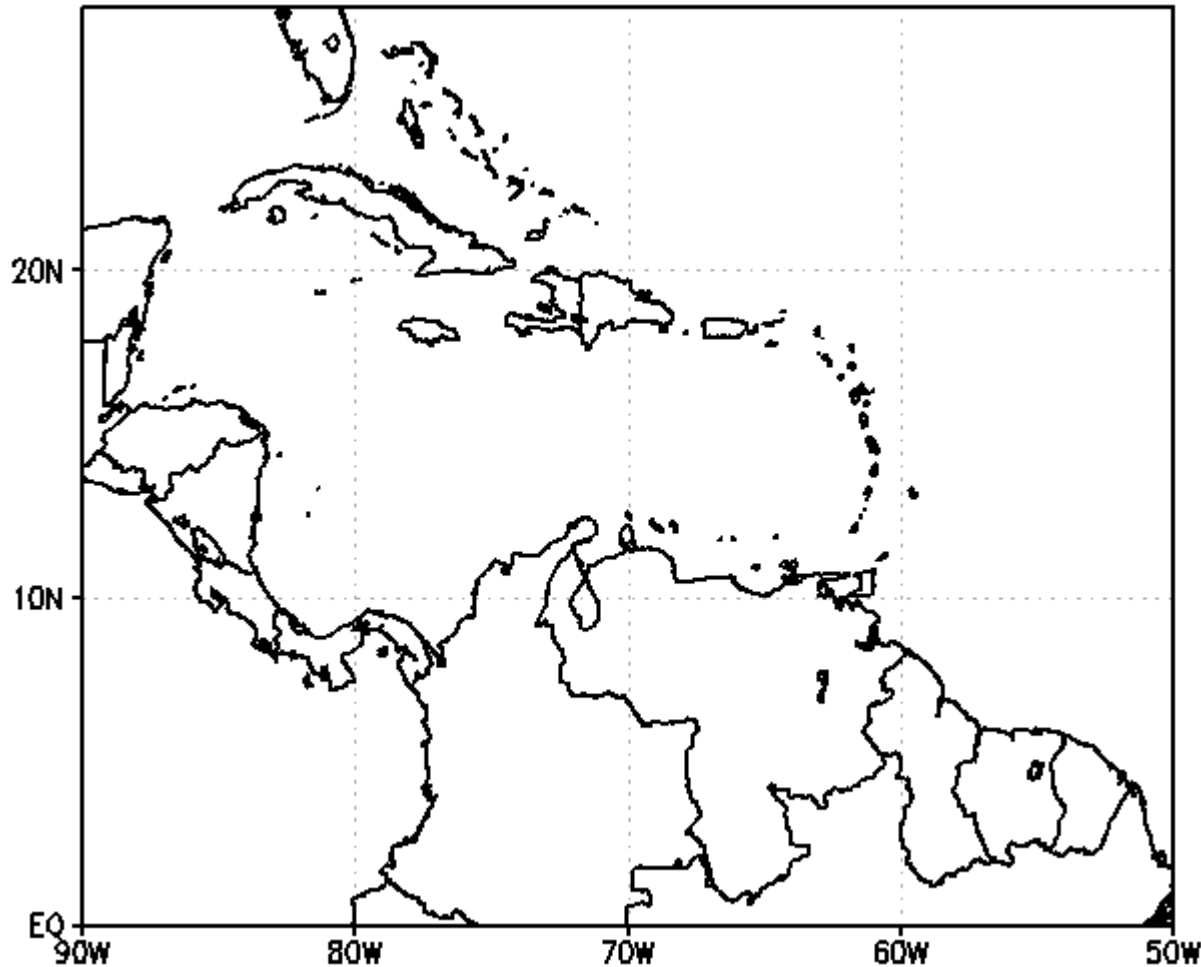




# Summary

- No notable sea level pressure anomalies in the Lesser Antilles
- Area of stronger than normal 10m wind speeds are seen over the northern portion of the Lesser Antilles with a localized area of weaker than normal winds seen near St. Lucia.
- Broad area of negative height anomaly at 500mb seen over the entire portion of the Lesser Antilles extending from the Central Atlantic.
- Area of upper level convergence over the lesser Antilles at 200mb, with higher values near the central portion (St. Lucia) of the Lesser Antilles.
- High Tmax exceedance probability over the Lesser Antilles ( $\geq 35^{\circ}\text{C}$  for both 2 and 3 consecutive days).
- Low exceedance probability (80<sup>th</sup> percentile over at least two consecutive days) over the far northern and central portion of the Lesser Antilles.

# Excessive Heat Outlook



## Legend

- High risk
- Moderate risk

Despite descending motion being likely due to convergence at the 200mb level over the lesser Antilles, the lower heights at 500mb and average to above average surface winds in the lesser Antilles could provide enough ventilation for temperatures to not reach excessive levels.

Model forecasts also suggests there will not be a notable excessive heat hazard in the vicinity of the leeward islands .