

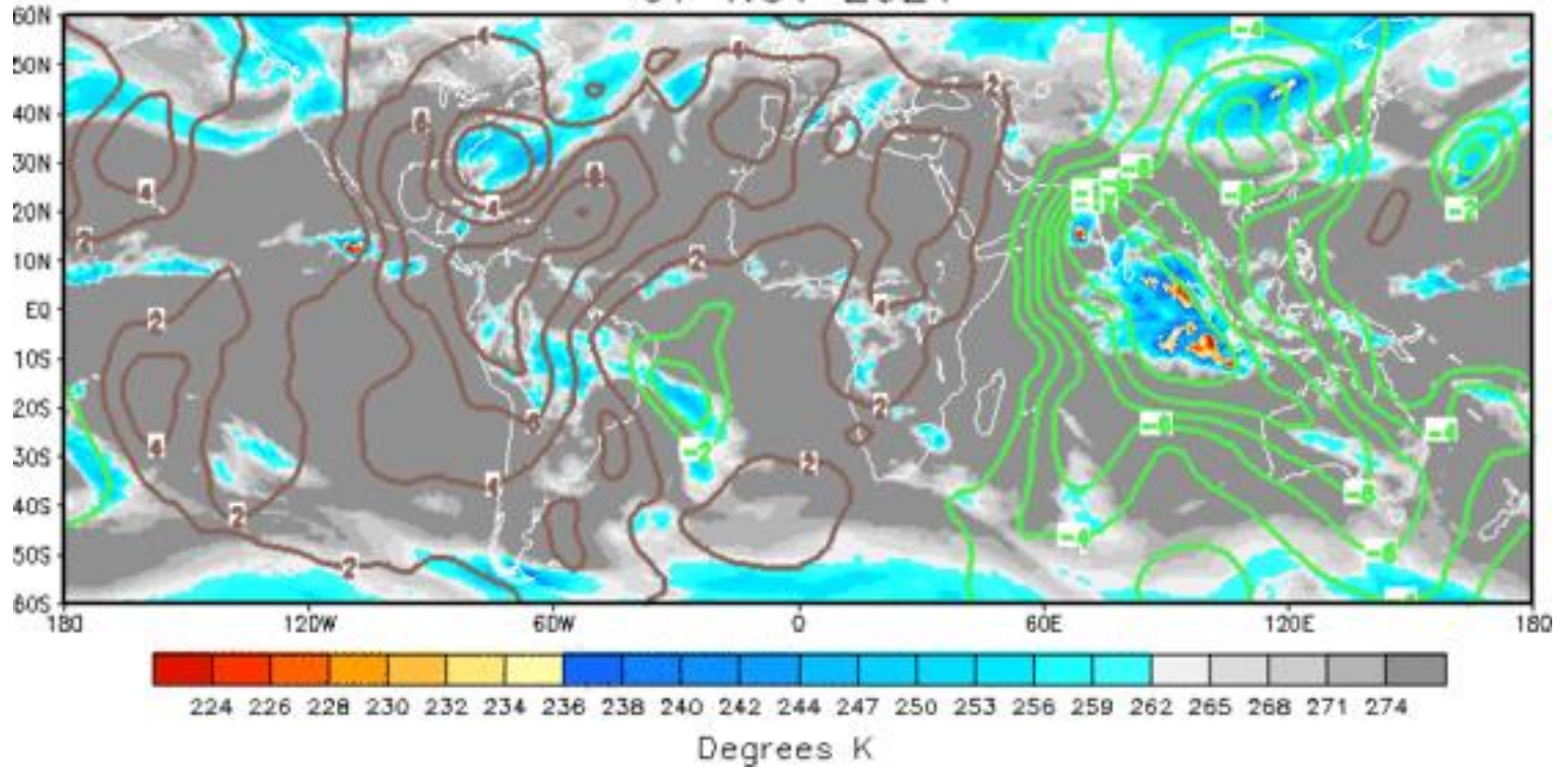
Second WMO RCC-Washington International Training Workshop

Real-time week-2 extreme precipitation outlook

8 – 10 November 2021

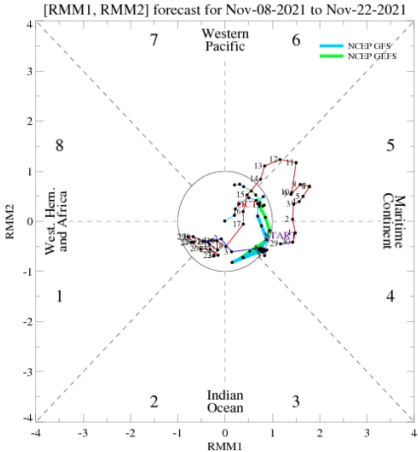
200-hPa Velocity Potential Anomaly

07 NOV 2021

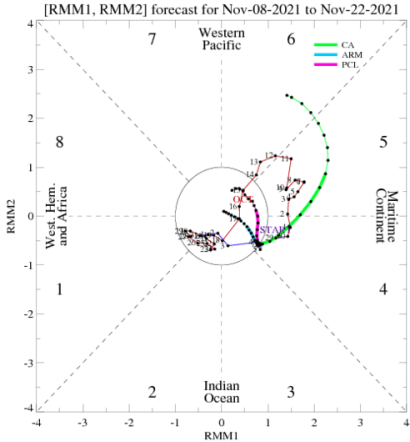


Wheeler-Hendon Index – Forecasts

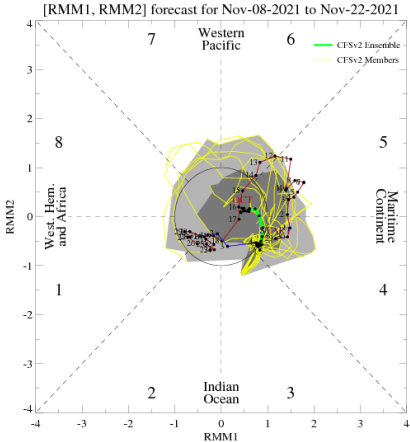
GEFS



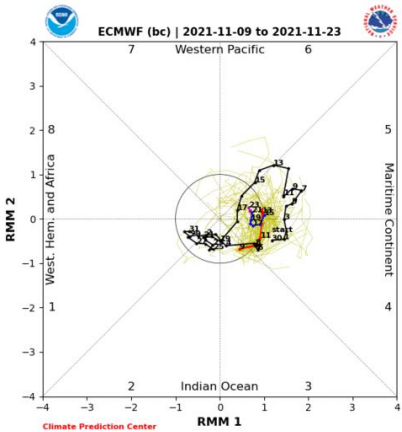
Statistical



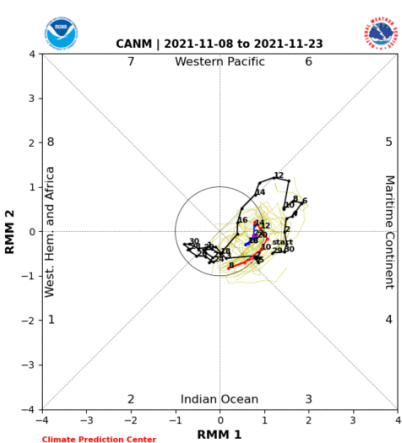
CFSv2



ECMWF

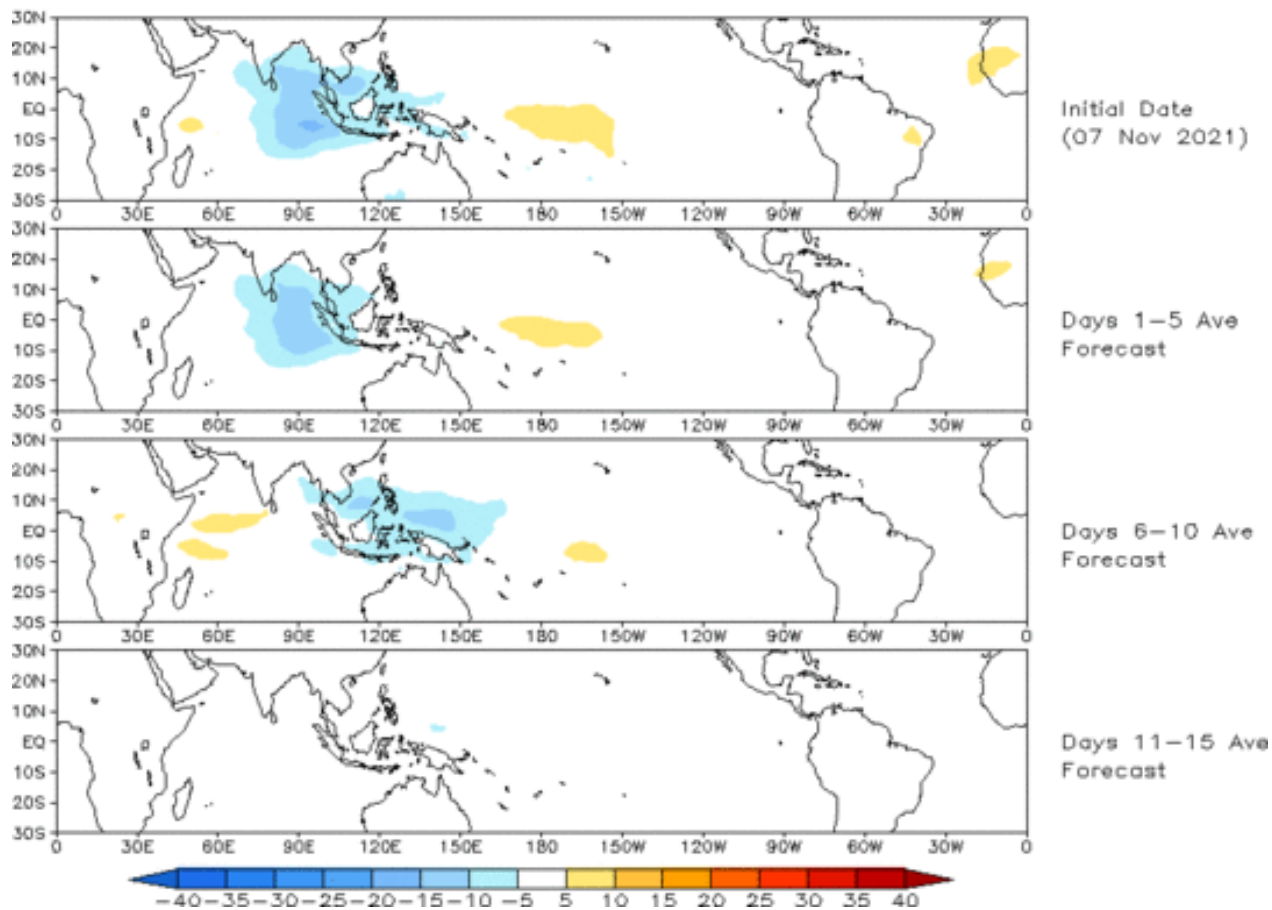


CMET



Evolution of MJO-related Anomalies

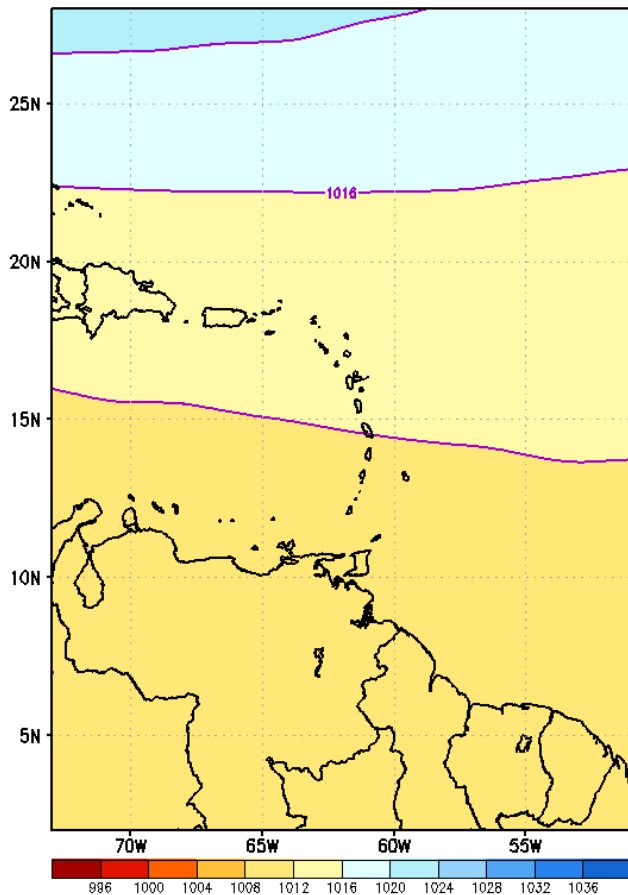
Prediction of MJO-related anomalies using GEFS operational forecast
Initial date: 07 Nov 2021
OLR



Mean Sea Level Pressure

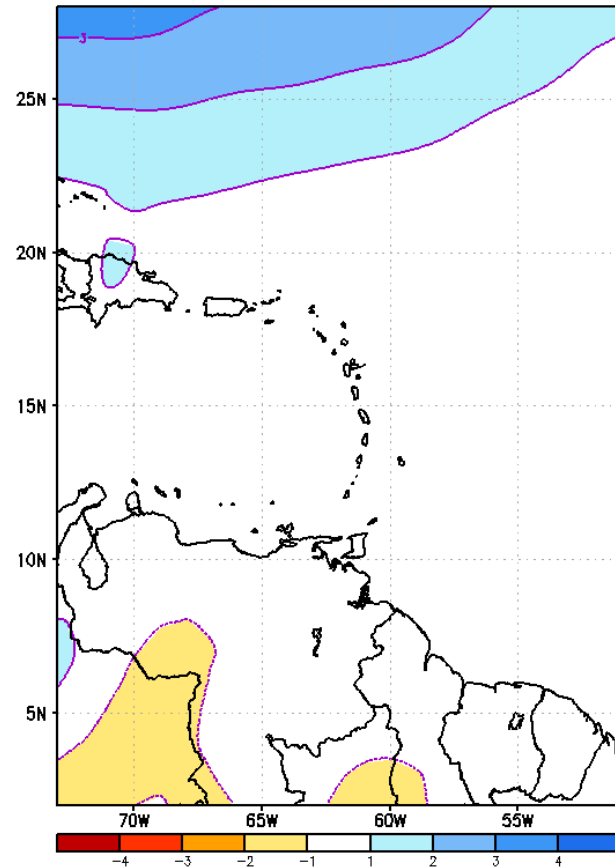
Total

GEFS Week-2 Mean Sea Level Pressure Total
Valid: 20211117 - 20211123



Anomaly

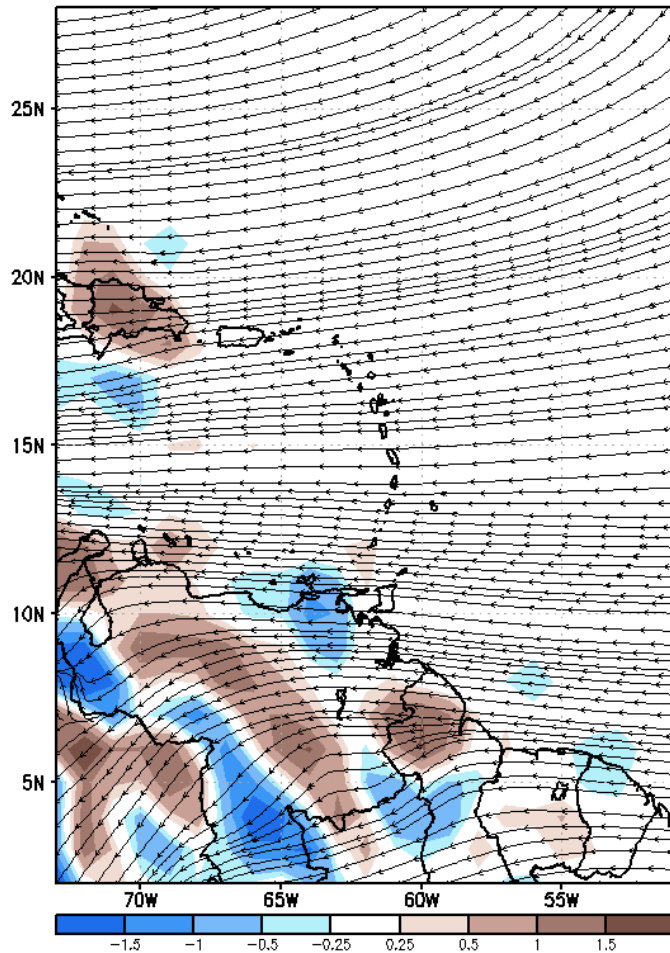
GEFS Week-2 Mean Sea Level Pressure Anomaly
Valid: 20211117 - 20211123



850-hPa Wind

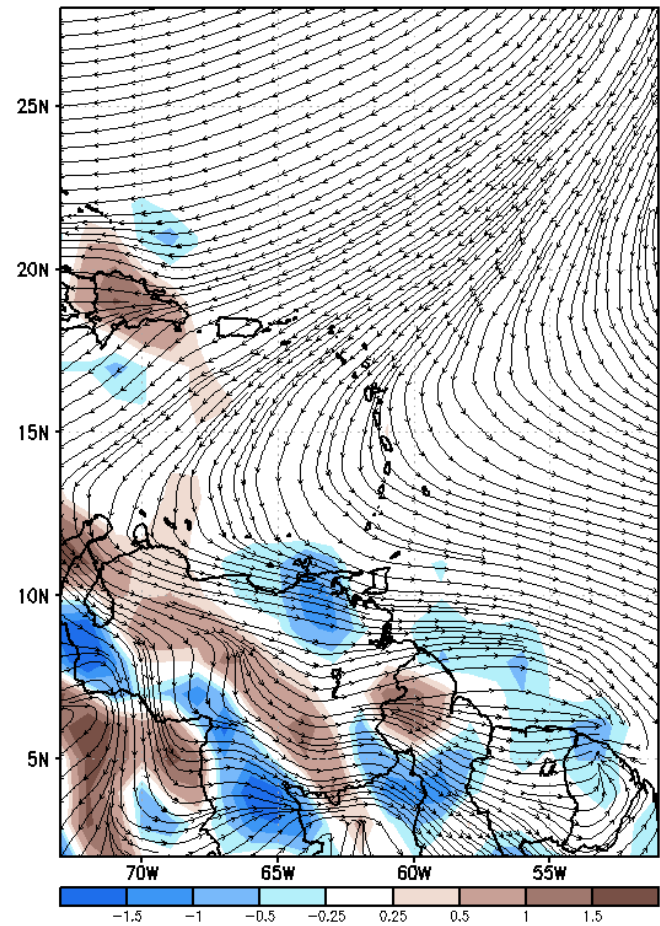
Total

GEFS Week-2 850-hPa Divergence and Wind Total
Valid: 20211117 - 20211123



Anomaly

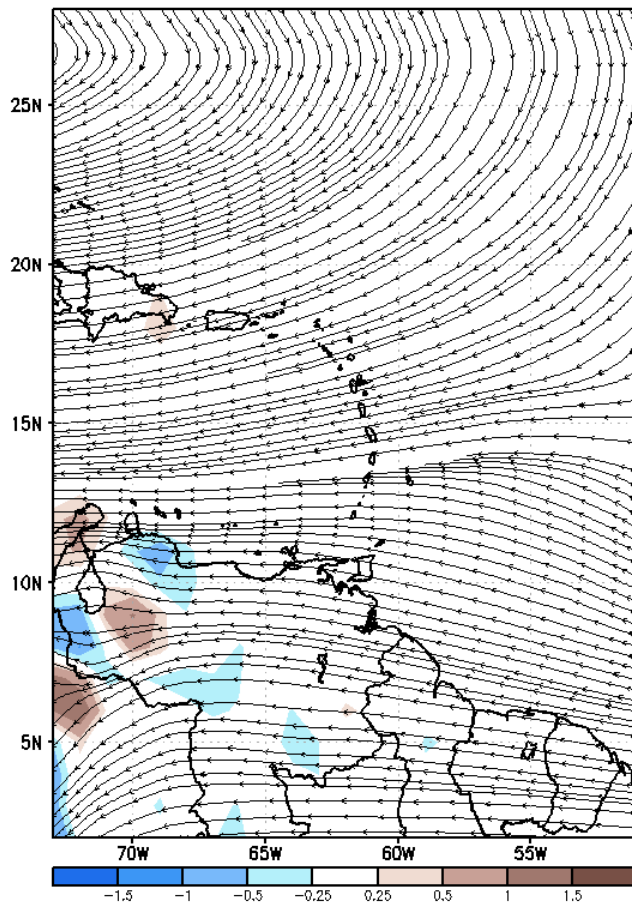
GEFS Week-2 850-hPa Divergence and Wind Anomaly
Valid: 20211117 - 20211123



700-hPa Wind

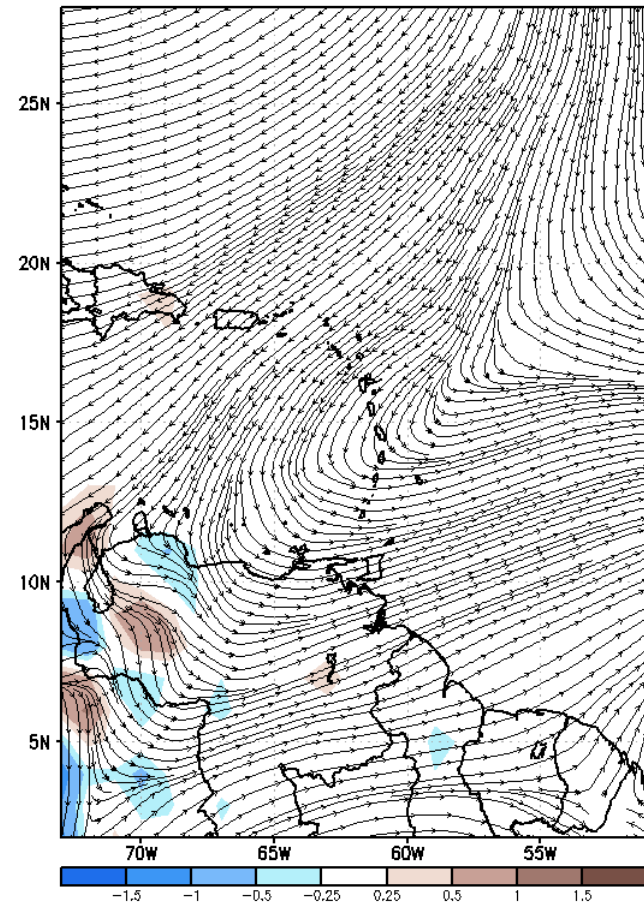
Total

GEFS Week-2 700-hPa Divergence and Wind Total
Valid: 20211117 - 20211123



Anomaly

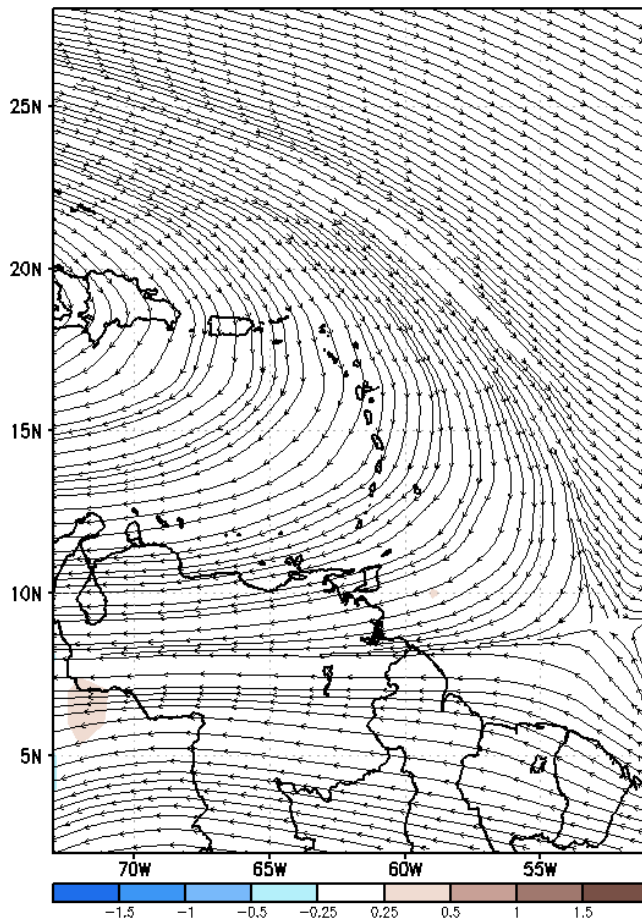
GEFS Week-2 700-hPa Divergence and Wind Anomaly
Valid: 20211117 - 20211123



500-hPa Wind

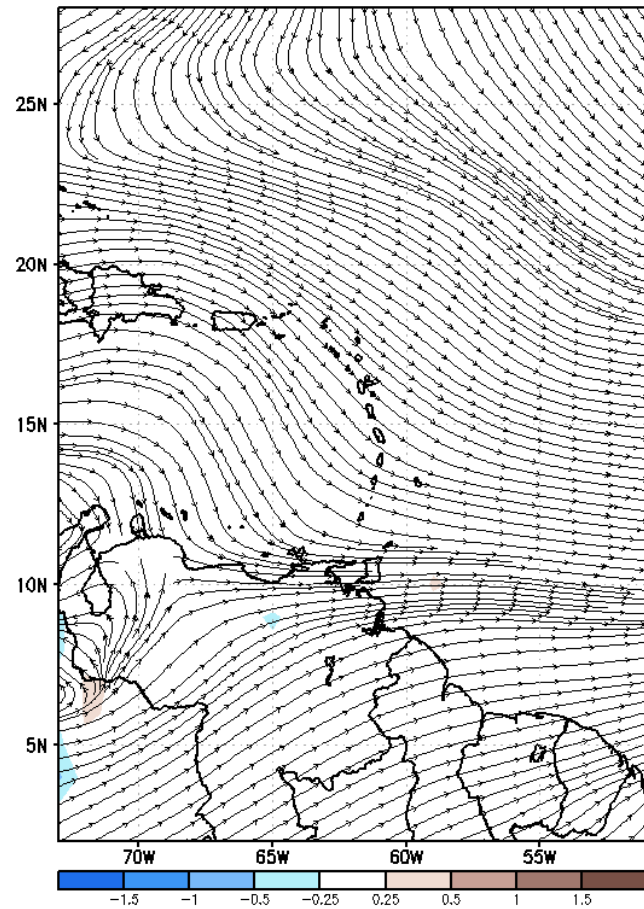
Total

GEFS Week-2 500-hPa Divergence and Wind Total
Valid: 20211117 - 20211123



Anomaly

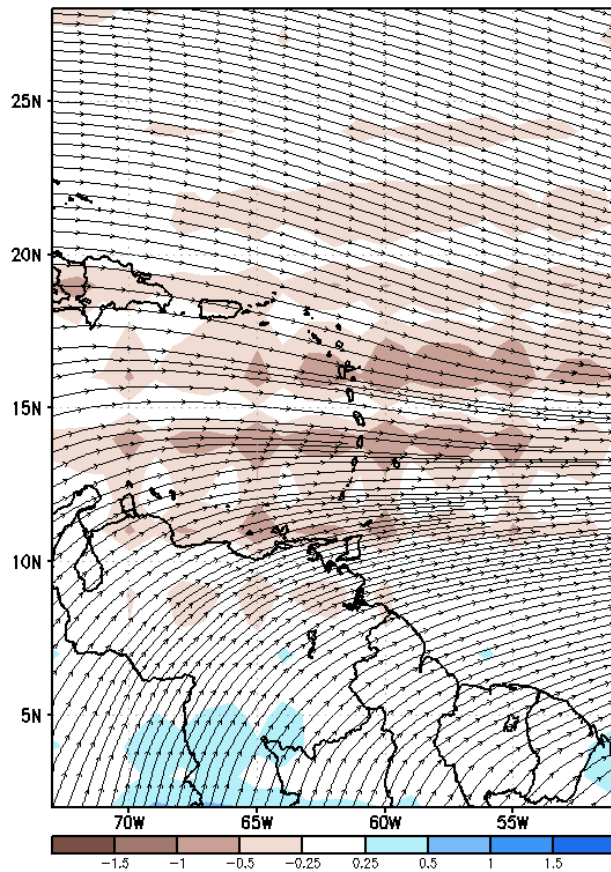
GEFS Week-2 500-hPa Divergence and Wind Anomaly
Valid: 20211117 - 20211123



200-hPa Wind

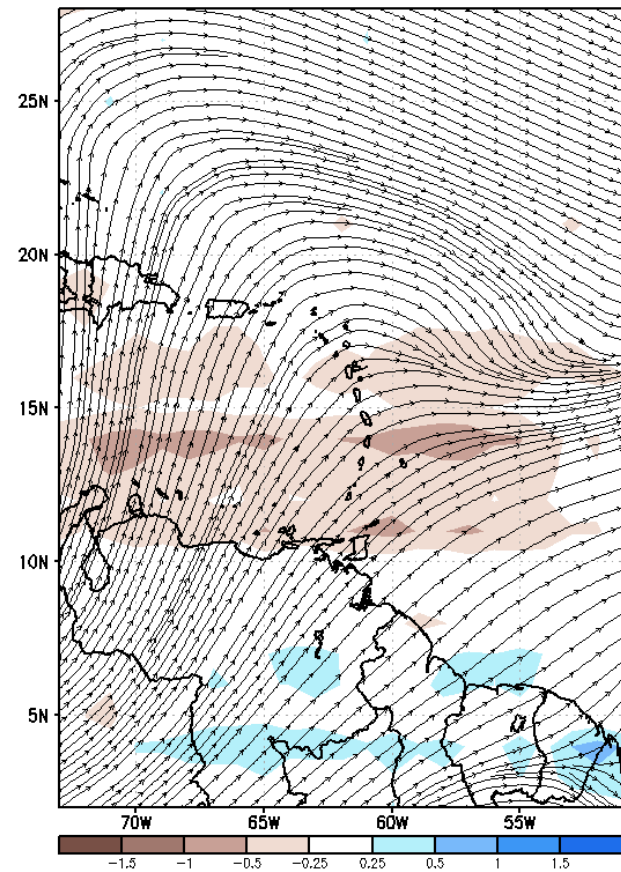
Total

GEFS Week-2 200-hPa Divergence and Wind Total
Valid: 20211117 - 20211123



Anomaly

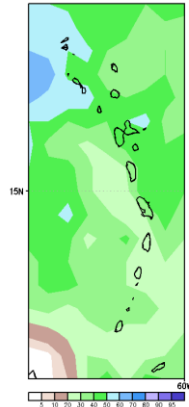
GEFS Week-2 200-hPa Divergence and Wind Anomaly
Valid: 20211117 - 20211123



Precipitation Exceedance Probability

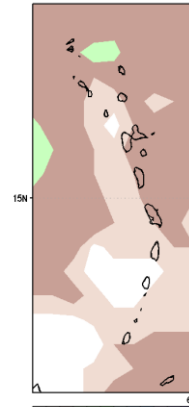
$\geq 25\text{mm}$

GEFS Week-2 Exceedance Prob. $\geq 25\text{mm}$
Valid: 20211117 - 20211123



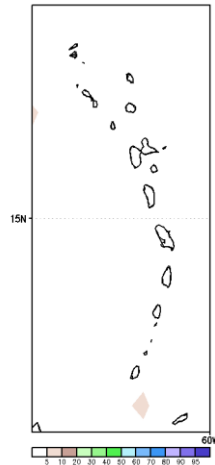
$\geq 50\text{mm}$

GEFS Week-2 Exceedance Prob. $\geq 50\text{mm}$
Valid: 20211117 - 20211123



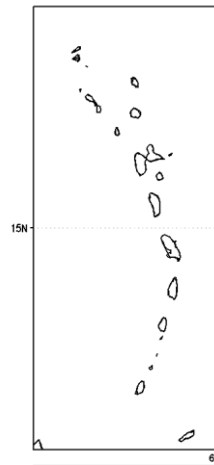
$\geq 100\text{mm}$

GEFS Week-2 Exceedance Prob. $\geq 100\text{mm}$
Valid: 20211117 - 20211123



$\geq 150\text{mm}$

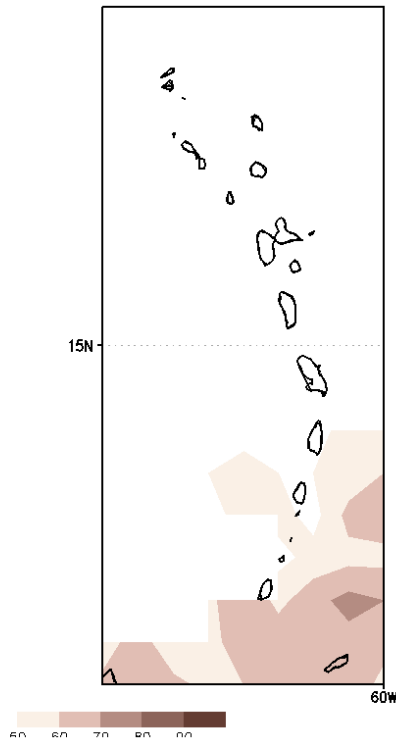
GEFS Week-2 Exceedance Prob. $\geq 150\text{mm}$
Valid: 20211117 - 20211123



Precipitation Exceedance Probability ($\leq 33^{\text{rd}}$ & $\geq 67^{\text{th}}$ percentiles)

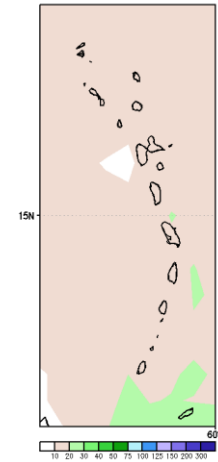
$\leq 33^{\text{rd}}$ & $\geq 67^{\text{th}}$ percentiles

GEFS Week-2 Exceedance Probability ($\leq 33^{\text{rd}}$ / $\geq 67^{\text{th}}$ Pct.)
Valid: 20211117 - 20211123



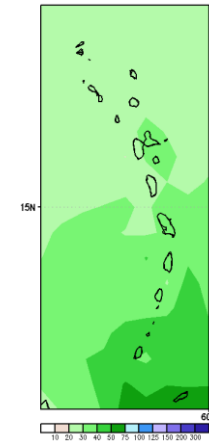
33rd percentile climo

GEFS 33rd . Model Climo.
Valid: 17Nov - 23Nov



67th percentile climo

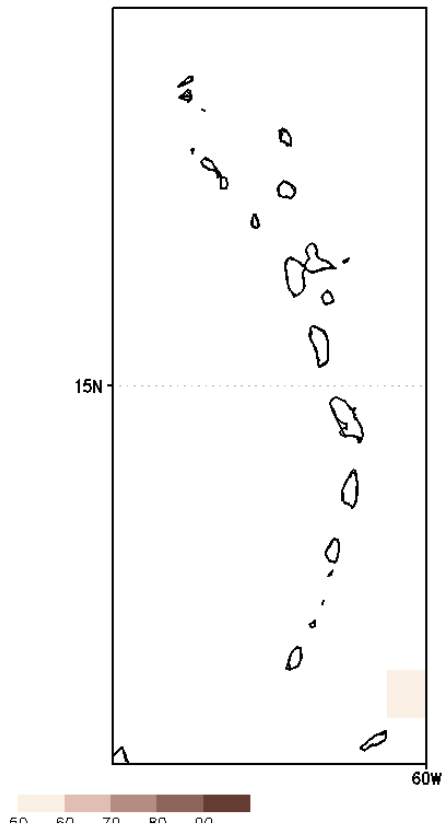
GEFS 67th . Model Climo.
Valid: 17Nov - 23Nov



Precipitation Exceedance Probability ($\leq 20^{\text{th}}$ & $\geq 80^{\text{th}}$ percentiles)

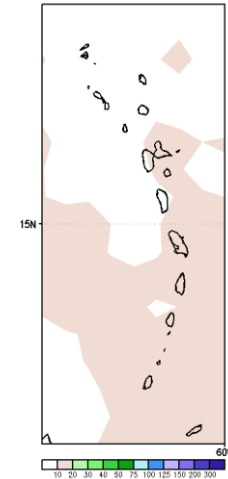
$\leq 20^{\text{th}}$ & $\geq 80^{\text{th}}$ percentiles

GEFS Week-2 Exceedance Probability ($\leq 20^{\text{th}}$ / $\geq 80^{\text{th}}$ Pctl.)
Valid: 20211117 - 20211123



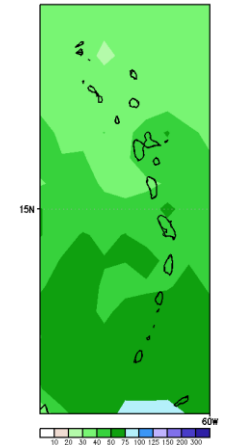
20th percentile climo

GEFS 20th . Model Climo.
Valid: 17Nov - 23Nov



80th percentile climo

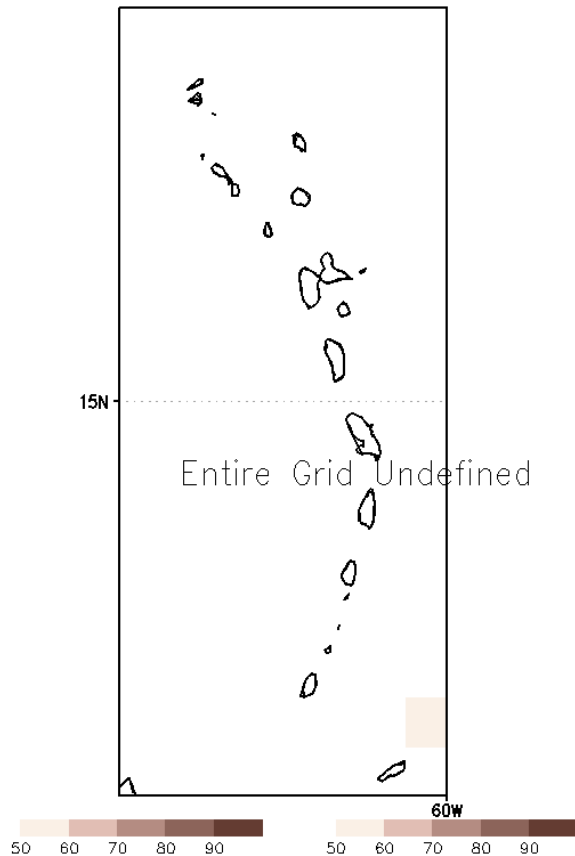
GEFS 80th . Model Climo.
Valid: 17Nov - 23Nov



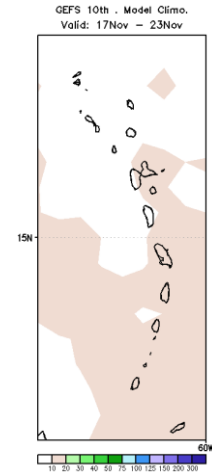
Precipitation Exceedance Probability ($\leq 10^{\text{th}}$ & $\geq 90^{\text{th}}$ percentiles)

$\leq 10^{\text{th}}$ & $\geq 90^{\text{th}}$ percentiles

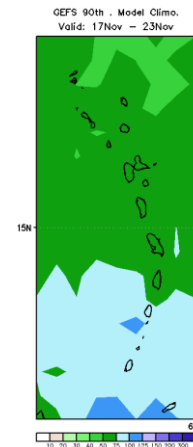
GEFS Week-2 Exceedance Probability ($\leq 10^{\text{th}}/\geq 90^{\text{th}}$ Pctl.)
Valid: 20211117 - 20211123



10th percentile climo



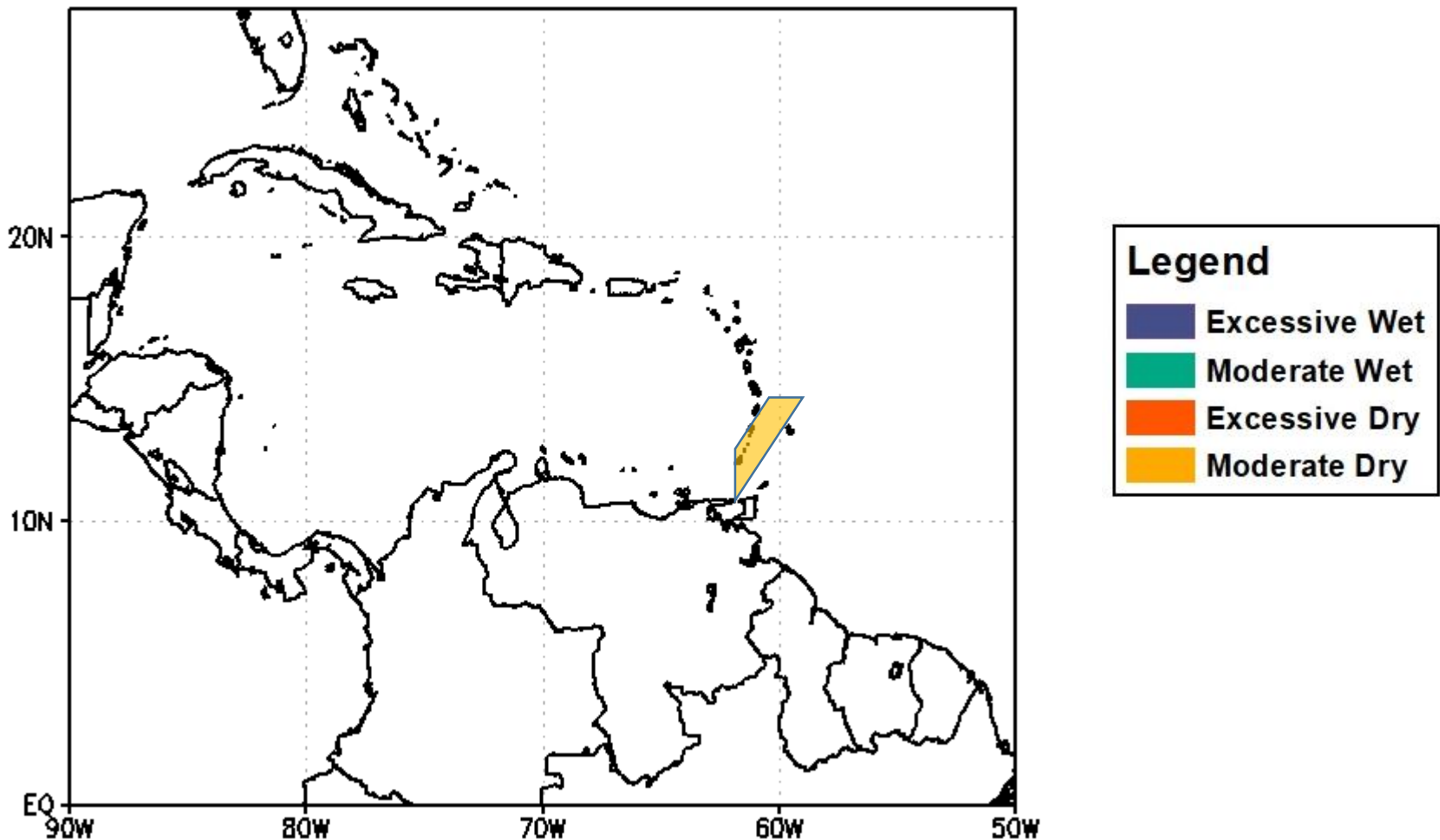
90th percentile climo



Summary

- MJO forecast suggest a lower amplitude for upcoming weeks which suggest it should weaken. There is also little signal shown in the filtered OLR anomaly over Lesser Antilles.
- Very little to no sea level pressure anomalies in the lesser Antilles region. Very low to no low-mid level divergence anomalies with moderate convergence anomalies in the upper levels near the central and southern lesser Antilles.
- Models suggest a moderate probability for precipitation to be below the 33rd percentile over for the central to southern portions of the lesser Antilles.

Extreme Precipitation Outlooks



- Upper level convergence can slightly inhibit precipitation amounts in the lesser Antilles, particularly in the central to southern portion of the area.
- Model Forecasts also suggest this potential for dryness in the area.