

CPEX-AW Forecast

Lead Forecaster, Forecaster 2, Forecaster 3

July 11, 2022

**Current
conditions:**

Day 1:

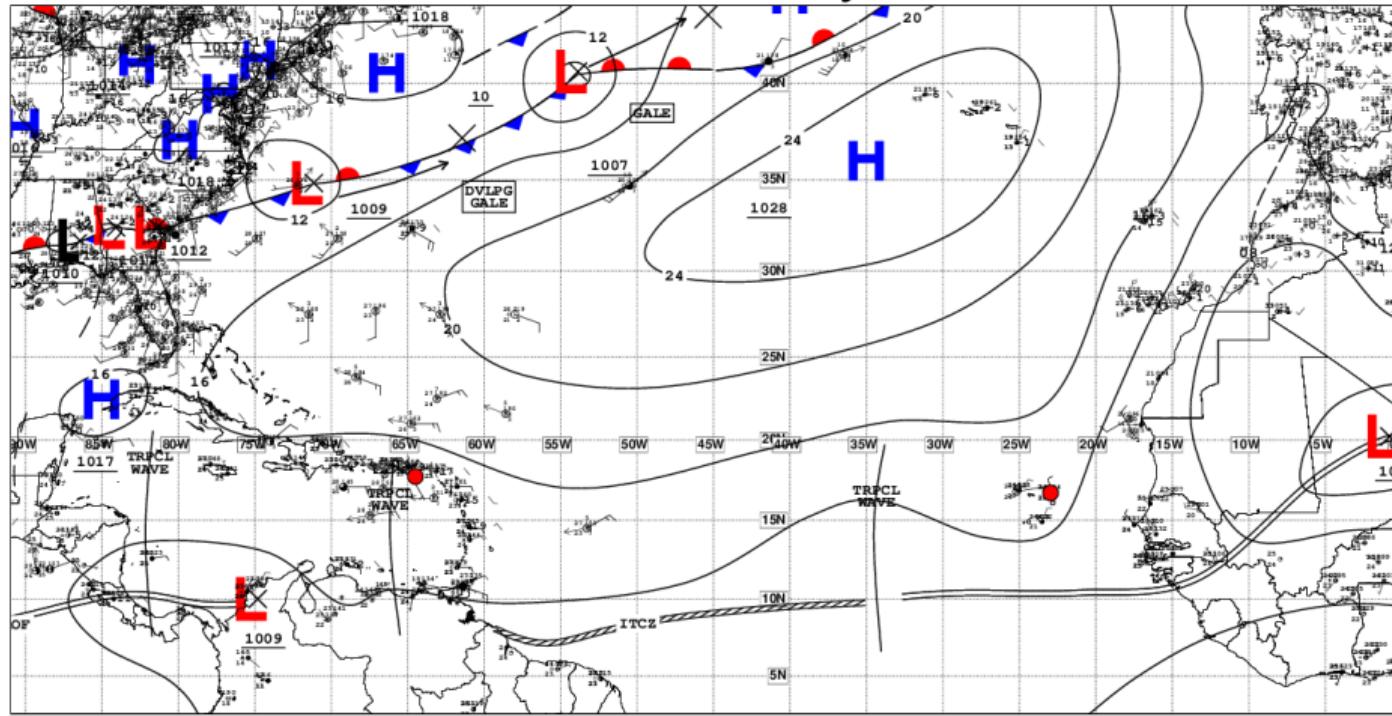
Day 2:

**Outlook
(days 3-5):**



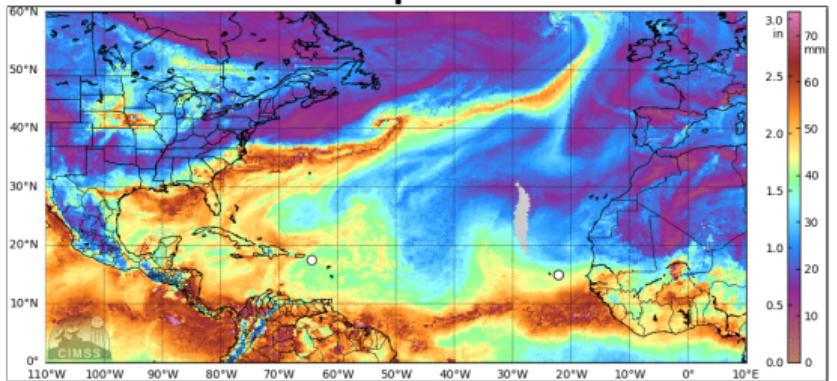
Current conditions - synoptic view

NHC Surface Analysis



Current conditions - ITCZ and AEW

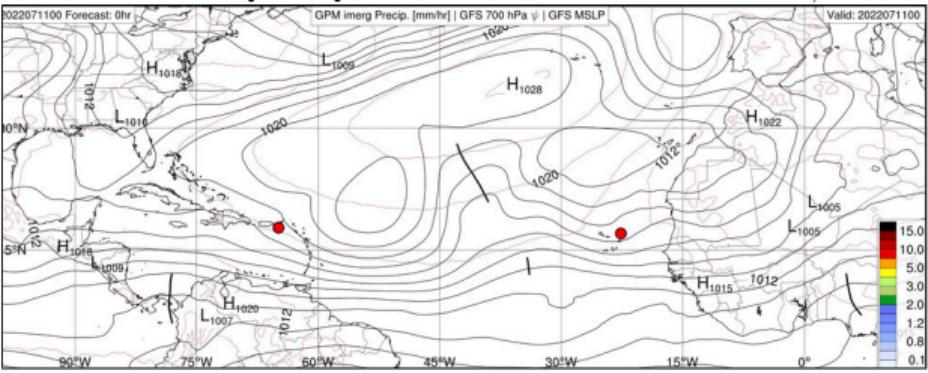
Total Precipitable Water



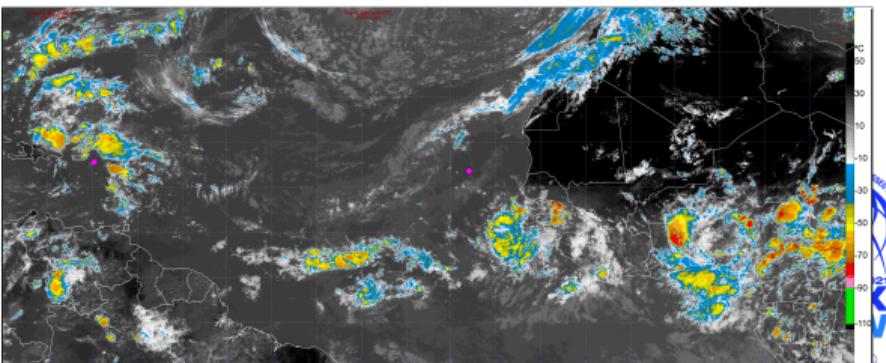
Model TPW + Clouds



IMERG precip, GFS MSLP & 700 mb ψ

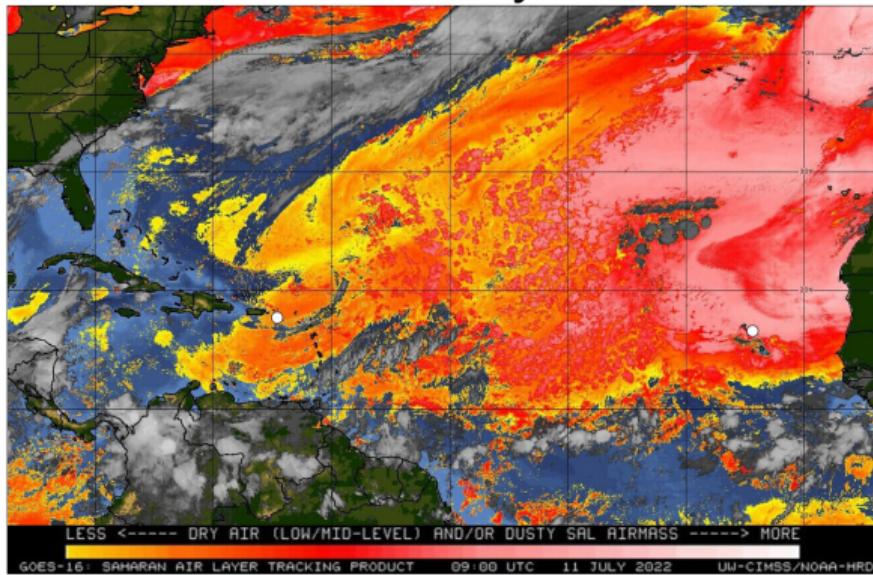


GOES16 & Meteosat-11 IR



Current conditions - dust and aerosols

Dust and Dry Air



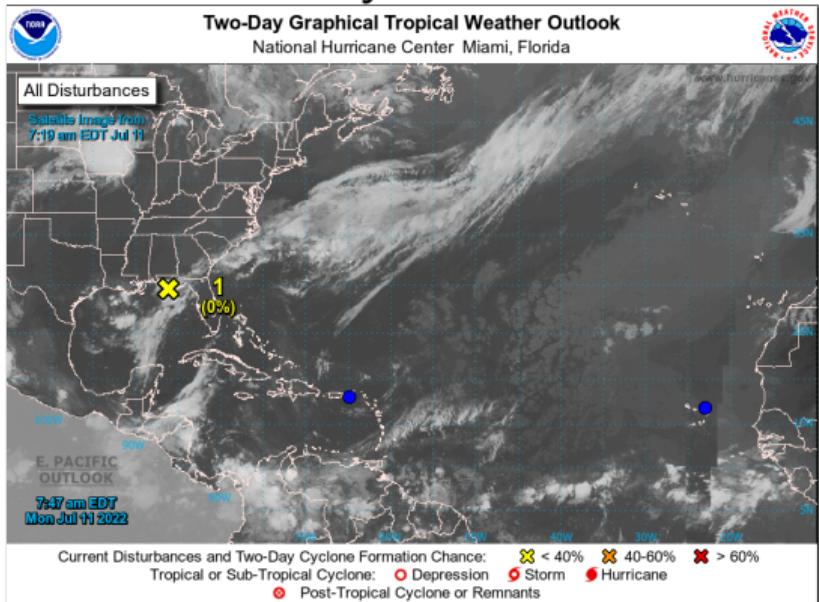
Comments:

Dust Aerosol Optical Thickness

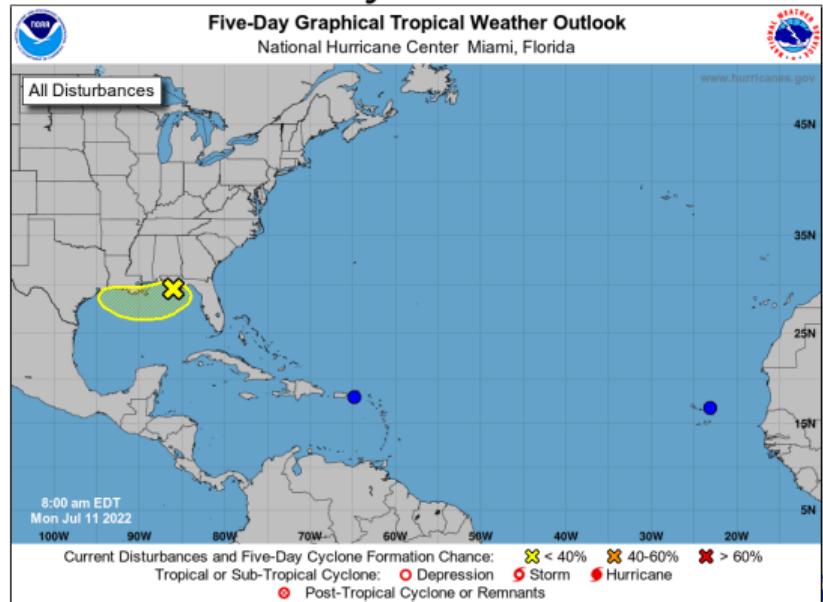


NHC Outlook: days 2 & 5 (July 13, 2022, July 16, 2022)

2-day Outlook



5-day Outlook



Forecast: day 1 (July 12, 2022)

Surface Winds

650mb RH and Geopotential Height



Comments:



Forecast: day 1 (July 12, 2022)

TPW & Clouds

Boundary Layer Height and Temperature



Comments:



Forecast: day 1 (July 12, 2022)

Precipitation - UWIN-CM

Precipitation - U of Utah



Comments:



Forecast: day 2 (July 13, 2022)

Surface Winds

650mb RH and Geopotential Height



Comments:



Forecast: day 2 (July 13, 2022)

TPW & Clouds

Boundary Layer Height and Temperature



Comments:



Forecast: day 2 (July 13, 2022)

Precipitation - UWIN-CM

Precipitation - U of Utah



Comments:



Forecast: dust and aerosols (current)

AOT



Dust AOT



Cross-section at 15N



Cross-section at 20W

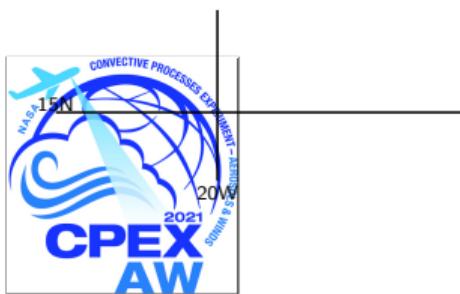


Forecast: dust and aerosols (day 1, July 12, 2022)

AOT



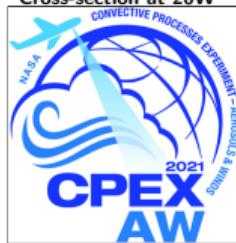
Dust AOT



Cross-section at 15N



Cross-section at 20W

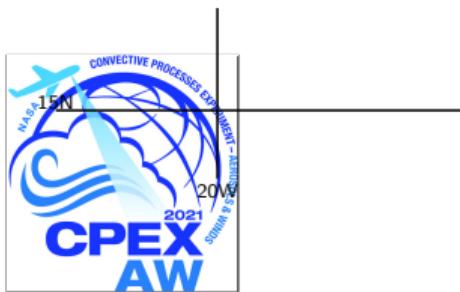


Forecast: dust and aerosols (day 2, July 13, 2022)

AOT



Dust AOT



Cross-section at 15N



Cross-section at 20W



Forecast: cloud fraction (days 1 & 2, July 12, 2022, July 13, 2022)



Day 1



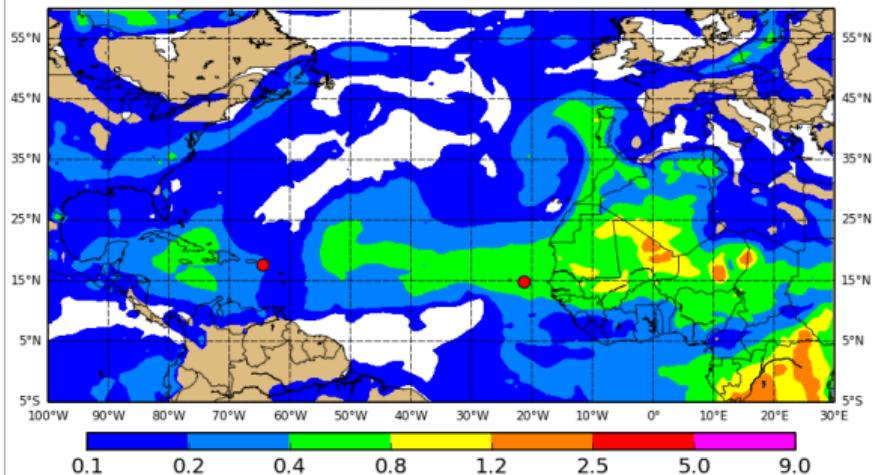
Day 2



Dust outlook: days 3 & 4 (July 14, 2022, July 15, 2022)

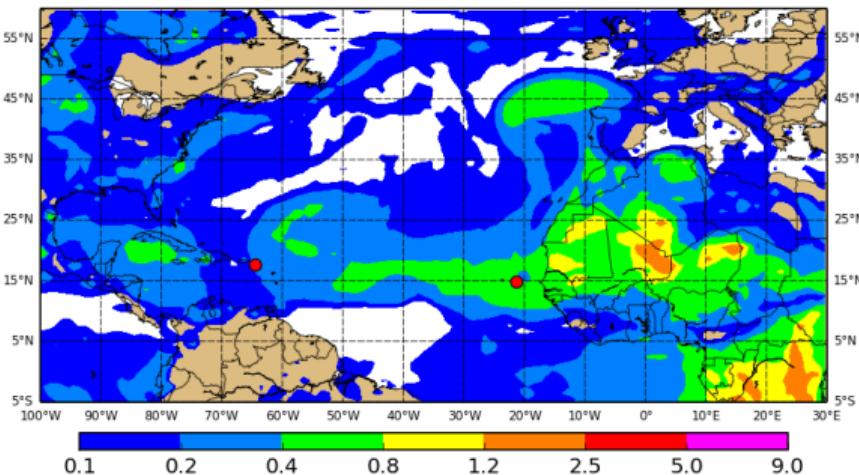
ICAP AOD Ensemble Mean (+3 days)

Sunday 10 July 2022 00UTC ICAP Forecast t+096
Thursday 14 July 2022 00UTC Valid Time
TOTAL Aerosol Optical Depth at 550nm (nMEM = 1)



ICAP AOD Ensemble Mean (+4 days)

Sunday 10 July 2022 00UTC ICAP Forecast t+120
Friday 15 July 2022 00UTC Valid Time
TOTAL Aerosol Optical Depth at 550nm (nMEM = 1)



Comments:

Dynamical outlook: days 3-5 (July 14, 2022 - July 16, 2022)

700mb Winds and Geopotential Height



Summary

Current conditions:

Day 1:

Day 2:

**Outlook
(days 3-5):**

