

# CPEX-AW Forecast

Lead Forecaster, Forecaster 2, Forecaster 3

July 11, 2022

20 Current  
conditions:

Day 1:

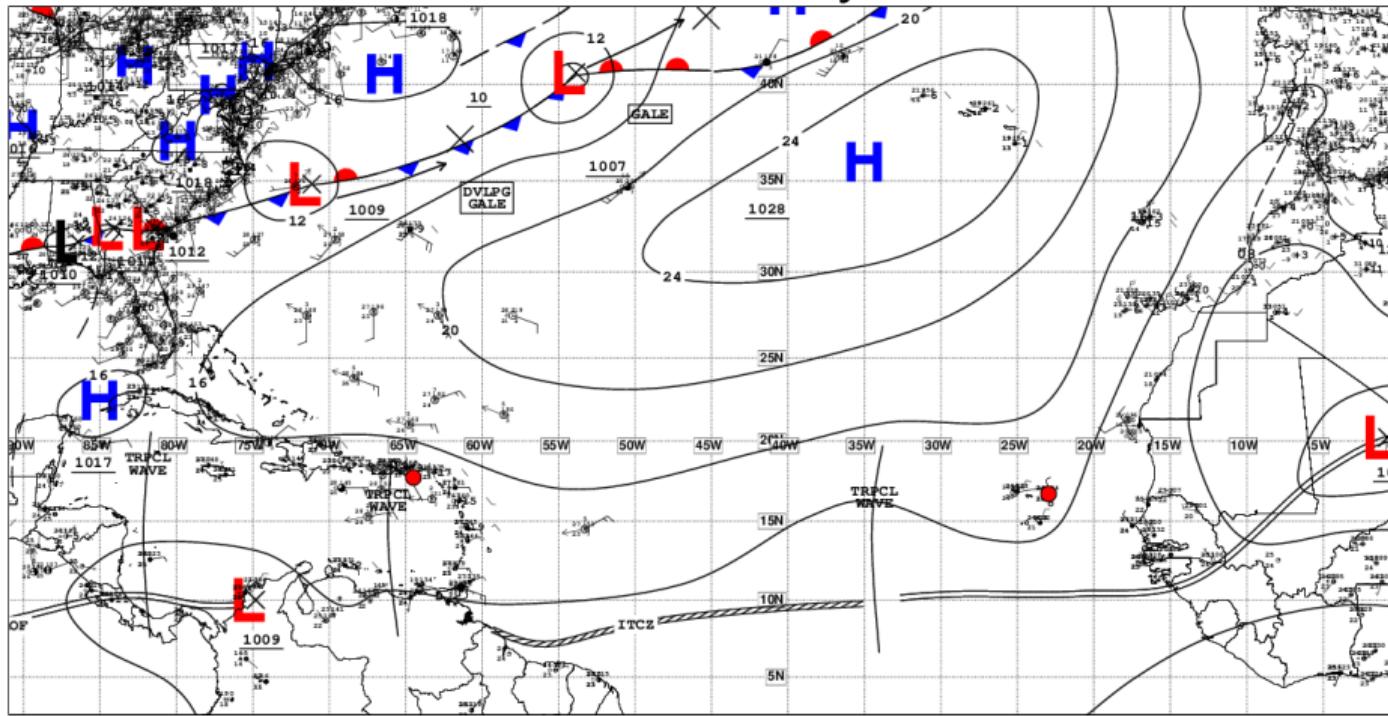
Day 2:

Outlook  
(days 3-5):



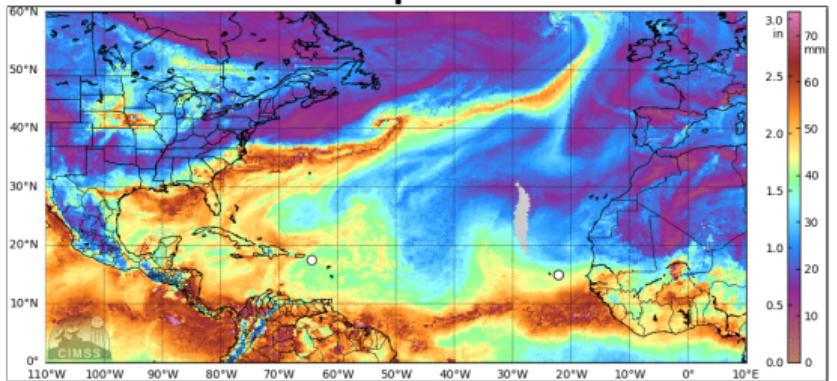
# Current conditions - synoptic view

## NHC Surface Analysis



# Current conditions - ITCZ and AEW

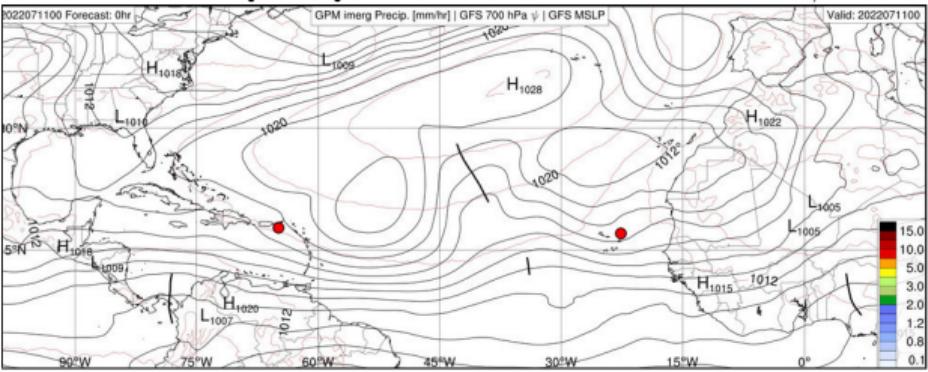
Total Precipitable Water



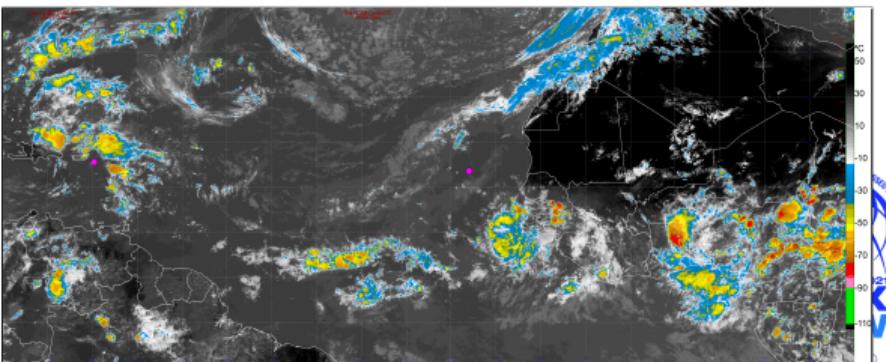
Model TPW + Clouds



IMERG precip, GFS MSLP & 700 mb  $\psi$

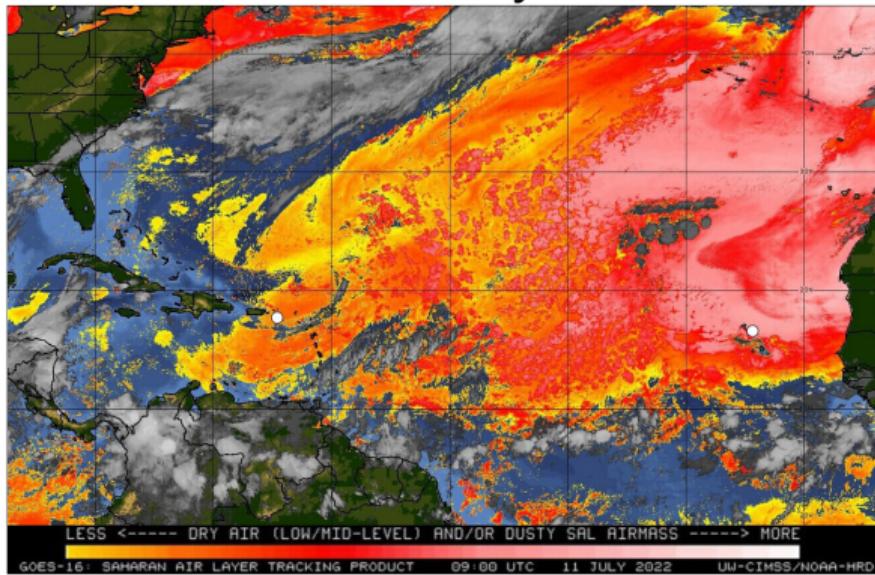


GOES16 & Meteosat-11 IR



# Current conditions - dust and aerosols

Dust and Dry Air



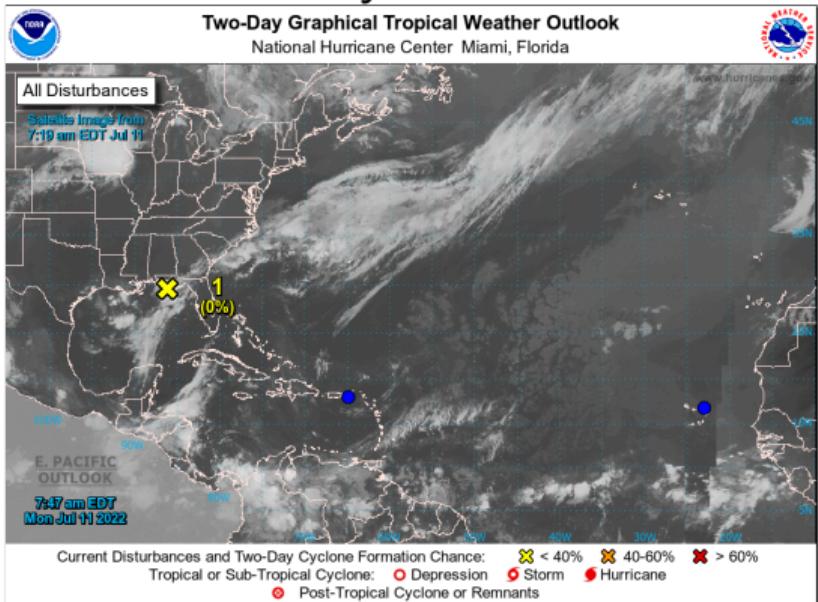
Comments:

Dust Aerosol Optical Thickness

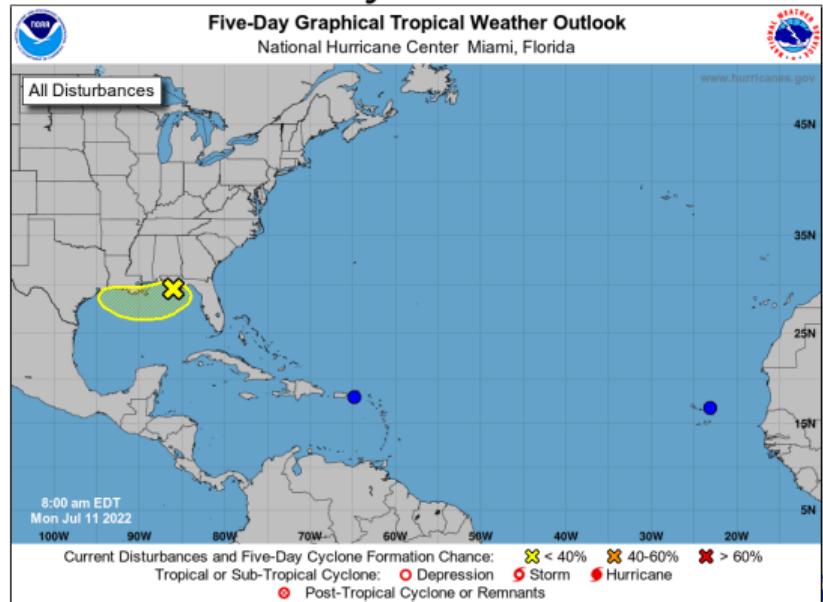


# NHC outlook: days 2 & 5 (July 13, 2022, July 16, 2022)

## 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:

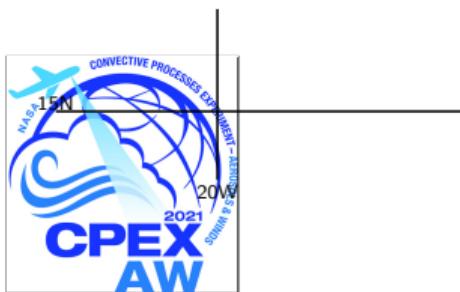


# Forecast: dust and aerosols (current)

AOT



Dust AOT



Cross-section at 15N



Cross-section at 20W

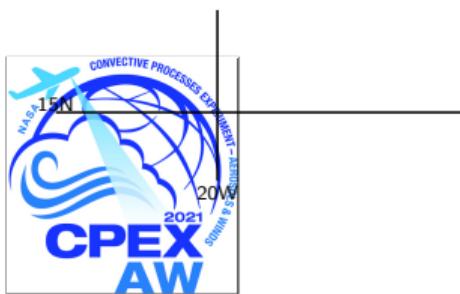


# Forecast: dust and aerosols (day 1, July 12, 2022)

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



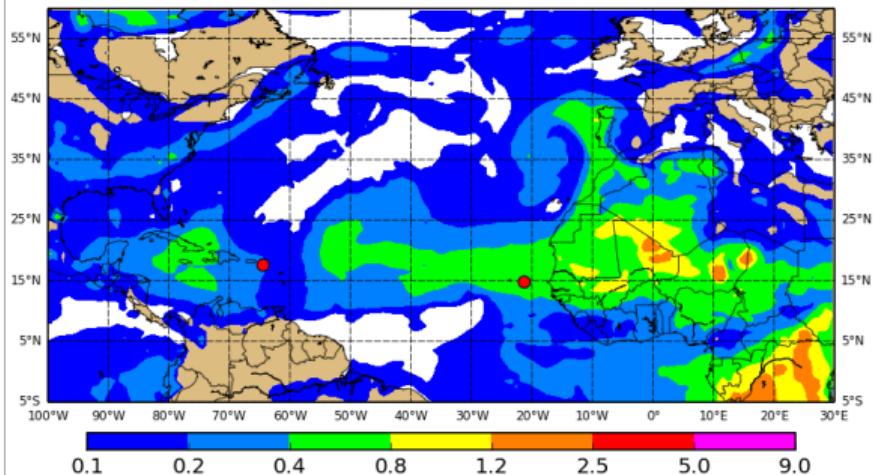
Day 2



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

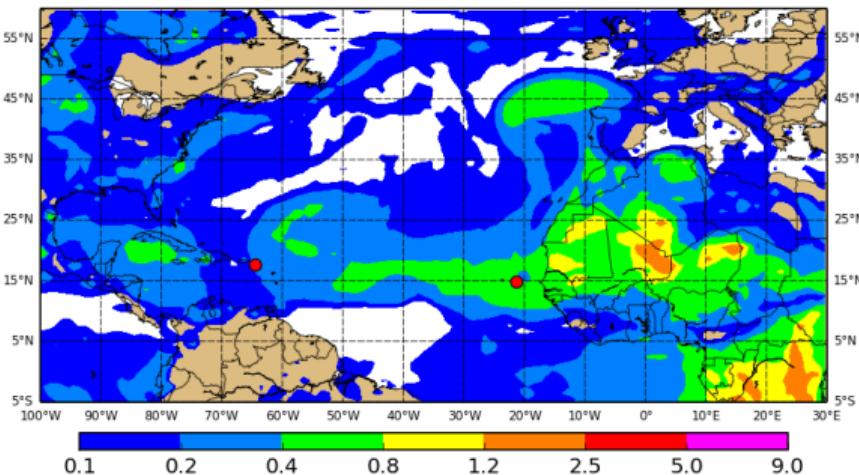
## ICAP AOD Ensemble Mean (+3 days)

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

+3 days



+4 days



+5 days



Comments:



# Summary

**Current conditions:**

**Day 1:**

**Day 2:**

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

