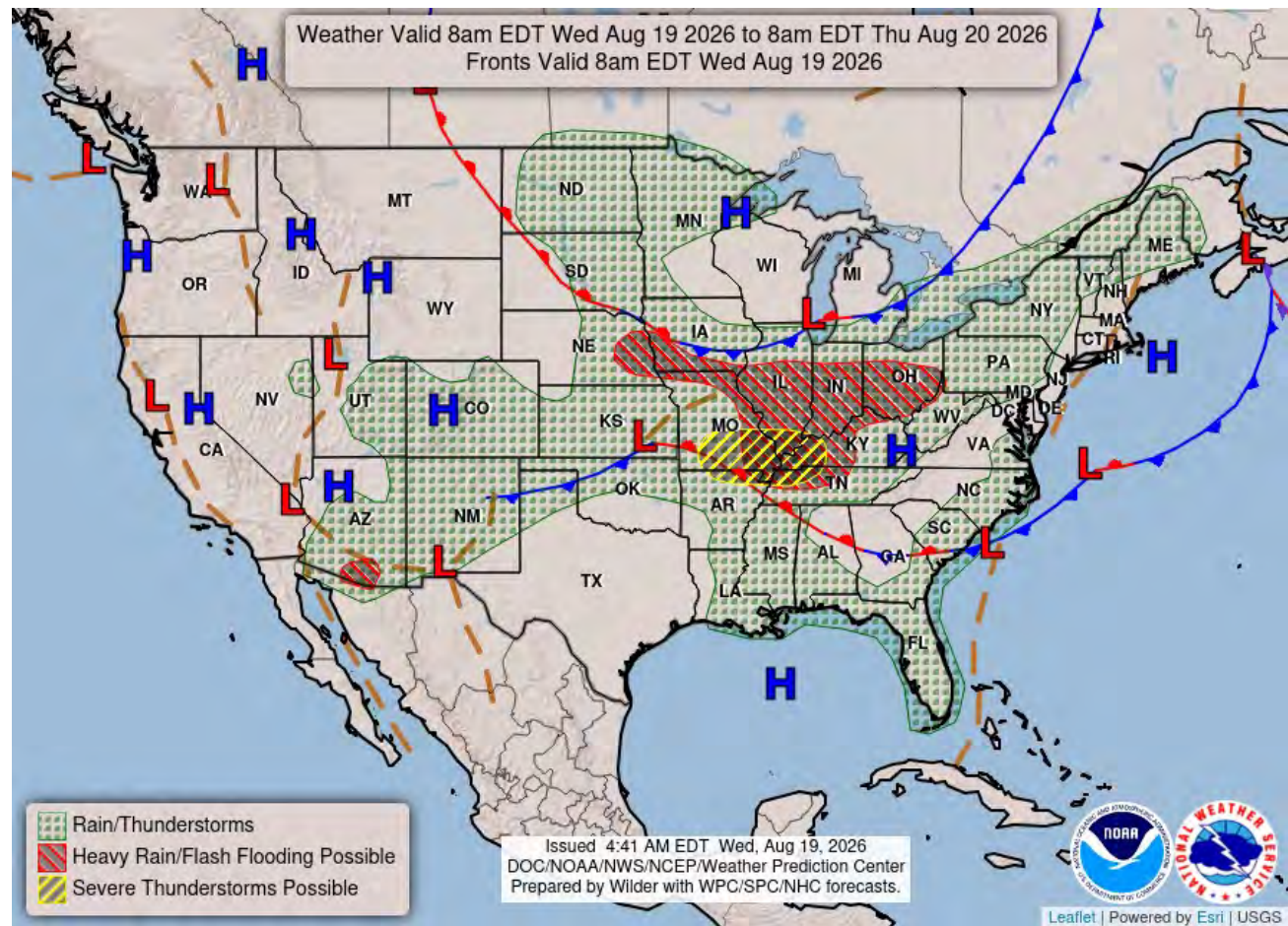


SABRE Forecast Discussion 08/19/2026

Surface Chart for US



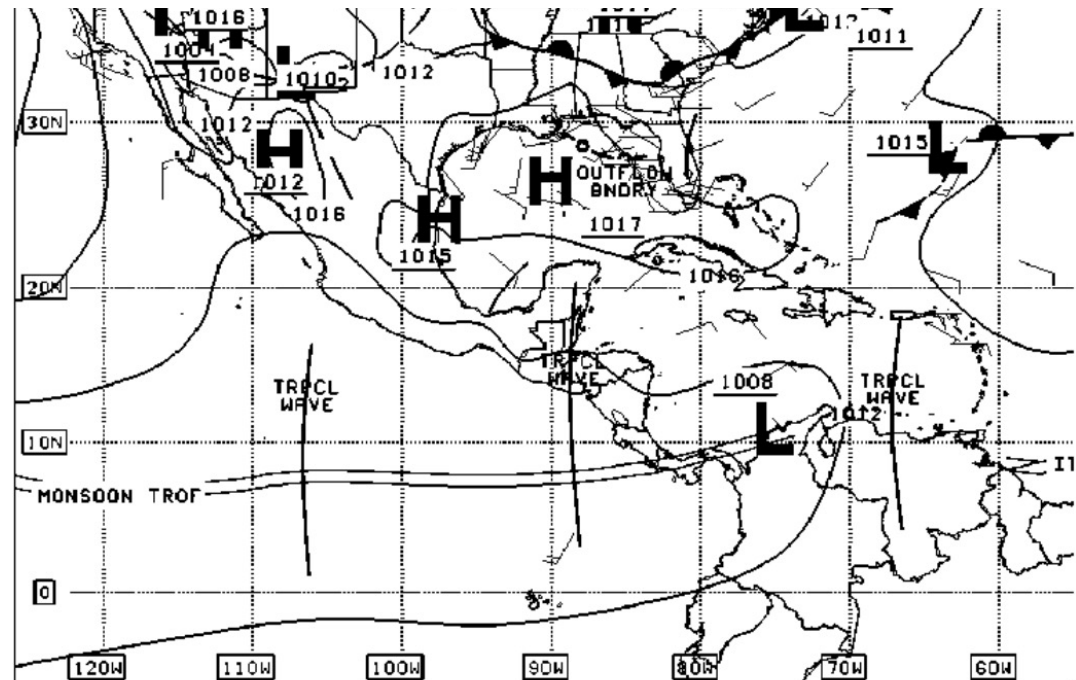
SABRE Forecast Discussion 08/19/2026

Surface Chart for Panama

Tropical waves moving east to west.

The **monsoon trough** is a convergence zone between the wind patterns of the southern and northern hemispheres. It is a portion of the ITCZ in the Western Pacific.

Westerly monsoon winds lie in its equatorward portion while easterly trade winds exist poleward of the trough. Right along its axis, heavy rains can be found which usher in the peak of a location's respective rainy season.



06Z WESTERN TRPCL SFC ANALYSIS
ISSUED: Wed Aug 19 08:50:46 UTC 2026

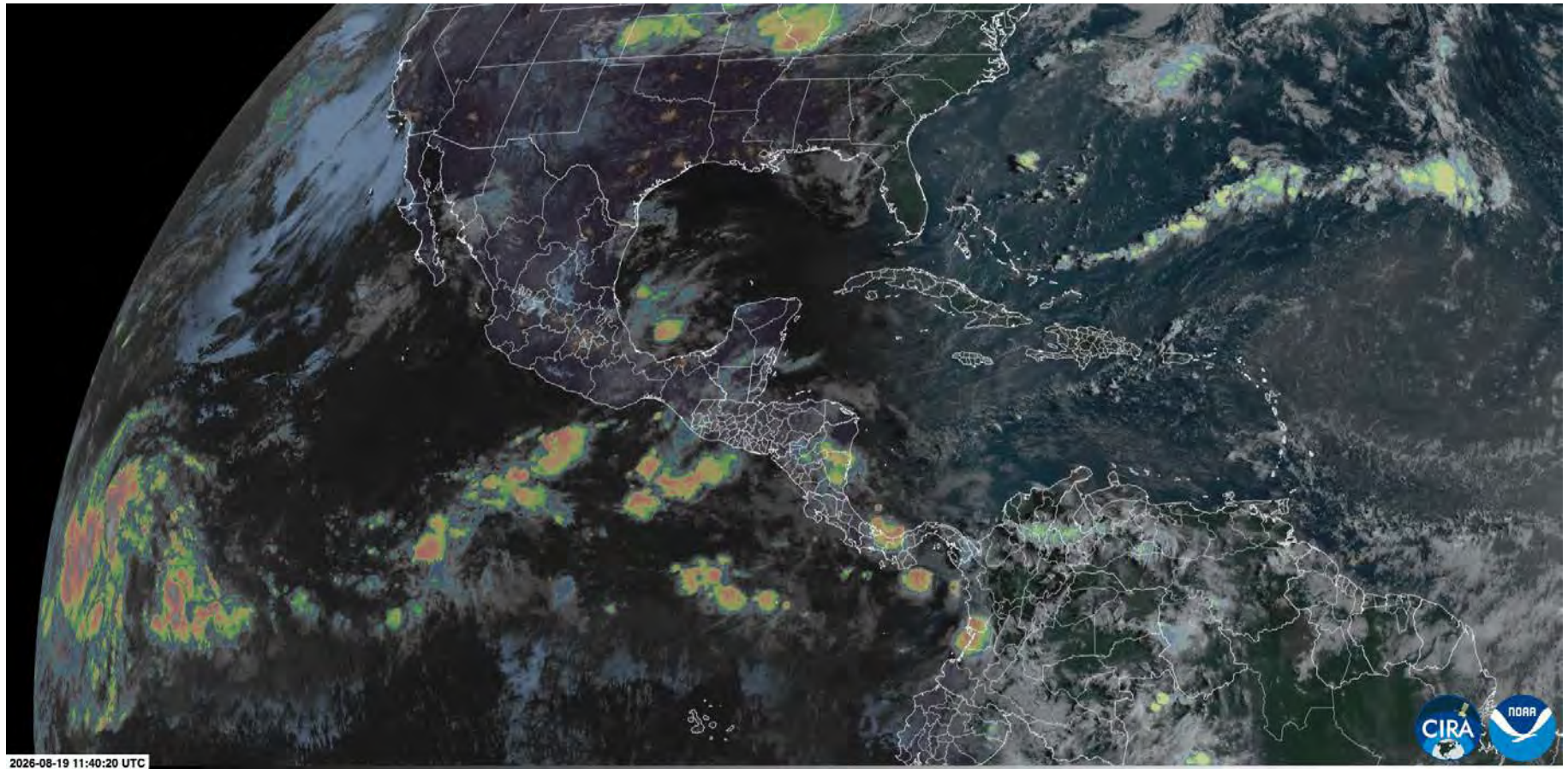


HYC/TROPICAL ANALYSIS AND FORECAST BRANCH
MIAMI, FLORIDA

BY TAFB ANALYST ROSADO-VAZQUEZ
COLLABORATING CENTERS: NHC DPC WPC

Monsoon trough currently sitting right on top of Panama, bringing rainier weather

Today's Satellite Images



T-storms over western Panama

Houston Forecast

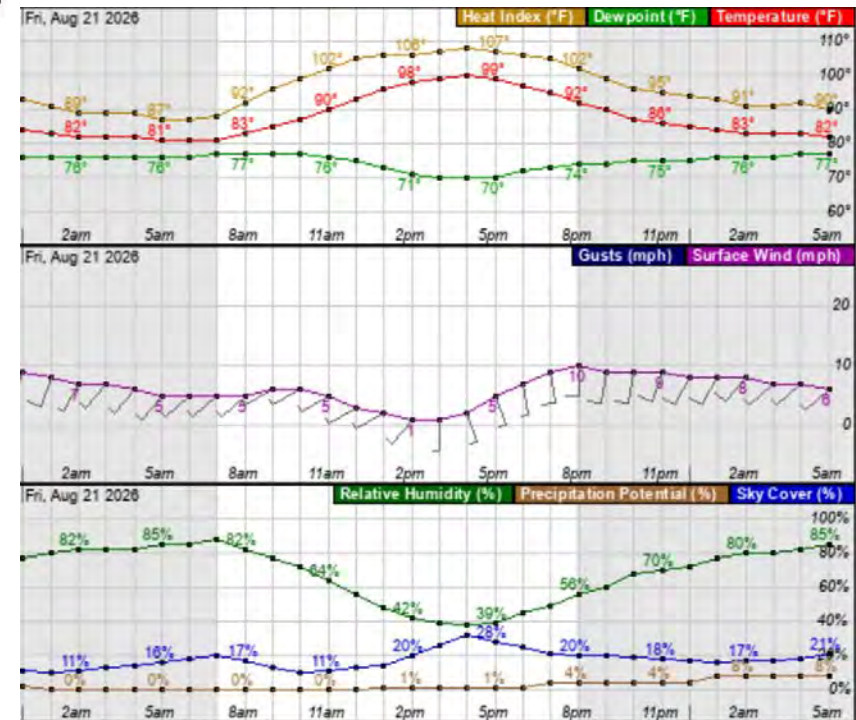
Today	Tonight	Thursday	Thursday Night	Friday	Friday Night
					
High: 98 °F	Low: 79 °F	High: 99 °F	Low: 81 °F	High: 100 °F	Low: 81 °F
Hot	Mostly Clear	Hot	Mostly Clear	Hot	Mostly Clear

Very hot in Houston on Friday. But 83F for 8a takeoff.

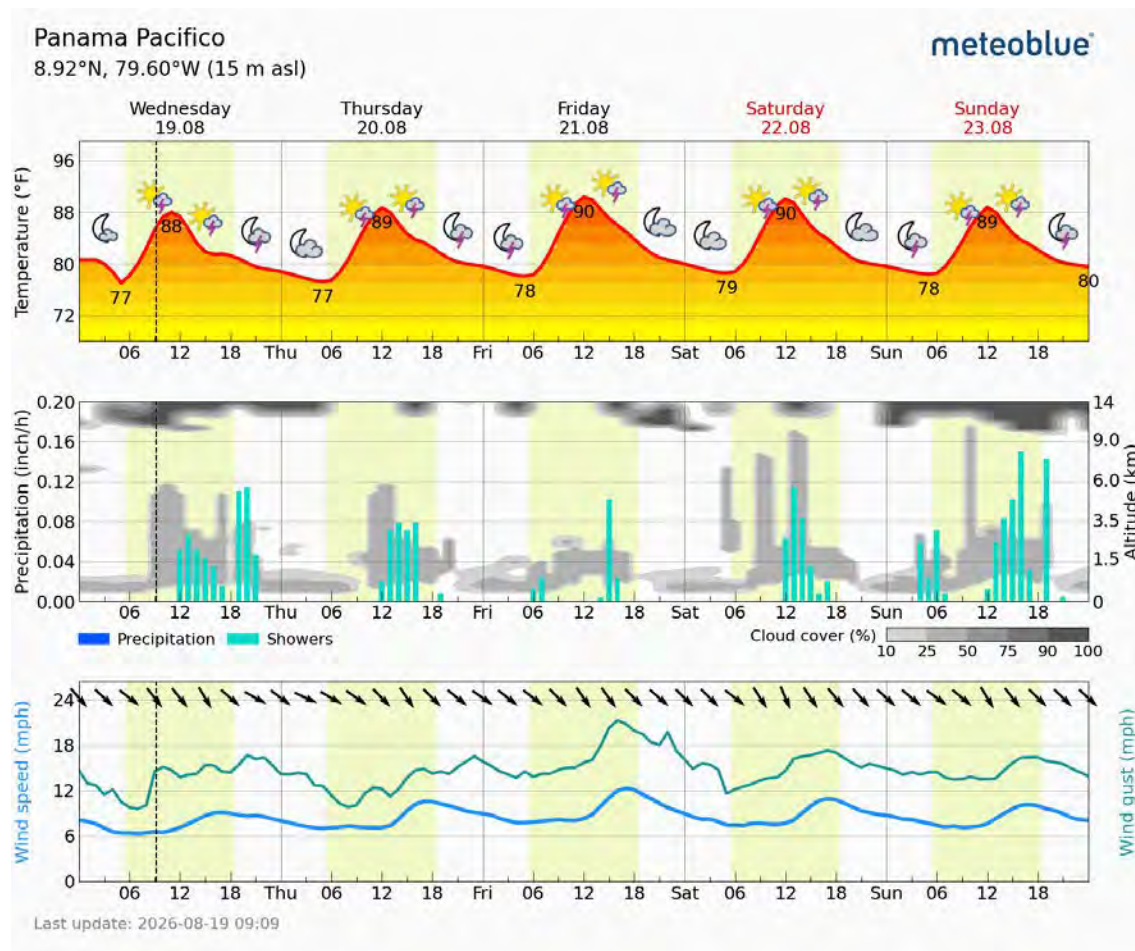
KEFD TAF

METAR KEFD 191354Z 22007KT 10SM FEW020 30/25 A3001

TAF KEFD 191200Z 1912/2018 VRB06KT 9999 FEW020 QNH2995INS TX36/1921Z TN26/1912Z



Panama Pacifico Forecast



MPPA TAF

METAR MPPA 191400Z 36007KT 320V040 9000 SCT018 30/26 Q1010

TAF MPPA 191100Z 1912/2018 34006KT 9999 SCT018

TEMPO 1912/1916 VRB02KT

PROB30 1919/1923 18007KT 6000 TSRA SCT015CB BKN080

Afternoon t-storm chances every day.

Friday has chance of rain showers in the morning and then highest risk of t-storms between 2-3p

A quick look at volcanoes/fires



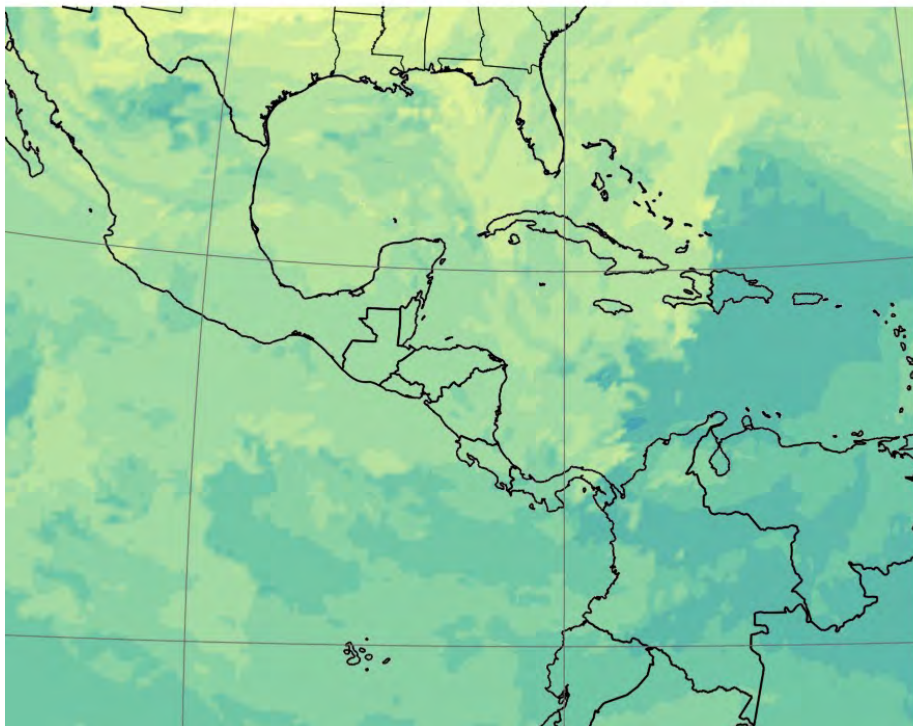
Shading is SNPP and NOAA-20 OMPS Aerosol index data.
Red dots are individual fires active within the last 24 hours. “Active” volcanoes are indicated.

Upper Level Forecasts for Friday 8/21/2026

Tropopause 15Z (10a local)

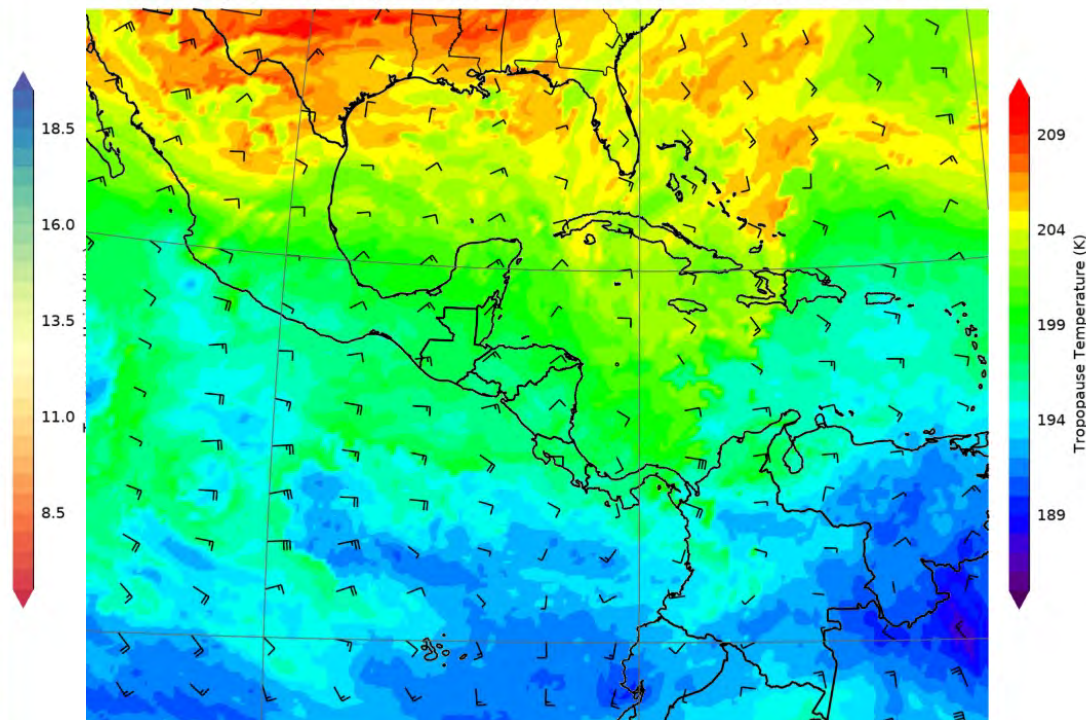
Pressure

NCEP Tropopause Height Init: 2026081912 Valid: 2026082115



Temperature & 100 mb winds

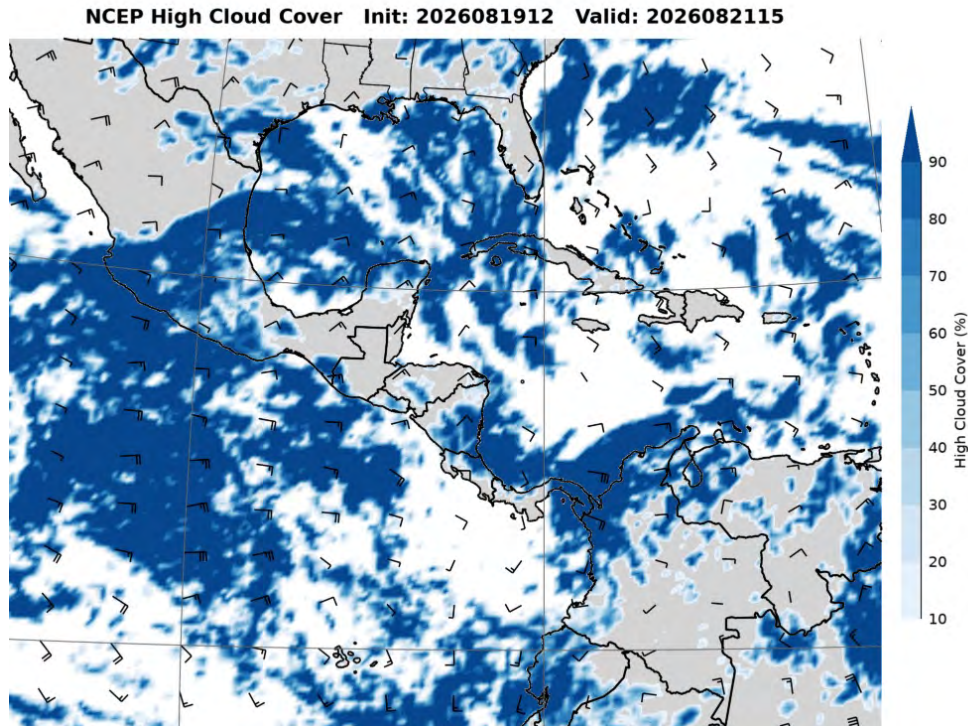
NCEP Tropopause Temperature Init: 2026081912 Valid: 2026082115



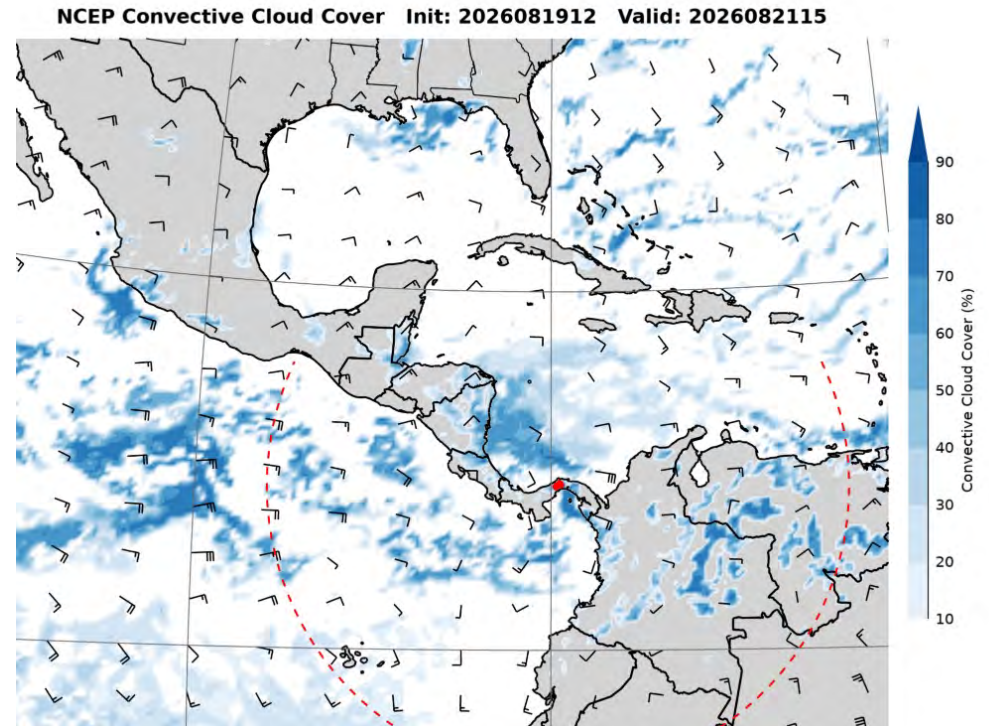
Tropopause heights range from 14-15km near KEFD to 16km near MPPA. Tropopause temperatures get colder nearer to the tropics

Cloud Cover 15Z (10a local)

High Clouds



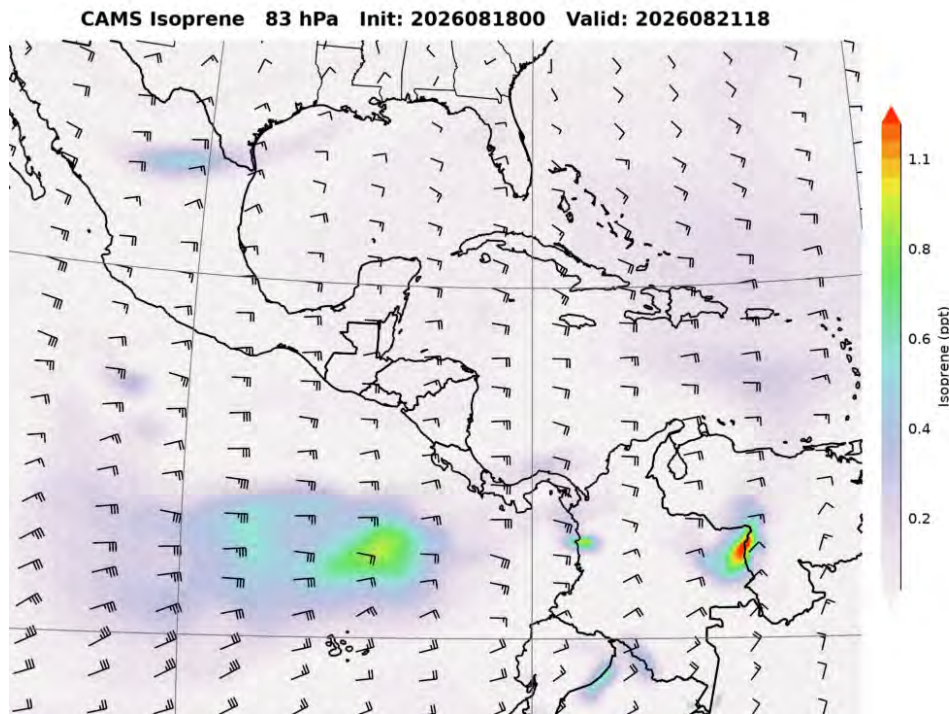
Convective



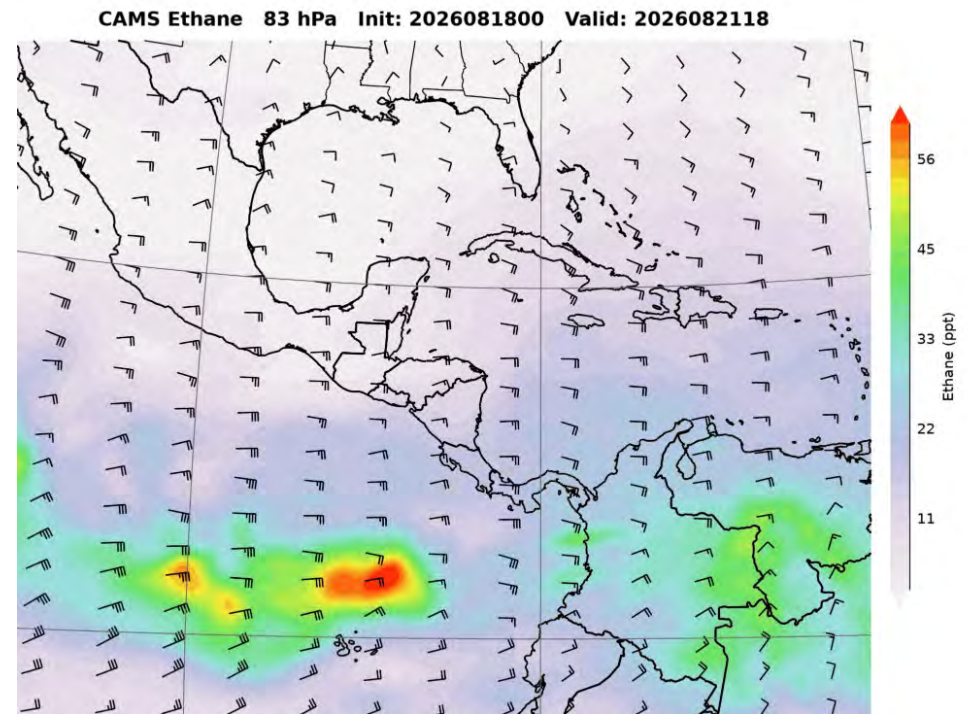
Lots of high clouds over Gulf and north of Panama- possibly some convective outflow. Convective activity to the north of Panama remains throughout the day- over MPPA, convection moves towards the west over the day.

Short-lived tracers (18Z, 1p local)

CAMS isoprene 83 hPa

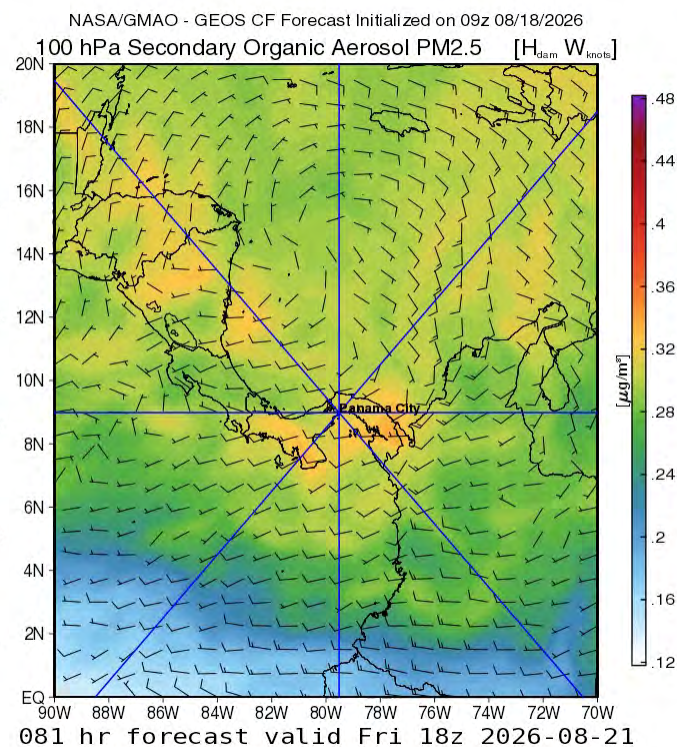
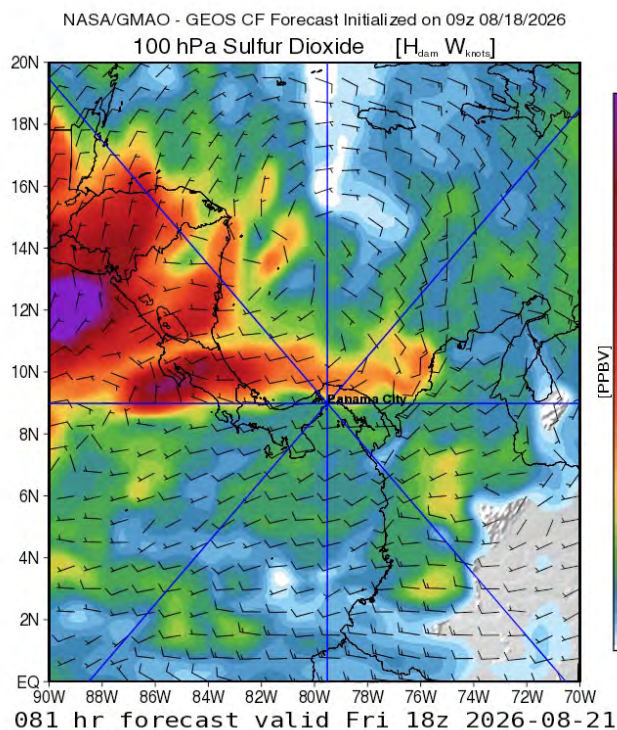
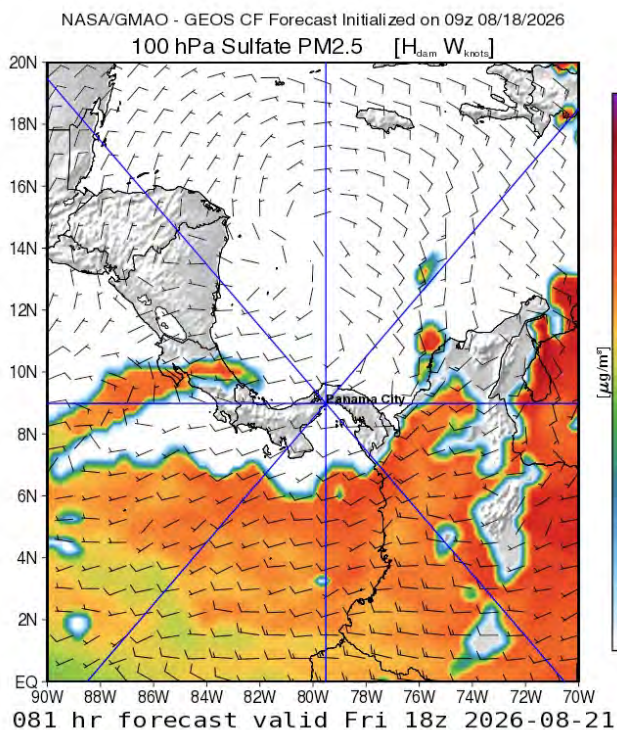


CAMS ethane 83 hPa



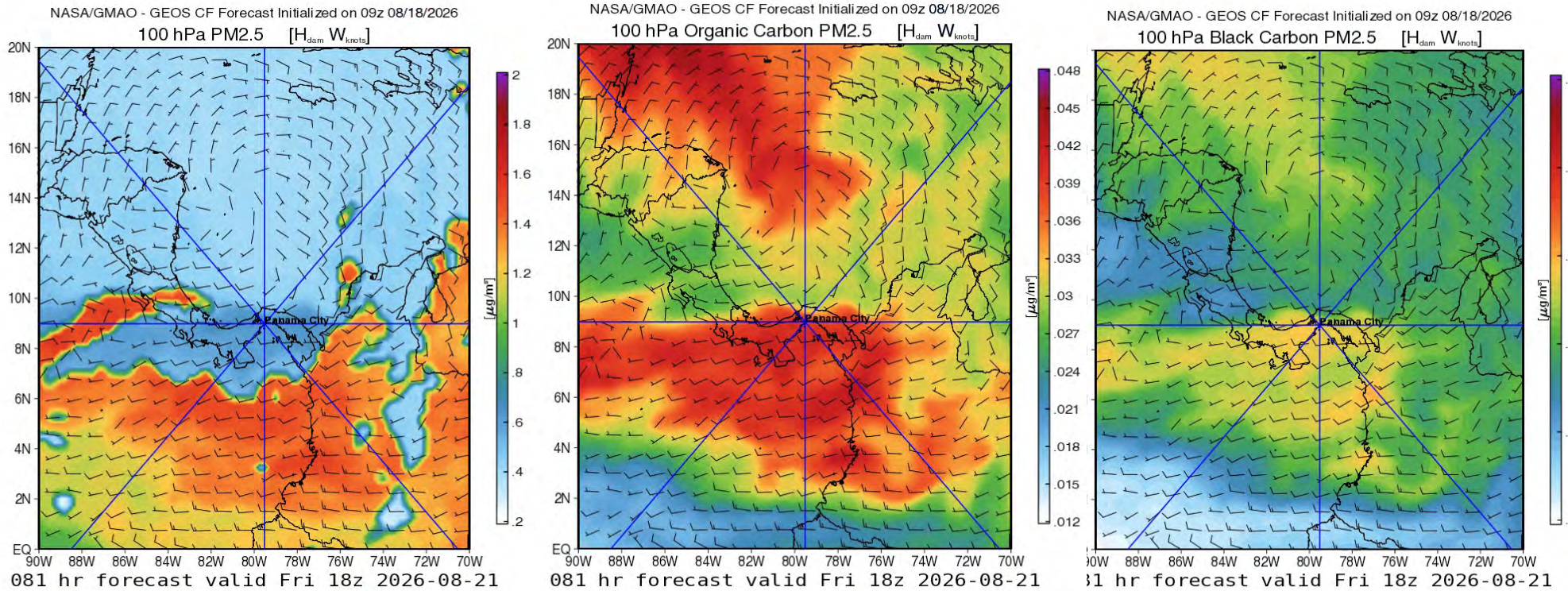
These metrics can be an indicator of convective transport aloft.

Sulfate, SO₂, and SOA (GEOS, 100 hPa)



Thanks to NASA GMAO for these plots

PM2.5, OC, BC (GEOS, 100 hPa)



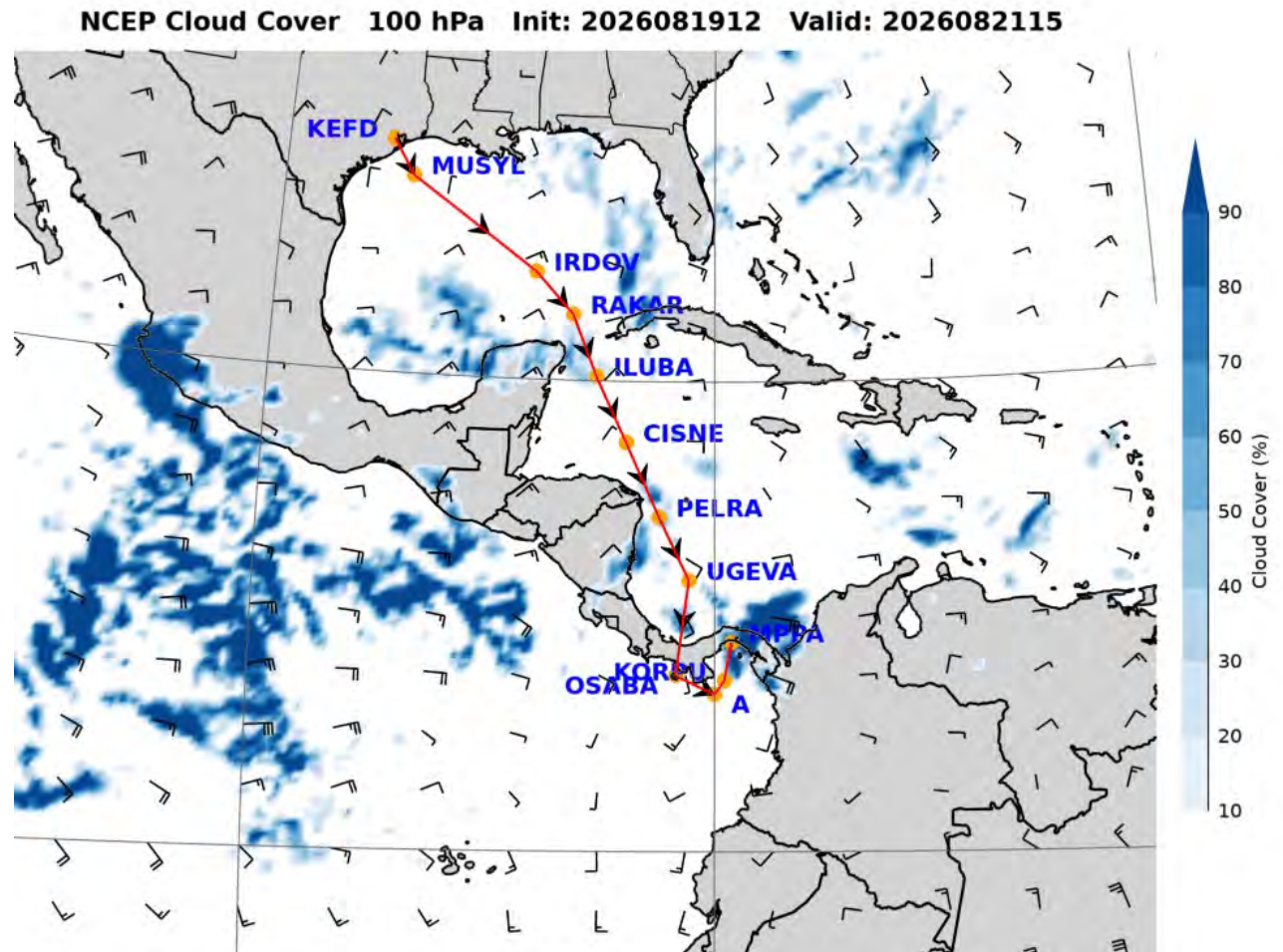
Airmass is generally quite different south of Panama

Thanks to NASA GMAO for these plots

Flight Plan A for transit flight 08/21/2026

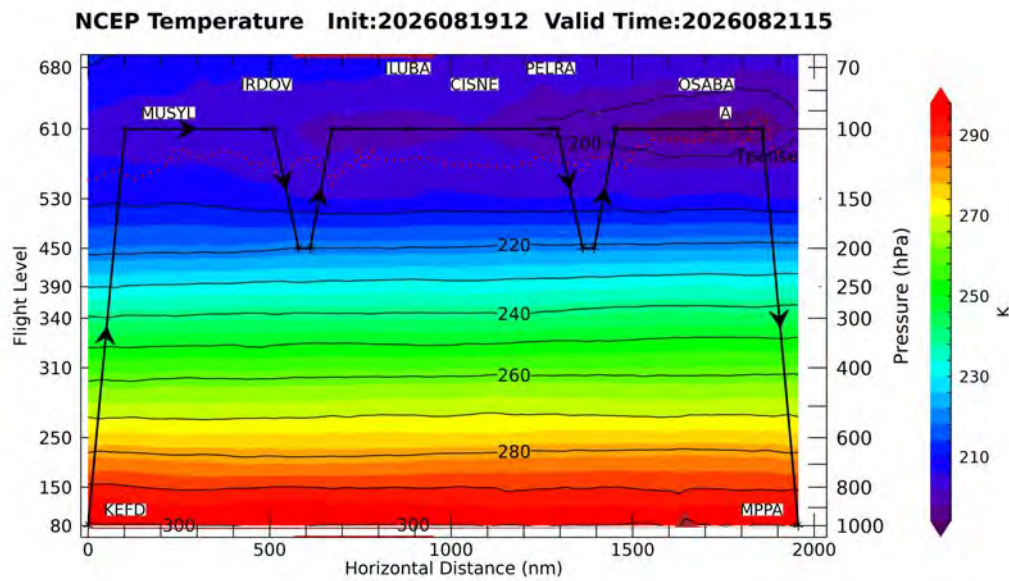
Goals:

- Transit to Panama
- 2 vertical profiles
- If weather/timing allows for it, overpass Panama to sample South American air

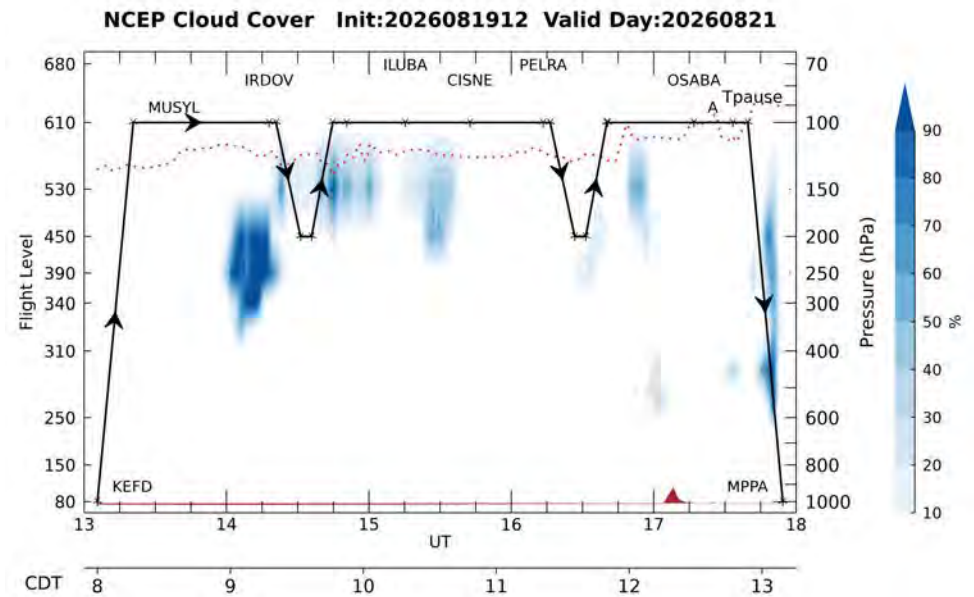


Flight Plan A Curtains 08/21

Temperature



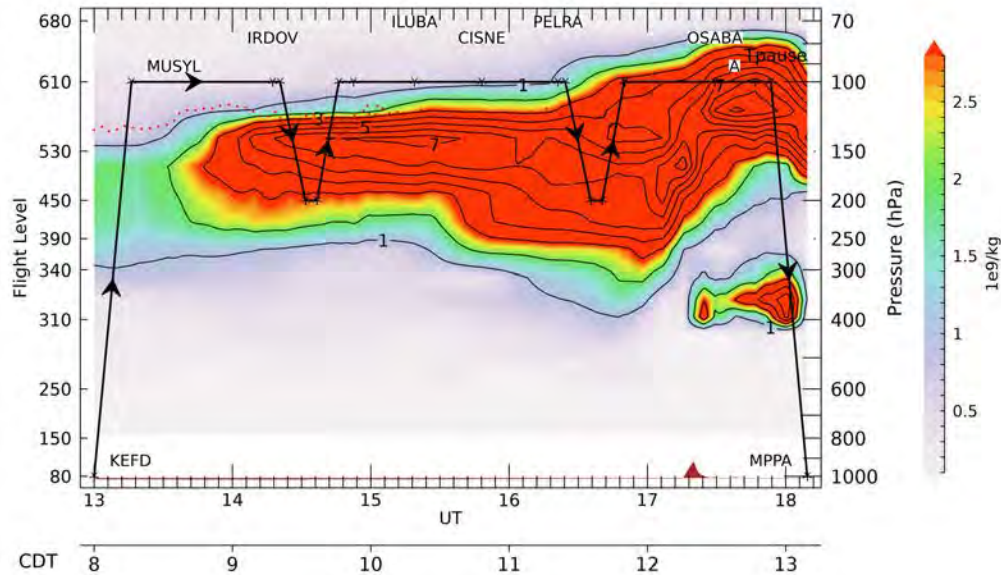
Cloud Cover



Flight Plan A Curtains for NPF and BC (WACCM)

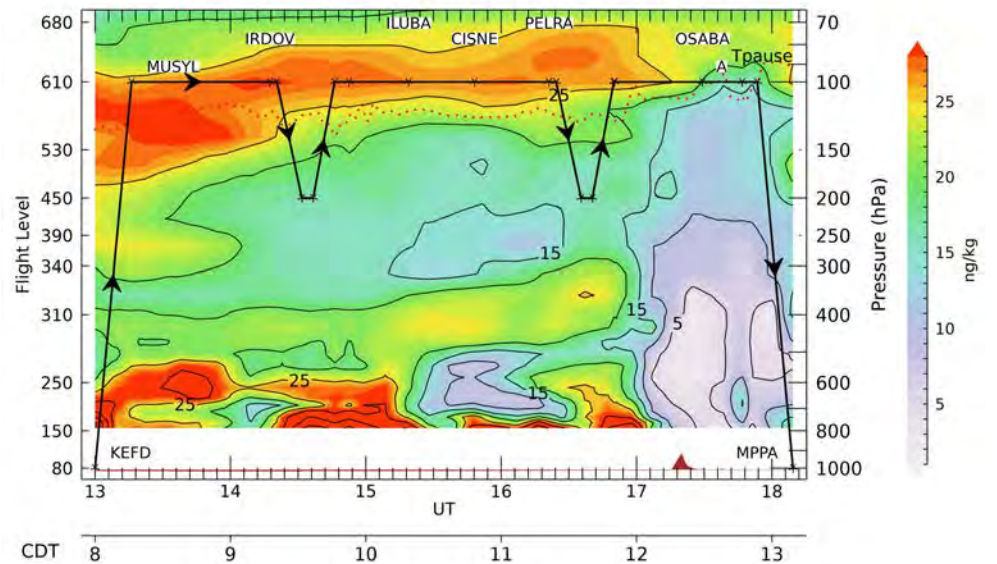
WACCM NPF

WACCM Aerosol Num Conc Init:2026081800 Valid Day:20260821

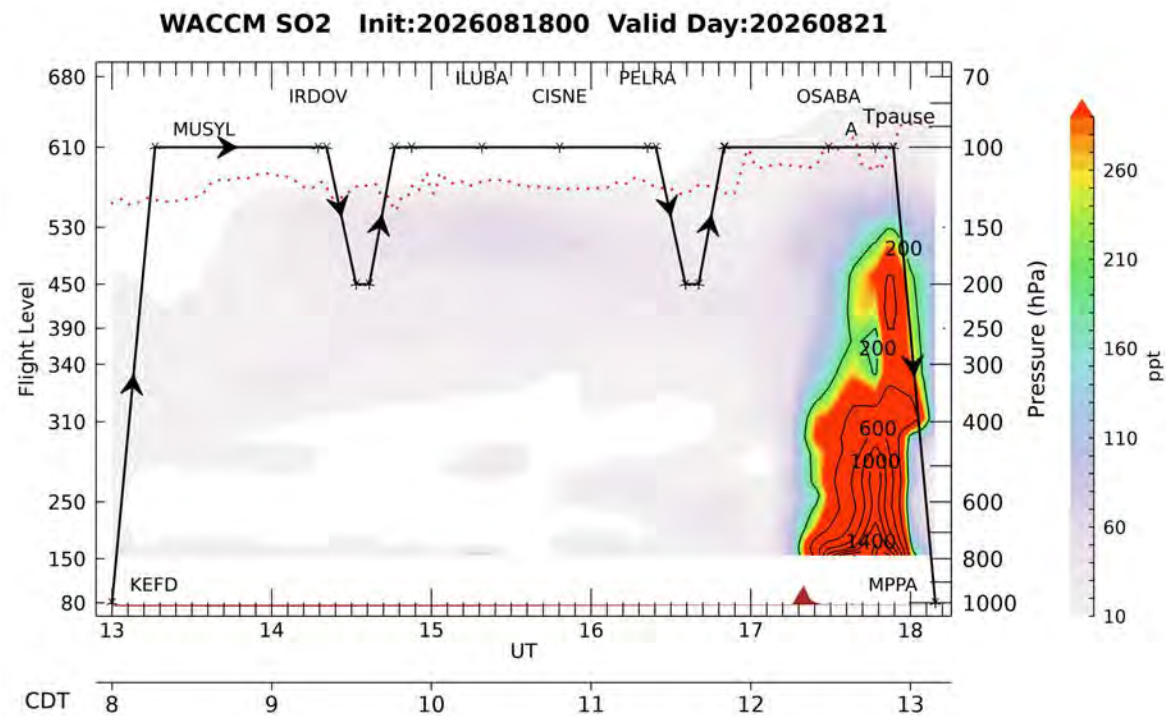


WACCM BC

WACCM BC Init:2026081800 Valid Day:20260821



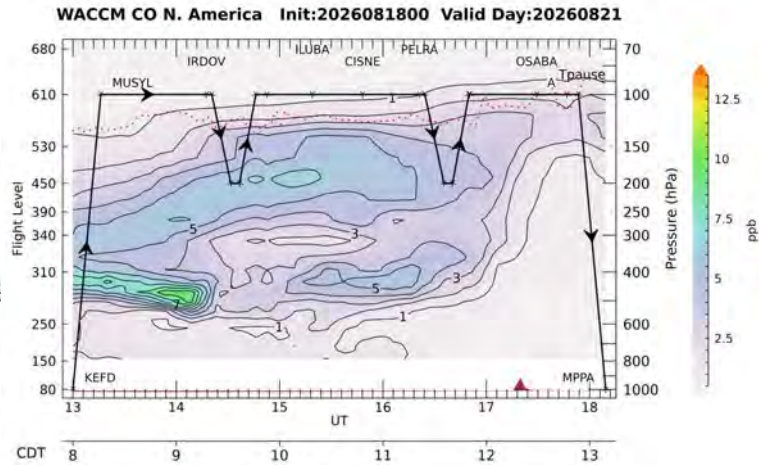
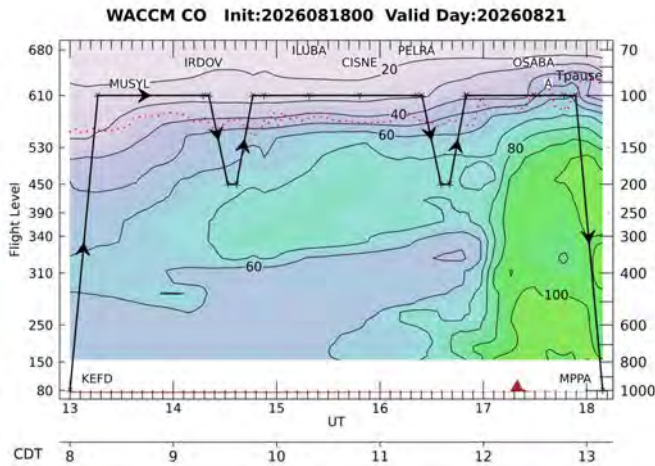
Flight Plan A Curtains for SO₂ (WACCM)



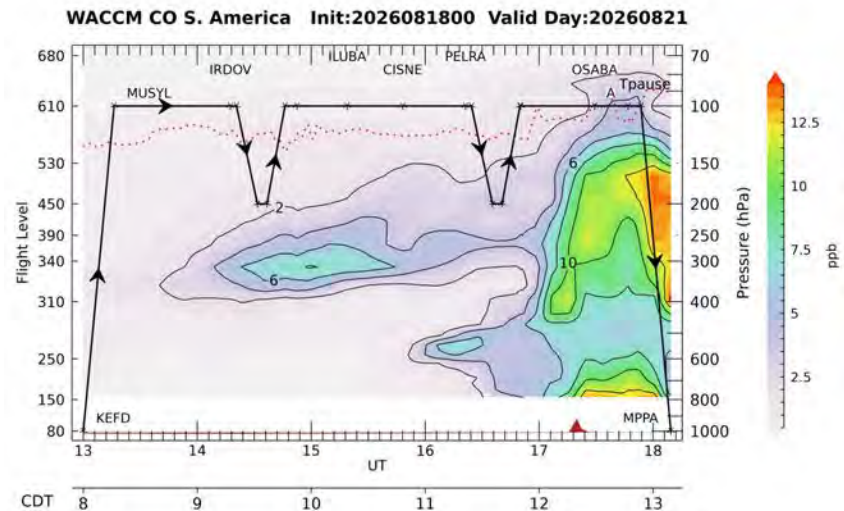
Note that GEOS showed more
SO₂ north of Panama- WACCM
shows the opposite

Flight Plan A Curtains for CO (long-range transport)

Total CO



CO (N. America)

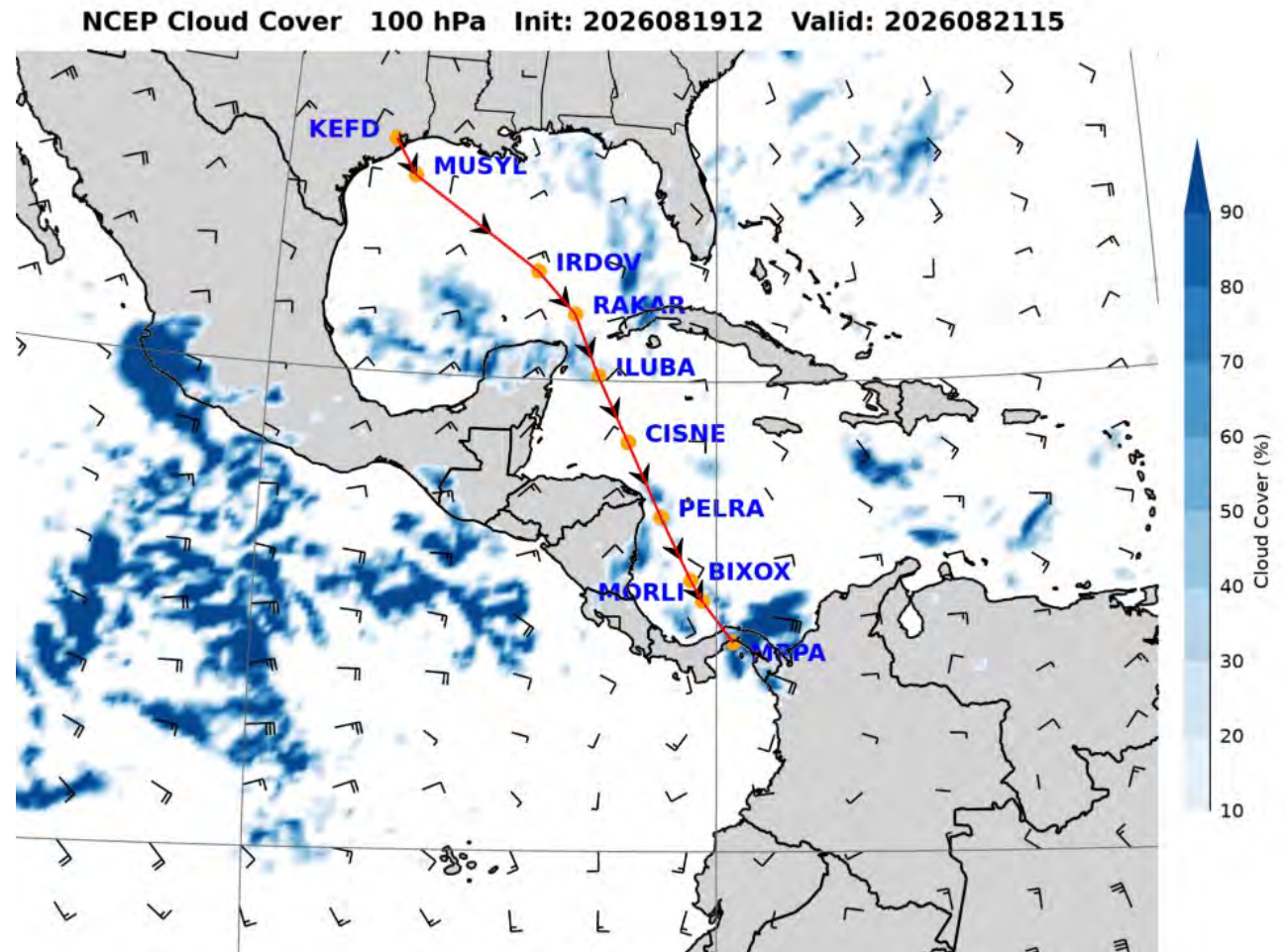


CO (S. America)

Flight Plan B for transit flight 08/21/2026

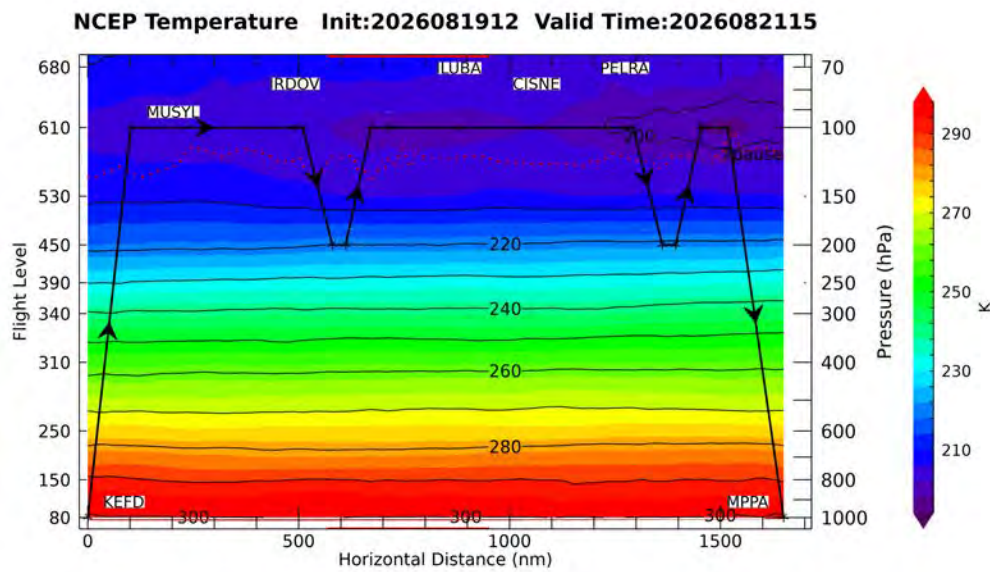
Goals:

- Transit to Panama
- 2 vertical profiles
- Shorter plan if weather looks to be an issue

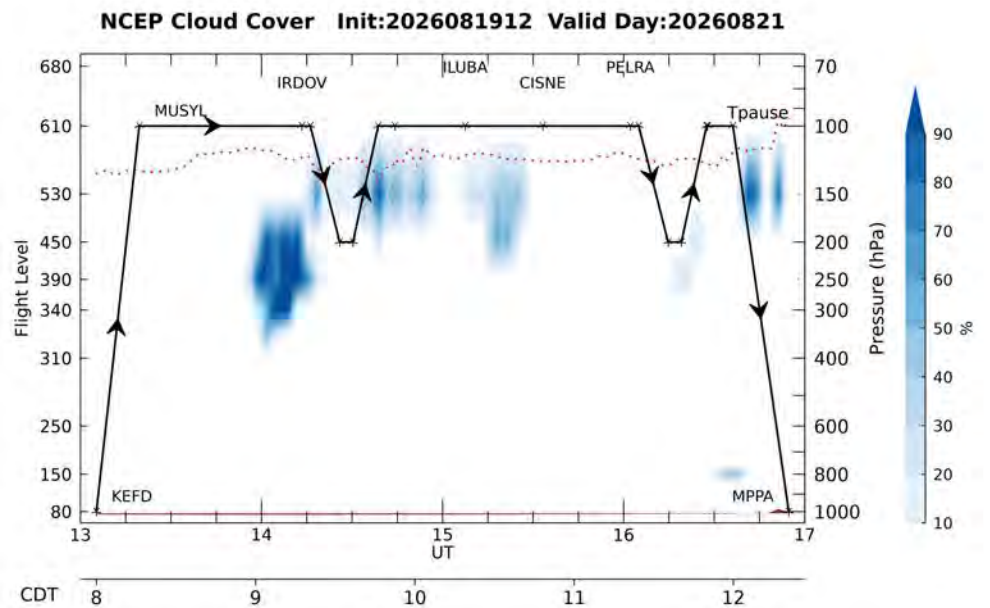


Flight Plan B Curtains 08/21

Temperature

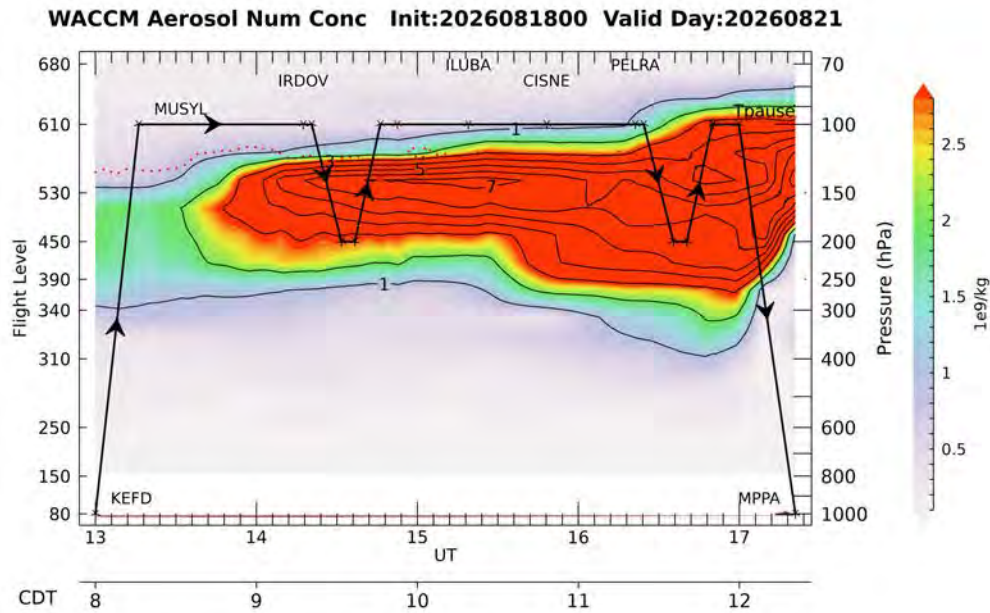


Cloud Cover

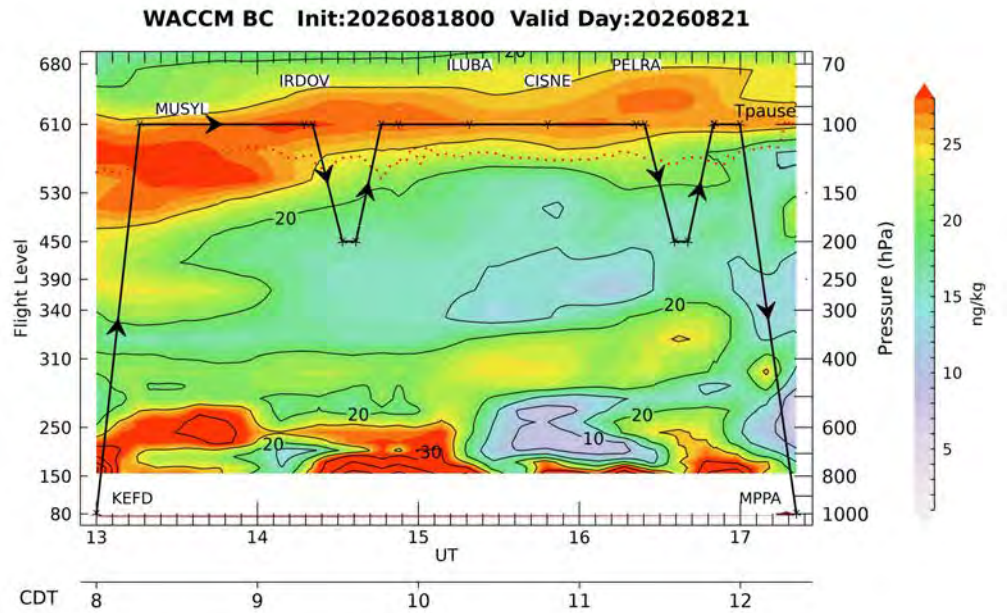


Flight Plan B Curtains for NPF and BC (WACCM)

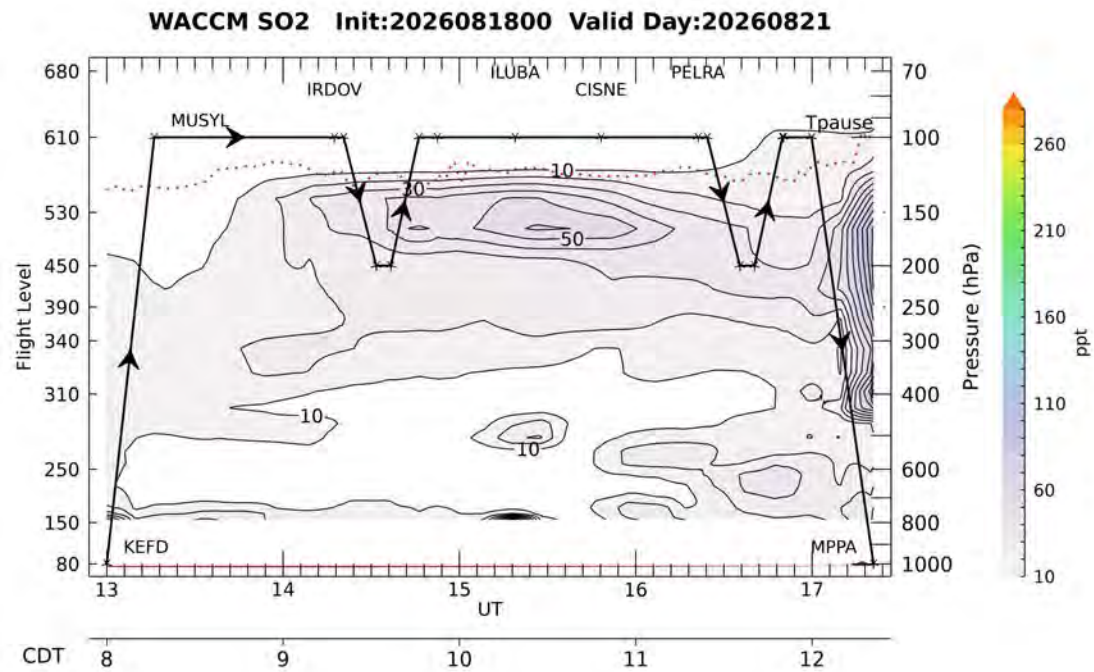
WACCM NPF



WACCM BC

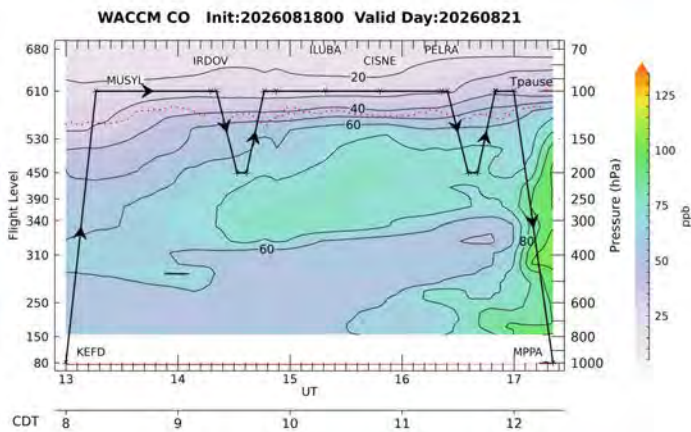


Flight Plan B Curtains for SO₂ (WACCM)

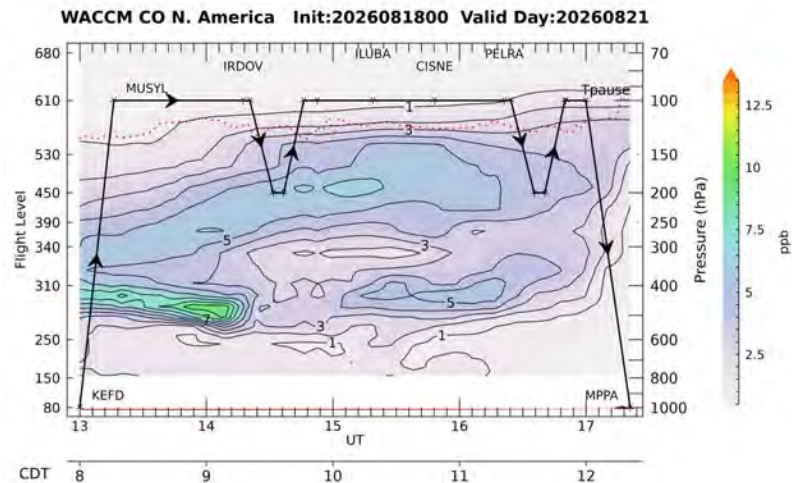


Flight Plan B Curtains for CO (long-range transport)

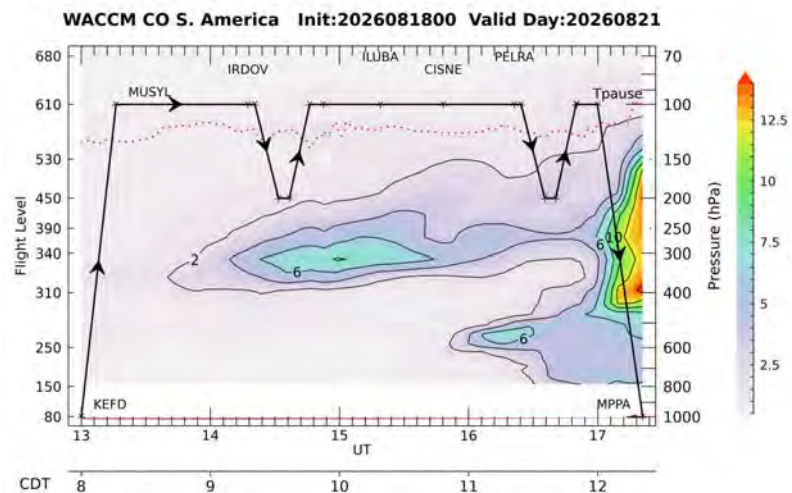
Total CO



See less S. American air
with the shorter flight



CO (N. America)



CO (S. America)