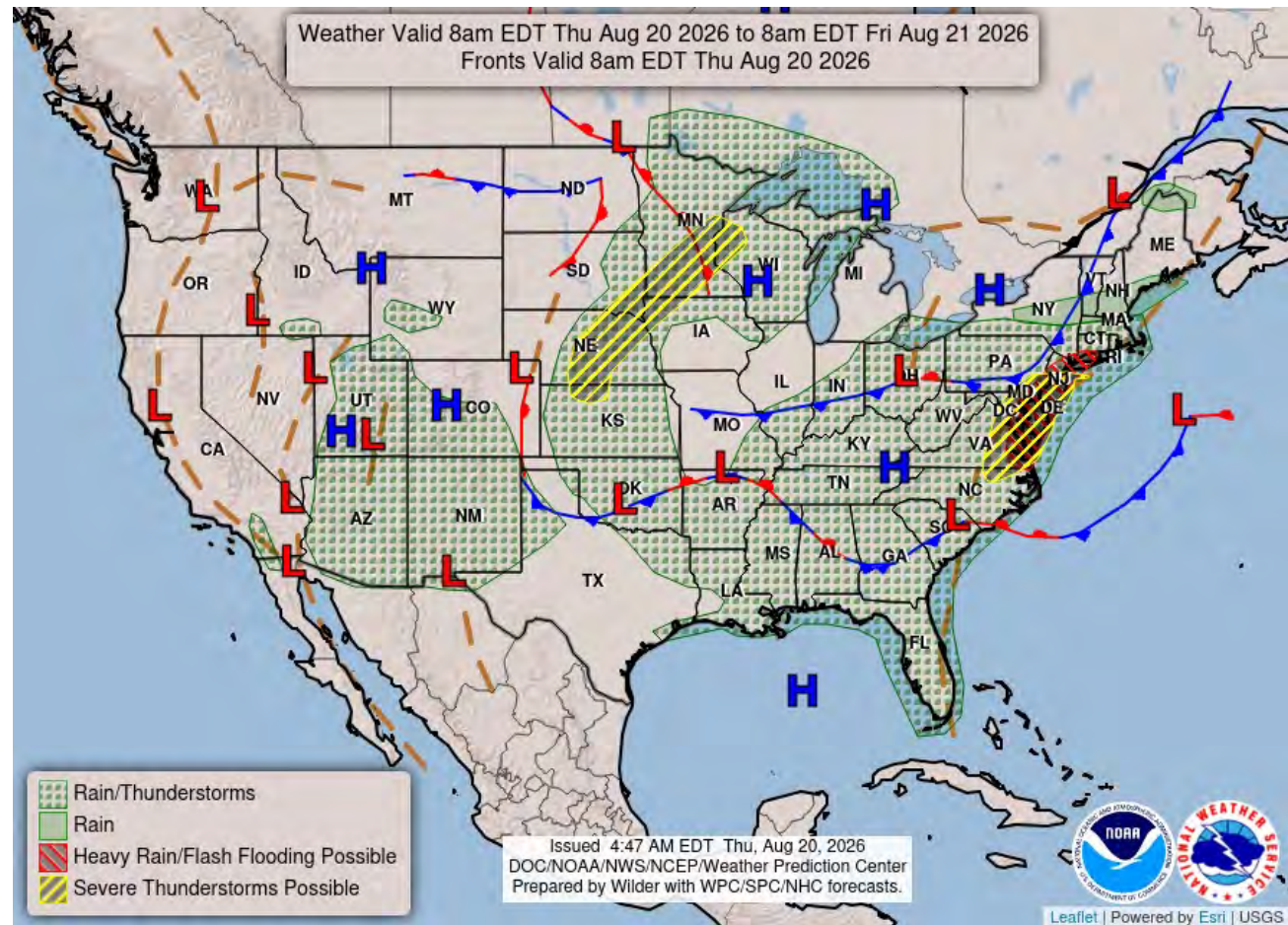


SABRE Forecast Discussion 08/20/2026

Surface Chart for US



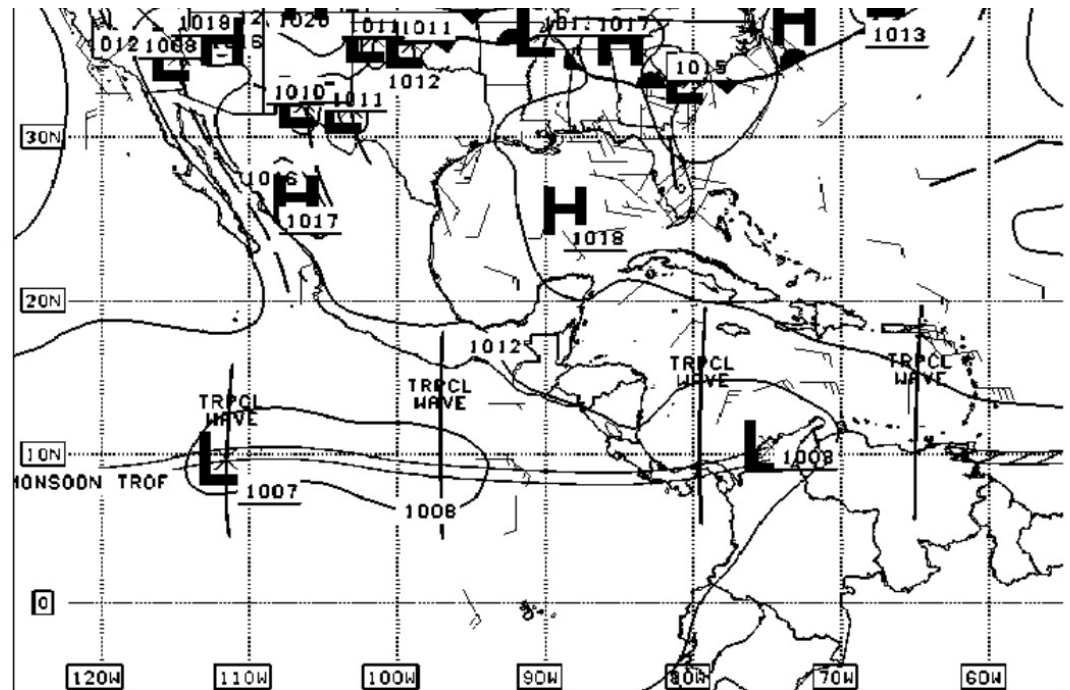
SABRE Forecast Discussion 08/20/2026

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.



12Z WESTERN TRPCL SFC ANALYSIS
ISSUED: Thu Aug 20 14:52:53 UTC 2026

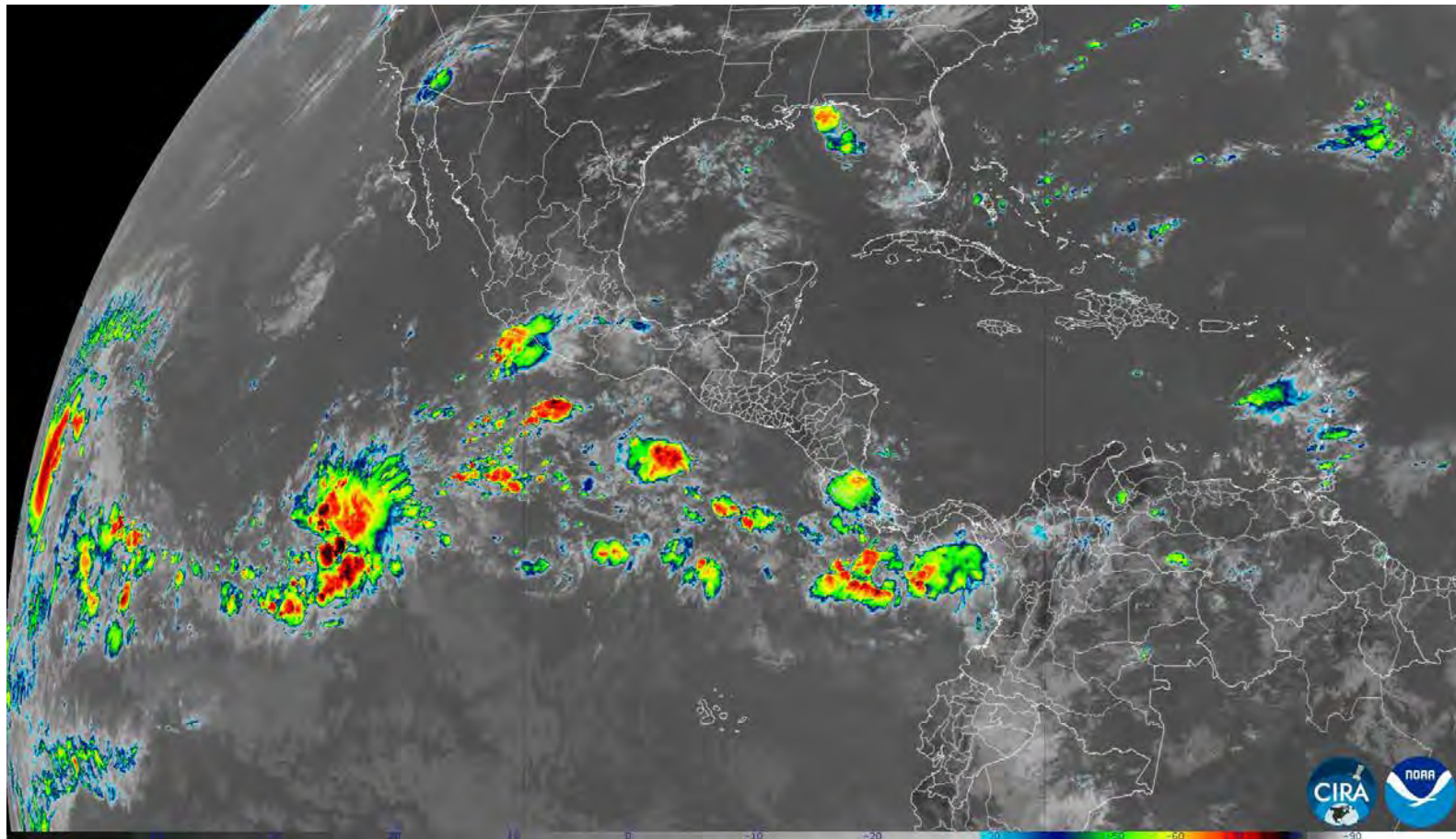


NHC/TROPICAL ANALYSIS AND FORECAST BRANCH
MIAMI, FLORIDA

BY TAFB ANALYST KONARIK
COLLABORATING CENTERS: NHC OPC WPC

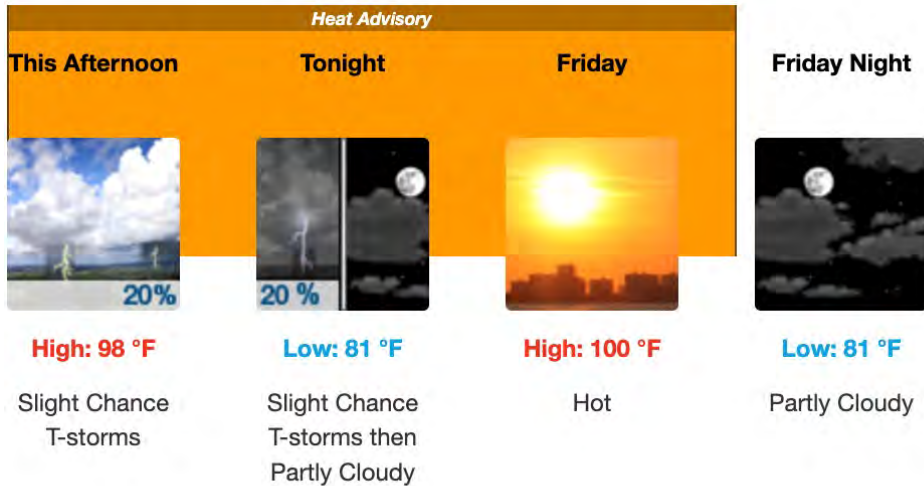
Monsoon trough and tropical wave axis currently over Panama- moves little over next 24 hours

Today's Satellite Images



T-storms over Costa Rica and south of Panama today

Houston Forecast

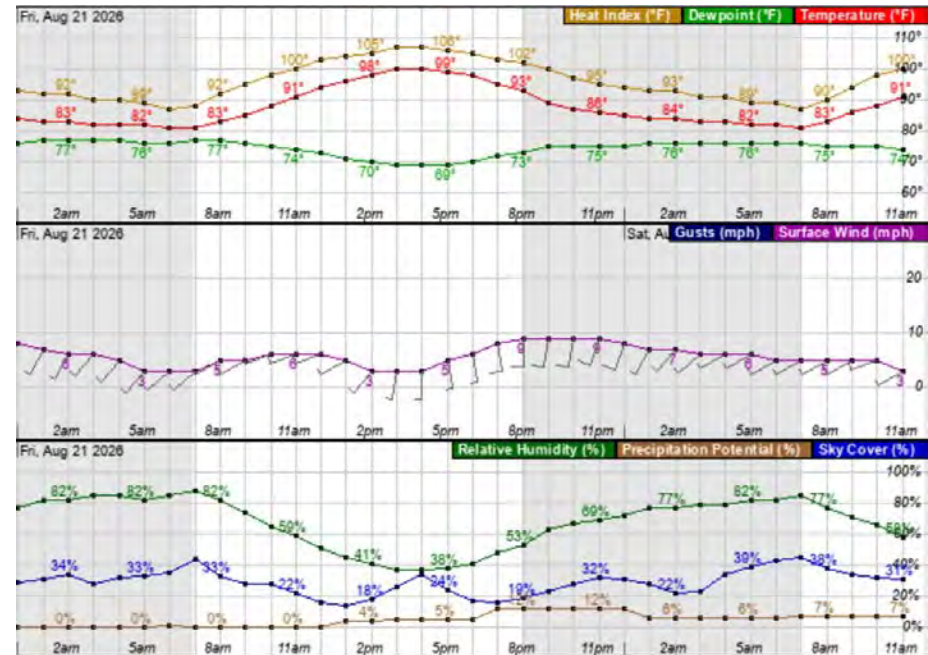


Very hot in Houston today and Friday (heat advisory). But 83F and clear for 8a takeoff on Friday.

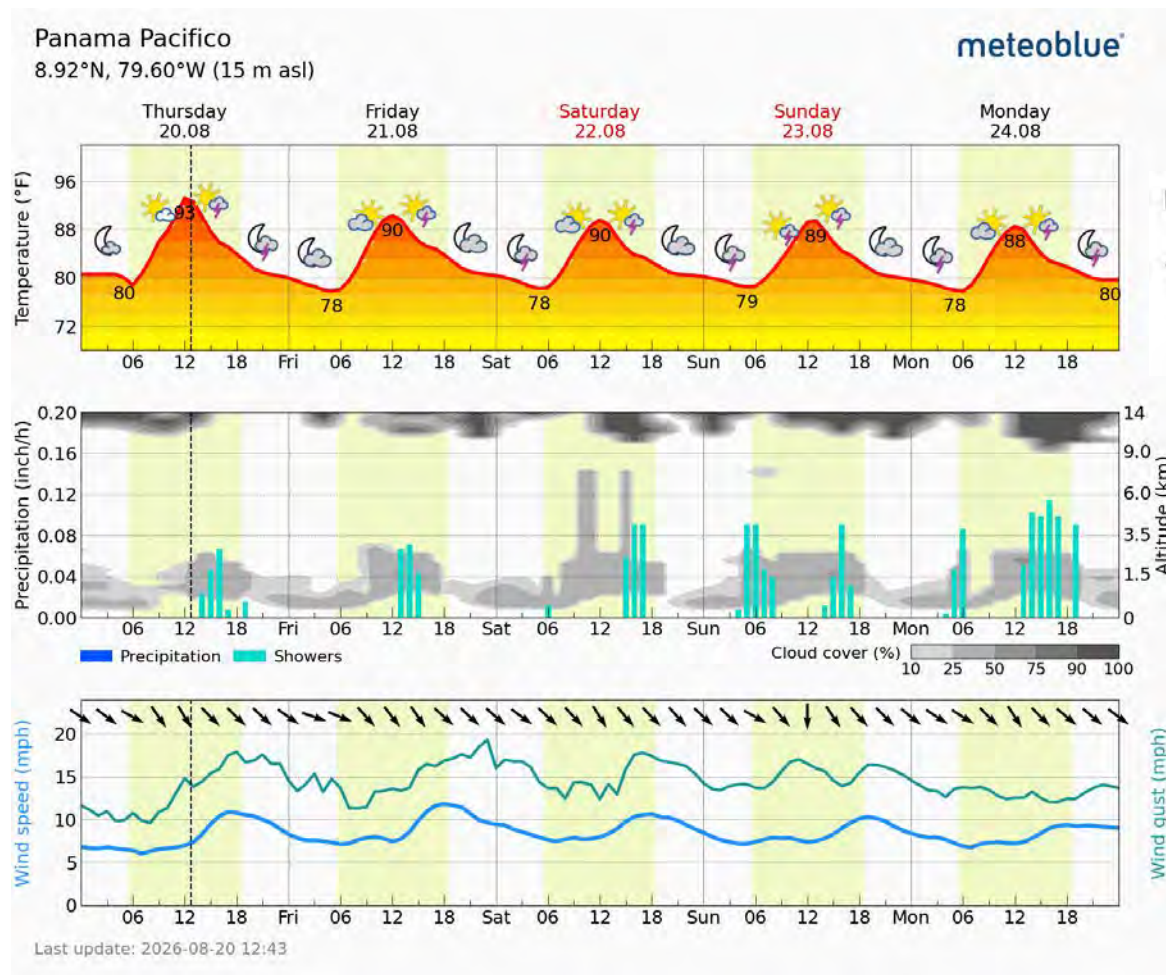
KEFD TAF

METAR KEFD 201654Z 19009KT 10SM SCT025 34/24 A3003

No TAFs found for KEFD



Panama Pacifico Forecast



MPPA TAF

METAR MPPA 201700Z VRB03KT 9999 SCT018 34/26 Q1008

TAF MPPA 201700Z 2018/2124 35008KT 9999 FEW018
TEMPO 2018/2022 19008KT SCT018TCU SCT090
TEMPO 2108/2112 VRB02KT

Afternoon t-storm chances every day.

Friday has a risk of spotty t-storms between 1-3p

Volcanoes/fires + OMPS Aerosol Index



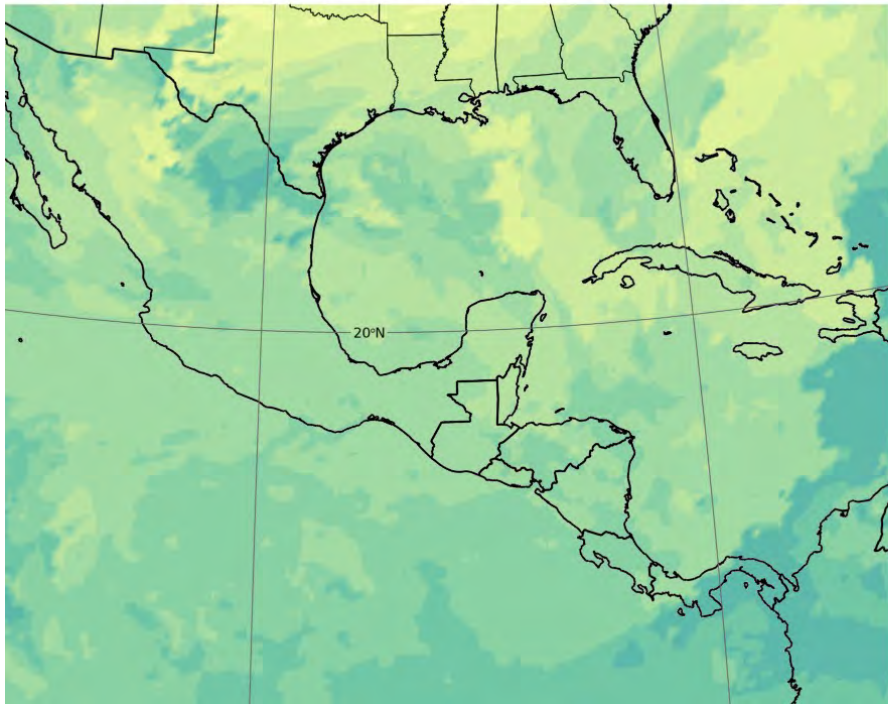
Shading is SNPP and NOAA-20 OMPS Aerosol index data.
Red dots are individual fires active within the last 24 hours. “Active” volcanoes are indicated.

Upper Level Forecasts for Friday 8/21/2026

Tropopause 15Z (10a local)

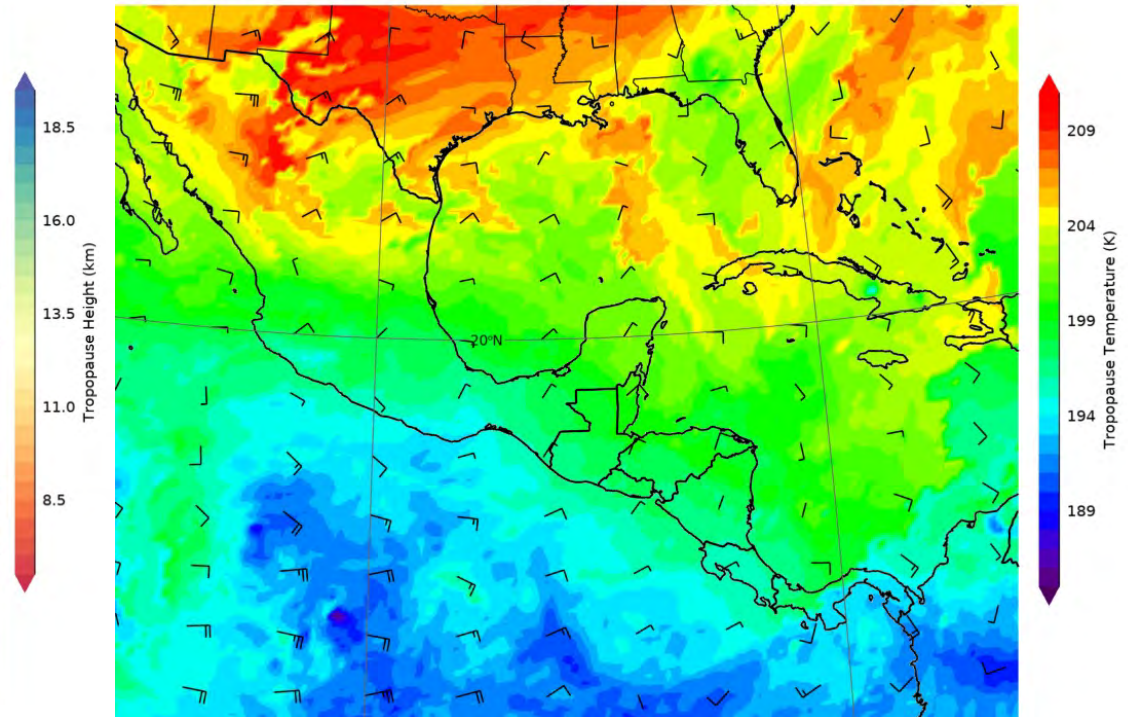
Pressure

NCEP Tropopause Height Init: 2026082012 Valid: 2026082121



Temperature & 100 mb winds

NCEP Tropopause Temperature Init: 2026082012 Valid: 2026082121

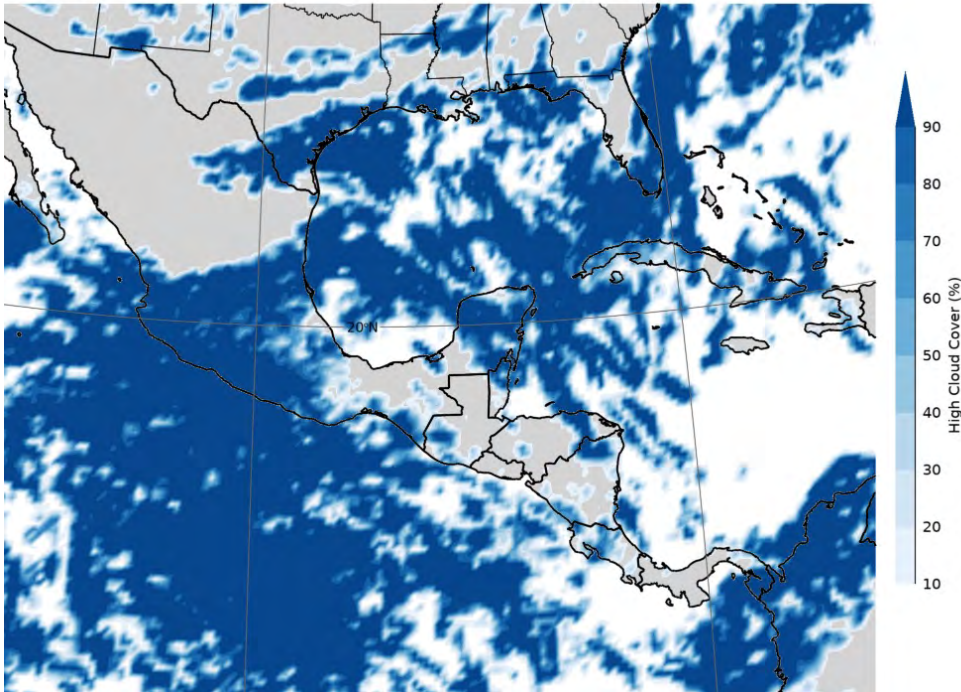


Tropopause heights range from 14km near KEFD to 16-17km near MPPA.
Tropopause temperatures range from ~206K near KEFD to ~195K near MPPA.

Cloud Cover 15Z (10a local)

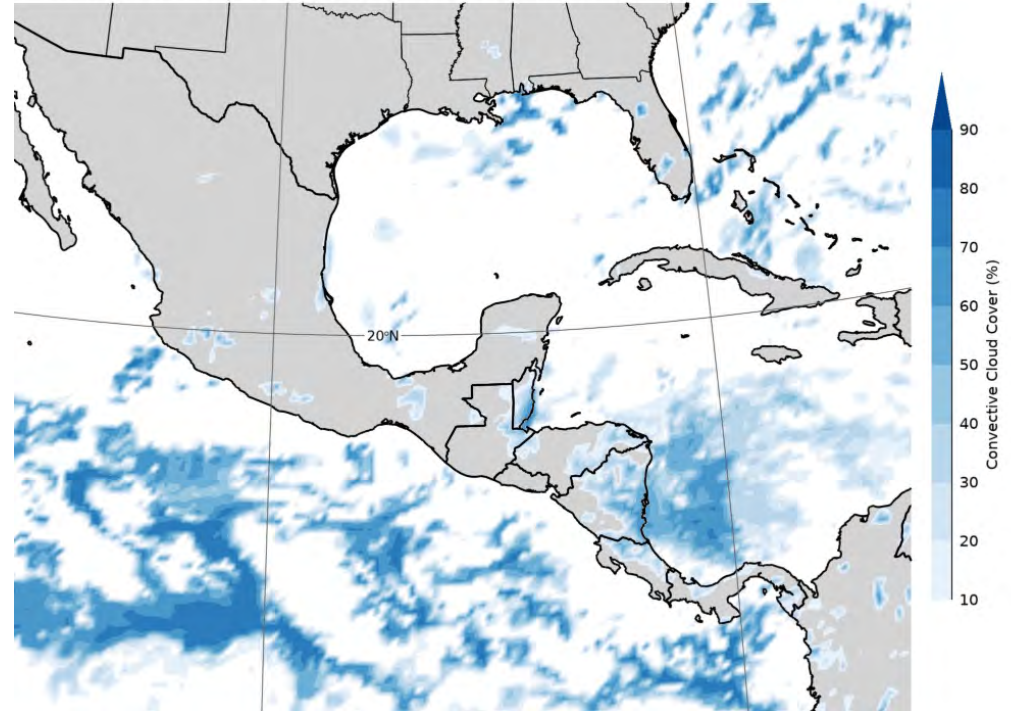
High Clouds

NCEP High Cloud Cover Init: 2026082012 Valid: 2026082115



Convective

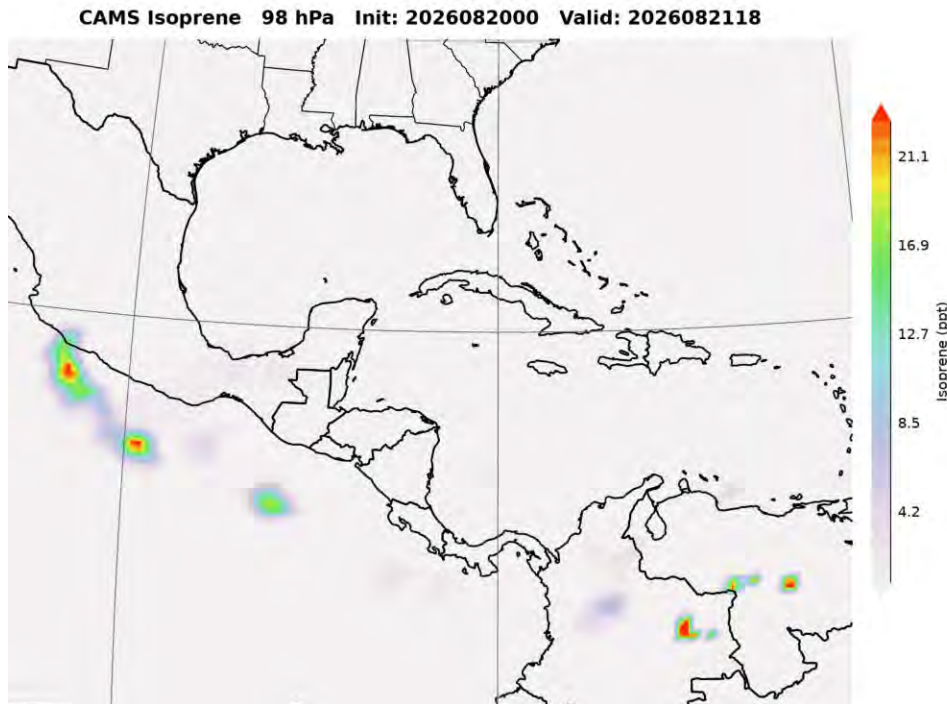
NCEP Convective Cloud Cover Init: 2026082012 Valid: 2026082115



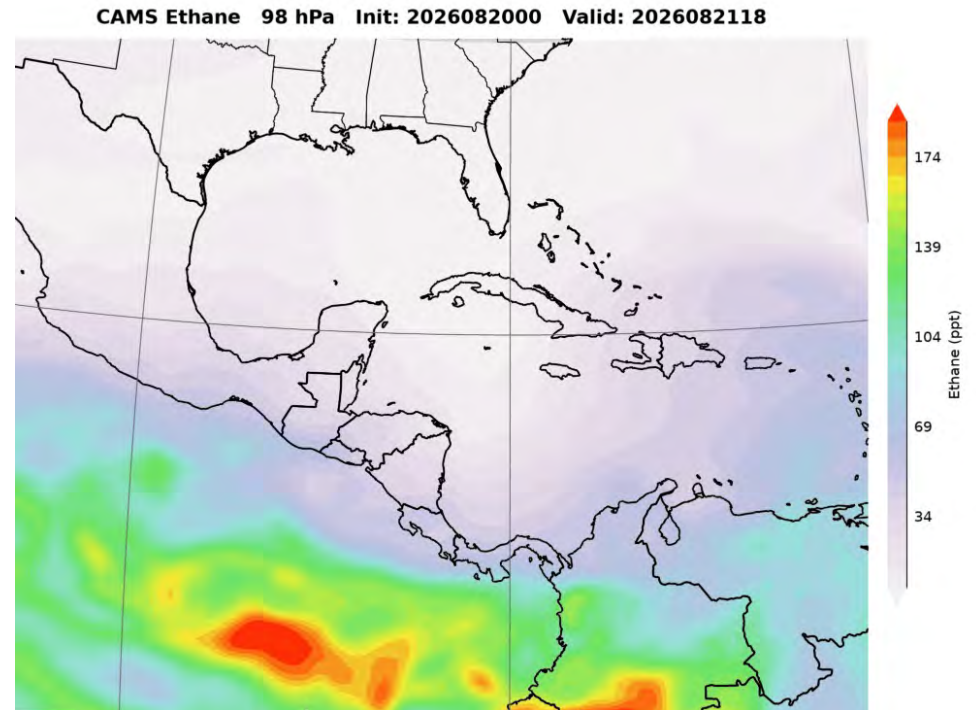
Lots of high clouds over Gulf. Convective activity to the north of Panama remains throughout the day. Over MPPA, small localized convection pops up from 18-21Z

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

CAMS isoprene 98 hpa

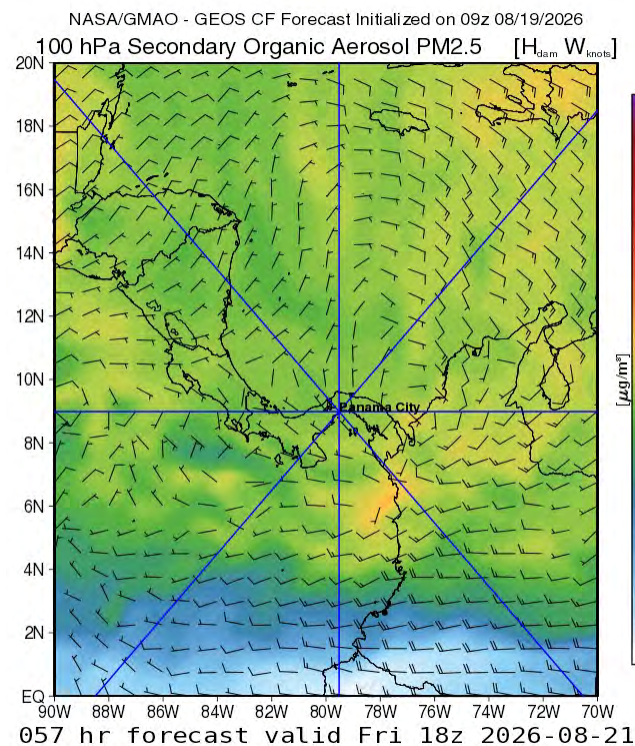
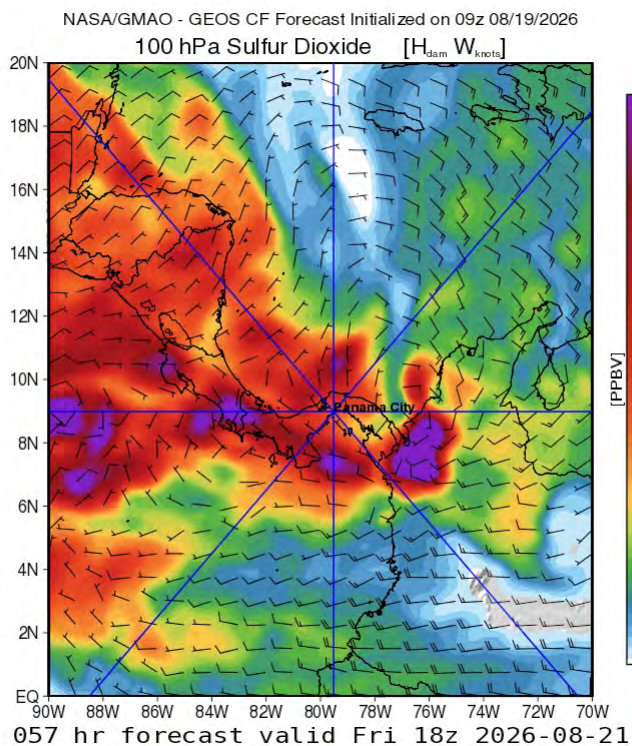
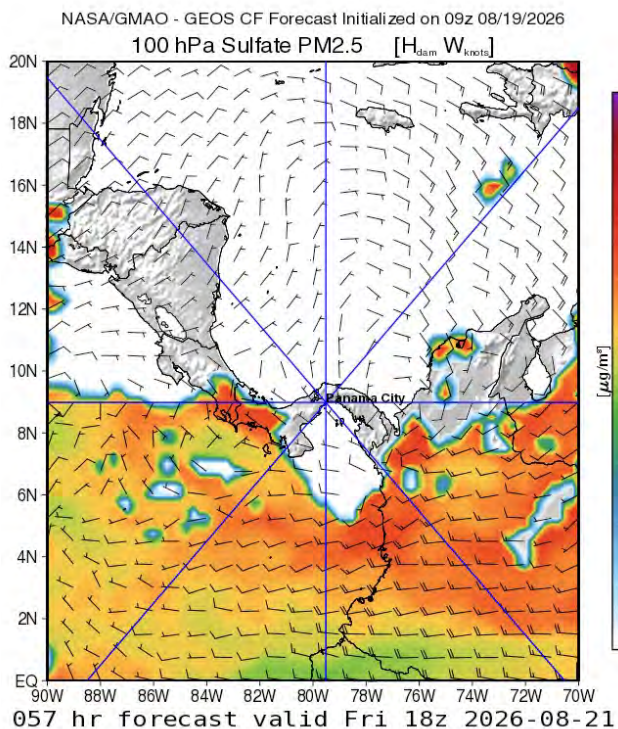


CAMS ethane 98 hpa



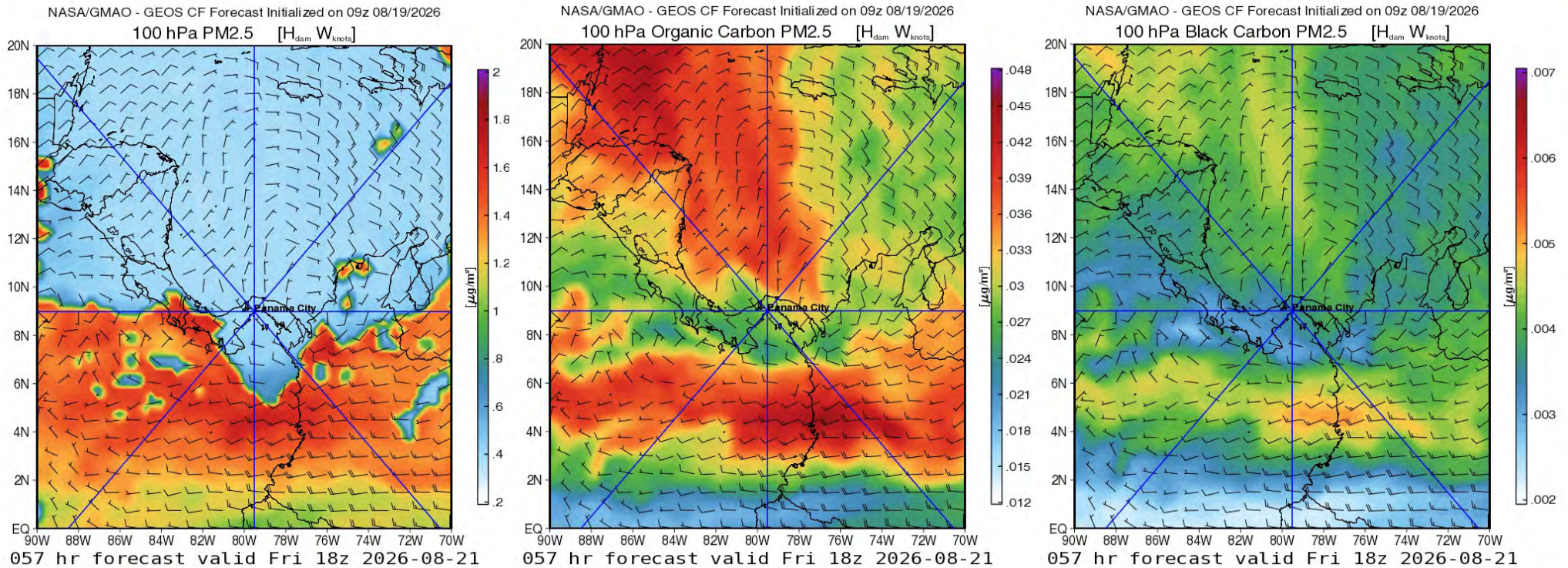
These metrics can be an indicator of convective transport aloft.

Sulfate, SO₂, and SOA (GEOS, 100 hPa)



Thanks to NASA GMAO for these plots

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

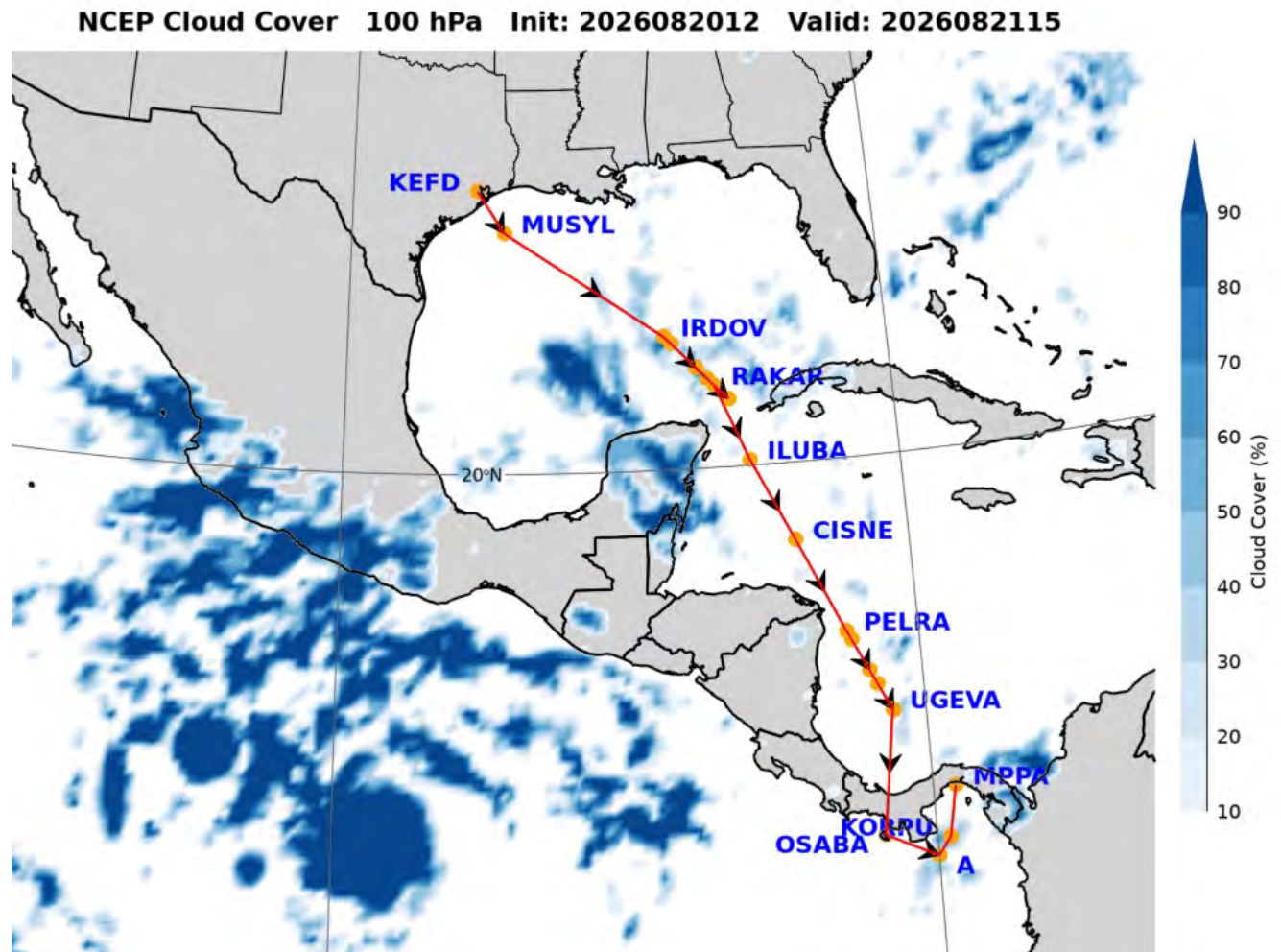


Thanks to NASA GMAO for these plots

Flight Plan A for transit flight 08/21/2026

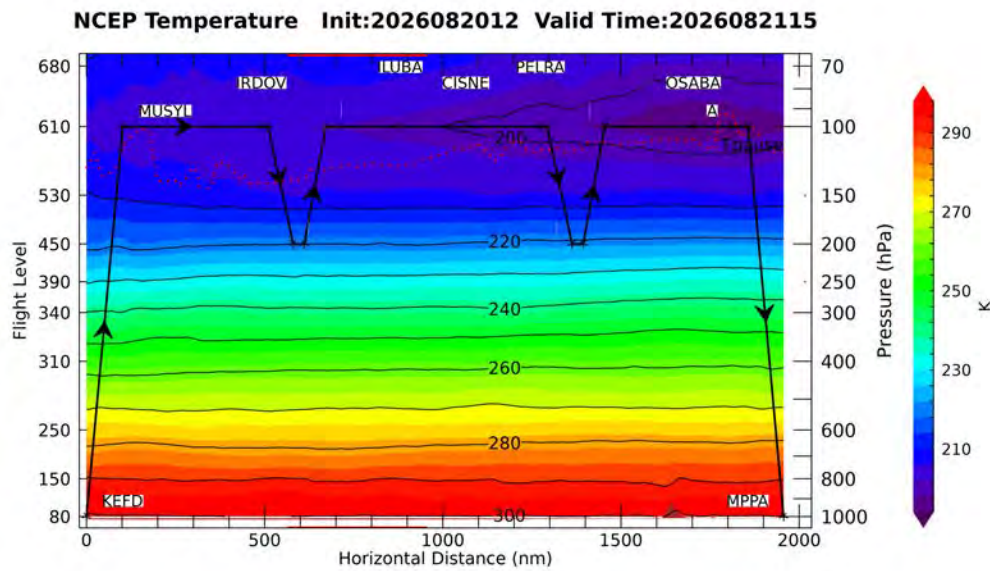
Goals:

- Transit to Panama
- 2 vertical profiles
- If weather/timing allows for it, overpass Panama to sample South American air (final decision to be made by waypoint PELRA)

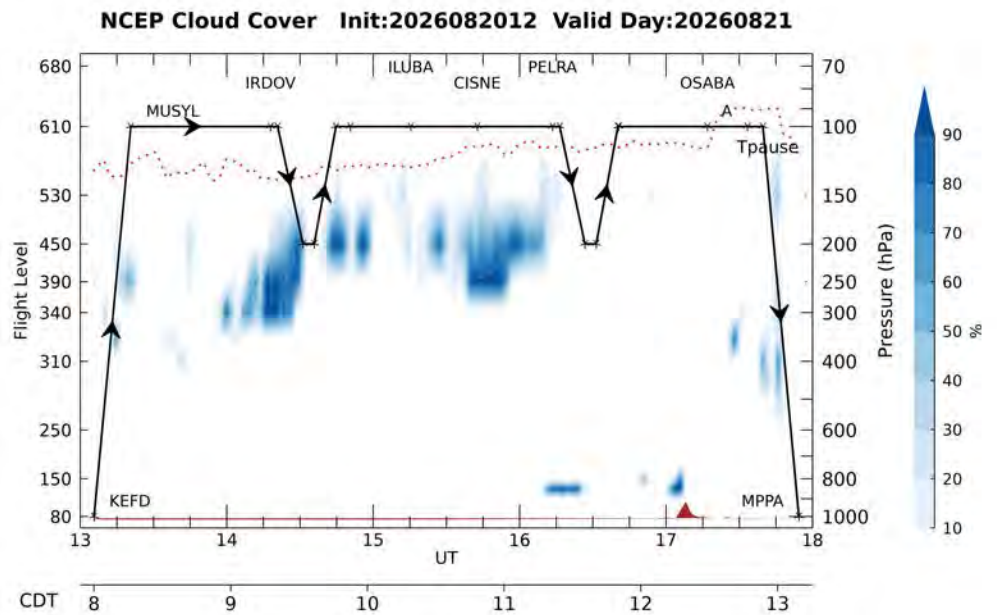


Flight Plan A Curtains 08/21

Temperature

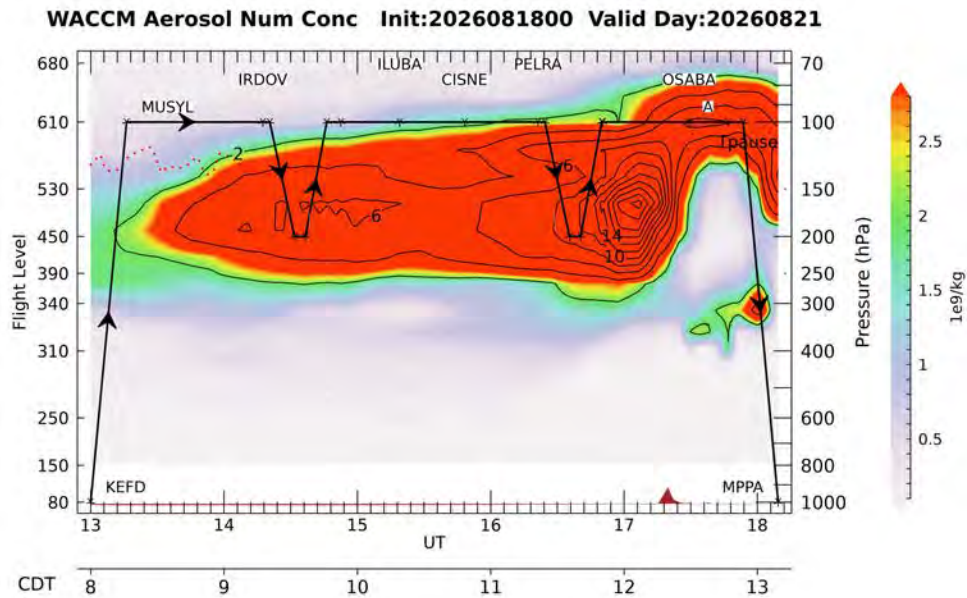


Cloud Cover

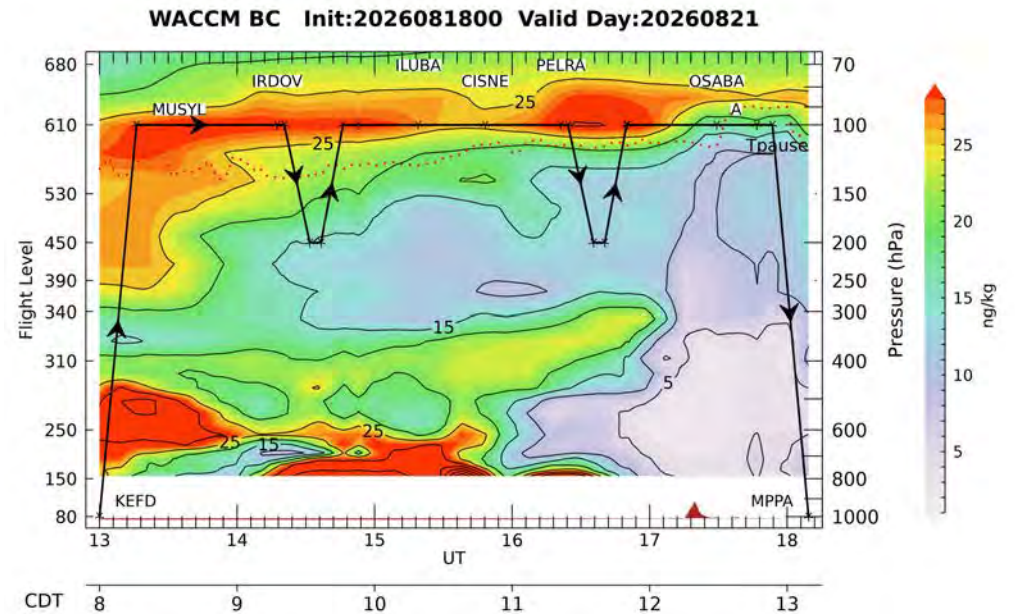


Flight Plan A Curtains for NPF and BC (WACCM)

WACCM NPF

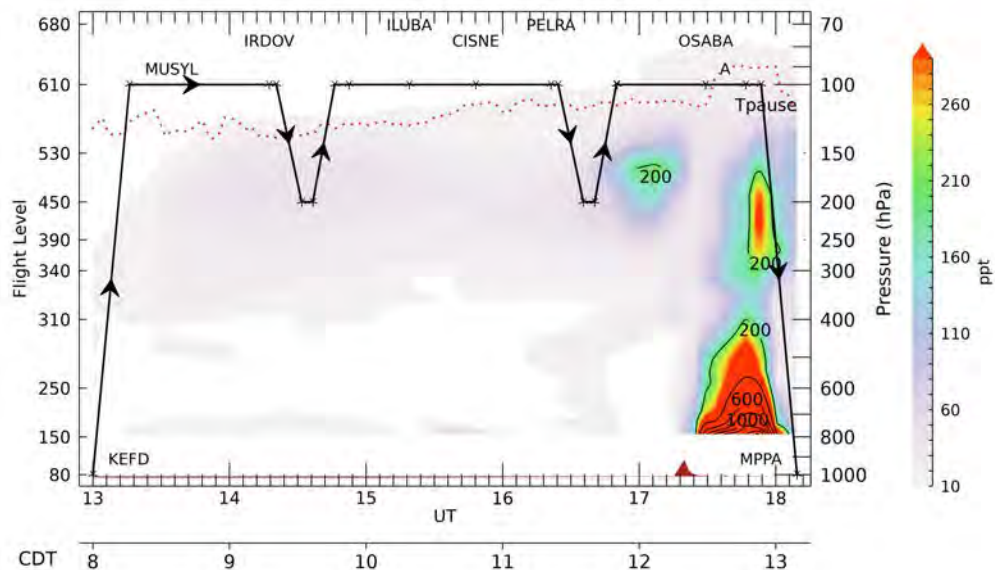


WACCM BC

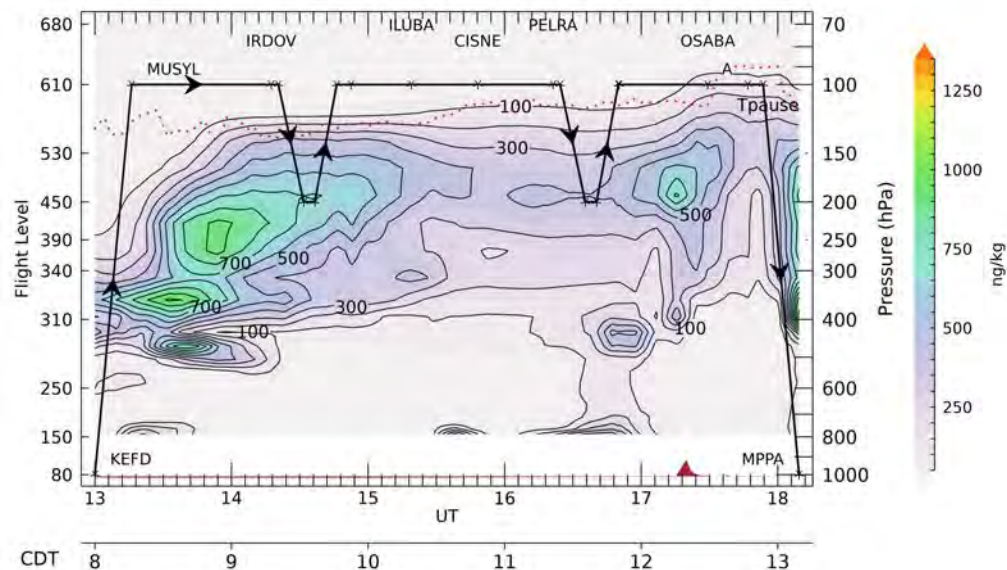


Flight Plan A Curtains for SO₂ and SOA (WACCM)

WACCM SO₂ Init:2026081800 Valid Day:20260821

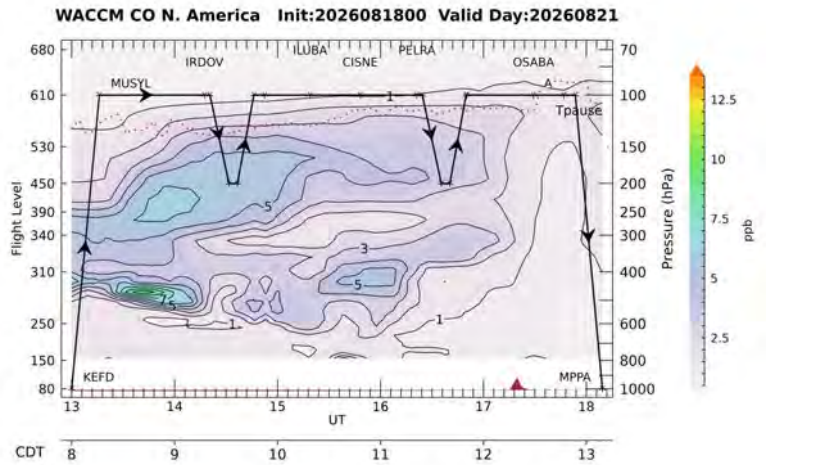
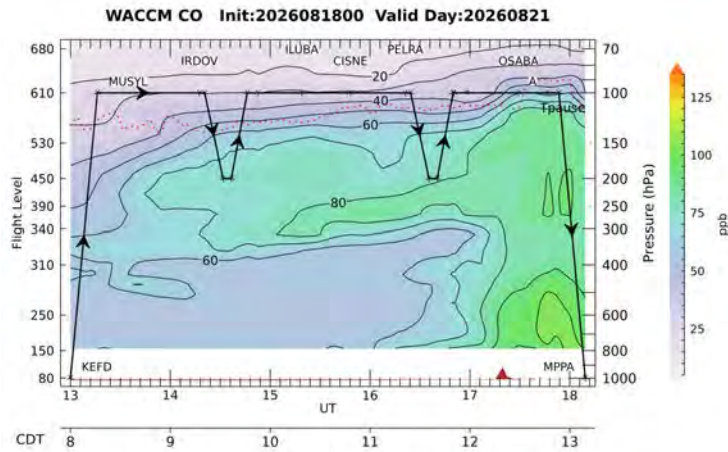


WACCM SOA Init:2026081800 Valid Day:20260821

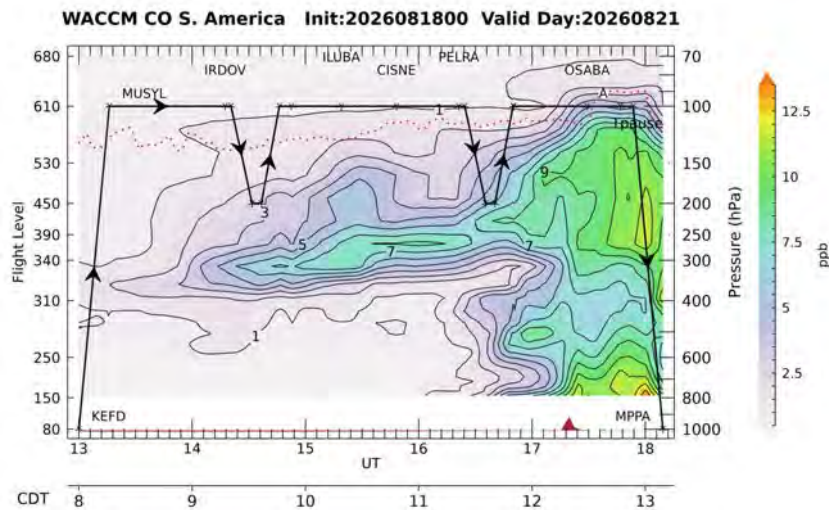


Flight Plan A Curtains for CO (long-range transport)

Total CO



CO (N. America)

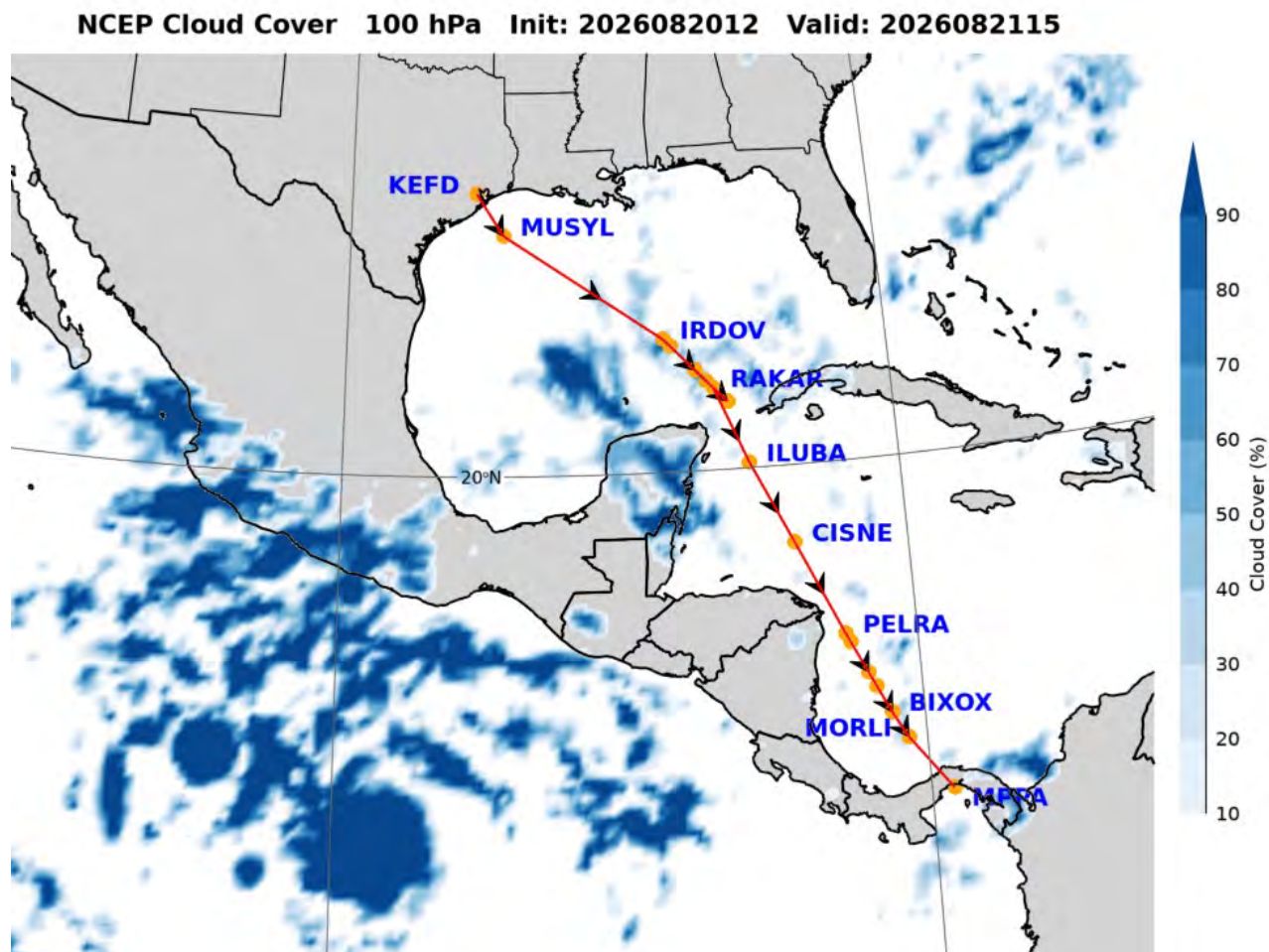


CO (S. America)

Flight Plan B for transit flight 08/21/2026

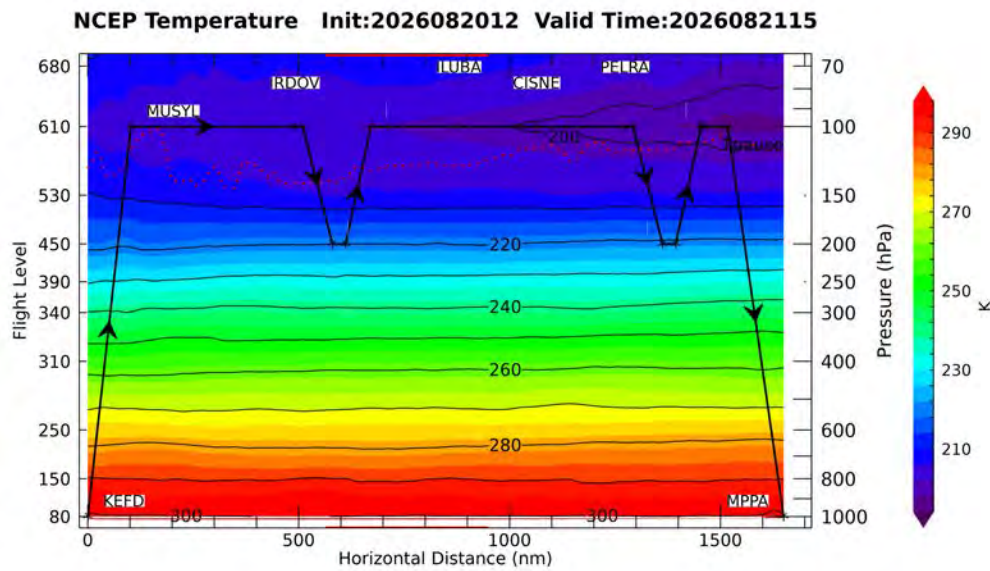
Goals:

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

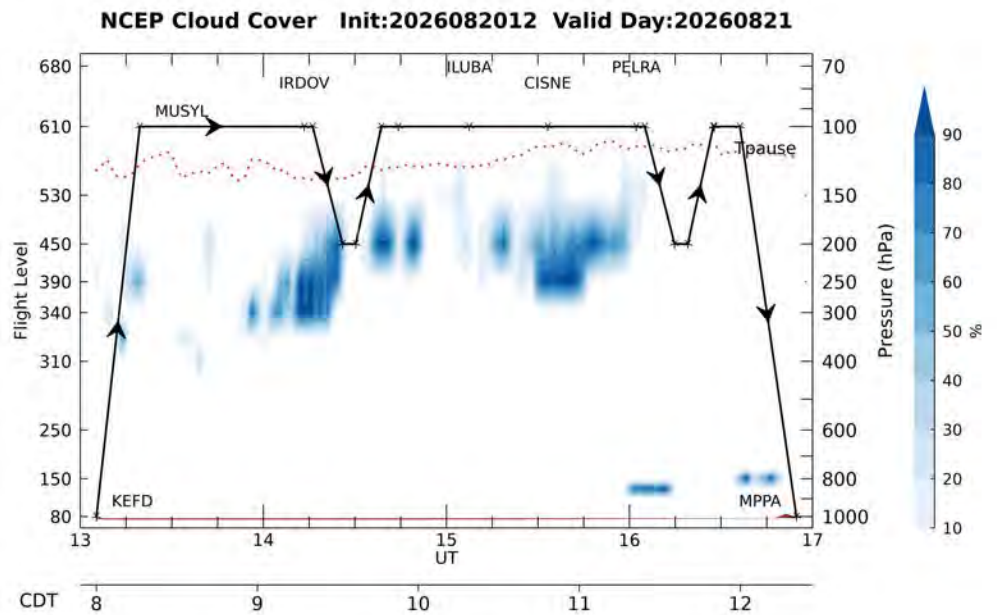


Flight Plan B Curtains 08/21

Temperature

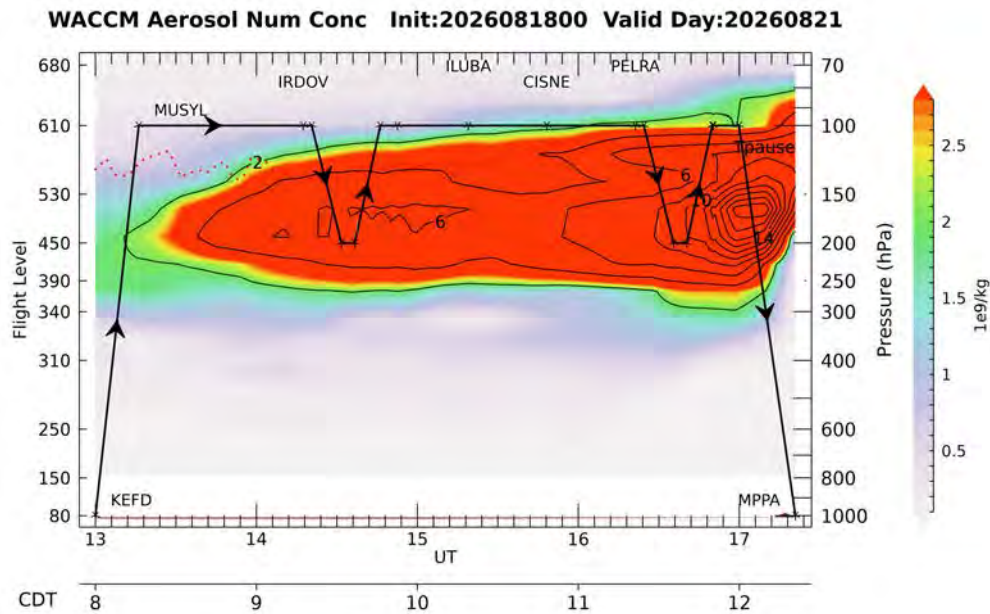


Cloud Cover

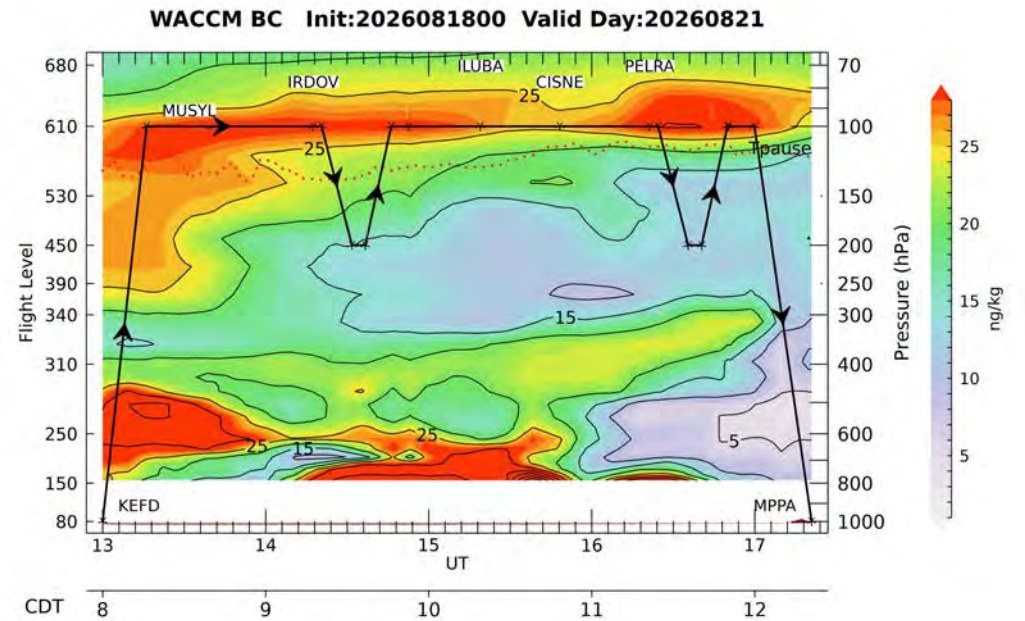


Flight Plan B Curtains for NPF and BC (WACCM)

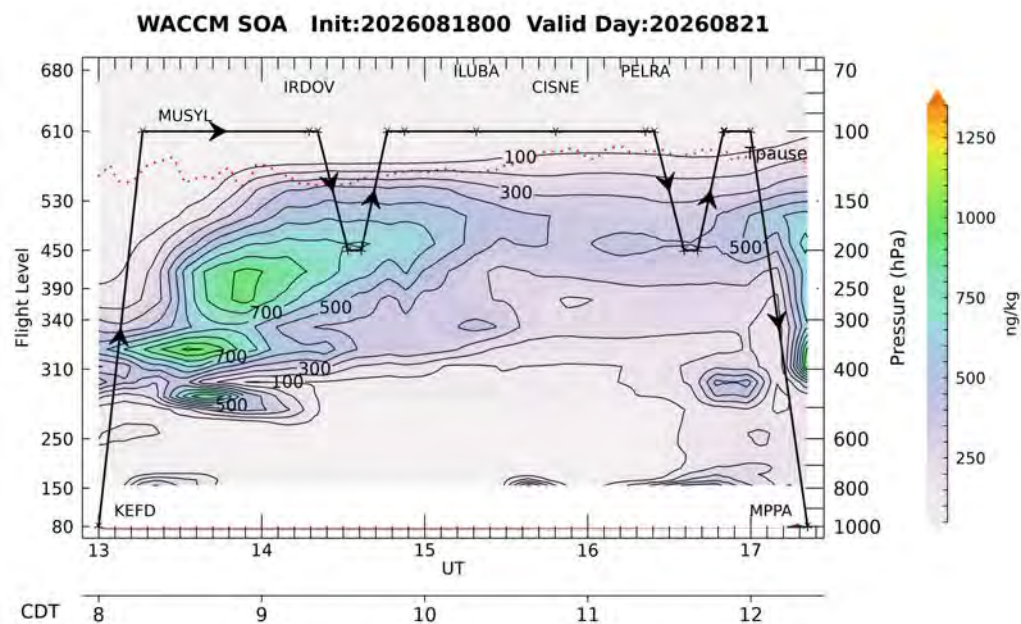
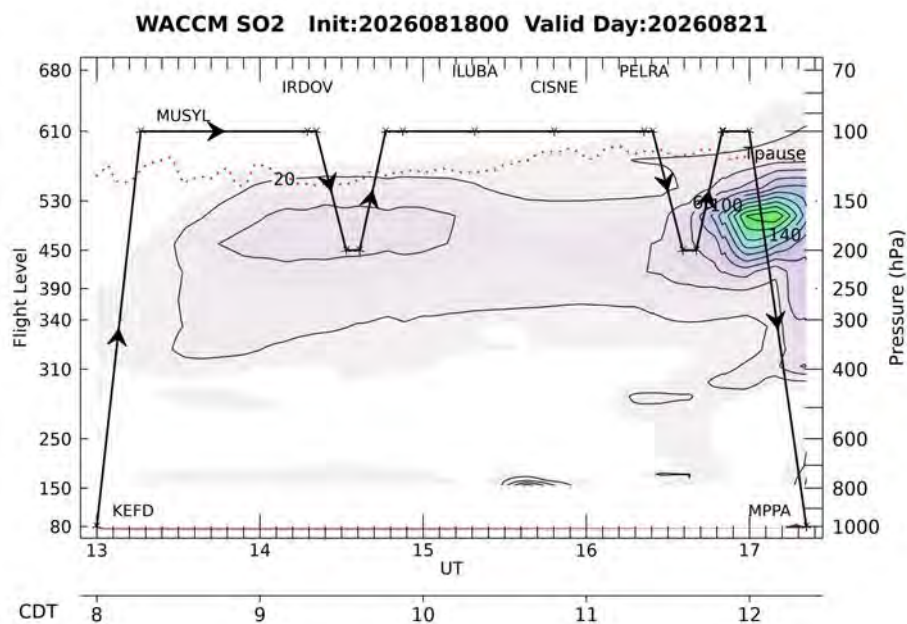
WACCM NPF



WACCM BC

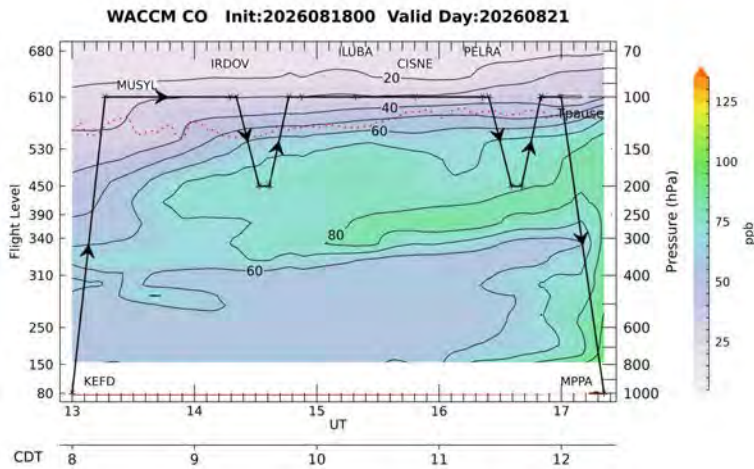


Flight Plan B Curtains for SO₂ and SOA (WACCM)

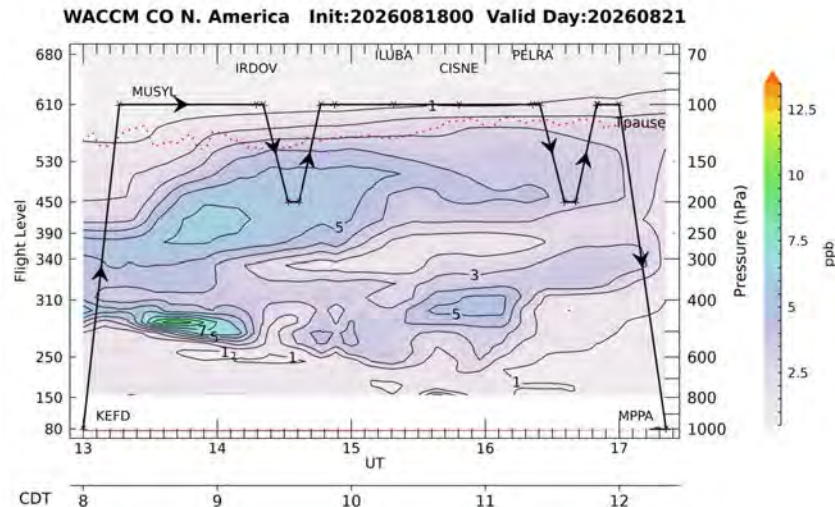


Flight Plan B Curtains for CO (long-range transport)

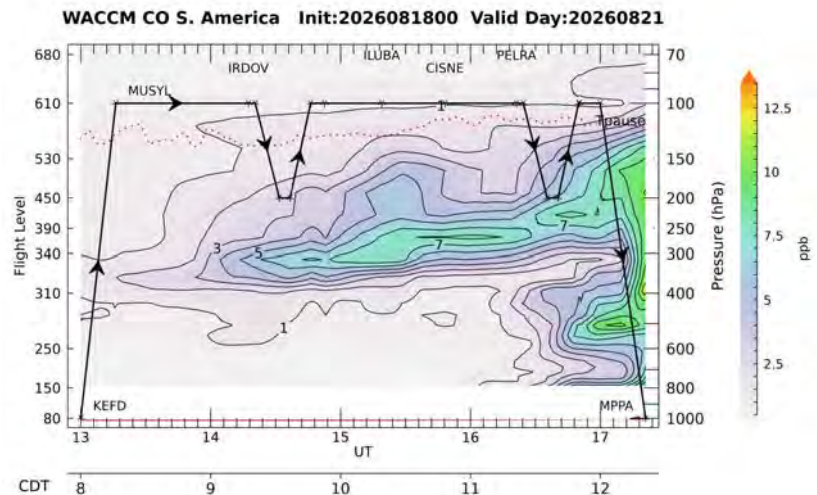
Total CO



See slightly less S. American air with the shorter flight



CO (N. America)



CO (S. America)