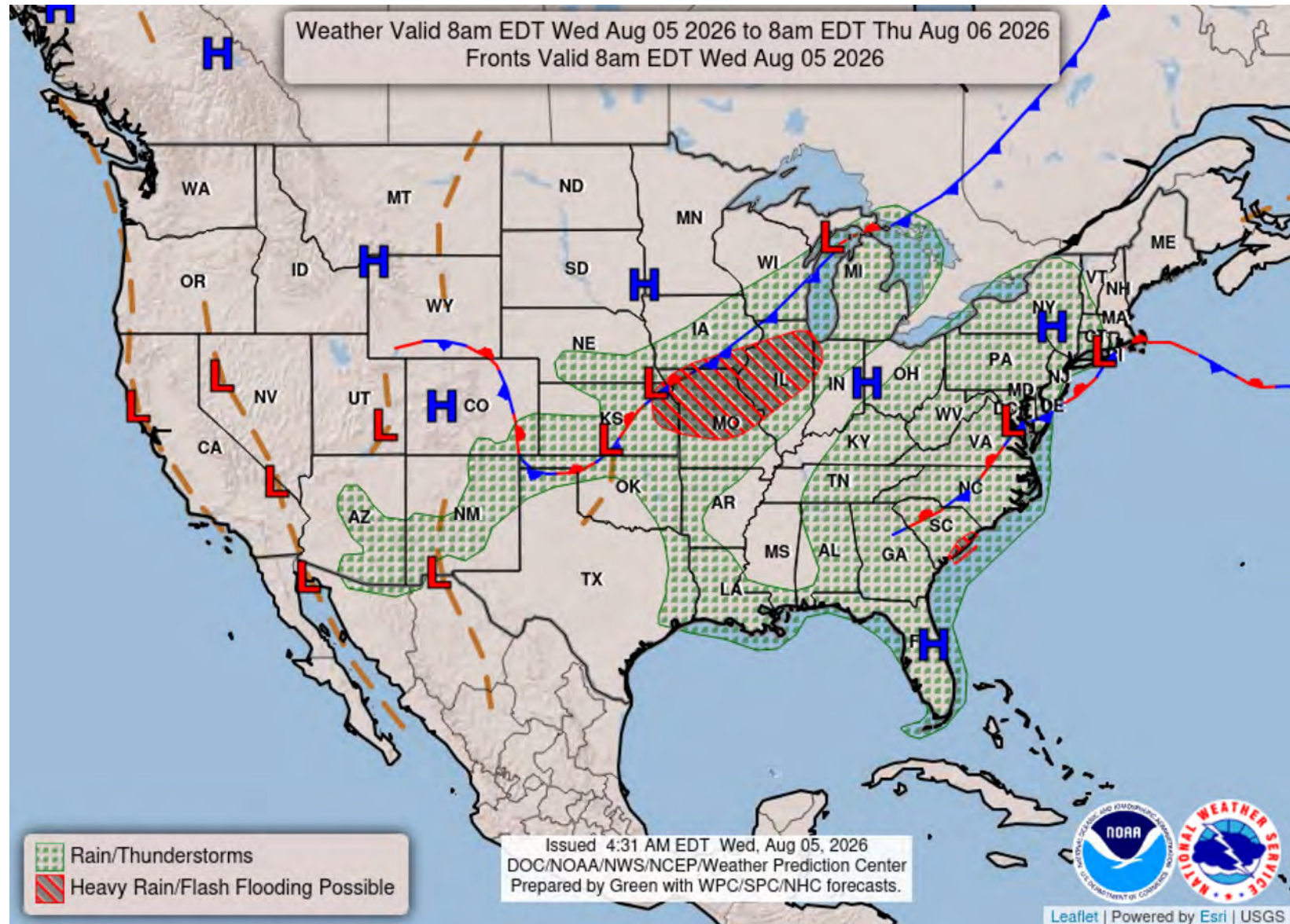


SABRE Forecast Discussion 08/05/2026

Surface Chart for Today

A chance of thunderstorm is going to happen this afternoon at our airport.

Stationary front lingers in the middle states, giving rains, thunderstorms and heavy rains.



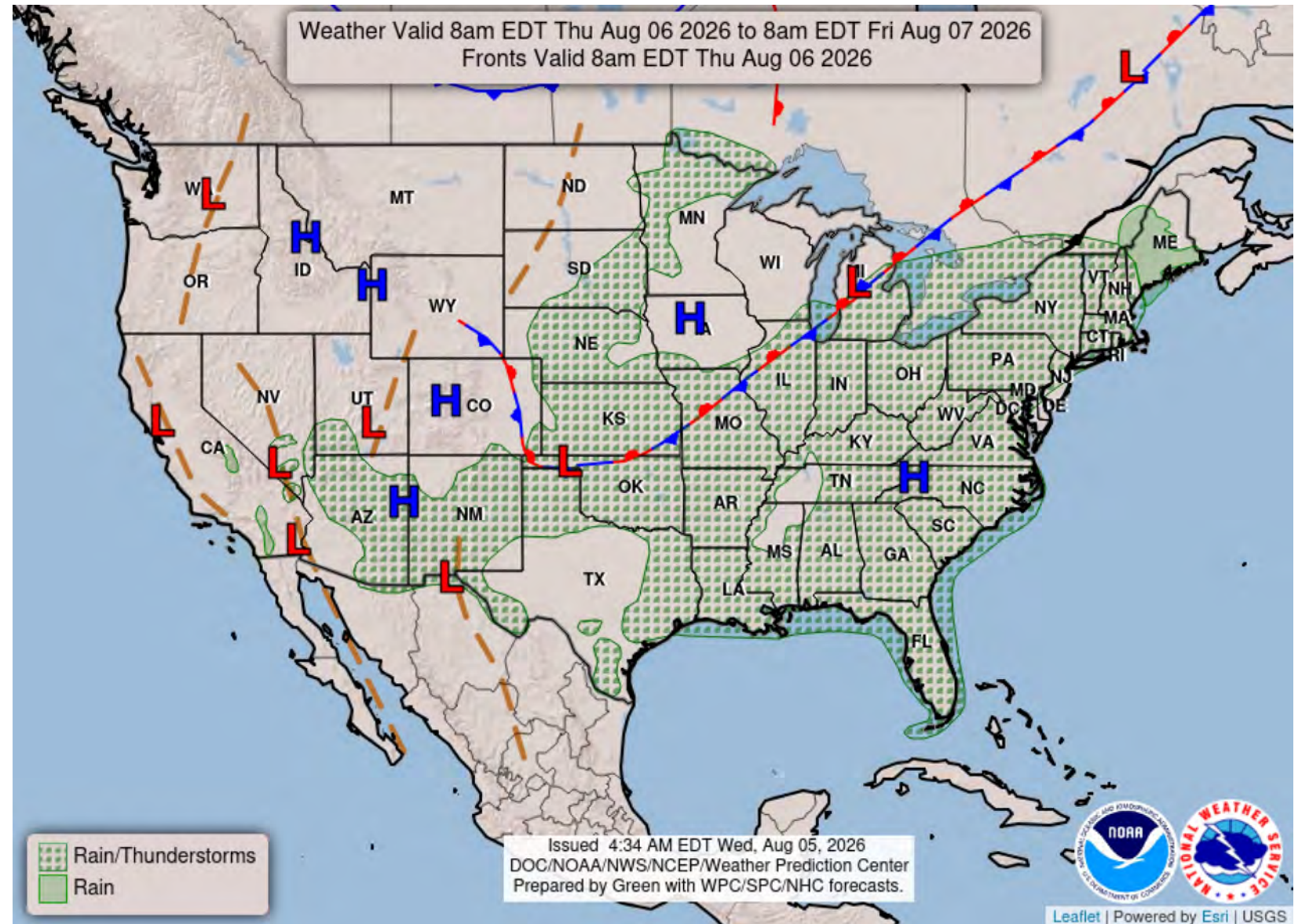
SABRE Forecast Discussion

Surface Chart for Thursday 8/6

Similar pattern as today.

A chance of thunderstorm is going to happen this afternoon at our airport.

Stationary front lingers in the middle states, giving rains, thunderstorms and heavy rains.



Houston Forecast

Today



High: 94 °F

Sunny then
Slight Chance
T-storms

Tonight



Low: 78 °F

Slight Chance
Showers then
Mostly Clear

Thursday



High: 93 °F

Patchy Fog
then Slight
Chance
T-storms

Thursday
Night



Low: 78 °F

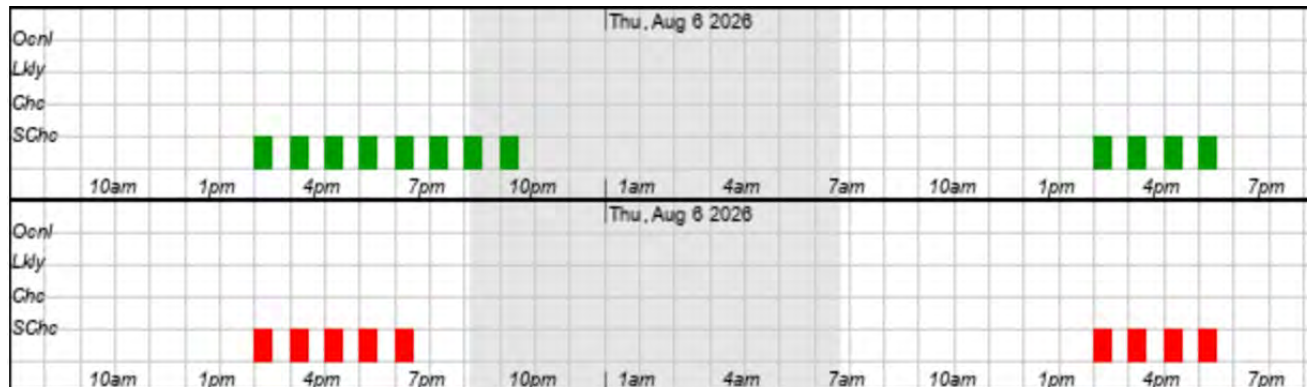
Mostly Clear

KEFD TAF

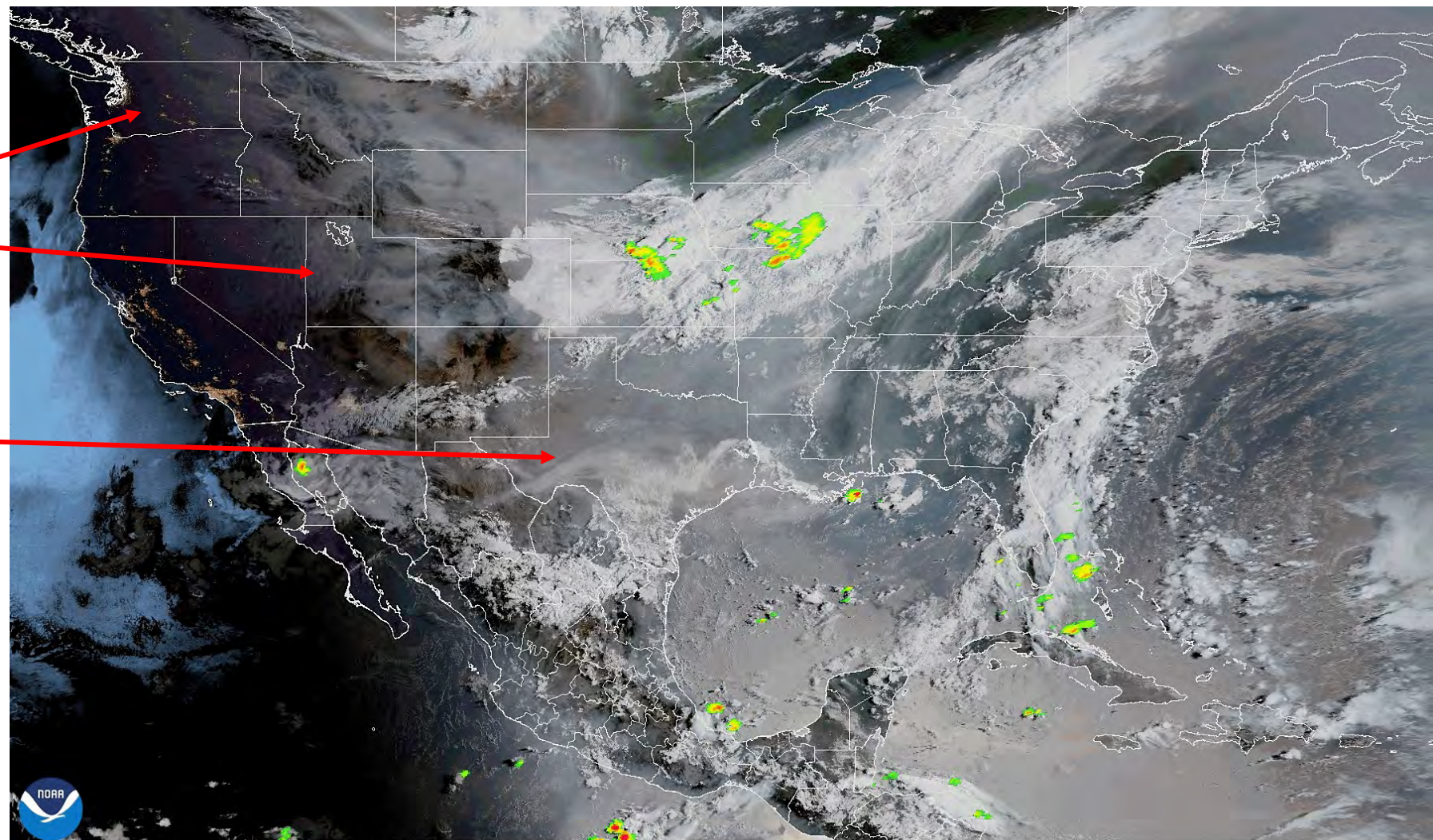
TAF KEFD 051200Z 0512/0618 19006KT 9999
SCT019 BKN027 QNH2993INS
BECMG 0515/0516 18006KT 9999 SCT030
QNH2997INS
TEMPO 0520/0523 16010G20KT 8000 -TSRA
BKN030CB
BECMG 0616/0617 18006KT 9999 VCSH
FEW012 BKN019 OVC030 QNH3004INS
TX35/0519Z TN27/0611Z

Ellington airport forecast

Chance of rain and thunderstorm after 1 pm
today and tomorrow.



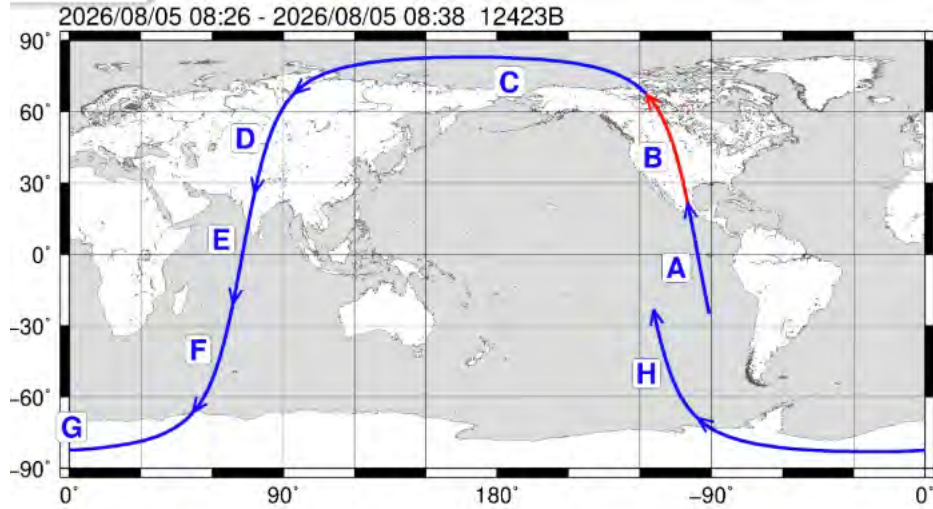
Today's Visible Satellite Images



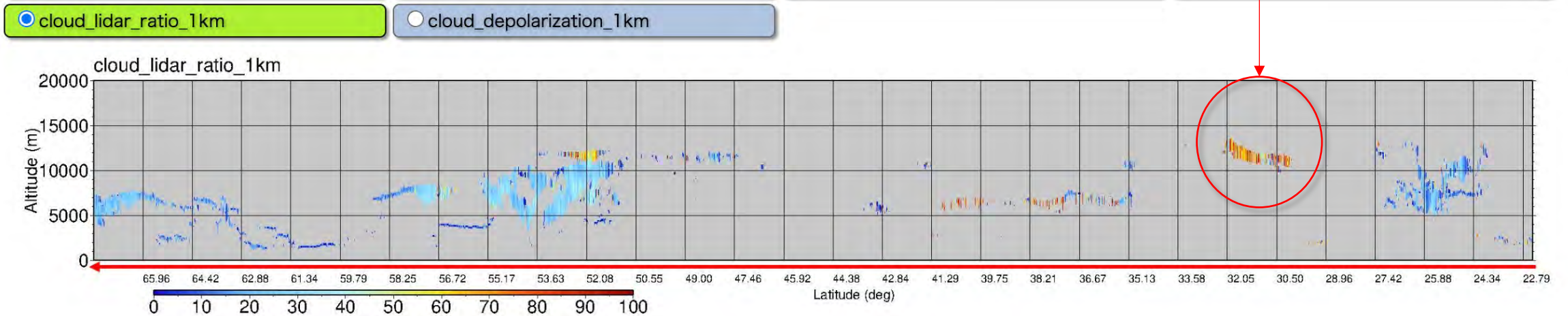
Numerous fires continue in the Pacific NW and Utah that impact middle and southern states.

Some fire smokes at south TX today.

EarthCare Today



Fire Plume in West TX

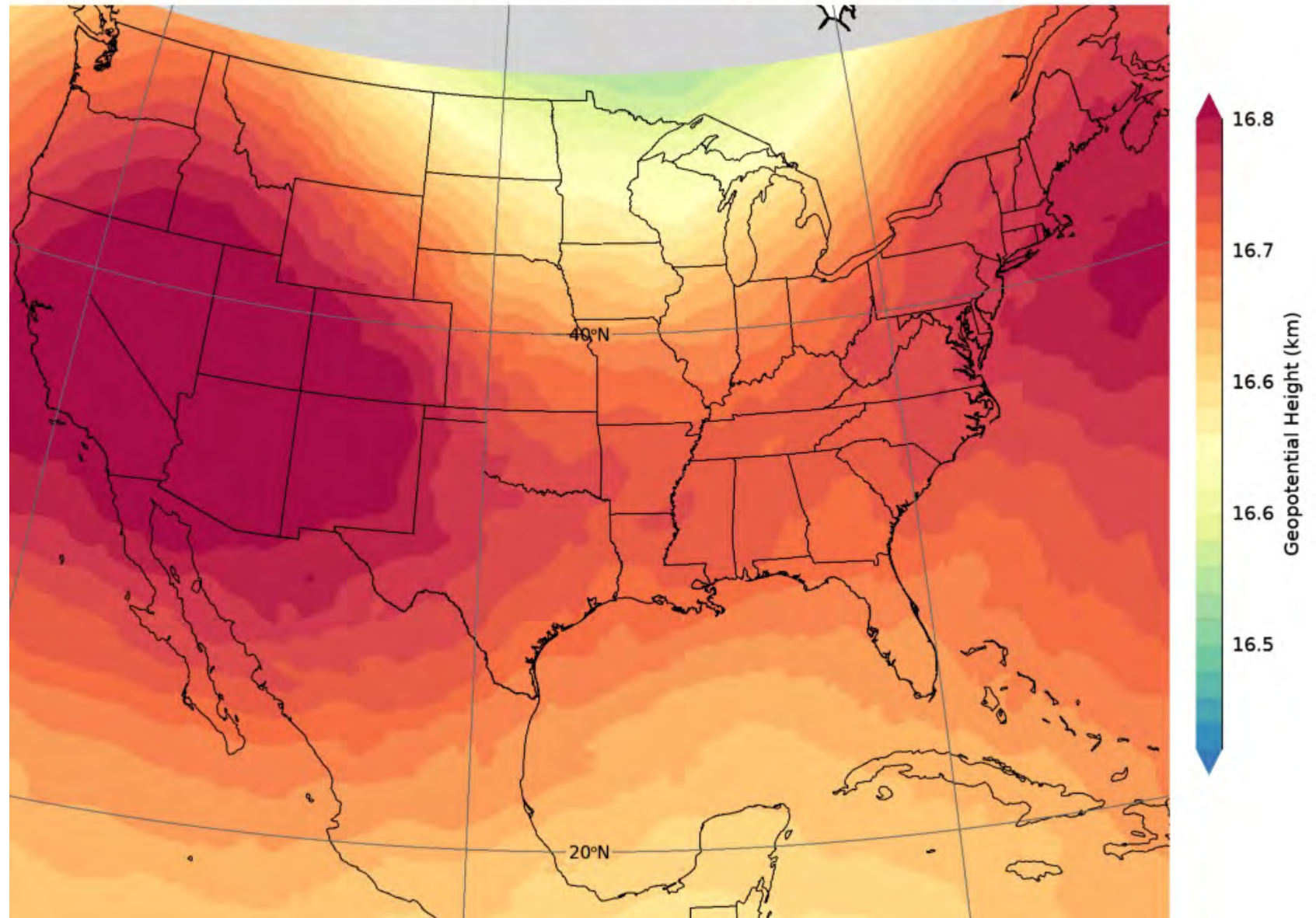


Upper Level Forecasts for Flight on Tuesday 08/04

North American Monsoon Circulation

NCEP Geopotential Height 100 hPa Init: 2026080506 Valid: 2026080618

The NAM circulation continue to shift to the west. The trough we sampled yesterday moving eastwards and coming down to lower latitudes.

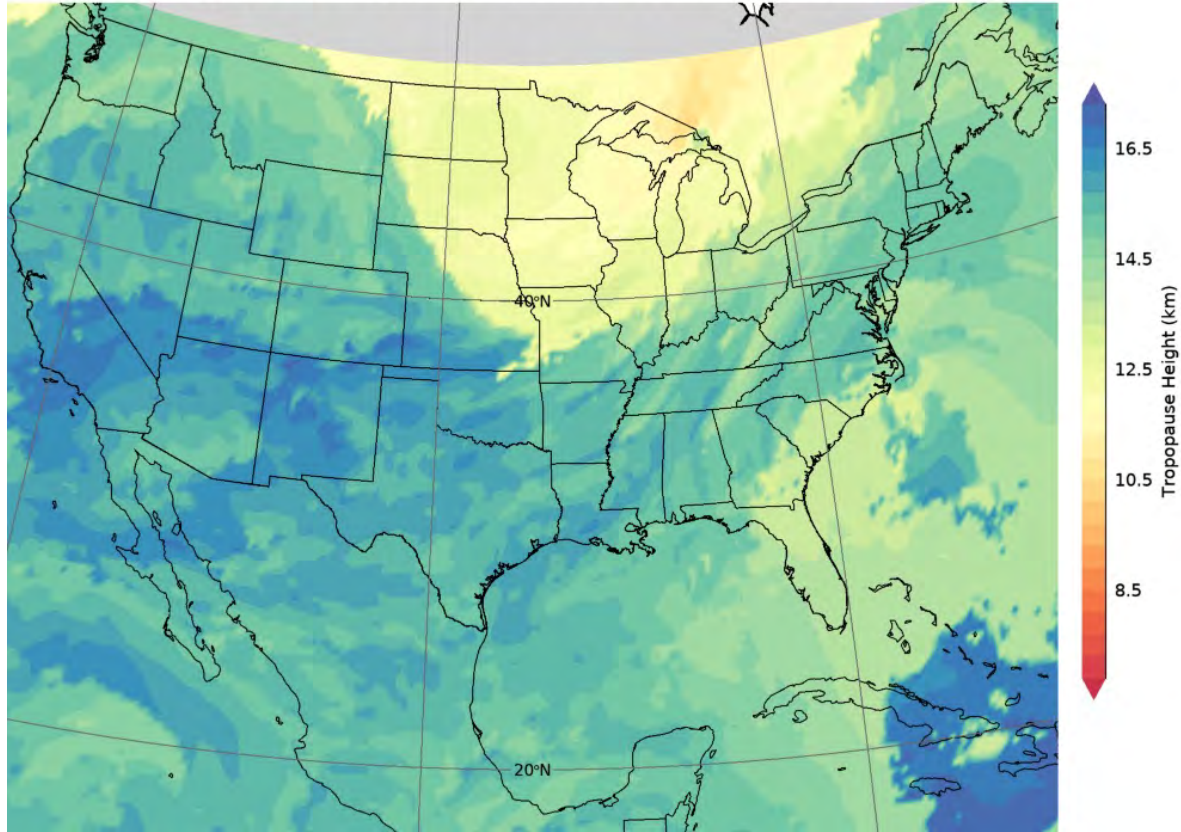


Tropopause

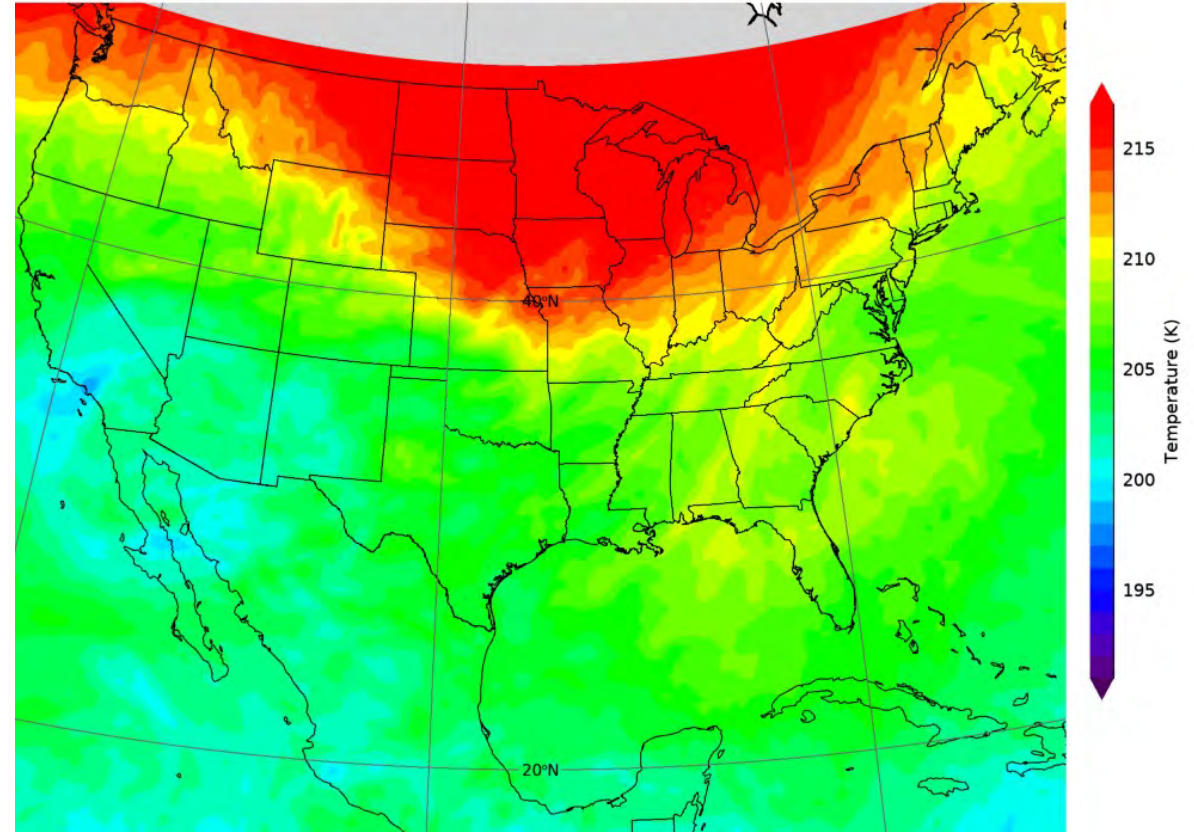
Pressure

Temperature

NCEP Tropopause Height Init: 2026080506 Valid: 2026080618



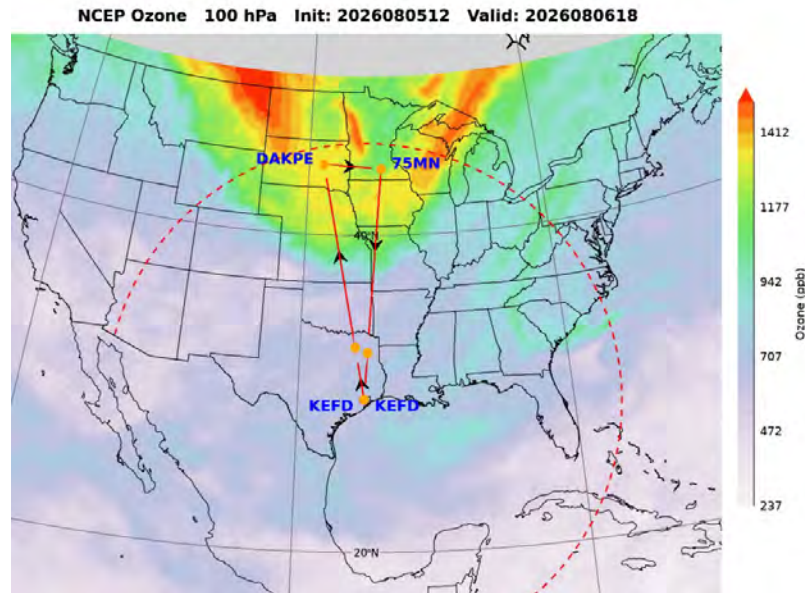
NCEP Temperature 100 hPa Init: 2026080506 Valid: 2026080618



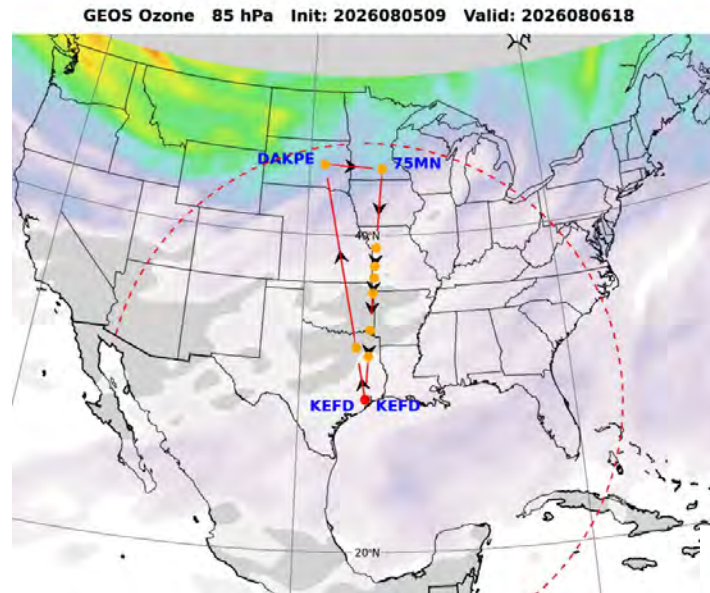
Upper level trough over the northeast US and down to 40 N latitude as indicated by NCEP.

Trace Gases

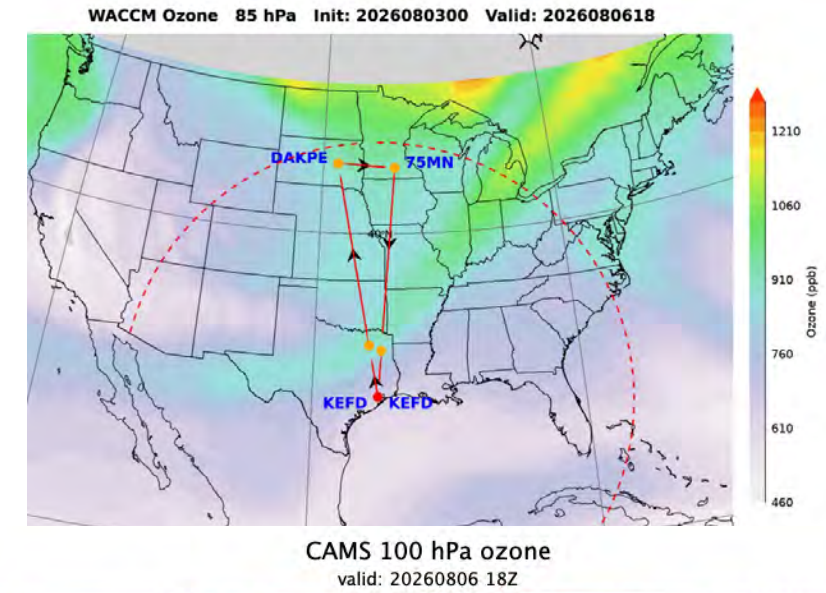
NCEP Ozone 100 hpa



GEOS Ozone 85 hpa

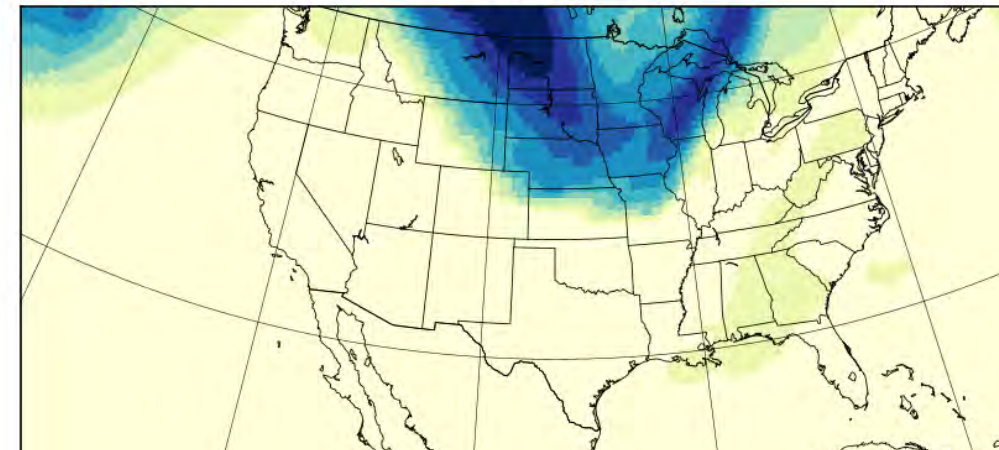


WACCM Ozone 85 hpa



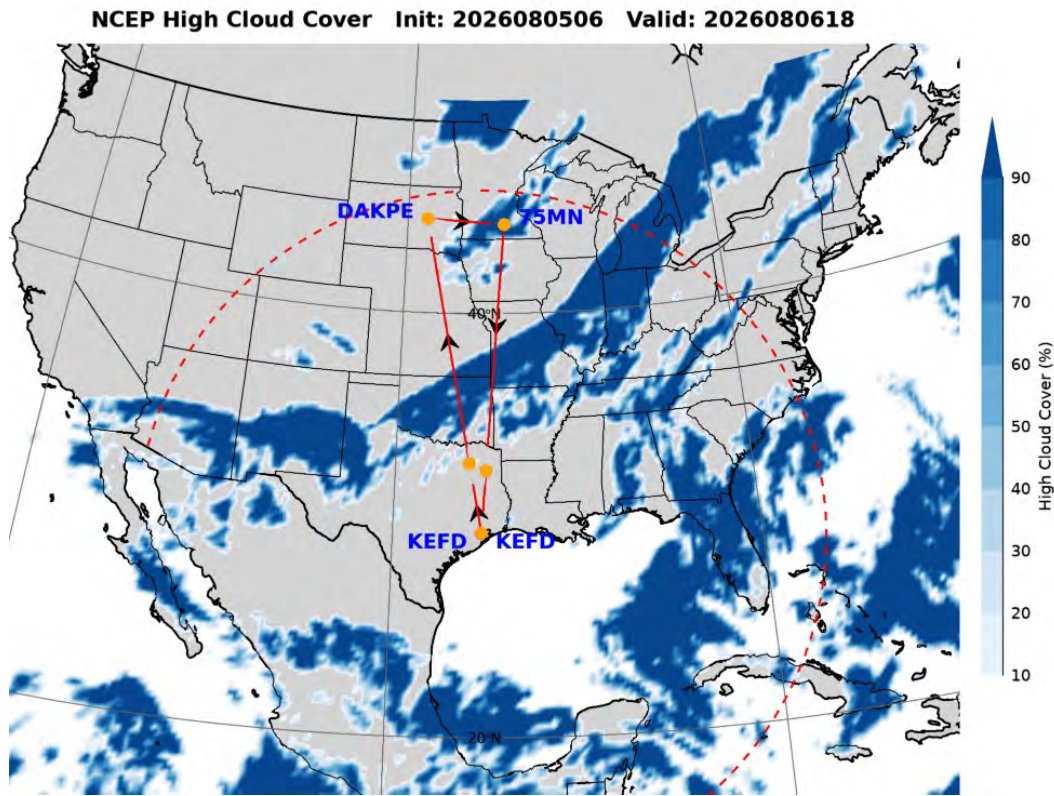
Both NCEP and WACCM trough feather come further south than GEOS.

Based on the monitoring on Tuesday, we see NCEP tends to have higher ozone, GEOS too low in the south, and WACCM's value is in the middle, but the filament features are questionable.

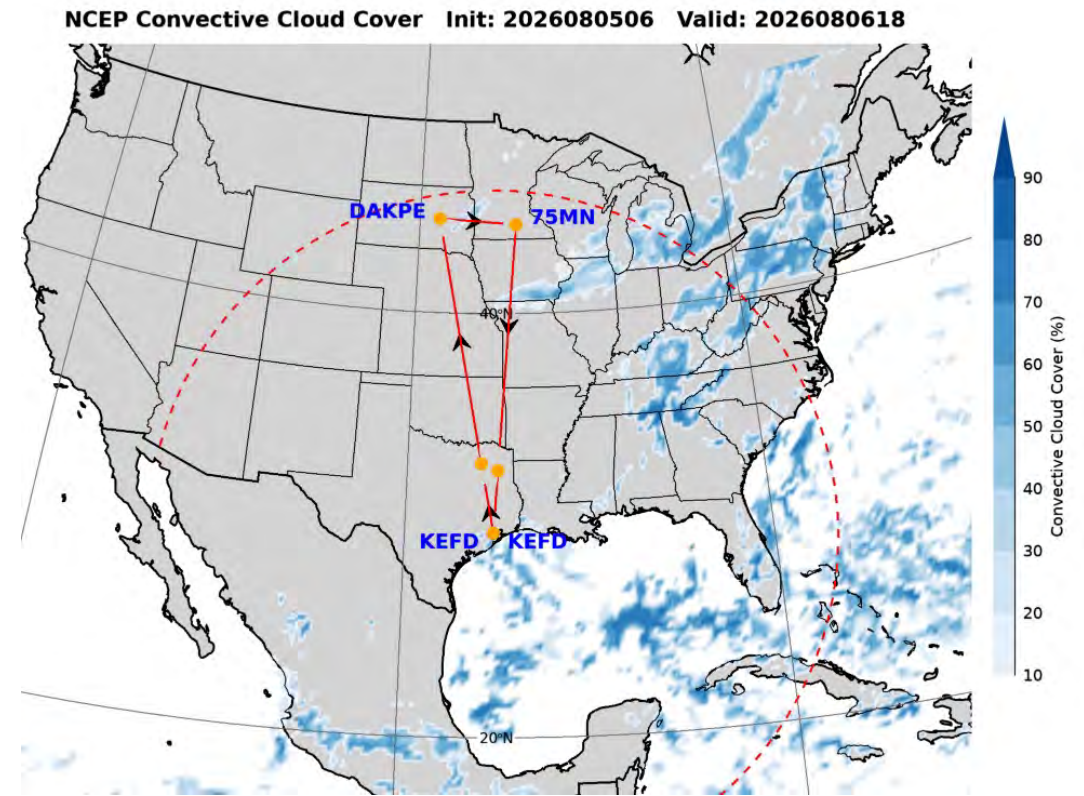


Clouds

NCEP High Cloud cover



NCEP convective cloud cover



Some high clouds on the way back if we decide to do profile. Convective clouds are quite on the way.

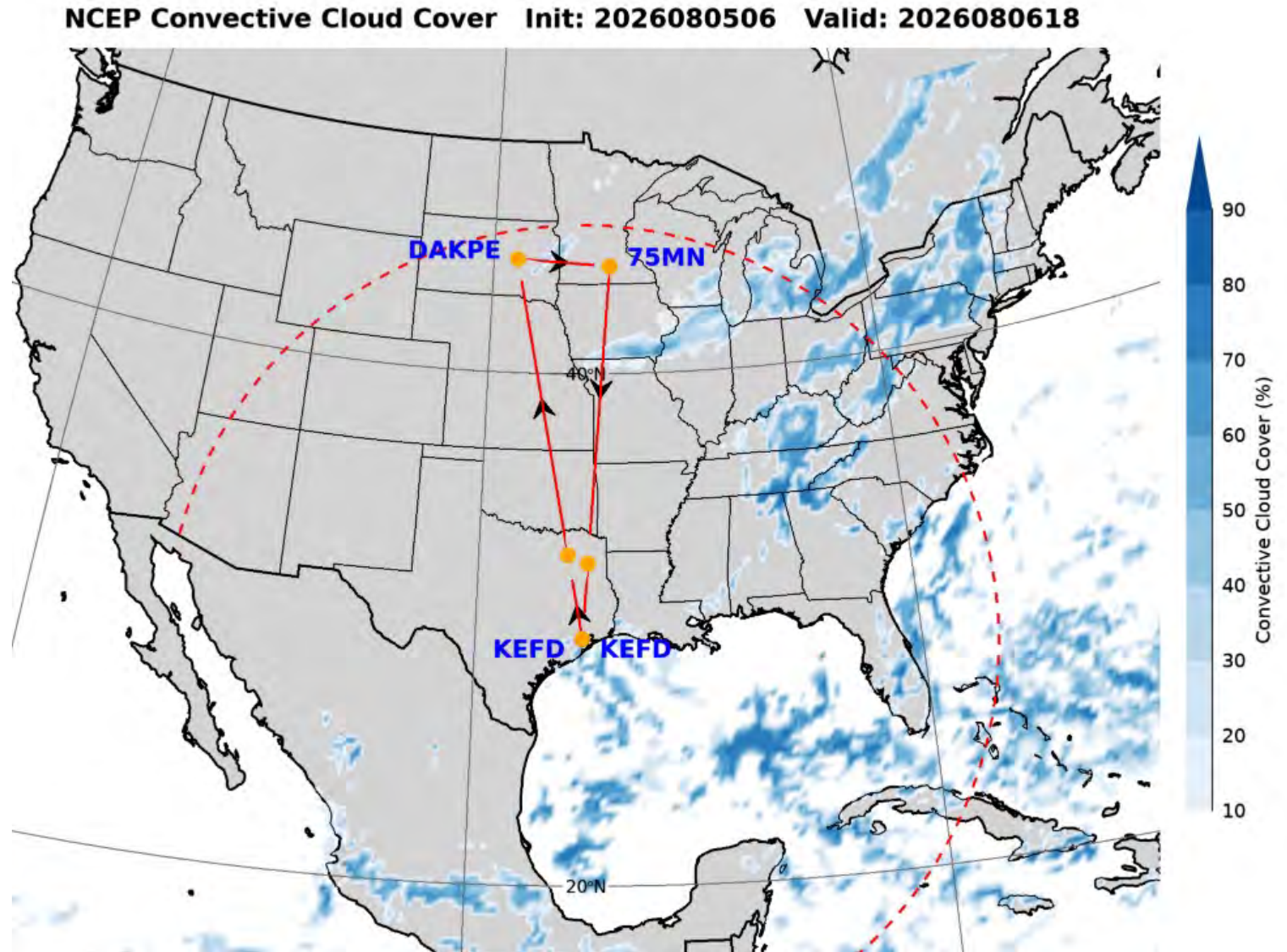
Flight Plan 08/04

Goals:

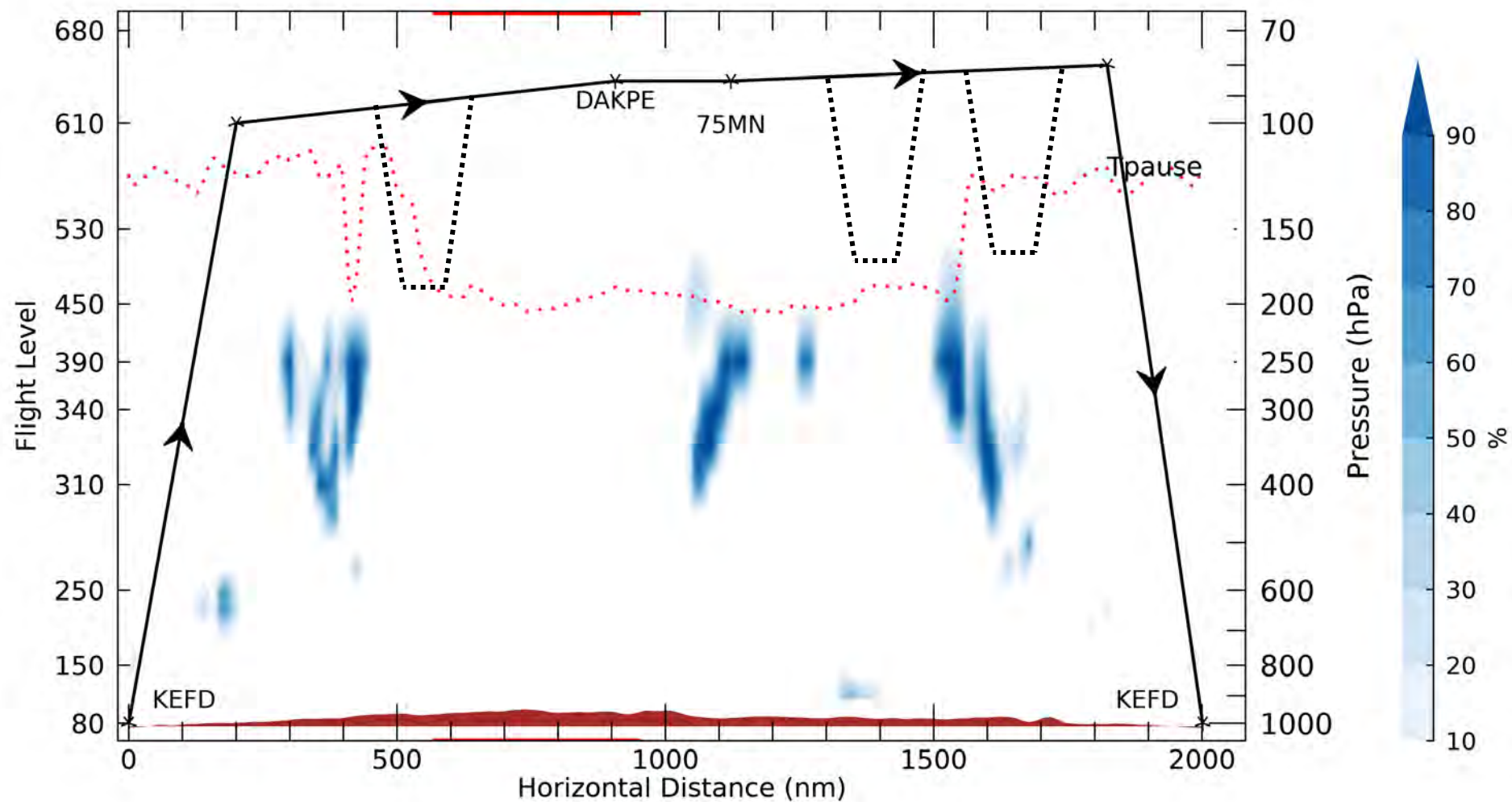
- Sample as deep into the stratosphere as possible by flying N towards forecast upper-level trough and crossing inside the trough.
- Profile according to the fire plume prediction from INSPYRE to capture PyroCb plumes.

Plan:

1. Fly direct from KEFD to the North point DAKPE. Cruise climb on route with a 2 min sustained zoom at North point near DAKPE.
2. Fly East to 75MN before returning.
3. During the flight, perform several vertical profiles down to ~45 kft with descent rate of 1000 ft/min with at least 7 min leg at bottom to capture PyroCb plumes.
4. Just before final descent into KEFD perform 2 min sustained zoom (High flyer return).
5. Final descent rate less than 2000 ft/sec.

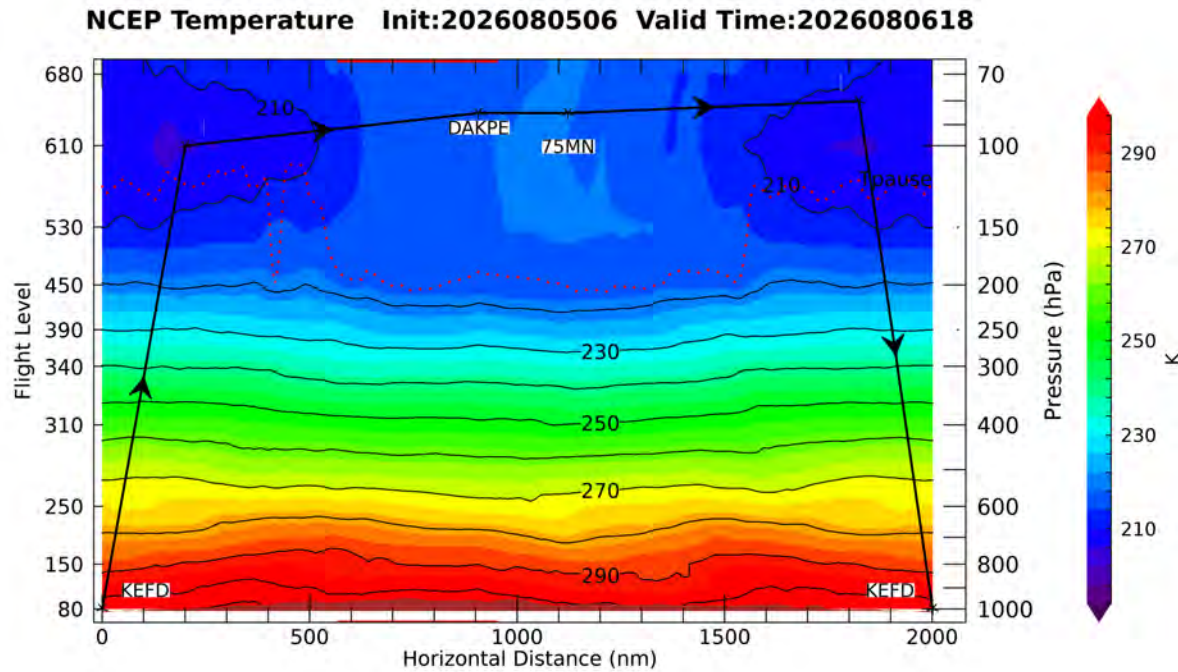


NCEP Cloud Cover Init:2026080506 Valid Time:2026080618

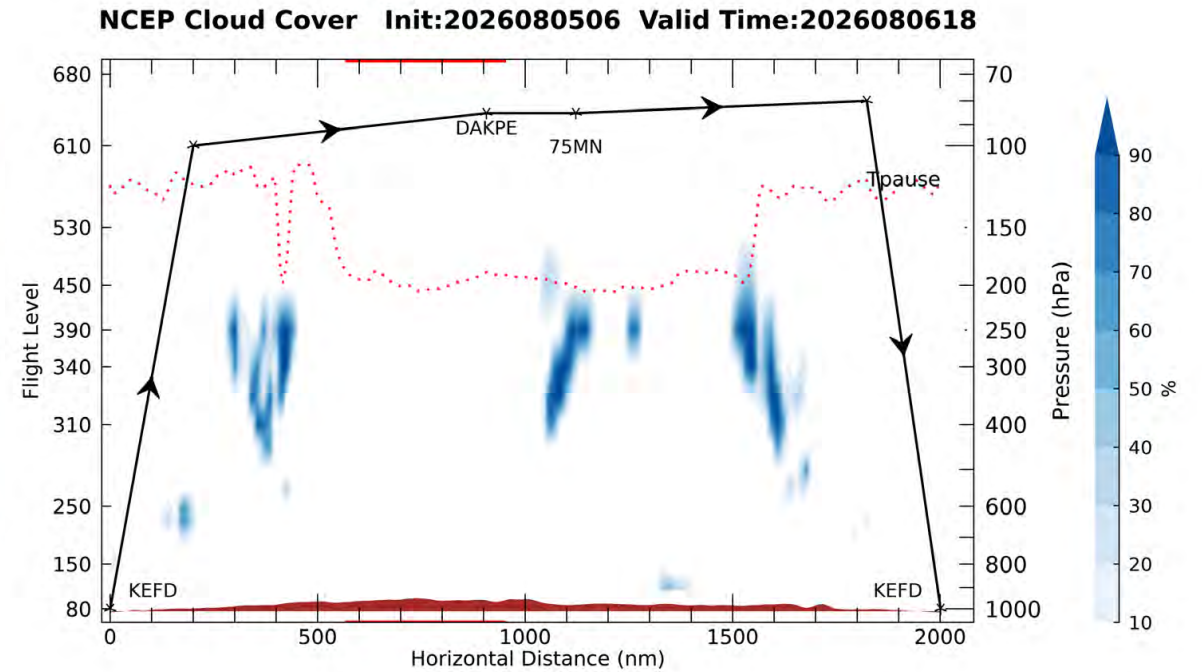


Flight Plan Curtains 08/04

Temperature

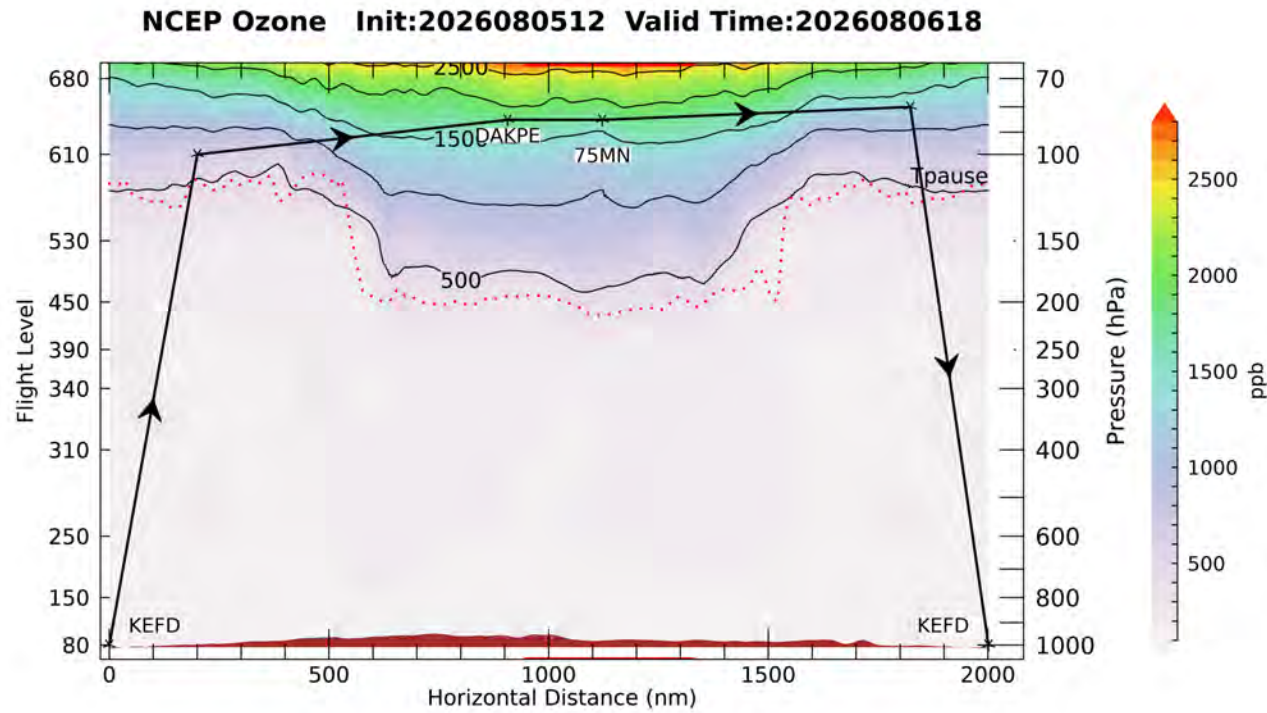


Clouds

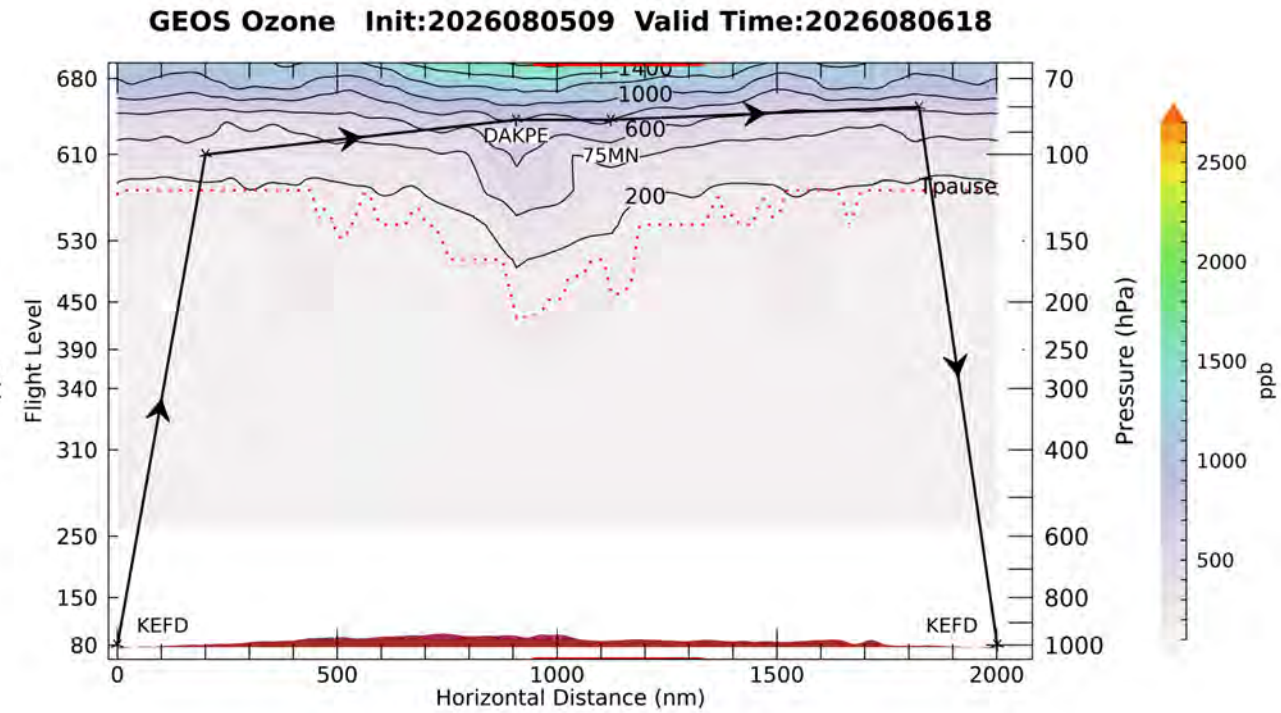


Flight Plan Curtains 08/04

NCEP ozone

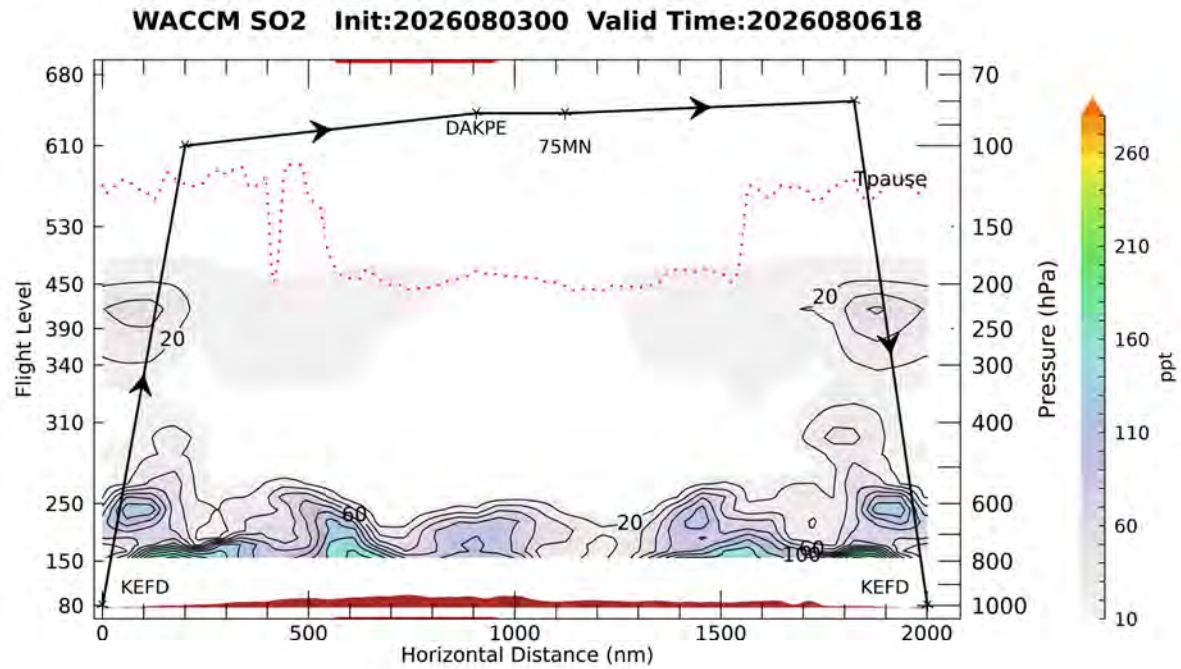


GEOS Ozone



Flight Plan Curtains 08/04

WACCM SO2



WACCM NPF

