Flight Day Conditions

April 13 and beyond….. 2008

Austin Cross
Andy Latto
Henry Fuelberg

“Your Eyes to the Skies”

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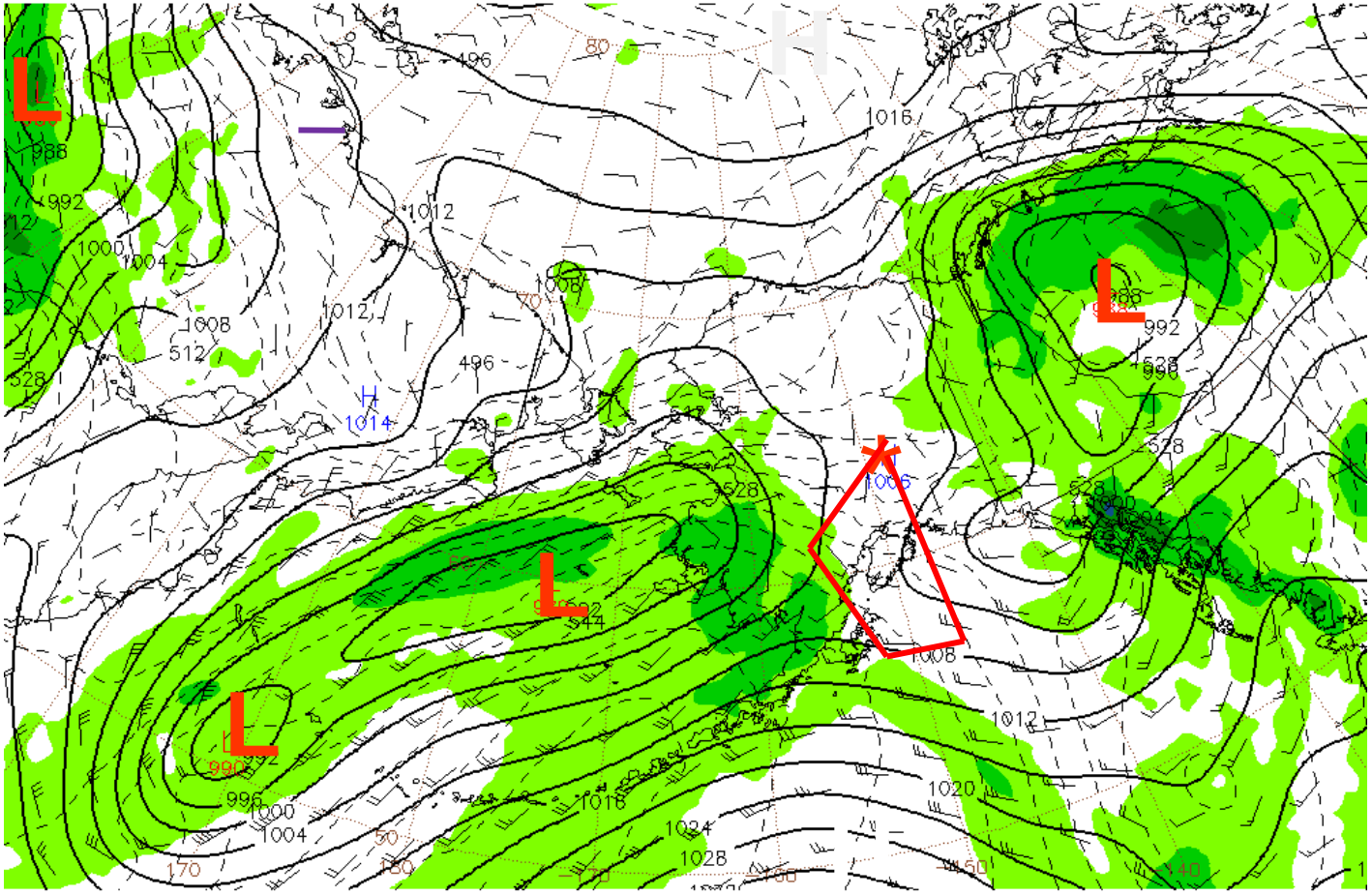
UNIVERSITY OF ALASKA
FAIRBANKS

Forecast For Sunday

FSU WRF Forecast Valid 1800 Z April 13
Sea Level Pressure, 6hr Precipitaton



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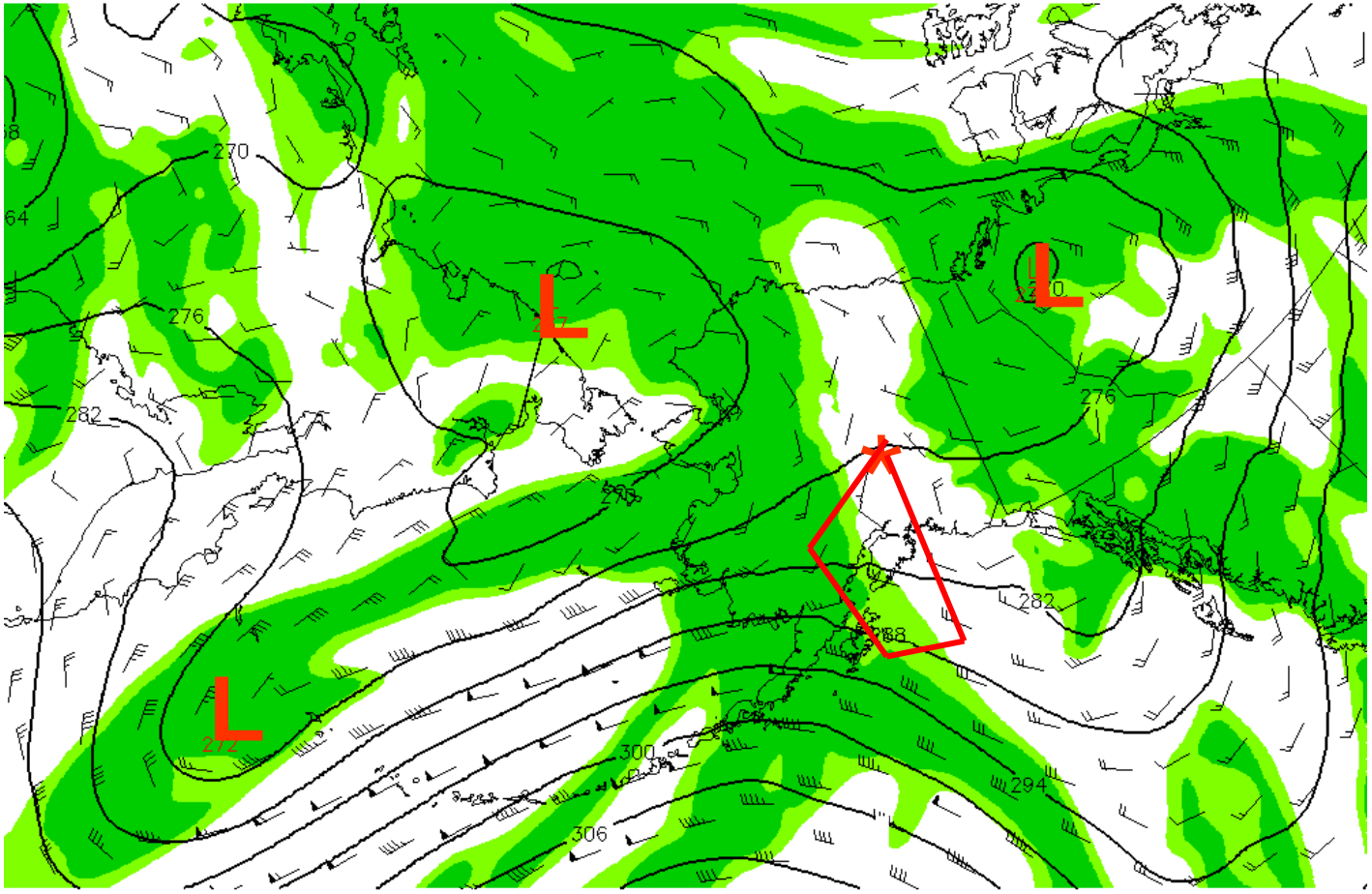
FSU WRF Forecast Valid 1800 Z April 13
700 hPa Heights and RH



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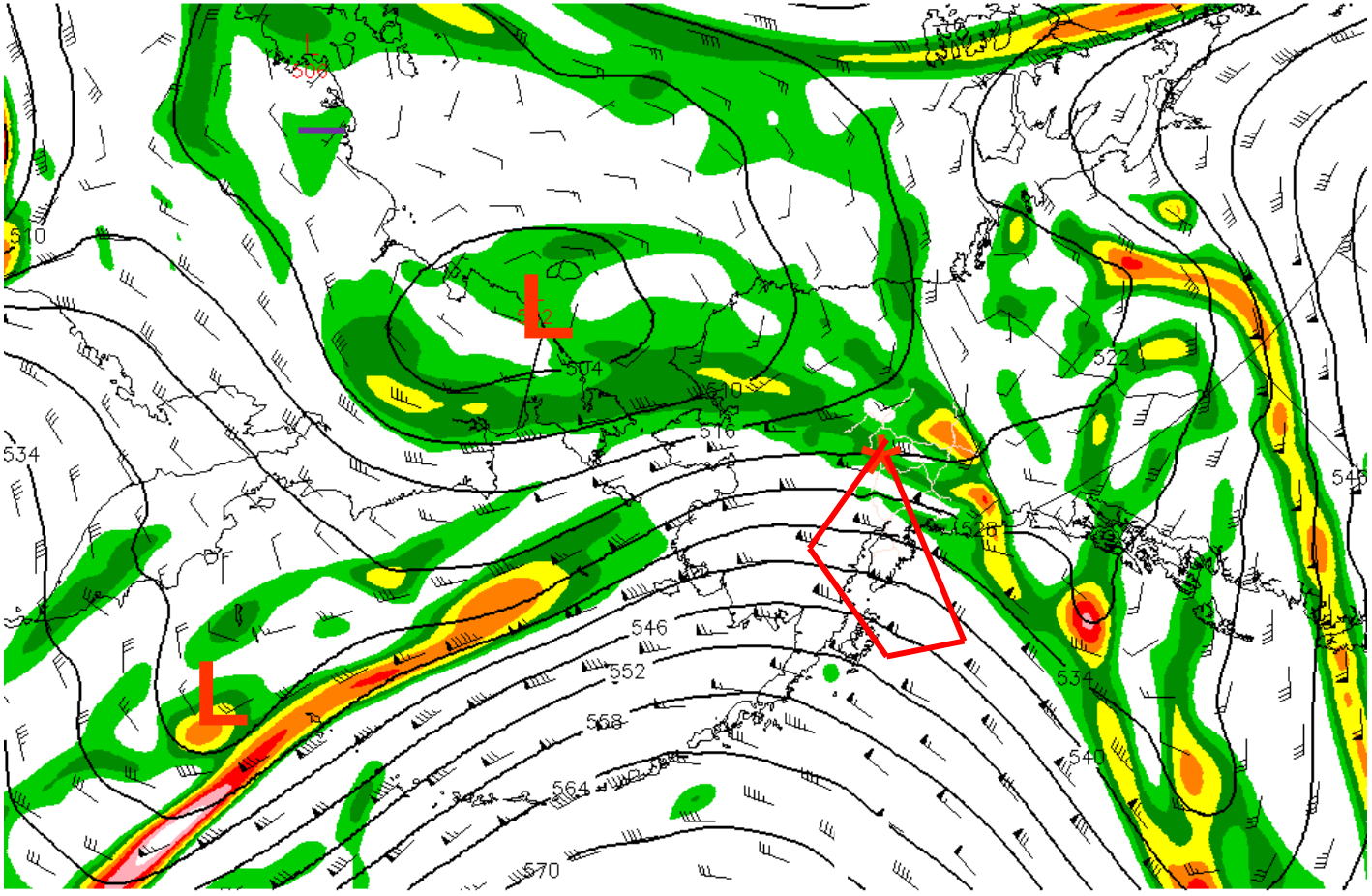
Department of Atmospheric Sciences

FSU WRF Forecast Valid 1800 Z April 13
500 hPa Heights, Winds and Vorticity



080413/1800V042 gfs 500 mb Height (dm), Absolute Vorticity, Wind (kts)

16 20 24 28 32 36 40

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Overview – Tropopause height – April 13 1000 AK (18Z April 13)

Tropopause height:

- 400mb – 500mb
- 500mb – 550mb
- 550mb – 600mb
- < 600mb

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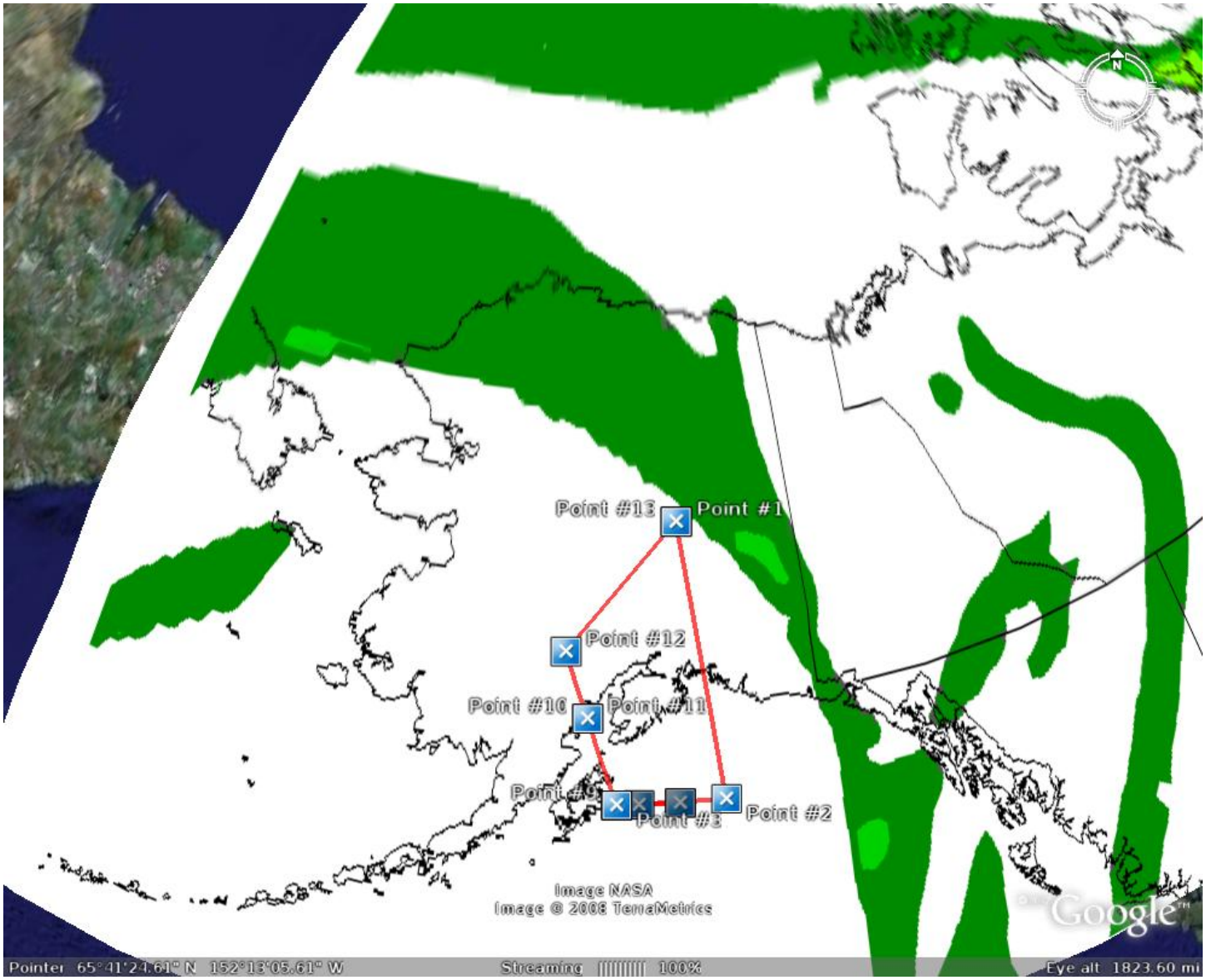
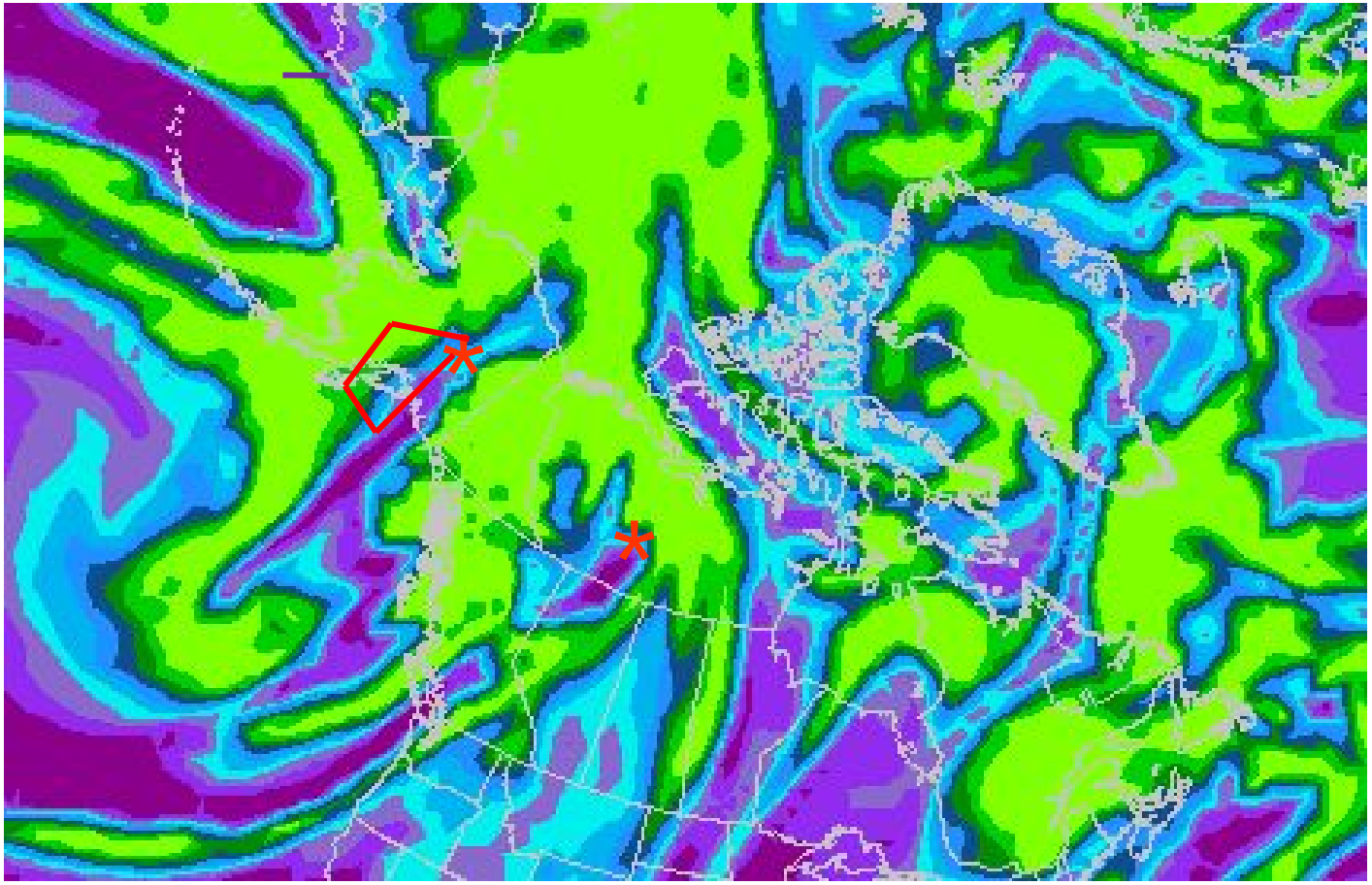
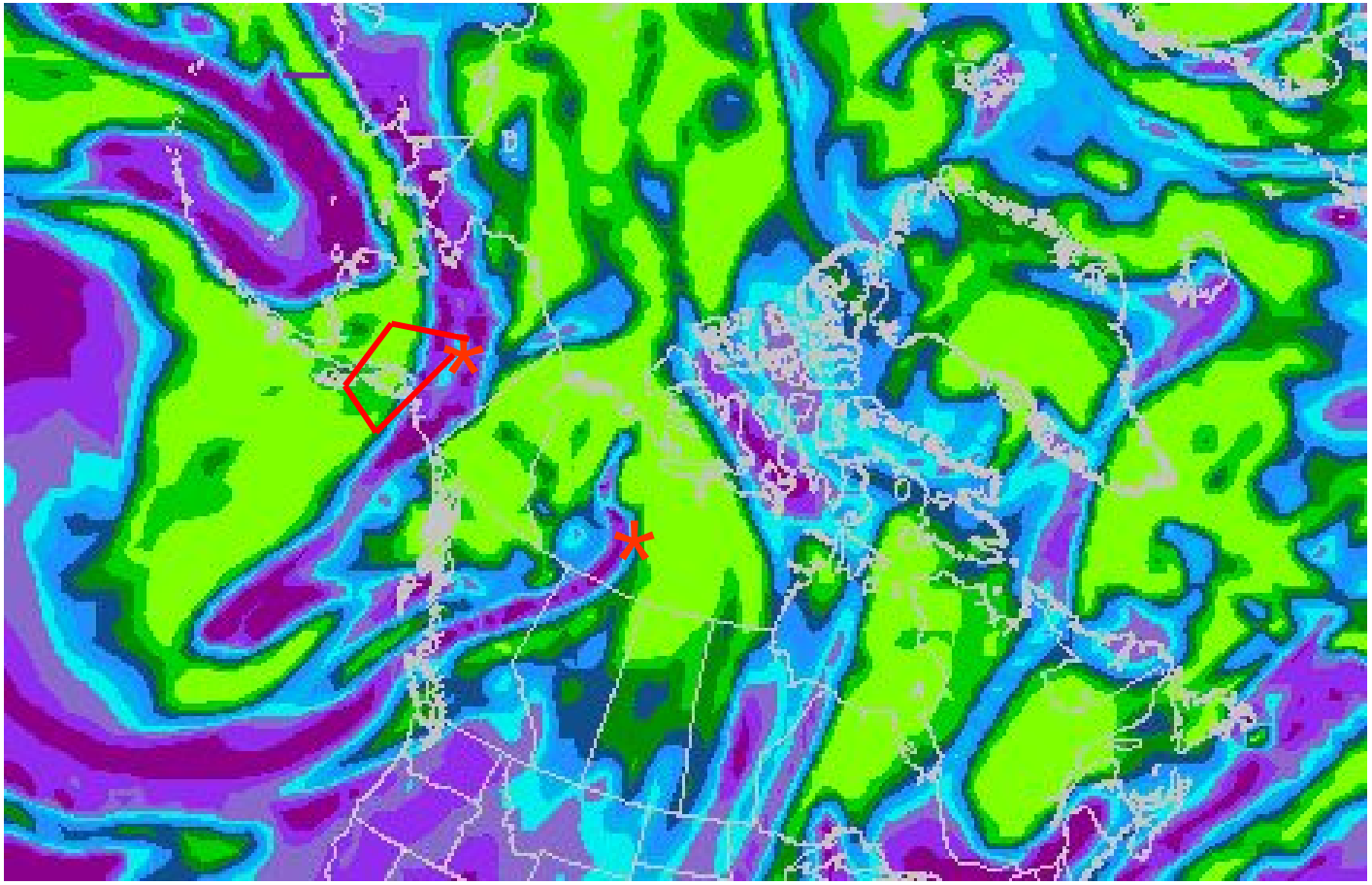


What About Clouds for Sunday??

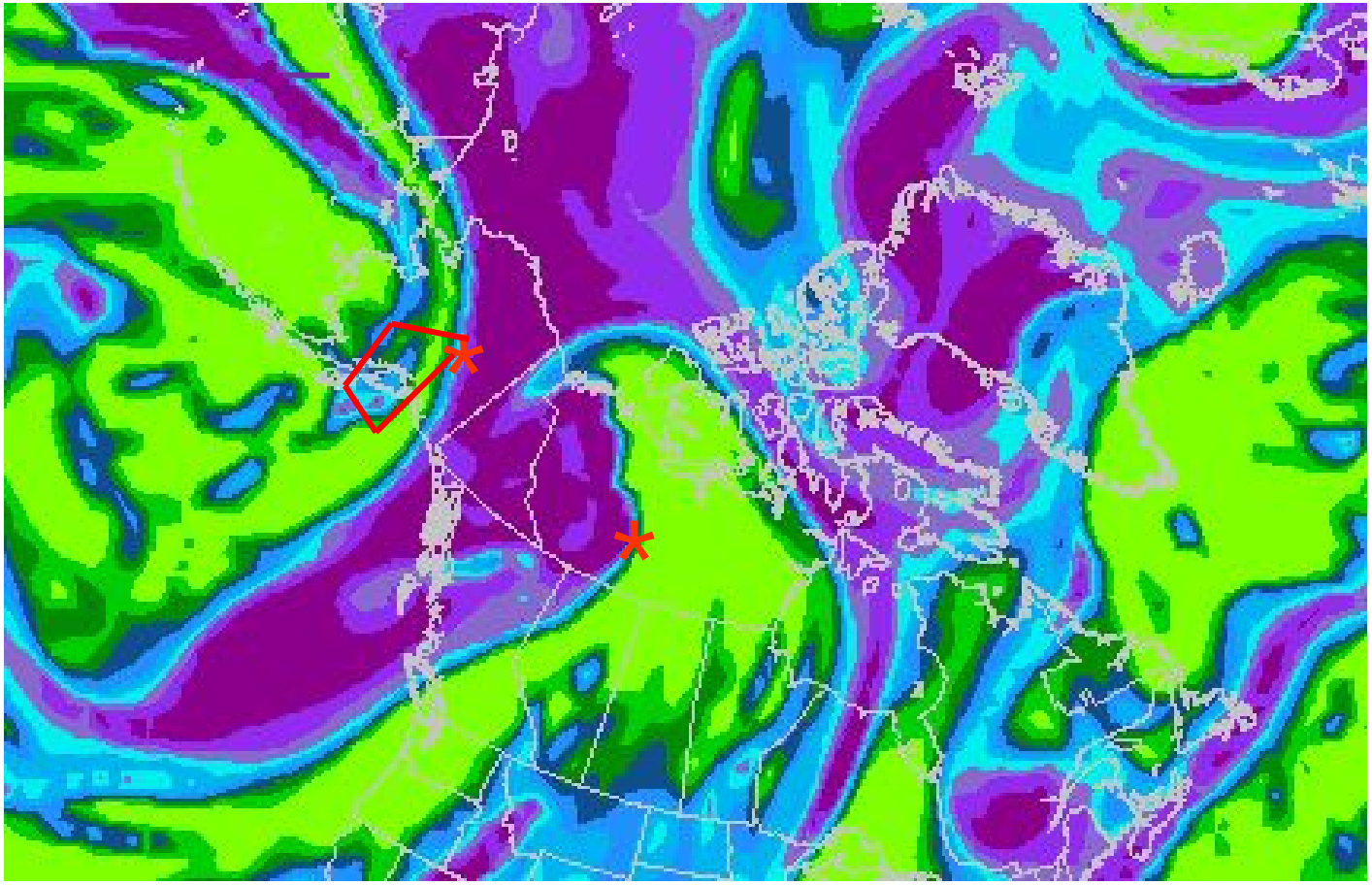
GFS Forecast Valid 1800Z April 13
700 hPa Relative Humidity



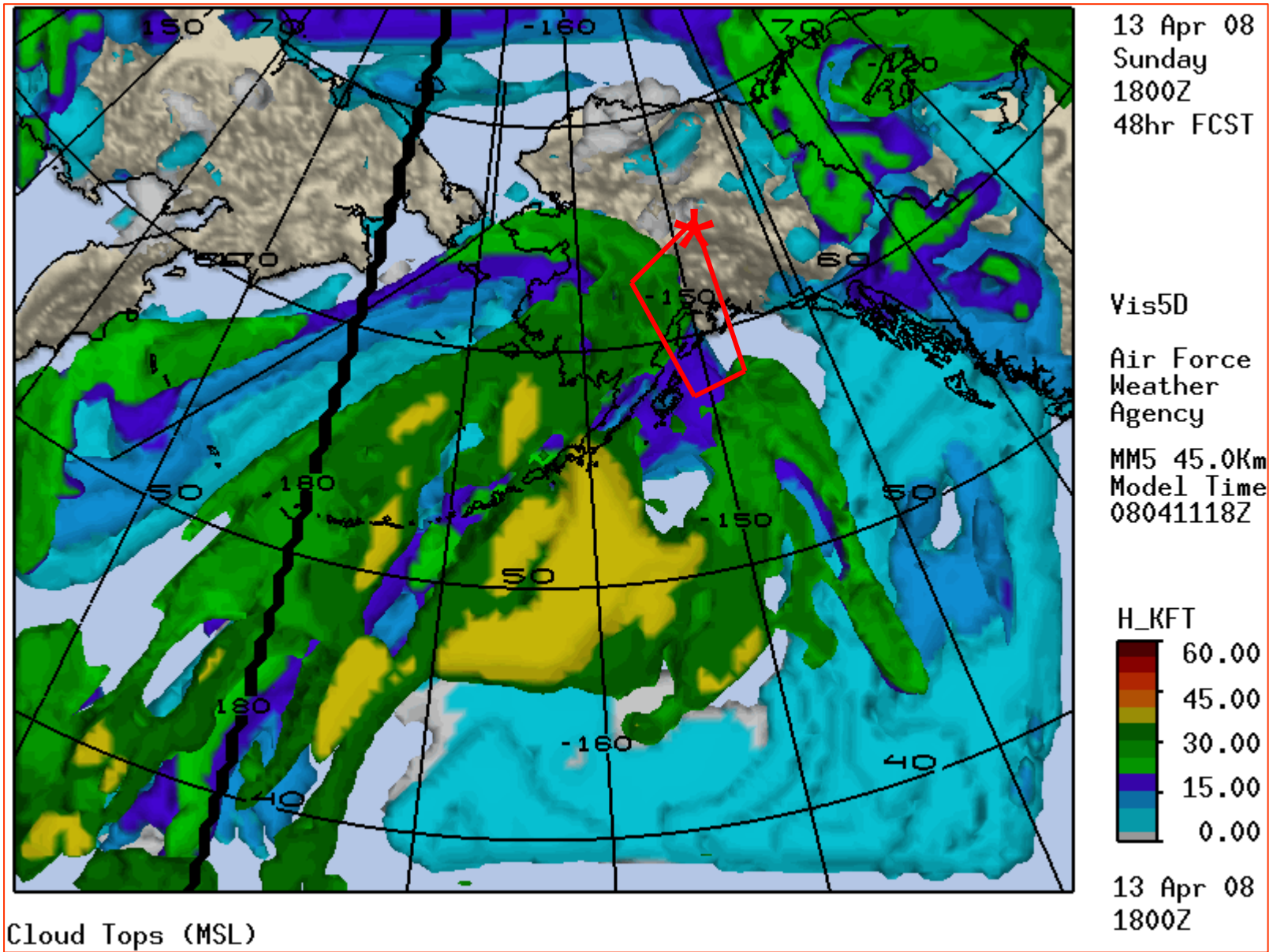
GFS Forecast Valid 1800Z April 13
500 hPa Relative Humidity



GFS Forecast Valid 1800Z April 13
300 hPa Relative Humidity



Air Force Cloud Cover
Valid 1800 Z April 13



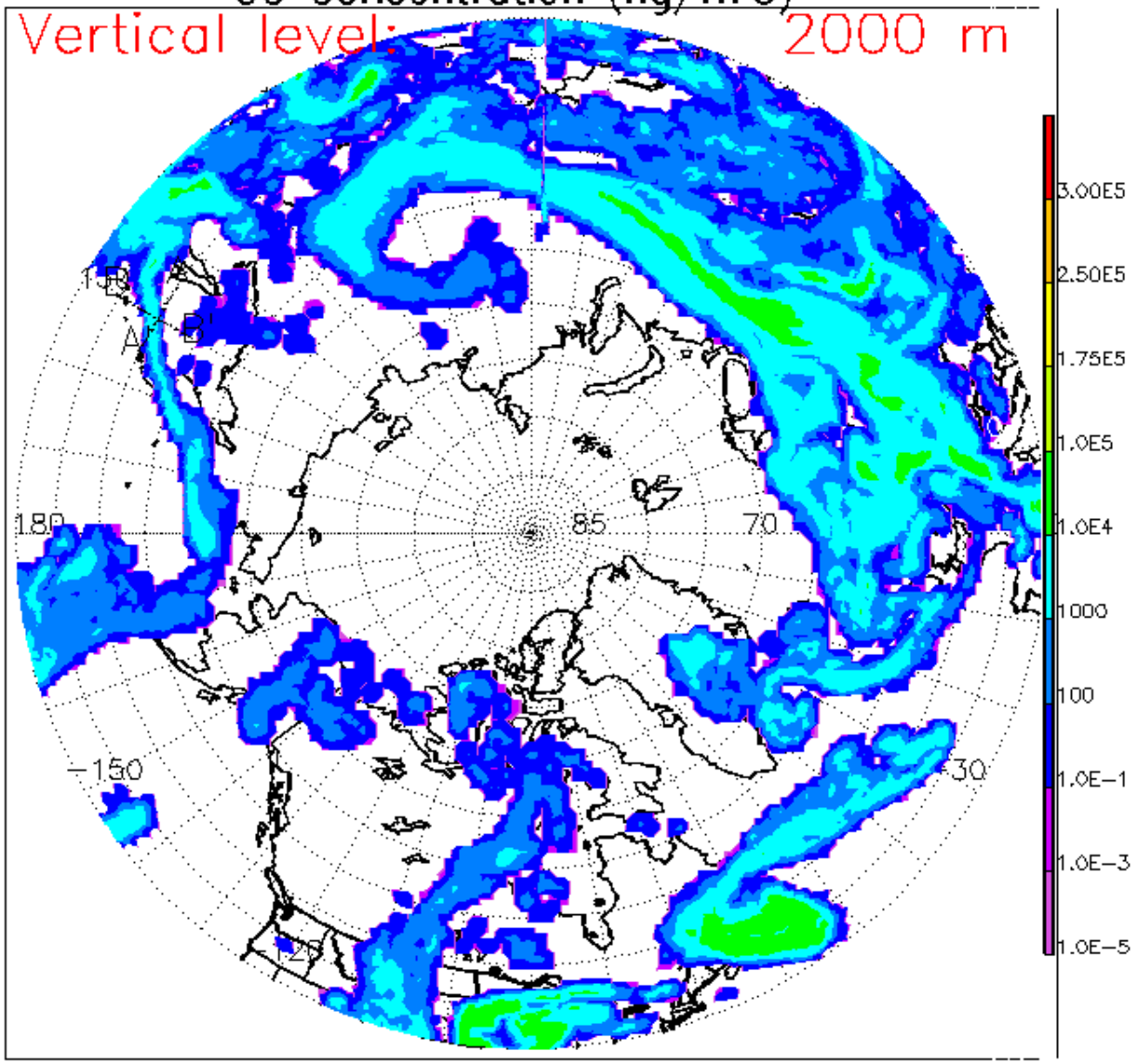
FSU Runs Flexpart

- Met data from FSU WRF run (25 km grid)
- Top10% of emissions are tracked
- 7 day runs through fly day (April 13)
- Color coded by concentration
- Fire Data Not Included

AdGIF UNREGISTERED - www.gif-animator.com

2200 April 11, 2008

CO Concentration (ng/m^3)



Florida State University Meteorology

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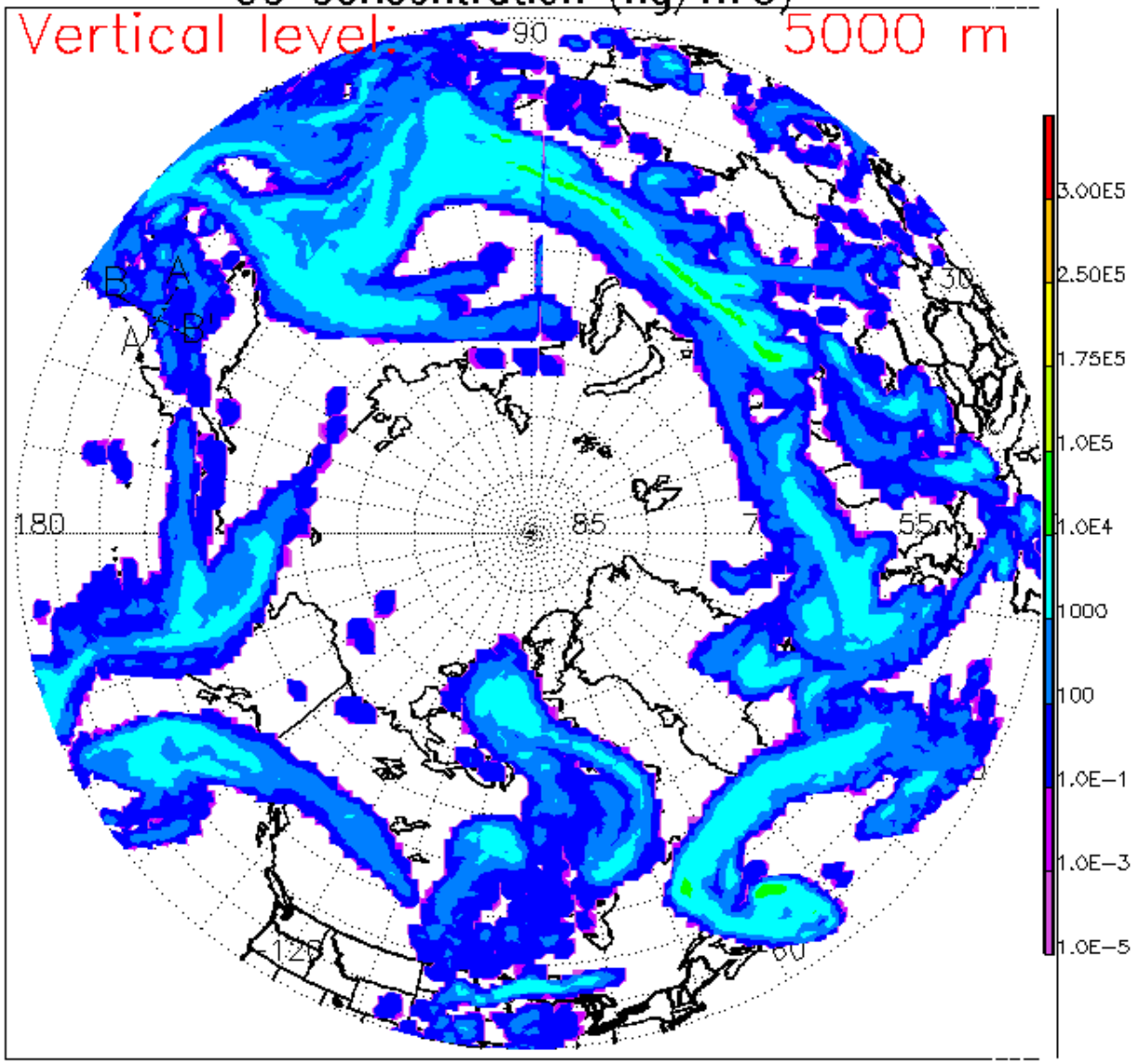

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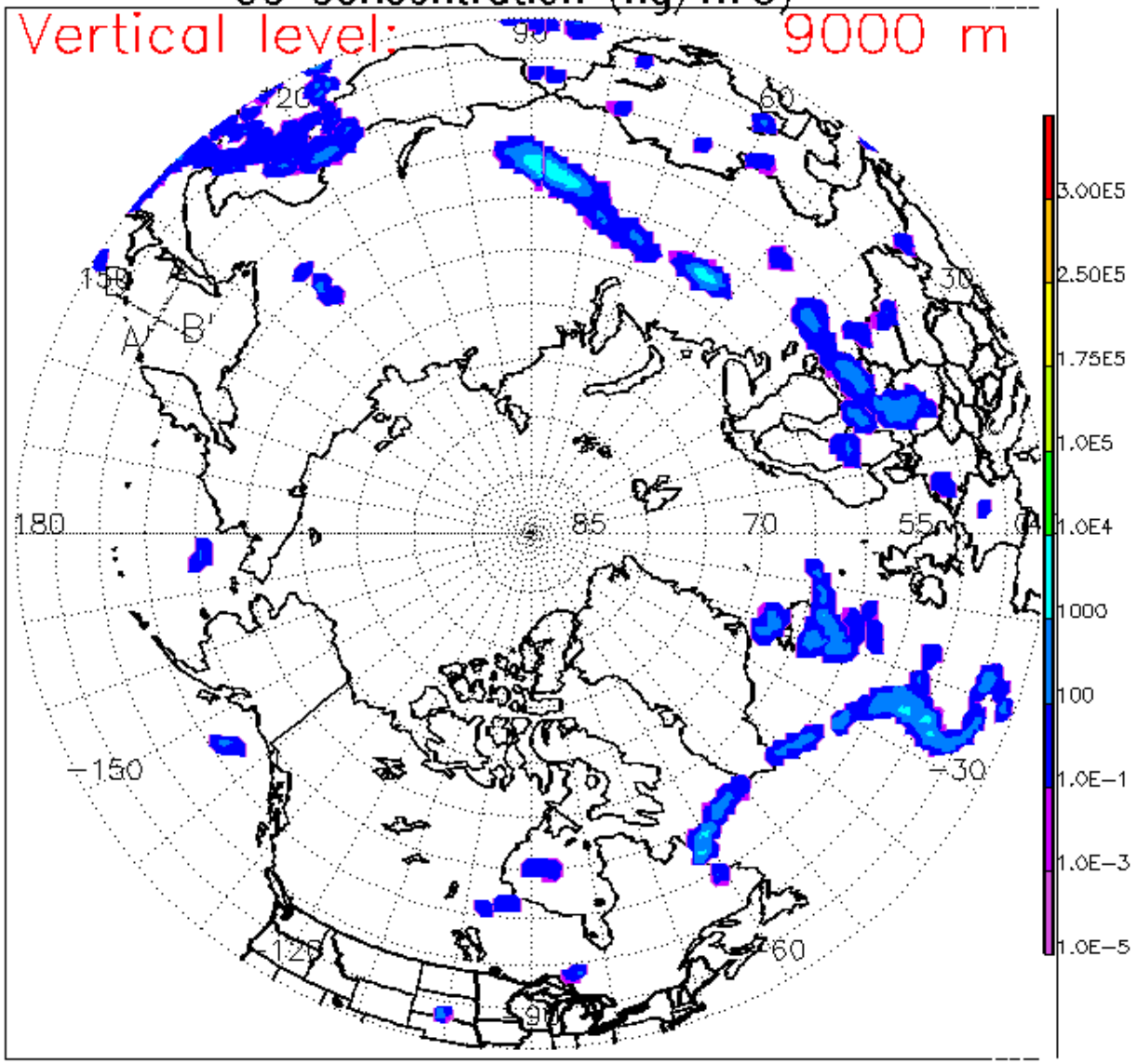
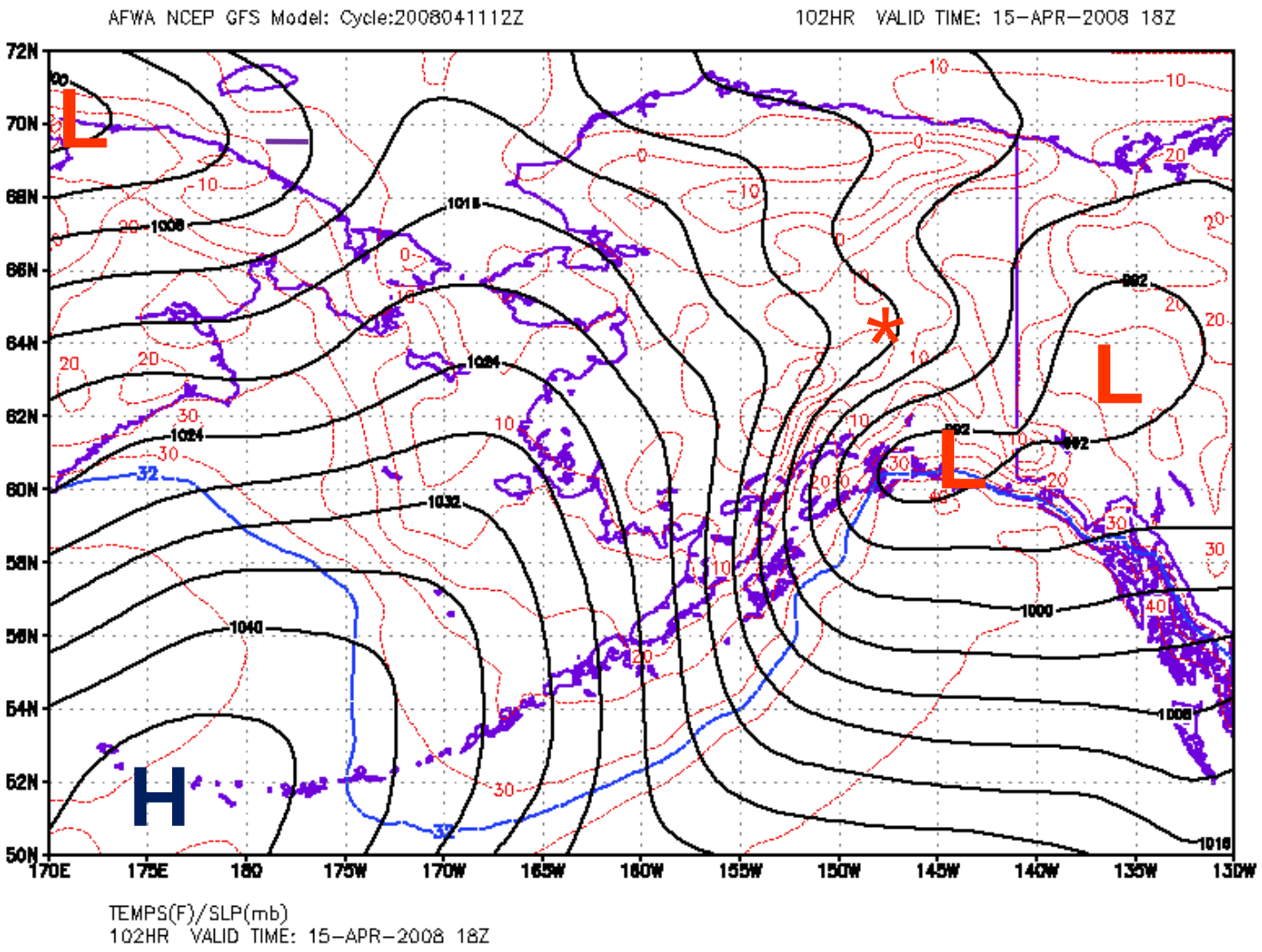


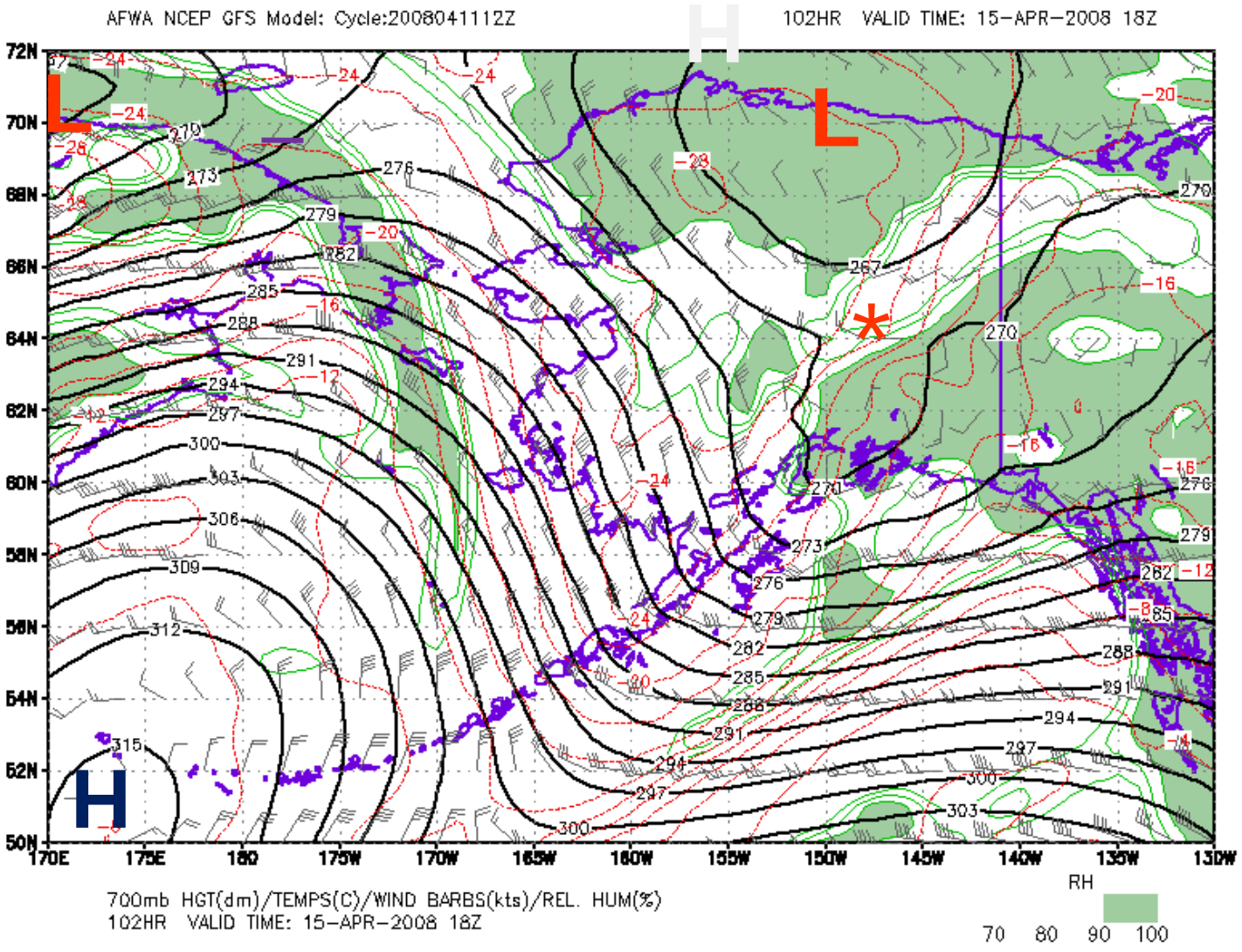
Florida State University Meteorology

A Look ahead to Tuesday

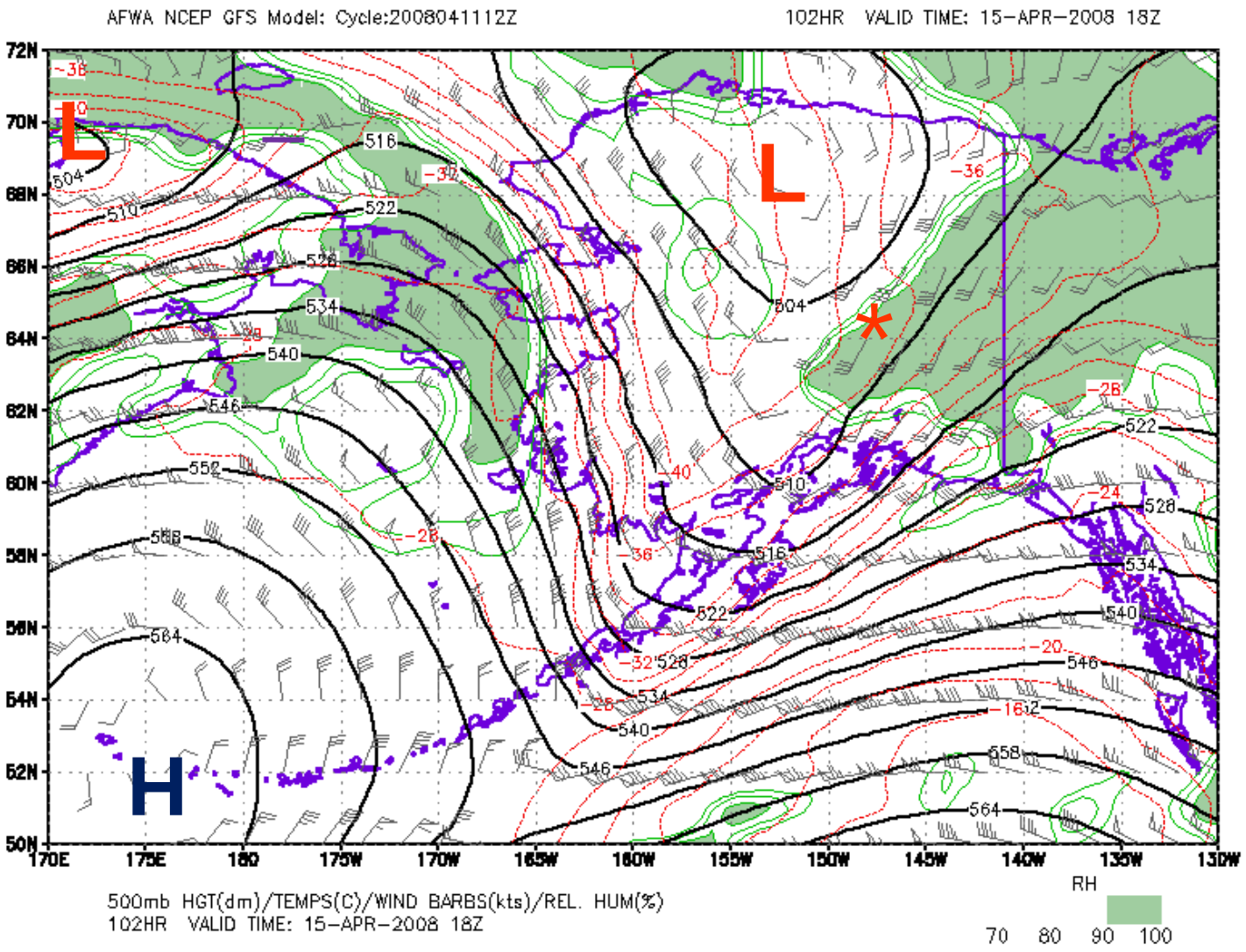
Air Force GFS Forecast Valid 1800Z April 15
Sea Level Pressure, Temperature (C)



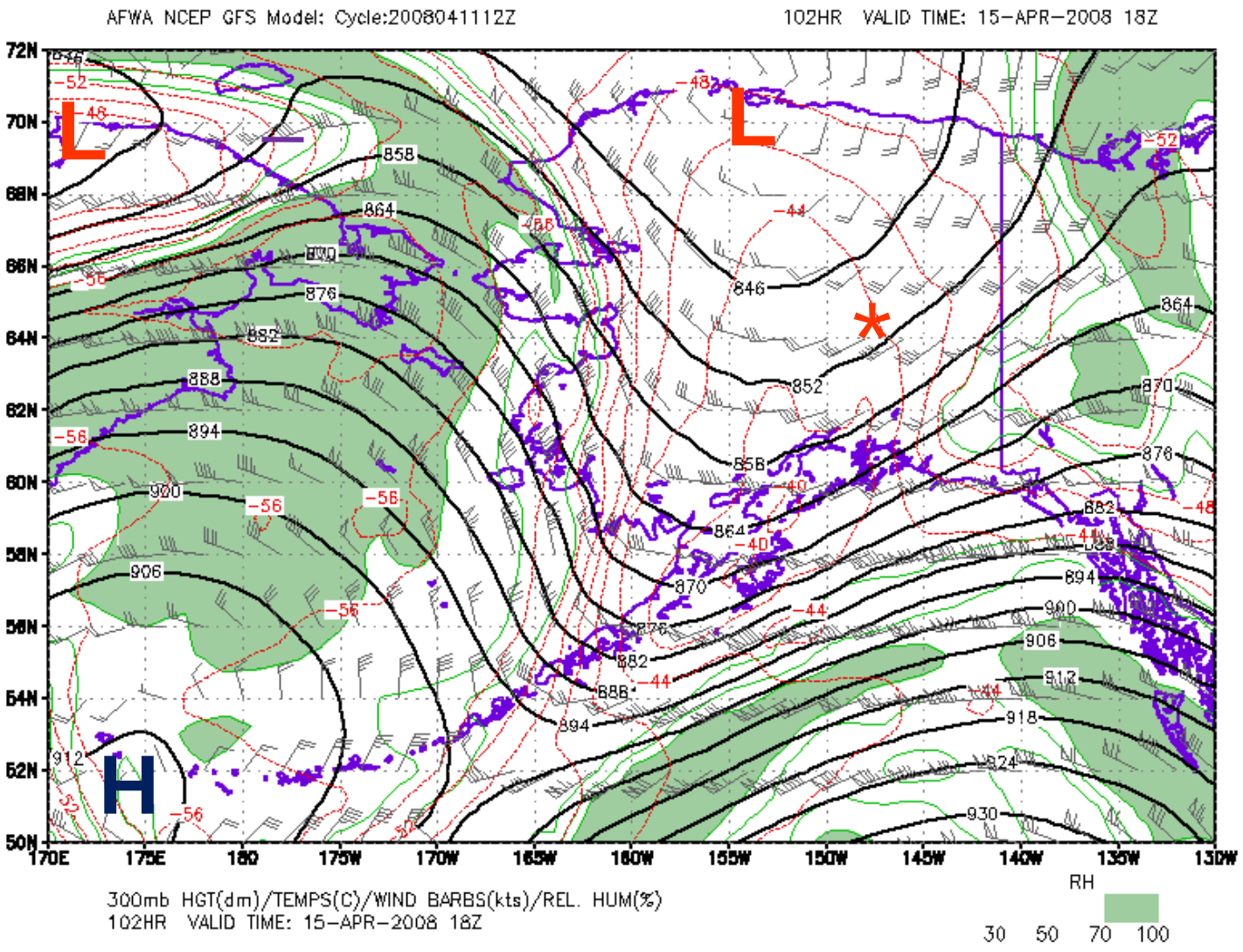
Air Force GFS Forecast Valid 1800Z April 15
700 hPa Heights, RH (Shaded), Temps.(C)



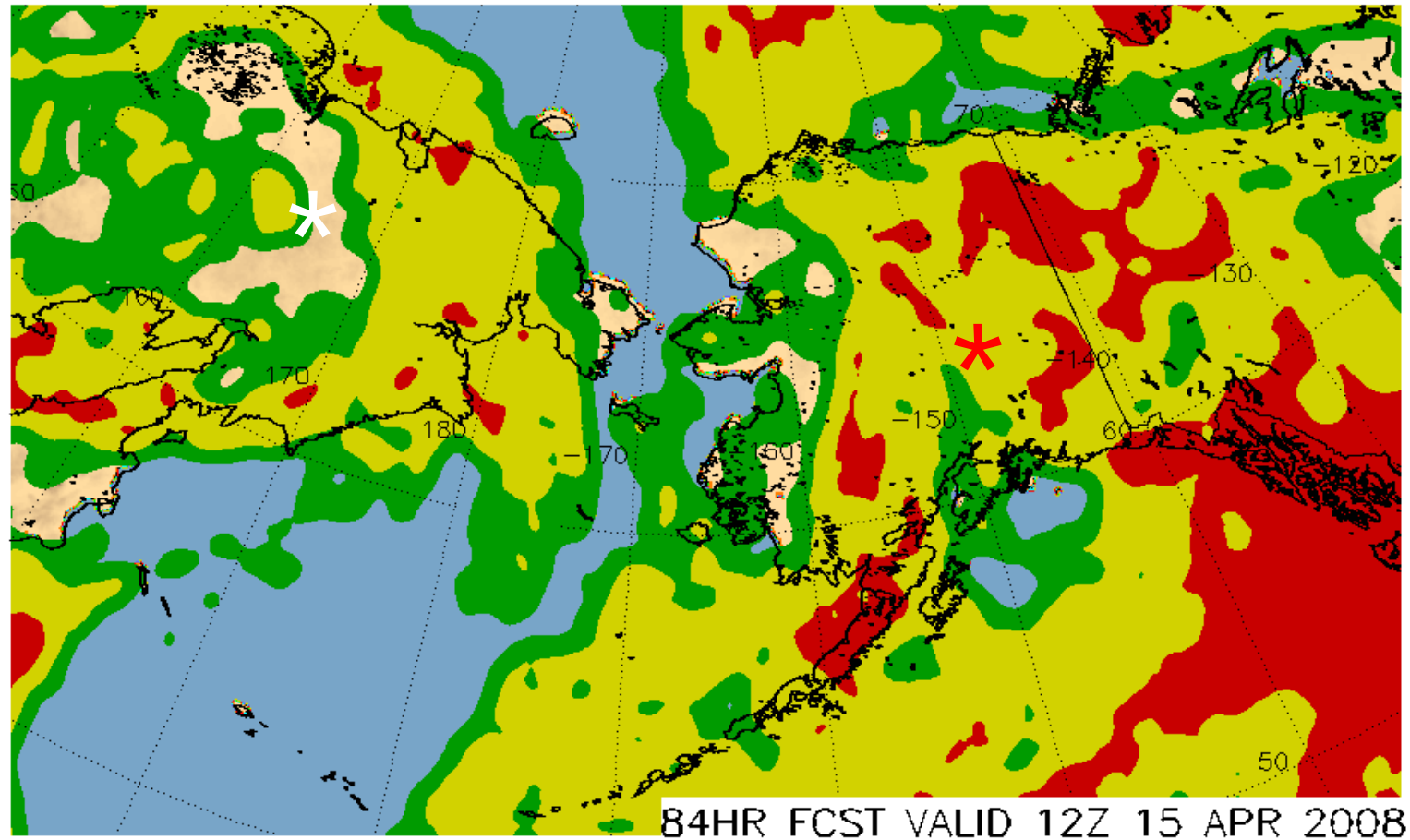
Air Force GFS Forecast Valid 1800Z April 15
500 hPa Heights, RH (Shaded), Temps.(C)



Air Force GFS Forecast Valid 1800Z April 15
300 hPa Heights, RH (Shaded), Temps.(C)



Let's Compare with Air Force Cloud Cover Valid 1200 Z April 15



Red = Overcast **Yellow = 0.6-0.9 coverage** **Green = 0.1-0.5 coverage**

Overview – Tropopause height – April 15 1000 AK (18Z April 15)

Tropopause height:

- 400mb – 500mb
- 500mb – 550mb
- 550mb – 600mb
- < 600mb

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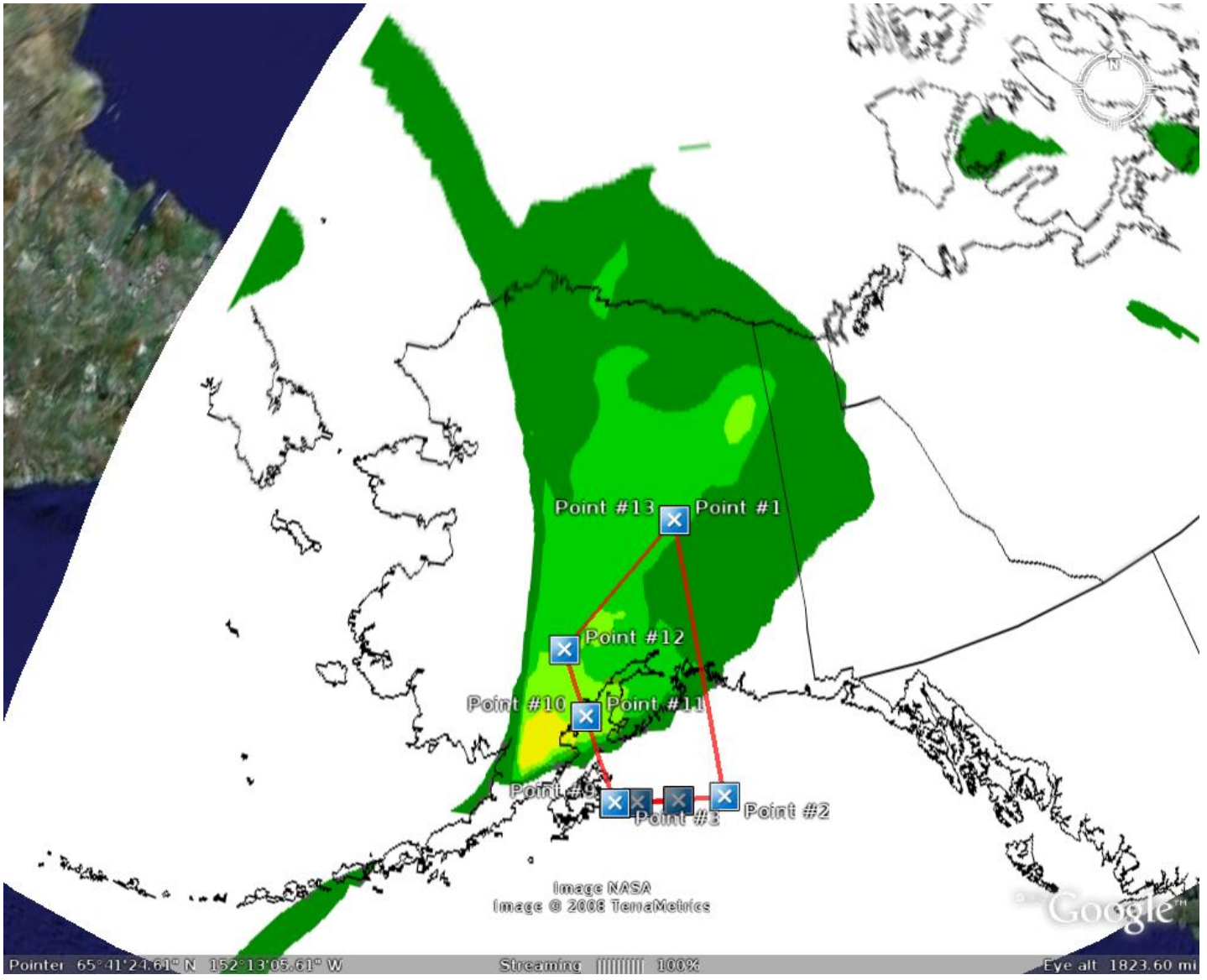
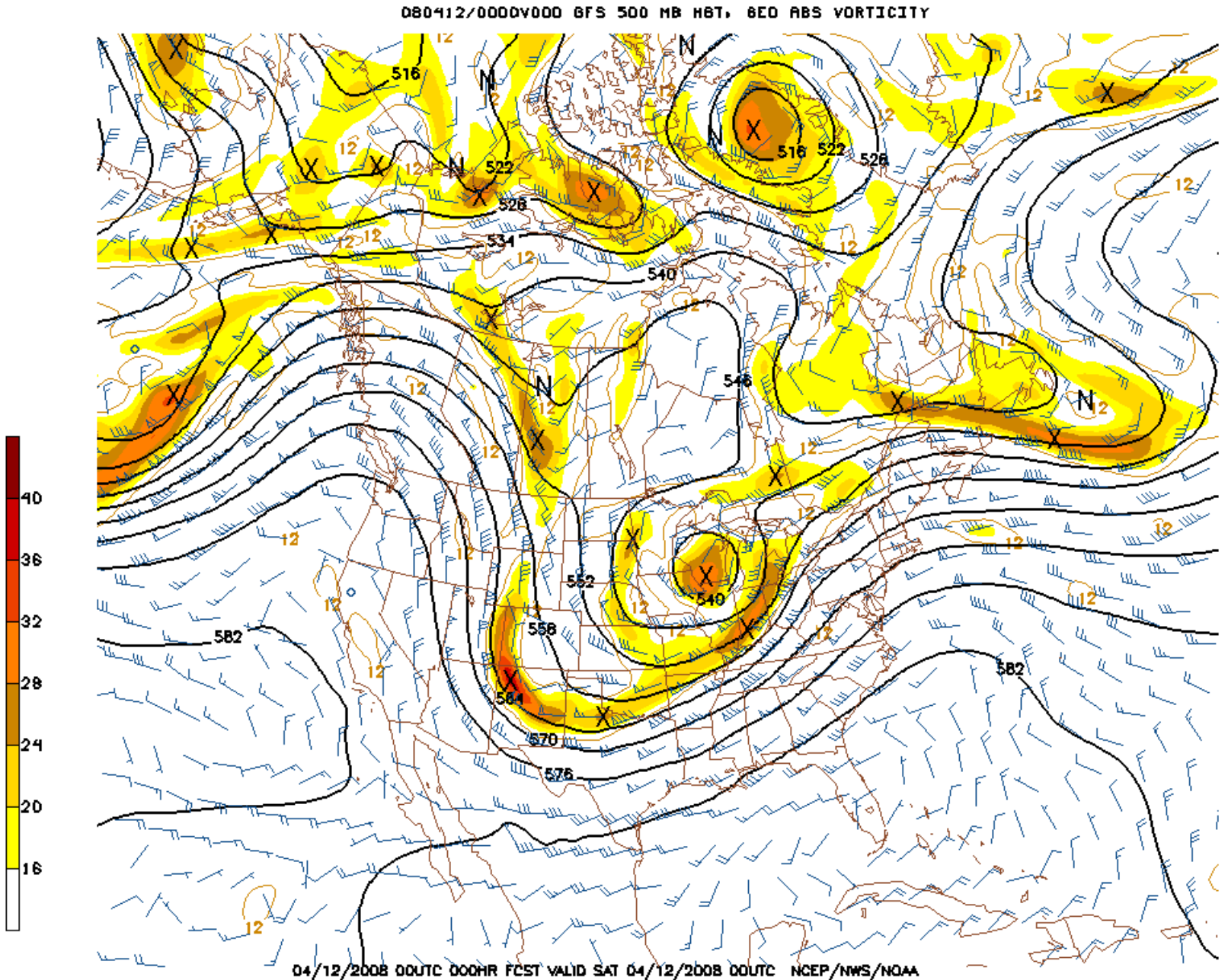


GFS 120 hour loop

- 500 hPa Heights, Vorticity, and Winds
- Loop starts at 00Z April 12 (4pm Apr 11)
- Loop ends at 00Z April 17 (4pm Apr 16)

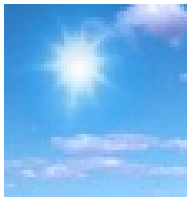
GFS Forecast next 120 hours 500 hPa Heights, Winds



Fairbanks AK Forecast

Staying Colder Than Normal

Saturday

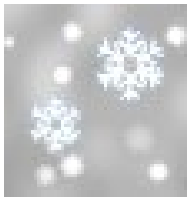


Mostly Sunny
Hi: 35F

Sat. Night

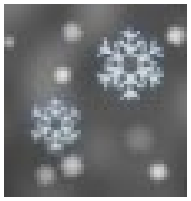
Partly Cloudy
Lo: 10F

Sunday



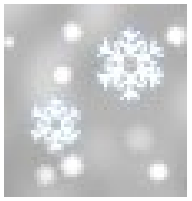
Chance of Rain or Snow in PM
Hi: 40F

Sun. Night



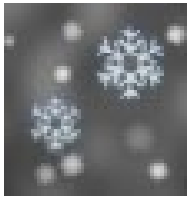
Snow Likely
Lo: 25F

Monday



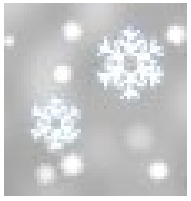
Snow or Rain Likely
Hi: 38F

Mon. Night



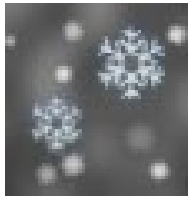
Snow Likely
Lo: 20F

Tuesday



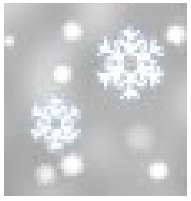
Scattered Snow Showers
Hi: 28F

Tue. Night



Chance of snow
Lo: 8F

Wednesday



Chance of Snow
Hi: 35F