

## NOAA/ESRL

### Status on Development of FIM Flow-following FV Icosahedral Model

Jin-luen Lee – Technical lead

Sandy MacDonald

Rainer Bleck

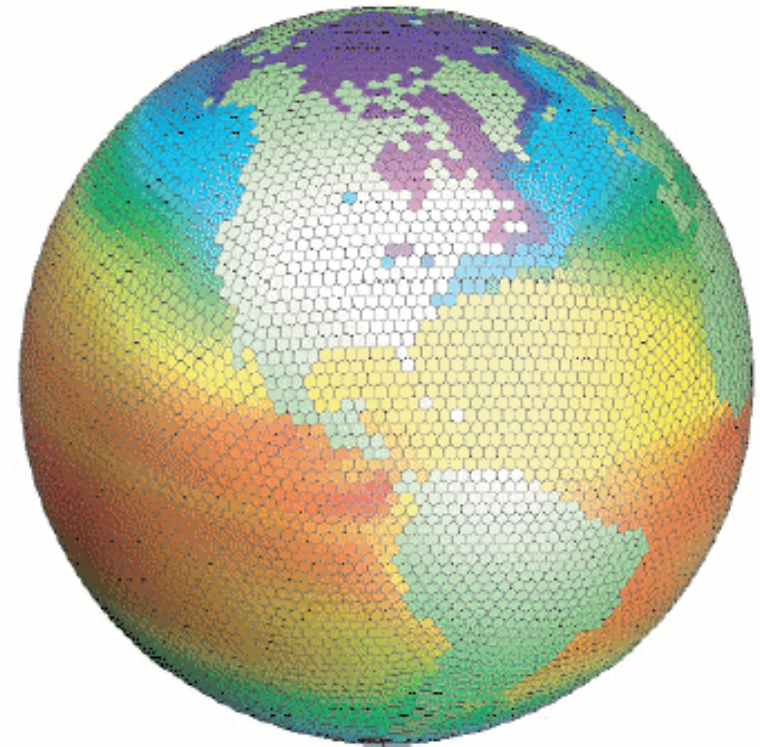
Jian-wen Bao

Jacques Middlecoff

Stan Benjamin

Ning Wang

John Brown



Courtesy – D. Randall

## FIM

- *Contribution toward future NOAA global modeling system*
- Developed at ESRL, collaboration so far with GFDL, EMC



# 240km icosahedral grid Level-5 – 10242 polygons

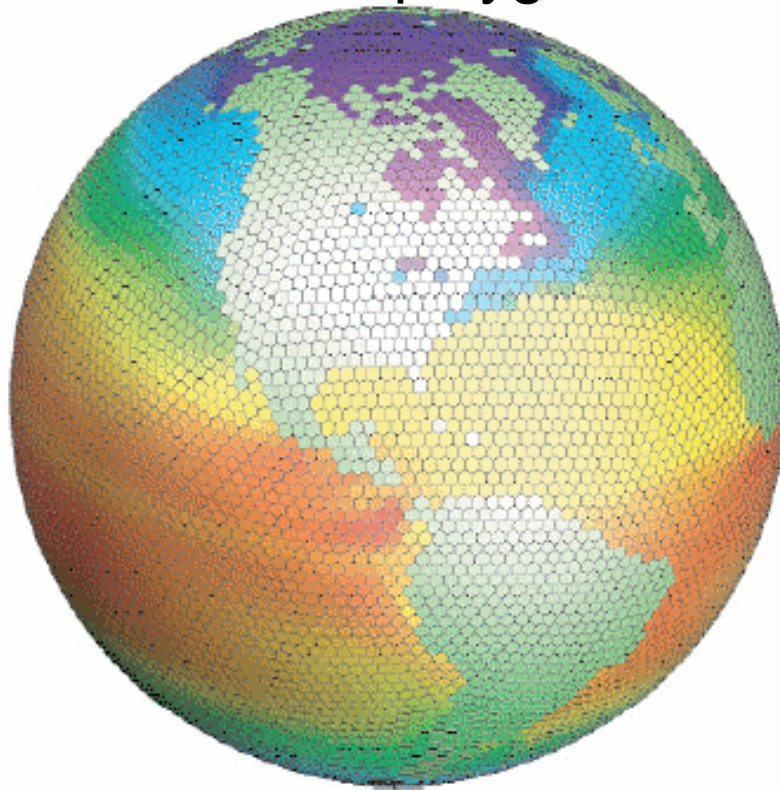


Figure 1. An example of a geodesic grid with a color-coded plot of the observed sea-surface temperature distribution. The continents are

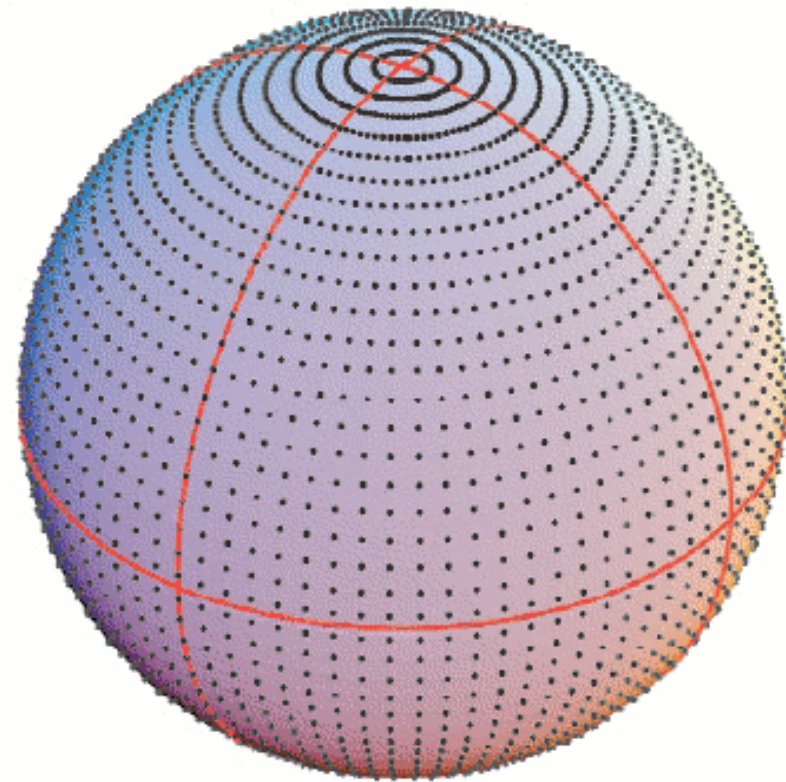
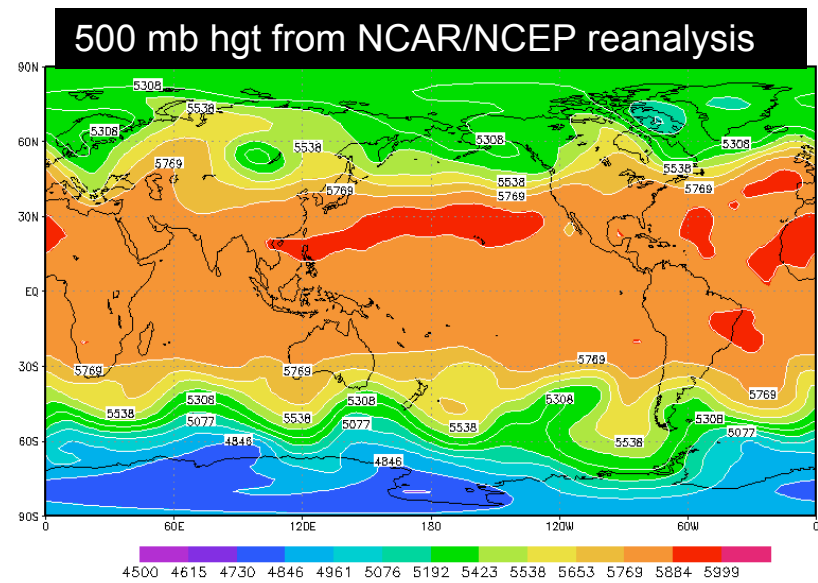


Figure 2. An example of a latitude-longitude grid. A pole is at the top. The black dots represent grid cell centers that are equally spaced in longitude

**Diagrams - Randall et al. – Colorado State University**

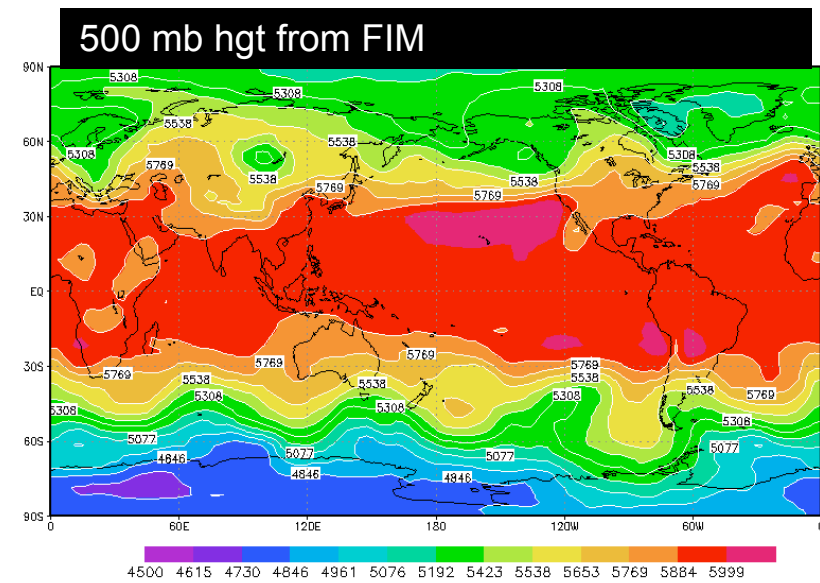
[http://kiwi.atmos.colostate.edu/DOE\\_Cooperative\\_Agreement/pdf/CISE.pdf](http://kiwi.atmos.colostate.edu/DOE_Cooperative_Agreement/pdf/CISE.pdf)

# Initial time: 00z, 10/09/2003



GRADS: OOLA/IGES

2007-02-23-18:25



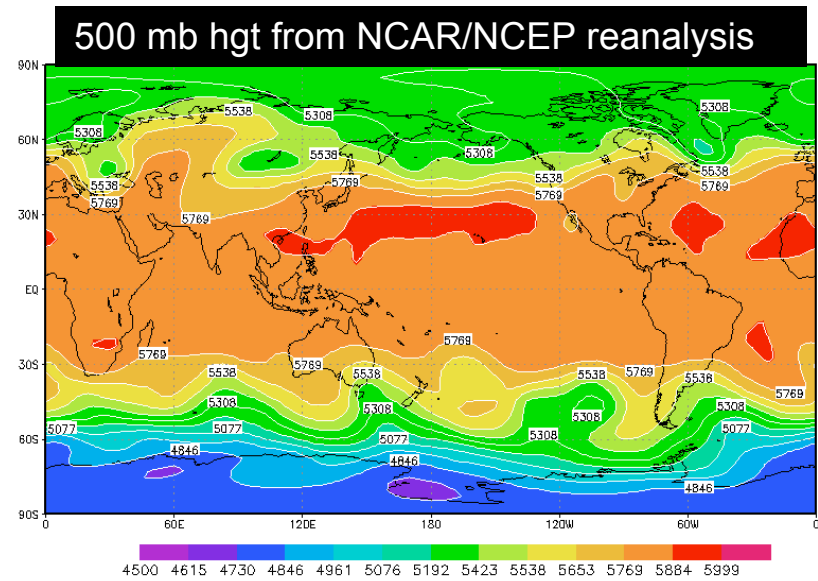
GRADS: OOLA/IGES

2007-02-24-22:43

ReAnalysis data

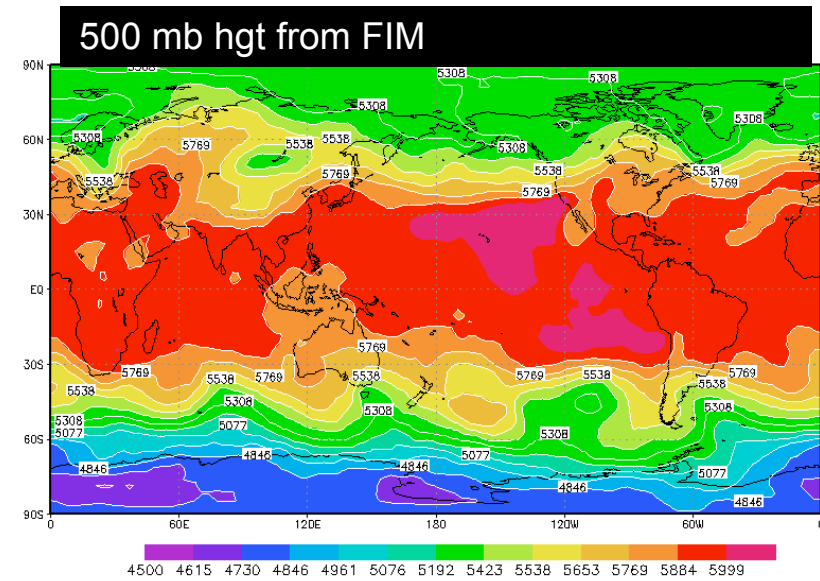
FIM – case – 00z 9 October 2003 init  
240 km / 14 level version / GFS physics

# 1-day fcst @ 00z, 10/10/2003



GRADS: OOLA/IGES

2007-02-23-18:25



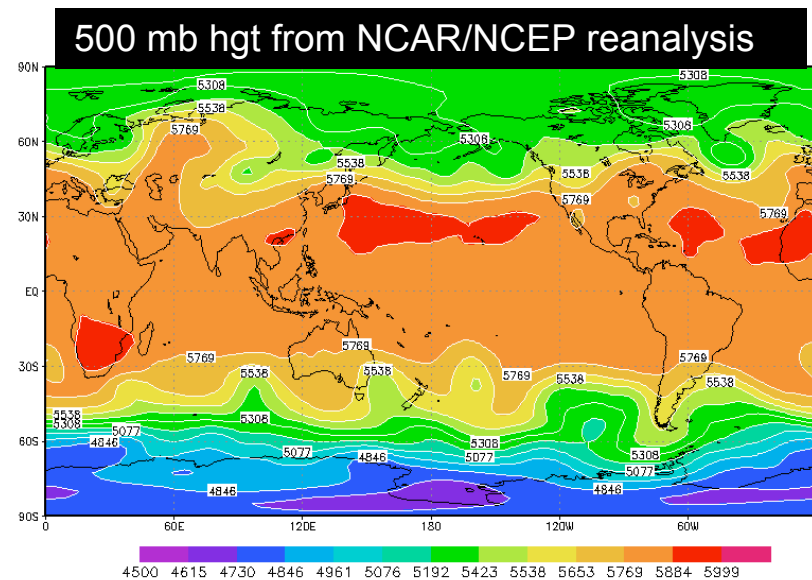
GRADS: OOLA/IGES

2007-02-24-22:43

ReAnalysis data

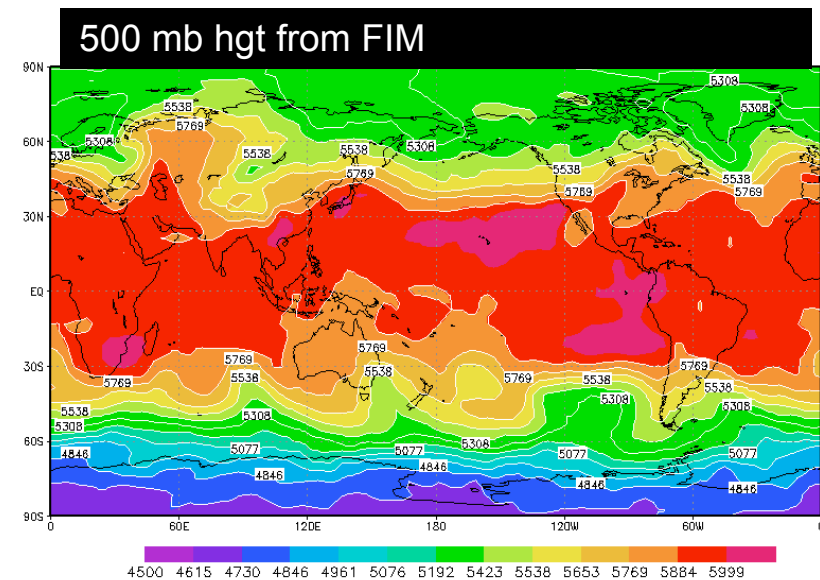
FIM – case – 00z 9 October 2003 init  
240 km / 14 level version / GFS physics

# 2-day fcst @ 00z, 10/11/2003



GRADS: COLA/IGES

2007-02-23-18:25



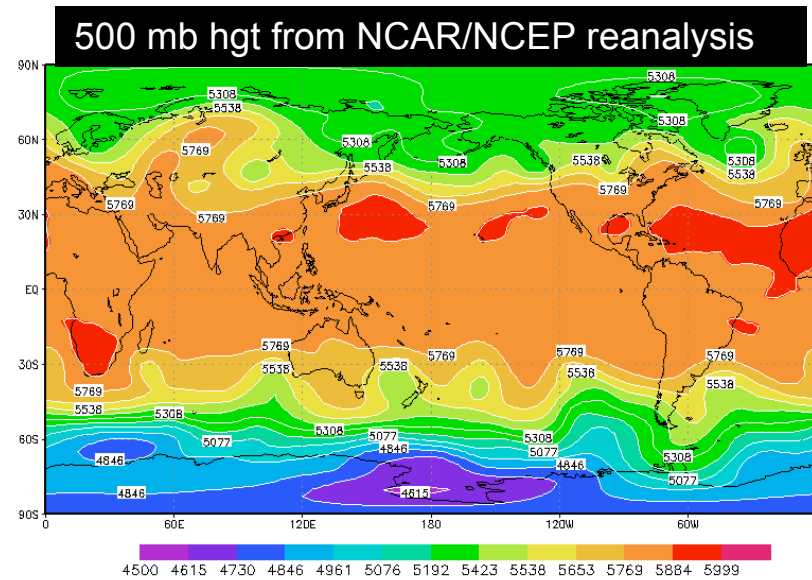
GRADS: COLA/IGES

2007-02-24-22:43

ReAnalysis data

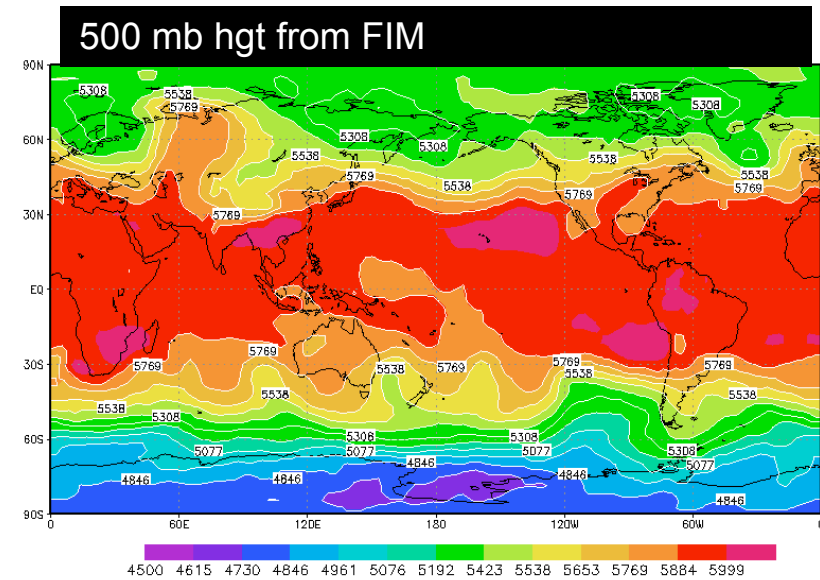
FIM – case – 00z 9 October 2003 init  
240 km / 14 level version / GFS physics

# 3-day fcst @ 00z, 10/12/2003



GRADS: COLA/IGES

2007-02-23-18:25



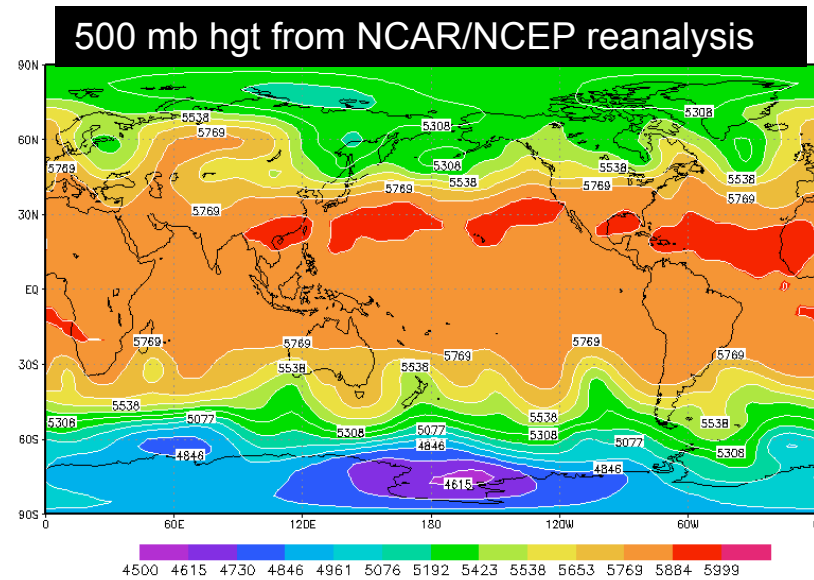
GRADS: COLA/IGES

2007-02-24-22:43

ReAnalysis data

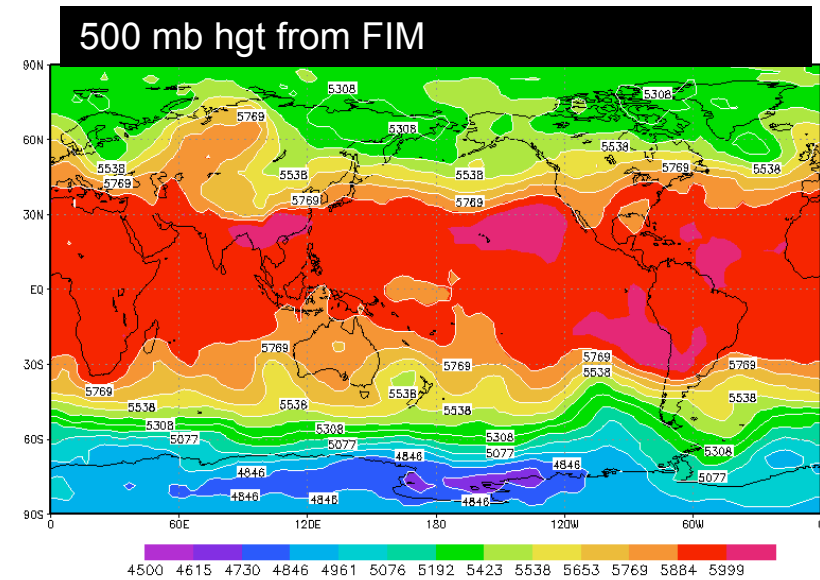
FIM – case – 00z 9 October 2003 init  
240 km / 14 level version / GFS physics

# 4-day fcst @ 00z, 10/13/2003



GRADS: OOLA/IGES

2007-02-23-18:25



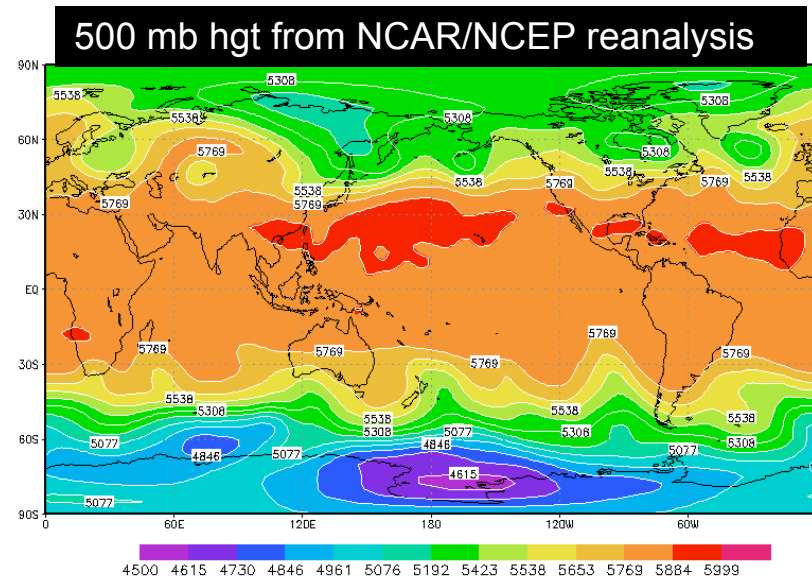
GRADS: OOLA/IGES

2007-02-24-22:43

ReAnalysis data

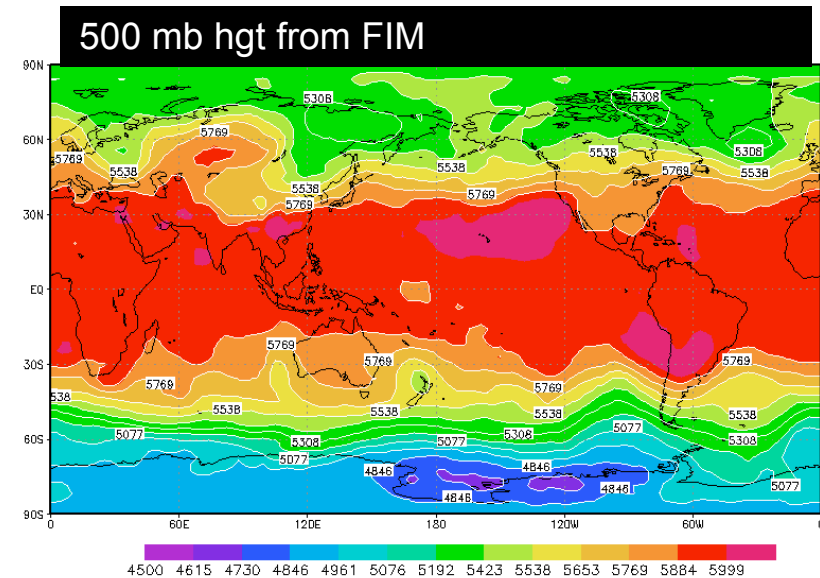
FIM – case – 00z 9 October 2003 init  
240 km / 14 level version / GFS physics

# 5-day fcst @ 00z, 10/14/2003



GRADS: CO/LA/IGES

2007-02-23-18:25



GRADS: CO/LA/IGES

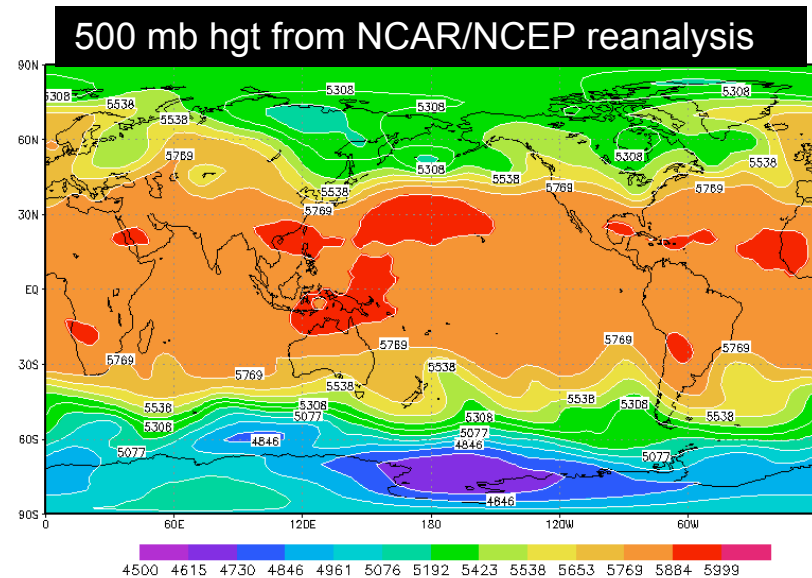
2007-02-24-22:43

ReAnalysis data

FIM – case – 00z 9 October 2003 init  
240 km / 14 level version / GFS physics

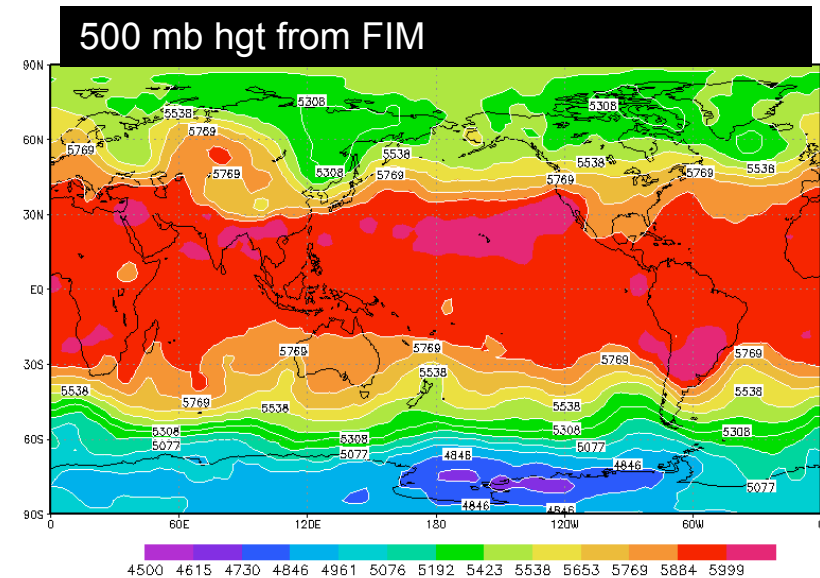


# 6-day fcst @ 00z, 10/15/2003



GRADS: CO/LA/IGES

2007-02-23-18:25



GRADS: CO/LA/IGES

2007-02-24-22:43

ReAnalysis data

FIM – case – 00z 9 October 2003 init  
240 km / 14 level version / GFS physics