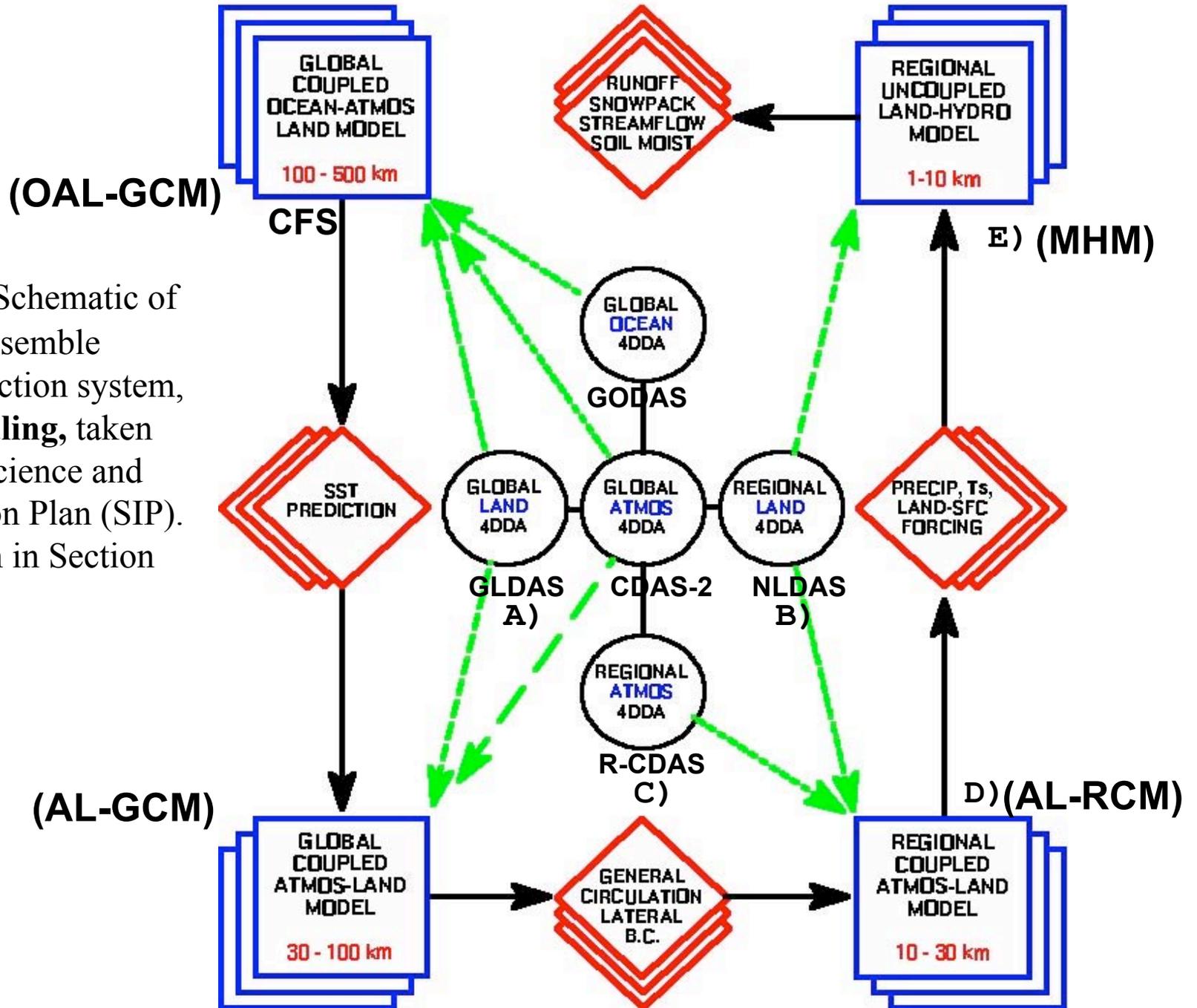


# INTEGRATED SEASONAL PREDICTION SYSTEM



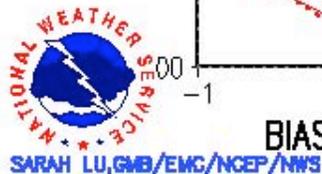
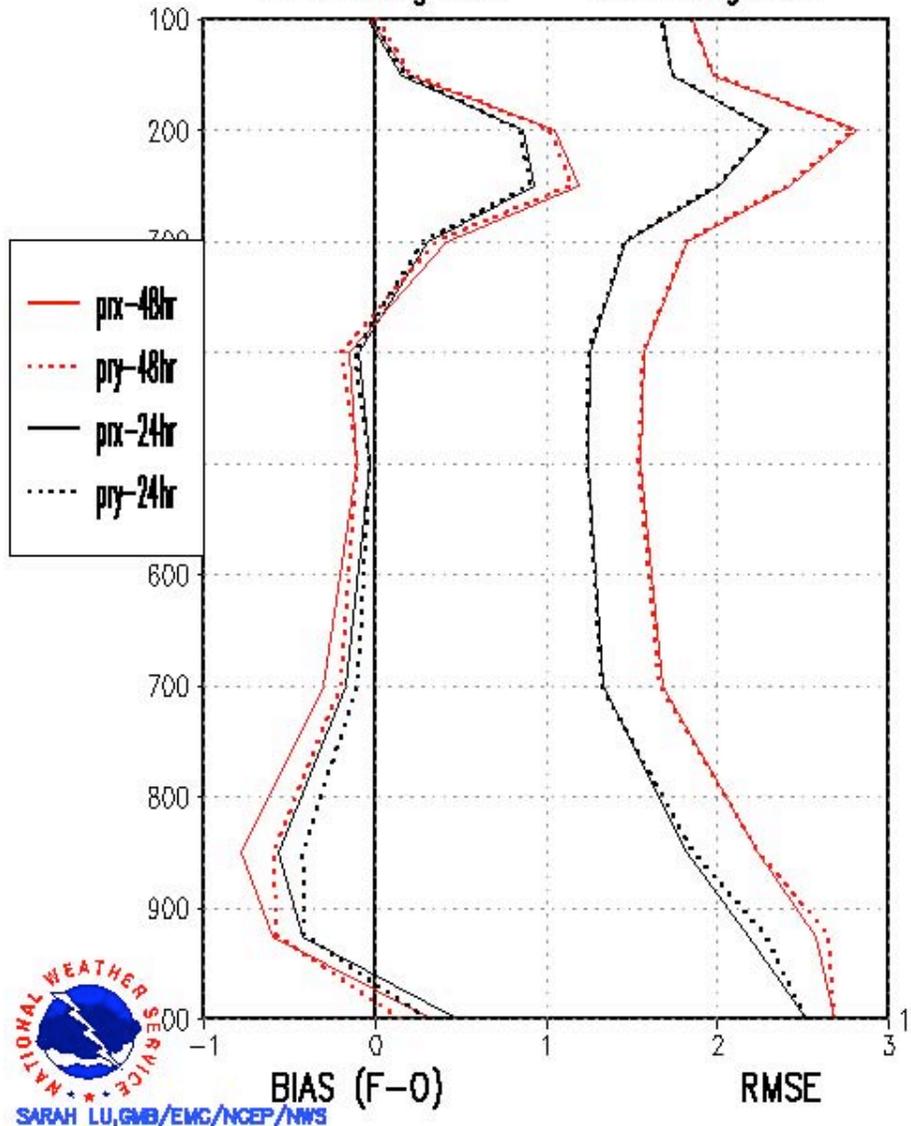
**Figure 1.** Schematic of end-to-end, ensemble seasonal prediction system, **with downscaling**, taken from GAPP Science and Implementation Plan (SIP). See discussion in Section

# N. Hemisphere Temperature: 2003-Aug (after 12 months cycling)

(with inflated veg fraction)

## Fig 2a

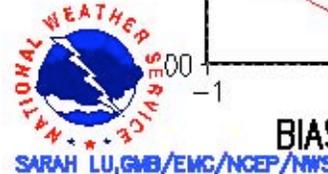
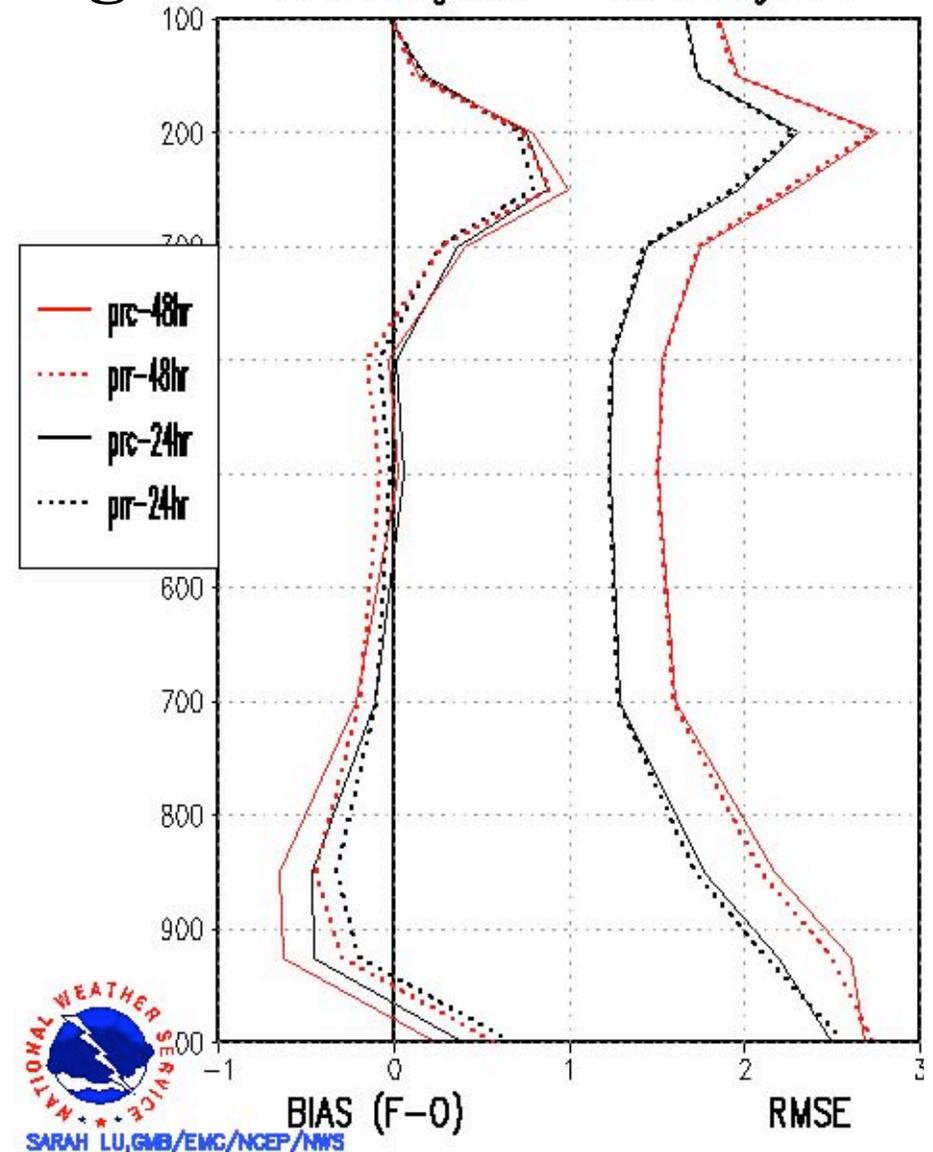
NH Temp Fits to RAOBS  
00z01aug2003 - 12z30aug2003



(with correct veg fraction)

## Fig 2b

NH Temp Fits to RAOBS  
00z05aug2003 - 12z30aug2003



GAPP/SGP (Aug 01–31, 2003); EOP-3

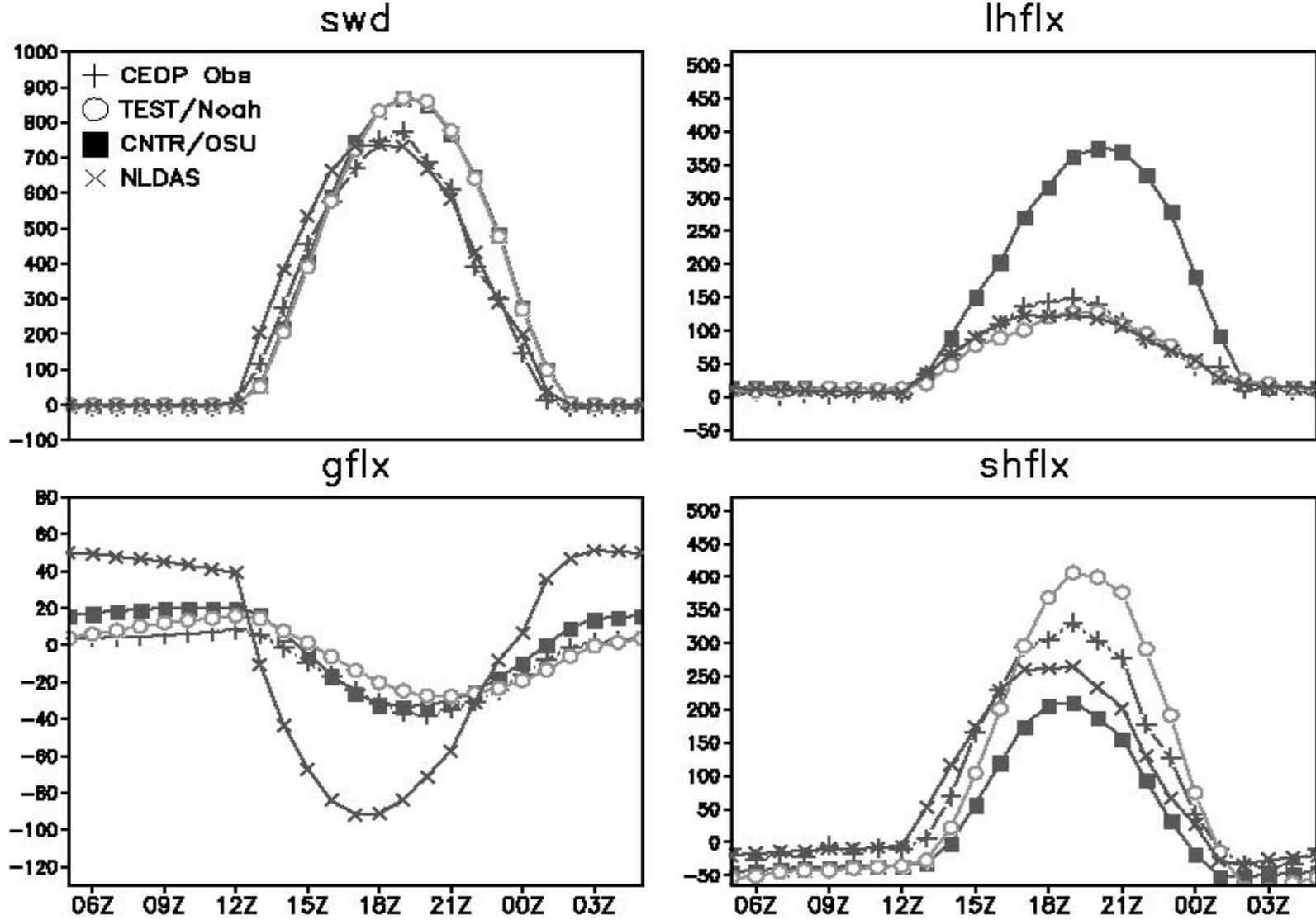


Figure 3

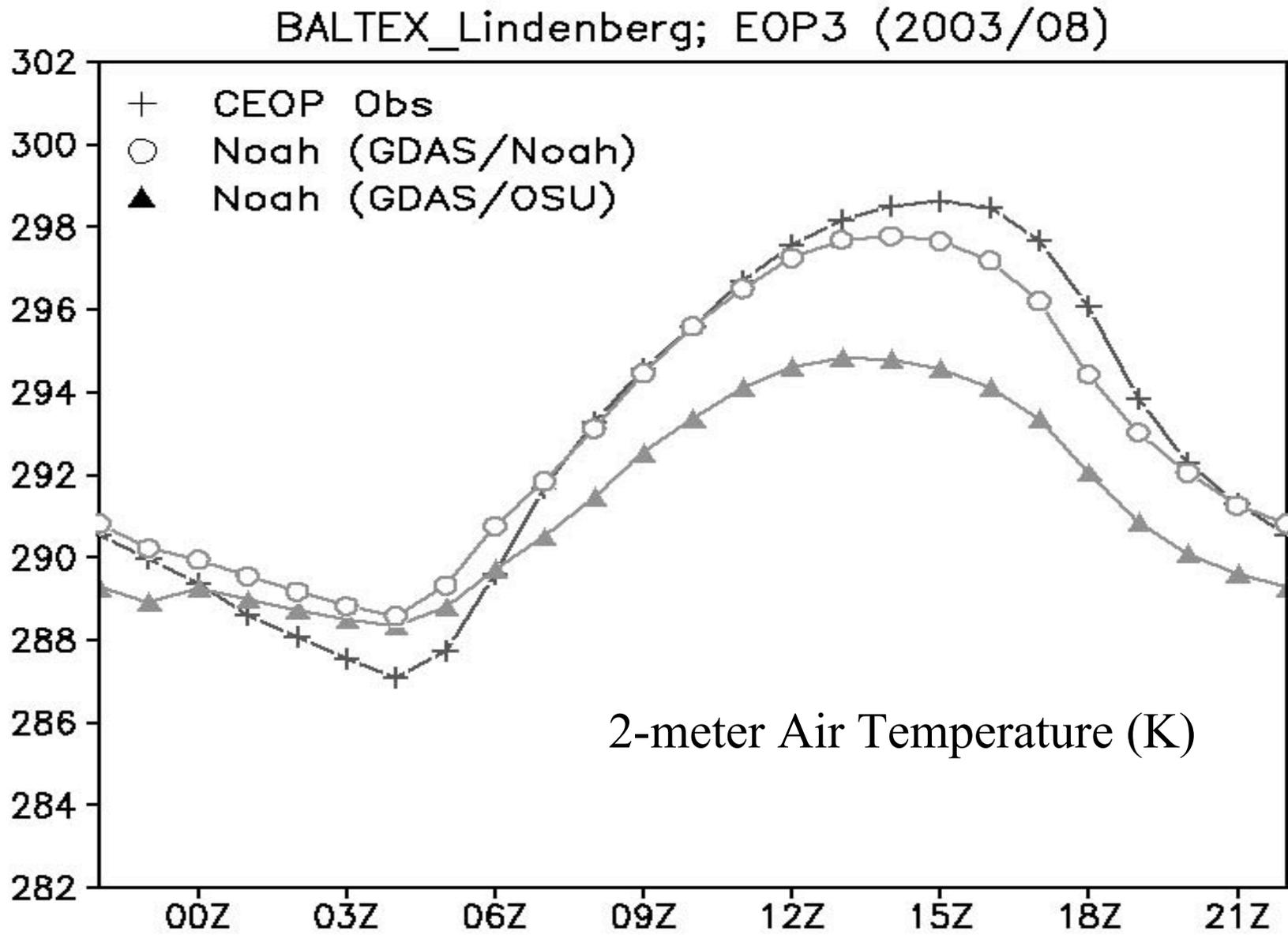


Figure 4

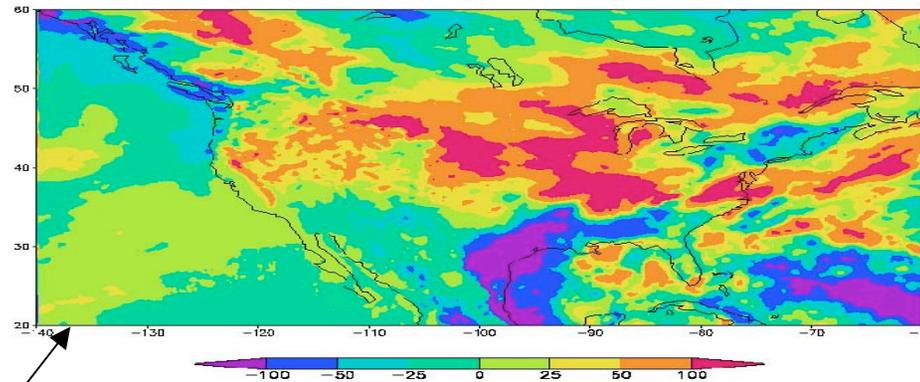
# Figure 5

**Eta RCM:  
Interannual  
variability in  
total precipitation.**

**1993 minus 1988  
difference in JJ  
(June+July) total  
Precipitation (mm)**

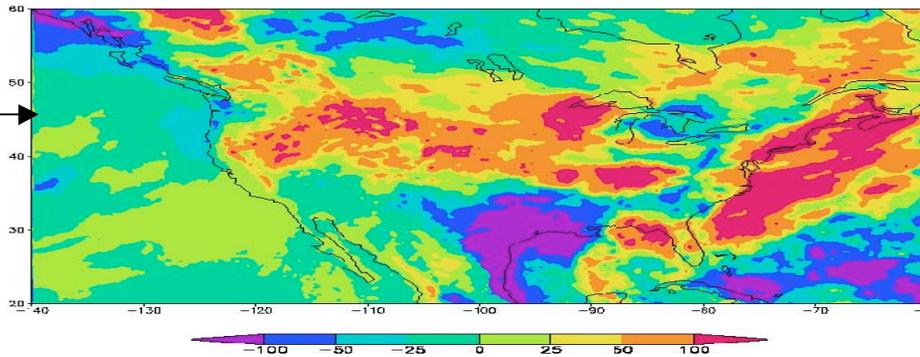
**No clear advantage  
from choice of  
either source of  
initial land states**

Difference in Total Precip (mm) for June + July (1993-1988)  
Using R2 Land States (93-88)



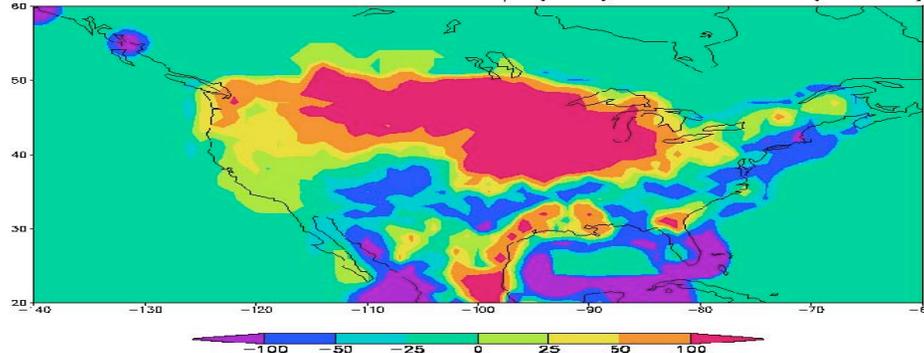
← Eta RCM with  
land states  
from GR2

Difference in Total Precip (mm) for June + July (1993-1988)  
Using RR Land States (93-88)

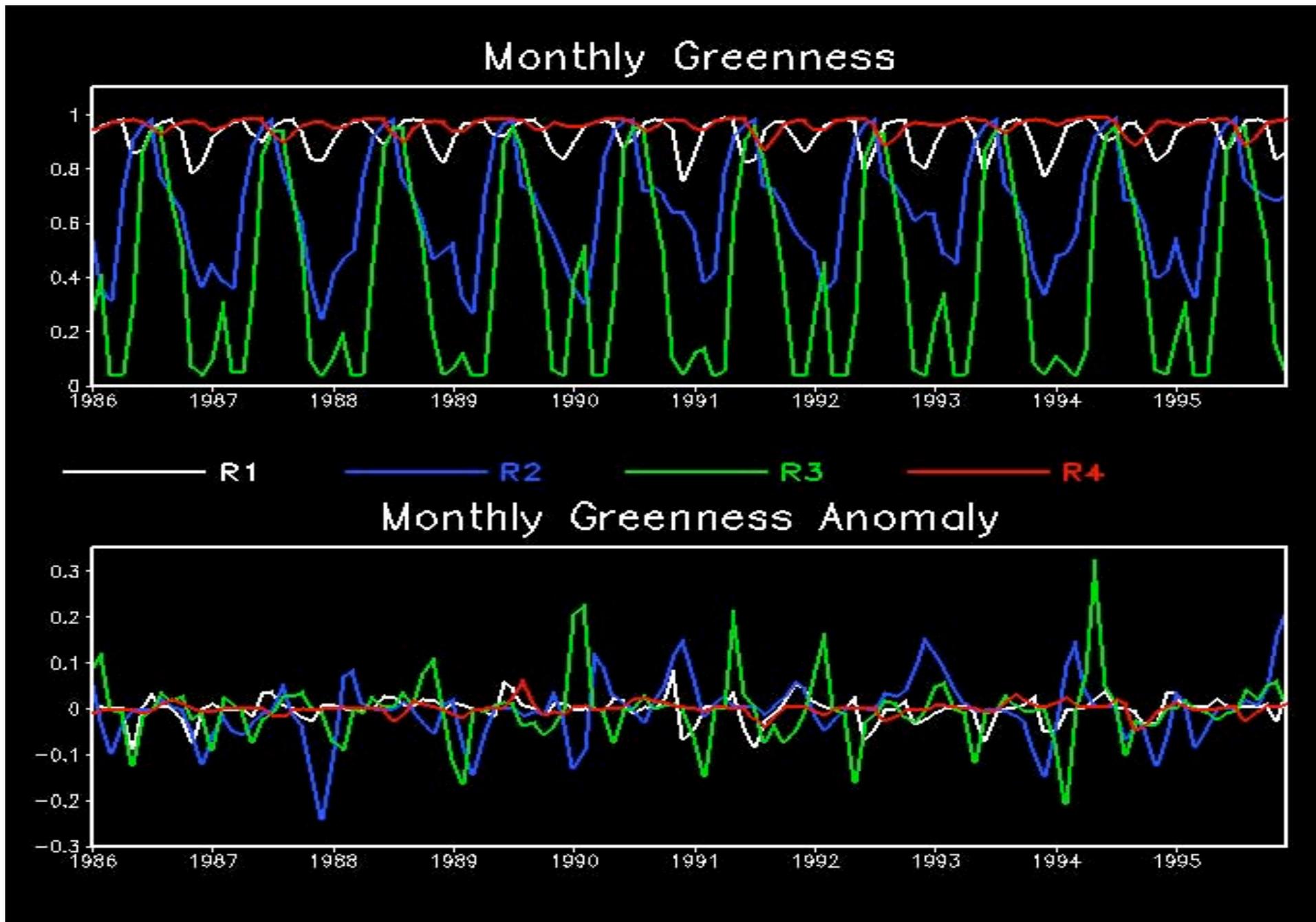


← Eta RCM with  
land states  
from Regional  
Reanalysis

Observed Difference in Total Precip (mm) for Jun+Jul (93-88)



← Observed



**Figure 6**

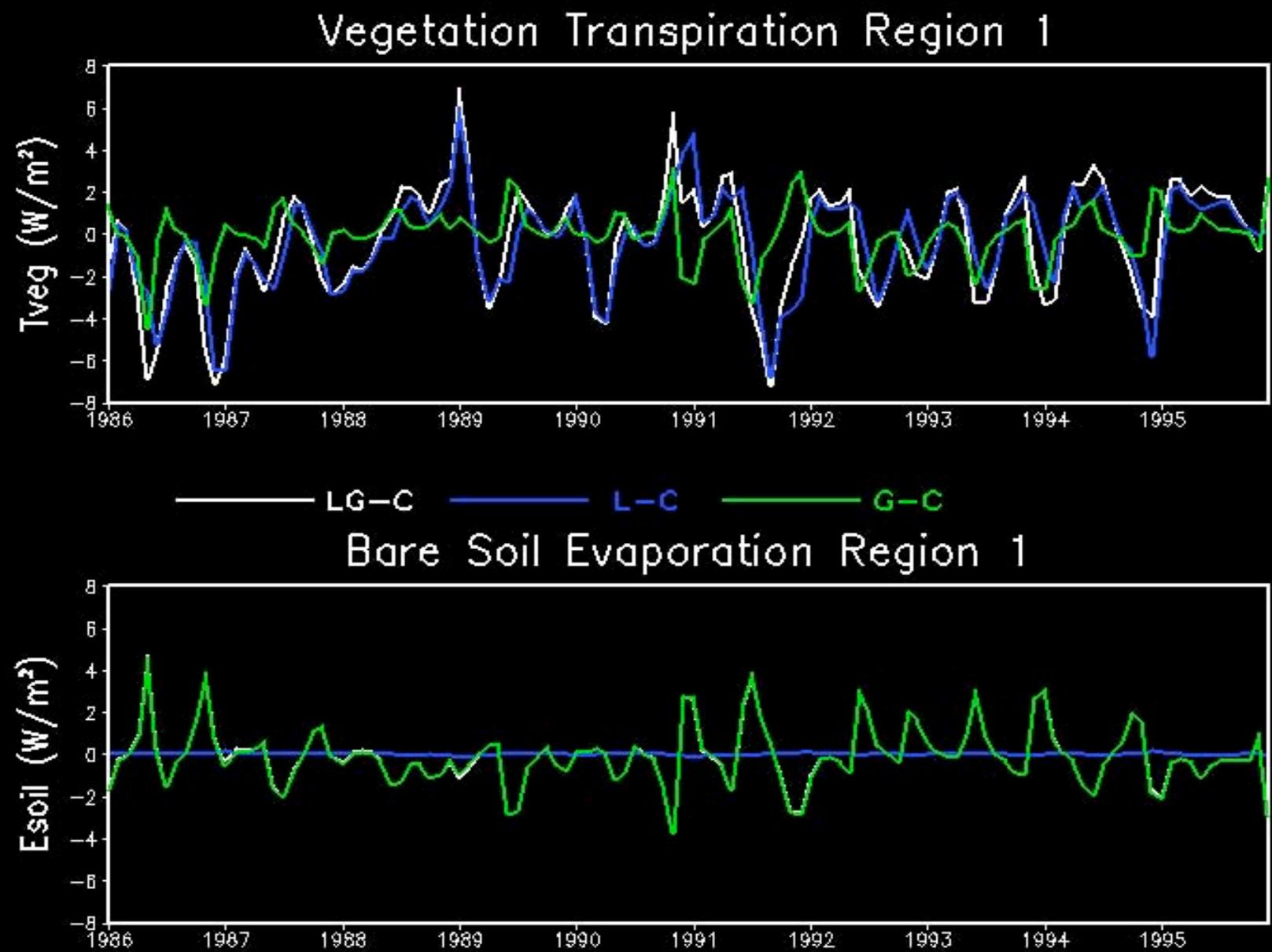


Figure 7

# 19980501 Soil Moisture

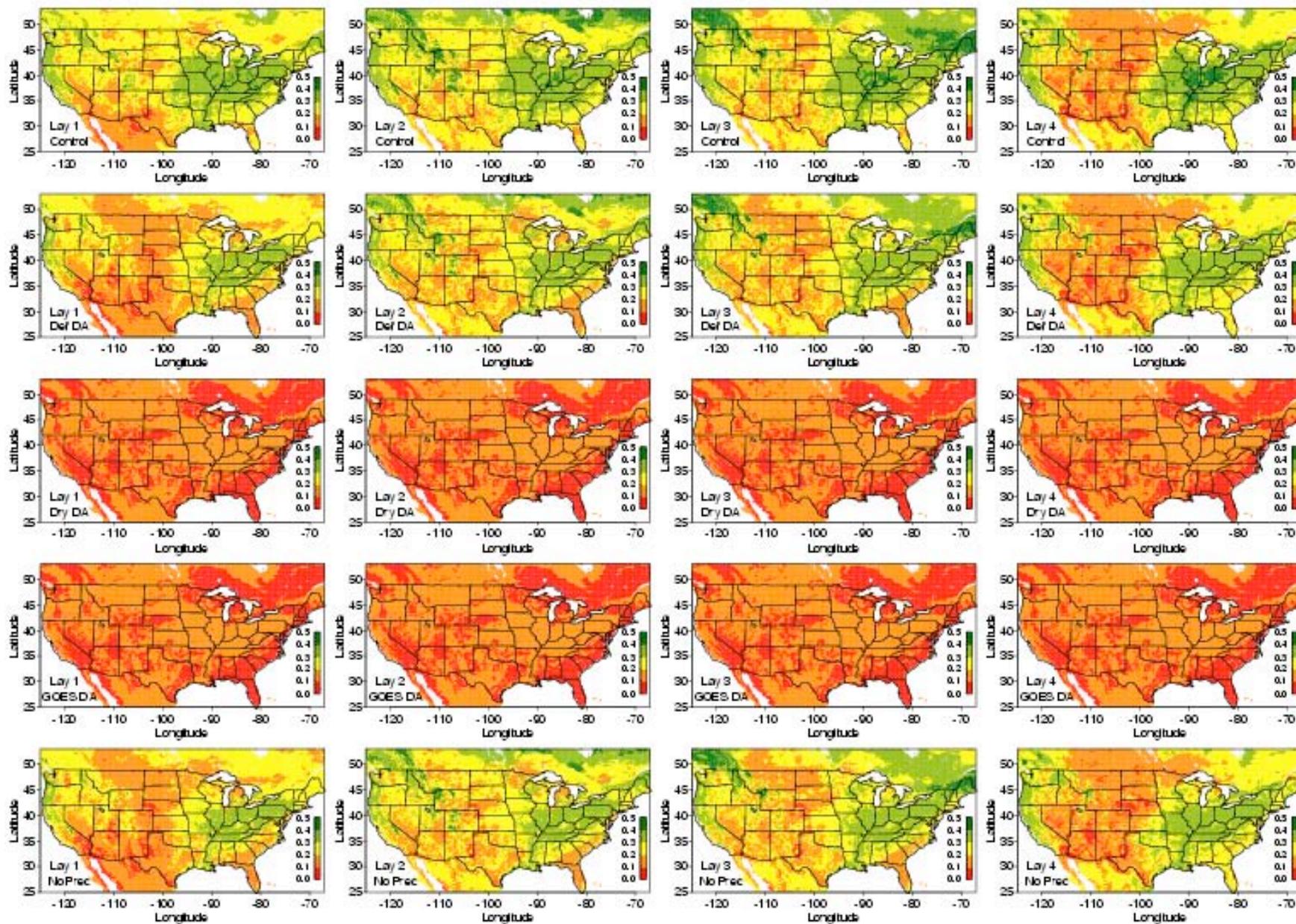


Figure 8a

# 19980521 Soil Moisture

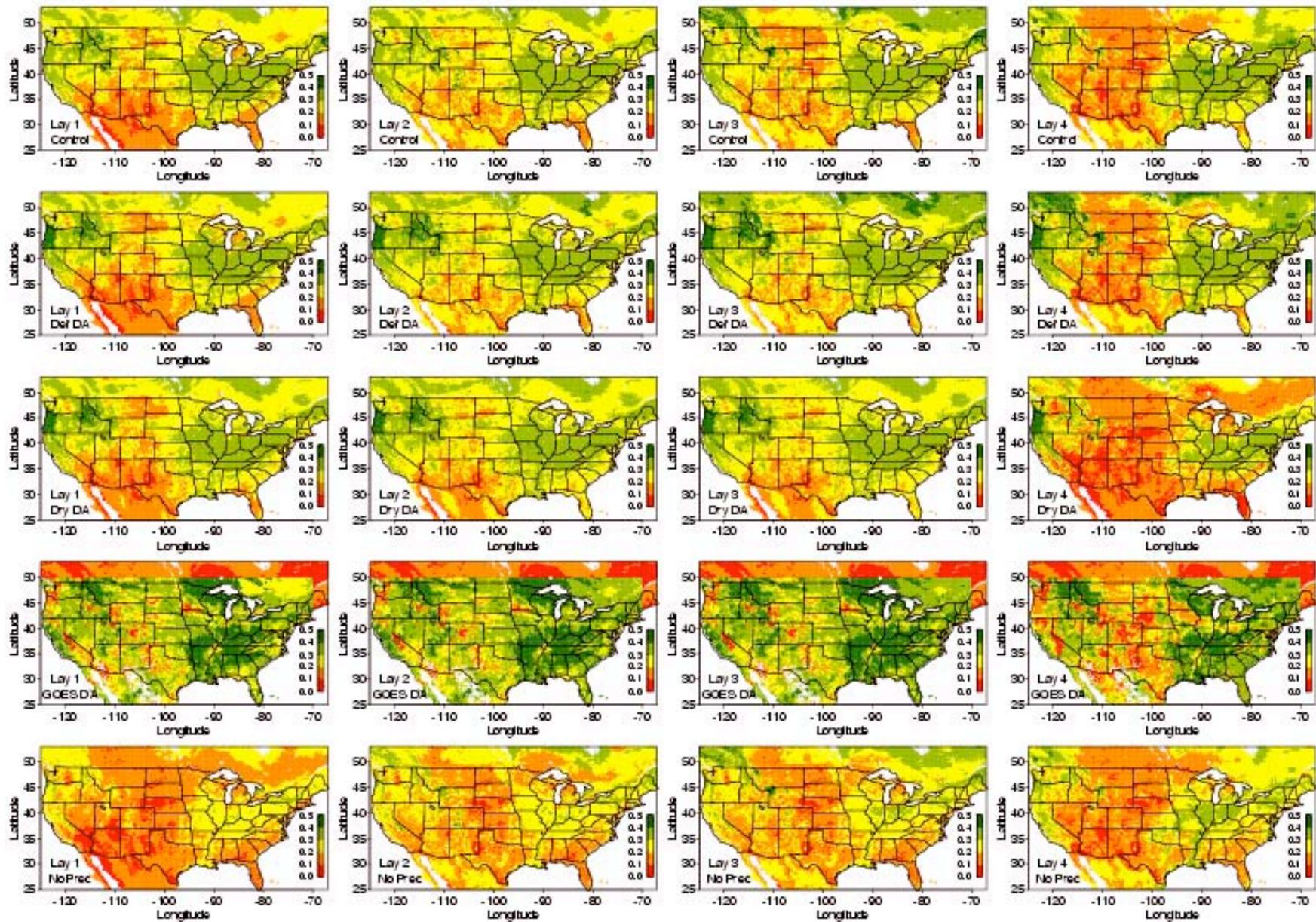


Figure 8b

# Reducing winter-season nighttime near-surface cold bias in coupled Eta/Noah model by applying surface emissivity of 0.9 versus 1.0 over snow cover

Mean 2-M Temp vs. sfc obs (12Z cycle) over the Eastern US for ctrl Eta-32 and parallel Eta-32 (with 32-km ETA superparallel with snow emiss=0.90) forecast from 200402010000 to 200402292359

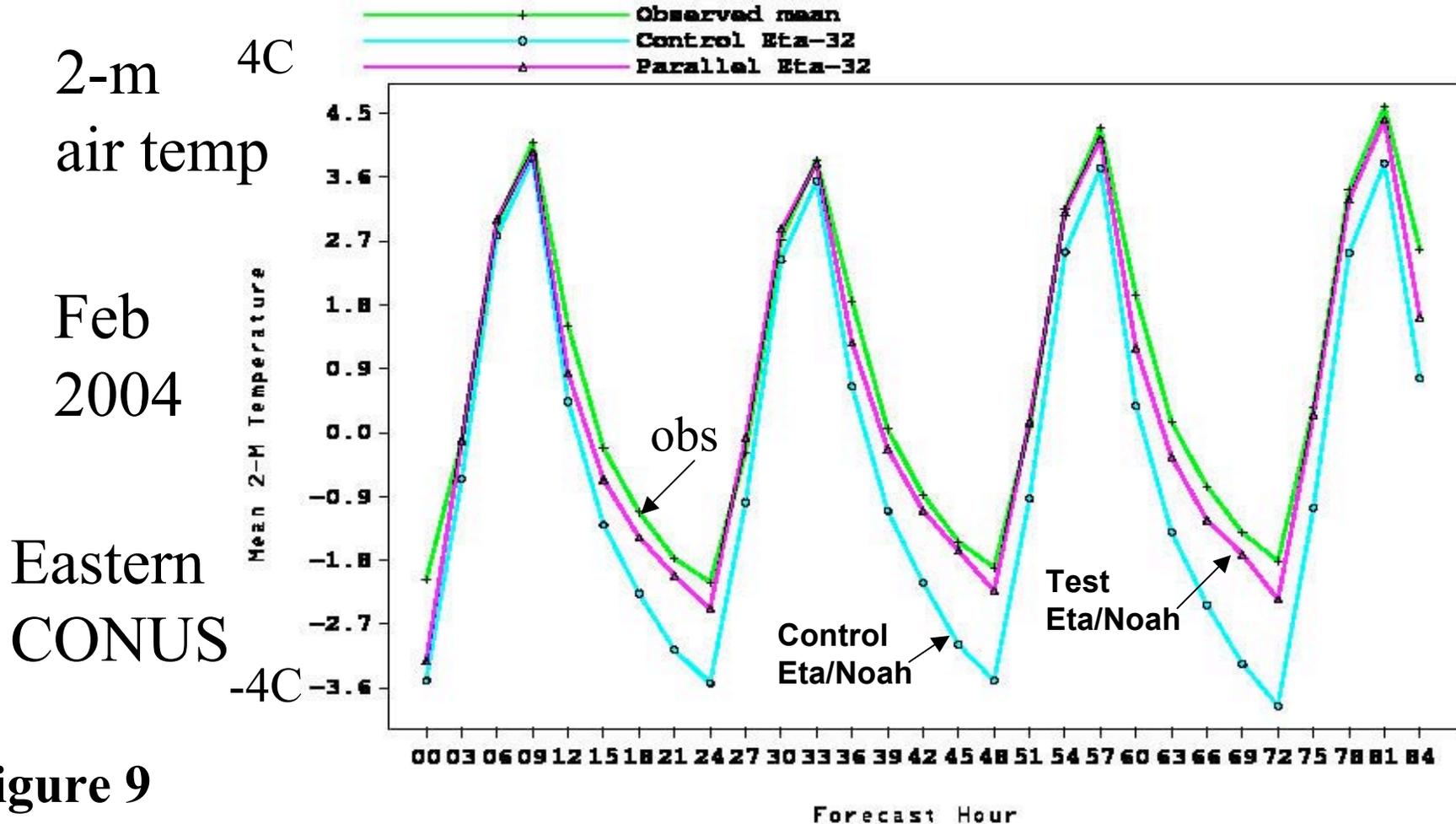


Figure 9

# SW↓ at SURFRAD Sites 2004 1224

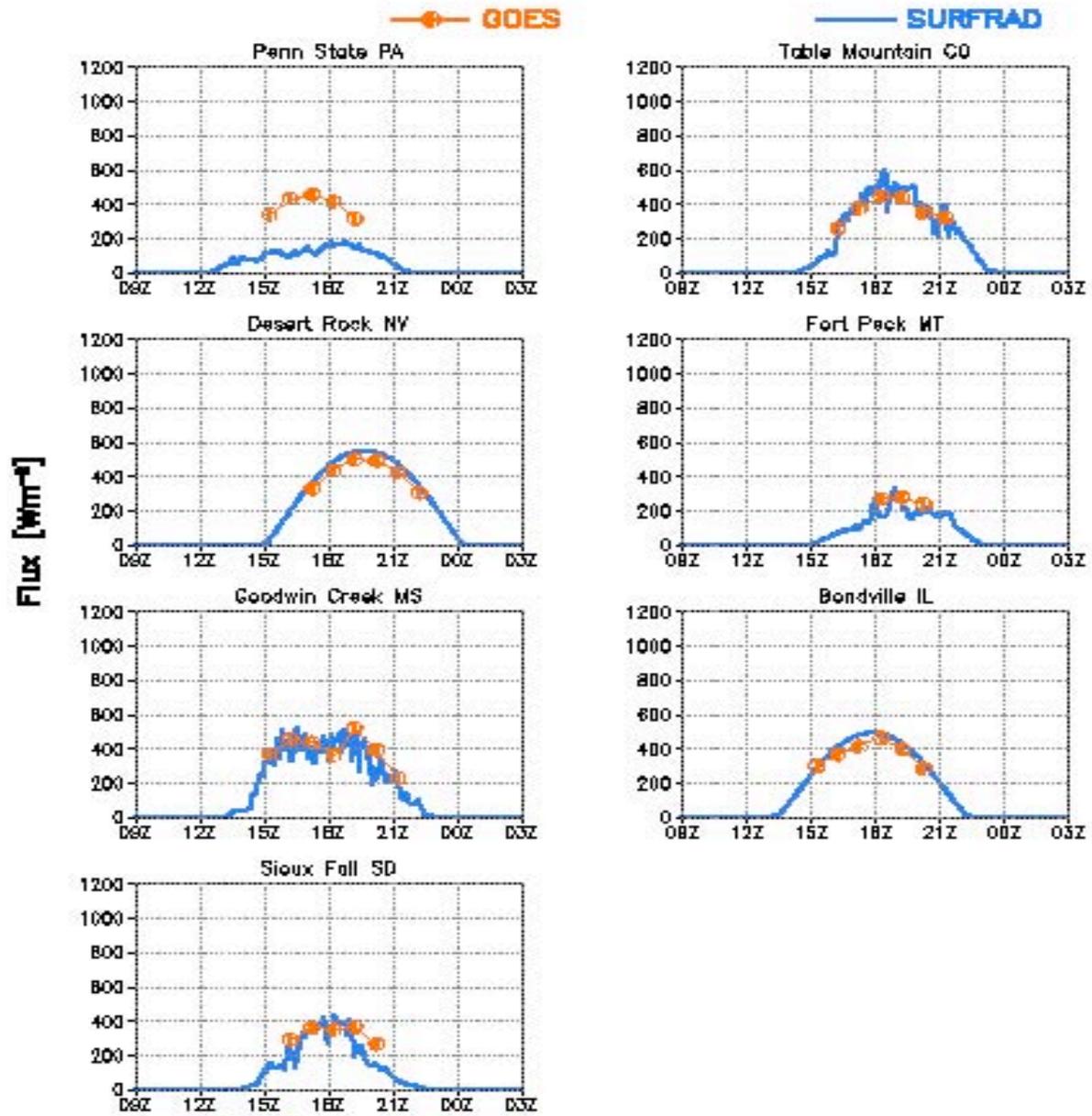


Figure 10