

CCSM Climate: A look at the Atlantic sector*

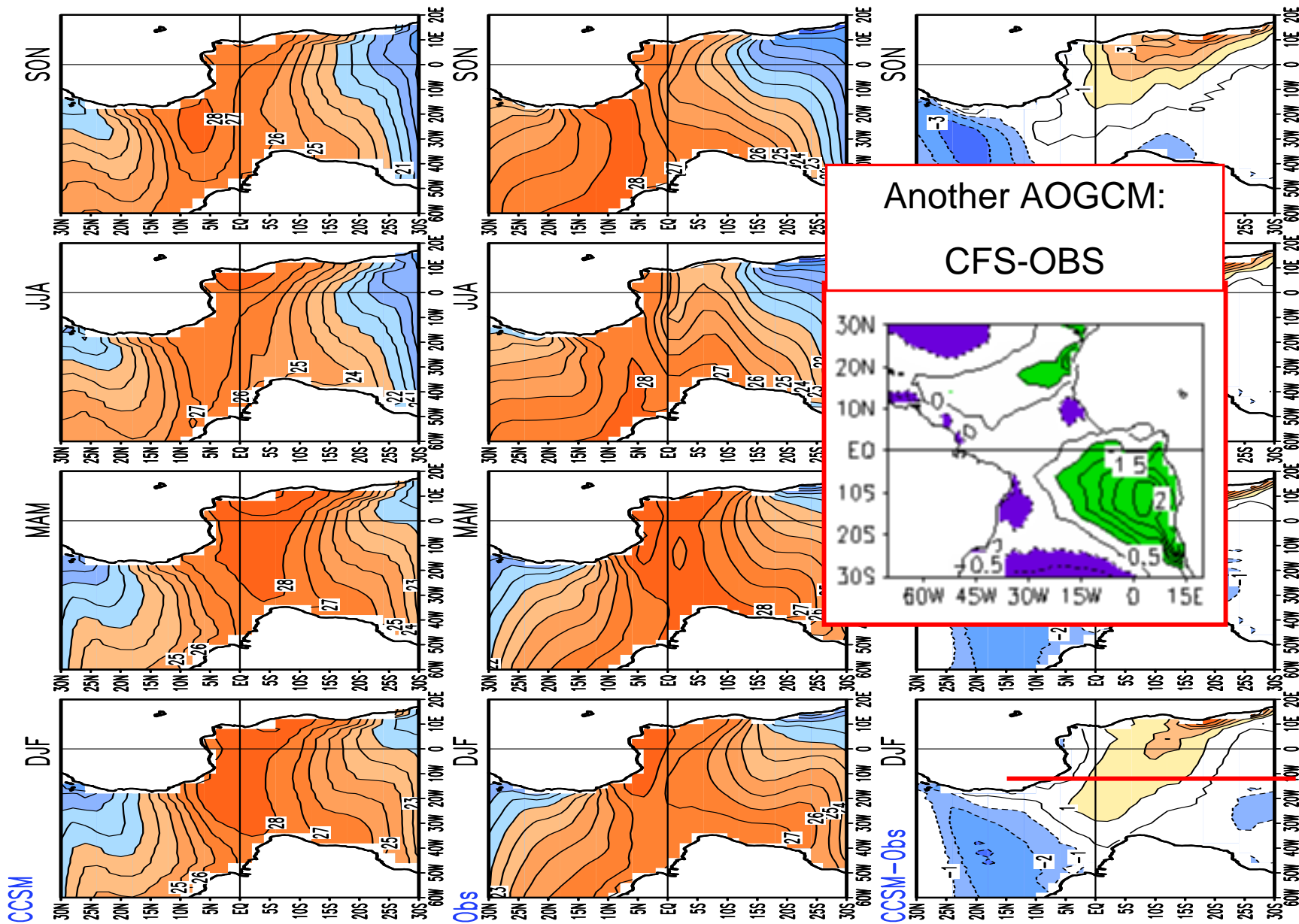
Ching-Yee Chang, James Carton, Sumant Nigam, and Semyon Grodsky
Department of Atmospheric and Oceanic Science/ESSIC, University of
Maryland, College Park, MD

*(see poster)

We'll look at: CCSM3 T85 historical run,
CAM3

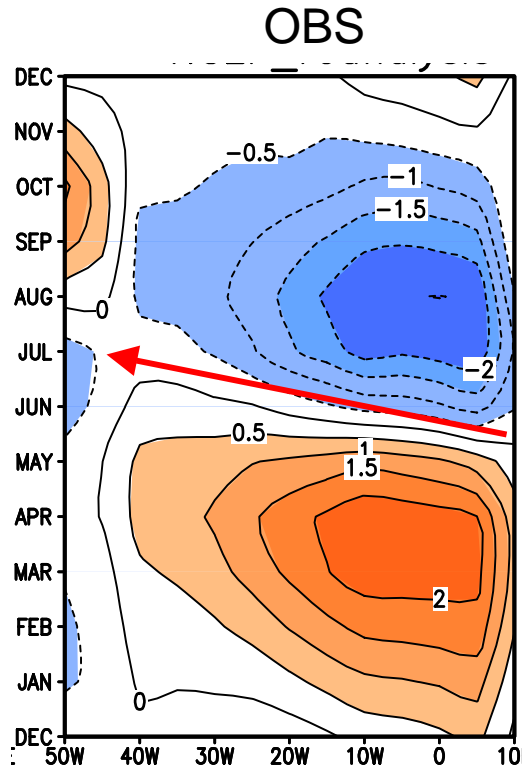
- Tropical winds, SST
- Climate of NW Africa

SST in CCSM



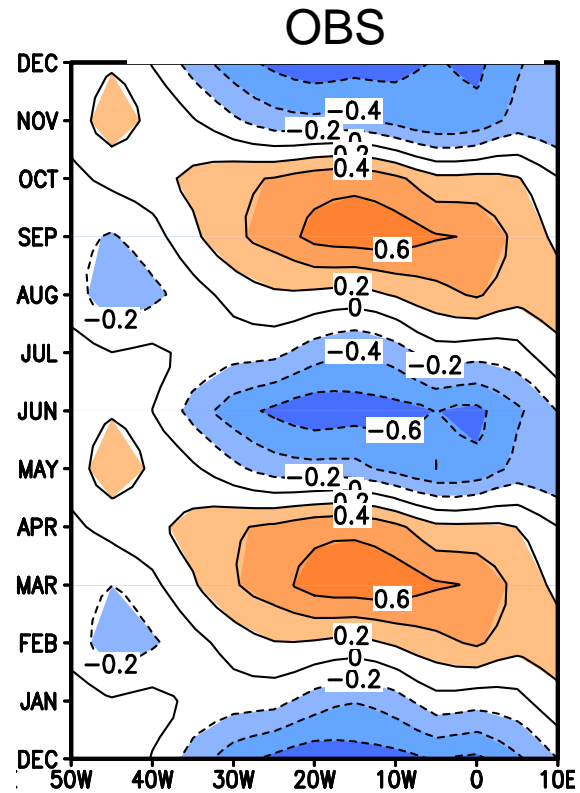
SST anomaly (4°S-0°N)

spread }
Time →

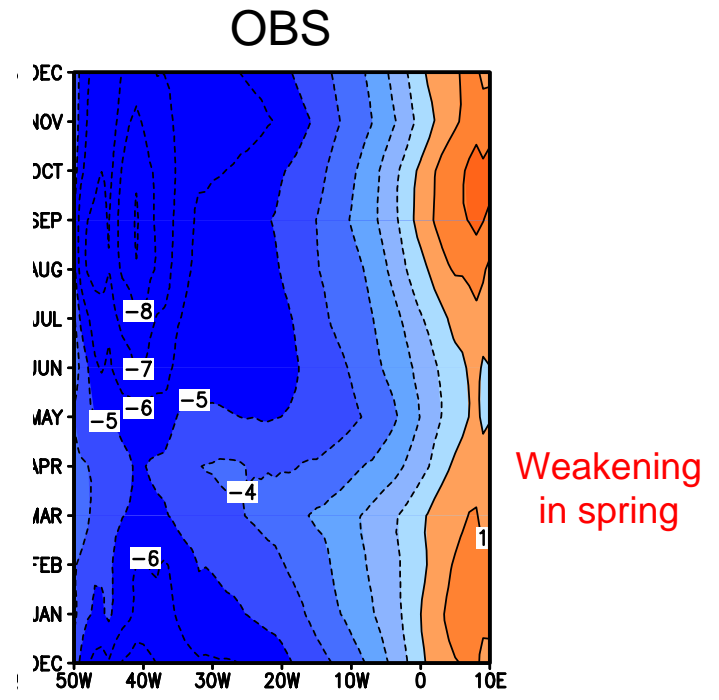


} scrunched
Westward propagation
(a la Mitchell & Wallace)

SST' semiannual cycle 4°S-0°N



Zonal winds 4°S-0°N



CCSM Seasonal SLP, U_{1000mb}

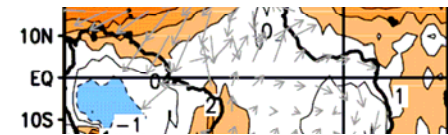
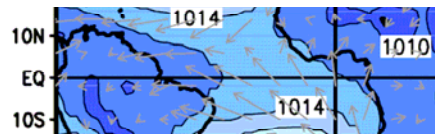
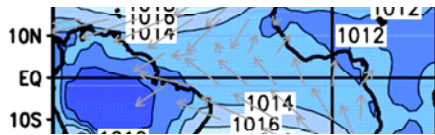
Sept.- Nov.

CCSM

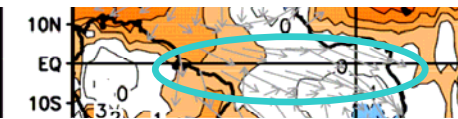
NCEP reanalysis

CCSM-NCEP re

SLP: color



March-May



15 m/s

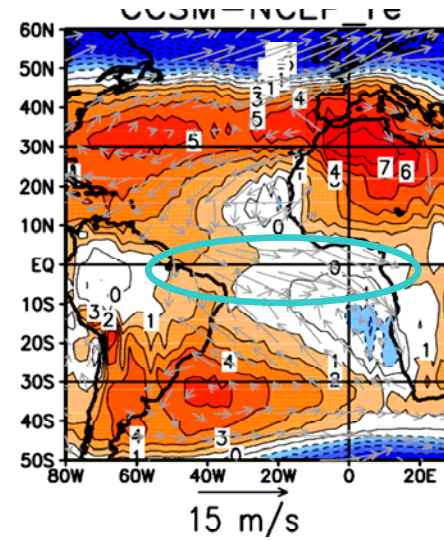
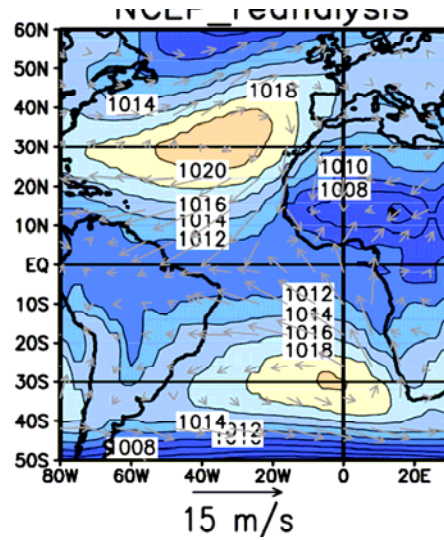
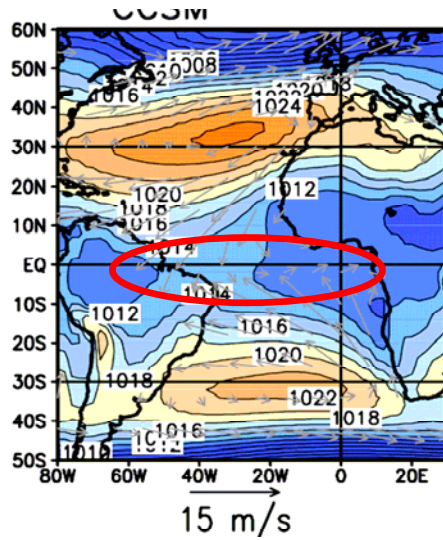
15 m/s

15 m/s

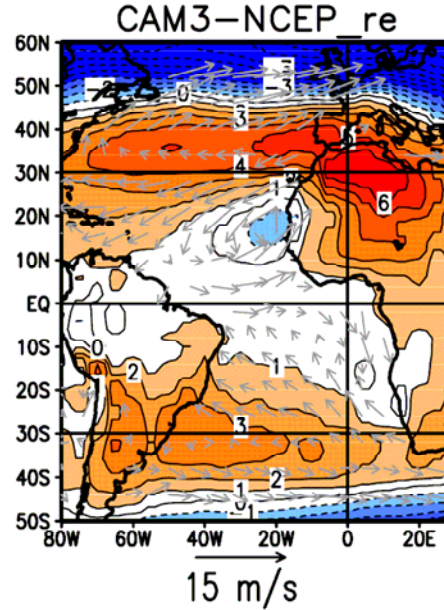
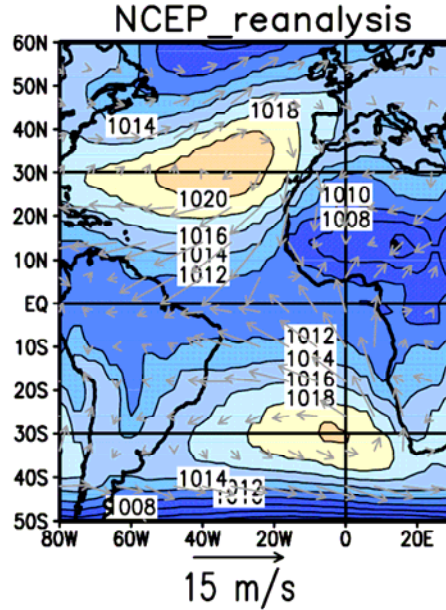
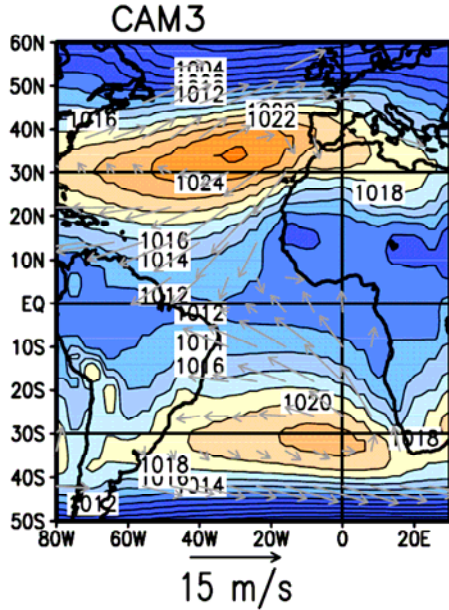
CCSM vs CAM3

SLP, U_{1000mb} March-May

CCSM



CAM3



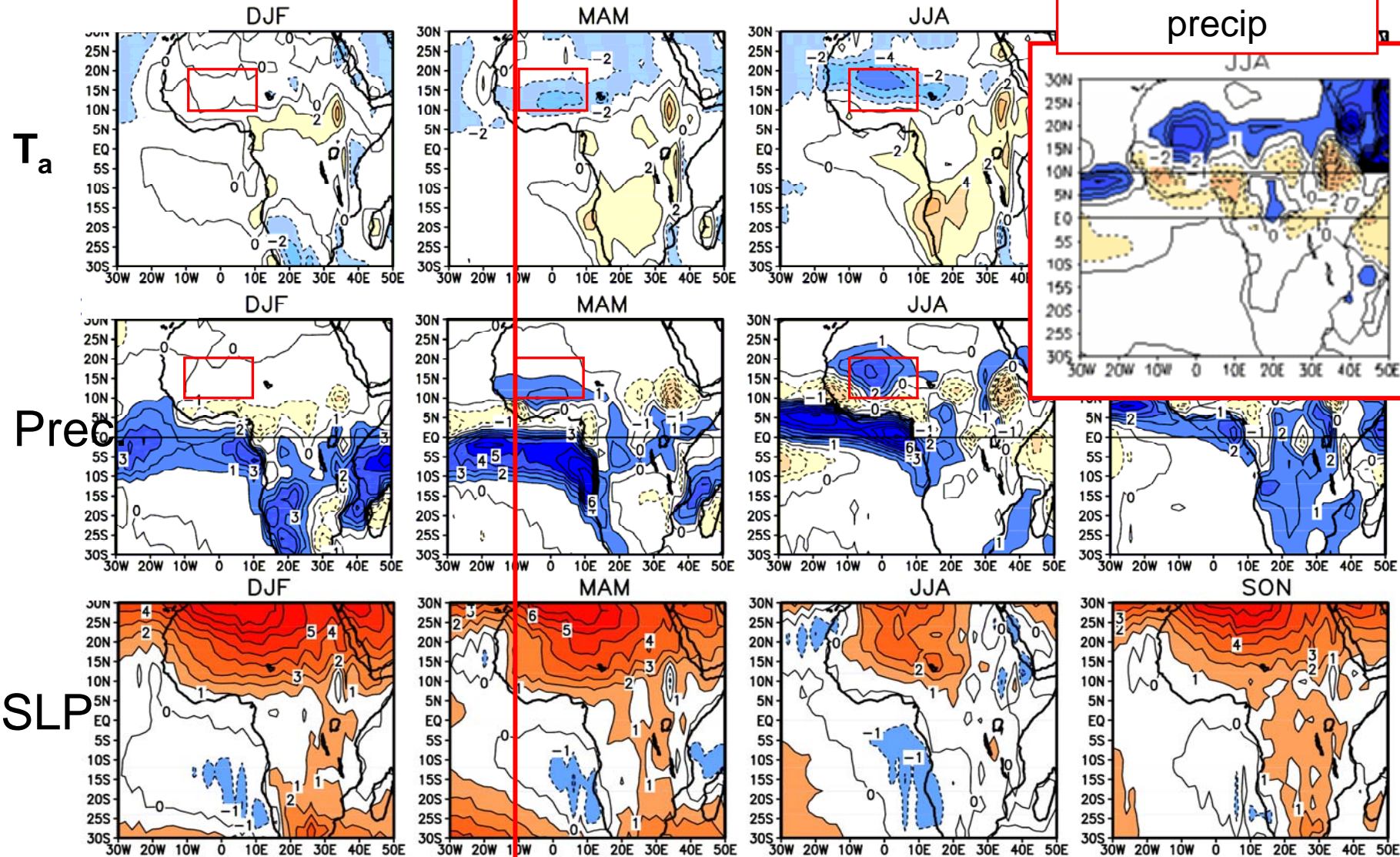
Strong
subtropical
high

Climate of the Sahel and Sahara

CCSM-NCEP for Africa

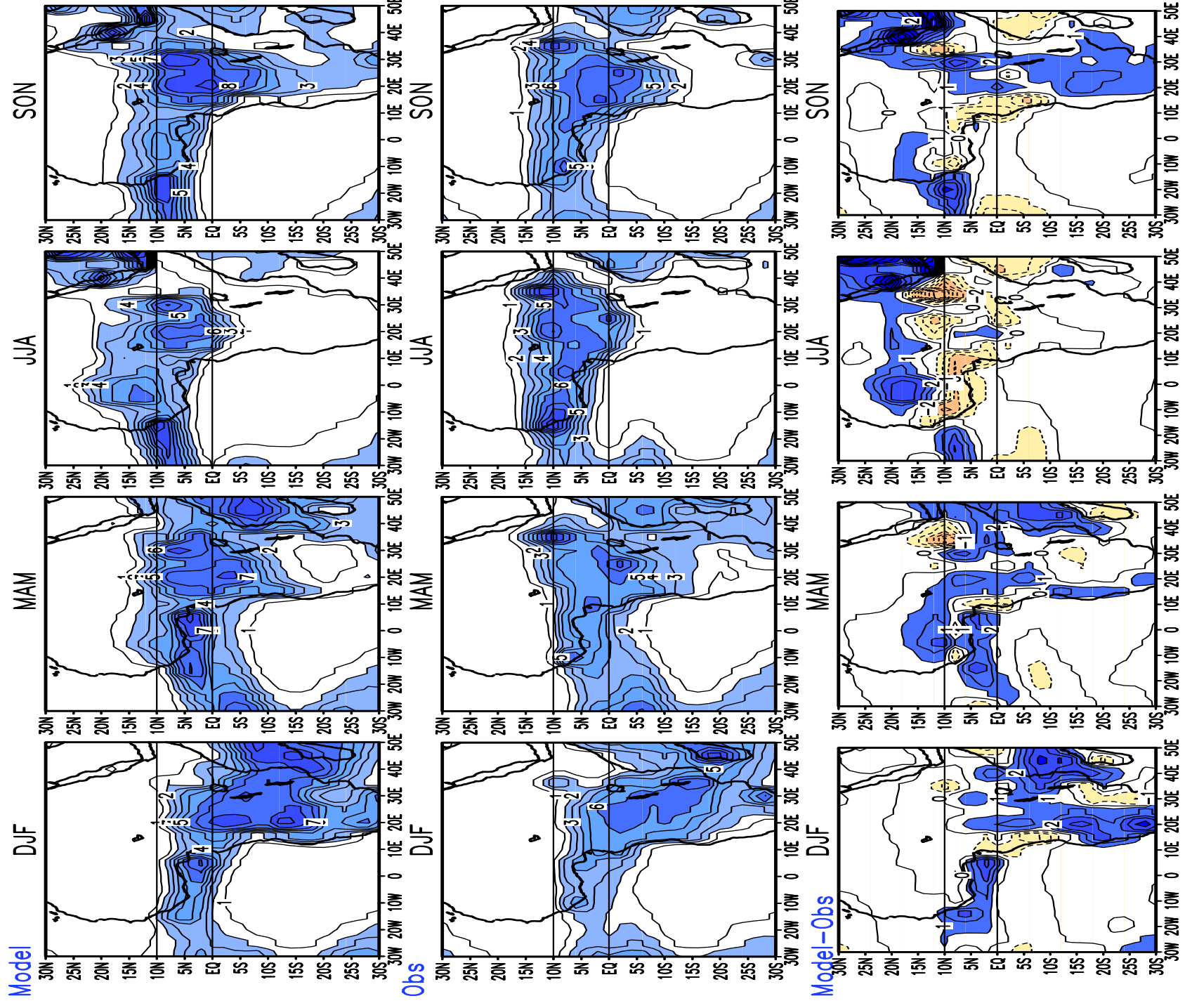
Look here

CAM3-NCEP
precip



Rainfall (mm/day)

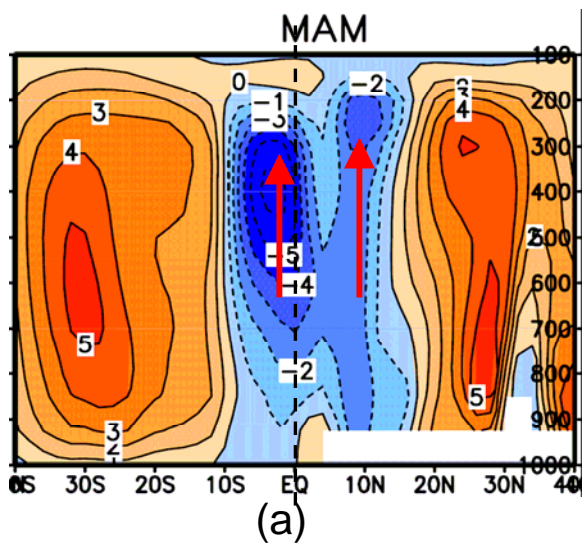
Model(CAM3:prate), Obs(NCEP_reanalysis:prate) and Model-Obs



Convection (10W)

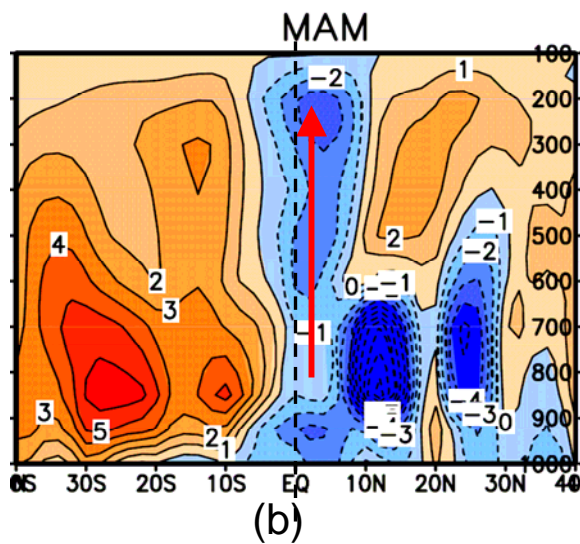
CCSM

MAM



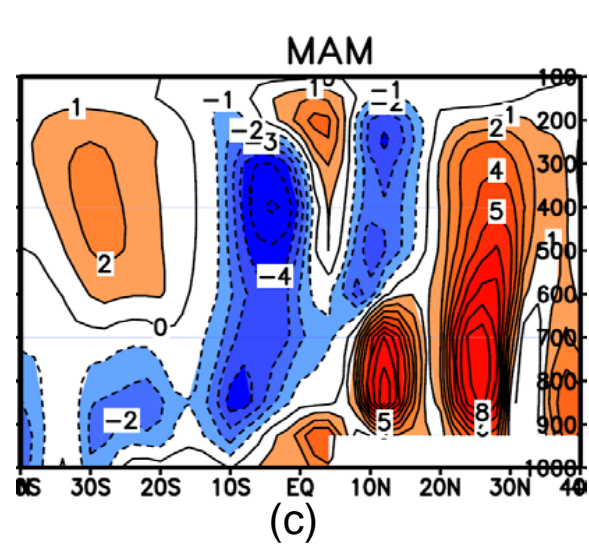
NCEP

MAM



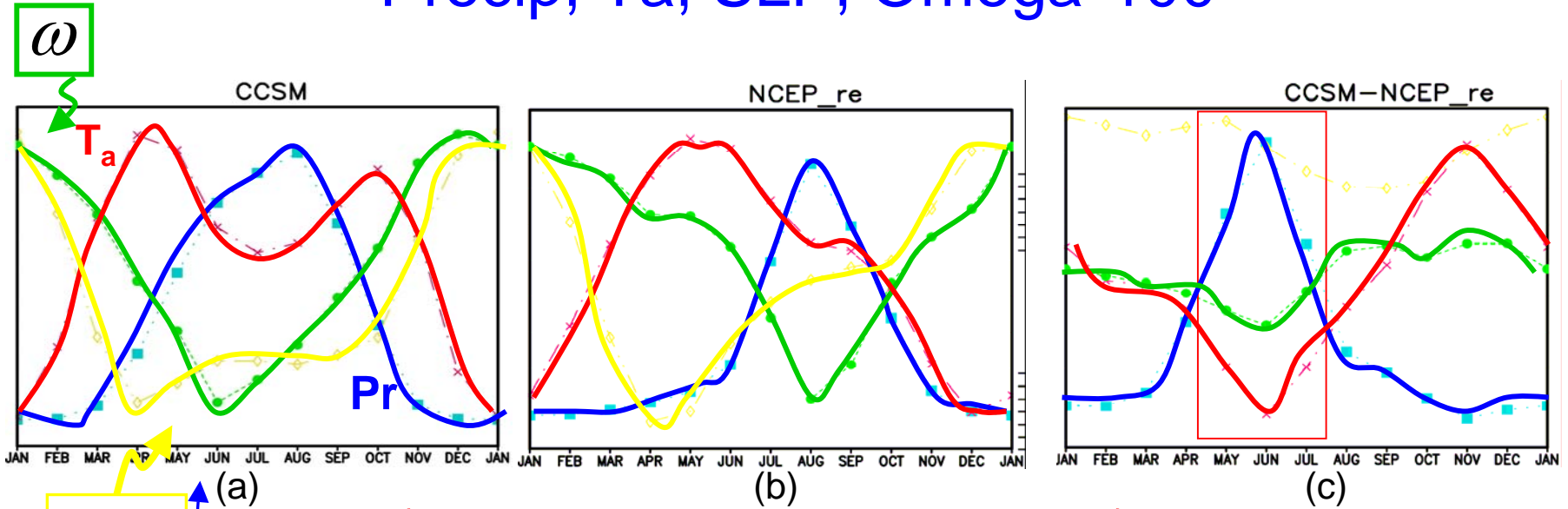
CCSM-NCEP

MAM



CCSM Sahel

Precip, Ta, SLP, Omega*100



Precip starts early

