

Comparision between two precipitation and two reanalysis datasets on different phasis of the MJO

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Marocco

Goals

- Analyse:
 - The effects of the different phasis of the MJO over South American precipitation
 - The robustness of these effects with respect to the choice of precipitation dataset
 - Teleconnection patterns associated with each phase of the MJO

Methodology

- For South America for DJF:
 - Composites of daily precipitation anomalies in the different MJO phases
 - Composites of daily streamfunction anomalies in the different MJO phases

Datasets

- Precipitation:
 - CHIRPS
 - PERSIAN-CDR
- Reanalysis:
 - NOAA CDAS-1
- Time period: 1981-2010

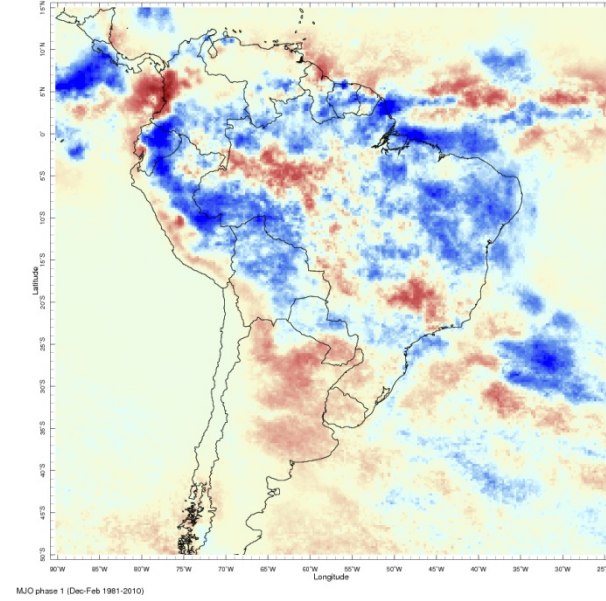
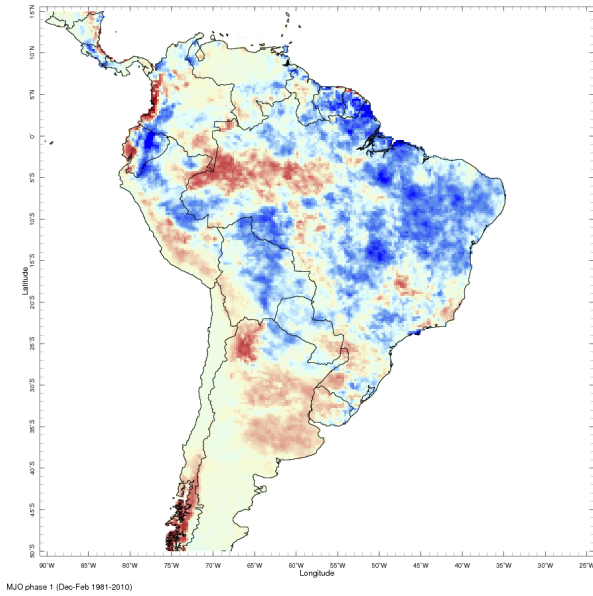
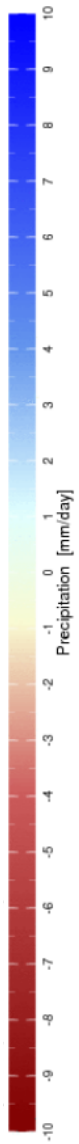
Results

Precipitation composites
CHIRPS x PERSIAN-CDR

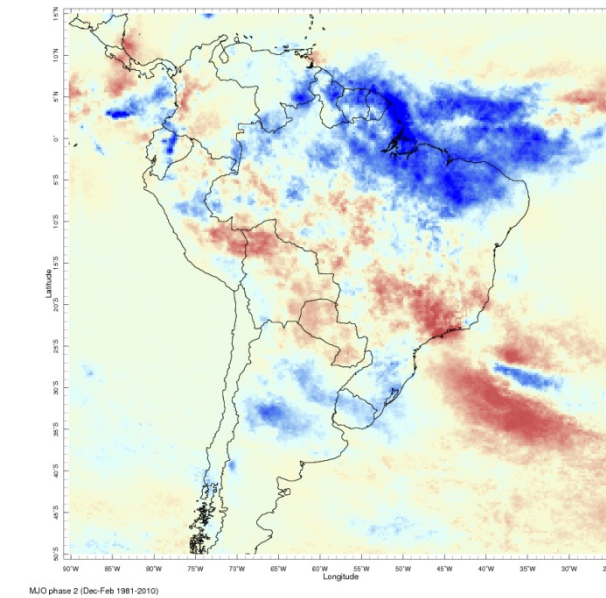
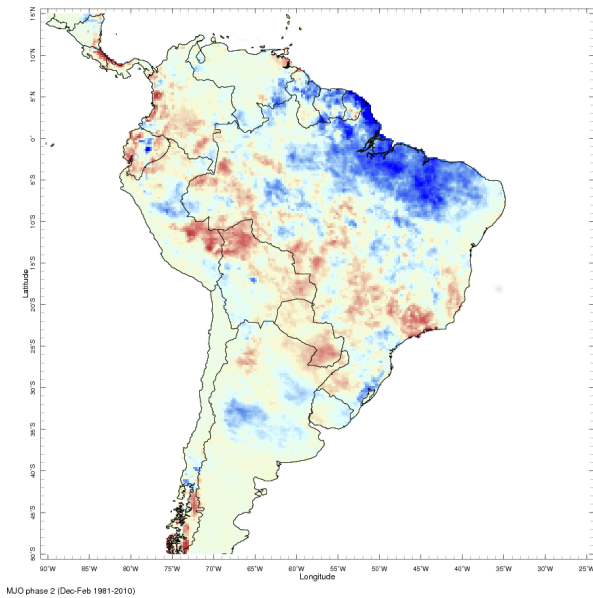
CHIRPS

Phase 1

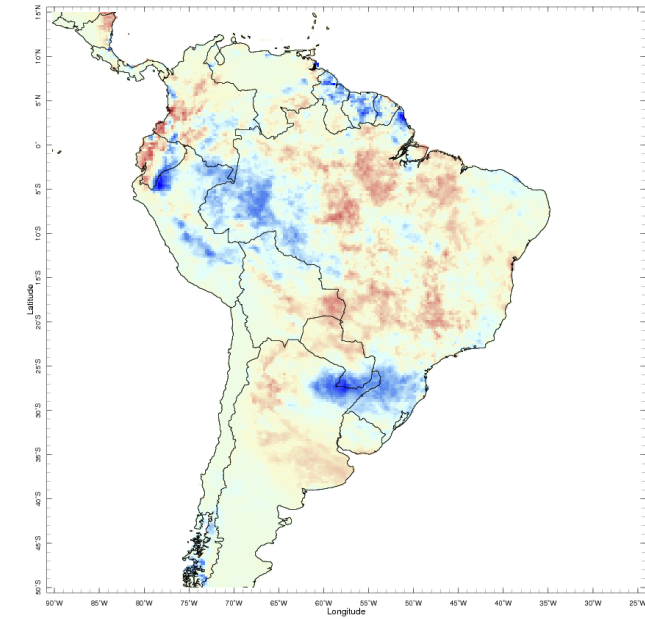
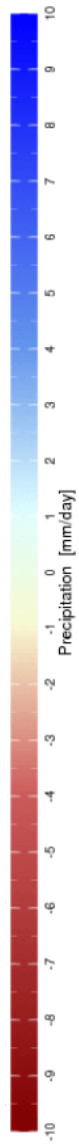
PERSIAN-CDR



Phase 2

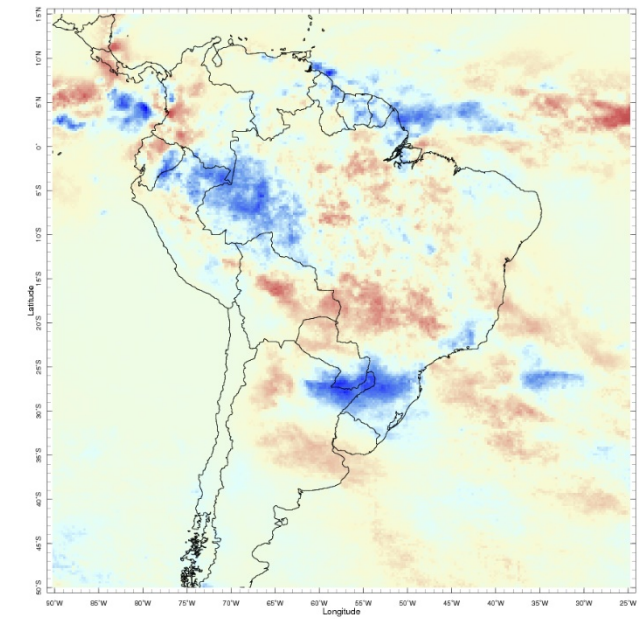


CHIRPS

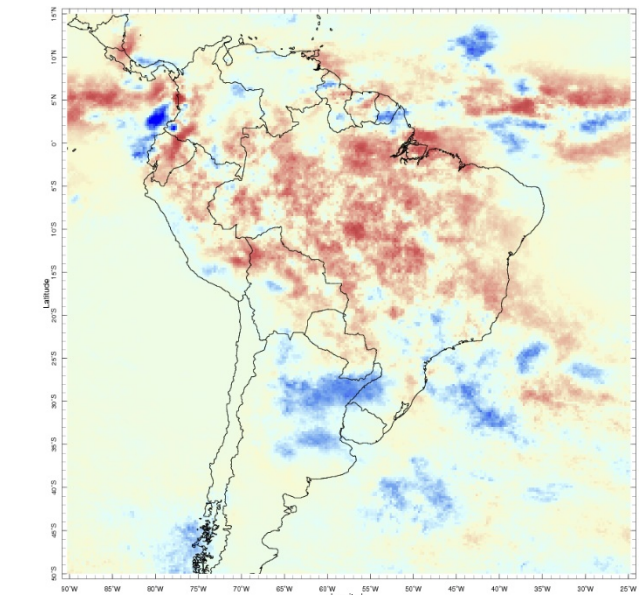
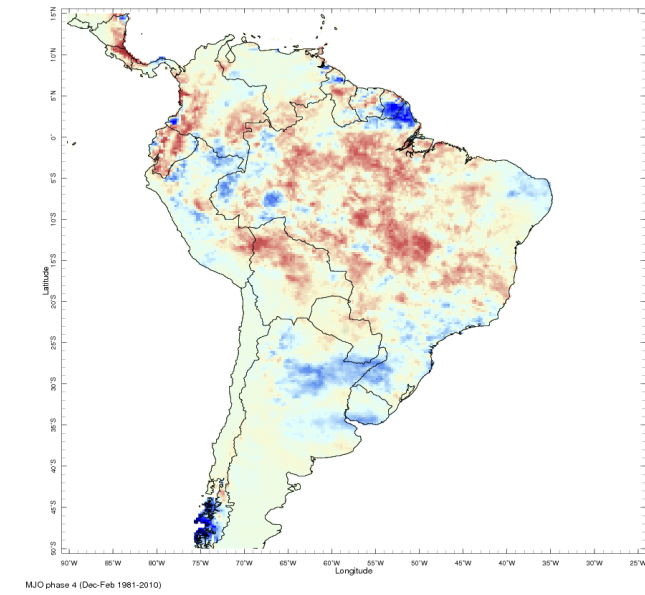


Phase 3

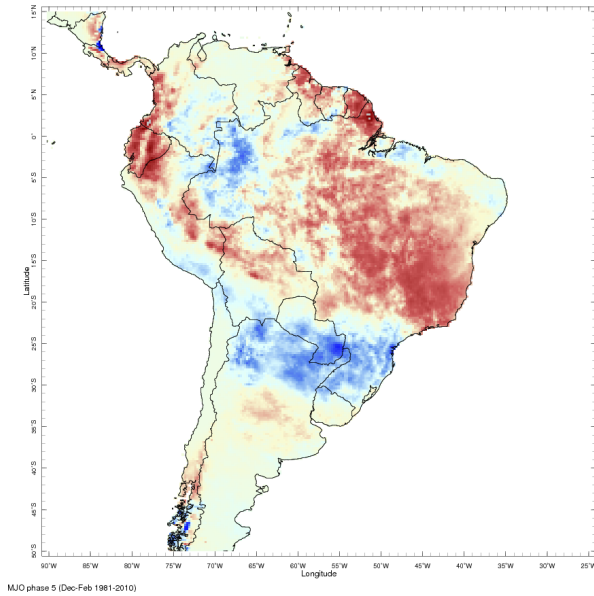
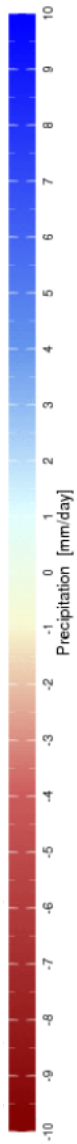
PERSIAN-CDR



Phase 4

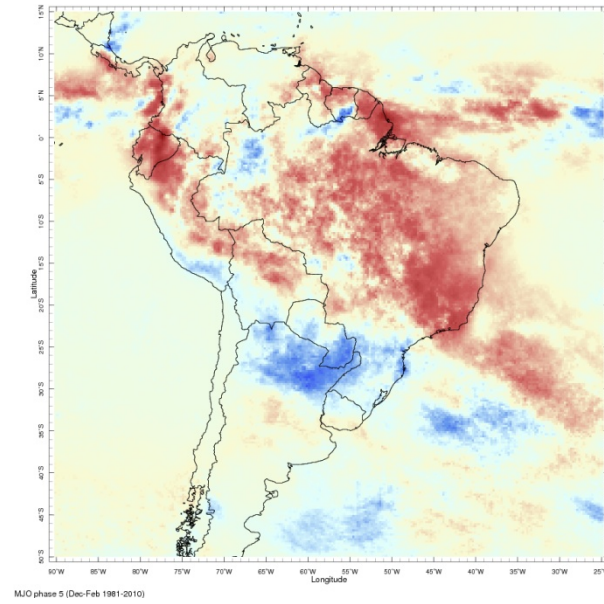


CHIRPS

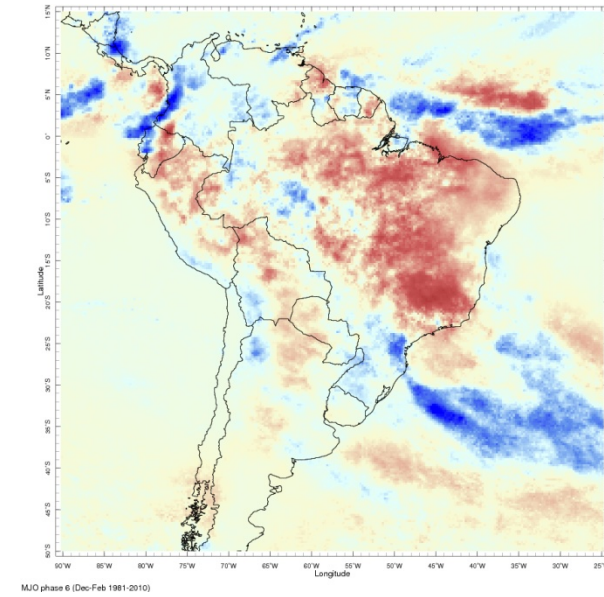
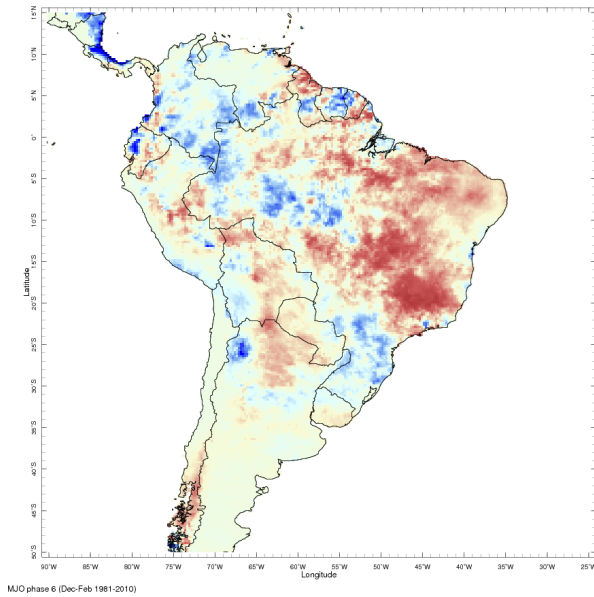


Phase 5

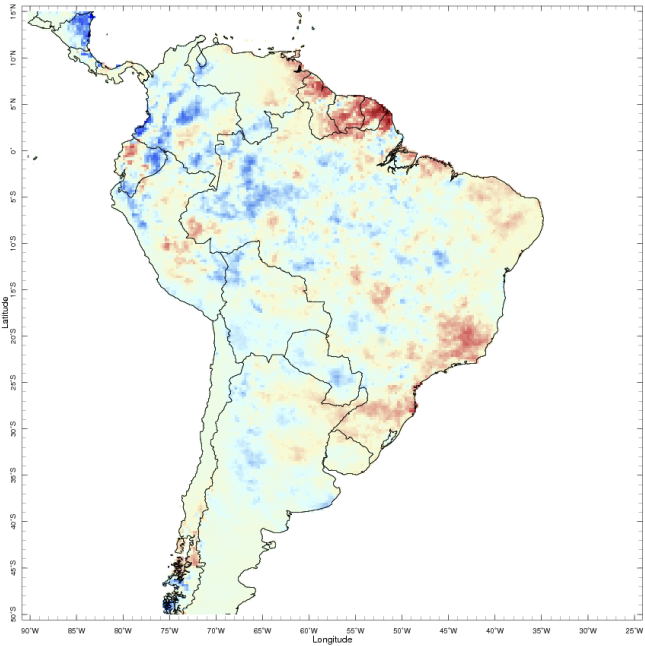
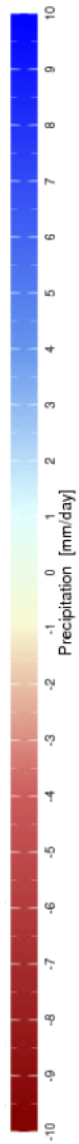
PERSIAN-CDR



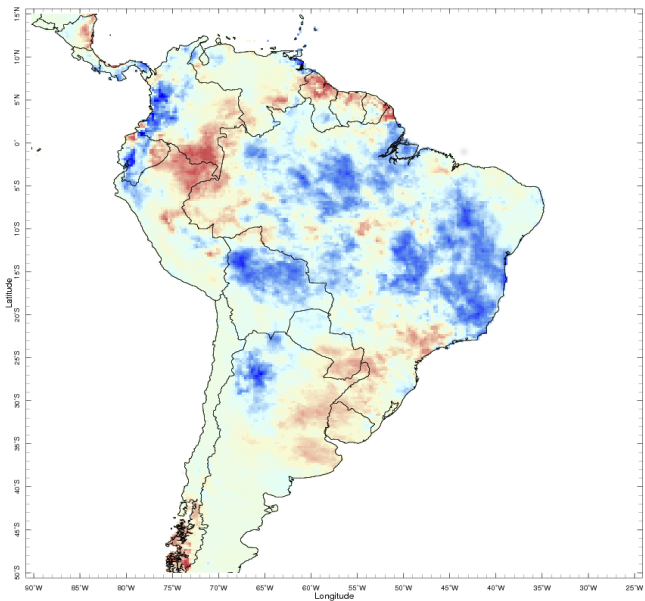
Phase 6



CHIRPS



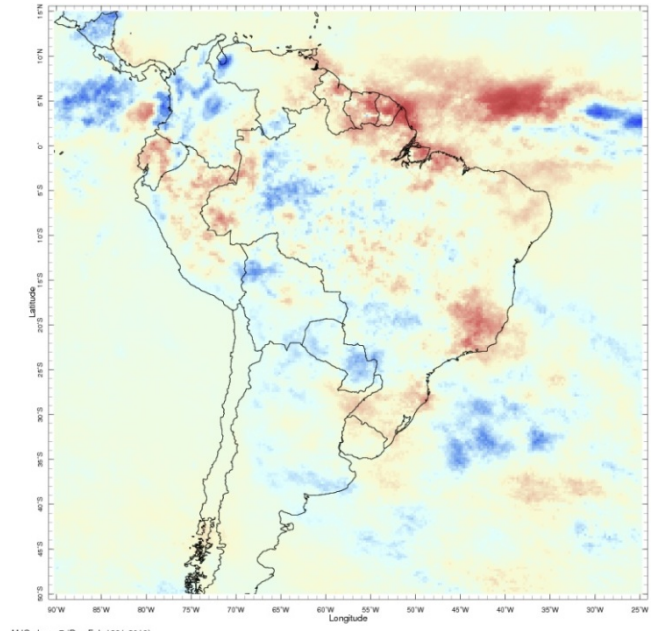
MJO phase 7 (Dec-Feb 1981-2010)



MJO phase 8 (Dec-Feb 1981-2010)

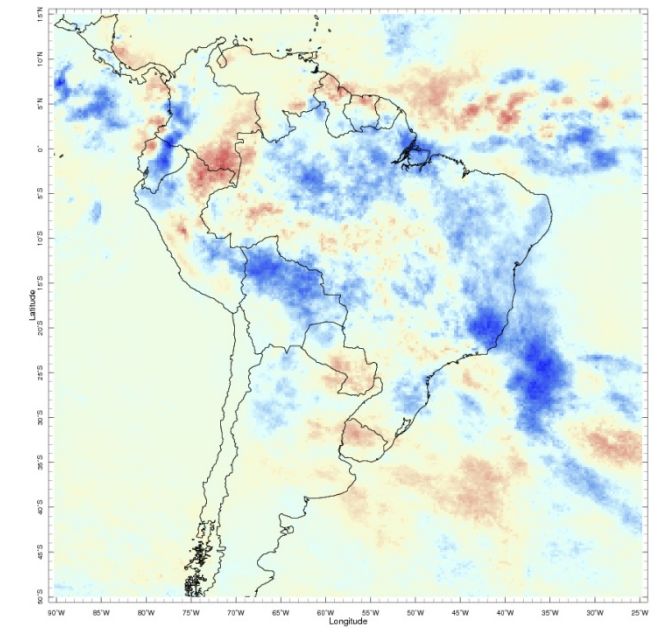
Phase 7

PERSIAN-CDR



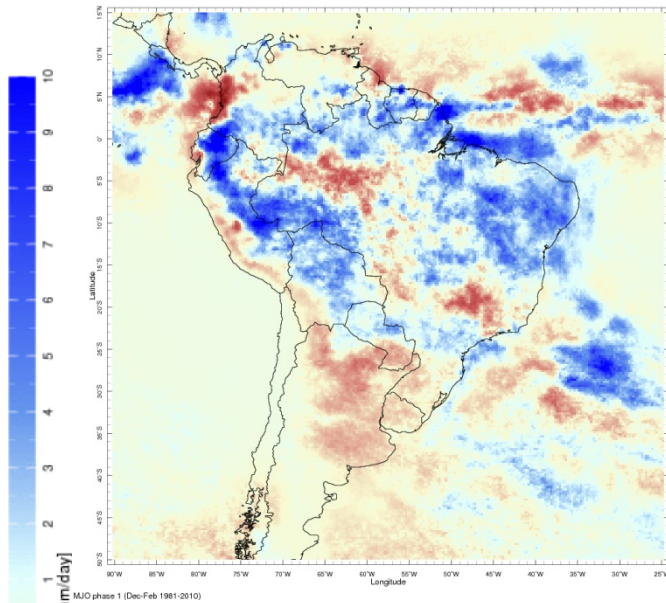
MJO phase 7 (Dec-Feb 1981-2010)

Phase 8

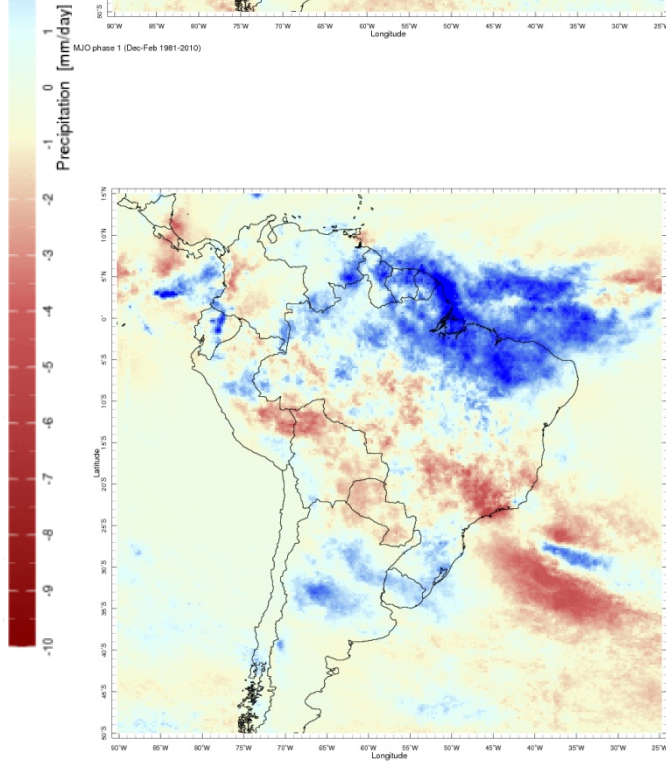
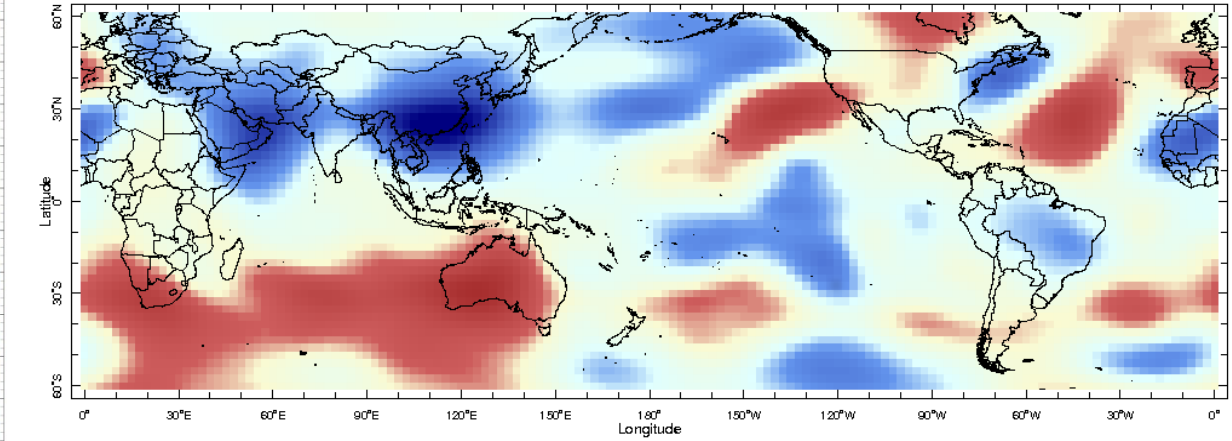
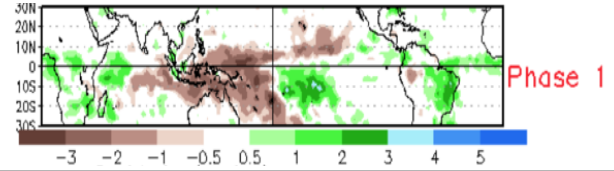


MJO phase 8 (Dec-Feb 1981-2010)

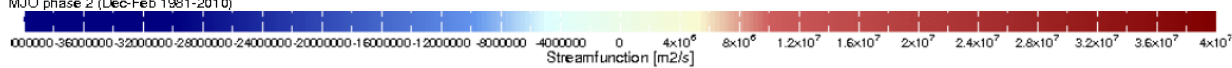
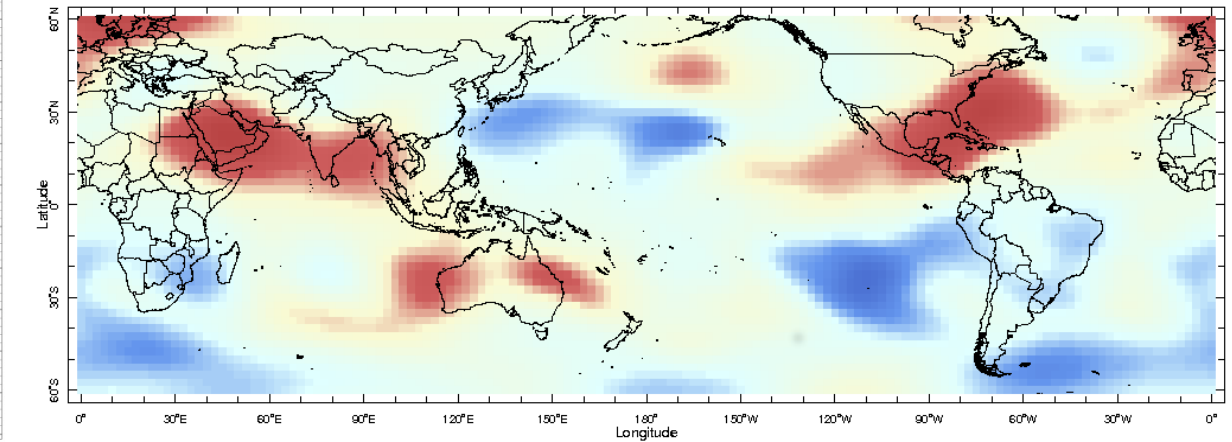
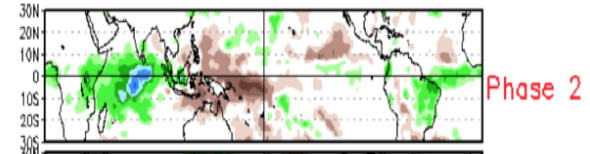
Composites for MJO phases
PERSIAN-CDR / CDAS-1

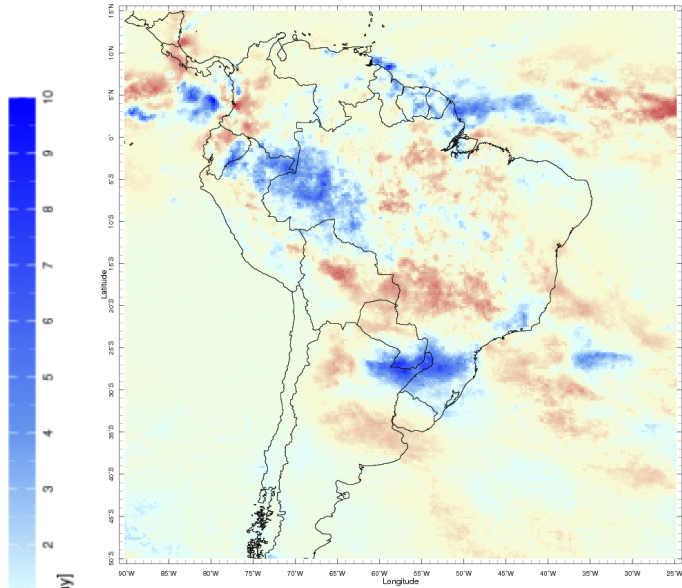


Phase 1

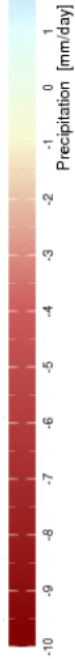


Phase 2

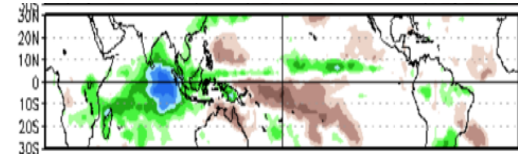




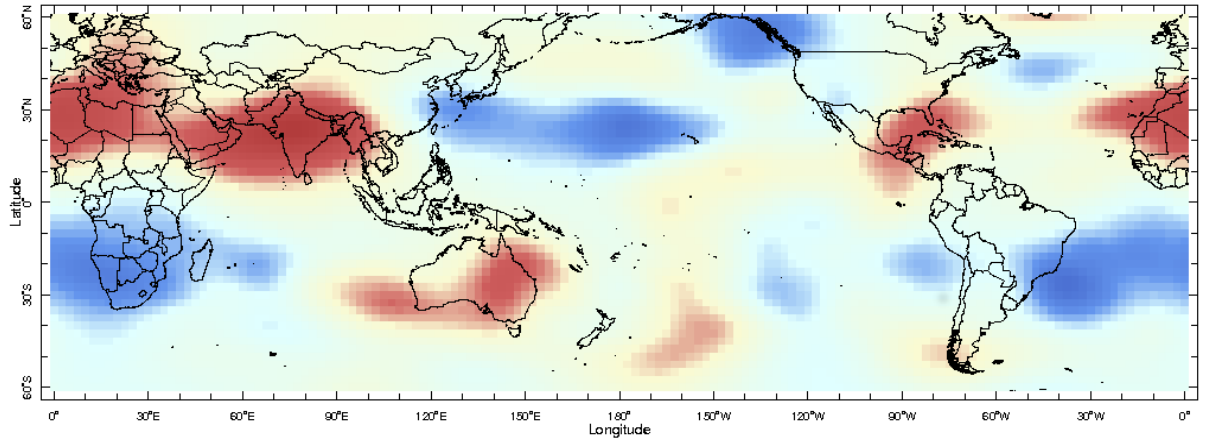
MJO phase 3 (Dec-Feb 1981-2010)



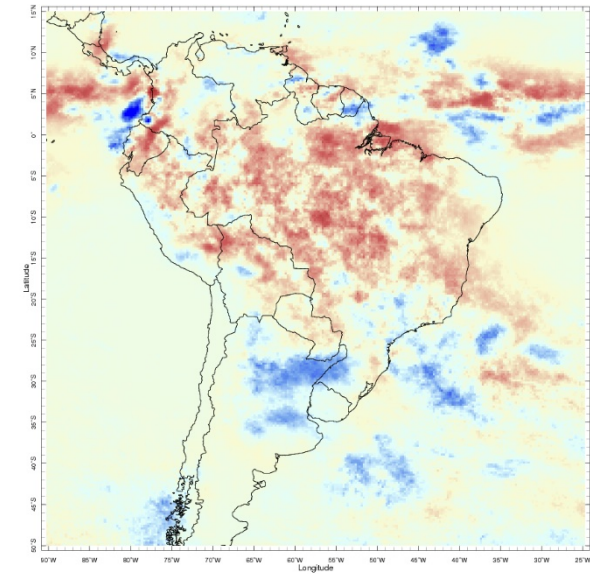
Phase 3



Phase 3

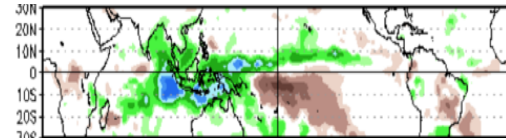


MJO phase 3 (Dec-Feb 1981-2010)

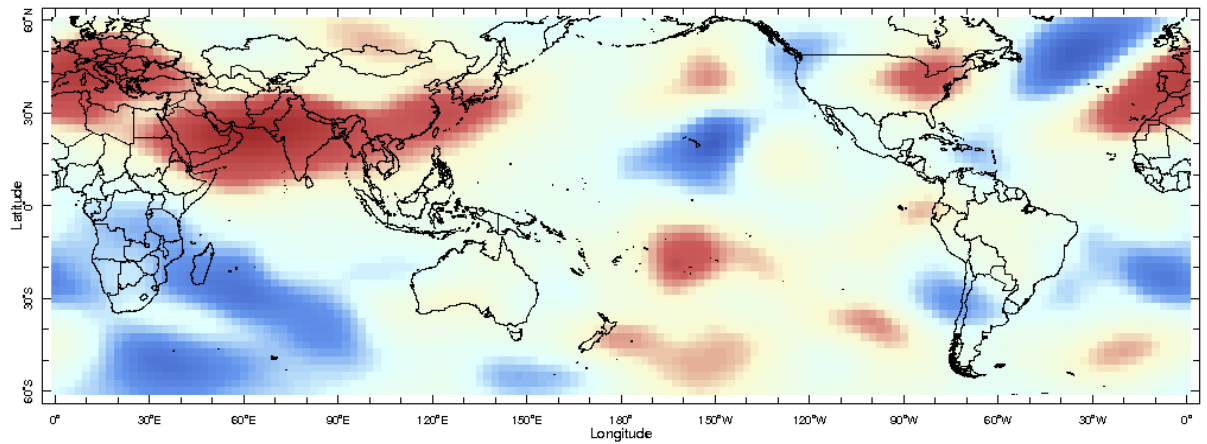


MJO phase 4 (Dec-Feb 1981-2010)

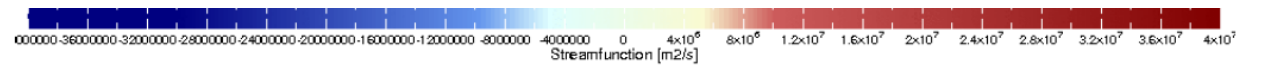
Phase 4

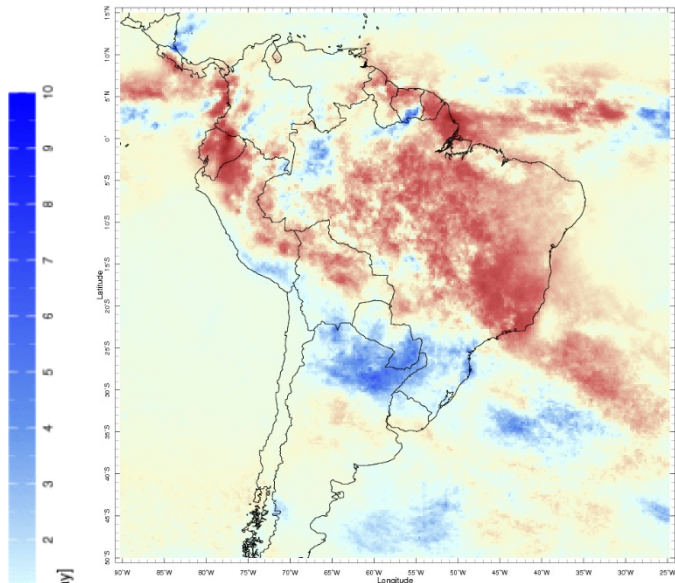


Phase 4

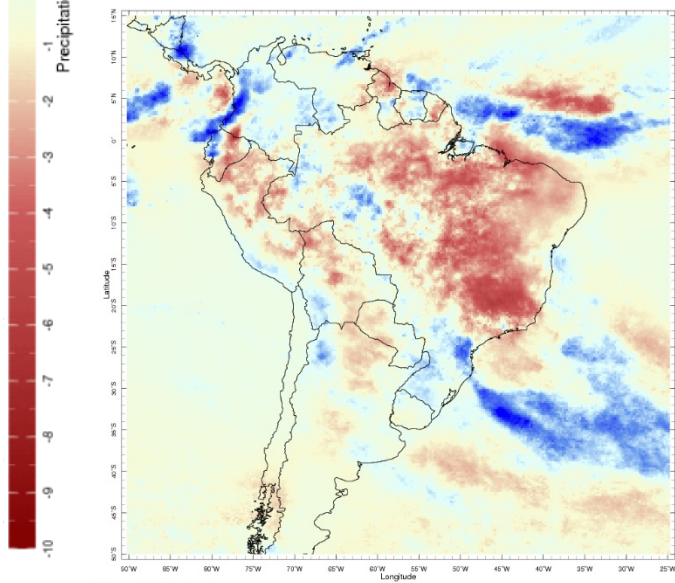


MJO phase 4 (Dec-Feb 1981-2010)



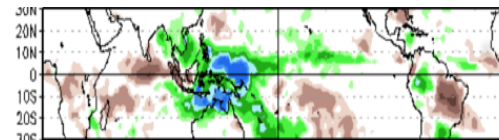


MJO phase 5 (Dec-Feb 1981-2010)

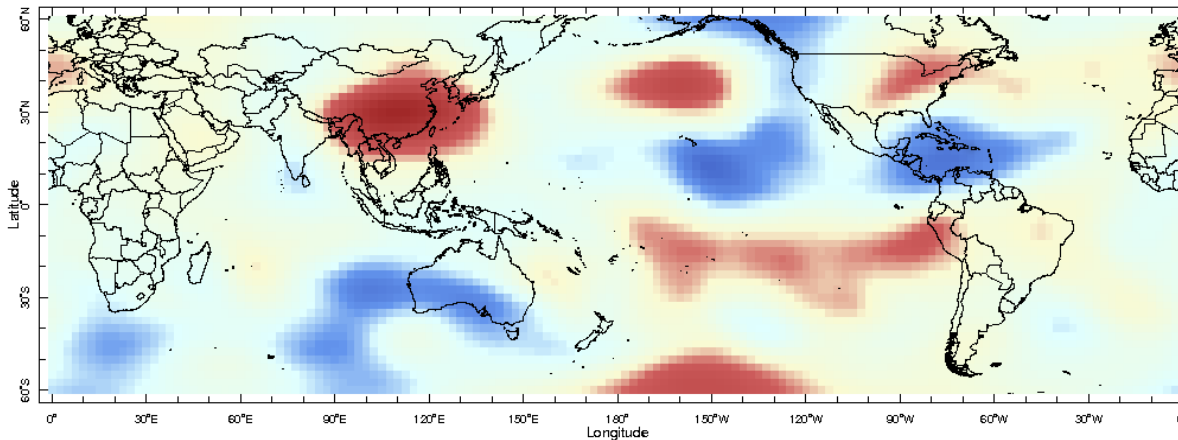


MJO phase 6 (Dec-Feb 1981-2010)

Phase 5

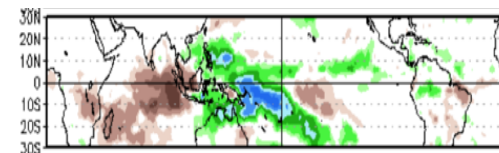


Phase 5

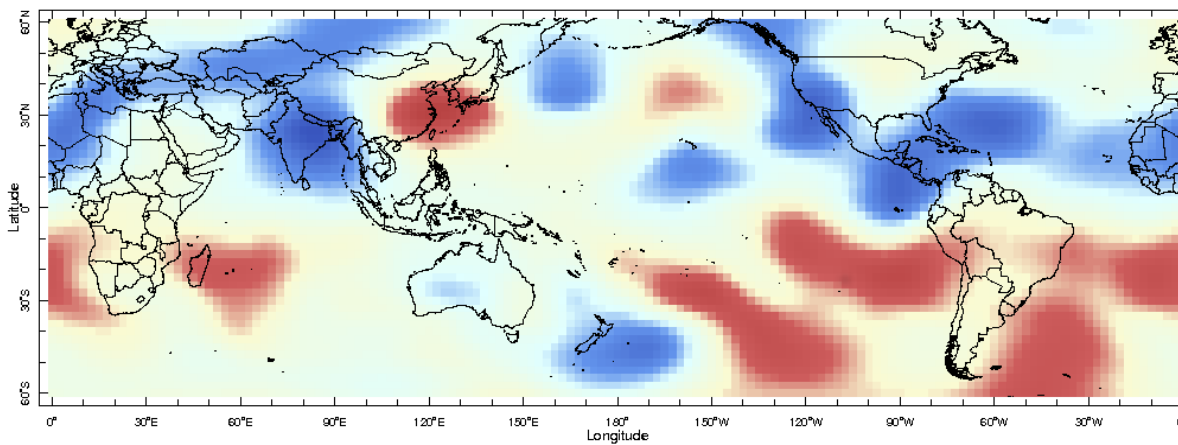


MJO phase 5 (Dec-Feb 1981-2010)

Phase 6

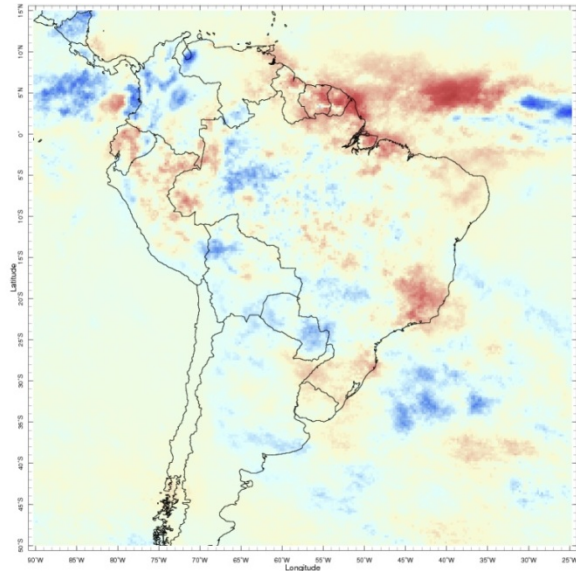
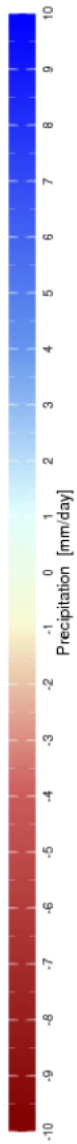


Phase 6

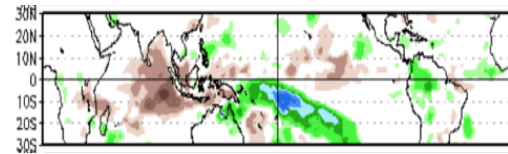


MJO phase 6 (Dec-Feb 1981-2010)

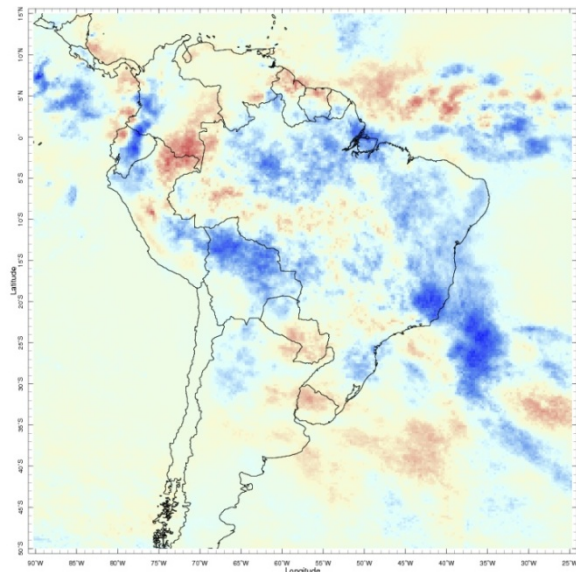
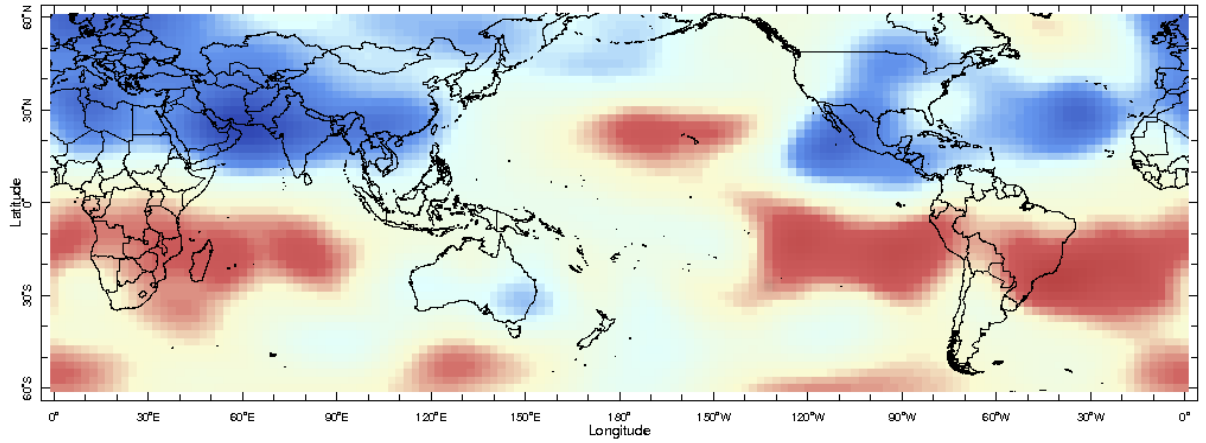




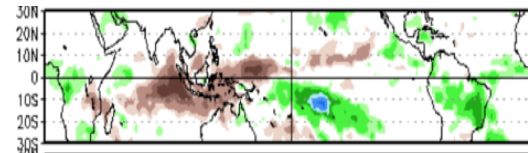
Phase 7



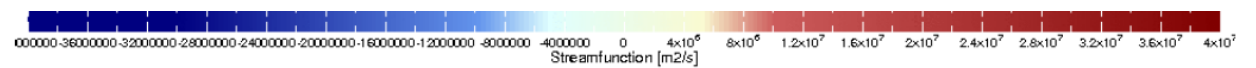
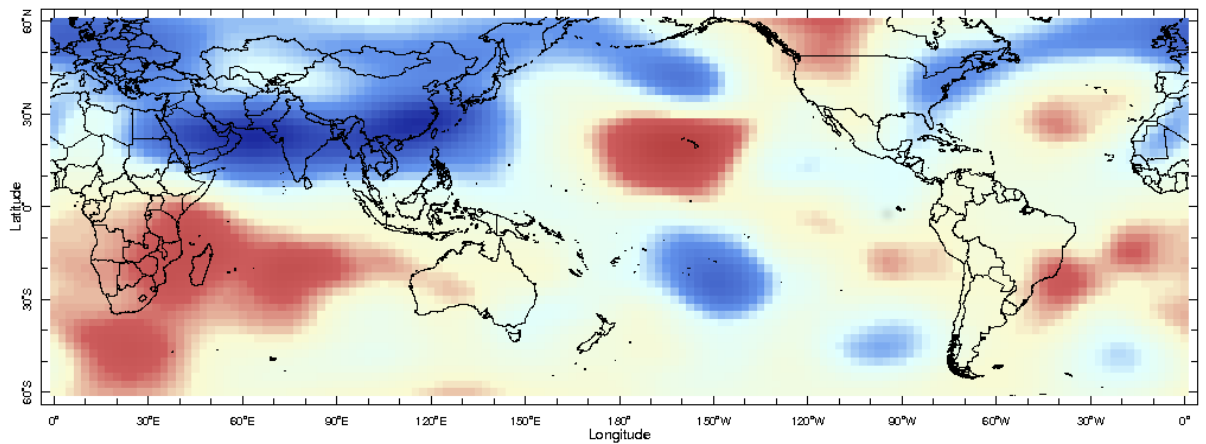
Phase 7



Phase 8



Phase 8



Summary

MJO Phase	Positive Precipitation Anomalies	Negative Precipitation Anomalies
1	Northeastern/extreme Northern of Brazil	Amazon; Southeastern/Southern of Brazil
2	Northeastern/Northern/Southern of Brazil	Southeastern of Brazil
3	Northwestern/Southern of Brazil	Mostly all over Brazil
4	Southern of Brazil	Mostly all over Brazil
5	Southern of Brazil	Mostly all over Brazil
6	Southern of Brazil	Mostly all over Brazil
7	Western of Brazil	Mostly all over Brazil
8	Mostly all over Brazil	Northwestern of Brazil



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Thank you!

