

## Impact of NTA SST on ENSO in a seasonal prediction model

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Recent studies researched that North Tropical Atlantic (NTA) sea surface temperature (SST) play a role in trigger of ENSO events. In this study, we investigate the impact of SST on ENSO events in seasonal prediction model. NCEP Climate Forecast System (CFS) is a seasonal forecasting model which has reforecasts data for 9 months from initial data. We use 20 ensembles for 27 years (1982 ~ 2008yr) and February initial data which integrate prediction from March to November (9 months). Before analyzing CFS data, we eliminate trend, seasonal cycle and ensemble mean. Same as preceding research, in CFS, there are positive anomalies during boreal spring (March-May, MAM) over the NTA and it brings Gill-type Rossby-wave response over the subtropical eastern Pacific which causes northerly flows with cold anomalous SST. Following month, easterly is over the western Pacific and westerly is over the eastern Pacific during boreal summer (the JJA season). From these, cold SST anomalies develop over the central Pacific like La Nina pattern. As mentioned above, CFS perform about ENSO prediction from NTA well. Even when CFS works well, there are NTA SST difference comparing with observation data. From NTA SST error, we calculate corrected NTA SST and verify that it is improved over the central Pacific on ENSO prediction.

Keywords: North Tropical Atlantic, CFS, ENSO, Seasonal prediction model

diff spread\_regr (after-before) nov

