



## Precipitation and Circulation Anomalies Associated with the ENSO and Antarctic Oscillations (AAO)

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The ENSO and Antarctic Oscillations (AAO) associated precipitation and circulation anomalies are examined by means of the GPCP monthly rainfall product and the dynamical fields from the NCEP/DOE II reanalysis project. The projection of ENSO on AAO is evident during boreal winter (DJF), in particular during the La Niña periods. During the 1979-present period, four out of five La Niña events are accompanied by the positive phases of AAO (four out of seven), and only two out of four El Niño events correspond to the negative phases of AAO (two out of five). Precipitation and circulation anomalies associated with AAO seem also to be connected with AO/NAO during DJF when inter-hemispheric exchanges become available. The large-scale upper-level circulation anomalies during the La Niña periods tend to be much more favorable for this likely inter-hemispheric interactions. However the AO/NAO signature is weak in the Southern Hemisphere, implying that AO has no direct impact on AAO.