

## Variability of Western Pacific Equatorial Currents Associated with 2014-2015 El Niño

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Direct current measurements by ADCP moorings are used to investigate intraseasonal-to-annual variability of Western Pacific Equatorial Currents during the fickle 2014 El Niño and the strong 2015 El Niño. The results show that Equatorial Undercurrent (EUC) around 142°E weakened during both 2014 and 2015 El Niño events. The South Equatorial Current (SEC) and EUC are closely correlated with developing phase of El Niño, leading NINO3 index by 4-6 months. The Equatorial Intermediate Current (EIC) has less relationship with ENSO, but its intraseasonal variability is strongly influence by local and remote atmospheric forcing.

Combined with HYCOM analysis sea water velocity fields and ERA-Interim 10m wind velocity fields, roles of surface and subsurface Western Pacific Equatorial currents in ENSO cycle are further discussed.

Keywords: ENSO, Western Pacific, South Equatorial Current, Equatorial Undercurrent, Equatorial Intermediate Current