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Special Edition on Contributions to Asia Oceania Atmospheric Sciences

https://doi.org/10.2151/jmsj.2015-047

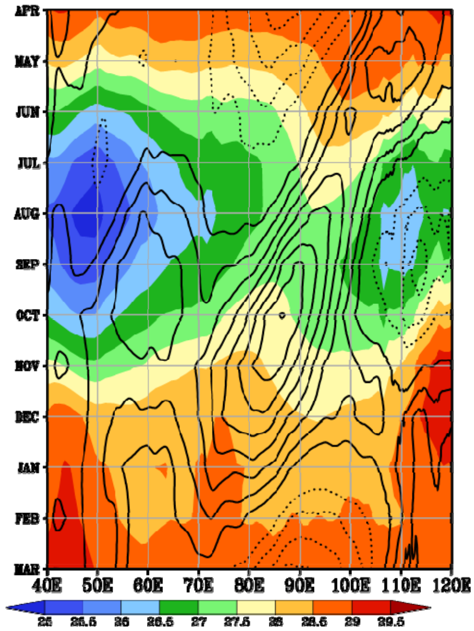

Figure 1. Mean seasonal cycles of SST (°C) in shading and SLA (cm) in contours averaged for 6°S–12°S from April to March for the period 1993–2012. Positive and negative SLA values are indicated by solid and dashed lines with intervals of 2.0 cm, respectively. Zero contours are omitted.

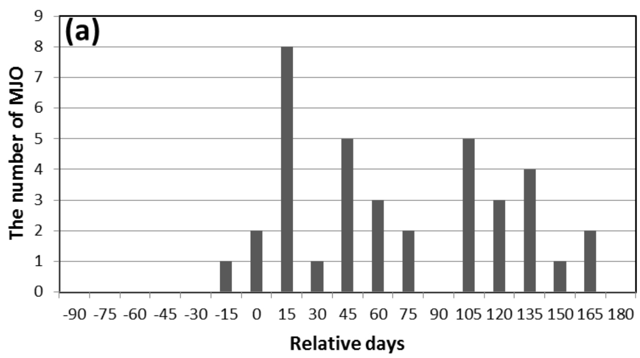

Figure 2. Distribution of all MJO events from October to March, relative to the dates when the SEIO cooling is terminated. The zero relative days indicate the termination dates. Dates of the MJO are defined when its phase shifts from three to four.

- The relation among sea surface temperature (SST) cooling in the southeastern Indian Ocean (SEIO), oceanic Rossby waves, and the seasonal onset of the Madden–Julian Oscillation (MJO) is examined for the period 1993–2012.
- Positive SST anomalies migrate concurrently with the downwelling Rossby waves but are followed by a wide-spread cold SST area in the SEIO from boreal summer to fall (Fig. 1). Whereas the SEIO cooling tends to persist for a longer period until November during positive Indian Ocean Dipole (IOD) and/or El Niño years, it occurs irrespective of the IOD.
- Convection related to the MJO events during boreal winter propagates from the Indian Ocean to the Pacific only after the SEIO cooling is terminated (Fig. 2). The SEIO cooling tends to prevent intraseasonal convection from propagating eastward to the Pacific via excitation of the local circulations over the eastern Indian Ocean and the tropical western Pacific.