CHOICE OF ASIAN SUMMER MONSOON INDEX

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The enhanced convection over the Bay of Bengal and Indian subcontinent is found to correlate with reinforced monsoon circulation (characterized by the vertical shears between 850 and 200hpa) west of 80E over India, the western Indian Ocean, and the ropical northern Africa. The enhanced convection in the vicinity of the Philippines, on the other hand, corresponds to intensified monsoon circulation primarily east of 80E over Southeast Asia including Indo-China peninsula, South China Sea, Philippine Sea, and the maritime continent. the correlation between the strengths of thw convective centers is poor. To better reflect regional monsoon characteristics, two convection indices (or corresponding circulation indices which are dynamically coherent with the convection indices) are suggested to quantify the variability of the Indian summer monsoon (ISM) and the Southeast Asain Summer Monson (SEASM), respectively. The change in the Bay of Bengal convection has a global implications whereas the change in Philippine convection has only a regaional impact. The equatorial western Pacific winds exhibit a considerably higher correlaiton with the ISM convection than the Philippine convection. The latter displays a strong linkage with the East Asia subtropical monsoon. Although the convection and circulation indices have good correlations, they tend to diverge during certain years. El Nino/La Nina events and interdecadal variability seem to be responsible for the inconsistency in ISM, but do not appear to account for that in SEASM domain.