Climatological Change in the Intraseasonal Cycle of the East Asian Summer Monsoon at Mid-1990s

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Historical records ensure the existence of the climatolgically phase-locked intraseasonal oscillation in the East Asian summer monsoon. Especially over the Korean peninsula, bimodal peaks in summer rainfall, namely Changma and post-Changma, comprise the major rainy season characters. On the other hand, number of studies pointed out that there had been a significant regime shift in summer mean characteristics of the East Asian monsoon at mid-1990s. Thus, to assess the impact of the mean field change at mid-1990s on the climatological behavior of the intraseasonal oscillation is one of important issues.

In this study, the climatologically phase-locked intraseasonal cycle of the East Asian summer monsoon and its change at mid-1990s are analyzed. Two different aspects of changes, *i.e.*, change in June-July and that in early August, are examined. The former is related to the change in the speed of northward migration of monsoon rain band and the latter to the abrupt intensification of convective activity over the South China Sea (SCS). Such anomaly in SCS region can induce a barotropic response in the mid-latitude and enhance the precipitation over the northern East Asia. Convection anomaly over the SCS in late-July to early-August seems to be strongly related to the change in the activity of tropical cyclones.

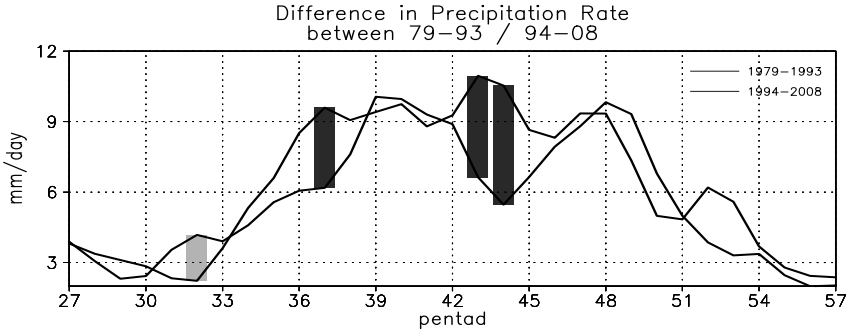

Figure 1. The 1-2-1 averaged 15-year climatology of summer precipitation over 125°E-130°E, 35°-40°N (lines) and their difference (bars)

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