

EXTENSION OF EQUATORIAL EASTERLIES AT 150 MB LEVEL TOWARD INDIA IN RELATION TO THE SOUTHWEST MONSOON

Just before the onset of the southwest monsoon over India, the upper-air equatorial easterly wind field extends gradually northwards and by July almost the whole of India comes under the roof of upper tropospheric easterlies associated with a jet core over the Peninsula. Hingane (1984) has shown that drought/good monsoon is associated with lower/higher spreading of equatorial easterlies near the tropopause round the globe and particularly over the Pacific and Indian Oceans in the month of July. The present study intends to examine the relation between the northward progression of the upper air easterlies over the Indian region in May and June and the performance of monsoon over India.

Monthly mean values of the zonal wind component at 150 mb level for the months of May and June from 1961 to 1984 have been calculated for 23 stations in India, from the data published in the *Monthly Climatic Data for the World* (NOAA/WMO). These values have been plotted and the northern limit of the easterly wind field is marked as shown in Figs. 1 (a & b). The figures also contain the dates of onset of the monsoon as declared by the India Meteorological Department and the percent departures of monsoon rainfall (June through September) from the normal calculated from the data given by Mooley and Parthasarathy (1984)

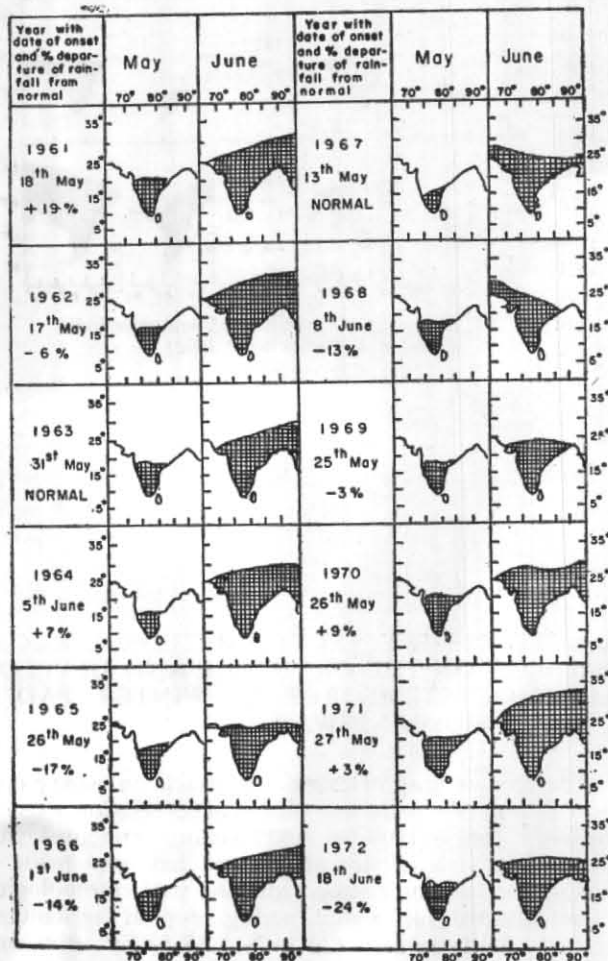


Fig. 1 (a). Extension of easterly wind field over India (shaded portions indicate areas under easterly wind field)

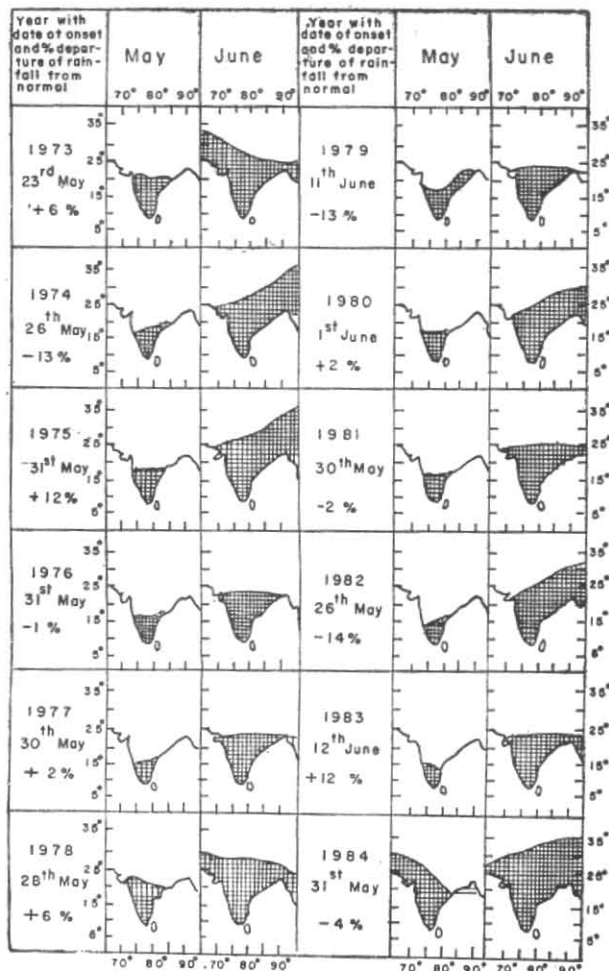


Fig. 1 (b). Extension of easterly wind field over India (Shaded—easterly wind field)

The following features are found to be noteworthy :

- (i) The extension of easterlies over India in the months of May and June does not indicate any significant association with the All India rainfall anomalies over the monsoon season immediately following [Figs. 1 (a & b)].
- (ii) Monsoon onset over India also can be seen to be independent of the northward progression of easterlies during May and June.

References

- Hingane, L. S., 1984, *Proc. Indian Acad. Sci.*, 93, 2, pp. 105-111.
- Mooley, D. A. and Parthasarathy, B., 1984, *Climatic Change*, 6, 287-301.

S. D. PATIL
L. S. HINGANE
K. RUPA KUMAR

Indian Institute of Tropical Meteorology, Pune
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