

## Letters to the Editor

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### FREQUENCY OF FIRST OCCURRENCE OF MONSOON DEPRESSIONS IN THE BAY OF BENGAL IN 10-DAY EPOCHS DURING THE PERIOD 1891-1970

The departmental publication *Tracks of Storms and Depressions in the Bay of Bengal and Arabian Sea 1877-1960* (1964) contains the frequencies of occurrence of depressions on a monthly basis. It has been felt that if the frequencies of first occurrence of depressions are available for smaller periods, say of 10-day duration, it may be useful

for planning purposes. With this in view, the frequencies in 10-day period for June, July and August have been worked out for  $2\frac{1}{2}^{\circ}$  square and are presented in Fig. 1.

It may be commonly thought that the number of depressions (including deep depressions and storms) increase uniformly with the progress of the monsoon season and fluctuations in shorter period are random, i.e., if averaged over a long period the 10-day frequencies may not show any variation. However, the findings reveal some interesting aspects which are reported in this note.

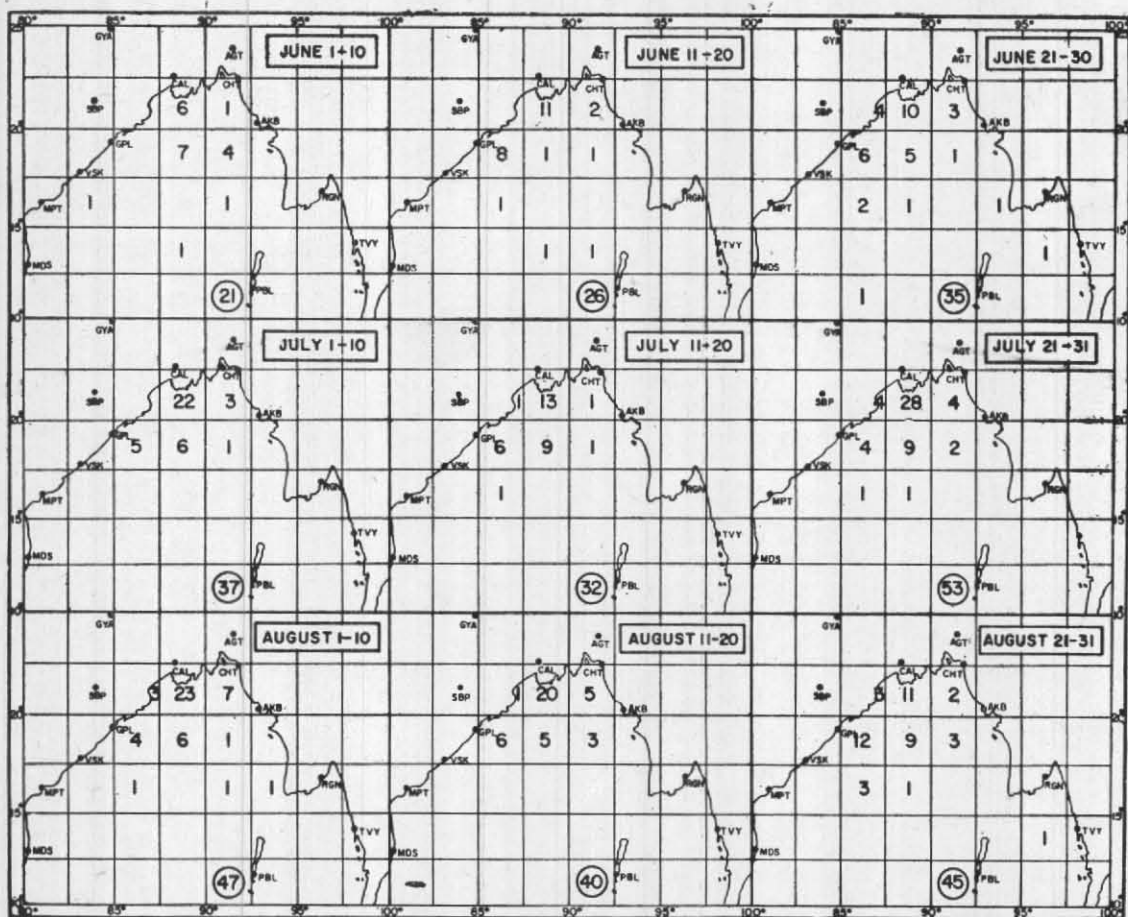


Fig. 1. Frequency of first occurrence of depressions, 1891-1970

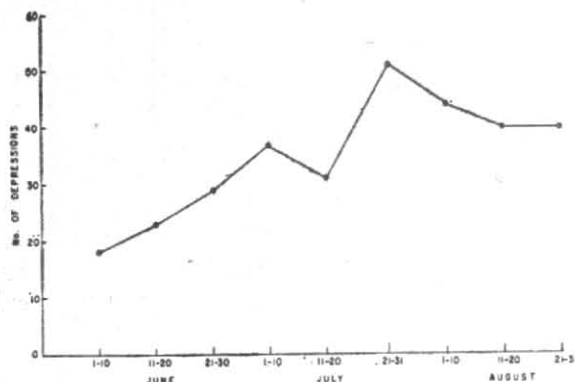


Fig. 2. Variation in the number of depressions during June-August

TABLE 1

	1-10	10-20	21-31
No. of break days	81	117	108

Fig. 2 shows the variation in the number of depressions from 1 June to 31 August worked out in 10-day periods as explained above. In this the number of depressions above  $17\frac{1}{2}^{\circ}\text{N}$  alone are considered. It is noticed that the most cyclogenetic region is the two and half-degree square in the Head Bay between latitudes  $20^{\circ}$  to  $22\frac{1}{2}^{\circ}\text{N}$  and longitudes  $87\frac{1}{2}^{\circ}$  to  $90^{\circ}\text{E}$ . During the month of June and first ten days of July there is a gradual increase in the number. There is a small decline in the number of depressions in the next 10 days followed by a sharp rise in the last 11 days of the month. Afterwards, there is a gradual fall till the end of the month. It may also be noted that the frequency in the last 10 days of July (Fig. 1) 21-31 is about three times that of the first 10 days of June. The decrease in the number of depressions during the period 11 to 20 of July corresponds to the number of 'breaks' which increases during this period in July as shown in Table 1 (Ramamurthy 1969).

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#### REFERENCES

India Met. Dep.

Ramamurthy, K.

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- 1969 Forecasting Manual, Part IV-18-3, Monsoons of India, Some aspects of the "Break" in the Indian Southwest Monsoon during July and August.