

Letters to the Editor

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SUNSHINE AT BOMBAY (1948-1959)

The Colaba Observatory at Bombay is situated almost at the extreme south end of the narrow ridge of land extending about three miles to the southwest of the Fort of Bombay and separating the harbour from the back-bay. The mean level of the observatory compound is about ten metres above the mean level of the sea. The astronomical co-ordinates giving the position of the Colaba Observatory are—Lat. $18^{\circ} 53' 36.18''$ N and Long. $72^{\circ} 48' 54.03''$ E.

The Campbell Stokes' sunshine recorder was installed on the balloon observation tower at a height of about sixteen metres above ground and was brought into regular use from August 1925. This note deals with the data for the twelve-year period 1948 to 1959.

(a) *Annual values*—The average annual amount of bright sunshine is 2677 hours or 7.3 hrs/day. The maximum amount of bright sunshine recorded during the period under study was 2809 hrs in 1958 and the minimum during the same period was 2520 hrs in 1956. The mean daily values for these years were 7.7 and 6.9 hrs respectively.

(b) *Monthly values*—The sunniest month in a year is December when the amount of bright sunshine at Bombay has a mean monthly total of 295 hrs, the range being 273-318 hrs. The least sunny month is July when the amount of sunshine has a mean monthly total of 67 hours, the range being 40-129 hours. The highest monthly total on record (during the period under study) was

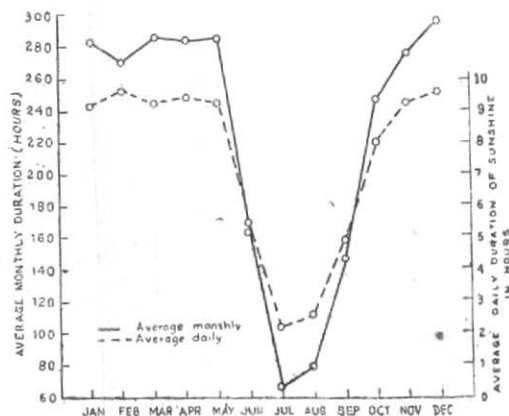


Fig. 1

Graphical representation of average monthly and daily duration of sunshine at Bombay during 1948—1959

319.2 hours in May 1957 and the lowest was 35.6 hours in August 1955.

(c) *Mean daily values*—The average daily amount of sunshine during the months November to May is quite high making an average of 9.3 hrs. The two months of July and August give low amounts of sunshine, the average values being 2.2 and 2.6 hrs per day respectively. The month of July gives the maximum mean monthly total rainfall (795 mm) and the least amount of sunshine (2.2 hrs) per day. The maximum amount of bright sunshine recorded on an individual day during the whole period was 11.9 hrs on 27 May 1957. The highest daily mean was 10.3 hrs in December 1949 and May 1957 and the lowest daily mean was 1.1 hrs in August 1955.

The average number of days with no bright sunshine was 28 per year.

The average number of hours of sunshine per day for the different seasons are as follows—

	hrs/day
Winter season (Jan to Feb)	9.3
Hot weather season (Mar to May)	9.3
Monsoon season (Jun to Sep)	3.8
Post-monsoon season (Oct to Dec)	8.9

Fig. 1 represents graphically the variation of the average monthly duration of sunshine and the variation of the average daily duration of sunshine during the period studied.

L. L. KRISHNAN

*Colaba Observatory,
Bombay 5
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