SHORT COMMUNICATIONS

LUNAR TIDES IN E_{2s} AT BRISBANE*

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From an analysis of the Brisbane $h'E_s$ data for 1953, Thomas and Svenson‡ have deduced the existence of a lunar semi-diurnal tide, with amplitude 0·69 km, and epoch of maximum at 6·7 hr local time. The present author has made a similar analysis of the Brisbane $h'E_{2s}$ data for the two years, 1952–1953, using nearly 3000 hourly readings.

The result is shown by the harmonic dial (Fig. 1). The harmonic coefficients for the 22 calendar months are plotted (Δ), as well as the computed mean, shown (⊙).

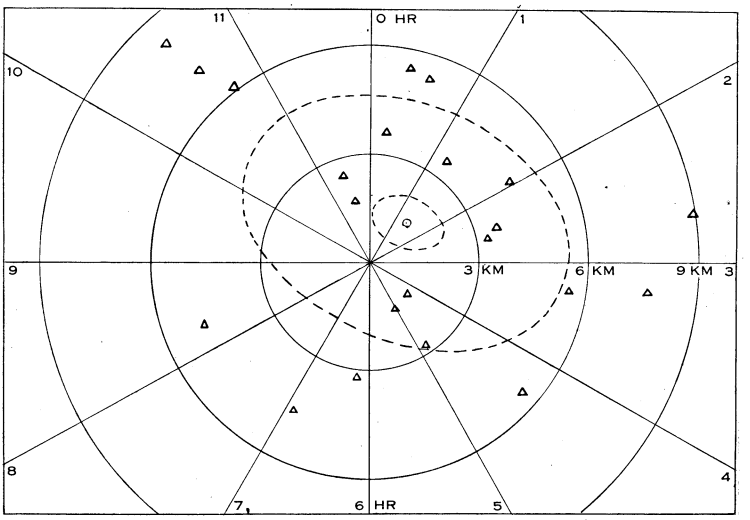

Fig. 1.—Harmonic dial for lunar semi-diurnal variation in $h'E_{2s}$ for Brisbane 1952–1953.

The outer ellipse indicates the probable error of a single month's observation ; the inner one gives the probable error of the mean.

This computed mean has an amplitude of 1·5 km, and epoch of maximum at 1·5 hr. The harmonic dial shows that the mean can be accepted as statistically significant. The marked difference suggested between the tides in E_{2s} and in E_s could be due to the difference in mean equivalent heights, 140 and 110 km respectively in the data analysed.

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‡ THOMAS, J. A., and SVENSON, A. C. (1955).—*Aust. J. Phys.* **8**: 554.