

ADDENDUM

HISTORICAL VALUES OF THE EARTH’S CLOCK ERROR

Professor Peter Huber has brought to our attention the discontinuity around the year –700 in the values of ΔT listed in Table 1 of our paper on “Historical values of the Earth’s clock error ΔT and the calculation of eclipses”, *JHA*, xxxv (2004), 327–36. This discontinuity arose from the desire to extend values of ΔT from –700 back to –1000 using a long-term parabolic trend. In the absence of reliable eclipse observations much before the year –700, the spline fit to the available data extends only to –700.

The discontinuity can be reduced considerably by adjusting the values of ΔT for the years –700 and –600 in our Table 1 as follows:

Year	ΔT (Table)	Revised value (secs)
–700	+21000	+20400
–600	+19040	+18800

The other values of ΔT in the Table remain as printed.

We estimate that there is an uncertainty of about 500 secs in the values of ΔT around the period –700 to –600. Although the alteration by –600 secs at year –700 exceeds this estimate, the resulting value of ΔT is still consistent with what we regard as the crucial and reliable Ch’u-fu record of the total solar eclipse in –708.

The most satisfactory approach to deriving ΔT at –700 and before would be to obtain more reliable observations from that remote epoch. We look forward to the possibility of their being brought to light.

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