

PERIOD DETERMINATION FOR 1484 POSTREMA

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Asteroid 1484 Postrema was observed on 5 nights in April thru May 2006. The lightcurve period and amplitude were 12.1923 ± 0.0005 hr and 0.20 ± 0.05 mag.

Observations of 1484 Postrema were carried out at Sandia View Observatory (MPC code H03). SVO is a roll-off roof design containing a permanently mounted 0.30m f/10 Meade SCT OTA and SBIG ST-10XME CCD camera mounted on a Bisque Paramount ME. Telescope control was handled thru *Astronomers Control Panel* (ACP) software, which handled automatic meridian flips and multiple target asteroids throughout the all night imaging sessions. The CCD was controlled via *MaxIm/DL* thru ACP. Imaging was done unfiltered to maximize signal-to-noise, with exposures of 120 seconds at bin 2 for an image scale of 0.95 arc seconds per pixel. Automatic bias, dark and flat reductions were handled thru ACP and *MaxIm/DL* using master reduction files. Photometric measurements and lightcurves were prepared using *MPO Canopus*.

Asteroid 1484 Postrema was selected from the CALL website "List of Potential Targets" (Warner 2006). This asteroid was then checked with the list of known asteroid lightcurves parameters maintained by Alan Harris (Harris 2006). I wanted to observe an asteroid that had no known period. After gathering the first nights of data, I came up with a lightcurve of 6 hours. However, after checking with Brian (Warner 2006) on the shape of this monomodal curve, he suggested that I was probably only looking at half phase since most asteroids are likely to have a bimodal curve. Gathering more data showed that the period was converging on ~ 12.2 hours thus proving Warner's hunch of 6 hours being half phase.

In total, 442 images were used to obtain a bimodal lightcurve of 12.1923 hours with a 0.20 magnitude amplitude. Periods between 6-18 hours were also tried but either showed half period, 6 hours, or just didn't fit when more data were added. 12.1923 hours seems to be the most probable period from this data. No data have been collected for phase period 0.4-0.6 yet so its full amplitude curve could not be estimated.

Acknowledgements

I wish to thank Brian D Warner for his advice and help through private emails as I was working my first minor planet lightcurve. His enthusiasm to help amateurs with scientific contributions from minor planet lightcurves is what got me hooked on this endeavor.

References

Harris, A.W., Warner, B.D. Minor Planet Lightcurve Parameters. 2006. <http://www.cfa.harvard.edu/iau/lists/LightcurveDat.html>

CALL website supported by Brian D. Warner.
<http://www.minorplanetobserver.com/astlc/default.htm>

Warner, B.D. (2006) Personal communication.

