

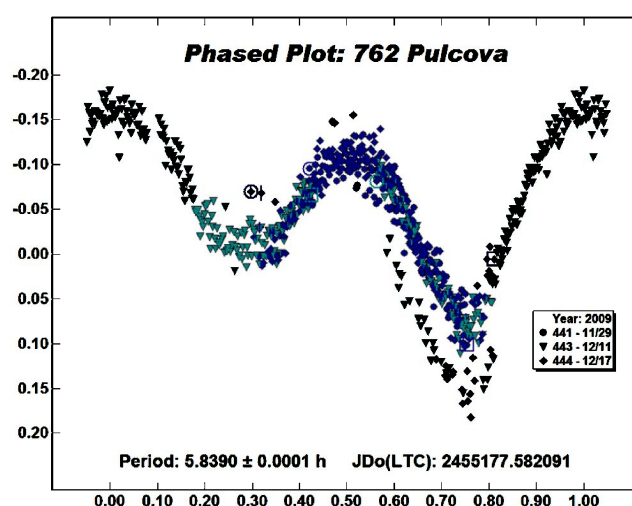
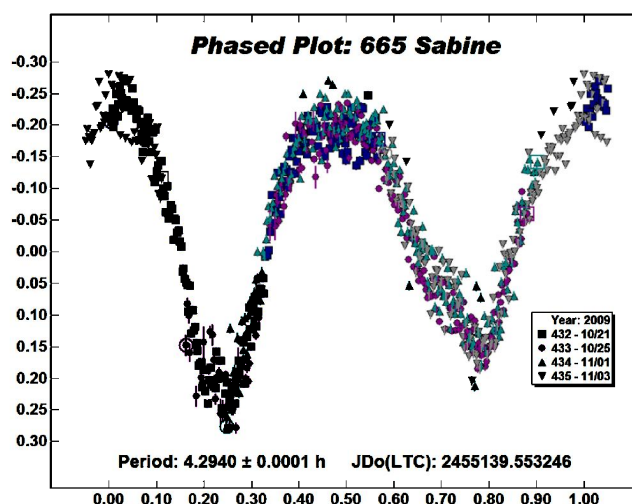
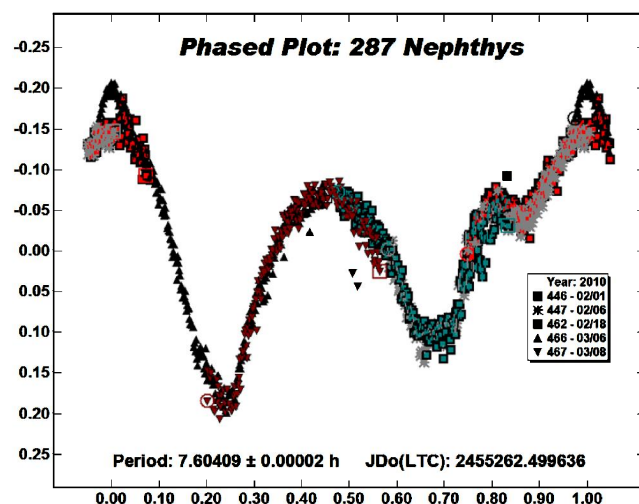
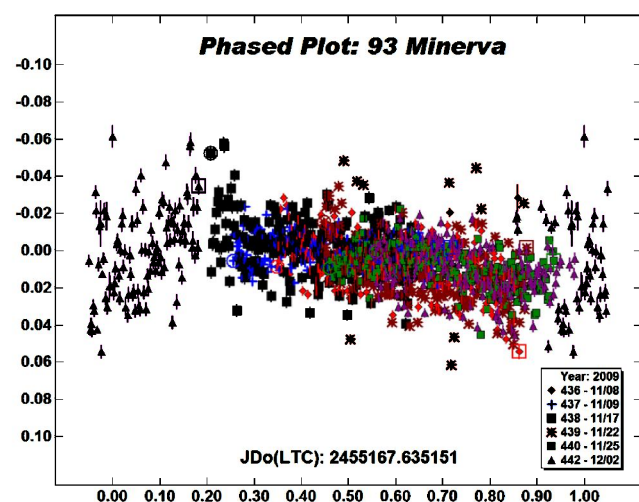
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LIGHTCURVES FOR 869 MELLENA, 2375 RADEK, AND (19261) 1995 MB

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CCD observations have yielded lightcurve period determinations for the following asteroids: 869 Mellena, 6.510 ± 0.001 h; 2375 Radek, 16.877 ± 0.002 h; and (19261) 1995 MB, 4.5911 ± 0.0008 h.

Photometric data were collected at Barnes Ridge Observatory in northern California, USA, using a 0.43-m f/6.8 Planewave CDK17 and Apogee U9 camera. The camera was binned 2x2 with a resulting image scale of 1.26 arc-seconds per pixel. All images were taken through a clear filter with exposures of 120 seconds at -25°C . The images were obtained with *MaxIm DL V5* driven by *ACP v5* and then analyzed using *MPO Canopus v10.0* (Warner, 2010). All comparison stars and asteroid targets had SNR > 200.

869 Mellena. Data were collected from 2010 June 07-15 resulting in 4 data sets totaling 340 data points. 869 Mellena was tracked through 30.15 revolutions of the adopted period of 6.510 ± 0.001 h. The lightcurve amplitude was 0.20 mag. The period agrees with those posted independently by R.D. Stephens, A. Ferrero, and A. Carbognani on the CALL web site pending formal publication (<http://www.MinorPlanetObserver.com/astlc/default.htm>).

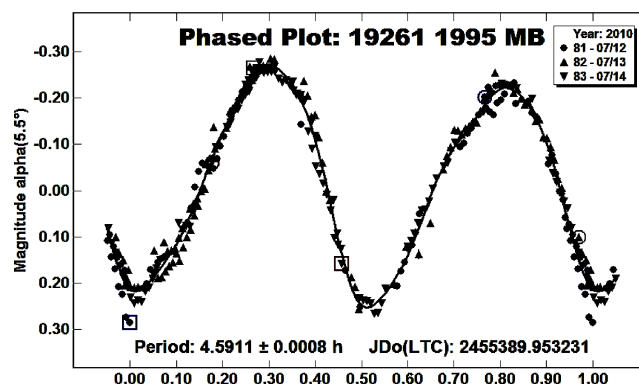
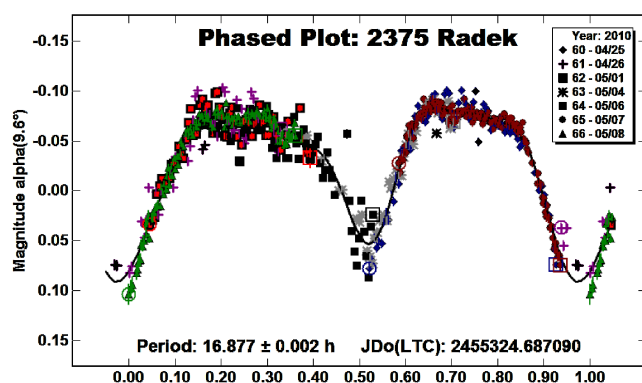
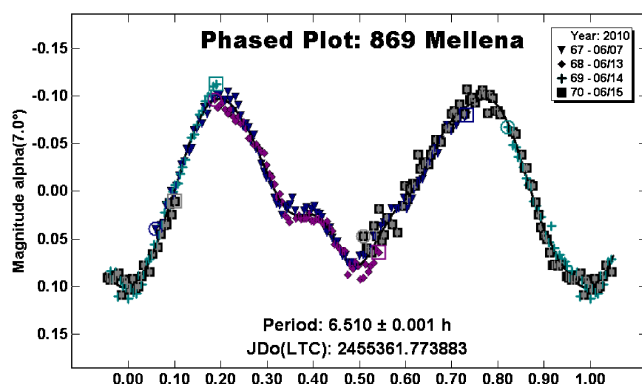
2375 Radek. Data were collected from 2010 April 25 through May 08 resulting in 4 data sets totaling 233 data points. A period of 16.877 ± 0.002 h was determined with an amplitude of 0.16 mag. This agrees with the period found by Benishek and Pilcher (2010).

(19261) 1995 MB. Data were collected from 2010 July 12-14 resulting in 3 data sets totaling 296 data points. A period of 4.5911 ± 0.0008 h was determined with an amplitude of 0.52 mag. This is slightly different from the period of 4.586 h posted by A. Carbognani on the CALL web site pending formal publication.

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LIGHTCURVE FOR NEAR-EARTH ASTEROID (164400) 2005 GN59

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CCD observations of near-Earth asteroid (164400) 2005 GN59 were used to determine its lightcurve parameters of $P = 38.62 \pm 0.01$ h and $A = 1.34 \pm 0.05$ mag.

Selection of (164400) 2005 GN59 was made from the quarterly lightcurve photometry opportunities article published in *The Minor Planet Bulletin* (Warner *et al.*, 2008). Even though this was a favorable apparition for this near-Earth asteroid, it was a relatively faint target, ranging from $V = 14.1$ to 16.7 , and visible at least four hours each night from 2008 August 20 to September 26. The angular sky rate ranged from 1.06 to 7.03 arcseconds per minute during this period. Observations were made with a 0.36-m Celestron Schmidt-Cassegrain working at $f/5.5$ and an SBIG ST-10XME camera that was binned 2x2, resulting in a scale of 1.3 arcseconds/pixel. The camera was run at -15°C . The exposures were 60 s using a clear filter. No guiding was necessary. A total of 202 images were taken and used for period analysis. The nightly data were reduced using *MPO Canopus* (Bdw Publishing, 2010).

The analysis of the combined data set indicated a probable period of 38.62 ± 0.01 h. No previously reported lightcurve parameters were found in the asteroid Lightcurve Database (LCDB, Warner *et al.*, 2009). Examination of the period solution gives near equal probability for a monomodal solution of 19.31 ± 0.01 h as well. However, the large amplitude and relatively low phase angle virtually assure a bimodal solution.

Acknowledgments

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