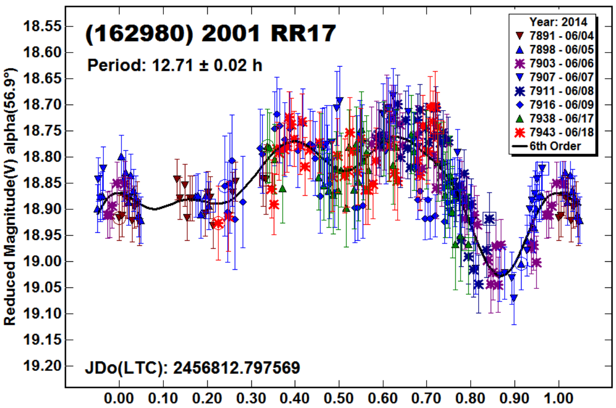
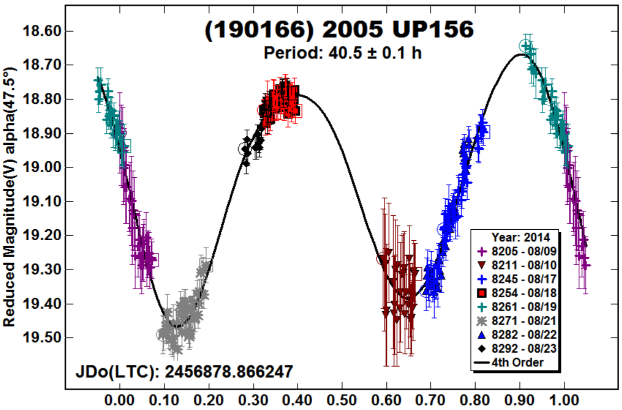
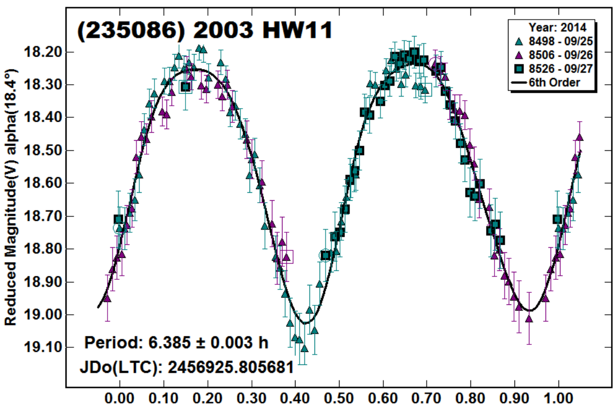
(162980) 2001 RR17. Given the unusual shape of the lightcurve and that the period is nearly commensurate with an Earth day, this period should not be considered secure. If they had been available, data from another longitude might have allowed solving the period with at least some certainty.



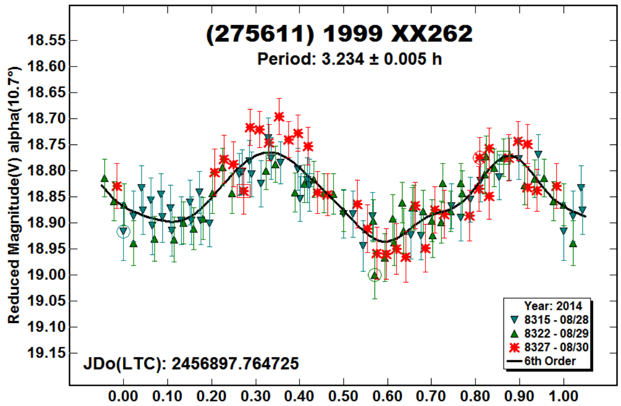
(190166) 2005 UP156. Even though there are gaps in the lightcurve, the four extrema points are at least touched. This makes the solution reasonably secure.



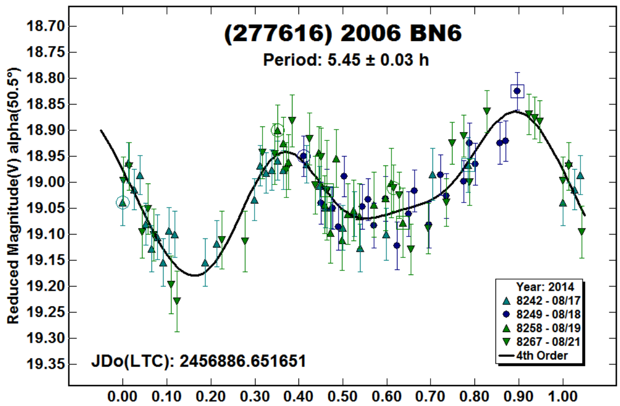
(235086) 2003 HW11. This appears to be the first lightcurve reported in the literature for 2003 HW11.



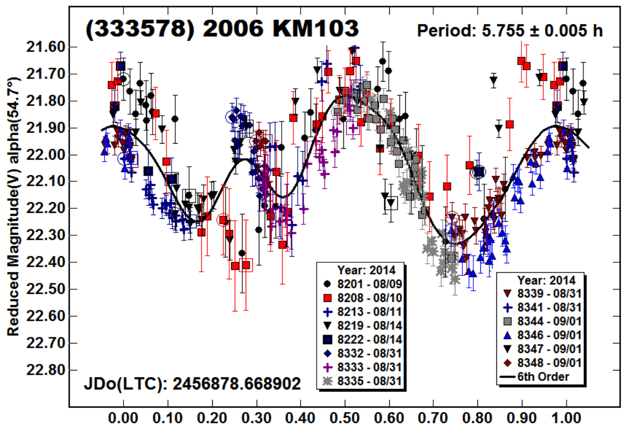
(275611) 1999 XX262. Two of the nightly runs for 1999 XX263 were longer than the reported period, which made for a relatively quick and secure solution. No previous results could be found in the LCDB.



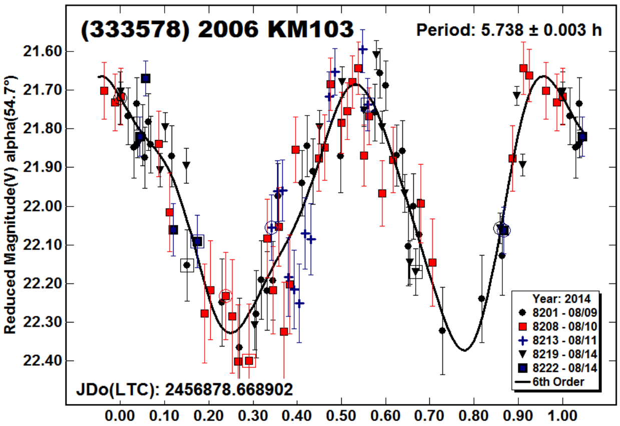
(277616) 2006 BN6. This NEA was started as it was outbound and fading, meaning that the observing opportunity was short-lived. Unfortunately, the period was close to an integral fraction of an Earth day and so the lightcurve coverage is incomplete and the period solution is less than secure.



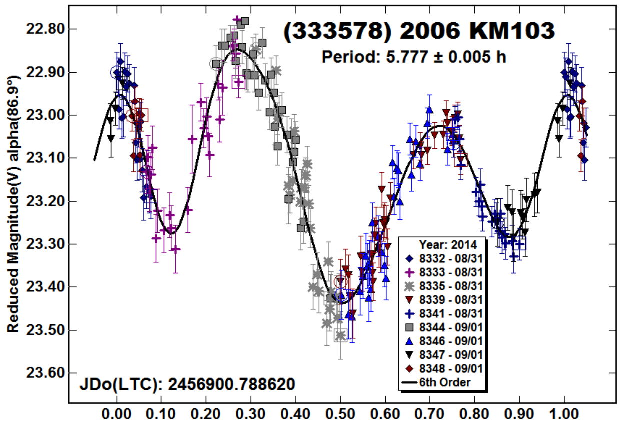
(333578) 2006 KM103. This asteroid is an excellent study in lightcurve evolution and for the need to sometimes analyze data sets in parts instead of *en masse*.



The lightcurve above shows the result of a period search using the entire data set. It is a tangled web with several deviations and unusual shape. The results are much different when the data set was divided into two sections, one covering the dates of 2014 Aug 9-14 ($\alpha \sim 57°$, $L_{PAB} \sim 323°$, $B_{PAB} \sim 34°$), and other from Aug 31 - Sep 1 ($\alpha \sim 86°$, $L_{PAB} \sim 14°$, $B_{PAB} \sim 31°$). With such large changes in the phase angle and phase angle bisector longitude (L_{PAB}), dramatic changes in the lightcurve were not unexpected.

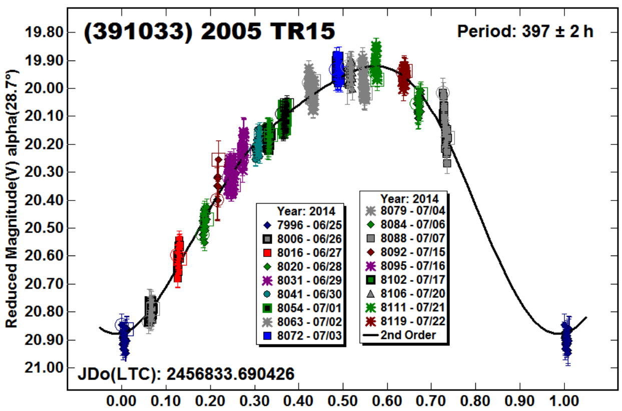


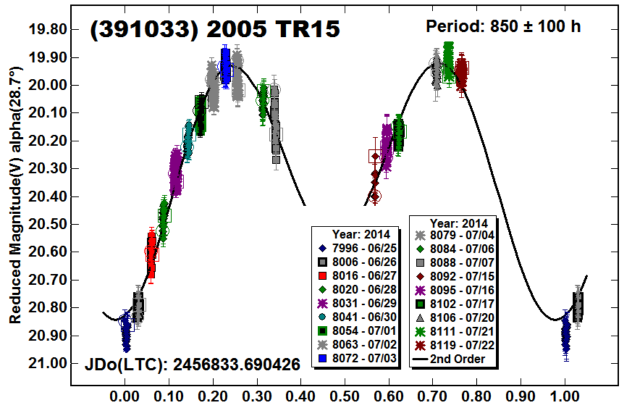
This lightcurve shows the results using the first section of the data set. Here the amplitude is about 0.71 mag and the shape is bimodal.



Just two weeks later, at higher phase angles, the lightcurve has evolved into a more complex shape with an amplitude of 0.58 mag. Note that the synodic period has changed. The sidereal-synodic difference from Aug 9 to Aug 20 would be about 0.01 hour, less than seen here. Some of the extra difference might be explained by the shadowing effects at high phase angles and the more complete coverage of the second section lightcurve.

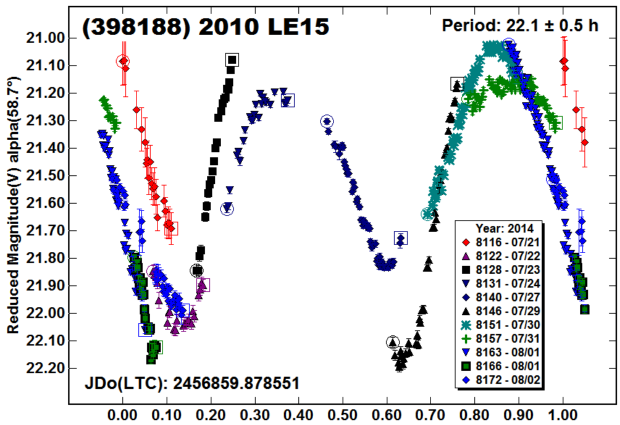
<u>(391033) 2005 TR15</u>.

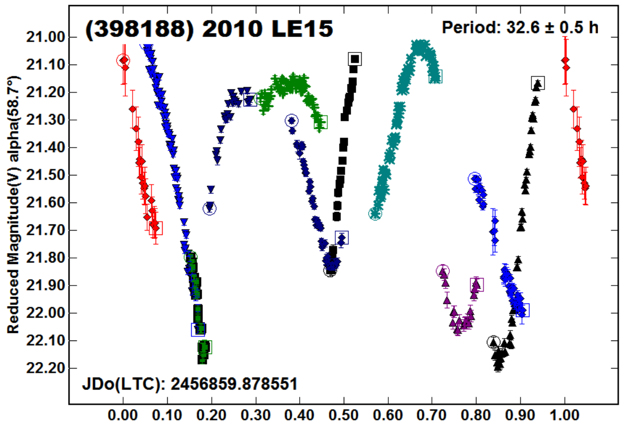




The data set for this asteroid covers almost one month and clearly shows that the asteroid has a long rotation period. The first plot shows an estimated half period solution of about 400 hours. When the solution is forced to something near the double period, the result is 850 ± 100 hours with an amplitude of about 1.0 mag. Since the phase angle is not too large, that and the amplitude make a bimodal solution fairly certain. The period and size of about 0.5 km make this a good candidate for tumbling. However there are no obvious signs of such since the slopes of the individual sessions seem to be in-line with the slopes of the Fourier curve.

<u>(398188) 2010 LE15</u>.





These lightcurves for 2010 LE represent the *MPO Canopus* rendering of the data using two possible periods found by Petr Pravec (personal communications) for a tumbling asteroid. It is