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MUTUAL EVENTS OF (136108) 2003 EL_{61} AND S/2005 (136108) 2

D. C. Fabrycky, Harvard University; D. Ragozzine and M. E. Brown, California Institute of Technology; and M. J. Holman, Smithsonian Astrophysical Observatory, report that orbital fits to the relative astrometric positions of this dwarf planet (cf. *IAUC* 8577) and its inner satellite, S/2005 (136108) 2 (cf. *IAUC* 8636), have revealed a near edge-on orbit, implying likely mutual events. The new orbital model is based on images from the Hubble Space Telescope (WFPC2) and the Keck telescope (LGS-AO). Due to the changing orientation of the earth-(136108) line-of-sight, the orbit is moving closer to edge-on until August 2008, after which the orbit will open up again, ending mutual events for the next century. The current distance of closest projected approach is ~ 500 km, nearly the same as the semi-minor axis of the triaxial primary (Rabinowitz *et al.* 2005, *Ap.J.* **639**, 1238). Nominally, events in May are grazing but get progressively more central (and more likely) throughout June and July. Shadowing is probably not occurring at inferior or superior conjunction. The duration of the events will be between 0 and ~ 6 hr; ingress and egress will consist of ~ 0.03-magnitude changes on a timescale of ~ 1 hour. The unocculted lightcurve has a double-peaked rotational modulation of full amplitude 0.29 mag and period 3.9155 hr (Lacerda *et al.* 2008, *A.J.* **135**, 1749): comparison to a template lightcurve is necessary. Telescopes distributed in longitude are needed to follow events, as the revised orbital period is 18.36 days. The main body is rather faint ($V \sim 17.3$), so high-precision photometry requires moderate (~ 1 m) collecting area. Due to orbital eccentricity, events in which the main body occults the satellite (labeled 'A' below) are more likely to occur than events in which the satellite occults the main body (labeled 'B' below). This orbital model predicts mid-event times as follows (add or subtract up to 3 hours for ingress or egress times): 'B', May 31.07 ± 0.04 UT; 'A', June 7.74 ± 0.05; 'B', June 18.33 ± 0.05; 'A', June 25.96 ± 0.06; 'B', July 6.61 ± 0.05; 'A', July 14.31 ± 0.05; 'B', July 24.98 ± 0.05; 'A', Aug. 1.81 ± 0.05. Continual updates are accessible at website URL `http://www.cfa.harvard.edu/~fabrycky/EL61`.

V2670 OPHIUCHI = NOVA OPHIUCHI 2008

N. N. Samus, Institute of Astronomy, Moscow, informs us that N Oph 2008 (cf. *IAUC* 8947, 8948) is being assigned the variable-star designation V2670 Oph.

2008 May 29 *Daniel W. E. Green*