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S/2007 S 1, S/2007 S 2, AND S/2007 S 3

Further to IAUC 8727, S. S. Sheppard, D. C. Jewitt, and J. Kleyna have reported the discovery of three new satellites of Saturn in data obtained earlier this year with the Subaru 8.2-m reflector at Mauna Kea, aided by B. G. Marsden's ongoing linkages and search ephemerides. The astrometry and orbital data appear on MPECs 2007-G38 and 2007-J09, showing orbital periods of 895, 793, and 992 days for S/2007 S 1, S/2007 S 2, and S/2007 S 3, respectively; the latter two objects have retrograde orbits.

(4951) IWAMOTO

V. Reddy, Department of Earth System Science and Policy, University of North Dakota, Grand Forks; R. Dyvig, Badlands Observatory, Quinn, SD; P. Pravec and P. Kusnirak, Ondrejov Observatory; A. Galad, L. Kornos, S. Gajdos, and J. Vilagi, Modra Observatory; D. Pray, Caruncle Hill Observatory, Greene, RI; W. Cooney, J. Gross, and D. Terrell, Sonoita Research Observatory, Sonoita, AZ; Yu. Krugly, Kharkiv Observatory; J. Ries, McDonald Observatory; K. Archer, Ironwood Observatory, Oahu, HI; J. Oey, Leura, N.S.W., Australia; M. Pikler and M. Husarik, Skalnaté Pleso Observatory; R. Durkee, Minneapolis, MN; F. Colas, Pic du Midi Observatory; and A. Harris, Space Science Institute, report that photometric observations obtained during 2006 Dec. 25.1 to 2007 Mar. 23.9 UT reveal that minor planet (4951) is a synchronous binary system with a period of 118.0 ± 0.2 hours. A combined rotation lightcurve has an amplitude of 0.34 mag, and superimposed mutual events indicate a lower limit on a secondary-to-primary mean-diameter ratio of 0.76. An estimated mean absolute magnitude in the Cousins R system of 13.26 ± 0.05 and measured color index of $V-R = +0.48 \pm 0.03$ give an absolute V magnitude of 13.74 ± 0.06 . This yields estimated mean diameters for the two bodies of 4.0 and 3.5 km (uncertain by about 20 percent), assuming a geometric V albedo of 0.20 ± 0.07 for its 'S' classification from 'SMASS II' visible spectroscopy. The system's parameters are extraordinary in comparison with other known small binaries, in terms of system angular momentum and evolution to its present synchronous state; thus, further observations are warranted.

COMET P/2007 C2 (CATALINA)

Further to IAUC 8806, G. Sostero reports that R-band exposures by H. Mikuz with the Crni Vrh 0.6-m reflector on Feb. 13.85 UT reveal a faint extension some $10''$ - $12''$ long in p.a. about 345 deg.

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