Circular No. 8620

Central Bureau for Astronomical Telegrams
INTERNATIONAL ASTRONOMICAL UNION
Mailstop 18, Smithsonian Astrophysical Observatory, Cambridge, MA 02138, U.S.A.
IAUSUBS@CFA.HARVARD.EDU or FAX 617-495-7231 (subscriptions)
CBAT@CFA.HARVARD.EDU (science)
URL `http://cfa-www.harvard.edu/iau/cbat.html` ISSN 0081-0304
Phone 617-495-7440/7244/7444 (for emergency use only)

COMET P/2005 RV$_{25}$ (LONEOS-CHRISTENSEN)

A comet was reported by E. J. Christensen (Catalina Sky Survey, 0.68-m Schmidt telescope) as showing a 15″ coma and no discernible tail in four stacked 60-second exposures on Oct. 22.3 UT. It was confirmed as cometary on CCD images taken by R. H. McNaught (Siding Spring Observatory, 1.0-m *f*/8 reflector; fan tail spanning 90° to the southwest) on Oct. 22.6, by P. Birtwhistle (Great Shefford, Berkshire, England, 0.40-m *f*/6.0 Schmidt-Cassegrain reflector; 10″ coma, moderately condensed, no tail) on Oct. 22.9, by R. Miles (Stourton Caundle, Dorset, England, 0.28-m *f*/10 Schmidt-Cassegrain reflector) on Oct. 23.0, by J. Young (Table Mountain Obsrvatory, 0.6-m *f*/16 Cassegrain reflector; very diffuse 8″-diameter coma with little central condensation and a very broad but poorly defined tail spanning p.a. 170°–250° extending to ~ 20″ from the coma center) on Oct. 23.2, and by J. E. McGaha (Tucson, AZ, 0.62-m *f*/5.1 reflector; elongated coma of size 8″ × 12″ toward p.a. 225°) on Oct. 23.2. Computations at the Minor Planet Center revealed several prediscovery observations, notably that the object is identical with the two-night asteroidal object 2005 RV$_{25}$ (LONEOS discovery, *MPS* 141815). Discovery positions follow, together with the orbital elements given on *MPEC* 2005-U18, which also contains further astrometry and an ephemeris.

2005 UT	α_{2000}	δ_{2000}	Mag.	*Observer*
Sept. 11.28012	$1^h22^m06^s.33$	$+19°05'16''.3$	17.7	LONEOS
Oct. 22.25151	1 00 20.98	+16 33 08.1	18.3	Christensen

$$T = 2006 \text{ Nov. } 11.2775 \text{ TT} \qquad \omega = 192^\circ.3492$$
$$e = 0.167169 \qquad \Omega = 246.8919 \quad \text{2000.0}$$
$$q = 3.604711 \text{ AU} \qquad i = 9.8917$$
$$a = 4.328260 \text{ AU} \qquad n^\circ = 0.1094546 \qquad P = 9.005 \text{ years}$$

2005 SD

Further to *IAUC* 8618, several CCD observers have reported that their images of 2005 SD show no cometary appearance at all, including C. Hergenrother (Mt. Graham 1.8-m VATT Lennon telescope, co-added 6-min exposure on Oct. 3.28 UT, and Mt. Hopkins 1.2-m reflector, co-added 300-s *R*-band image on Oct. 22.07), R. Ferrando (Valencia, Spain, 0.36-m *f*/6.3 Schmidt-Cassegrain reflector, Oct. 21.86 and 23.78), and J. Young and D. Mayes (Table Mountain, 8-min exposures on Oct. 23.2).

2005 October 24 *Daniel W. E. Green*