

**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/2004 VR<sub>8</sub> (LONEOS)*

An apparently asteroidal object discovered by LONEOS, designated 2004 VR<sub>8</sub> (cf. *MPS* 118755, *MPEC* 2004-V48; discovery observation below), has been found to show a 10''-diameter coma and a tail 16'' long in p.a. 140° on *R*-band CCD observations taken by C. W. Hergenrother (Lunar and Planetary Laboratory) with the 1.54-m Kuiper reflector at Catalina on Nov. 19.3 UT. Also, A. Nakamura (Kuma, Ehime, Japan) reports that 240-s unfiltered CCD frames taken with a 0.60-m reflector on Dec. 8.55 and 9.55 shows to object's image to be slightly 'softer' than other field stars of similar brightness, and a possible very faint tail is visible to the southeast.

2004	UT	$\alpha_{2000}$	$\delta_{2000}$	Mag.
Nov.	3.34556	4 <sup>h</sup> 06 <sup>m</sup> 43.25 <sup>s</sup>	+13°00'34.1''	17.6

Additional astrometry, the following orbital elements, and an ephemeris appear on *MPEC* 2004-X36.

$$\begin{array}{rcl}
 T = 2005 \text{ Sept. } 2.6732 \text{ TT} & \omega = 63.1296 & \\
 e = 0.510185 & \Omega = 71.2066 & \left. \vphantom{\begin{array}{l} T \\ e \\ q \end{array}} \right\} 2000.0 \\
 q = 2.375895 \text{ AU} & i = 20.1326 & \\
 a = 4.850593 \text{ AU} & n^\circ = 0.0922597 & P = 10.68 \text{ years}
 \end{array}$$

*COMETS C/2004 T6, T7, U4–U12 (SOHO)*

Additional SOHO Kreutz sungrazers (continuation to *IAUC* 8427; HO = H. Otterstedt, XG = X. Gao):

Comet	2004 UT	$\alpha_{2000}$	$\delta_{2000}$	Inst.	F	<i>MPEC</i>
C/2004 T6	Oct. 10.238	12 <sup>h</sup> 47 <sup>m</sup> 0 <sup>s</sup>	− 8°07'	C3/2	HS	2004-X23
C/2004 T7	13.431	12 49.4	− 9 59	C3/2	TH	2004-X23
C/2004 U4	17.288	13 22.8	−10 16	C2	BZ	2004-X23
C/2004 U5	21.096	13 30.2	−13 25	C3/2	HO	2004-X23
C/2004 U6	21.646	13 42.7	−12 20	C2	RK	2004-X23
C/2004 U7	22.413	13 41.8	−12 10	C2	XG	2004-X23
C/2004 U8	23.529	13 32.2	−13 59	C3/2	XL	2004-X24
C/2004 U9	24.929	13 36.8	−14 39	C3/2	TH	2004-X24
C/2004 U10	26.521	13 59.4	−13 47	C3/2	JS	2004-X24
C/2004 U11	26.904	13 42.6	−15 31	C2	HS	2004-X24
C/2004 U12	28.104	14 05.8	−14 20	C2	BZ	2004-X24