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_8 (LONEOS)

An apparently asteroidal object discovered by LONEOS, designated 2004 VR_8 (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	α_{2000}	δ_{2000}	Mag.
Nov. 3.34556	$4^h06^m43^s.25$	$+13^\circ00'34''.1$	17.6

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

$$T = 2005\ \text{Sept.}\ 2.6732\ \text{TT} \qquad \omega = 63^\circ.1296$$
$$e = 0.510185 \qquad \Omega = 71.2066 \quad 2000.0$$
$$q = 2.375895\ \text{AU} \qquad i = 20.1326$$
$$a = 4.850593\ \text{AU} \qquad n^\circ = 0.0922597 \qquad P = 10.68\ \text{years}$$

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	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2004 T6	Oct. 10.238	$12^h47^m.0$	$-\ 8^\circ07'$	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

2004 December 10 *Daniel W. E. Green*