

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/2000 QJ₄₆ (LINEAR)

An apparently asteroidal discovery by the LINEAR project (discovery observation below from *MPS* 18126) has been reported now by M. Solonoi and A. West (Astronomy Department, University of Washington; with assistance by D. Schlegel) as having a cometary appearance (with a coma and a very faint, short tail) on Sloan Digital Sky Survey 2.5-m telescope (Apache Point, NM) frames from 2000 Sept. 3 and 4; the unpublished SDSS astrometry is added below; the comet showed the following SDSS magnitudes on Sept. 3.27 UT: $u = 19.6$, $g = 18.0$, $r = 17.4$, $i = 17.2$, $z = 17.1$.

2000	UT	α_{2000}	δ_{2000}	Mag.	<i>Observer</i>
Aug.	24.27007	22 ^h 34 ^m 38 ^s .81	-8°24'11.5"	18.5	LINEAR
Sept.	3.26725	22 30 05.10	-9 24 26.4		SDSS
	4.38530	22 29 33.65	-9 31 21.3		"

The following orbital elements are from *MPO* 13685:

$$\begin{array}{l}
 \text{Epoch} = 2001 \text{ Apr. } 1.0 \text{ TT} \\
 \left. \begin{array}{l}
 T = 2000 \text{ Dec. } 10.3467 \text{ TT} \quad \omega = 222.9660 \\
 e = 0.673150 \quad \Omega = 158.2344 \\
 q = 1.933644 \text{ AU} \quad i = 4.3757 \\
 a = 5.915996 \text{ AU} \quad n^\circ = 0.0684955 \quad P = 14.39 \text{ years}
 \end{array} \right\} 2000.0
 \end{array}$$

SUPERNOVA 2005hf

R. Quimby, P. Hoefflich, S. J. Kannappan, and J. C. Wheeler, University of Texas; and C. Gerardy, Imperial College, report the discovery of a supernova (at mag ~ 16.7) in unfiltered CCD images taken on Oct. 25.12 UT using the 0.45-m ROTSE-IIIb telescope at the McDonald Observatory. The new object, found by subtracting a co-addition of images taken between July 16 and Sept. 12 (limiting mag ~ 18.9), is located at $\alpha = 1^{\text{h}}27^{\text{m}}05^{\text{s}}.97$, $\delta = +19^{\circ}07'00''.5$ (equinox 2000.0; uncertainty $\pm 0''.5$), which is 1''.9 west and 1''.5 north of the apparent host galaxy. A spectrogram (range 420–890 nm) of SN 2005hf, obtained on Oct. 25.35 with the 9.2-m Hobby-Eberly Telescope (+ Marcario Low-Resolution Spectrograph) by J. Caldwell and E. Terrazas, shows it to be a type-Ia supernova near maximum light. In addition to Si II 635.5-nm, S II 545.4- and 564.0-nm, and weak Ca II infrared absorption features, fairly strong Na I absorption is detected that is consistent with the NED recession velocity of 12924 km/s (from Maurogordato *et al.* 1997, *A. Ap. Suppl.* **123**, 411).