

**Central Bureau for Astronomical Telegrams  
INTERNATIONAL ASTRONOMICAL UNION**

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*COMET P/2005 V1 (BERNARDI)*

D. Tholen, University of Hawaii, reports the discovery of a comet by Fabrizio Bernardi on images taken with the Canada-France-Hawaii Telescope (discovery observation below; the observing was assisted by A. Boattini, T. Burdullis, and M. Laychak, with Tholen as principal investigator of the University of Hawaii Asteroid Search project). The comet shows a very faint tail extending as much as 12'' in p.a.  $\sim 290^\circ$  on the discovery images, and the magnitude was made in a 3''.7 photometric aperture. Images obtained by H. Hsieh on Nov. 4.6 UT with the 2.24-m telescope at Mauna Kea also show the tail. The point-spread function of the comet's head was consistently  $\sim 0''.3$  larger than stars of similar brightness.

2005 UT	$\alpha_{2000}$	$\delta_{2000}$	Mag.
Nov. 1.62042	11 <sup>h</sup> 33 <sup>m</sup> 44 <sup>s</sup> .69	+8°23'02''.0	20.5

The available astrometry, the following preliminary elliptical orbital elements, and an ephemeris appear on *MPEC* 2005-V41.

$$\begin{array}{rcl}
 T = 2005 \text{ Sept. } 3.113 \text{ TT} & \omega = & 4.483 \\
 e = 0.62125 & \Omega = & 130.300 \\
 q = 2.44635 \text{ AU} & i = & 15.574 \\
 a = 6.45896 \text{ AU} & n^\circ = & 0.060043 & P = 16.42 \text{ years}
 \end{array}
 \left. \vphantom{\begin{array}{rcl} T \\ e \\ q \\ a \end{array}} \right\} 2000.0$$

*(1862) APOLLO*

S. J. Ostro, L. A. M. Benner, J. D. Giorgini, Jet Propulsion Laboratory; M. C. Nolan, A. A. Hine, E. S. Howell, Arecibo Observatory; J. L. Margot, Cornell University; C. Magri, University of Maine, Farmington; and M. K. Shepard, Bloomsburg University of Pennsylvania, report that Arecibo delay-Doppler radar observations of (1862) on Oct. 30 and Nov. 1–2 show that this minor planet has a satellite whose average diameter is within a factor of two of 75 m and whose maximum orbital distance exceeds 3 km.

*SUPERNOVAE 2005hk–2005in*

*CBETs* 268 and 272 contain information on 30 supernovae found by the Sloan Digital Sky Survey II collaboration during Sept. 3–Oct. 23 (communicated by J. Frieman), all in the magnitude range  $g = 19$ –23 at discovery. All are either confirmed or suspected type-Ia supernovae except 2005hl and 2005hm, which are of type Ib. SN 2005hk (cf. *IAUC* 8625) was independently discovered by the SDSS II group.