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Central Bureau for Astronomical Telegrams
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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://www.cfa.harvard.edu/iau/cbat.html ISSN 0081-0304
Phone 617-495-7440/7244/7444 (for emergency use only)

COMET P/2009 L2 (YANG-GAO)

Rui Yang, Hangzhou, Zhejiang, China; and Xing Gao, Urumqi, Xinjiang, China, report the discovery of a new comet on several survey images (limiting mag about 15) taken by Gao in the course of the Xingming Comet Survey using a Canon 350D camera (+ 10.7-cm *f*/2.8 camera lens) at Mt. Nanshan — the new object identified as cometary by Yang. After posting on the Minor Planet Center's 'NEOCP' webpage, numerous other CCD astrometrists have reported the object to have cometary appearance during June 16.4–16.7 UT, including E. Guido and G. Sostero (remotely using a "Global Rent-a-Scope" 25-cm reflector near Mayhill, NM, U.S.A.; ten co-added unfiltered 60-s exposures show a coma of diameter $\sim 40''$ and a tail nearly $90''$ long in p.a. 245°); L. Elenin (remotely using a 20-cm refractor at Tzec Maun Observatory near Cloudcroft, NM; coma of size $\sim 36''$ with a short tail in p.a. 225°); E. Prosperi and P. Camilleri (remotely using a 36-cm reflector at Grove Creek Observatory, Trunkey, N.S.W., Australia; $30''$ coma with $70''$ tail in p.a. 240°); M. Suzuki (Utsunomiya, Tochigi, Japan, remotely using a "Global Rent-a-Scope" 25-cm reflector at Moorook, South Australia; coma diameter $\sim 30''$); Y. Ikari (Moriyama, Shiga-ken, Japan, 26-cm reflector; coma diameter $0'.8$, with a $2'.2$ tail in p.a. 253°); R. Ligustri (Udine, Italy; remotely using a 35-cm reflector at Moorook; fifteen co-added 60-s exposures show a coma diameter of $\sim 30''$); C. Jacques and E. Pimentel (remotely using a 25-cm reflector at Moorook; $45''$ coma and a broad tail $1'.5$ long in p.a. 240°).

2009 UT	α_{2000}	δ_{2000}	Mag.	*Observer*
June 15.80840	$18^h16^m19^s.40$	$-14°15'30''.7$	14.2	Yang

The available astrometry, the following preliminary elliptical orbital elements by B. G. Marsden, and an ephemeris appear on *MPEC* 2009-M05.

$$T = \text{2009 May 19.898 TT} \qquad \omega = 345^\circ.164$$
$$e = 0.63486 \qquad \Omega = 259.343 \quad \text{2000.0}$$
$$q = 1.28936\ \text{AU} \qquad i = 16.223$$
$$a = 3.53115\ \text{AU} \qquad n^\circ = 0.148535 \qquad P = 6.64\ \text{years}$$

COMET C/2008 Q3 (GARRADD)

Visual total-magnitude estimates: May 26.39 UT, 7.6 (D. A. J. Seargent, The Entrance, NSW, Australia, 10×50 binoculars; $10'$ coma); June 7.90, 7.0 (A. Amorim, Florianopolis, Brazil, 20×80 binoculars; moonlight).

2009 June 16 *Daniel W. E. Green*