Circular No. 8941

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

COMET C/2008 J2 (BESHORE)

E. Beshore reports his discovery of a comet with a bright, condensed condensation $\sim 20''$ across and a faint tail in p.a. 270° on images taken with the Mt. Lemmon 1.5-m reflector (discovery observation tabulated below). After posting on the Minor Planet Center's 'NEOCP' webpage, J. C. Pelle reported a diffuse head and a tail in p.a. 250° on images taken by N. Teamo (Punaauia, French Polynesia, 0.41-m reflector) on May 6.52–6.56 UT. A. C. Gilmore (Mt. John 1.0-m reflector, May 6.53–6.55) found a bright circular coma of diameter $\sim 16''$ (total mag 14.4–14.5 in a $7''$-radius aperture) and a faint, short tail seen as slight diffuseness on the west side (p.a. $\sim$ 250°). G. Sostero and E. Guido (Remanzacco, Italy, 0.2-m reflector, May 6.95) write that co-added unfiltered exposures show an extremely compact $20''$ coma of almost uniform brightness, slightly elongated toward the southwest; remote Cousins-R-band imaging with a 0.25-m reflector near Mayhill, NM, U.S.A., on May 7.37 yields coma diameter $\sim 25''$ (total mag $\sim$ 13.9), elongated toward p.a. 240°. Other reports of cometary appearance have been received from P. Birtwhistle, Great Shefford, Berkshire, England (0.40-m reflector, May 6.96–6.97; diffuse with a concentrated center, the $22''$ coma having a softer edge towards p.a. 260° but no obvious tail); J. M. Aymami, Tiana, Spain (0.25-m reflector, May 6.97–6.98; nebulous object of mag $\sim$ 14.8; L. Buzzi, Varese, Italy (0.60-m reflector, May 7.03–7.09; several stacked images reveal a compact coma, clearly elongated with a broad tail at least $20''$ long); C. Jacques and E. Pimentel, Belo Horizonte, Minas Gerais, Brazil (0.30-m reflector, May 7.08–7.09; condensed, elongated coma of size $18''.7 \times 31''.3$); J. E. McGaha, Tucson, AZ, U.S.A. (0.36-m reflector, May 7.29–7.32; starlike nuclear condensation with a $3''$ coma, elongated $5''$ toward p.a. 260°); and J. Young, Table Mountain (0.61-m reflector, May 7.32–7.35; $12''$ coma, slightly elongated toward p.a. 260°, with a hint of a poorly defined tail $\geq 40''$ long between between p.a. 245° and 275°).

2008 UT	α_{2000}	δ_{2000}	Mag.
May 6.44680	$17^h06^m21^s.38$	$-13°33'36''.1$	13.8

The available astrometry, the following preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2008-J39; this comet may be of short period.

$$T = 2008\ \text{Oct. } 7.073\ \text{TT} \qquad \left.\begin{array}{l} \omega = 256^\circ.546 \\ \Omega = 85.219 \\ i = 16.563 \end{array}\right\} 2000.0$$
$$q = 1.09077\ \text{AU}$$

2008 May 7 *Daniel W. E. Green*