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COMET C/2007 JA_{21} (LINEAR)

An apparently asteroidal object reported by the LINEAR survey (discovery observation posted below; prematurely announced as 2007 JA_{21} on *MPEC* 2007-J52) has been found by several observers to show cometary appearance following posting on the Minor Planet Center's 'NEOCP' webpage. Q.-z. Ye reports that three stacked 30-s CCD exposures obtained with the Lulin Observatory 0.41-m Ritchey-Chrétien reflector on May 12.82 UT show a coma of diameter $\sim 3''$ with an apparent but uncertain very faint tail around $7''$-$10''$ long in p.a. $\sim 45^{\circ}$. J. G. Ries writes that her R-band images obtained with the McDonald Observatory 0.76-m reflector on May 13.4 show the comet to be diffuse with a tail $\approx 10''$–$13''$ long toward the north-northeast. Also, G. Sostero reports that forty co-added 120-s unfiltered CCD frames taken by L. Donato, M. Gonano, V. Gonano, E. Guido, and himself with a 0.45-m reflector at Remanzacco, Italy, during May 13.91–13.98 show a compact coma nearly $10''$ in diameter (giving the object's magnitude as 18.7–18.8).

2007 UT	α_{2000}	δ_{2000}	Mag.
May 11.30048	$17^{h}40^{m}15^{s}.69$	$+53^{\circ}06'22''.3$	19.9

Additional astrometry, the following preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2007-J55:

$$T = 2007\ \text{May}\ 11.272\ \text{TT} \qquad q = 5.45549\ \text{AU} \qquad \left.\begin{aligned} \omega &= 113^{\circ}.384 \\ \Omega &= 66.274 \\ i &= 89.472 \end{aligned}\right\} 2000.0$$

COMET P/2007 H1 (McNAUGHT)

Additional observations of this comet (cf. *IAUC* 8830), published on *MPEC* 2007-J35, yield the following elliptical orbital elements:

$$\begin{aligned} T &= 2007\ \text{Aug.}\ 8.740\ \text{TT} \\ e &= 0.42222 \\ q &= 2.31257\ \text{AU} \end{aligned} \qquad \left.\begin{aligned} \omega &= 199^{\circ}.594 \\ \Omega &= 144.670 \\ i &= 11.802 \end{aligned}\right\} 2000.0$$

$$a = 4.00251\ \text{AU} \qquad n^{\circ} = 0.123085 \qquad P = 8.0\ \text{years}$$

2007 May 13 *Daniel W. E. Green*