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INTERNATIONAL ASTRONOMICAL UNION**

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COMET P/2005 Q4 (LINEAR)

An apparently asteroidal object discovered by LINEAR (discovery observation below), and posted on the 'NEO Confirmation Page', has been found to show a 16'' tail in p.a. 255° on CCD images taken by J. Lacruz (Madrid, Spain, 0.30-m reflector) on Sept. 3.04–3.05 UT. J. Young (Table Mountain, 0.6-m *f*/16 Cassegrain reflector) reports that his long CCD exposures taken on Sept. 4.5 show an extension 16'' long between p.a. 240° and 270° and a very round, condensed coma 4'' in diameter in very good seeing; his images on Sept. 5.5 show a 6'' slightly elongated coma (total mag 17.5) with a 40'' straight, narrow tail in p.a. 265°.

2005	UT	α_{2000}	δ_{2000}	Mag.
Aug. 31.40325		5 ^h 14 ^m 52 ^s .38	+33°52'04.4''	19.1

The available astrometry, the following preliminary elliptical orbital elements, and an ephemeris appear on *MPEC* 2005-R24.

$$\begin{array}{rcl}
 T = 2005 \text{ Sept. } 28.882 \text{ TT} & \omega = 51.377 & \\
 e = 0.55154 & \Omega = 10.811 & \left. \vphantom{\begin{array}{l} T \\ e \\ q \end{array}} \right\} 2000.0 \\
 q = 1.73505 \text{ AU} & i = 17.531 & \\
 a = 3.86888 \text{ AU} & n^\circ = 0.129517 & P = 7.6 \text{ years}
 \end{array}$$

COMET P/2005 R1 (NEAT)

K. J. Lawrence reports the NEAT discovery of a comet, on CCD images taken with the 1.2-m Schmidt telescope at Palomar (discovery observation below), whose image appears somewhat softer than surrounding stars and has a possible short tail toward the southwest. Young reports that his images taken on Sept. 5.44–5.45 UT show a 6'' round coma of mag 17.6 with a broad 14'' tail spanning p.a. 240°–260°.

2005	UT	α_{2000}	δ_{2000}	Mag.
Sept. 2.42614		0 ^h 37 ^m 07 ^s .81	+31°42'49.5''	18.0

Preliminary elliptical orbital elements from *MPEC* 2005-R25:

$$\begin{array}{rcl}
 T = 2005 \text{ Oct. } 8.552 \text{ TT} & \omega = 117.622 & \\
 e = 0.64458 & \Omega = 259.502 & \left. \vphantom{\begin{array}{l} T \\ e \\ q \end{array}} \right\} 2000.0 \\
 q = 2.06554 \text{ AU} & i = 15.489 & \\
 a = 5.81161 \text{ AU} & n^\circ = 0.070349 & P = 14.0 \text{ years}
 \end{array}$$