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INTERNATIONAL ASTRONOMICAL UNION**

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COMET P/2005 R2 (VAN NESS)

M. E. Van Ness, Lowell Observatory, reports his discovery of a comet on images taken by himself with the LONEOS telescope (discovery observation tabulated below); the new object shows a moderately condensed elongated coma of diameter 20'' with a fan-shaped tail 245'' long in p.a. 240°. Following posting on the 'NEO Confirmation Page', several other observers have noted the object's cometary nature on their CCD images — including D. Kyrylenko, O. Gerashchenko, V. Lokot, and Y. Ivashchenko (Zhytomyr reg, Ukraine, Sept. 10.8 UT; 2' tail in p.a. 250°); E. Reina Lorenz (Masquefa, Spain, Sept. 11.0; 50'' coma and 100'' tail); C. Jacques and E. Pimentel (Belo Horizonte, Minas Gerais, Brazil, Sept. 11.25; elongated coma of diameter 9'' × 12'' and red mag 15.8–16.1 with a broad 50'' fan tail in p.a. 240°); and J. E. McGaha (Tucson, AZ, Sept. 11.27–11.29; six 60-s co-added images show a 12'' × 18'' coma elongated with a narrow, fan-shaped tail 115'' long in p.a. 236°).

2005 UT	α_{2000}	δ_{2000}	Mag.
Sept.10.40969	2 ^h 26 ^m 37 ^s .95	+28°36'18''.9	17.0

The available astrometry (including predisccovery LINEAR observations on Aug. 16 and 31), the following orbital elements, and an ephemeris appear on *MPEC* 2005-R54.

$$\begin{array}{rcl}
 T = 2005 \text{ Feb. } 11.022 \text{ TT} & \omega = & 3.215 \\
 e = 0.38393 & \Omega = & 312.836 \\
 q = 2.12818 \text{ AU} & i = & 10.246 \\
 a = 3.45442 \text{ AU} & n^\circ = 0.153512 & P = 6.42 \text{ years}
 \end{array}
 \left. \vphantom{\begin{array}{rcl} T \\ e \\ q \\ a \end{array}} \right\} 2000.0$$

COMET P/2004 FY₁₄₀ (LINEAR)

An apparently asteroidal object discovery by LINEAR (discovery observation below, from *MPS* 104067; orbital elements on *MPO* 66354) has been found by C. Hergenrother, Lunar and Planetary Laboratory, to have been consistently non-stellar on individual and co-added *R*-band frames taken on 2004 May 19 and 20 UT; images taken on 2005 July 5 and 6 with the Catalina 1.54-m reflector failed to show the object for 15' along the line-of-variation (limiting mag $V \sim 22$; predicted mag near $V \sim 19$).

2004 UT	α_{2000}	δ_{2000}	Mag.
Mar. 27.33098	12 ^h 37 ^m 49 ^s .21	-6°08'44''.6	18.1