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COMET P/2009 F1 (LARSON)

S. M. Larson, University of Arizona, reports his discovery of a comet on survey CCD images taken with the Mt. Lemmon 1.5-m reflector (discovery observation tabulated below), the object showing a coma diameter of 4″–6″ and being more diffuse than nearby stars of similar brightness; his images the following night confirmed the hint of coma. Four co-added 120-s unfiltered images taken with the same telescope by A. R. Gibbs on Mar. 19.3 UT show a fuzzy ball 12″ in diameter, much brighter in its core, with no visible tail. Following posting on the Minor Planet Center's 'NEOCP' webpage, other CCD astrometrists have remarked on the object's cometary appearance. Images taken by R. Holmes (Charleston, IL, U.S.A., 61-cm reflector, Mar. 17.3; measured by S. Foglia) show the object to be diffuse. F. Hormuth (Calar Alto 1.23-m reflector, Mar. 18.91) notes a slightly diffuse appearance and coma diameter 4″, slightly elongated towards p.a. ∼ 270°, on six 30-s unfiltered CCD exposures. L. Buzzi (Varese, Italy, 0.60-m reflector, Mar. 19.0) writes that 8-min stacked exposures shows a compact coma of size ∼ 10″ with no tail. P. Birtwhistle (Great Shefford, Berkshire, England, 0.40-m reflector, Mar. 19.09–19.11) reports that co-added images totalling 30 min of exposure shows a circular but slightly "soft" object that is 35–40 percent larger than all nearby stars of similar brightness; a similar appearance was reported by E. Guido, G. Sostero, and P. Camilleri on Mar. 19.4 (thirty co-added 120-s unfiltered exposures taken remotely with a 0.25-m reflector near Mayhill, NM, U.S.A.; slight elongation toward p.a. 290°). W. H. Ryan (Magdalena Ridge Observatory, 2.4-m reflector, Mar. 19.3) finds a fuzzy appearance compared to field stars.

2009	UT	α_{2000}	δ_{2000}	Mag.	*Observer*
Mar.	16.43134	$13^{\rm h}08^{\rm m}44\overset{\rm s}{.}16$	$-4^\circ25'33\overset{''}{.}2$	19.0	Larson

The available astrometry, the following preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2009-F34.

$$\left.\begin{array}{lll} T = \text{2009 June 24.708 TT} & \omega = 218\overset{\circ}{.}972 \\ & \Omega = 357.921 \\ q = \text{1.83816 AU} & i = 171.401 \end{array}\right\} 2000.0$$

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