A. R. Gibbs reports his discovery of another comet on unfiltered CCD images obtained with the 1.5-m reflector in the course of the Mt. Lemmon Survey ("discovery" observation tabulated below); the four co-added 30-s frames show a well-condensed 8″ coma and a faint, narrow tail 20″ long in p.a. 240°, while four co-added 80-s frames taken around Sept. 14.37 UT show a condensed 11″ coma and a faint 30″ tapered tail in p.a. 240°. Four co-added 30-s exposures by Gibbs on Sept. 15.24–15.27 show a condensed 8″ coma and a faint 10″ tail in p.a. 225°, while four co-added 80-s frames taken around Sept. 15.35–15.36 show a condensed 10″ coma and a narrow 40″ tail in p.a. 245°. Following posting on the Minor Planet Center’s ‘NEOCP’ webpage, numerous other CCD astrometric observers have also commented on the object’s cometary appearance. G. Hug (Scranton, KS, 0.30-m reflector) writes that the object appeared diffuse on his images from Sept. 15.3. J. G. Ries (McDonald Observatory 0.76-m reflector) notes that her images from Sept. 15.4 show a coma and a faint tail ≈ 23″ long toward the southwest. V. Gonano, E. Guido, and G. Sostero (Remanzacco, Italy, 0.45-m reflector) report that fourth co-added 60-s exposures taken around Sept. 16.0 show a diffuse coma nearly 15″ in diameter with a broad tail nearly 25″ long in p.a. 260°. P. Birtwhistle (Great Shefford, Berkshire, England, 0.40-m f/6 reflector) writes that his images from Sept. 16.0 show a 10″ coma with a 30″ tail in p.a. 240°.

The available astrometry, the following preliminary elliptical orbital elements, and an ephemeris appear on MPEC 2007-S02.

\[
\begin{align*}
T & = 2007 \text{ June 6.477 TT} & \omega & = 292.699 \\
 e & = 0.53777 & \Omega & = 33.711 \\
 q & = 2.20125 \text{ AU} & i & = 3.165 \\
 a & = 4.76219 \text{ AU} & n^o & = 0.094840 & P & = 10.4 \text{ years}
\end{align*}
\]

The following revised parabolic orbital elements for this comet (cf. IAUC 8857) are from MPEC 2007-R56: \( T = 2009 \text{ Jan. 10.7452 TT}, q = 1.211903 \text{ AU}, \omega = 136^\circ 8430, \Omega = 338^\circ 4873, i = 178^\circ 3716 \) (equinox 2000.0).