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Central Bureau for Astronomical Telegrams
INTERNATIONAL ASTRONOMICAL UNION
Mailstop 18, Smithsonian Astrophysical Observatory, Cambridge, MA 02138, U.S.A.
IAUSUBS@CFA.HARVARD.EDU or FAX 617-495-7231 (subscriptions)
CBAT@CFA.HARVARD.EDU (science)
URL `http://cfa-www.harvard.edu/iau/cbat.html` ISSN 0081-0304
Phone 617-495-7440/7244/7444 (for emergency use only)

COMET C/2005 M1 (CHRISTENSEN)

E. J. Christensen, Lunar and Planetary Laboratory, reports his discovery of a comet on images taken with the 1.5-m $f/2$ reflector in the course of the Mount Lemmon Survey (discovery observation given below). On four co-added 90-s CCD images from June 17.4 UT, Christensen noted a $5''$ coma and a $10''$ tail in p.a. 230°–240°; images taken in improved seeing on June 18.4 showed a $15''$ tail in p.a. 230° and a compact coma of diameter $\approx 7''$ (four co-added 60-s exposures). Following posting on the 'NEO Confirmation Page', A. C. Gilmore found a moderately condensed, circular coma of diameter $\sim 15''$ (but no tail) on four co-added 120-s CCD frames taken on June 19.7 with the 1.0-m $f/7.7$ reflector at Mount John University Observatory.

2005	UT	α_{2000}	δ_{2000}	Mag.
June	17.41206	$22^h41^m08^s.59$	$-7°52'07''.8$	19.9

The available astrometry, the following very preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2005-M33.

$$T = 2005\ \text{Jan.}\ 24.728\ \text{TT} \qquad q = 2.94607\ \text{AU}$$

$$\left.\begin{aligned}\omega &= 140^\circ.756\\ \Omega &= 143.962\\ i &= 8.741\end{aligned}\right\}2000.0$$

COMETS C/2005 G7, C/2005 H2, AND C/2005 H3 (SOHO)

Following are the initial positions for additional comets found on SOHO website images (continuation to *IAUC* 8546); C/2005 H2 belongs to the Meyer group, the others being Kreutz sungrazers. K. Battams writes that C/2005 G7 had a diffuse 'teardrop' shape, reaching mag ~ 7.5 at $7.1R_\odot$ (Apr. 14.085 UT). C/2005 H2 was elongated and faint, but Battams notes that this may or may not have been a tail, adding that it is not uncommon to see stars appear "diagonally elongated" in the SOHO images; it peaked in brightness at mag ~ 7.8 at $7.0R_\odot$ (Apr. 17.726). C/2005 H3 was partly obscured by the pylon in the C3 coronagraph, but in C2 images it reached mag ~ 5.2 at $6.6R_\odot$ on Apr. 22.368, when its tail length was $93''$.

Comet	2005 UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2005 G7	Apr. 14.171	$1^h38^m.4$	$+\ 8°36'$	C2	HS	2005-K43
C/2005 H2	17.629	1 48.2	+12 06	C2	HS	2005-K43
C/2005 H3	21.779	2 14.4	+10 16	C3/2	HS	2005-K43

2005 June 20 *Daniel W. E. Green*