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INTERNATIONAL ASTRONOMICAL UNION**

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*COMET C/2005 E2 (McNAUGHT)*

R. H. McNaught reports his discovery of a comet with a 12'' tail in p.a. 250° on CCD images taken on Mar. 12.8 and 13.8 UT with the 0.5-m Uppsala Schmidt telescope at Siding Spring (discovery observation given below). Following posting on the 'NEO Confirmation Page', CCD observations obtained with the 1.0-m *f*/7.7 reflector at Mt. John University Observatory on Mar. 13.7 by A. C. Gilmore (measured by P. M. Kilmartin) show a uniform coma ~ 7'' in diameter with a stubby tail 13'' long to the southwest.

2005	UT	$\alpha_{2000}$	$\delta_{2000}$	Mag.
Mar.	12.75009	19 <sup>h</sup> 47 <sup>m</sup> 24. <sup>s</sup> 43	-35°48'32.6''	16.5

The available astrometry, the following very preliminary parabolic orbital elements, and an ephemeris appear on *MPEC* 2005-E84.

$$\left. \begin{array}{l} T = 2006 \text{ Apr. } 13.126 \text{ TT} \\ q = 3.01128 \text{ AU} \end{array} \right\} \begin{array}{l} \omega = 358.748 \\ \Omega = 357.427 \\ i = 16.116 \end{array} \text{ } 2000.0$$

*COMETS C/2005 E3 (SOHO) AND C/2005 E4 (SOHO)*

Additional comets found on SOHO website images (cf. *IAUC* 8490; MO = M. Oates).

Comet	2005	UT	$\alpha_{2000}$	$\delta_{2000}$	Inst.	F	<i>MPEC</i>
C/2005 E3	Mar.	6.671	23 <sup>h</sup> 16 <sup>m</sup> .9	- 6°09'	C2	MO	2005-E87
C/2005 E4		10.388	23 33.0	- 2 48	C3	RK	2005-E87

C/2005 E3 is a Kreutz sungrazer, while C/2005 E4 belongs to the Marsden group. On *MPEC* 2005-E87, B. G. Marsden suggests that C/2005 E4 is identical with C/1999 N5 and has  $P = 5.66$  yr. He shows that, when run back a further revolution, the linked orbit agrees very closely with the linked orbit corresponding to his earlier suggestion that C/2004 V9 was a return of C/1999 J6 (*IAUC* 8456, *MPEC* 2004-X73,  $P = 5.49$  yr), with then  $T = 1993$  Nov. 20–22,  $q = 0.0515$  AU, and agreement to better than 0°3 in  $\omega$ ,  $\Omega$ , and  $i$ . This indicates that these Marsden-group comets probably separated from each other around that time. Marsden adds that, if C/1999 U2 also then separated from them, it would now have  $P = 5.95$  yr and  $T = 2005$  Oct. 8 (to within a few days).