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COMET C/2008 A3 (SOHO)

Further to *IAUC* 8923, an additional tiny, very faint (mag $\sim$ 7.5) comet was found on SOHO website images that is a member of the Marsden group ("discovery" observation tabulated below); according to K. Battams, it may have been "borderline diffuse", and it maintained a very constant brightness level until quite near the end, when it started to fade. R. Kracht suggested the identity of C/2008 A3 with C/2002 R1 (cf. *IAUC* 7969, *MPEC* 2002-R57), and B. G. Marsden published a linked orbit on *MPEC* 2008-B61 that yields T = 1997 Apr. 19.0 for its previous (unobserved) perihelion passage.

Comet	2008 UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2008 A3	Jan. 15.588	$19^h52^m.2$	$-20^\circ39'$	C2	RK	2008-B61

COMETS C/2008 D1, C/2008 D2, C/2008 D3, C/2008 D4 (STEREO)

K. Battams and K. Baldwin have reported measurements, reduced and analyzed by B. G. Marsden, for four Kreutz-sungrazing comets found on images obtained with NASA's new "Solar-Terrestrial Relations Observatory" (STEREO), which involves two satellites ultimately to be located 45° ahead (STEREO-A) and 45° behind (STEREO-B) the earth in its orbit. The SECCHI suite of instruments on each satellite contains two coronagraphs ('COR2' having bandpass 650–750 nm and resolution 15″/pixel) and a "Heliospheric Imager" consisting of two telescopes ('HI1' having bandpass 650–750 nm and resolution 35″/pixel). The tabulated "discovery" observations below are given in the same format as used for the SOHO comets (see above); the 'C' under instrumentation denotes the 'COR2' instrument on both STEREO-A and -B, while the 'HI' flag denotes the 'HI1-A' instrument only. C/2008 D1, C/2008 D2, and C/2008 D4 were very faint (mag $\sim$ 10–11 for the first and third objects, and $\sim$ 9 for the second) and diffuse. C/2008 D3 was of mag perhaps 7 with a thin, faint tail in HI1-A images, and brighter (mag perhaps 3) with a thin tail in COR2 images; this is the first near-sun comet to have an orbit determined (cf. *MPEC* 2008-E58) using astrometry from two well-separated spacecraft (now 0.76 AU apart).

Comet	2008 UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2008 D1	Feb. 16.822	$23^h43^m.4$	$-\ 5^\circ01'$	HI	AW	2008-E58
C/2008 D2	19.461	23 55.6	$-$ 4 05	HI	AW	2008-E58
C/2008 D3	20.294	0 14.0	$-$ 4 49	HI/C	AW	2008-E58
C/2008 D4	20.933	23 58.9	$-$ 3 23	HI	RK	2008-E58

2008 March 6 *Daniel W. E. Green*