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COMET P/2009 S4 (CATALINA-LINEAR)

J. Scotti, Lunar and Planetary Laboratory, reports his recovery of comet P/2004 EW_{38} (cf. *IAUC* 8322), noting only stellar appearance, on CCD images taken with the 1.8-m Spacewatch telescope at Kitt Peak.

2009 UT	α_{2000}	δ_{2000}	Mag.
Sept.21.37293	$2^h47^m29^s.46$	$+13^\circ09'41''.3$	22.0
23.33491	2 46 55.91	+13 08 18.5	
28.44718	2 45 04.37	+13 03 17.8	21.9

The indicated correction to the orbit prediction on *MPC* 59600 is $\Delta T = +0.02$ day. Additional astrometry, the following linked orbital elements, residuals, and an ephemeris appear on *MPEC* 2009-S126.

$$\text{Epoch} = 2010 \text{ Sept. } 1.0 \text{ TT}$$

$$\begin{array}{lll} T = 2010 \text{ Sept. } 3.7086 \text{ TT} & \omega = 90^\circ.1359 & \\ e = 0.500013 & \Omega = 49.8835 & \left.\right\} 2000.0 \\ q = 1.794822 \text{ AU} & i = 6.5249 & \end{array}$$

$$a = 3.589741 \text{ AU} \qquad n^\circ = 0.1449137 \qquad P = 6.80 \text{ years}$$

COMETS C/2009 E2–E5, C/2009 F8, AND C/2009 F9 (SOHO)

Further to *IAUCs* 9065 and 9070, additional presumed comets have been found on SOHO website images — all Kreutz sungrazers except for C/2009 E3 (Meyer group). C/2009 E2 (also found by B. Zhou) was small and slightly diffuse (mag ~ 7). C/2009 E3 was tiny and stellar in appearance (mag ~ 7.5–8), and it faded rapidly. C/2009 E4 was small and slightly diffuse (mag ~ 6.5–7) in C3 images; in C2 images it was faint, diffuse, and slightly elongated. C/2009 E5 was very diffuse (mag ~ 8). C/2009 F8 was slightly diffuse (mag ~ 7–7.5) in C3 images, and small and elongated in C2 images. C/2009 F9 was very small and condensed (mag ~ 7.5) in C3 images, and slightly elongated (but stellar in appearance) in C2 images.

Comet	2009 UT	α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2009 E2	Mar. 1.221	$23^h07^m.6$	$-\ 8^\circ16'$	C3	MK	2009-N01
C/2009 E3	7.463	23 17.1	− 3 27	C2	EB	2009-N01
C/2009 E4	10.138	23 44.8	− 5 09	C3/2	WX	2009-N01
C/2009 E5	10.229	23 30.5	− 4 49	C2	BZ	2009-N29
C/2009 F8	16.862	0 04.1	− 2 09	C3/2	MU	2009-N29
C/2009 F9	28.471	0 44.4	+ 2 17	C3/2	HS	2009-N29

2009 September 28 *Daniel W. E. Green*