Circular No. 8634

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COMET C/2005 W3 (KOWALSKI)

Richard Kowalski reports a comet discovery on Catalina Sky Survey 0.68-m Schmidt images (discovery observation tabulated below). Coma diameters and tail lengths from CCD images: Nov. 25.32 UT, $\sim 20''$, — in p.a. $\sim 280^{\circ}$ (Kowalski); 25.4, $10''$ (well-condensed), $20''$ in p.a. 280°–290° (E. J. Christensen, Mt. Lemmon 1.5-m reflector; four co-added 30-s frames); 26.3, — (diffuse, extended), $\sim 20''$ toward the west-northwest (J. G. Ries, McDonald Observatory 0.76-m reflector); 27.1, $6''$ (concentrated), $14''$ (straight, broad, $8''$ wide) in p.a. 305° (P. Birtwhistle, Great Shefford, U.K., 0.40-m reflector). The available astrometry (including prediscovery NEAT observations from Nov. 24), preliminary parabolic elements (T = 2005 Apr. 22.927 TT, q = 2.68255 AU, $\omega = 155^{\circ}.860$, $\Omega = 220^{\circ}.463$, $i = 21^{\circ}.366$, equinox 2000.0), and an ephemeris appear on *MPEC* 2005-W72.

2005 UT		α_{2000}	δ_{2000}	Mag.	*Observer*
Nov.	25.31896	$5^{h}02^{m}28^{s}.03$	$+6^{\circ}52'30''.0$	18.2	Kowalski

SUPERNOVAE 2005kl–2005ku

The discoveries of twelve supernovae have been reported: 2005kl by M. Migliardi (from unfiltered CROSS CCD images; cf. *IAUC* 7373, 8588; via A. Dimai, Cortina d'Ampezzo, Italy), 2005km by J. Burket and W. Li (LOSS/KAIT; cf. *IAUC* 8632), and 2005kn–2005ku by J. Frieman on behalf of the Sloan Digital Sky Survey II collaboration (all found at mag > 20.4, with 2005kt and 2005ku predicted to peak around now at g = 18.2 and 17.5, respectively; details given on *CBET* 304).

SN	2005 UT	α_{2000}	δ_{2000}	Mag.	*Offset*
2005kl	Nov. 22.14	$12^{h}24^{m}35^{s}.68$	$+39^{\circ}23'03''.5$	14.6	$6''$ W, $4''$ N
2005km	Nov. 22.52	11 20 48.72	+32 17 25.2	17.5	$3''.5$ E, $1''.0$ N
2005kt	Nov. 7	1 10 58.05	+ 0 16 34.1	20.5	—
2005ku	Nov. 10	22 59 42.61	− 0 00 49.3	20.7	—

Nothing is visible at the location of 2005kl on Palomar Sky Survey infrared, red, and blue plates. Additional approximate magnitudes for 2005kl in NGC 4369: 2003 May 5, [18.5; 2005 Nov. 23.15 UT, 14.7. Additional KAIT magnitudes for 2005km in UGC 6356: Mar. 17.20, [19.5; Nov. 23.54, 17.3. SNe 2005kr and 2005ks are type-Ib/c supernovae with broad lines similar to that seen in 1998bw; the rest appear to be type-Ia supernovae except for type-Ic supernova 2005kl (cf. *CBET* 305, 306).

2005 November 27 *Daniel W. E. Green*