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INTERNATIONAL ASTRONOMICAL UNION

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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 predisccovery 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.	<i>Observer</i>
Nov. 25.31896		5 ^h 02 ^m 28 ^s .03	+6°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.	<i>Offset</i>
2005kl	Nov. 22.14	12 ^h 24 ^m 35 ^s .68	+39°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).