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V5558 SAGITTARII

D. K. Lynch, R. W. Russell, R. J. Rudy, and R. Pearson, Aerospace Corporation; and C. E. Woodward, University of Minnesota, report 0.8- to 2.5- μ m spectroscopy of V5558 Sgr (cf. IAUC 8832, 8854) using the Infrared Telescope Facility (+ SpeX) on Sept. 12 UT. The nova shows a rich spectrum with many strong, narrow emission lines (FWHM 620 km/s) of H I, He I, O I, Ca II, Fe II, and [N I]. All of the H I lines show P-Cyg profiles, and there is a pronounced Paschen jump. In addition to the P-Cyg profiles on the He I 1.0830- and 2.0581- μ m lines, some of the other He I and Fe II lines show P-Cyg profiles, indicating significant optical depths in these lines. There is no evidence of dust formation.

CCD V magnitudes from M. Martignoni, Magnago, Italy: Sept. 11.836 UT, 8.33; 12.823, 8.40; 19.792, 8.61.

SUPERNOVAE 2007gw-2007kd

Further to IAUC 8864, CBETs have announced numerous new supernovae discovered on CCD frames (unfiltered unless otherwise noted): 2007gw by K. Itagaki; 2007hj, 2007il, 2007ir, and 2007is by W. Li et al.; 2007hu and 2007hv by A. Sehgal and T. Puckett et al.; 2007if and 2007iu by F. Yuan, R. Quimby, et al. (ROTSE; cf. IAUC 8843); 2007ig by H. Naito (Nishi-Harima Astronomical Observatory; R-band images); 2007iq and 2007iv by T. Boles (cf. IAUC 8843); 2007iw by L. A. G. Monard; and 2007kc and 2007kd by M. Villi (cf. IAUC 8658). SN 2007it was found visually by R. Evans, Hazelbrook, N.S.W.; 2007hw–2007ie, 2007ih–2007ik, and 2007ix–2007kb were found by the Sloan Digital Sky Survey II and communicated by J. Frieman (details on CBETs 1057, 1061, 1076, 1079, and 1081); the rest were found on Palomar Schmidt images and reported anonymously by the "Nearby Supernova Factory" collaboration (details on CBETs 1043, 1044, 1047, 1050, 1054, and 1063). Discovery observations tabulated for those objects reported to be brighter than mag 17:

SN	$2007~\mathrm{UT}$	α_{2000}	δ_{2000}	Mag.	$O\!f\!f\!set$
2007 gw	Aug. 24.48	$12^{^{\rm h}}11^{^{\rm m}}34\overset{{}_{\circ}}{.}60$	$+57^{\circ}44^{'}15^{''}.9$	16.7	9".5 E, 1".0 N
$2007 \mathrm{hj}$	Sept. 1.32	$23\ 01\ 47.89$	$+15\ 35\ 11.4$	15.9	6".7 W, 14".0 N
2007 is	Sept. 14.14	$16\ 47\ 14.59$	+40 14 36.9	16.6	2".0 W, 5".7 S
2007it	Sept. 13.44	$14\ 18\ 25.63$	-43 22 53.8	13.5	24" W, 25" N
2007 kc	Sept. 21.78	$13\ 21\ 34.92$	$+42\ 16\ 50.0$	15.8	10" W, 4" S
$2007 \mathrm{kd}$	Sept. 23.12	$9\ 25\ 58.01$	$+34\ 37\ 59.3$	16.6	3'' E, 12'' N