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V458 VULPECULAE

D. K. Lynch, R. W. Russell, and R. J. Rudy, The Aerospace Corporation; and C. E. Woodward, University of Minnesota, report 0.8- to 5.5-μm spectroscopy of V458 Vul (cf. *IAUC* 8863, 8878) on Oct. 10 and 11 UT using the Infrared Telescope Facility (+ SpeX): "V458 Vul has the strongest lines of neutral helium that we have encountered in a nova. He I 1083.0-nm has an equivalent width of $>$ 1400 nm and is 30 times larger than Paβ. Similarly, He I 2058.1-nm is seven times as strong as Brγ. Numerous other lines of He I are present. The lines of both helium and hydrogen are flat-topped and have FWHM of 2700 km/s. The O I lines are still present and indicate a reddening of $E(B-V) = 0.6$. He II features are just beginning to emerge, so the He I features will likely weaken slightly in the future as more helium becomes doubly ionized. No thermal emission from dust was detected."

COMETS C/2007 K19, C/2007 K20, C/2007 L1–L6 (SOHO)

Further to *IAUC* 8882, additional Kreutz sungrazing comets have been found on SOHO website images. C/2007 K19 and L5 were extremely faint (mag $\sim$ 8.5) and diffuse, the former being also elongated. C/2007 K20 and L6 were very faint (mag $\sim$ 8) and diffuse. C/2007 L1 was stellar in appearance in C3 images, and slightly diffuse (mag $\sim$ 7.5) with no tail in C2 images. C/2007 L2 was stellar in appearance in C3 images, and was of mag $\sim$ 5.5 with an extremely faint, thin tail in C2 images. C/2007 L3 peaked at mag $\sim$ 3 with a dense, wide tail $\sim$ 45″ long on June 8.171 UT; while the comet's "head" disappeared at $\sim$ June 8.181, the tail was still visible at June 8.917 (when it had extended into a diffuse arc of apparent length around 1°.5), and this comet was also visible in coronagraphs on both STEREO spacecraft. C/2007 L4 was stellar in appearance (mag $\sim$ 8).

Comet	2007 UT		α_{2000}	δ_{2000}	Inst.	F	*MPEC*
C/2007 K19	May	28.326	$4^h17^m.0$	$+19^\circ32'$	C2	RK	2007-T93
C/2007 K20		31.129	4 29.8	+20 02	C2	TH	2007-T93
C/2007 L1	June	4.305	4 46.4	+20 13	C3/2	BZ	2007-T94
C/2007 L2		4.971	4 52.1	+18 39	C3/2	KB	2007-T94
C/2007 L3		6.388	4 56.3	+18 10	C3/2	SY	2007-T94
C/2007 L4		7.704	4 59.0	+20 53	C2	BZ	2007-T94
C/2007 L5		9.371	5 03.7	+20 56	C2	AW	2007-T94
C/2007 L6		10.621	5 08.4	+21 06	C2	BZ	2007-T117

2007 October 20 *Daniel W. E. Green*