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## After 23 years the yellow symbiotic star LT Del is again in outburst

ATel #10361; *U. Munari (INAF Padova), P. Ochner (Univ. Padova), S. Dallaporta and R. Belligoli (ANS Collaboration)*  
on **9 May 2017; 11:06 UT**  
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Subjects: Optical, Cataclysmic Variable, Variables

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The ANS Collaboration photometric and spectroscopic monitoring of symbiotic stars has detected LT Del (= Hen 2-467 = PK 063-12.1 = StHa 179) in outburst. This is the first recorded outburst since the last one of 1994-1995, which was discovered by Passuello et al. (1994, IAUC 6065) and described by Arkhipova et al. (1995a, ALet 21, 339; 1995b, ALet 21, 391).

LT Del is steeply rising in brightness. Last ANS photometric observation on UT May 6.005 found it at  $U=12.65$ ,  $B=13.278$ ,  $V=12.407$ ,  $R=11.705$  and  $I=11.135$  ( $\pm 0.006$  in BVRI, 0.01 in U), which is almost as bright as the peak of the 1994-1995 event. The current outburst unfolded in phase with the egress of the WD from superior conjunction with the G6III giant companion, a geometrical arrangement that may be responsible for the particularly steep rise in brightness, which amounts to an average of 0.02 mag per day. All colors turned bluer, with the B-V rising to +0.87 from an average quiescence value (for the same orbital phase) of +1.45.

A spectrum of LT Del in outburst has been obtained on UT May 8.1 with the Asiago 1.22m telescope (range 3200-7900 Ang, dispersion 2.31 Ang/pix). A strong blue continuum now veils the G6III continuum features, and the Balmer continuum is in strong emission. The outstanding emission lines are characterized by high ionization conditions, with HeII 4686 being slightly stronger than Hbeta ( $10.11$  vs  $9.71 \times 10^{-13}$  erg cm<sup>-2</sup> s<sup>-1</sup>) and prominent lines being OIII 3444 and 3429, OIV 3411, [NeV] 3345 and 3427 Ang. The flux ratio of Balmer lines Ha:Hb:Hg:Hd is 3.53:1.00:0.46:0.36 consistent with low reddening and low self absorption. The weakness of HeI emission lines compared to those of HeII suggests density bounded conditions. No significant nebular lines are present other than [NeV].

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