

Central European TLE observations from Hungary in 2007  
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Over 100 TLEs (mainly red sprites, sprite halos and a blue jet) were captured above Central Europe by a Watec 902H2 Ultimate camera with Computar 8mm (45°H/34°V FOV) F08 aspheric lens from Sopron [16.58E, 46.68N], Hungary on 6 days in July and August in 2007. Direction of active thunderstorms was determined from lightning data provided quasi realtime by the LINET lightning detection network. Location, polarity, type (IC or CG), IC height and peak current of the detected lightning flashes were measured by LINET. ELF transients in the Schumann resonance (SR) band (5-40Hz) could be associated with most of the TLE producing flashes (mostly +CGs and a few ICs), which made their identification possible from the LINET database. Several TLE causing SR transients were recorded both at Nagycenk station [NCK; 16.72E, 47.63N], Hungary and at Moshiri station [MSR; 142.3E, 44.4N], Japan. Charge moment change (CMC) estimations for these flashes were calculated from MSR data. During the talk the instruments and the environment of the observations in Sopron are introduced, selected examples of the observed TLEs are shown, parameters (peak current, IC height) of TLE producing and non TLE producing lightning flashes are compared, CMC histogram of TLE related flashes is presented and TLE delay times with respect to their causative flashes are analyzed for sprites and sprite halos.