



Simultaneous sprite observations from Sopron, Hungary and Modra, Slovakia

J. Bór (1), J. Toth (2), G. Sátori (1) and H.D. Betz (3)

(1) Geodetic and Geophysical Research Institute of the HAS, Sopron, Hungary, (2) Department of Astronomy, Physics of the Earth and Meteorology, Faculty of Mathematics, Physics and Informatics, Comenius University in Bratislava, Slovakia, (3) Physics Department, University of Munich, D-85748 Garching (jbor@ggki.hu / H-9401, PoB. 5.)

Night sky observations by a Watec 902H2 Ultimate camera with Computar 8mm (45°H/34°V FOV) F08 aspheric lens were conducted in Sopron [16.58E, 46.68N], Hungary in summer, 2007 to capture transient luminous events (TLEs) in Central Europe. The camera was directed towards the active regions of thunderstorms in distances of about 500-600 km. The location of storms was found by the LINET lightning detection network. In the same period all sky observations by a Watec 120N camera with Canon 15mm fisheye lens were done at Modra Observatory [17.27E, 48.37N], Slovakia. Altogether 24 sprite events were captured simultaneously by both systems between July 21 and 23 and on the 10th of August. It is demonstrated for some selected cases how the position of individual sprite elements as well as the configuration of events appearing in a group can be revealed. If the location of the TLE is known, its details (occupied height range, extension of its body, tendrils, etc) can be measured up more accurately and its possible offset from the causative lightning discharge can be determined as well.