

# Studies in Bulgaria relating to CAL

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It is believed that Sprites are caused by electric fields in the high-altitude regions of the atmosphere above thunderstorms following a lightning discharge. The thin air of the mesosphere where Sprites appear is too high for in-situ measurements from research aircraft and too low for orbiting spacecraft, so much of what is known comes from low-light video recordings from mountain tops.

The Bulgarian meteorological station Thcerni Vrah on the Vitosha mountain (42°37' N; 23°16' E) at 2286m altitude is proposed as the location for a sprite observatory covering the eastern part of Southern Europe. The station, which was opened in October 1935, includes 11 conventional meteorological instruments. It is well-suited location for low-light video recordings and electromagnetic sensors. Observations can be supported by meteorological radar images, balloons measurements, etc. available from the National Institute of Meteorology and Hydrology, Bulgaria.



The Thcerni Vrah facility for Sprite campaigns from Bulgaria