

**Preliminary Reports of Summer Sprite Observation Campaign  
at Summit of Mt. Fuji, Japan**

Lightning Effects on the Middle and Upper Atmosphere

Yuko Suzuki Tomoyuki Suzuki, Masashi Kamogawa (Department of Physics, Tokyo Gakugei University, Tokyo 184-8501, Japan; kamogawa@u-gakugei.ac.jp), Story of Miracle Earth (Kiseki-no-Chikyu-Monogatari) TV Production Team (Jump Co.Ltd.,TV Asahi, Japan)

Many investigations of transient luminous events (TLEs) such as sprites and elves have been carried out since the 1990s. However, there are still unsolved issues like the morphologies of sprites. One of approach to investigate this issue is statistical study with collecting many events. In this study, we report a preliminary result of a mountain observation which enables us to observe the TLEs for a long term at the fixed point. The mountain observation was conducted at the summit of Mt. Fuji (3776 meter altitude), Japan, which enables us to detect the TLEs above off the coast of Boso peninsula, Chiba, Japan and the coast of Japan Sea which the large number of summer TLEs and the winter TLEs due to energetic positive cloud-to-lighting occurs. In particular, the altitude of the summit is located over the summer cloud covering the wide regions, so that the distant TLEs can be observed and low pressure and clean air yield better color images of TLEs. Moreover, the lower cost operation is possible, comparing with than the aerial and balloon measurement.

In the summer of 2013, we detected several events of TLEs with sensitive black-and-white CCD cameras at the fixed point for one month and with the color single-lens reflex camera. We will show the detailed analysis in the presentation. Such a mountain observation gives us a high chance to detect low-altitude blue-jets and starters and a 360-degree view from the isolated mountain, Mt. Fuji, also gives us a high change to detect the number of TLEs.