

# Sprite Remote Sensing Using Infrasound Measurements

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During the 2003 Eurosprite campaign of the CAL research network, the infrasound signature of the sprite has been determined (Farges et al., GRL, 2005). The main characteristic of the infrasound from a sprite is a frequency dispersion of the pressure signal: the maximum frequency increases typically with time. In addition to the good agreement between the observed and theoretical time of arrival, the duration of the infrasound is directly linked to the horizontal size of the sprite.

During the 2004 Eurosprite campaign, we use the specific signature of the infrasound of the sprite to detect sprites. This study allows statistics on the occurrence of sprite during 2.5 months (time distribution, possible daytime sprites, etc.). The interest of these new observations is that four microbarometers are operating at the same place, providing the azimuth and the elevation of all infrasound signals. We can thus estimate the sprite location using the +CG lightning location and the sprite infrasound azimuth.