

Abstract Submitted
for the 4CF15 Meeting of
The American Physical Society

High Speed Sprite Imaging GEOFF MCHARG, United States Air Force Academy, HANS STENBAEK-NIELSEN, University of Alaska, Fairbanks — Streamers observed in the middle atmosphere located above positive cloud to ground lightning strikes are referred to as sprites. Sprite streamers initiate between 70 and 80 km and are observed to propagate first downward and then sometimes upward, at speeds up to one-third the speed of light. We report on the use of high speed (up to 15,000 frames per second) imaging to resolve the structure, dynamics, and spectral content of the visible light emitted by sprites. We compare our observations to models developed of the initiation, propagation, splitting and brightness of sprite streamers.

Brian Patterson
United States Air Force Academy

Date submitted: 11 Sep 2015

Electronic form version 1.4