

The logo for Vaisala, consisting of the word "VAISALA" in a bold, white, sans-serif font on a blue background.

**ILDC/ILMC Strikes Again**  
Network with lightning  
experts from around the world

April 27-30, 2020  
Broomfield, Colorado, USA

[www.vaisala.com/ILDC](http://www.vaisala.com/ILDC)



## Geostationary Lightning Mapper Storms

### Authors

Dr. Scott Rudlosky - NOAA/NESDIS/STAR

### Abstract

This study introduces Geostationary Lightning Mapper (GLM) "storms" comprised of GLM flashes that can be used to query storm-scale information. The GLM observes entire flash footprints at ~2 ms intervals, which composited over time provide useful fields for identifying and tracking convective storms. The GLM data follow a parent-child hierarchy (flashes-groups-events) modeled after the Lightning Imaging Sensor (LIS), but omit an additional parent above flashes analogous to thunderstorms (termed LIS areas). Several methods are explored for defining storm features, ranging from simple space/time criteria to more complex methods leveraging higher-order GLM information. Identification and tracking of GLM storms will provide crucial new capabilities. GLM storms can serve as containers for quantifying, comparing, and applying various datasets best analyzed on the scale of individual thunderstorms. This storm-scale information can be leveraged to aid forecasters during severe weather warning operations and scientists as they explore new means for applying these data.

### Topic Areas

Lightning Detection from Space: Performance, Research and Applications, Lightning and Weather

### Submission Format

Oral