



**NOTICE:** Version 4.1 of LIS data is now available. [More information.](#)

Within the Global Hydrology and Climate Center ([GHCC](#)), there is a group of researchers, mostly scientists [and](#) engineers, who collectively form the [GHCC Lightning Team](#). As part of their research activities, the members of this team have been investigating the causes and effects of lightning as well as analyzing a wide variety of atmospheric measurements related to thunderstorms.

One of the primary objectives of this group is to determine the relationship between the electrical characteristics of storms and precipitation, convection, and severe weather. In order to achieve this objective, the GHCC Lightning Team has designed, constructed and deployed numerous types of ground based, airborne, and space based sensors used to detect lightning and characterize the electrical behavior of thunderstorms. The data collected by the GHCC Lightning Team is routinely shared with scientists around the globe, resulting in numerous advancements in the field of Atmospheric Science.

## [Global Lightning Image](#)

### A Lightning Primer



*A historical essay on lightning research. This primer describes the characteristics of lightning and provides information on recent activities in lightning research.*

### Dataset Information



*Access to data from the Lightning Team's experiments, information about the data, and links to other sources of lightning data.*

### Space Research & Observations



*Learn about [LIS](#), [OTD](#), [LMS](#), and other space based lightning detection instruments designed, built, and maintained by the Lightning Team.*

### Field Campaigns & Ground Validation



*An overview of field programs in which the Lightning Team has participated, including a description of some of the instruments that were used.*

### File Cabinet & Bookshelf



*Documents, reports, press releases, and an assortment of other information related to our research activities.*

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