

Ronald L. Holle, Kenneth L. Cummins, and Nicholas W. S. Demetriades
Vaisala, Inc.
Tucson, Arizona

Prior Studies

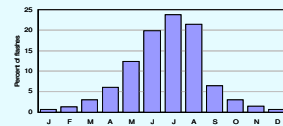
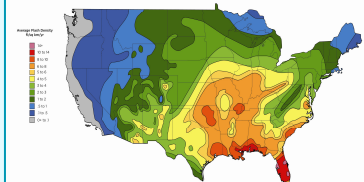
- 65 references in accompanying paper to U.S. lightning climatologies with NLDN
- None of these papers show U.S. lightning maps by month

Period of record

- NLDN -- 2004-2008
- GLD360 -- 2010

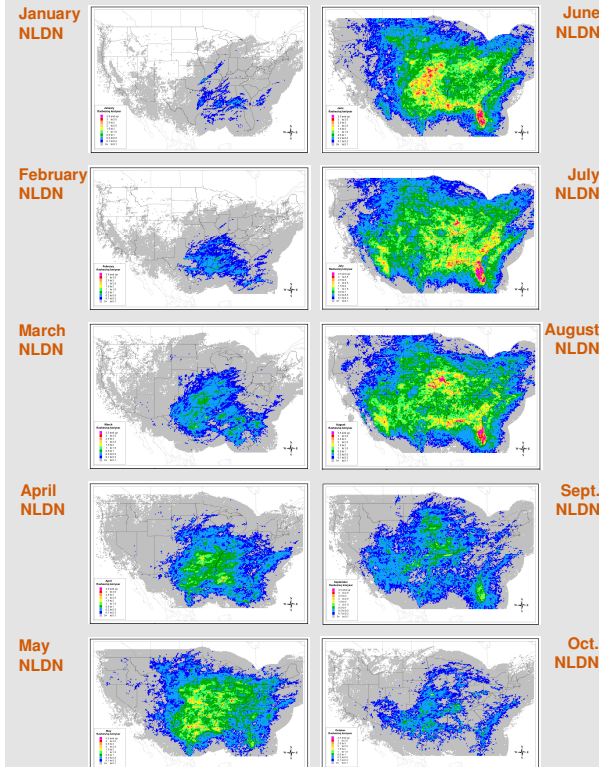
Annual

Vaisala's National Lightning Detection Network (NLDN)
Cloud-to-Ground Lightning Incidence in the Continental U.S. (1997 - 2007)

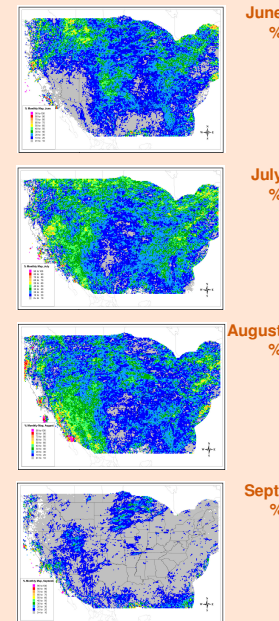


NLDN cloud-to-ground flashes per month from 2004 though 2008 for U.S. and adjacent areas.

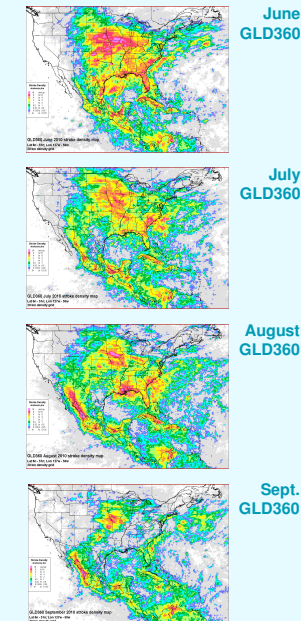
NLDN Monthly Flash Densities



NLDN Monthly Flash Percentages



GLD360 Monthly Flash Densities



RESULTS

Months with Most Frequent Lightning During Year

- Winter -- S. California
- March -- Central California valley
- April -- West Coast mountains
- May and June -- W. Texas, Oklahoma, Kansas, Nebraska
- June -- Montana, northern California
- June, July, and August -- Florida, Gulf Stream, and New England
- July and August -- Arizona, New Mexico, W. Colorado, Nevada, Utah
- August -- Oregon, Mexican coast

Lightning All Year

- E. Texas, Louisiana, Mississippi

GLD360 Lightning Maxima

- Pacific and Gulf coasts of Mexico
- Central America, Cuba, northern South America