

A Tool to Help Validate GLM

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Concept – Shallow/Deep Dive

- ◆ We are developing a tool to provide a broad overview of GLM compared with any other available lightning data (shallow dive).
- ◆
- ◆ This broad-scale overview will provide statistics, coincidence checking, and time-series looks at many lightning datasets.
- ◆
- ◆ It will also provide the ability to zoom in, both time and space, down to the individual flash level (deep dive).

Function

- ◆ Easily determine performance of GLM compared with all other known lightning data sources.
- ◆
- ◆ Provide a map window that shows requested lightning data, another map window that shows a “coincidence product,” and a time-series display.

Coincidence Product

If GLM detects lightning and

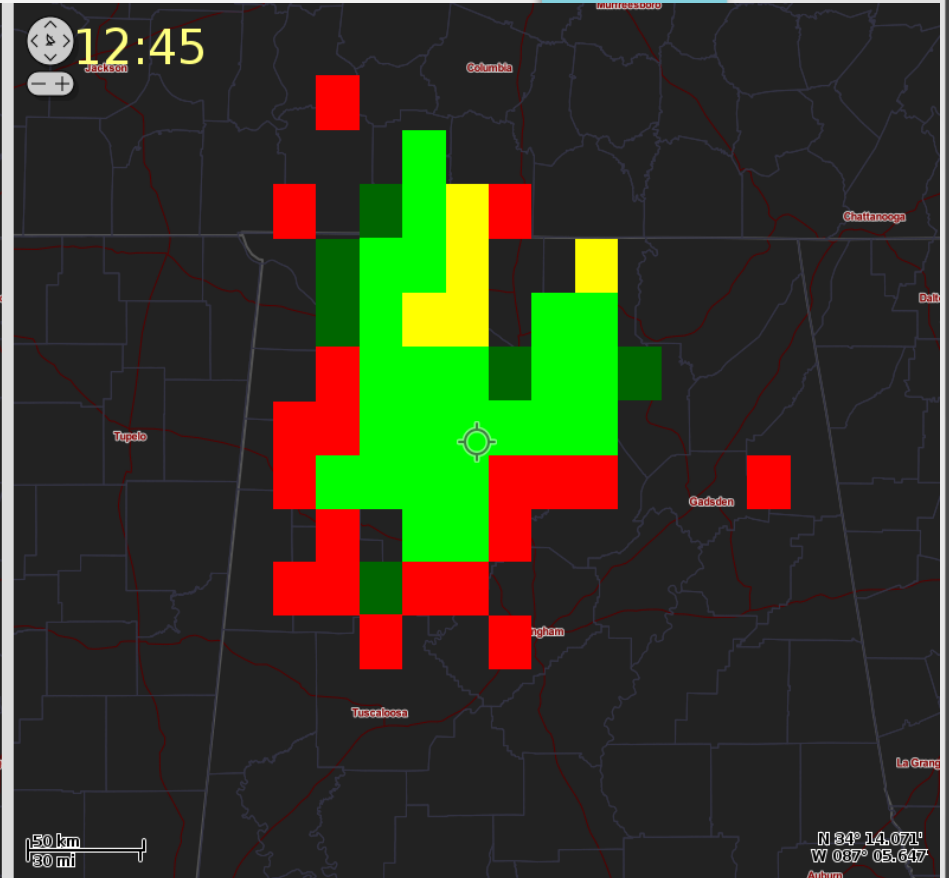
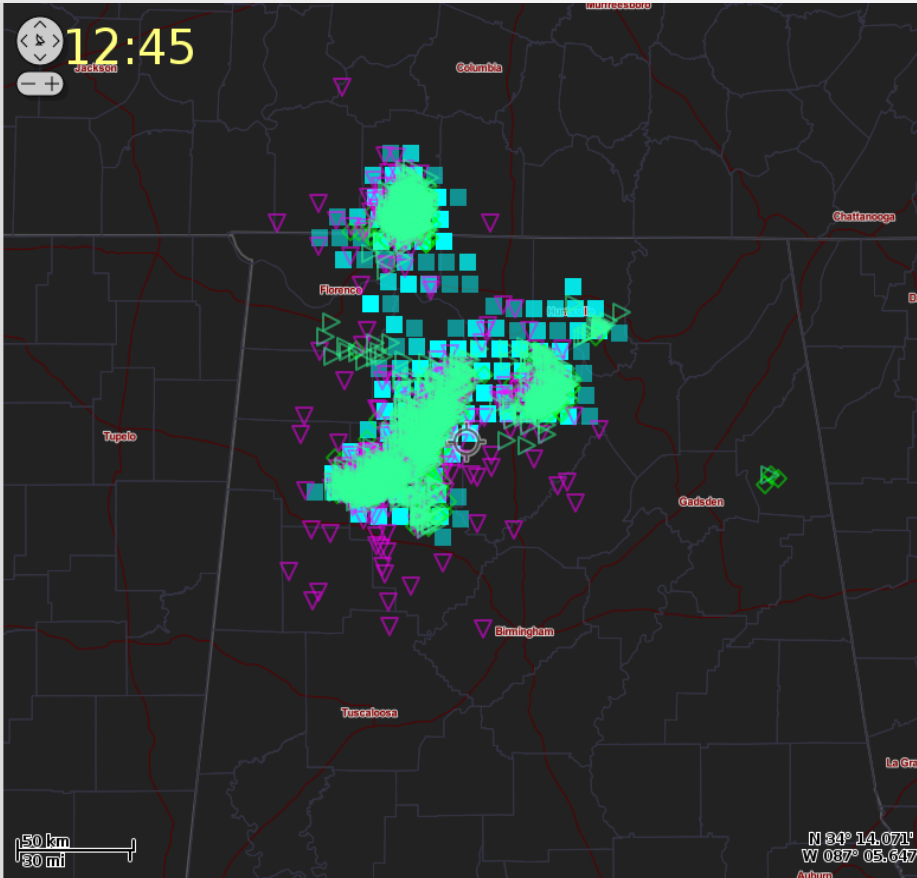
- ◆ No other system does: “Caution” – Yellow
- ◆ One other system does: “Good” – dark green
- ◆ >1 other system does: “Best” – green
- ◆

If any system detects lightning but GLM does not
“Alert” – red

VaLiD Screenshot

Data Available

- GLM PxEV
- GLM PxFL
- NLDN FL
- NLDN ST
- GLD360
- WLLN
- ENI FL
- ENI ST



5097	5097	4258	3873	4078	3396	3916	3451	3342	2179	1954	35544
1030	1030	918	845	801	913	805	738	806	757	617	8230
982	982	846	729	458	146	573	660	685	572	476	6127
4001	4001	3421	3156	2950	2929	2832	2700	2697	2400	2032	29118
	12:00	12:05	12:10	12:15	12:20	12:25	12:30	12:35	12:40	12:45	

Demo VaLiD if possible

Future Features

- ◆ More interactivity with maps display
- ◆ More statistics capability
- ◆ More portable
- ◆ Image data
- ◆ Optimization
- ◆ More user-defined features?