

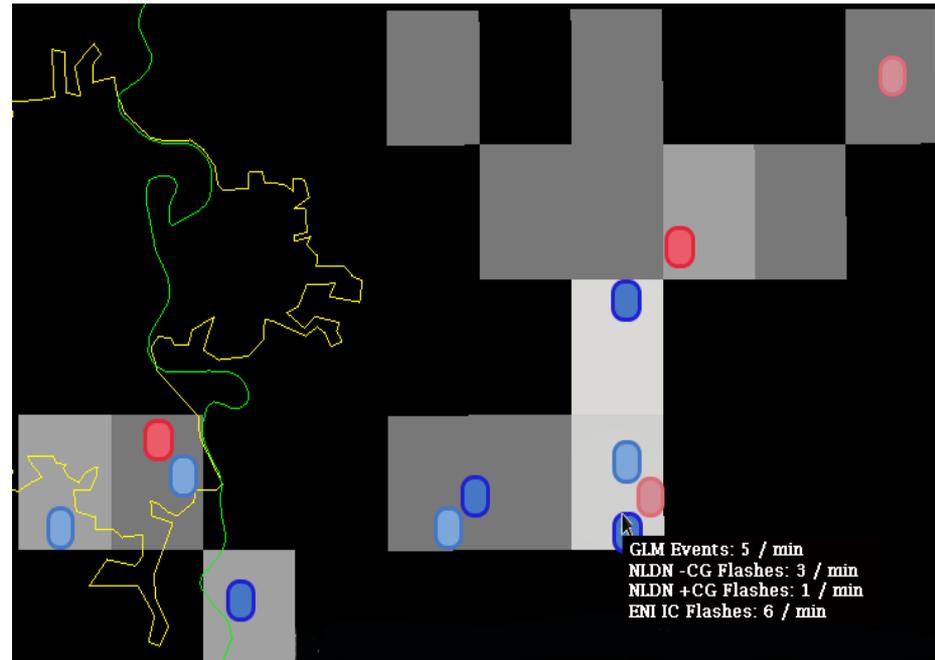
# Integration of the Geostationary Lightning Mapper with ground-based lightning detection systems for National Weather Service Operations

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The project addresses multiple objectives in NOAA's research and development strategic plan: *Weather Ready Nation* and *Data and Operations*.

The goal is to enhance NWS situational awareness and support services through lightning data fusion and GLM integration into convective storm monitoring, forecasts, and warnings.

- Utilizes the operational multiradar/multisensor (MRMS) system and capabilities to blend the satellite-based lightning detection data from the new GOES satellites with that from ground-based systems.
- Product development will be done in tandem with NWS forecasters from both local forecast offices and national centers prior to a full evaluation in the Hazardous Weather Testbed as part of the Satellite Proving Ground.
- This project aims to provide forecasters with lightning data in an approachable manner, such that it can be quickly accessed and understood in order to improve forecasts, warnings, and decision-support for high-impact weather events.



Idealized initial prototype of merged product including CG (color denotes polarity and density) and GLM lightning data (color highlights flash density) near Omaha, NE. Mouseover text (bottom right) provides forecaster a readout from each lightning source over the entire GLM pixel.