Title: Exploiting NOAA's New Multi-Radar Multi-Sensor Precipitation and Severe Weather Mosaic Products

Office: National Oceanic and Atmospheric Administration, National Centers for Environmental Information (NCEI), Center for Weather and Climate (CWC).
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Description of the Challenge:
Provide the capability to display and use the new Multi-Radar Multi-Sensor (MRMS) suite of products for realtime applications. These data are currently available within minutes of collection, but only available from within a 24 hour window from NOAA's National Centers for Environmental Prediction. Instead of the previous method of disseminating data from individual NOAA radar sites and observation networks that would have to be integrated into products, these MRMS products are already merged into a mosaic for CONUS by NOAA operations. Products include precipitation, hail, tornado signatures, and other quantities. This data service at http://mrms.ncep.noaa.gov/data/ was commissioned in April 2015.

Hopeful Outcome:
An app, browser extension or add-on (for Internet Explorer or Chrome) that allows users to visualize and/or compute on NOAA's current MRMS radar-based measurements of severe weather and precipitation.

Create a prototype or concept for design that will allow users to select:
- a geographic region or attribute of interest
- quantities to visualize, from severe weather and precipitation products

and link real-time MRMS to US transportation, geographic, economic, or population data.

Skills Needed:
Coding/development experience, basic mathematical knowledge, some meteorological awareness useful but not required.

Data Sets Required:
- http://mrms.ncep.noaa.gov/data/

References
- http://www.nssl.noaa.gov/projects/mrms/
- https://docs.google.com/document/d/1LeVcn_taIXZgzZb5JgWqaVr0xVs7GmA6RpHcb8ZGiwk/edit