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Team Magma

For this project we will be visualizing the global impact of volcanic eruptions. While eruptions have a clear impact on the local environment, it is difficult to comprehend how they impact the planet as a whole. We hope to learn how volcanic ash spreads around the globe as well as the use of ParaView for practical applications.

We will be using the Envisat MIPAS and AIRS / Aqua datasets from the 2014 IEEE Vis Contest. These datasets contain data observed using satellites after the Grímsvötn, Puyehue-Cordón Caulle, Nabro eruptions which occurred during a 3 week period in 2011. This provides a unique perspective of how the location of an eruption can change its global impact under similar weather conditions. We plan to use ParaView for this project.

Project Schedule:

March 21: Explore data to understand underlying trends and potential vectors of communication

March 28: Wrangle data to work with paraview

March 31: Progress Report

April 4: Visualize 1 of 3 eruptions

April 11: Iterate visualization to increase impact

April 18: Project complete

April 21: Final report due

So far, we have identified a project topic and data set. To complete this project, we will need to wrangle the data to make it usable in Paraview, and then translate this data into a visualization that communicates the spread of volcanic ash to the user. To evaluate the success of this project, one should evaluate how well this project communicates the regional and global impact of volcanic eruptions.