



## **Volcanically enhanced convection during the 2017 Kilauea eruption**

Andre Pattantyus, Robert Ballard , Steven Businger , and Jennifer Griswold

Department of Meteorology, University of Hawaii at Manoa, Honolulu, USA (akp4221@hawaii.edu)

The 2017 eruption of Kīlauea Volcano on the island of Hawaii presented a number of threats to the communities of the entire state from lava flows and fountains, to ash ejections, to enhanced SO<sub>2</sub> emissions and its resultant particulate pollution. Over the course of the eruption, which lasted over three months, a number of volcanically enhanced convective storms developed over and adjacent to the volcano that produced both heavy rainfall and anomalous lighting activity. The synoptic and volcanic conditions feeding into these events will be discussed in the context of local climatology. A particular case on July 2, 2017 will be presented during which a deep convective cloud remained stationary over the lower east rift zone of Kīlauea volcano for the entire day.