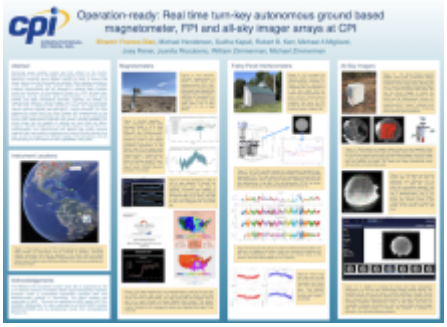
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Poster
Monitoring space weather events and their effects on the Earth’s atmosphere is crucial for the highly technological society we live in today. Effectively monitoring space weather requires an array of sensors that deliver data as fast and accurately as possible. While satellites provide an in-situ and/or a global view, ground based instrumentation provides localized measurements that are essential to measure highly localized events and dynamics. At Computational Physics Inc. (CPI), we have been developing turn-key industrial grade instrumentation to monitor space weather and upper atmospheric dynamics. Currently, we operate 13 magnetometer stations, 2 all-sky imagers and 2 FPIs across the continental US. We have 2 additional FPIs operating in Brazil. Our magnetometers capture real-time magnetic field data with a 1 second resolution. Our FPIs measure the neutral wind from direct Doppler shift measurements of the 630nm airglow with uncertainties less than 0.5 m/s, an acuity unparalleled by any other measurement technique and system currently available. Our all-sky imager has the capability to calibrate and orient itself and deliver images in real-time. Additionally, it can identify objects in the sky. All of our instrumentation runs autonomously and delivers high quality real-time magnetic field, thermospheric temperature and wind (including vertical wind) data, as well as imagery from different heights of the atmosphere. We will be describing our instruments and their capabilities in this poster.



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