Overview
- The VIIRS instrument onboard the Suomi NPP satellite is able to observe an aurora. The primary goal of this project is to develop an algorithm to detect aurora regions using VIIRS observations.

Methods
- This project utilizes three bands on the VIIRS instrument onboard the Suomi polar-orbiting satellite.
- The 0.7 μm Day/Night band is able to observe the aurora phenomenon along with both high and low clouds.
- The 11.45 μm IR band can detect high cloud features, but is unable to "see" the aurora signature.
- The 11-3.7 μm band, or “fog/stratus product,” can detect low clouds and fog but is also unable to "see" the aurora.
- Using the difference between these bands, the aurora signature can be isolated.

Project Progress
- Analyzed numerous cases and locations where the aurora occurred
- Utilized McIDAS V software to interpret data from the Suomi NPP satellite

Project Future
- Develop computer algorithm to digitally detect the aurora using the VIIRS data
- Test the algorithm using VIIRS observations from numerous aurora cases
- Compare algorithm results to other NOAA observations

AOS LOGO

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CONTACT
Eric Tobias
etobias@wisc.edu