

Daniel
Welling
University of Michigan
Michael Liemohn, University of Michigan

Aaron Ridley, University of Michigan
Alexa Halford, NASA Goddard Space Flight Center
Tom Immel, University of California, Berkely

Poster

The aurora are a beautiful and inspiring manifestation of heliophysics. They also are one of the most important phenomena to observe if we are to understand the magnetosphere-ionosphere-thermosphere system and its relation to the dynamic solar wind. Further, the ability to monitor the aurora is critical for space weather operations. Despite this, there has not been a mission dedicated to viewing the whole aurora, either northern or southern, for over 18 years.

This poster introduces MAAX: the Magnetospheric Auroral Asymmetry eXplorer. MAAX is a NASA small explorer mission concept currently in Phase A. It consists of two observatories, each with a single instrument: a dual-wavelength ultraviolet imager capable of viewing the entire auroral oval. The mission will achieve two firsts: the first mission to view either complete oval continuously, and the first mission to simultaneously observe both auroral ovals completely from the same altitude using the same instrument. With these observatories, MAAX will be able to determine how magnetosphere - ionosphere electrodynamic coupling regulates multi-scale auroral energy flow through the near-Earth space environment.

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