



Contribution ID: 64

Type: Talk

## HAWC –The High-altitude Aerosol, Water vapour and Cloud Mission, a Canadian Contribution to the NASA Atmosphere Observing System (AOS)

The HAWC Mission is a Canadian contribution to the NASA AOS Mission designed to answer a combination of question posed within the recent decadal survey. Two main survey topics, Aerosols and Clouds, Convection and Precipitation, were originally merged into an American concept known as A-CCP. In the early days of A-CCP, Canada expressed interest in participating with a suite of national led instruments and now that A-CCP has morphed into AOS, a fully international concept, Canada is firmly onboard with sufficient national funding to build TICFIRE, a nadir looking thermal imager designed to measure thin ice cloud properties and a standalone satellite with two instruments, ALI and SHOW, limb looking instrument designed to measure aerosol properties and water vapour respectively. TICFIRE will fly in the same orbital plane, but behind the Canadian HAWCsat, and will look down while ALI and SHOW look backward from HAWCsat simultaneously sampling the same atmosphere as TICFIRE. This talk will detail the HAWC Mission that consists of TICFIRE and HAWCsat and highlight the work already done, and to be done, by the expanding group of Canadian and international scientists and engineers who will help make HAWC a reality and use the measurements to study our ever-evolving atmosphere. This talk will focus on the individual instruments and their associated data products and highlight the advancements that are possible when measurements from all three instruments, and the international instruments that are part of AOS, are used together in a synergistic fashion.

### Topic

Upcoming Earth observation limb and occultation instruments

**Author:** DEGENSTEIN, Doug (University of Saskatchewan)

**Co-authors:** BOURASSA, Adam (University of Saskatchewan); Prof. BLANCHET, Jean-Pierre (UQAM); WALKER, Kaley (University of Toronto); Prof. HUANG, Yi (McGuill)

**Presenter:** DEGENSTEIN, Doug (University of Saskatchewan)