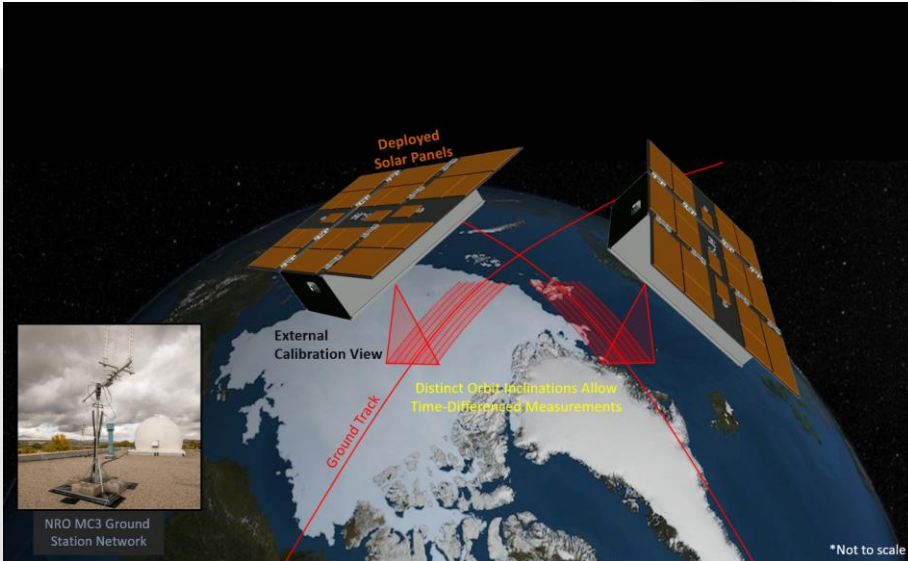




EVI-4 Investigation Summary: Polar Radiant Energy in the Far InfraRed Experiment (PREFIRE)



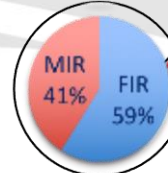
- Investigation Start Date: October 2018
- Launch Date: NET March 2023
- Cost-Capped: \$32.78M
- NPR 7120.5 **Category 3**
- NPR 8705.4 Payload Risk **Class D**
- Two CubeSats in distinct 470–650 km altitude, near-polar (82° -98° inclination) orbits each carrying a miniaturized IR spectrometer, covering 5-54 μm at 0.84 μm spectral resolution, operating for one seasonal cycle (a year).
- PREFIRE will document, for the first time, variability in spectral fluxes from 5-54 μm on hourly to seasonal timescales.

PREFIRE Management Team

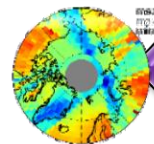
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 NASA Program Executive: Marissa Herron (HQ)
 NASA Program Scientist: Hal Maring (HQ)
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The Arctic is Earth's thermostat. It regulates the climate by venting excess energy received in the tropics.



Nearly 60% of Arctic emission occurs at wavelengths > 15 μm (FIR) that have never been systematically measured.



PREFIRE improves Arctic climate predictions by anchoring spectral FIR emission and atmospheric GHE