

12– 07 – 2024

News: PREFIRE Mission

- National Aeronautics and Space Administration (NASA) has recently launched a pair of miniature satellites, called CubeSats (6U) to measure the heat lost from the Earth's poles.

PREFIRE Mission

- The PREFIRE (**Polar Radiant Energy in the Far-InfraRed Experiment**) mission aims to fill a critical gap in understanding the planet's energy budget by studying the heat emissions from the Earth's poles.
- The mission involves **two CubeSats equipped with thermal infrared spectrometers** to measure the amount of infrared and far-infrared radiation emitted from the Arctic and Antarctica.
- **This data will help scientists better understand the balance between incoming and outgoing heat, which is crucial for predicting changes in the Earth's ice, seas, and weather patterns.**

- A cube satellite (cubesat) is a standardized, low cost, small satellite design typically used for technological demonstration and research. It is a Nanosatellite - weighs less than 10 kgs.
- These are relatively inexpensive and can be launched in larger numbers, making them a valuable tool for scientific research and technology demonstrations.