

SnowEx

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In order to understand how much water is contained in each winter's snowfall and how much will be available when it melts in the spring, NASA has launched a seasonal campaign which is part of a five-year programme called SnowEx, initiated in 2016-17.

What is SnowEx?

- It is a five-year program initiated and funded by NASA THP to address the most important gaps in snow remote sensing knowledge.
- **It focuses on airborne campaigns and fieldwork, and on comparing the various sensing technologies**, from the mature to the more experimental, in globally-representative types of snow.
- **The goal is** to address the most important gaps in our snow remote sensing knowledge, and thus lay the groundwork for a future snow satellite mission.

What is the geographical focus of SnowEx?

- While the geographical focus of SnowEx is North America, NASA's overall target is optimal strategies for mapping global snow water equivalent (SWE) with remote sensing and models leading to a Decadal Survey "Earth System Explorer" mission.
- NASA currently has no global satellite mission to track and study SWE.
- NASA acknowledges any future snow satellite mission will require observations from an international collection of satellites.

SnowEx outcomes and International Engagement:

- SnowEx will provide key insights into optimal strategies

for mapping global SWE with remote sensing and models, which will enable a competitive proposal for a Decadal Survey **“Earth System Explorer” mission**.

- The systematic assessment of methods for mapping water and energy components of seasonal snow in SnowEx is fully aligned with the objectives of the NASA Terrestrial Hydrology Program and the Earth Science Division as well as the ESDS.