Polar Space Task Group SAR Coordination Working Group

The following preamble is common to the Announcements of Opportunity (AO) of all of the SAR Coordination Working Group members.

Polar ice sheets are acknowledged by the United Nations Framework Convention on Climate Change and the World Meteorological Organization as an essential climate variable (ECV) within the Global Climate Observing System. Significant progress is needed in generating continuous, global datasets of ice sheets and other cryospheric ECVs. Monitoring ice dynamics is crucial to assess their sensitivity to climate change and impact on sea level rise.

The Polar Space Task Group (PSTG) was established in 2011 to build on the legacy of the successful satellite data collection efforts during the International Polar Year. The PSTG is charged with prioritizing requirements, engaging in a dialogue with polar science authorities, and supporting the development of satellite sensor derived products for cryospheric research and applications. In order to assist with the collection and utilization of spaceborne synthetic aperture radar (SAR) data sets, the SAR Coordination Working Group (SAR CWG) was subsequently formed by PSTG. The members of the SAR CWG are public space agencies and commercial data providing companies. They work together to acquire, in a coordinated fashion, extensive sets of spaceborne SAR data to respond to scientific requirements, taking advantage of the specific characteristics of each sensor.

The PSTG and the SAR CWG support principles of open data distribution and sharing, as well as load sharing.

The goal of this AO (*fill in the name of the AO here*) is to develop and demonstrate techniques where the rich store of archived (*fill in sensor name here*) SAR data of polar ice sheets contributes useful information, either alone or integrated with other data sources, to respond to the Key Science Questions, which are as follows (*to be confirmed by the SAR CWG*):

- surface elevation change,
- ice velocity,
- grounding line location, and
- calving front location.