

MEDIA RELEASE

NEWS FROM THE UNIVERSITY OF TASMANIA

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Attention: Chiefs of Staff, News Directors



UTAS collaborates on European Space Agency's 'Ice Mission'

Scientists from the University of Tasmania have led a remarkable international collaboration in Antarctica to help to validate data from the European Space Agency's (ESA) 'Ice Mission' satellite CryoSat-2.

Working in one of the 'hot spots' in East Antarctica, the scientists recently completed a logistical feat that included near-simultaneous observations of the ice sheet from field camps and skidoos, from an aircraft and from the CryoSat-2 satellite orbiting above.

The collaboration that features the University of Tasmania (UTAS), the Australian Antarctic Division and the Alfred Wegener Institute in Germany has collected a unique dataset that will contribute to the ongoing validation of the CryoSat-2 mission. The mission seeks to accurately quantify changes in polar ice and contributions to sea level rise.

Dr Christopher Watson, a geodesist from the UTAS School of Geography and Environmental Studies, said the data collected from this campaign will provide insight into the dynamics of this region of Antarctica.

"These data will help validate the CryoSat-2 measurements in a region where we know the ice is changing relatively quickly," Dr Watson said. "Accurate satellite data is vital in observing and then understanding contributions of Antarctica to sea level rise."

Validating satellite based observations requires a significant field-based measurement campaign. The team of scientists embarked on a program including four days of airborne surveys by the AWI Polar-6 aircraft, as well as a series of ground-based measurements including observations of snow and ice properties as well as topography.

The validation process compares ground-based and airborne data to that collected by the satellite. "This work is part of an international effort to ensure the satellite measurements are as accurate as possible," said Dr Watson.

The ESA CryoSat-2 satellite was launched in 2010. The aims of the mission are to determine variations in the thickness of marine ice cover and to understand the extent to which the Antarctic and Greenland ice sheets are contributing global sea level rise.

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