Press release
Researchers will spend Christmas in Antarctica to understand climate change

On 1 December, a team of glaciologists and climate researchers from ULB, UCLouvain and the University of Colorado will head for the Antarctic. On the agenda is the second field campaign for the Mass2Ant project being coordinated by UCLouvain, which also includes partners from the IRM (the Royal Meteorological Institute of Belgium) and Delft University of Technology. The scientific mission will last around six weeks and its objective is to gain a better understanding of the climate changes observed in recent decades in the high latitudes of the southern hemisphere, along with the long-term relevance of these changes.

The Antarctic and the Southern Ocean play a dominant role in the dynamics of the climate system. If the ice sheet covering the continent of Antarctica melted completely, it would cause a rise in sea levels of nearly 60 metres. This means that any change in the ice mass stored there has a major impact globally. In going to Antarctica, the researchers’ specific aim is to gain a better understanding of one of the components of the mass balance of the Antarctic ice sheet: the snow falls and their accumulation on the surface. Specifically, during their field campaign, the scientists will:

- analyse the spatial distribution of the snow falls in a region situated between the Princess Elisabeth station and the coast;
- observe the variations in the meteorological conditions throughout the year;
- describe the past accumulation of snow using radars that analyse the internal layers of the ice;
- analyse the properties of the snow, such as its density and its structure;
- collect ice cores to enable them to reconstruct the changes in the annual snow accumulation and other evidence of climate change in previous centuries (e.g. increase in the sea ice or introduction of chemical compounds of human origin). These ice cores will be taken by air to Cape Town (South Africa) and then by boat to Belgium in a voyage that will last two months.

Using a combined approach of observations and modelling, the research will determine, among other things, whether the changes are the result of human activity and/or whether they are linked to the natural variability in oceanic and atmospheric circulation. The project will also provide a better understanding of global climate dynamics and improve the future projections for Antarctica and its impact on sea levels, which will help to refine the assessments available for political decision-makers.

A novel aspect of the mission is that the researchers have launched a blog – [https://www.bel-antar2018.be](https://www.bel-antar2018.be) – where you can follow their adventures in Antarctica, which will run from early December 2018 to mid-January 2019. This blog presents the progress of the field mission and its key events, along with some more general information, including climate-related anecdotes, stories about Antarctica and answers to the questions on everyone’s minds!

**PRESS CONTACTS**
- Jean-Louis Tison, professor of climatology at ULB, head of the ULB glaciology laboratory and scientist responsible for the campaign, 02 650 22 25 jeanlouis.tison@ulb.ac.be
- Hugues Goosse, professor of climatology at UCLouvain, FNRS research director in the Earth & Climate research group - Earth & Life Institute at UCLouvain, 010 47 32 98 or 0472 84 64 42 hugues.goosse@uclouvain.be

**INFORMATION**: [https://www.bel-antar2018.be](https://www.bel-antar2018.be)
**MISSION DEPARTURE**: 1 December 2018 at 07.00am - Brussels-South (flight via Paris-CDG)