

Brussels, 17th January 2023

Swiss Polar Institute
Rue de l'Industrie 17
1950 Sion
Switzerland

Dear Sir/Madam,

**Re: Research Expedition to Princess Elisabeth Antarctica, during the season 2023-24, for the study of
Extreme Weather Events**

We wish to confirm that the Princess Elisabeth Research Station would be pleased to host the research team from the CRYOS laboratory of the *Ecole Polytechnique Fédérale de Lausanne* (EPFL) during the Antarctic seasons 2023-2024.

CRYOS wishes to deploy a wind-doppler LiDAR in the vicinity of PE station to measure the wind profiles up to 300m above ground level. This data will be combined with sonic anemometer measurements and the weather station data of the stations near the station, which are managed by the team from Princess Elisabeth.

After a measurement campaign of several weeks the dataset will be synchronised with the weather station data. Numerical weather predictions from the surroundings will also be used to reconstruct the wind field in the vicinity of PEA station to obtain an assessment of wind energy potential. With this dataset it is hoped to find patterns that may help explain extreme wind events, such as katabatic winds, cyclonic systems moving inland, and also "no-wind" events.

As this research is of great interest to the operations at Princess Elisabeth Antarctica, we are pleased to confirm that Brandon van Schaik and the CRYOS team would be welcome to carry out their research at PEA.

Assistance will be provided to help deliver the scientific outcomes sought, including logistic support to deliver persons and equipment to the Princess Elisabeth station, accommodation and meals at the station, technical support, field logistics and guides to expedite field activities in support of the project.

Yours sincerely,



Alain Hubert
International Polar Foundation
Expedition Leader BELARE
Station Commander Princess Elisabeth Antarctica