PREPARING TO CLOSE PEA FOR THE WINTER



© © International Polar Foundation

As February progresses and the sun dips below the horizon for longer and longer periods of time each night, it’s a reminder that the 2020 - 2021 season is drawing to a close. Preparations are already underway to prepare the Princess Elisabeth Antarctica for overwintering.

Packing up

With a scheduled departure date of 16 February, the entrance hallway is already starting to fill up with boxes and bags. Some are filled with scientific equipment, while others are being prepared to transport frozen atmospheric particle samples taken this season to Cape Town for the CHASE project. In South Africa, they will be stored in a freezer before being sent to Europe for analysis. Certain scientific instruments must also be removed from the roof during the winter and stored in safe locations of the station.

Anything that must stay at PEA, such as the containers the team and scientists uses during field expeditions along with other heavy machinery must also be properly stored. One by one the team is putting the Prinoth tractors, cranes and other vehicles away in the Winter Park hangar that was built two seasons ago on a patch of blue ice where snow accumulation is very limited.

Meanwhile, the carpenters have been placing wooden boards over the solar panels. This is to protect them from the ice and snow that will inevitably accumulate around the station during the austral winter.

Shutting down

Bernard Polet, the station's plumber, has been busy for the past few days to shut down and drain the station's water treatment system. The entire network of pipes needs to be drained to avoid any pipes bursting in case the station experiences freezing conditions over the winter. The bacteria used to treat wastewater must also be removed from the station's bioreactor and stored for the winter in the core of the station. Most of these bacteria will survive and be used to regenerate the system during the opening of the station's sewage system on the next BELARE expedition.

With the water production and treatment system shutting down, no new snow is being melted and put into the system. Water use is now rationed to make sure the team has enough to survive on until they leave for Cape Town.

The station's technicians are also starting to program the station's winter mode to kick in once the BELARE team leaves on 16 February. Winter mode must be engaged so the station continues to run autonomously until the next team arrives in November. A multitude of scientific instruments rely on the station's winter mode to continue to collect data while the Princess Elisabeth remains unoccupied.

Soon everyone will have head back to rejoin the rest of the world, after nearly tree months of a successful expedition away from home.