



ALFRED-WEGENER-INSTITUT  
HELMHOLTZ-ZENTRUM FÜR POLAR-  
UND MEERESFORSCHUNG

## Antarctica

# Back to the Roots of Antarctic Research

Overwintering team sails with Polarstern to the Antarctic Neumayer Station III

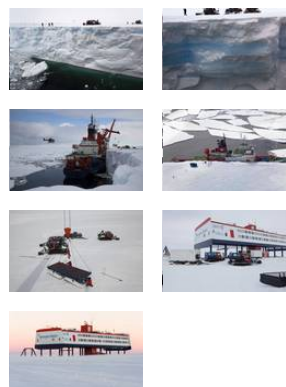
[14. December 2020] This year, the Alfred Wegener Institute's Neumayer Station III will be exclusively supplied by sea. The research vessel Polarstern will transport- as usual - materials and fuel to the Antarctic. However, due to the coronavirus, this season all the staff who will work at the station will also travel to the Southern Continent by ship.



Instead of flying from South Africa, this year's Antarctic expedition participants will set off on their voyage from Bremerhaven. They will leave from the homeport on 20 December 2020, and sail non-stop on board Polarstern to Atka Bay in the Antarctic. There, from the mooring at the ice edge, passengers and supplies will travel the final ten kilometres to the Neumayer Station III by snowcat and snowmobile. "This direct journey is just one of a whole catalogue of measures we have put in place to prevent the introduction of the coronavirus to the Antarctic and the Neumayer Station," says Dr Tim Heitland. The former Neumayer overwinterer works as a medical coordinator at the Logistics Department of the Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research (AWI), where he is responsible e.g. for training the overwintering team.




"We believe that we have found the best possible way to exchange the overwintering teams and also to bring the technical and scientific staff for the service and maintenance of the station and the observatories to the Antarctic," explains Heitland, who will be in charge of the journey to the Antarctic on board Polarstern and will also take over as head of the expedition at the Neumayer Station. Over the past year, the entire AWI logistics team learned the coronavirus-specific precautionary measures that need to be taken for expeditions and the journeys involved, when they managed to keep the MOSAiC expedition with the Polarstern in the Central Arctic running despite the global travel restrictions. As in the summer, individual quarantining and several coronavirus tests are among the measures necessary prior to the start of the expedition. PCR testing equipment is available on board the research vessel and at the Antarctic station, and the hospital and pharmacies have been equipped with additional instruments, medicines and medical oxygen in case of emergencies. According to Heitland: "We have done our homework, and so I can now look forward to the Antarctic season without any additional worries. Despite all the precautionary measures, it's still a polar expedition, and the remoteness alone demands respect and prudence on the part of all participants."

## Downloads



## Contact

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## Institute

The Alfred Wegener Institute pursues research in the polar regions and the oceans of mid and high latitudes. As one of the 19 centres of the Helmholtz

Future station leader and physician at the Neumayer Station, Peter Jonczyk, feels that he and his colleagues are well prepared, but is worried about his friends and family, who aren't living in a coronavirus-free environment: "In terms of the coronavirus, once we set off, we overwinterers will no longer have to worry about ourselves, but we'll still be worrying about our friends and families at home. As such, we're all the more delighted that even on board Polarstern we'll have daily digital contact. That makes this exceptional situation easier to live with."

Since 2002 the Alfred Wegener Institute has used the DROMLAN network, which flies teams for several Antarctic stations in Queen Maud Land to the Russia's Novo Airbase in the Antarctic on long-distance flights via Cape Town, in South Africa. From there, they travel on to the individual stations with smaller planes. Before the network was set up, the usual route was with Polarstern. "Combined with the quarantine beforehand, the roughly month-long outward journey means that the season for us is longer," reports Heitland. The approach to Atka Bay is planned for around 20 January 2021. Then the 25 passengers can begin their work at the Neumayer Station: AWI researchers will service the observatories for air chemistry, geophysics and meteorology and discuss the long-term measurements with the old and new overwintering teams. The technicians will ensure that the station remains functional in terms of infrastructure.

Following the 2018 overwintering mission, now for the second time, a crewmember for the [DLR Antarctic greenhouse EDEN ISS](#) will also take part. On the 2021 team, plant scientist Jess Bunchek from NASA's Kennedy Space Center will spend a year on the icy continent as a guest researcher from the German Aerospace Center (DLR), cultivating vegetables without soil and under artificial light. This collaboration is intended to contribute towards the design of a future greenhouse for the Moon or Mars, and help define the requirements for supporting the astronaut crew.

Meanwhile, Polarstern is travelling to Port Stanley on the Falkland Islands. There a new crew and an international scientific team for an oceanographic research expedition in the Weddell Sea will come on board. For these expedition participants, too, there will be strict protection concepts with quarantining and tests. On her return from this expedition to the Antarctic, the ship will collect the old Neumayer overwintering and technical teams, as well as the researchers. On the short journey back to Port Stanley, there are also memories of the 'good old days': huddling together is the order of the day. In order to be able to take the passengers from Neumayer, three instead of the now usual two people have to squeeze into each of the science quarters. But the quarters were always designed to accommodate three each, and most of the research will be completed, so the passengers should be able to cope for the few days until the ship drops anchor in the Falklands. From there, most of them will fly home, while Polarstern, with a small group of researchers, will continue on her return journey to Bremerhaven, where the Antarctic season will end in April.

Association it coordinates polar research in Germany and provides ships like the research icebreaker Polarstern and stations for the international scientific community.