GARS O'Higgins – DLR also in Antarctica

What does Oberpfaffenhofen have to do with Antarctica? It's hard to believe: The German Remote Sensing Data Center (DLR) operates one of Germany's two year-round Antarctic stations from Bavaria – the German Antarctic Receiving Station (GARS) O'Higgins.

GARS is located on Cape Legoupil, just 30 km west of the northernmost tip of the Antarctic Peninsula and directly adjacent to the Bernardo O'Higgins Station, which is operated by the Chilean Army. Since 1991, a fully movable 9-meter satellite antenna has continuously recorded signals from German and international Earth observation missions such as TerraSAR-X and TanDEM-X, [TET-1, and Cassiope. It also supports the reception of data from Terra and Aqua MODIS satellites, Ref.2].

Why there of all places? This is due to the nature of the orbits of many Earth observation satellites and the fact that a line of sight between the ground station and the satellite is necessary for reception. The satellites' orbits take them from north to south and back again, while the Earth continues to rotate beneath them. Thus, they pass close to both poles in every orbit. A receiving station in Antarctica therefore maximizes contact time and enables a downlink on almost every overpass.

DLR personnel ensure continuous operation; logistics and emergency support are closely coordinated with the neighboring Chilean base.
During the short southern summer, Gentoo penguins nest near the station's container modules; from April onwards, storms and temperatures well below zero dominate.
Those who arrive stay; Punta Arenas, the nearest city in southern Chile, is about 1,100 km away by sea, and Germany is just under 14,000 km as the crow flies – farther than the International Space Station, which orbits the Earth at a distance of about 400 km. High-tech and isolation converge here like nowhere else.

Maximilian Schwinger (DLR), Photo Kai Wendland (DLR, © DLR)
References
[1] DLR O'Higgins GARS station
[2] More Infos: www.antarktisstation.de