

China and Russia Expand Cooperation on Antarctic Drilling



Russia's Vostok Station base in Antarctica (Russian Arctic and Antarctic Research Institute)

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As international interest in the Polar regions mount, China and Russian cooperation in the Antarctica has achieved a new milestone. The two countries have begun joint Antarctic drilling, crucial in collecting data to understand the changing Earth's climate system. This week, a Sino-Russian scientific team carried out a successful geophysical survey on an existing borehole in the Larsemann Hills region of East Antarctica. The well had been drilled into a 545-meter thick glacier during the Chinese 40th Antarctic expedition, from November 2023 to April 2024.

In this 41st expedition, involving some Russian scientists, the study involved measuring key parameters of the well. These include the borehole temperature, inclination and changes in borehole diameter. The researchers also collected ice core and bedrock samples. The current expedition begun in last November and ends in May.

Since last year, China and Russia have held talks over joint drilling in Antarctica. In September, Beijing and Changchun city hosted international conferences on Antarctic exploration, which were attended by Russian specialists from the Federal Agency for Mineral Resources (Rosnedra). With the successful geophysical survey this year, the cooperation is likely to extend to other sites in East Antarctica.

During the conferences, a proposal was made for a Russian-Chinese project to drill the Gamburtsev subglacial mountains in East Antarctica. The scientific results to be obtained from the drilling could be one of the most advanced of our time, said Rosnedra. Through its Kunlun station, China has been carrying out studies near Gamburtsev. The mountain range occurs beneath Dome A, the highest plateau in Antarctica, with an elevation of 4100 meters. In 2012, China drilled the first pilot well in

this region. However, further work is needed to get to the bedrock of the Gamburtsev subglacial mountains.

Deep ice-core drilling in the Gamburtsev region remains one of the primary goals of modern polar research. Ice-core studies provide an excellent method for investigating past variations of global climate and forecasting the future.

Chinese and Russian cooperation in the Antarctic has taken various dimensions, with Antarctic drilling now presenting another important avenue. However, the two countries are seen as disruptors to the existing Antarctic governance system. Both seek to impose new views on resource exploitation in Antarctica. China and Russia have consistently opposed plans to expand marine protected areas (MPAs) in the Southern Ocean, which would mean reduced areas available for krill fishing.