

BASAL ACCESS SUBGLACIAL EXPLORATION (BASE) DRILL DEVELOPMENT

Monday 15 September 2025 15:00 (5 minutes)

A new subglacial coring drill called the Basal Access Subglacial Exploration (BASE) Drill is currently under development at the U.S. National Science Foundation (NSF) Ice Drilling Program (IDP). Based on the proven design of the IDP Agile Sub-Ice Geological (ASIG) Drill, the new drill system is designed to quickly penetrate overlying ice and sediment to reach bedrock at up to 200 m total depth. The BASE Drill consists of a modified commercial minerals exploration drill rig that uses off-the-shelf downhole tooling and includes equipment for rapid ice drilling, drilling fluid circulation, and filtration. Both coring and non-coring bits can be used depending on project requirements. Primary core size is 39 mm diameter and 1.5 m length, although the drill rig can also use other tooling sizes. The completed system is scheduled to be field-ready in 2026.

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