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Development of the Foro 3000 Deep Ice Core Drill

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Beginning in program year 2016, Ice Drilling Design and Operations (now IDP) began working with the Ice Drilling Program Office, science community representatives, and the Antarctic Support Contract personnel to conduct an analysis on using the Deep Ice Sheet Coring (DISC) Drill for the next U.S. deep ice coring project versus using an adaptation of the Intermediate Depth Drill (IDD), now referred to as the Foro 3000 Drill. In May 2017, IDP completed a Conceptual Overview document outlining necessary changes to the IDD to enable drilling to 3000 m. The report ultimately helped inform IDPO, NSF, and the science community's decision to move forward with fabrication of the Foro 3000 Drill in advance of the next deep drilling project. Final detailed designs have since been completed and fabrication of the new winch and tower are in process. Design and fabrication of a new down-hole electronics package has also begun. This presentation will discuss the changes being made to the IDD system design to expand its capability to reach 3000 m depth.

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