

Status of Winches

1. Intermediate Depth Logging Winch
2. Deep Logging Winch
3. IceCube Winch
4. Hawley Winch

Intermediate Depth Logging Winch

STATUS

- Science requirements developed <http://icedrill.org/equipment/development.shtml>
 - capable of logging holes 1200-1500 meters deep
 - operate at temperatures as low as -45 degrees C
 - transportable by a single Twin Otter flight
- Ryan Bay is chief scientist for winch development, and will interact with IDDO on technical details as the engineer the winch. He will recommend any changes to the Science Requirements to IDPO, and IDPO will seek approval for the changes from the logging community members who approved the original requirements.
- Solicited quotes/information from vendors of winches. **Four winch vendors have responded (plus three no response); preparing winch specs/price comparison. Modifications may be more substantial than envisioned.**

PLANS

- Finish winch by end of FFY12
- Ryan Bay is funded to log Siple Dome in 2014-15 (Nov-Dec 2014)
- Possible logging of Dome F boreholes in 2013-14 or 2014-15

Deep Logging Winch

STATUS

- Pettit has requested a deep logging winch at WAIS-D for the 2015-16 field season
 - USGS Winch not scheduled to be at WAIS-D in 2015-16
 - Opportunity for science community to acquire its own deep logging winch capable of logging to 4 km

PLANS

- Develop science requirements (FFY13)
- Purchase and modify commercially-available winch (FFY13 and/or 14)
- Deploy winch to WAIS-D in 2015-16 for Pettit fieldwork

IceCube Winch

STATUS

- Now that IceCube has ended, the IceCube 2,500 m winch has been lent to the WISSARD program for use
- Frank Rack (ANDRILL) is currently assessing the winch's status to see it fits WISSARD's needs

PLANS

- After WISSARD is finished using the winch (1-4 years??), it will be signed over to IDDO for community use
 - The NSF program manager in charge of IceCube, Vladimir Papitashvili, and other PMs in OPP, agreed that the winch should ultimately be signed over to IDDO.
- Refurbish/modify winch as necessary

Hawley Winch

STATUS

- Bob Hawley has a new intermediate logging winch at Dartmouth that he is willing to share with the community.
 - 1000 m single-conductor cable
 - ~200 lbs
 - Fits in either a helicopter or Twin Otter

PLANS

- Those interested in using the Hawley winch should coordinate with Bob (robert.l.hawley@Dartmouth.EDU)

Winch – Miscellaneous

LOGGING SHELTER/TENT

- ASC (Antarctic Support Contractor) bought logging shelter for WAIS-D 2011-12 logging activities
 - Will live at WAIS-D until WAIS-D is finished
 - Will be available for logging other sites after WAIS-D is finished

WINCH OPERATORS

- Growing need to have experienced engineers or technicians operate the various logging winches in the field, since operating a large winch is not an easy process and is potentially dangerous.
- IDDO plans to have winch operators either on the permanent or contract staff

PLANS

Consider developing individual tent/equipment/low altitude generator/high altitude generator packages for each winch

- streamline field support efforts
- aid with planning for out year sites since actual cargo requirements will be known in advance