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EGRIP –a deep ice core drilling camp in Greenland: New concepts and new construction methods.

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EGRIP camp was established in 2015 by packing down the former NEEM drilling camp and pulling all materials and structures, including the main building on ski to the EGRIP site by a 440 km traverse train. For the first time on the Greenland ice sheet, nothing was left behind, except for the borehole and 25 ton broken and buried timber roofs of the former underground trenches. At EGRIP all underground trenches have been constructed using snow as the only construction material and balloons to create underground caves. We will present the principles of construction, our observations of cave deformation over time and compare construction times, life times and work involved with classical wood covered trenches used at NGRIP and NEEM ice drilling sites and we will suggest improvements to the balloon technique. We will also show results of casting electrical cable ducts using the balloon technique. The overall purpose of construction has been to minimize loss of material by re-using existing material and minimize the amount of construction material needed.

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