



## AAC Publications

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### **FALL ON ICE – Protection Pulled Out**

Utah, Provo Canyon, Upper Provo Falls

**Utah County Sheriff's Search and Rescue was dispatched at 11:09 a.m. on December 26 to aid an ice climber who had fallen from the first pitch of Finger of Fate (3 pitches, WI4+) in Provo Canyon.**

The climber, Tim Thompson (29), was nearing the end of the first pitch when ice sheared from under his left foot. He wrote to ANAC that he was “pushed forward into my ice tools and my relaxed grip caused me to fall.” Thompson’s uppermost screw pulled out of the ice, causing him to fall a total of 50 feet.

Utah County team members arrived and with the help of the climbers already on scene, evaluated the ice conditions, established an equalized anchor with six screws at the base of the climb, and developed a plan to move the patient horizontally about 100 feet over steep, slippery terrain to a five-by-ten-foot ledge that was out of the rockfall and icefall area. Conditions were deteriorating, the ice was becoming less cohesive as temperatures rose and rocks were starting to fall.

A Department of Public Safety (DPS) helicopter crew did a reconnaissance of the ledge and determined that it would be a suitable place for a hoist operation. The patient was then short-hauled from the ledge to a nearby parking lot, where an ambulance was waiting. He was airlifted to a nearby hospital and assessed to have two broken vertebrae, a broken elbow, torn ligaments in an elbow, and a badly broken left wrist.

### **ANALYSIS**

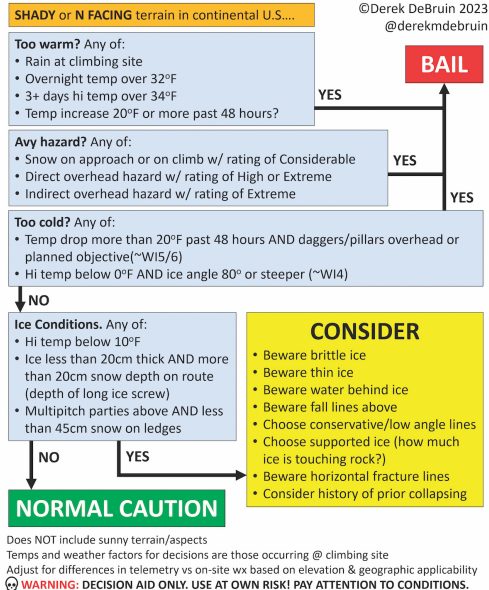
Warm conditions make ice climbing hazardous. Recalls Thompson: “The weather was warm the day before. Temps overnight were about 28°F for almost 10 or 12 hours and were hovering around 31°F or 32°F while climbing. We felt confident that the ice had had enough time to heal, and that as long as we climbed quickly, we were in no danger.”

Running water, heat retained by the underlying rock, and even indirect solar radiation can prevent ice from refreezing. The warm temperatures also affected the quality of Thompson’s protection. He wrote to ANAC, “When I put in the last ice screw, the ice was really soft. Up until the last quarter of the route, the ice [had been] really healthy and the screw placements were really good. I got several really solid screws lower on the route, and the second-to-last one (the one that caught me) was in really bomber ice.”

Thompson did well to place extra gear that he might have dismissed as unnecessary. Before the final section of the pitch, he says, “I remember pulling onto the ice after a ledge rest and deciding to step back down and place a high screw. I knew that would be a lot of protection, as the last screw was just below my feet. But if I had not placed this screw, I would have hit the deck from almost 100 feet up. Things could have been a lot worse.” (Source: Salt County Sheriff's Search and Rescue and Tim Thompson.)

# Images

## Should you go ice climbing?



More people than ever are ice climbing as climate change dramatically affects stability in the mountains. Instability includes rockfall, glacial recession, and waterfall ice collapse. This flowchart can assist in managing hazards by helping determine the stability of the ice, the effectiveness of ice screw protection, and the quality of ice tool placements. Downloadable versions are available at: [staff.weber.edu/derekdebruin/](http://staff.weber.edu/derekdebruin/).

## Article Details

Author	Tiim Thompson and Salt Lake County Sheriff's Office Search and Rescue
Publication	ANAM
Volume	13
Issue	76
Page	81
Copyright Date	2023
Article Type	Accident reports