**Rescue by Helicopter Hoist**

This is not Eagle County. This Black Hawk is flying over a valley in Bamyan, Afghanistan. Did you realize that Eagle County’s terrain is eerily similar to what U.S. military pilots find in Middle East conflict zones? This is why our county is the ideal spot for the Colorado Army National Guard’s High Altitude Army-Aviation Training Site in Gypsum, known as HAATS, where many of the world’s best helicopter pilots and crews are based.

HAATS trains pilots, from the U.S. military and many other nations, to fly in the difficult altitude and weather conditions of the Colorado high country. As part of that training, they fly search and rescue missions in the Colorado high country.

HAATS is an essential partner for Vail Mountain Rescue—involved in about one-fifth of our search and rescue missions. Helicopters are used: 1) for insertion and extraction of VMRG teams in difficult or remote terrain; 2) as aerial search platforms to enhance our on-the-ground searches; and 3) for “hoist operations” when needed to save a life. The hoist is a difficult and dangerous tactic to extract a patient from an area where the helicopter can’t land—like a cliff or other very irregular terrain.

Hoist missions require a significant amount of training to work smoothly and safely. Twice each year, HAATS holds a 3-day training session for search and rescue teams across Colorado—in the classroom, at the airfield, in the backcountry, and in day and nighttime conditions. In October 2014, VMRG Members led the ground training, while HAATS helicopters let all the teams practice hoisting a dummy patient into the helicopters.
Teams performed several hoists utilizing two different choppers:

Single Rotor UH60 Blackhawk  
Twin Rotor CH 47 Chinook.

Each hoist operation begins with the helicopter lowering the Stokes litter to the ground team. The helicopter then moves off to let the ground team “package” the patient. Packaging is critical with a Stokes litter since the patient will be raised 50 to 100 feet into the helicopter, with the litter tilting as it ascends.

When the patient is packaged, the helicopter is called back by radio and lowers the hoist cable to the ground team, who hook it to the litter and patient. The helicopter crew uses a winch to raise the litter to the cargo door and move it into the ship. Simultaneously, the pilot must also manage the position of the helicopter relative to the ground team. While the helicopter is hovering, communication with the ground crew is only possible by hand signals, making the operation even more difficult.
Once on board, the patient is taken to a medical facility or transferred to a Flight-For-Life helicopter if the medical situation warrants it. Once the patient’s situation is resolved, the HAATS helicopter returns to pick up the ground team if they cannot be extracted by other means.

This complicated and dangerous operation is only used when all other possibilities have been exhausted. Success and safety mandate close cooperation between helicopter crew and ground team that can only come from frequent joint trainings. This is just one more tool for both helicopter crew and VMRG to have available to help people injured in our backcountry.