

Presenter Bios:

Ed Cartaya has been a vertical caver with the NSS since 1987. He graduated the US Military Academy at West Point with a B.S. in Aerospace Engineering in 1990 and has been a mountaineer and avid climber since that same year. Ed Completed several weeklong schools in alpine rescue/crevasse rescue in Europe and in New England. He is a National Cave Rescue Commission (NCRC) Pacific NW Coordinator, certified instructor, and certified Small party Assisted Rescue (SPAR) lead. Ed also is a member of two Mountain Rescue Association (MRA) teams in the Pacific NW, since 2010, including Portland Mountain Rescue. Since 2011, Ed has served as project coordinator for the 3 fumarole glacier cave expedition studies on Mt. Hood, Mt St. Helens, and Mt. Rainier. Ed is a certified arborist and completed state High Angle Rescue Technician certifications in Georgia, Tennessee, and North Carolina fire academies. Additionally, Ed is an instructor for the National Park Service Basic Technical Rope Training (BTRT) academy. As a law enforcement officer, since 1993, Ed instructs tactical rope access, rappel master, and vertical protestor intervention (since 1995), as well as alpine/mountaineering law enforcement, tactical tracking operations, and wilderness rope operations since 2005. Currently employed as US Forest Law enforcement in Bend, Oregon, he is the Team leader for the Pacific NW Regional Reconnaissance tactical team.

Tom Wood is a 20-year veteran of the Alpine Rescue Team in Evergreen, Colorado and serves as the Technical Department Manager for Pigeon Mountain Industries (PMI). An avid ice climber and caver, he is a nationally registered Emergency Medical Responder and a Level 3 SPRAT Technician and Board member. Tom serves as the U.S. Terrestrial Rescue Delegate for the International Commission for Alpine Rescue (ICAR) on behalf of the Mountain Rescue Association (MRA), is a Practical Examiner for the National Wireless Safety Alliance (NWSA) and is a National Cave Rescue Commission (NCRC) trained cave rescuer. A published author and photographer, he lives in Morrison, Colorado with his amazingly supportive wife and three really cool children.

Abstract:

Vertical glacier fumarole rescues present a unique challenge in that the patient and proposed rescuer may be immersed in a bad air environment, with potential for either to be overcome. Additionally, this is a high urgency extraction, akin to avalanche or crevasse rescue, often performed by a ready team, or hasty team, of 3 or 4 people with minimal gear and a single lightweight rope. This proposed system integrates (stacks) several counterweight haul principles into a rescuer-controlled, multiple redundancy, instant changeover, single rope technique pick-off that minimizes rescuer exposure time in the hot zone. When combined with a lightweight monopod, the system gains even more efficiency and versatility.