Time: The Deciding Factor in Avalanche Rescue By: Eric Knoff Gallatin National Forest Avalanche Center

Mountain riding on snowmobiles has exploded in popularity over the past 15 years. Every winter more riders hit the backcountry in pursuit of steep faces and untracked powder. This type of riding increases the inherent risk of being caught in an avalanche. Over the past decade, 41 snowmobilers have died in avalanches in Montana - more than any other state in the nation.

As snowmobiles and riding techniques evolve, so does the gear required to travel safely in the mountains. Carrying an avalanche transceiver, a shovel and a probe continues to be the standard for avalanche safety gear. However, new technology such as balloon packs are improving the chances for survival for those caught or buried in an avalanche.

Balloon packs are designed to help prevent deep burials, ultimately decreasing search and excavation time. If properly deployed, balloon packs improve the buried individual's chances of survival by nearly 15%.

However, having the best rescue equipment does not guarantee a successful recovery. One in four avalanche fatalities are a result of trauma. Despite the advancements of rescue technology, even if a person doesn't die from trauma, they still have less than a 50% chance of surviving if completely buried. The more quickly a buried individual is uncovered, the better chance they have of surviving.

Time is of the essence – recent research indicates that a fully buried victim has an 80% chance of survival if uncovered in less than 10 minutes. The chance of survival plummets from there – if buried for 12 minutes the chance of survival drops to 40% and after 30 minutes the chance of survival drops to 20%.

The best formula for surviving an avalanche burial is through companion rescue. For this strategy to work, each group member must have rescue gear and know how to use it.

Transceiver practice is essential but it's also important that backcountry enthusiasts practice the other components of companion rescue. As new transceiver technologies speed up search times, attention is being focused on more efficient probing and shoveling techniques. Practicing strategic shoveling is now equally as important as practicing transceiver searches.

As snowmobile and rescue technology improve, it is important that riders understand the capabilities of their machines, partners and rescue gear. Take an avalanche class, practice with your gear and be sure your partners are knowledgeable in the latest rescue techniques. The hard truth is if you get buried in a slide, it's going to be your partner's responsibility to save your life. Be safe out there.