

The University Rover Challenge (URC) is held at the Mars Desert Research Station (MDRS), where The Mars Society conducts analog Mars surface exploration research. This URC Desert Safety Notice outlines some of the dangers of the high desert around MDRS and details what precautions are necessary, by both the competitors and the URC staff, to ensure safe and enjoyable participation in the competition.

The Hazards of the Utah High Desert at MDRS

The primary concern is the extreme geographic isolation of MDRS. At the Hab there is no telephone, and no cell phone coverage. This makes it a high-risk place for personal injury, environmental and occupational hazards, while its unique operational isolation demands extraordinary preparedness. At MDRS, you are a minimum of two hours by car or ambulance from the nearest trauma-receiving hospital or 90 minutes by medical evacuation helicopter. You are at least one hour by car from the nearest Medical Clinic. Given this, safety is our primary concern during URC.

The Utah outback and high desert is home to multiple species of venomous snakes, all of which are rattlesnakes. Also living here under rocks and bushes, basically any place where there is cool shade, are hornets, bees, wasps, scorpions, spiders and the very dangerous Hobo Spider. This is also Cougar (wild cat) Country, so leave your pets at home. While encounters with the above are not frequent, they do occur. Your best prevention is a watchful eye and sense of awareness.

Of further concern is the combination of altitude, dry air and the hot desert sun. So here is what do you do to protect yourself:

Personal Protection and Health & Safety at the URC

These basic guidelines apply to all staff, competitors, and visitors for a safe URC:

- 1.) **The URC requires that all persons attending wear completely enclosing footwear.**
This means no flip flops, no sandals, and no open toe footwear of any type will be permitted at the URC competition. We recommend footwear with ankle support and ankle protection such as hiking boots or work boots, but good trail running or walking shoes are acceptable. Long pants are also advisable, but not required.
- 2.) Use sun block on all exposed skin, and UV-protecting lip balm on lips. High altitude and dry air means more UV exposure.
- 3.) Bring a water bottle and stay hydrated. The URC will be supplying drinking water re-supply at the MDRS Hab, and at the task sites. Please ask someone from the URC staff if you do not see the water, as it will usually be kept out of the sun. As a basic rule of thumb, if you have not had to urinate in the past four hours, you are not drinking enough water.
- 4.) It is recommended that you wear a wide brim hat and sunglasses. Keep the sun off of your head to avoid overheating and use sun glasses to protect your eyes from UV damage. Yes, you can sunburn your eyes.
- 5.) **Minimum Age:** All competitors and attendees of the URC must be at least 18 years of age the day that the competition starts, *unless prior approval has been granted* by the URC Director.
- 6.) Work safely and take appropriate safety precautions. If you have any questions, ask the URC staff.

Medical Conditions (allergies, diabetes, etc.)

Bring extra of any medication that you normally need to take. There is no pharmacy for re-supply in, or near, Hanksville. Most importantly, please tell your team leader and teammates of your conditions or medicinal needs, so that if something happens to you, they can tell the URC staff and first responders who come to your rescue what pre-existing conditions or medicine needs you have.

Desert Etiquette

MDRS is home to world-class research, and above that, there is a delicate ecosystem that must be respected. Please ensure that if you are eating in the desert (especially during the post competition BBQ), you pay very close attention to any dropped food. **FOOD DROPPINGS/SPILLS MUST BE CLEANED UP AS WELL AS IS FEASIBLE.** MDRS has ongoing problems with desert mice and rats. These and other creatures are always looking for a food. Please do not inadvertently invite these creatures to take up residence at MDRS by leaving food scraps on the ground.

This also applies to trash. If you see litter or trash, it only takes a moment to grab it and bag it, even if it is not yours. Our goal here is to leave the place cleaner than when we arrived. **Please pack your trash out with you for proper disposal when you leave at the end of the competition.**

Desert Driving Issues

The desert trail out to MDRS is very unsuitable for low clearance automobiles. The trail itself is very narrow, very windy, had many blind turns, stream bed drop offs and other hazards. Thus, driving to MDRS from Hanksville is an issue that merits the driver's complete attention and lots of caution. When driving on the trail, teams are required to drive slowly and safely. Also, when possible, try to minimize the number of trips between Hanksville and MDRS, and when driving this route, be aware of other teams driving either in or out.

The first time that an individual or team drives out to MDRS, they must be escorted by URC Staff.

When in doubt, err on the side of caution. If still in doubt, consult the URC Staff.