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# UTV Accident Facilitated Learning Analysis

Region 4

*“The Facilitated Learning Analysis process promotes more effective dialogue through the disciplined practice of respectful interaction, in a group problem solving exercise. Perhaps most importantly, engaging in this process in a group dialogue can focus the conversation on how risks are seen differently between supervisors and employees. This helps daylight the gap between the hazards planned for and hazards actually encountered and can be a foundation for organizational learning.”*

Facilitated Learning Analysis Implementation Guide

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## Background

On July 11, 2012, the weeds crews on the Salmon-Challis National Forest were into their 4<sup>th</sup> day of a week-long spraying project in the 2011 Salt Fire area. On the day of the incident the crews (consisting of 10 members from both the north and south zones, and the program leader) were just getting into their morning work and were spread out across the work site. This mission required the use of UTVs for transporting crews from the staging area along the main Panther Creek road to the spray sites adjacent to Opal Creek. The crews were also using ATVs and were on foot with backpack sprayers.

One of the vehicles, a Polaris Ranger 800 6x6 (6-wheeled) UTV (as pictured on the front of this report), was a new piece of equipment for the crew and had about 11 hours of use on it since newly purchased that spring. Crew members had used and were trained on ATV operation, but there was no unique training yet offered for UTVs, and none of the crew members had much or any experience with this type of vehicle. Some members of the crew had reviewed the operator’s manual and DVD that came with the equipment.

## Incident

At about 10:30 on July 11, crew member 1 (CM1) was driving the Polaris Ranger 6x6 UTV back down from the spray sites to the staging area on Panther Creek road to pick up 2 crew members. The crew members were waiting in a grassy pullout by the road. CM1 drove to the pullout and “flipped a u-turn” that started in the road and finished across the edge between the pullout and the road surface. When the UTV hit the transition between these two surfaces, where there was also a small dip in the surface, it began to tip to the driver’s side. CM1 instinctively stuck his leg out of the UTV to the ground, to help prevent the UTV from tipping. The rollbar hit CM1’s lower leg, resulting in a compound break of the fibula in 2 places.

CM1 got out of the tipped UTV and did not immediately realize that he had been injured, until he looked down and saw that his left foot was sticking out at an odd angle.

Other crew members on-scene stayed with the injured crew member while the program manager, who was about 1 mile up the road, on foot, was notified by radio. The supervisor and remainder of the crew members came back to the staging area, and 1 member, who was a Wilderness First Responder, rendered 1<sup>st</sup> aid and stabilized CM1. The supervisor contacted dispatch, reported the incident, and

asked dispatch to notify the local hospital that they would be coming in with the injured party. The supervisor and one other crew member transported CM1 back to town (about 2.5 hours drive) in the government truck.

## Lessons Learned

The crew members and supervisor shared their recommendations with the FLA team on how to avoid this type of accident in the future.

- Slow Down. ..especially when operating a new piece of equipment. “The UTV is not the vehicle that we are used to.”
- Don’t turn UTV too sharply, especially across variable surfaces.
- Square up the vehicle to any surface transitions before proceeding
- Keep doors on the vehicle to prevent passengers from sticking their feet out of the vehicle.
- Doors or no doors - Don’t stick your foot outside of the UTV. In this regard, treat the vehicle more like a jeep – “you wouldn’t stick your foot outside of a jeep to keep it from tipping”
- Wear required PPE and seat belts while operating the UTV

*“The moral is, slow down, and be careful of maneuvers crossing variable surfaces or uneven ground”.*  
CM1

### Factors that did NOT appear to contribute to the accident:

- Fatigue – the crew felt rested and were just getting into their work day
- Vehicle Load – the UTV was unloaded and there were no passengers in the vehicle at the time of the accident
- Terrain – the road was a level, gravel surface about 16-20’ wide. However, there was a change in surface condition from the road to the pullout.
- Weather – warm and dry

## Team Recommendations

**Training** – The Polaris Ranger 6x6 UTV is a new piece of equipment for the weeds crew. UTVs in general are relatively new on the Forest in most program areas and were purchased to address new restrictions for carrying and dispensing liquids off of ATVs. This particular model was selected by the supervisor because they were familiar with operating 6x6 ATVs, and had liked how they performed. When the 6x6 UTV arrived some of the crew members and the supervisor said they were not very comfortable operating it (“I...am frightened of them [UTVs], and not sure if they are the right vehicle for spray operations.”)

UTVs have different operating requirements, and are much heavier than ATVs (The Polaris Ranger 6x6 weighs about 1550 lbs). It's recommended that Forests provide some specific training for UTV operation (unique from ATV training, though they could still be a combined course). Several differences between ATVs and UTVs include:

- the inability for the operator to shift the vehicle with their body weight as effectively,
- the hazard of trying to step off of a tipping UTV (ATV training recommends stepping off uphill of a tipping ATV), or
- extending arms or legs out of the UTV to stabilize them (which is also not recommended on ATVs, but the consequence of this maneuver on a UTV could be much worse due to the weight of the equipment).

**Consider safety consequences prior to removing doors from UTVs** – The Polaris Ranger UTV came with low cut doors made from straps. The crew supervisor was concerned that UTV operators could become tangled in the straps if there was a rollover, and choose to remove the doors. However, the absence of the door allowed the driver to stick his foot outside of the UTV as it tipped. The crew members and supervisor all agreed that if the doors had been on at the time of the accident that the injury to the driver's leg could have been avoided.

**Good Emergency Response** – one of the weeds crew members was a Wilderness First Responder and their ability to provide 1<sup>st</sup> aid and stabilize the injured party helped keep the entire team calm. Also, the team had the necessary communications (radios and satellite phone) to make the contacts they needed. The crew kept their cool and worked as a team to respond to the emergency.

## FLA Team

- Kris Stein, District Ranger, Challis Yankee-Fork Ranger District, Salmon-Challis National Forest
- Denise Camper, Forest Safety Officer, Salmon-Challis National Forest
- David Morris, South Zone Salmon-Challis National Forest TMA and user of ATVs/UTVs
- Rob Schwarz, North Zone Salmon-Challis National Forest SSS and Forest Safety Team