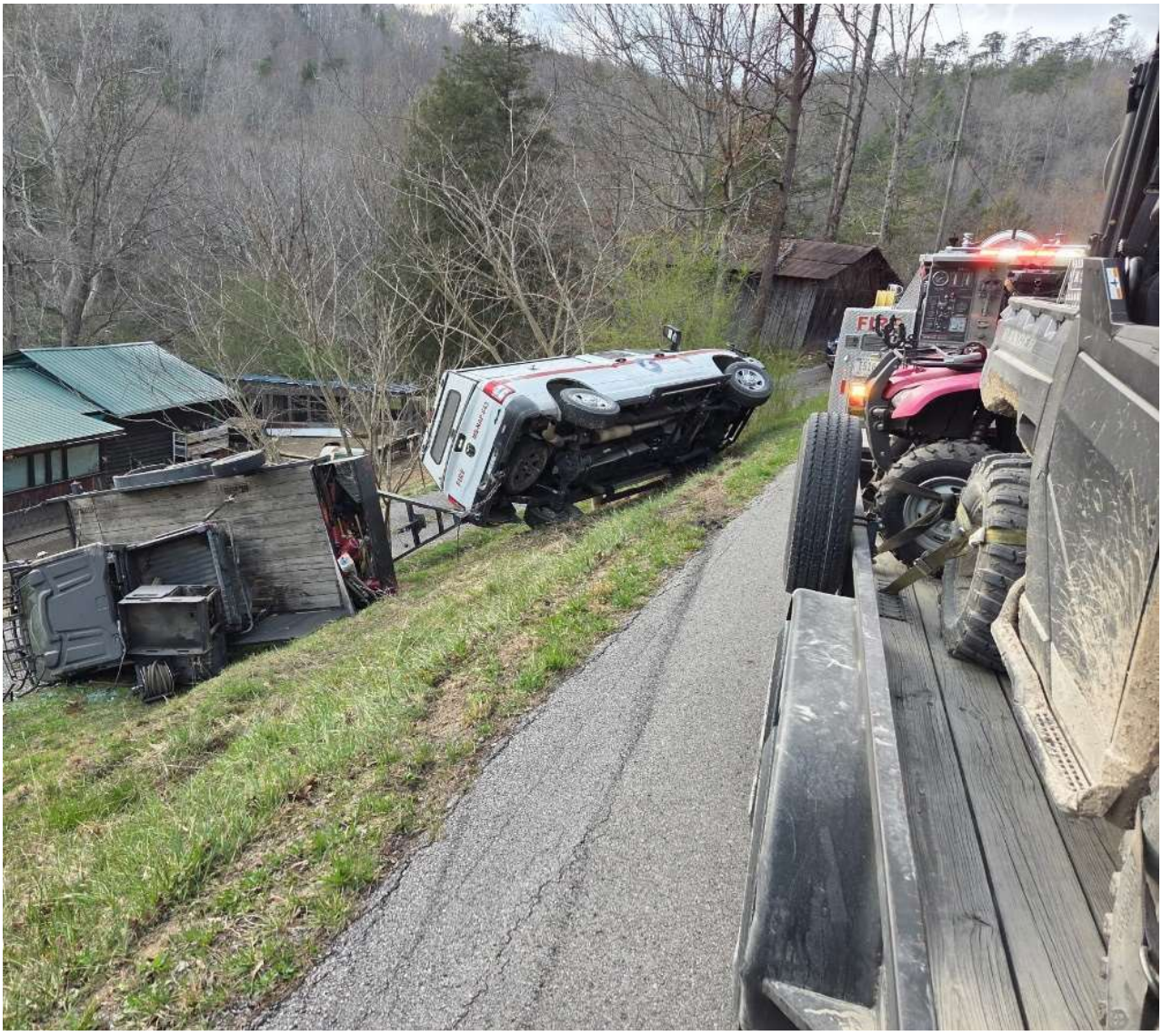
# *SERIOUS ACCIDENT INVESTIGATION REPORT*

*Bald Knob Prescribed Burn Incident/Beech Grove Road*

*March 25, 2026*

*Big South Fork National River and Recreation Area*



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## Executive Summary

On March 25, 2026, at approximately 1845 hours EDT, a U.S. Wildland Fire Service employee (referred to as Employee 1) was involved in a roll-over vehicle accident following the successful completion of a prescribed burn on the Big South Fork National River and Recreation Area (known as the Bald Knob burn).

Employee 1 was travelling northbound on Beech Grove Road, driving a 2023 GSA-leased Dodge Ram 3500 pickup truck, towing a flat-deck utility trailer loaded with a Utility Terrain Vehicle (UTV). When rounding a sharp curve to the right, the vehicle and attached trailer left the road on the outside of the curve. Due to the steep downward slope, the truck and trailer rolled onto the driver's side. The truck rolled approximately 70 degrees and came to rest on the driver's side of the vehicle, against a tree. The employee's hand was pinned between the upper door frame and the trunk of the tree. The trailer continued rolling, coming free of the hitch and continuing to roll 270 degrees, swinging forward, landing on its side, perpendicular to the truck.

Only one employee, Employee 1, was involved in the accident. They were freed from the vehicle with the assistance of fellow employees and first aid was provided. Employee 1 was then transferred via ambulance and air evacuation to University of Tennessee Medical Center (UTMC).

Employee 1 underwent surgery, during which the index finger on their left hand was amputated, and the breaking and crushing injuries on the thumb of the same hand were also addressed.

McCreary County Sherriff and Kentucky State Police (KSP) responded to the incident. Kentucky State Police investigated and provided the Serious Accident Investigation (SAI) Team with a copy of their report.

## Narrative

The Bald Knob prescribed burn was a two-day, 2,080-acre planned burn encompassing National Park Service (NPS) lands and protecting adjoining private properties with an overall complexity of "Moderate." It had 22 individuals assigned with the Burn Boss having discretion to adjust the number, type, and assignments of resources as needed. All eight employees associated with this accident investigation had been to this location numerous times over the past few years, either for fuels reduction or other duties.

The day of the accident (25 March) was the third and final day of the project and second day of the prescribed burn. By all accounts, the day had gone very well, conditions and fire behavior facilitated a very successful effort to close out the operational periods and complete the burn. According to the Burn Boss, it was "as close to an easy day as we had." Prescription was good all day and all ignitions were completed by 1430 hours.

Around 1800 hours, the post-burn After Action Review (AAR) had been completed, vehicles and equipment had been loaded, and the remaining eight employees began to depart. There was a total of seven vehicles, four of which had trailers. There was not a single, simultaneous departure of all vehicles. Employees began departing sporadically over the course of a few minutes.

Conditions were good. It was clear and mostly sunny, no rain or moisture on the road and no smoke or fog on the road. The road is very narrow, 13 feet across, and very curvy with steep rises and dips. Employee 1 was the fifth vehicle in order, with vehicles one through four about 0.75 miles ahead (at the time of the accident). All vehicles were travelling at a safe and slow speed, as demonstrated by interviews and security camera footage received from a nearby homeowner (via KSP).

Employee 1 had just come down a steep section of the road and began climbing back up, with a sharp curve to the right. They took the curve wide to avoid the passenger-side tires of the trailer or truck falling into the ditch on the right-hand side of the road. Employee 1 had left the road previously on the inside of the curve and had hoped to avoid repeating this. As the vehicle went wide, either the truck tires, the trailer tires—or both—came off the edge of the road on the left side, the driver's side.

The trailer began to take a path down the slope and pulled the truck with it. The bank had between a 30 and 46 degree downward angle, depending on location. Both the truck and trailer began to roll to the left, onto the driver's side. Employee 1 recognized the situation and exercised sound judgement by keeping their hands inside the vehicle (the driver's-side window was down) and braced for the outcome of the roll.

The truck's roll was stopped adjacent to a small tree on the driver's side. The trailer continued rolling as well as rotating forward in the direction of travel. At some point, the trailer came off the hitch and was only connected by the two safety chains. It rolled 270 degrees, not quite completing a full roll over. It stopped with the underside facing the direction of travel after almost a complete full roll over.

At this point the vehicle and trailer had stopped. Employee 1 was shaken but uninjured. They released the seatbelt and reached through the window to brace themselves on the adjacent tree as they worked to exit the

vehicle. For unknown reasons, the truck shifted at this point and pinned Employee 1's hand between the top of the truck door frame and the tree.

The accident occurred in front of a home and the homeowner responded. Employee 1 asked the homeowner to retrieve a chainsaw out of the truck and cut the tree to free their hand. The homeowner said the truck would roll more so they did not pursue that course of action. Employee 1 then radioed for help, requesting one of the other employees to come back and assist.

A second vehicle with trailer arrived, pulling up behind the accident scene. The homeowner suggested they use their winch to relieve pressure of the rolled truck to free Employee 1. This vehicle had two employees and they proceeded with winching operations. They hooked up to the front of the rolled over truck. Using the winch to pull the truck back, they relieved the pressure of the truck on Employee 1's hand. Employee 1 was able to climb out of the truck window. The homeowner assisted Employee 1 by wrapping the injured hand in a hoodie to stop bleeding and protect the wound.

The rest of the employees in the loose convoy had very little or no information about what was happening. Some had pulled over. The qualified EMT, having heard the radio call for help, asked if they should turn around and head back to investigate. The answer was yes. The decision was made to call EMS and get an ambulance headed their way, knowing there was a rollover and injuries. This call went out at 1848 hours over the local dispatch frequency by the two local Law Enforcement employees who supported fire as a secondary role.

The Burn Boss (last vehicle) arrived at the scene and began to assist Employee 1, who was now walking around. The EMT arrived from the front of the group and rendered additional first aid and dressed the wounded hand. It was decided to put Employee 1 in the EMT's truck and the Burn Boss would accompany them to meet the ambulance.

At approximately 1905 hours, the EMT, Burn Boss and Employee 1 got into the EMT's vehicles and headed to meet the incoming ambulance. Employee 1 and the Burn Boss rode in the ambulance to Whitley County Fire Department to meet a helicopter for evacuation to the UTMC. The Burn Boss returned to his vehicle at the accident site and then drove to UTMC to be with Employee 1.

While the overall timeline of the accident was approximately 1 hour and 45 minutes from the accident scene to arrival at the hospital, care was provided within minutes, progressing from on-site EMT to ambulance EMS and, finally, air ambulance.

Both McCreary County Sherriff and Kentucky State Police arrived around 1920 hours and KSP conducted their investigation.

A Hospital Liaison was coordinated through the Daniel Boone National Forest (USFS) and was at UTMC by the next morning to assist and support Employee 1, as well as Employee 1's family who had arrived that morning. The Burn Boss stayed through the night and was there for Employee 1 as well.

Employee 1 was admitted to UTMC on March 26 and had surgery the next morning.

Feedback from Employee 1 indicated that the Hospital Liaison performed exceptionally well and ensured the process ran as smoothly as possible. The Hospital Liaison provided resources and asked questions to facilitate follow-on care that otherwise would have been delayed due to paperwork and red tape. Employee 1 could not say enough positive things about the Hospital Liaison.

## Investigative Process

**Overview**

The Serious Accident Investigation (SAI) process is the methodical collection of evidence and information, as well as the analysis of the evidence and interpretation of the information. The purpose of the SAI is to identify the cause(s) of the accident and recommend corrective actions to prevent or minimize the chance of a recurrence.

Serious Accident Investigation team members were notified on Thursday March 26 of a potential need for a team. The investigation and need for a team were confirmed the next day. The team leader reached out and established communication with the team. Preparation for travel was initiated and travel authorizations were built for Saturday March 28 for four of the five members to meet in Nashville, TN. The team would then travel together to Big South Fork National River and Recreation Area (BISO) and meet the fifth member.

The SAI Team met at 1200 on Sunday March 29 at the Stearns Ranger Station. The local Safety Liaison was there to open the building and provide a limited overview of the situation. Little was known about the incident. The team had received the initial 24-Hour report two days before. Team members got to know each other through introductions and quickly developed a plan of action.

The investigation was divided into three basic phases: accident scene evaluation and evidence gathering, employee interviews and analysis/report development.

With six of the eight employees associated with the prescribed burn crew/accident not being local, the team reached out to the Fire Management Officer (FMO) to coordinate interview dates/times. Due to expected rain the next few days, a site visit was prioritized for Sunday afternoon.

The SAI Team visited the accident site and local staging areas for the prescribed burn. The local Safety Liaison led the team and shared his knowledge of the area and the known challenges of the narrow and curvy road.

Numerous pictures of the accident scene were taken, including marks on the road and furrows in the dirt where the vehicles dug into the earth. Measurements of skid marks and the angles of the sloped bank were also taken. All the equipment and debris had already been picked up. Therefore, there was no physical evidence remaining other than some glass shards on the bank.

The damaged truck, trailer and UTV were parked at the Stearns Ranger Station. The SAI Team spent several hours examining the vehicles, evaluating the damage and collecting information.

The second phase of the investigation started with a brain-storming session to develop common questions for all eight employees that could inform their status, level of training, experience, rest, complexity of the operation and, hopefully, illuminate any flaws or problems that may have existed—whether they contributed to the accident or not. The team also developed specific questions for individuals directly involved in the incident as well as those people that were on the periphery, including the tow truck operator and homeowner. Interviews were conducted over Microsoft Teams video conference calls, by phone, or in person. Responses were documented.

Technical evaluation of trailer components, vehicle capabilities and things like load rigging, tie-downs and configuration were also determined. Driver training and trailer training status were reviewed and verified. The Burn Plan was reviewed for accuracy and completeness. The inclusion of driving hazards was a major focus of inquiry, with interviews and documents searched thoroughly.

Contact with McCreary County Sherriff's office and KSP was made with their investigation reports requested. These were evaluated alongside the SAI Team's findings and information.

The third and final phase of the investigation began in earnest on Thursday following the last of the interviews. Interviews were compiled, evidence reviewed and consensus of factors and observations were achieved. Diagrams and photos were created, and this SAI report was drafted.

Four of the five team members travelled home on Friday April 3. The SAI Team leader stayed until the next day to get the draft report closer to completion.

## Employee Interviews

Interviews included all eight employees as well as the tow truck operator, homeowner and Fire Management Officer. Because the only individual with firsthand knowledge of the accident was Employee 1, their interview informs the bulk of the previous Narrative section. The rest of the interviews were primarily aimed at determining events and conditions leading up to the accident that may have somehow contributed to it.

Six of the eight employees were external to BISO and had travelled for this prescribed burn on Sunday March 22.

Interviews revealed all the external employees (six) had worked other prescribed fires in the days leading up to the Bald Knob burn. This work ranged from 5 to 15 days mixed with home unit projects and travel assignments before travelling to BISO.

The two local employees were collateral firefighters and had worked normal tours of duty the week before the Bald Knob burn.

Interviewee answers regarding the discussions of road conditions and driving hazards were uniform and consistent. The nature and quality of the road to and from the burn site were frequently mentioned.

## Findings/Observations

Each of these findings is a single event or condition and while an essential step in the accident sequence, is not necessarily causal.

During this investigation it was determined none of these findings were causal to the accident.

1. All members of this team had been in the area multiple times preparing for prescribed burns or other activities for 2-3 years. This was the third day traveling the road for this project.
2. All employees were working extended days, in varying numbers, but all within Red Book standards.
3. The workload on the day of the accident had not been arduous or taxing and they concluded earlier than normal.
4. The road is windy, narrow, tight, and has steep drop-offs.
5. Weather conditions were favorable for driving. Travel was conducted during daylight and there was no precipitation, fog or smoke on the road. Glare from the sun did not cause any challenges while driving.
6. Vehicles were travelling at safe speeds given the nature and condition of the road.
7. There were no maintenance issues that contributed to the accident for either the truck or trailer. The trailer had maintenance and an inspection done on 3/13/2026.
8. Employee 1 was current on all required drivers training and had over 5 years of working with and hauling trailers. Employee 1 conducted their Preparedness Review on 3/12/2026.
9. There was no deliberate convoy process or traffic management program in place for this project.
10. The UTV and slip-in water pump unit involved in the accident were loaded and secured properly on the trailer.
11. Employee 1 had a handheld radio that they used to call for help. Two other vehicles in the convoy had handheld radios but they were not turned on because they were in a charging dock. Other vehicles had radios in each truck.
12. Towing capacity was exceeded in two locations. The ball was rated at 3,500 lbs. and the hitch was rated at 5,000 lbs.

    | Weights: | |
    |---|---|
    | Trailer- | 1,500 lbs |
    | UTV with fuel- | 2,100 lbs |
    | Slip-in unit | 950 lbs |
    | Slip-in water 70 gal | 560 lbs |
    | Extra tools/storage | 200lbs |
    | **TOTAL** | **5,310 lbs** |

13. The ball shank was the incorrect size for the hitch. There was a gap between the shank of the ball and the hitch opening. Damage is seen between the ball and its seat in the hitch, consistent with a history of movement.

14. Trailer safety chain clips were in disrepair and damaged prior to the accident, but the chains held during the accident.
15. The trailer emergency brake line was incorrectly connected to safety chain rather than the truck.
16. USWFS employees don't have access to Safety Management Information System (SMIS) and the Compensation Operations & Management Portal (ECOMP) yet, these systems were managed by NPS employees locally to facilitate processes.

## Photos and Diagrams

Vehicle in homeowner's yard.

Accident scene from road, with tire/vehicle marks leading off the road.

Second truck winching the accident vehicle.



Maximum loads of ball and hitch, 3,500 and 5,000 lbs.

Gap between ball shank and hitch opening.