Beaver Soup Rx Fire MVA Facilitated Learning Analysis



Executive Summary

On May 10, 2019, a Range Specialist (RS) from the Lincoln Ranger District on the Helena-Lewis and Clark National Forest (HLF), volunteered to assist with the Beaver Soup Prescribed Fire on the Helena Ranger District. On May 11th, 2019, the RS was involved in an accident that destroyed a Forest Service pickup truck while driving to the prescribed fire on the neighboring district approximately 57 miles away for an 0800 briefing.

No major injuries occurred. A Facilitated Learning Analysis (FLA) was ordered to review the conditions and systems surrounding the incident. Other topics that arose included proper post-accident processes, determining when an employee should return to work following a severe incident, communication during and after an incident, and the different roles and responsibilities during an incident.



The Short Story

On Saturday, May 11, 2019 at approximately 0625 hours, a Forest Service truck sustained significant damage to the front of the vehicle while driving to a prescribed fire (Rx) on the Helena Ranger District. The Range Specialist (RS) was traveling eastbound on Highway 200 with the sun in his eyes. Immediately after lowering the visor a vehicle traveling at a slow speed directly in front of him became visible. The RS was traveling the speed limit and the vehicle in front of him was traveling very slowly, due to a line of traffic stuck behind an oversized load. The RS *"crushed the brake"* in an attempt to avoid a collision but was not able to stop in time. He hit the vehicle and the airbags deployed. A passerby called 911 and the Highway Patrol and local fire department was dispatched. The RS called the Acting District Ranger (ADR) by cell phone within minutes of the accident. The ADR offered to come to the accident and the RS took him up on that offer. After approximately 1 hour, law enforcement arrived to investigate the scene and get statements from those involved. After statements were collected, the RS was released to go. Meanwhile, the ADR had started the post-accident response and coordinated a drug test as policy dictates.

The Whole Story



Figure 1. Forest Map

The combined HLF covers a large expanse of central Montana. The National Forest System lands within the forest boundary total 2.8 Million acres and span 230 air miles from the farthest corners of the forest, which requires employees to travel long distances and spend long hours on the road.

The Accident

The Range Specialist's Experience:

The day started like most days for the RS. He is a morning person and was looking forward to a "good weekend". He was happy to be going to the burn. The RS left his district office at 0620 in order to travel to the neighboring Helena Ranger District for a 0800 briefing and an ignition time planned for approximately 1030.



Figure 2. Route to meeting site

There wasn't much traffic as he headed east but the sun was "*shining right down the pipe*" of the highway. The trees broke the sun in places and he was traveling in and out of shade. Emerging from the shade, the RS reached up to pull down the sun visor when a vehicle became visible immediately in front of him, traveling in the same direction, and appeared to be stopped. The following video, which is around 2:15 minutes, will demonstrate the drive the RS took at the approximate time and lighting of that morning.

Beaver Soup Rx fire accident route: (https://youtu.be/mQPpHxf_J48)



Figure 3. Link to accident route video



Figure 4. Route to accident

"I saw the truck and crushed the brake pedal and held on, and waited for the truck to stop". Upon impact, the front airbags deployed. The RS remembers his seat belt tightening around his chest, "I just held the steering wheel and everything was really soft".



Figure 5. Airbag and broken windshield



Figure 6. Vehicle involved in the accident

With adrenaline pumping and the worst going through his mind, *"I thought I had just killed someone"*, the RS tried to open the driver and passenger-side doors but they wouldn't budge. He crawled into the back seat to get out. At that point he just wanted to check on the driver of the other truck. To the RS's relief the individual was standing outside the truck and appeared to have no injuries. The RS had a small abrasion on his left forearm and a silver dollar sized burn on his right thumb, *"I think that was from the airbag gas or something"*. The next vehicle on scene included a member of the local volunteer department who called 911 and assisted with traffic control.

The RS didn't have cell coverage near the road so he walked up a small embankment for cell coverage. His first call was to the ADR but didn't get an answer. The next call was to the District Duty Officer (DO) to relay to the Burn Boss of the Rx that he had been in an accident and would not be making it to the burn. The RS then called the ADR again, the ADR was able to answer this time. The RS let the ADR know that he had been in an accident and Law Enforcement was on their way.

The Acting District Ranger's Experience:

The Acting District Ranger remembers, "I got two calls pretty quick and I knew people were on that day, so I knew I had to get to the phone". Once the ADR knew what happened, he asked if the Range Specialist was hurt and offered to come to the scene. "I remember driving east into the sun and thought; it is hard to see, my window is dirty". Once on scene, the ADR visited with the RS about how he was doing, then started making calls to coordinate the post-accident process and inform the Forest Supervisor and the District Ranger on the Helena Ranger District, the district the RS was going to for the Rx. They waited about an hour for Highway Patrol to arrive, which was dispatched out of Great Falls Montana.

Post-Accident

Once Montana Highway Patrol released the scene, the vehicle was towed back to the district office by a local tow company and the RS was free to leave. The RS and the ADR went back to the Lincoln District Office and began working through the post-accident process. The ADR remembered something about post-accident drug and alcohol testing but could not remember the specifics. He made contact with a neighboring District Ranger to get guidance and determine if testing was required. During this time the Forest Supervisor suggested he may order an FLA for the accident which the ADR was supportive of doing. Scheduling the alcohol and drug test on short notice and the logistics of being in a rural area on a Saturday was challenging and frustrating for the ADR. After some time, working with the Regional Drug Testing Coordinator, he was able to secure a time in Helena Montana, about 1.5 hours away. The ADR and the RS *"jumped in a government vehicle and rushed down the hill"*, in order to make the appointment. Along the way they were held up in slow traffic behind an oversized load and the ADR thought, *"maybe I should just not get there in time and see what happens"*.

The ADR was frustrated with the lack of Line Officer discretion in the post-accident testing, especially after the RS had been released by Highway Patrol. The RS was frustrated with the timeliness of the process. There was a long wait between the time of the accident and getting the appointment scheduled, then they had to rush to get to the site before it closed. Once they got to the testing site, the RS was tested and sent on his way. Thirty days later, neither the RS nor the ADR have received any results of that test, leaving them to simply assume he passed.

Later that day after talking with the ADR, the RS accepted an assignment on a different prescribed fire on the forest and spent the rest of the weekend burning. The ADR released the RS to go to the burn on the condition that the RS not drive for the remainder of the day. The ADR remembers wrestling with that decision and not knowing when or if there was a good time to release the RS back to work. *"What would the Forest Supervisor say?"*. The ADR had worked with the RS for 5 years and trusted him when he said he was ready and willing to continue working. The RS felt *"returning to work was exactly what I needed and staying busy was much more beneficial than sitting at home reliving the accident all weekend"*.

That following Monday, when Forest Service staff were back at work, the RS started his part of the post-accident process. He contacted the Forest Fleet Manager and Safety Officer for the next steps. As part of the post-accident response, the RS received a <u>Motor Vehicle Accident Routing Form</u> (Appendix B) from the Fleet Manager that helped him quite a bit with what he needed to do and the next steps.



Figure 7. Motor Vehicle Accident Routing Form

The RS mentioned, there is a lot of responsibility put on the person involved in the accident. He felt having help through the process or having the digital documents and forms in one package would have been helpful because he had to search for them. Some of the required information for the forms was the personal information from the other person involved in the accident and without the help of Forest Law Enforcement, there is no way to get that information quickly. In general the RS was pleased with his post-accident experience,

"it took about 7-10 days before everything was finished... the whole process exceeded my expectations, overall it was pretty painless, from Fleet to Safety to Law Enforcement to Line Officers... were really supportive."

Emergent Themes

Through dialogue with the FLA participants, common threads emerged as things that worked well and things that were frustrating or raised concerns.

Visability

Safe driving is paramount on the HLC and is necessary to compete work on the ground. Both the RS and the ADR discussed the sun affecting visibility.

- When you are faced with visibility conditions like those illustrated in this accident, what mitigation steps should you immediately take?
- Now that you understand this accident are there additional steps a driver can take (such as: changing your time of travel, considering alternative routes to your destination, or simply slowing down below the posted speed limit) that you will consider?
- That day the weather and road conditions were considered good.
- The time of day and the direction of travel caused the sun to affect visibility that morning because it was lower in the sky than if it was later in the day.
- Both RS and ADR mentioned that the sun can be an issue on the district in the morning and the evenings. The ADR stated, "in the mornings we have it in our face leaving the office and in the afternoon it is in your face coming back to the office."
 - \circ $\;$ The sun affecting visibility is not limited to any specific time of year.

Communications

Communication is a priority on the HLF and the Forest Supervisor has an expectation that there is a Check-in Check-out policy on every unit and that people adhere to it. As the Detailed Fire Management Officer for the Lincoln District stated: *"Communications is two-way"*!

- The Check-in Check-out Policy;
 - Communications between the RS and the ADR was consistent and followed the units Check-In Check-Out policy prior to the accident.
 - Due to the scheduled Rx, dispatch was going to be staffed at 0800, the time of the morning briefing.
 - Between 0600-0800 the DO was responsible for the personnel assigned to the Rx from the Lincoln District.
- The day of the accident:
 - At the time of the accident, once the scene was secured, the RS called the ADR immediately.

- The second call was from the RS to the DO to have him inform the burn boss that he would not make it to the burn. Contact was attempted but not made.
- A passerby made the call to 911 dispatching Montana Highway Patrol.
- Communication between the ADR and the Forest Supervisor was immediate and consistent throughout the day.
- Post-Accident Communication:
 - An employee from the Helena Ranger District felt there was "*a bit of a black hole*" with communication about the accident in the weeks following.
 - The ADR felt communication about the accident and the FLA was good and it was in the Forest Leadership Team (FLT) meeting notes.
 - The ADR and the RS felt communication about the FLA was really good and they knew it was going to happen.
 - There was not a formal announcement about the accident or the fact that it was going to be part of the FLA outside of FLT notes.
 - The Lincoln District DO felt it would nice to have a "*cheat sheet*" or "*tickler list*" available to employees on what the post-accident process includes.

Post-accident Testing Procedure

There is a policy in place for Post-Accident Testing and the RS was tested in response to the accident. During this part of the process the participants expressed frustration associated with policy and the realities associated with working in a rural area.

- The ADR did what was expected based on the information he was given.
 - The ADR was under the impression that the post-accident testing had to happen within 4 hours of the accident.
 - There was confusion between what policy is and the information the ADR was acting on.
 - There is a policy for employees who do not have a commercial driver's licence (CDL) and for people with a CDL. The policy is available at the Forest Service Human Resources <u>Post-Accident Testing policy</u> site (https://fsweb.wo.fs.fed.us/hrm/drug-testing/index.php)
- As the ADR, he felt he did not have discretion to say testing was not required regardless of the fact that he was on scene and observed the RS post-accident and Montana Highway Patrol did not do any testing for alcohol or drugs.
- Coordinating with the Drug Testing Coordinator to find an available testing site was time consuming.
- Once a facility was found, there was a need to rush because the testing site closed at 1300.
- After testing there was no feedback loop from the testing site to the supervisor or the employee.
 - The RS expressed that it is frustrating to wait and never hear feedback from the test.

Releasing Employee in Accident Back to Work

The Detailed Line Officer wasn't sure when it was a good time to release the RS to return to work.

- There are not clear guidelines as to clearing an employee to go back to work following a vehicle accident.
- The ADR made his determination from physical appearance, mental attitude and his experience working with the RS.

• The RS was grateful he was released to work that day.

Vehicle Accident Paperwork

There are post-accident forms that need to be completed by the person involved in the accident per the Fleet Management policy.

- the RS immediately started the post-accident process while waiting for the post-accident testing to be arranged.
- He began to fill accident reports that weekend using the vehicle accident sheet in the truck and input from the ADR.
- The following Monday after the accident.
 - The Forest Fleet Manager sent the RS a <u>Motor Vehicle Accident Routing Form</u>, a post-accident checklist.
 - The checklist was good but the RS had to search for some of the forms.
 - Some of the information required is personal information from the other people involved in the accident. The RS had to figure out how to get that information and asked for assistance from the Forest Law Enforcement.
 - The RS felt a package of digital documents may help with the process.
 - The Forest Safety Manager advised the RS to report the accident in eSafety.
- People involved directly and indirectly in the accident were supportive and helpful. The RS expressed appreciation for the support he had through the process.
- The RS felt an assigned advocate to help folks through the accident process would be helpful.

Forest Driving and Long Distances

The Range Specialist has responsibilities on the Lincoln and Helena Ranger Districts and is experienced with the amount and distances required to travel for work duties.

- Forest driving emerged in the FLA dialogue with participants.
- The RS was well rested, mentally alert, and physically ready to work.
- The accident occurred within 6 miles of the RS's point of origin and minutes after leaving the district office.

The Take-Away

The situation surrounding the Beaver Soup Prescribed Fire motor vehicle accident was not complex and was considered an average day. With the exception of slow moving traffic; the time of day, route, and road conditions were considered normal. This FLA was conducted to learn from the events of the day.

The feelings leading into the FLA by the participants was that this was just an accident, there may not be much to learn from it. Through the analysis process, themes arose that may provide perspective and offer opportunities for improvement in the future. As stated in the introduction, the FLA team observed common threads from the analysis and feedback from the participants that include;

- Visability
 - It's critical that when driving into the sun you reduce your speed to a safe level for the conditions you are facing. The two critical times of the day for this caution is sun-up and sun-set.
- Communications

- Participants felt the communications were effective and worked well throughout the day and the post-accident process.
- Post-accident Testing Procedure
 - The ADR and the RS felt this could be improved on. Through the analysis and review of the policy some of the frustration could have been eased with better understanding of the post-accident policy for drug and alcohol testing.
- Releasing Employee in Accident Back to Work
 - The ADR felt there is not clear guidance for line officers but there was flexibility for the line officer to make an informed decision based on experience with the RS. The RS felt the ADR made the best decision for him.

• Vehicle Accident Paperwork

• The RS offered that it would be helpful to have an advocate available to assist in this process and having all the forms in a digital library would be helpful.

There was one consistent talking point that arose throughout the discussions of the accident and the post-accident response. Visibility can be affected by the sun on a relatively normal day and gives us the opportunity to ask:

- When faced with visibility conditions like those illustrated in this accident, what mitigation steps do you take?
- Now that you understand this accident, are there additional mitigations measures that can be taken and what are they?
 - \circ $\,$ Consider your options, this may include, but not limited to, things such as;
 - changing your time of travel
 - traveling the day before and spending the night before assignment
 - slowing down below the speed limit

The general consensus by the participants in the FLA was the post-accident response and process went as well as it could given the situation that day. The RS was most affected by the accident and the post-accident response, his take-away is. *"The overall process took about 10 days.- it was relatively painless given the type of accident"*.

The FLA Team

Facilitator: Matt Gibson, Training Specialist, Northern Rockies Training Center

Facilitator Trainee: Jonah Vaughan, Assistant Engine Captain, Bitterroot NF, Darby-Sula Ranger District
Team Lead: Dave Peters, Deputy District Ranger, Helena-Lewis & Clark NF, Belt Creek Ranger District
Team Member: Dave Vingl, Forest Safety Officer, Helena-Lewis & Clark National Forest
Team Member: Barry Love, Forest Fleet Manager, Helena-Lewis & Clark National Forest
Team Member: Neil Wynn, Assistant Forest Fleet Manager, Helena-Lewis & Clark National Forest
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Appendix A Post Accident Testing Policies

Executive Order (EO) Post-Accident Testing

This applies to all employees (except employees in DOT TDPs driving a commercial motor vehicle).

Criteria

- Employee's actions are reasonably suspected (based on objective information) of having caused or contributed to the accident.
- Accident results in:
 - Death or injury resulting in immediate hospitalization (in-patient care) or
 - Damage to government or private property in excess of \$10,000.

Procedures

- Trained supervisor or management official prepares a written report detailing the facts and circumstances that warrant the test.
- Supervisor notifies a Forest Service Drug Testing Program Coordinator that EO post-accident testing criteria have been met and testing is required.
- Drug Testing Program Coordinator obtains HRM Assistant Director for Centralized Operations approval, coordinates with supervisor, makes necessary testing arrangements with the lab and notifies supervisor to proceed with testing.
- Supervisor provides escort for employee to test site.
- Drug testing must occur within 32 hours of accident.
- Supervisor prepares a written report detailing the facts and circumstances that warranted the testing.

Department of Transportation (DOT) Post-Accident Testing

This applies to drivers involved in accidents while performing safety-sensitive functions associated with operating a commercial motor vehicle. The employee is required to remain available for drug and alcohol testing and cannot refuse to be tested. Safety-sensitive employees are obligated by law to submit to and cooperate with the drug and alcohol testing mandated by DOT regulations.

Criteria for Post-Accident Testing

- Loss of human life, or
- Citation for moving vehicle accident and
- Accident results in:
 - Injury requiring medical treatment away from scene of accident, or
 - One of the vehicles has to be towed.

Procedures

- Supervisor notifies a Forest Service Drug Testing Program Coordinator that DOT post-accident testing criteria have been met and that testing is required.
- Drug Testing Program Coordinator coordinates with the supervisor, makes necessary testing arrangements with the lab and notifies supervisor to proceed with testing.
- Supervisor provides escort for employee to test site.
- Alcohol testing should be administered promptly within two hours but no later than eight hours after the accident.
- Drug testing must be administered within 32 hours of the accident.

Supervisors should obtain a signed admission statement from an employee who voluntarily admits to drug use in conjunction with testing requirements for any of the above categories. These situations do not meet the conditions for safe harbor.

Appendix B

Motor Vehicle Accident Routing Form

Helena-Lewis and Clark National Forest Motor Vehicle Accident Routing Form

Section 1:

To be completed by employee involved with accident. Helena-Lewis and Clark National Forest District/Area: Employee Name: Supervisor Name: Date of accident: Vehicle #: Charge Back Project Job Code: Functional unit: Admin Fire Rec Timber Engineering Other:

Task	Who	Submit To	Due in # of days
Notify Supervisor, Forest Safety Officer (Dave Vingl/406-791-7741) and Fleet Manager (Barry Love/406-791-7758)	Driver		1
<u>*Fill Out: ESAFETY MVA Report</u> via Connect HR ***If on fire assignment fill out on your next duty back at home station or have supervisor complete in your absence***	Driver	N/A	7
Complete applicable sections 1-10 of SF 91 Motor Vehicle Accident Report (printed from ESAFETY)	Driver	Supervisor	7
Obtain SF 94 Statement of Witnesses (submit to eSAFETY)	Driver	Supervisor	7
AD 112 Report of unserviceable, lost, or damaged property Ensure: blocks #1-4 are filled out, and Attach: Photos of damage if available. Signed by Supervisor and District Ranger (submit to eSAFETY)	Driver	Supervisor	30
Obtain three repair estimates (unless otherwise instructed by Fleet Manager and submit to eSAFETY/Estimates under \$1000 only need one estimate)	Driver	Supervisor	30
Print/submit pictures of damage (if available and submit to eSAFETY)	Driver	Supervisor	30
Obtain Law Enforcement Report (if 3 rd party involved or as applicable and available/submit to eSAFETY)	Driver	Supervisor	30
Obtain traffic violation/citation (if applicable and submit to eSAFETY)	Driver	Supervisor	30
Complete SF91 Accident investigation narrative (Section X and submit to eSAFETY)	Supervisor	Safety Officer	35
Print out the following and submit to Fleet Manager for accident package: - SF91 - SF94 - AD 112 - Estimates/Pictures - Law Enforcement Report - Traffic violation/citations	Safety Officer	Fleet Manager	35
 Identify charge-back job code (annotate above) for repairs Assemble all documentation listed above. Attach this form to front of accident package 	Fleet Manager	Line Officer	35
<u>Review of accident package</u> - Signature on AD-112 Block #5 - Initial routing slip below and forward with package to Fleet Manager	Line Officer	Fleet Manager	40
Finalize accident package and file in historical records	Fleet Manager	N/A	60

All pertinent forms are located on <u>Fleet SharePoint site under Accident Information</u> (see link below) Section 2:

Section 2:

Please review and initial in order listed.

Date Initial

	Forest District Ranger/Line Officer
	Forest Budget Officer
- <u> </u>	Deputy Forest Supervisor
	Forest Property/Fleet Manager