Facilitated Learning Analysis

Ash Creek Fire
ATV Accident
July 24, 2012

Nebraska National Forest

Pine Ridge Ranger District

Summary

On July 24th at approximately 0800, the division supervisor (DIVS) on the most active part of the Ash Creek Fire rolled an ATV while scouting the fire line. The DIVS was traveling up a dozer line when the ATV rolled backward, flipping over the top of him.

"I've been fighting fire for 31 years and this is my first injury."

The location of the accident was an old two track road that was improved to be an indirect fire break with a single blade wide dozer. The slope of the dozer line at the accident site is about 25%. The dozer line along the division was at varied elevations with many up and down changes. The dozer line bed was mainly loose dirt with areas of exposed and loose rock of varied sizes.

Background

The Ash Creek Fire was detected on Sunday, July 22nd at 1130 on the Nebraska National Forest, Pine Ridge Ranger District approximately 20 miles Southwest of Chadron, Nebraska.

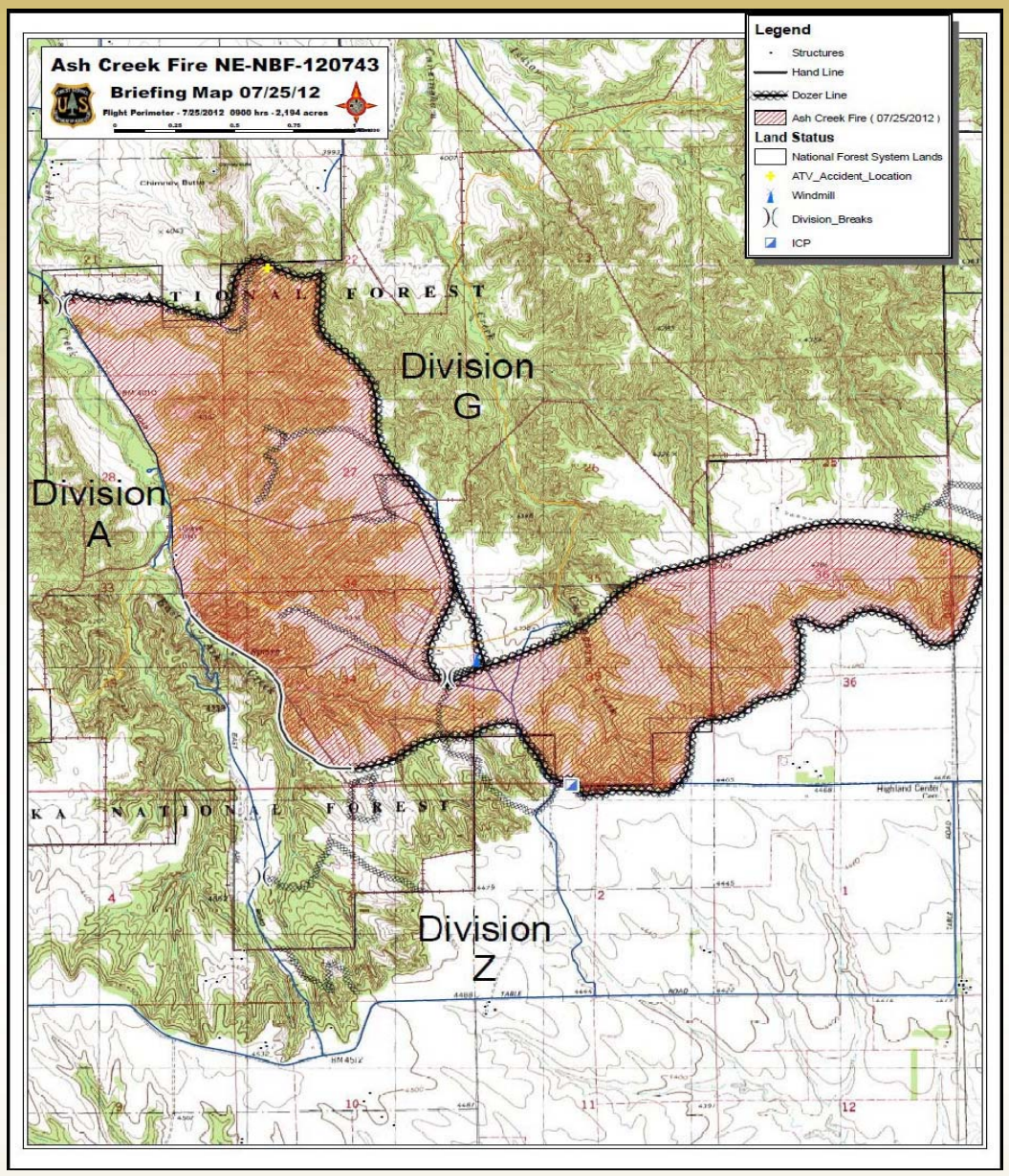
Initial attack resources included engines from the Forest Service, Chadron Volunteer Fire and 4 or 5 local ranchers with agricultural water pumpers. As the fire complexity increased, the decision was made to bring in a Type 3 organization to manage the fire. At 2115, A T3 incident commander and trainee was identified and briefed. The next day the Type 3 team took control of the fire.

The site of the accident was unremarkable.

An Interagency FLA team reviewed the circumstances of the accident with intent of providing lessons learned for the greater wildland fire community.

Incident

The DIVS was assigned to the Ash Creek Fire on July 23rd arriving early evening. After the initial briefing, he began scouting the division by ATV. With the loss of daylight, and assisting some of the firefighters on the line, he was not able to cover the entire division and did not make it to the area where the accident occurred.



The next morning, briefing was at 0530. Objectives were clearly understood. The most active section of the fire was in this division. At some point early that morning, the fire was reported to have crossed the dozer line.

After the briefing, the DIVS went to the fire to scout his area of responsibility and realized the division was larger than previously thought. He twice drove the ATV on the dozer line where the accident occurred while locating the area where the fire went over the line, just northeast and uphill of the accident site.

The fire was burning about an acre outside the dozer line so the DIVS formulated a plan and began communicating with a hotshot crew that just arrived on the division. The crew superintendent (CS) began walking on the dozer line toward where the fire was over the line and the DIVS rode the ATV toward the same location.

As the DIVS was driving the ATV up the line he: *"bogged down, hit a bump and some rocks."* He stated that he *"should have been going faster, lost the roll, braked, started going backwards and the ATV came over."* The ATV landed on its wheels after one rotation.

Shortly after the accident, the CS arrived. The DIVS was standing and walking. Not having seen the rollover, he asked what happened. A short conversation occurred and the CS called his crew EMT to come up the dozer line with his gear. The CS observed the handle bars on the ATV were bent to the extent he could not turn the machine so he straightened the bar out. Initially, the DIVS said he was okay but soon realized that he might need to get checked out because of the pain in his shoulder.

The DIVS drove the ATV back down the hill toward the incoming EMT and met with him about a ¼ mile down the dozer line, where the crew chase truck was parked. After a rapid medical evaluation, the DIVS and EMT loaded into the truck and began the drive into Chadron, Nebraska to the hospital.

On the drive in, through phone calls and face to face meetings, the incident commander, operations section chief and other members of the organization were notified of the accident. Command was transitioned and fire operations continued on the division, including the use of ATVs over the same area of the dozer line.

The DIVS spent one night in the hospital and was transported back home upon release. Injuries included a broken clavicle and crack/bruised ribs.

Observations and Lessons Learned

This review is designed to promote learning. The two agencies believe that learning is the goal.

These observations and discussion points came from the review team, firefighters and local resources associated with the Ash Creek Fire. The purpose here is to promote dialog and learning in the wildland fire community. It is built on the philosophy that genuine learning is more than a transfer of information; it is an active process in which you develop your own understanding by personally engaging with these events and ideas. These observations and discussion points are:

The terrain and characteristics at the accident site, and the experience of the firefighter on the ATV, are within normal parameters for the use of this type of equipment.

Firefighters were acting in accordance with the leader's intent in the execution of their duties in fighting this fire.

As shared from firefighters on this incident, accidents don't just happen, nor do they just occur with the inexperienced. The message is—always be mindful and always talk to each other about what is out there.

The chase truck availability was critical for emergency response and transport to the hospital. Without the chase truck availability the length of time to get the DIVS to the hospital would have been longer.

The Bureau of Land Management requires the qualification of ATV Operator be listed on Incident Qualifications Cards of those individuals qualified to operate an ATV on a fire, which was the case on this incident.

A critical time for any organization moving toward learning is the period immediately following an accident. Senior levels of leadership from BLM and Forest Service came to an agreement to review this jointly. The review team was welcomed; however firefighters and local resources on the unit were unclear as to why the higher level involvement occurred for an incident that was not too complex in nature.

In addition, two main themes were discussed at length and shared as lessons learned by firefighters and from observations by the review team:

1. ATV Training

Observation: Firefighters on this fire were qualified and trained for the mission and use of ATVs. Employee training along with experience can play a large part in preventing an accident. Firefighters shared that the quality of training is good but had concerns around the lack of trainers, limited class offerings available during the year, and length of experience in the field decreasing.

Discussion Points/Recommendations:

- **Increase the number of trainers.**
- **Increase number of courses offered.**
- **Work with partners to share training opportunities.**
- **Provide more time in the saddle, on the job, in like situations to increase experience.**

"We take ATV training seriously."

2. Helmets

Observation: An open discussion occurred with firefighters around interchangeable helmet and hard hat use during the fire. Both the Bureau of Land Management and U.S. Forest Service have policies requiring the use of helmets - and leaders generally have an expectation of helmets being used - while firefighters shared concerns that helmets restrict communications during critical times as the greater risk. During less active periods of fire, firefighters wore helmets and during periods of high fire activity, they wore hard hats with chin straps.

Switching between helmets and hard hats on ATVs highlights the "Gap" that exists. Leaders give their intent; practitioners interpret the intent and carry out the work. A gap between intent and implementation will always be present; the magnitude or specific details of the gap are important when determining the significance of the outcomes that may result from the gap.

Leaders accept that the gap is tolerable due to positive reinforcement of repeated acceptable outcomes. Only when the outcome is unacceptable to leaders, is there an examination of why the gap was tolerated.

"I elected to wear hard hat so I could hear the radio. If I had helmet on I would not be able to answer calls."

Individual decisions on this incident don't seem egregious or negligent. Some individual actions may look like bad decisions—at first. Yet once you dig into the context, it becomes clearer how a normal firefighter could take that action at that time, and why it may have seemed like the best or only move for addressing risk. In looking at overall decision-making, no obvious problems jump out as something firefighters or operational leaders should have seen and fixed, but failed to. Instead, we see firefighters aggressively managing risk, proactively and reactively creating safety in a complex, dynamic environment filled with the potential for all kinds of trouble and surprise.

Compliance with helmet policies is complicated by concerns on the ground because of the lack of flexibility in dynamic fire conditions. Communication, situational awareness, and flexibility of appropriate head gear while doing multiple tasks, on and off the ATV, are often cited by firefighters.

Discussion Points/Recommendations:

- Recommend NWCG consider establishing a uniform code of behavior for ATV use on fires for all agencies so there is one standard for all firefighters.
- Each agency research availability and allow the purchase of NASCAR type over the wall pit helmets with integrated communication systems and NFPA rating for fire line use?

"At that point, that day, you had to be able to hear. I wouldn't have worn a helmet."

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