Peter's Ridge Fire

Dispatch Sequence and Medical Evacuation

Joint Facilitated Learning Analysis

September 22, 2011

Executive Summary:

The Peter's Ridge Fire was first reported on August 12, 2011. The fire started in rough terrain on the Flathead National Forest, and was under Montana Department of Natural Resources (DNRC) fire protection. On August 14, 2011 at 0900 hours, the fire's west flank had burned over the hand line and made a short run with some single-tree torching. In addition, there were fourteen spot fires at the head of the fire with moderate growth potential. At 0930 hours, the Incident Commander (IC) made the decision to order seven smoke jumpers to arrive by ground as there was easy access by road. Fireline explosives (FLEs) were also ordered at this time with the thought that explosives might be used to blow line through alder/rock fields, if necessary.

At 1215, the jump aircraft informed Interagency Dispatch (dispatch) that they were starting jumping operations. At 1345 hours dispatch was notified that there was an injured jumper in need of medical attention on the Peter's Ridge incident, but that it was not life threatening. The Jumper in Charge was set up as the IC of the incident within the incident (ICWI). Preparations were then made to cut out a heli-spot so the injured jumper could be flown out of the area on the local medical evacuation helicopter; ground transport was not advised due to the rough terrain.

At 1520 hours the ICWI informed the IC that cutting out a heli-spot to accommodate the air ambulance near the injured jumper was labor intensive and would take too long, and advised that they needed a contingency plan. The Peter's Ridge IC was made aware of a short haul capable helicopter available locally, and the short haul capable helicopter was ordered for assistance. At 1745 hours, the short haul ship had the injured smoke jumper ready to move, and they began to haul the jumper to the designated meeting place with the local medical evacuation helicopter. Ground and air personnel repeatedly attempted to contact the local medical evacuation ship to guide them to the correct meeting place, but were unsuccessful. Contact was finally made on the general aviation common AM frequency (122.900) through Air Attack. At 1757 hours the injured jumper was transferred to the local medical evacuation ship, and successfully transported to the hospital where he was treated. The injured jumper was released from the hospital on August 18, 2011.

Two primary concerns surfaced during the above operations.

1. **Dispatching of Smokejumpers and Fireline Explosives:**
   There was confusion between the incident personnel, dispatch, and smokejumper operations on how the jumpers were to be delivered and the time they were needed on the incident.

2. **Medical Evacuation Communications Issues (Dispatch, 9-1-1, Ground & Air Resources):**
   During the medical evacuation, dispatch centers were on different computer aided dispatch systems (CAD), and fire resources (which included the air ambulance) were not on the same radio frequencies. This resulted in difficulty relaying the correct rendezvous point for the short haul and medivac aircraft. This same type of problem with communication has occurred nation-wide in the last few years.

On August 19, 2011, the Flathead Forest Supervisor of the United States Forest Service (USFS) and the Area Manager of the Northwest Land Office (DNRC) agreed to conduct a joint Facilitated Learning Analysis (FLA) on the Peter's Ridge incident and signed a Delegation of Authority letter outlining expectations and outcomes for the FLA team to consider when finalizing their report (see Appendix A).

Lessons Learned and Shared from the Peter's Ridge Incident

The Peter's Ridge joint FLA team considered that the personnel involved in this incident were in a unique position to help both the U.S. Forest Service and the Montana DNRC learn to better manage future operations; and this was an opportunity for both agencies to develop and maintain a respectful learning culture. This report highlights the critical decisions that were made during the dispatching sequence of resource orders to the Peter's Ridge fire and the successful medical evacuation of the injured smokejumper on August 14, 2011. This report also documents lessons learned as well as timely decisions and creative tactics that can be used to successfully navigate an incident within an incident in the future.

The FLA team held two discussion sessions on September 21, 2011 to ask participants to share the lessons they learned from the incident and what they thought could be shared with others to help improve safety, communication, leadership, and risk assessment methodologies. The morning discussion focused on the review of the dispatching sequence for the smokejumpers, and the afternoon discussion focused on the medical evacuation of the injured smokejumper. The FLA team applied the following themes to each discussion:

1. The dispatching sequence of the smokejumpers to the Peter's Ridge incident:
   - **Mission Clarity**.
2. The medical evacuation of the injured smokejumper
   - **Clear and Consistent Communication**

The recommendations that follow are based on those discussions and lessons learned; and secondarily from the FLA team's observations from their perspective as the review team.

1. Improve Communications between all Entities

Clear, concise and consistent communication is key during any operation and it becomes even more critically important during fire activities. Various levels of confusion arose during the Peter's Ridge incident between dispatch, smokejumper base operations and the IC over whether or not the smokejumpers would be driven or flown in. The FLA participants agreed that communications could be improved between all entities. The participants also agreed that agency personnel should adhere to standardized communication protocols and procedures. Better documentation on resource ordering and clarification of resource orders is needed and it should be communicated up and down the appropriate chain-of-command. For example, once the IC and Duty Officer chart a course of action and relay that to dispatch, they should be notified if the resource order is changed in any way.

It was also mentioned that the use of cell phones in this technological age can be a vital tool and also a hindrance in promoting clear communication. When Duty Officers, dispatch or Air Operations can only communicate via cell phone, it is imperative to ensure that the appropriate personnel within the incident's Chain of Command are notified. In the Peter's Ridge incident, the key personnel that should close all loops of communication between each other were the Incident Commander, the Duty Officer, dispatch and the smokejumper base operations.

2. **Confirm the Plan**:

When developing plans and placing resource orders, the FLA participants thought it was important to follow standardized protocols to provide clear communication between the IC, the Duty Officer and dispatch. If there is a safety risk and orders or plans need to be changed, that is fine as long as immediate details are communicated up and down the appropriate chain of command. For example, when the IC and Duty Officer determined that an order for smokejumpers was needed for the Peter's Ridge incident and they thought the best mode of delivery was to drive the smokejumpers to the incident; the IC and Duty Officer should have been consulted on any changes to the order.

Confirming the plan also requires that all individuals involved (dispatch, duty officers, incident commanders, air operations, and firefighters) are communicated with so that they all have the same understanding of what is being ordered, how and when the resources will be delivered, and what the need is for the resources being ordered. Better documentation would help communications between all entities in confirming or changing the plan.

3. **Develop a Fireline Explosives (FLE) Education Card**

Throughout discussions, many participants asked for clarification on the use of Fireline Explosives (FLE) as well as how FLE should be ordered through dispatch and how they can best be delivered to the incident. Questions also arose on how FLE should be stored and secured if they end up not being used during the incident. All participants agreed that an FLE Education card or briefing paper would benefit all employees involved in fire incidents. A common understanding that clarifies and includes FLE ordering procedures, blasting team members, FLE security, delivery method options and proper FLE uses would be beneficial based on lessons learned during the morning session.

Conducting field training on the proper ordering and use of FLE was also suggested. Such training would be best conducted prior to fire season and could include a test of dispatch sequencing as well as a field demonstration of how fireline explosives can be used during an incident.

4. **Clarify Timing of Resources and Adequacy of Resources**

When placing orders through dispatch, clarification is needed for what type of resources are being requested (e.g. Type one firefighters versus smokejumpers), when the specific resources are needed (e.g., give the actual time needed), and when resources are available for assignment (e.g. short haul is available, but not for another hour). In fact, it was discussed that giving time estimates with the resource order would help clarify exactly when the order is needed and which mode of delivery is needed. When placing resource orders, it is important to verify that the delivery method is in line with the timing of the resources needed. It is also critical to ensure that the appropriate equipment is being ordered and that it is adequate for the mission.

The Incident Commander needs to be the one who makes the final decision on when and what type of resources are ordered for their specific incident. If special instructions are requested, they should be documented on the resource order, in the dispatch log, and communicated with all levels within the

appropriate chain of command. For example, if the IC wants a resource driven or flown in to the incident, this should be documented under "Special Instructions" on the Resource Order.

5. Improve Communications between Agency Partners and Emergency Service Providers

Work with all units to implement and utilize one common frequency for all communication, including air ambulance to ground operations. During the afternoon discussion session, it was discovered that state, local and federal units (including the air ambulance resource) were all on different frequencies. To remedy this in the future, the FLA team recommends following protocol as outlined in the Montana State Frequency Plan for air ambulance to ground operations. In addition, we should continue to share information among all cooperators and work groups (i.e., do not limit to fire working group) and continue to work with 9-1-1 to gain knowledge, share information, and develop consistent formats for recording and communicating latitudes and longitudes of specific locations.

6. Improve Training with Air Ambulances

The participants recommended that all cooperating agencies should coordinate with off-site medical evacuation organizations as part of pre-season training and continuing operations. In addition, these contacts should be revisited as an initial step when responding to emerging incidents and extended attack. By coordinating and communicating with organizations that provide medical support, and rehearsing prior to fire season, the efficiency and effectiveness of operations will be greatly enhanced when a medical evacuation becomes necessary. It was also recommended by the participants to develop wildland training simulations that include local, state, and federal government units and Emergency Medical Service providers.

7. Improve Medical Evacuation (Medivac) Plans

The following recommendations were suggested by participants and FLA team members:

- Fully implement emergency communication protocols, including a back-up communication plan.
- Establish a primary and secondary medical evacuation plan that includes ground resources.
- Pre-identify medical evacuation spots, make needed improvements and make sure they are known to all on the incident.
- Standardize as much as possible medical evacuation plans between units. This will help ensure quick, effective and efficient medical care and transportation.

Commendations:

The FLA team would like to commend all the firefighters, pilots, and dispatchers who displayed tremendous diligence and leadership during the Peter's Ridge fire. Of special note was the care that was taken by the firefighters on the ground to secure the injured smokejumper and get him flown to the hospital as quickly and efficiently as possible. The FLA team would also like to commend the following actions that have been taken in regard to the Peter's Ridge Dispatch Sequence and Medical Evacuation:

1) 9-1-1 and dispatch personnel met immediately to begin fixing the communication issues that were found during the Peter's Ridge Incident. One such fix included developing a medical tab in WILDCAD and dispatch is now working with a software company to add this tab nationwide.
2) 9-1-1 is putting large incidents into CAD as "common locations" to help dispatch resources during future incidents.
3) The local medical evacuation helicopter (air ambulance service) has been added to email lists for incident frequencies.
4) Care for the injured was quick, and effective; however the medical evacuation could have been more efficient.

Finally, the FLA team would like to recognize the excellent working relationship between all agencies involved in the Peter's Ridge Incident and subsequent FLA.

Summary

The positive and swift actions of the firefighters who stabilized the injured jumper and prepared him for evacuation are to be commended. All personnel working on the Peter's Ridge incident performed in a highly professional and effective manner. Communications issues were at the heart of this incident and we strongly feel that changes and improvements in communication systems need to continue locally and nationally. The common themes throughout this incident were: 1) all personnel needed to understand and have clarity of their mission; and 2) clear and consistent communication needed to occur throughout all levels of state, federal, county, and rural firefighting entities.

The FLA team recommends posting this document on the Wildland Fire Lessons Learned Center website as well as other appropriate places to draw attention to the ongoing communication issues during critical incidents, most specifically communication issues between Air Ambulances and firefighters on the ground. Many lessons learned from the Peter's Ridge FLA and previous FLAs can be easily replicated or incorporated into district, forest, and inter-agency training in the future.

Special Thanks

The FLA team and the trainees assigned to the FLA team would like to thank and recognize all the participants who took the time to take part in the discussions regarding the unfolding of events during the Peter's Ridge fire and the smokejumper injury incident. Our discussions were open, honest and educational. Our team learned many lessons from these discussions and each participant helped clarify how we could learn to better manage operations and improve our communications in the future.

Team Members for Peter's Ridge Joint FLA

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Wayne Williams, Fire Program Safety Manager, MT DNRC (Fire and Aviation)
Lisa Timchak, Tally Lake District Ranger, Flathead National Forest (FNF)
Greg Poncin, Kalispell Unit Manager, MT DNRC

Trainees for Joint FLA:

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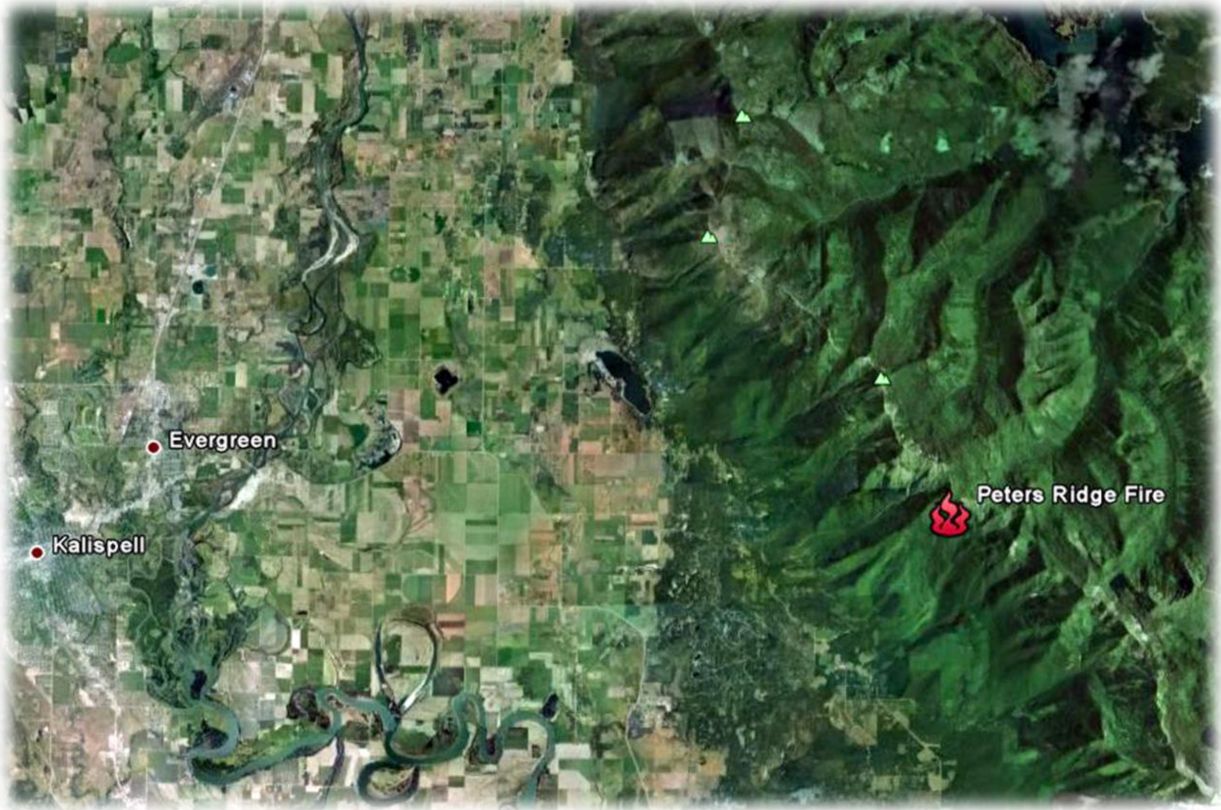
Jesse Best, Northwest Land Office, Air Operations Supervisor, MT DNRC

Peter’s Ridge Fire Map (top) Jump-Spot Photo (bottom)



Appendix A – Joint Delegation of Authority for the Peter's Ridge FLA

This memorandum formalizes your appointment as a team member of the Peter's Ridge Facilitated Learning Analysis (FLA) team. Our expectations are that you conduct this FLA to review the following: the dispatching sequence for the smokejumpers on the Peter's Ridge incident; and the medical evacuation of the injured smokejumper. To the extent practicable, follow the procedures displayed in the 2011 Facilitated Learning Analysis Guide. Your authority includes, but is not limited to:

- Organizing, managing, and facilitating the FLA;
- Managing and maintaining confidentiality during the FLA process.
- Ensuring that anything found during this analysis will not result in punitive actions of any kind.
- Assigning trainees from each agency to assist the FLA team.

As you proceed with the analysis, we ask that you consider that the personnel involved in this incident are in a unique position to help both agencies learn to better manage future operations, and to develop and maintain a respectful learning culture. The intent throughout this process will be to continually improve and strengthen our relationships within and between all entities. Your report should help us to understand what happened, why and when critical decisions were made, and what lessons were learned so that we can share this information with all employees.

We expect this FLA team to produce a concise report which outlines your process and findings by September 30, 2011. Each agency agrees to cover costs associated with this FLA with their own appropriated funds. Please brief us periodically on your progress and do not release any information relating to this FLA without our approval. Thank you.

/s/ Chip Weber

CHIP WEBER
FOREST SUPERVISOR
FLATHEAD NATIONAL FOREST

/s/ Robert Sandman

ROBERT SANDMAN
AREA MANAGER
NORTHWESTERN LAND OFFICE