



# LESSONS LEARNED

Northern Region Safety & Occupational Health  
August 2015

## *Big Hill Smokejumper Accident*

The Big Hill fire started on August 10<sup>th</sup> and was located just northeast of Syringa, ID on the Nez Perce-Clearwater National Forest, Lochsa Ranger District. On August 11<sup>th</sup> at approximately 1211 hours, an accident occurred during a Grangeville smokejumper mission.

Eight smokejumpers (mixed load with round and Ram-Air parachutes; 4 FS-14s, 1 CR-360 and 3 DC-7s parachutes) out of Grangeville, Idaho were already enroute to the Four Bit Creek fire on smokejumper aircraft, Jumper 14 (J-14). The smokejumpers were diverted to the Big Hill fire for more efficient use of the resources. District initial attack resources were already on scene, including the incident commander (IC). J-14 arrived on scene at 1122 hours. The fire was approximately 1 acre in size. Helicopter ORL was working the fire with a bucket. J-14 contacted the IC and was informed he would like all 8 smokejumpers.



The jump spot, an old log landing (see map), had a large regeneration unit to the north, as well as several feasible alternatives within a hundred yards. The spotter and smokejumpers were satisfied with the spot and conditions. The 4 smokejumpers using FS-14s were let out at 1500' AGL (above ground level) in single person sticks. The 1 smokejumper using the CR-360 and the 3 smokejumpers using the DC-7 were let out at 3000' AGL in two person sticks.

The first smokejumper reported most of the drift was up high and winds were calm on the ground and the spotter's release point for the smokejumpers was good. The first seven smokejumpers landed safely in the jump spot. The injured smokejumper was the last out the door of J-14 at 1208 hours using a Ram-air DC-7 parachute.

The injured smokejumper indicated in his post-accident interview the jump was "very routine" and even reminded himself "don't be complacent" before exiting the door. He flew a left hand pattern (same as the jumpers before him) to set up his approach to the jump spot. At this time, he was in "deep brakes" which is a steep descent angle because he didn't want to overshoot the jump spot into the trees. When he was about 20 to 30 feet off the ground, he realized he was in

too deep of a descent and didn't have enough elevation to correct his trajectory. He landed just short of the jump spot into a steep embankment

As the injured jumper realized his landing was "bad" he reached his arm up to the intended jump spot to see how far in distance he was in reference to the jump spot. He indicated he was approximately 3-4 feet short. When lifting his arm, he realized something was broken in his right leg. The other smokejumpers on scene, including one licensed EMT and one expired EMT came to his aid and had J-14 cargo drop the Trauma Kit and Traverse Rescue Stretcher. The other



jumpers removed his jump suit and took his vitals within 5 minutes. They ordered a helicopter for medical evacuation. The injured smokejumper was prepared for transport and was enroute to the hospital in Lewiston, Idaho within 50 minutes. The smokejumper was diagnosed with a fractured right femur and had surgery to stabilize the fractured leg.

### **WHAT WAS DONE WELL:**

- Smokejumper training was current.
- Smokejumper was within work/rest guidelines.
- Smokejumper risk assessments were reviewed and up-to-date.
- Communications were good from ground to air.
- Three out of eight smokejumpers on scene were EMTs (1 licensed and 1 expired).
- Smokejumpers had practiced taking vitals and using the KTD (Kendrick Traction Device) days before the incident.
- Excellent response, organization, and implementation of an "incident within an incident."
- The smokejumper base provided excellent support to the injured smokejumpers family.

### **RECOMMENDATIONS:**

- Include analysis of accident reports and performance data into established training for landing in unintended jump spots.

Smokejumper Program managers and training supervisors should continue improving upon the collection of accident reports and performance data for further analysis, trends, and enhancement on how smokejumpers can mitigate hazards in rough terrain jump spots. Develop training for smokejumpers on how to analyze/recognize/mitigate what is "adequate time" to identify a hazard and make the needed adjustments.

- Forest Service management should emphasize and continue basic and advanced Emergency Medical training for employee care throughout the Region. Due to remote locations and sparse medical care, many units and employees have recognized the need and have initiated advanced Medical Training for their employees

The National Smokejumper Program already has a high standard of Emergency Medical training which contributed to the successful outcome of this "incident within an incident."

**For additional information refer to the Big Hill Fire Smokejumper Accident Learning Analysis dtd August 17, 2015.**