2012

Incident Review Summary

Lessons from Wildland Fire Related Incidents Last Year

“Wildland firefighting involves a fundamental dilemma: either you fight the fire or you don’t fight it. Both alternatives involve risks; there is no ‘zero risk’ alternative.”

Steep Corner Fatality SAI

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The intent of this document is to stimulate and inform discussion among wildland fire personnel. Talk about how this information relates to you and how you can use it to sharpen your performance.

1. Introduction

This report presents a summary of the information gleaned from 96 wildland fire incidents—from various agencies—submitted to and gathered by the Wildland Fire Lessons Learned Center (LLC) during 2012. (Most of these reports have been posted to the Incident Reviews Database available on the Lessons Learned Center Website.)

Windows for Training Opportunities
In studying the details and findings reflected in this summary report, you should be able to gain ideas for relevant training and discussion topics.

What did incident reviews from last year teach us about driving and narrow escapes?

For instance, multiple 2012 incidents occurred while individuals were scouting. Do you have a protocol and emergency procedures for scouting missions?

In addition, there were multiple close calls involving Heavy Equipment Operations. Do you operate or work closely with Heavy Equipment? Do you have detailed discussions about the level of exposure—and ensure there are contingency plans?

As you read through this report, can you see other themes that might deserve follow-up attention in your training scenarios?
"I looked down at my hands and they were shaking from the heat."

Ash Creek Burn Injury FLA

2. 2012 Report Types

Where does this information come from? The Lessons Learned Center collects information from a vast array of sources, including reports by and about State, Local, Volunteer, Contract, and Federal resources.

This graph illustrates the make-up of the 26% of “Other” from above.

Every percentage component in this report’s pie charts has been rounded to the nearest whole number, which often results in a total of just under or over 100 percent.

SAI – Serious Accident Investigation
RLS – Rapid Lessons Sharing (a form is available for these via the LLC website)
24/72 – Federal 24- and 72-hour reports
LLR – Lessons Learned Review
FLA – Facilitated Learning Analysis
CALFIRE – CALFIRE reports
Custom – A custom report created and submitted from the field
Investigation – Accident Investigation
Other – (See chart below)

State/County – A report issued by a state or county
USFA – United States Fire Administration Fatality Notification (wildland only)
Media – News media
SafeNet – Selected SafeNet submissions
SafetyGram – Incidents listed in SafetyGram (for which the LLC has no written report)
NTSB – National Transportation Safety Board
“As my rear end started to be sucked off the road, I knew I had to keep the two front tires on the road to keep from a potential rollover.”

Klamath Engine FLA

3. Vehicle Accidents

Driving continues to be a high-risk mission, accounting for 25 percent of all the 2012 reviews submitted to the LLC.

![2012 Vehicle Accidents Pie Chart]

- 43% Travel to / from
- 26% On Incident
- 22% UTV/ATV
- 9% IA Response

An engine rollover accident on the Montezuma Fire resulted in a firefighter fatality.

Montezuma Fatality Investigation

The “Mustang Complex Rollover FLA” tells the story behind this rollover accident.

Mustang Rollover FLA
4. Operations Incidents

In 2012, Engine Ops, Air Ops, and Chainsaw Ops were the operational activities that resulted in the most number of incidents.

2012 Operations Incidents

- Air Ops: 15%
- Chainsaw Ops: 22%
- Engine Ops: 10%
- Firing: 13%
- Heavy Equipment Ops: 7%
- Line Construction: 10%
- Mop-up: 8%
- Scouting: 10%

How dangerous is scouting?

"I want you to get in that bucket now!"

Read the story behind this incident in this FLA:

Pole Creek Bucket Extraction FLA

Do you wear chaps when you’re swamping?

Coyote Basin Chainsaw Injury
5. Entrapments and Narrow Escapes

During the 2012 fire season, a total of nine entrapments were recorded, down from 17 in 2011—a 53 percent decrease. Interestingly, a new category of reports emerged: the “Narrow Escape.” Narrow Escapes are instances of firefighters narrowly avoiding entrapment (a close enough call to write up a report and share lessons).

- What are similarities and differences in Entrapments and Narrow Escapes?
- Do we learn different things from either event?
- Do you share stories of your narrow escapes?

“The TFLD was ‘serving as his own lookout’. On-the-ground practice among firefighters with regard to lookouts may vary from crew to crew and situation to situation—and may not always correspond to what fire managers believe is taking place.”

Pole Creek Bucket Extraction FLA
During firing operations on the Holloway Fire, a firefighter was forced to deploy their shelter (image on left).

Holloway Entrapment Accident Investigation

Image on right is from the "Wetmore Wildfire Lessons Learned Review."
Wetmore Fire Lessons Learned Review

“We cannot stress enough that setting trigger points are a vital tool in situations that are progressing rapidly. The decision to drop IA gear and grab fire shelters was a direct result of a trigger point we set on the ridge.”

Mustang Fire Near Miss
Mustang Fire Near Miss Report
I thought that I was going to die, right here."

Flat Fire Entrapment FLA

6. Incidents by Stage of Attack

Initial attack continues to be where we see most of our reported incidents. In 2012, more than half of all Fire Operations incidents occurred during initial attack.

2012 Operations Incidents by Stage

Entrapments were evenly split between initial and extended attack this year.

2012 Entrapments by Stage of Attack
7. 2012 Fatalities

Seventeen wildland firefighters lost their lives in 2012.*

When aviation fatalities occur, they tend to be in multiples. Two airtanker crashes accounted for all six aviation fatalities (two in one, four in the other). Understand the risk you are asking pilots to take when you request air resources.

Eat healthy and exercise appropriately – medical fatalities are common.

*Due to differing reporting requirements, the Wildland Fire Lessons Learned Center recorded two more fatalities than the NWCG SafetyGram.

To access a comprehensive incident review database, please visit:

http://iirdb.wildfirelessons.net/main/Reviews.aspx?Type

For instructions on how to find Incident Reviews view this:

http://wildfirelessons.net/documents/How_to_Find_Incident_Reviews.pdf