

Rapid Lesson Sharing

Event Type: Type 1 Helicopter Alternate Landing Site

Date: July 29, 2018

Location: Sugar Pine Fire ICP
12 Miles Northwest of Prospect,
Oregon

“We are always looking for ‘landing spots’ in case of a mechanical issue, and spots near roads where our fuel trucks can service us.”

**Pilot-in-Command,
Type 1 Helicopter**

“We do brief in the morning about contingencies if smoke gets bad and they can’t get back.”

Helibase Manager

Narrative

The Sugar Pine Fire Incident Management Team is managing seven additional incidents, including the Goodview, Round Top and Union fires. These fires were all started by lightning on July 15.

During the July 30 Regional Aviation Conference Call, five of these incidents reported that they could not fly any aircraft due to smoke. The minimum visibility requirement for helicopter operations (except in an emergency) is one-half mile. Fixed-wing operations require more than one mile. The terrain in this area is mountainous and the dissipation of smoke from the fires is variable and extremely hard to predict.

Even though the Incident Command Post is located south of the fires, it often experiences smoke in camp and the surrounding area. The Sugar Pine Fire Helibase is located at the Prospect State Airport, three air miles northeast of the ICP. The Helibase periodically suffers from heavy smoke which frequently grounds aviation resources. Helicopters and Air Attack (ATGS) will frequently provide support to other fires in a “lend lease” situation.



When the Helibase became smoked in, per previous contingency landing location discussions, the Type 1 Helicopter lands in a field near the ICP.

“We have been doing a ‘lend lease’—for both rotor and fixed-wing—between incidents for quite some time if there is a shortage of aircraft or changing priorities,” said the Regional Assistant Director of Aviation. “Or situations like this when smoke changes the direction or mission.”

Smoke Layer Prevents Helicopter Pilots from Seeing the Fire

On 29 July, at approximately 1700 hours, a Type I Helicopter was tasked with a mission to provide water via a bucket to help control the fire edge on one of several fires in the area. The Type 1 Helicopter filled their bucket and waited for directions of where to drop. Within a few minutes, the fire was completely layered over in smoke. The helicopter pilots could not see the fire at all.

“We were filled, ready to drop water on the fire,” explained the Helicopter’s Pilot-in-Command. “But by the time we got there the smoke layered over the fire. We couldn’t see anywhere to drop water.”

Smoke Also Prevents Return to Helibase –What Now?

The Pilot-in-Command therefore dumped the ship’s water and they headed back to the Helibase. Communication from the Helibase informed them that the airport was socked in with smoke and they couldn’t land there.

What now?

The helicopter contacted ICP (communications) and notified the Air Operations Branch Director (AOBD) and the Deputy Incident Commander (who is also a Helicopter Manager) of their situation. The Deputy Incident Commander went out to the field to check for potential hazards prior to the landing. He then gave the pilot permission to land in the open field (100 acres in size) located northwest of the ICP.

“We had previously talked at the helibase/aviation briefing about alternate sites to land if they got smoked out,” informed the Air Operations Branch Director.

The helicopter pilots than notified the Helibase Manager what they were going to do. The landing was safely accomplished. The crew had supper and were taken to their hotel for the night. Their helicopter was in a safe location. It was periodically checked by IMT personnel throughout the night.

The next morning, the pilots returned to ICP and flew the helicopter to the Helibase. They attended the morning aviation briefing and continued their assignments for the day.



Photo of the smoked-in Prospect State Airport—where the aircraft were grounded. The Helibase for this incident was located at this airport.

Successes

- ❖ Communication during the morning aviation briefing just the day prior discussed the contingency to land at the ICP should conditions prevent landing at the Helibase.

- ❖ The Deputy IC (qualified Helicopter Manager) was notified, went to the landing area to confirm there were no hazards on the site, and approved the site for the aircraft to land.
 - ❖ There was adequate communication between the helicopter, Helibase, and Incident Command Post.
 - ❖ Having “lend lease” for aviation in place as a contingency between fires is an asset for fire management.
 - ❖ Discussing the potential hazards of being smoked in/out during the morning aviation briefing and knowing the location of alternative landing sites is excellent risk management.
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Lessons

- ❖ The shifting weather conditions that moved the smoke back and forth in low-lying areas resulted in quickly changing conditions within the fire area.
 - ❖ Contingency planning is vital in fire management situations.
 - ✓ Pre-planning and talking about the “What ifs” reduce risk and surprises!
 - ❖ Adequate communications between resources (personnel, locations, and equipment) is mandatory in the fire environment.
 - ❖ Having local knowledge of potential weather conditions, fire behavior, etc. is necessary for making risk-informed decisions.
 - ❖ Although minimum visibility for helicopter operations is only one-half mile by policy, it may be prudent to increase those minimums for certain situations and locations where visibility is known to significantly or frequently change to levels above and below one-half mile. Just because we “can” fly does not always mean we “should” launch a mission.
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For More Information on Smoke and Aircraft Operations, Check Out These Safety Alerts:

Interagency Aviation Safety Alert: Aircraft Operations in Poor Visibility

https://www.doi.gov/sites/doi.gov/files/uploads/iasa_2017-03.pdf

Interagency Aviation Accident Prevention Bulletin: Smoke Column Hazards

https://www.doi.gov/sites/doi.gov/files/uploads/iaapb_2018-02.pdf

This RLS was submitted by:

The Northwest Risk Management Assessment Team – Tom Johnston, SOF1; and Arley Paulus, USFS R-10 Regional Health and Safety Specialist.

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