Rapid Lesson Sharing

Event Type: Scoopers on the Cedar Fire

Date: August 2016

Location: Cedar Fire, Sequoia National Forest
California

Scooper filling with water.

Scooper filled and taking off.

"The Scoopers are a good supplement to our needs and reduce our need for Air Tankers."
Incident Commander

"The Scoopers helped us control the east side of the fire, enabling us to use our Helicopters in areas that we needed pinpoint water drops."
Air Operations Branch Director

"They are not as effective (water) as retardant but they can deliver it two to five times faster, depending on where the Air Tankers are based (flying and loading time)."
Helitack Personnel

NARRATIVE

The CL 415 Amphibious Water Scooping Aircraft (Scooper) is a valuable tool in the fire manager's tool box. They scoop water from lakes, rivers, or the ocean and are an extremely effective firefighting aircraft. They can fly for up to 4 1/2 hours without landing and carry 1,600 gallons of water in two tanks. Their water can be dropped salvo (all at once), in trail (linear line), or split into separate drops.

Scoopers need a large body of water to fill their tanks. These water bodies should be one mile in length and at least six feet deep. Long narrow lakes surrounded by steep terrain may become unusable due to shifting winds. It takes from 15 to 30 seconds to fill the Scooper's tanks. Their pilots generally have ample time, room, and maneuverability to avoid water source hazards like boats, rock islands, trees, etc.

The key virtue of scoopers is that they can drop more water per hour on most fires than an Air Tanker can drop retardant. When water is in close proximity to a fire, Scoopers and Helicopters have an advantage of faster cycle times than Air Tankers.

Pair of Scoopers Support Cedar Fire Suppression Efforts
Lake Isabella near Kernville, Calif., located two miles from the Cedar Fire, provided a perfect opportunity for using Scoopers. The turnaround time from loading and dropping water with the Scoopers on the Cedar Fire was between 10 and 15 minutes.

The Cedar Fire used a pair of Scoopers (261 and 262) that worked in tandem for more than five days, dropping water from 100-150 feet. They are staged at the airport in Bakersfield. This pair timed out (eight hours of flight time) on two consecutive days supporting fire suppression activities on two sides of the Cedar Fire.

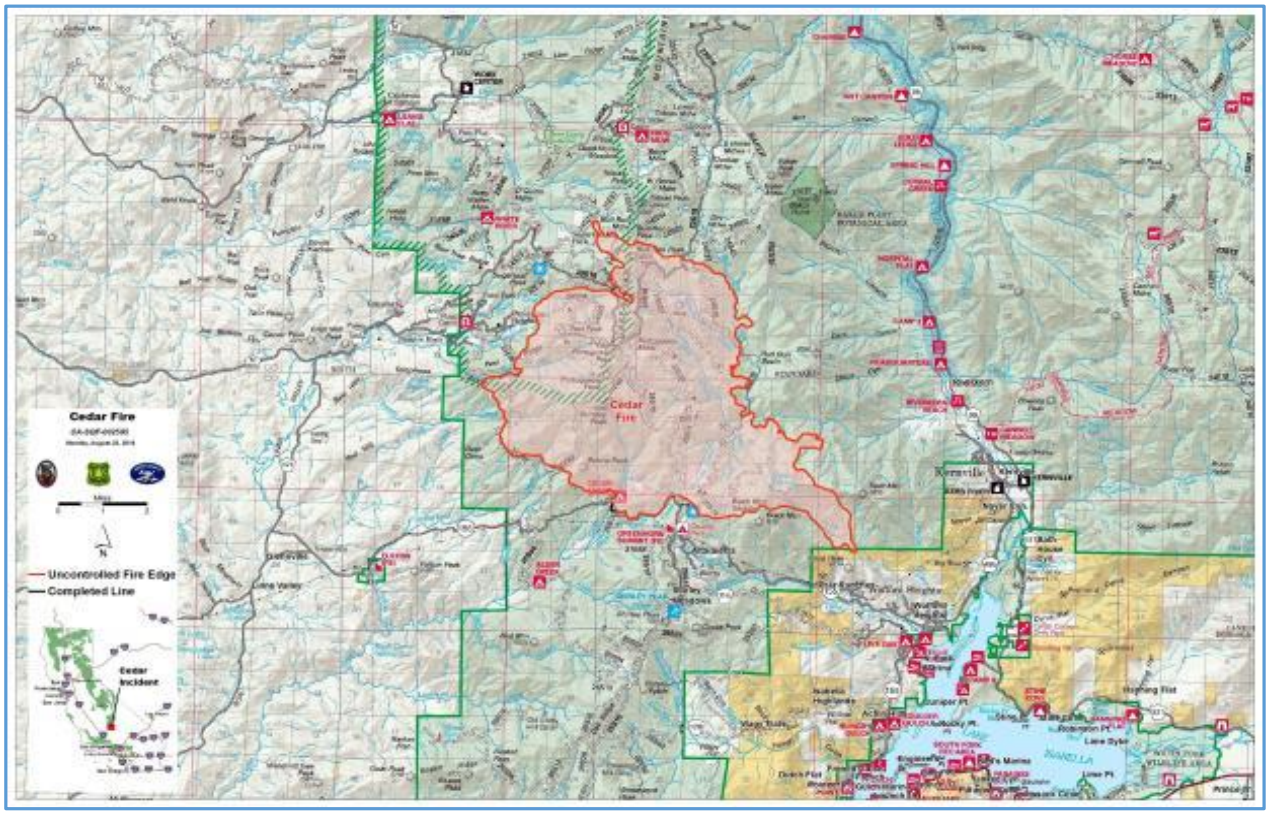
On August 22 on the Cedar Fire, the Scoopers made 58 drops, with Scooper 261 dropping 57,500 gallons of water and Scooper 262 dropping 52,000 gallons of water. They both flew eight hours that day. Mapping the drops can assist in determining effectiveness of suppression actions (see map on next page).

Lake Isabella, located two miles from the Cedar Fire, provided a perfect opportunity for using Scoopers.

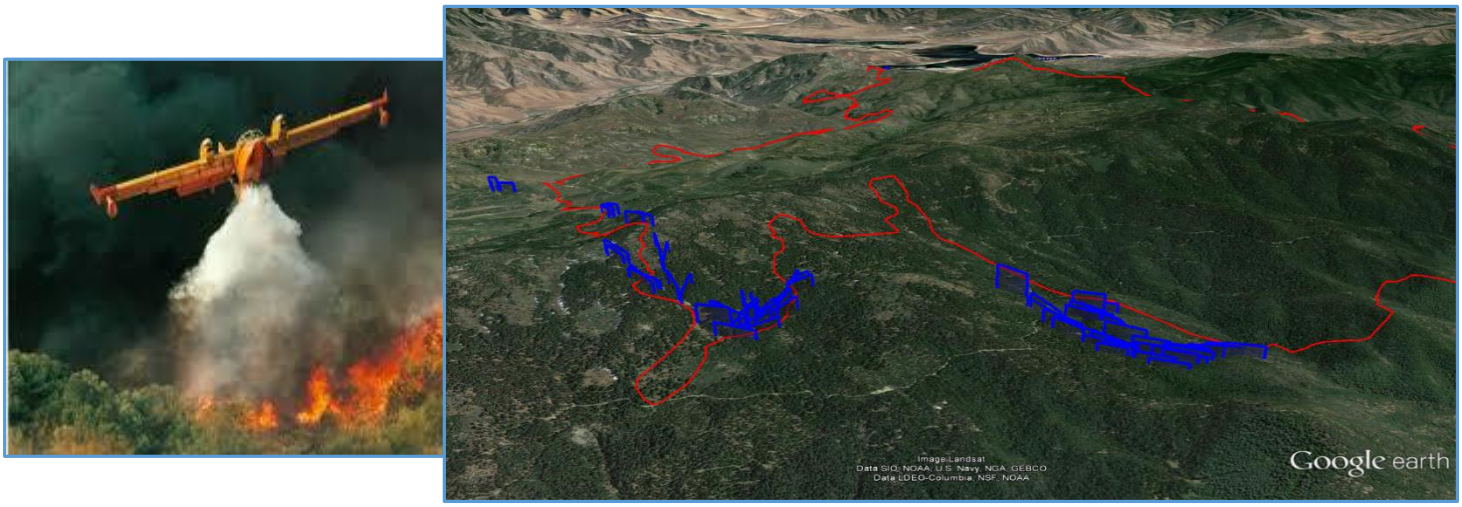
"I couldn't believe how fast the Scoopers dropped water and came back."
Firefighter

Help with Initial Attack and Mop-Up
Scoopers are also extremely effective in supporting ground resources conducting initial attack. On August 27, Cedar Fire operation personnel sent their two scoopers to support IA resources eight miles away on the Havilah Fire.

In addition to supporting fire personnel by cooling the line, they were also used to deliver water to crews, enabling them to mop-up areas that were located too far from water sources or were inaccessible.



Operational Map of the Cedar Fire. (Lake Isabella is located in the right lower corner.)



Map of water drops (indicated in blue) on the Cedar Fire on August 22.

"The Scoopers are a great tool for us to use. They allow other aircraft to be ordered and assigned to other fires."

Deputy Incident Commander

"They are an effective and efficient Initial Attack resource."

Division Group Supervisor

LESSONS

- ✓ With an adequate water source (lake, river, ocean) Scoopers are effective, efficient, and provide a fast turnaround time.
- ✓ Scoopers can deliver water (with foam too) by salvo, trail drop, or split into separate drops.
- ✓ Scoopers can deliver more gallons of water and faster than rotor aircraft.
- ✓ Scoopers are best suited for initial attack fires. They are most commonly used for direct attack on the fire's edge with drops made half-in/half-out.

This RLS was submitted by:

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