Report: Little data to support aerial firefighting

GAO sees little data for air firefighting efficacy

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Ashley Smith | Times-News

An air tanker drops fire retardant on a hillside while battling the Elk Complex Fire on Aug. 11 near Pine, Idaho. The fire has since grown to more than 131,000 acres. A new report by the U.S. Government Accountability Office questions the effectiveness of air attack in fighting wildfires.
Studies done over the past two decades have yet to provide data on the effectiveness of various private aircraft contracted by the U.S. Forest Service and U.S. Department of the Interior to fight wildfires in the U.S., a new federal report shows.

The report by the U.S. Government Accountability Office also outlined ongoing challenges to modernizing the nation’s aging and dwindling fleet of large air tankers and said the Forest Service sometimes falls short in collaborating with other agencies and private companies on aerial firefighting strategy.

The GAO recommended the agencies collect better data and improve collaboration.

Forest Service officials generally agreed with the report and have started collecting more information to help improve strategy.

“It’s not tomorrow that we’re going to have all of this worked out,” Tom Harbour, the agency’s director of fire and aviation management, said Wednesday. “We understand the complexity, but we’re working on it.”

The Interior Department said in its formal response to the GAO report requested by five U.S. senators that it agreed with the findings and recommendations. Interior contracts for fewer and smaller aircraft and plays a smaller role in aerial firefighting than the Forest Service.

Both agencies arrange contracts to have dozens of private aircraft fight wildfires such as the huge fire burning just outside Yosemite National Park in California.

They include 120 helicopters of various sizes, 16 large air tankers and one very large air tanker contracted by the Forest Service. Interior’s firefighting aircraft include 25 small helicopters.

The biggest role of the planes and choppers is to bomb water or fire-retardant slurry on and near wildfires. The aircraft also carry firefighters, equipment and provisions.

Anticipating where fires are likely to break out, pre-positioning aircraft to respond, and allocating a good mix of different aircraft against several simultaneous fires is a complex challenge every year for the Forest Service.

Since 1995, nine studies and strategy documents by the Forest Service, U.S. Department of Interior and others have analyzed aerial firefighting in the U.S. None of those reports, however, has scientifically analyzed how well the aircraft perform and how effective they are in the field against out-of-control wildfires, according to the latest report.

During interviews with Forest Service officials, the GAO found “a firefighting culture that values experience and history over data and scientific analysis.”

The report also cited unwillingness to add to flight crews’ workloads — and potentially compromise safety — by asking them to collect data on top of other tasks. Not enough time to compile data is another potential problem, Forest Service officials told the GAO.

Harbour said the Forest Service hasn’t been stumbling in the dark with aerial firefighting.

“I’d argue that in the decades of experience that we have with air tankers, it’s not that we had no system, but that we had a system that was based on feedback from individual firefighters,” he said.

A new Forest Service program known as the Aerial Firefighting Use and Effectiveness study has been gathering data on the types of aircraft used on wildfires and when the aircraft are deployed — during initial attack or perhaps after the fire has grown large.
Other data being gathered include how many gallons of water or fire retardant are dropped, from what height, and over how much area on the ground. The program began last year and is continuing.

The goal is a “better, unbiased metric,” Harbour said. “Nobody in the world has done this.”

The GAO report sought by Sens. Ron Wyden, D-Ore., Lisa Murkowski, R-Alaska, Dianne Feinstein, D-Calif., Jon Tester, D-Mont., and Mark Udall, D-Colo., was released as the Forest Service seeks to expand its fleet of large air tankers by at least seven new aircraft.

Only one of the seven next generation tankers that meet upgraded top speed and payload requirements has been fighting fires amid contract disputes going back more than a year, the GAO pointed out.

Meanwhile, the Forest Service continues to rely heavily on older, large air tankers such as P-2V Neptunes that are more than 50 years old.

The Forest Service eventually plans to move to a fleet of large air tankers largely owned by the government and operated by private contractors. The agency is looking at acquiring specially modified C-130 J Hercules and Alenia C-27J Spartan cargo planes to fill that role.