

Wildfire retardant flights under review

The Seattle Times

SEATTLE — Hundreds of thousands of gallons of chemical fire retardant were dumped from planes all over wildlands in Washington last fire season, more than almost anywhere in the West. And this summer's even bigger fire season could see just as much of the crimson chemical slurry dumped on the landscape, if not more.

Retardant can save human lives, property and wildland habitat.

"It is a very important tool in the toolbox, for sure," said Beth Lund, an incident commander with the U.S. Forest Service and veteran of 40 fire seasons, including the 110,000-acre Canyon Creek wildfire near John Day, Oregon, this past summer. But fire retardant, she cautioned, is not a silver bullet.

"You always have to follow up with boots on the ground," Lund said. "It doesn't put the fire out. If you don't follow it up, and just drop retardant, that is when it is not effective." Aerial retardants are wasted in fires too big to quickly get crews into, or on terrain too rugged, or in winds too high and hot for the chemicals to even hit the ground, Lund said. "You get a fine mist."

It also is a mistake to rely on aircraft, she cautioned, which can be fickle. "If the winds are too swift they can't really fly, it's not effective and it's dangerous."

Michael Medler, an associate professor in the department of environmental science at Western Washington University, says the environmental damage and the inappropriate use and overuse of aerial retardants concern him.

Medler recently testified before the U.S. Senate that the better approach to fighting fire is to create defensible space around towns adjacent to wildlands, rather than attacking every fire with every tool firefighters can throw at it — including copious use of aerial fire retardants.

"I am not anti-tanker," said Medler, a former firefighter. Fire retardant can be "magic," he said. But it has to be used strategically and carefully, he said.

"Sometimes it's a great tactic. Sometimes, you are just painting stuff red."

An analysis of the use of aerial retardant, led by David Calkin, a research forester in the Rocky Mountain Research Station of the U.S. Forest Service in Missoula, Montana, found the agency lacks the data to assess the cost-effectiveness of aerial firefighting tactics, which accounted for \$1.6 billion, or more than a quarter of the total \$6.1 billion cost of firefighting for the Forest Service nationwide, from 2007 to 2011.

The team, which published its results in the International Journal of Wildland Fire last year, also found that despite agency guidance to use the airdrops of retardant primarily in initial attack, about half the time the retardants were used in larger fires. Further analysis showed that most of those fires escaped anyway.

Yet the escape rate was as low as only 2 to 5 percent when aerial retardant was not used. That indicates airdrops are possibly happening when the fire is already beyond the capacity to control.

"We are arriving at a time when our ability to stop it has crossed a threshold," Calkin said in an interview. "We are using them for the most challenging fires, and frequently the fires, despite our best efforts, escape."

The Forest Service is in the midst of a multiyear study to analyze the use and effectiveness of the retardants, Calkin said. "We need to use them where their use is most effective and reduce the uses when the conditions aren't right."

Aerial fire retardant is an alphabet soup of chemicals, comprised mostly of water, ammonium phosphate fertilizers, colorants, corrosion inhibitors, thickeners, stabilizers and bactericides.

Retardant is meant to be dropped on the edge of whatever firefighters are trying to protect, or in front of an advancing fire, to slow and calm it. The dramatic red color is used to help pilots see where they have already dropped the chemicals.

After years of legal battles, the Forest

Service in 2011 completed stiffer guidelines for use of the retardant, outlawing spraying the chemicals within 300 feet of water bodies, except when human lives or public safety were at risk and aerially delivered retardant could be reasonably expected to alleviate the threat.

As fires raged in North Central Washington this summer, some tributaries of the Twisp River — home to endangered and threatened chinook salmon — ran red with retardant. While the effect on those runs is not yet known, fire retardant can kill fish.

"It has been shown to be lethally toxic to chinook in our studies at concentrations less than what the manufacturer recommends," said Joseph Dietrich of the National Oceanic and Atmospheric Administration Fisheries' Newport, Oregon, office.

In lab tests, some chinook died within 96 hours of exposure. Others died later, when their ability to transition from fresh water to salt in their migration to the sea was damaged by exposure to the retardant. In each case, ammonia was the problem, damaging the animals' gills and disabling their ability to absorb oxygen.

"How do we translate what we see in the lab to what we see in real life, that is the big unknown," noted Shirley Zylstra, program leader for wildland fire chemicals for the Forest Service in Missoula. Toxicity would depend on the actual field conditions, the life stage of the fish, and dilution from stream flow, she said.

Over the past four years, the Forest Service has dumped an average of 9 million gallons (approximately 5,111 aerial drops) of fire retardant on National Forest System lands, according to Jennifer Jones, agency spokeswoman.

Of those, less than one-half of 1 percent — or 25 per year — occurred within or partially within a waterway. Many of those consisted of a light mist or drift of retardant as aircraft completed their drops, Jones said.

Briefly

WENATCHEE

Man, 76, accidentally shot himself in Walmart parking lot

A 76-year-old Stanwood man accidentally shot himself in the hand in the Walmart parking lot on Sunday afternoon.

Wenatchee Police spokesman Tim Lykken said the man and his wife had been camping in their motorhome in the store's parking lot and were preparing to leave.

He was unloading his 9mm semiautomatic pistol and storing it for travel when it discharged, striking him in a finger.

— Michelle McNiel, World staff

BREWSTER

Police investigating Brewster-area shooting

A 25-year-old man was shot several times in the abdomen and torso Sunday afternoon and was found in a ditch after he called 9-1-1.

Details of the shooting remain a mystery until the man is able to tell authorities what happened, said Steve Brown, Okanogan County Sheriff's chief criminal deputy. The man is expected to survive, Brown said.

Deputies had hoped to question the man Monday at Central Washington Hospital.

Brown said the man called dispatchers at 2:47 p.m. to report he had been shot, but he didn't know where he was. He told dispatchers he didn't think he was going to survive.

Deputies used data from the cell phone's location to determine his general vicinity and — with help from the Washington State Patrol, Brewster Police and Douglas County Sheriff's Office — they found him in a ditch on the side of Jack Wells Road outside of Brewster, he said.

He was found about 15 or 20 feet off the road over a bank.

He said deputies searched the area where they found him and all along Jack Wells Road but found no signs of a struggle, and no shell casings.

— K.C. Mehaffey, World staff

CHELAN

Fire damages Chelan Hatchery

Last month's Reach Fire near Chelan destroyed one building and damaged a water line at the Chelan Hatchery, but officials say no fish or major facilities were lost.

A storage facility was destroyed, and a water pipe used to bring fresh water to the hatchery was damaged by the fire, Hatchery Supervisor Cory Morrison said.

"If it were to totally break, that would be a pretty bad situation. We would lose at least half of our water," Morrison said.

That water is used to raise fish that are released all over the state, including kokanee, steelhead, sturgeon and numerous kinds of trout.

Morrison said he was protecting his own home when the fire surrounded the hatchery. He said he did notify hatchery workers that the hatchery was at a Level 3 — get out now — stage, but two employees who stay in the state Department of Fish and Wildlife homes on the property opted to stay and help firefighters by keeping the buildings watered down.

"It was close — it burned almost all the way around them — but the guys there just kept dumping water on the buildings," said Jeff Korth, regional fish manager for the state Department of Fish and Wildlife.

No estimates of damages were available.

— K.C. Mehaffey, World staff

KENNEWICK

Latino group seeks state law changes after police shooting

A statewide Latino group plans to seek changes in the state Legislature next year after three Pasco police officers were not charged in a February shooting.

The Latino Civic Alliance wants to take the decision on prosecuting police shootings away from local prosecutors and put it in the hands of a statewide agency, such as the Attorney General's Office or state patrol, said Nina Martinez, the group's chairwoman, at a community meeting Saturday in Pasco.

Attendees at the meeting questioned the investigation into the February shooting death of Antonio Zambrano-Montes, 35, because it was conducted by a group of area law enforcement officials. They also said Franklin County Prosecutor Shawn Sant's decision could have been politically motivated.

"The community will feel more comfortable that justice has been served (with a state decision)," Martinez said.

The civic alliance, which seeks to increase awareness of the Latino community in the state government, also wants comprehensive legislation requiring uniform training and standards for when officers use deadly force. But Martinez said changes won't be easy.

"We need to work with police," she said. "We need to sit down with the unions. We need to collaborate and find common ground."

The federal government appeared more willing to get involved in the investigations of police shootings in Ferguson, Missouri, and Baltimore after violence erupted there, than it did in Pasco, where protests remained peaceful, said Richard Reuther, chairman of the Franklin County Democrats.



Video: Join World reporters Christine Pratt and Mike Irwin for a drive on the newly realigned Grant Road at Wenatcheeworld.com.

Road

From Page A1

flights out of Pangborn. It flies three times daily to and from Seattle-Tacoma International Airport.

Motorists accustomed to the old, arrow-straight Grant Road might find the new alignment a bit disconcerting at first. The

new jog to the north directs traffic toward the Waterville Plateau, away from Pangborn, before circling back and rejoining the route's original footprint near the terminal's main entrance.

Until about mid-October, that main entrance remains blocked by continued road construction, but motorists can head past the construction and enter the

airport parking lot though its "back door" or east entrance.

Boardings on Alaska flights at Pangborn have been up 7 to 20 percent nearly every month over last year, airport records show. Only January's boardings were slightly lower.

The airline added an extra flight in August to see if the local market could support it longer term. Boardings that month increased only about 11

percent, according to Alaska officials, who were expecting more.

"It didn't perform very well," Bobbie Egan, spokeswoman for Alaska, said Friday. "Part of that was because there were terrible wildfires in the region. We're still evaluating it."

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Alcoa

From Page A1

customers, for our shareholders, for our employees, and at this point this is the option we see that creates the biggest value," Chief Executive Klaus Kleinfeld told Reuters.

Kleinfeld will become CEO of the new company, and remain Alcoa chairman during a transition period.

"We believe both entities have gotten into a shape that they are competitive and sizeable and they can stand on their own," Kleinfeld said.

Alcoa had already been in the process of a transition, including acquisitions to beef up its business for such sectors as aerospace and autos, said Josh Sullivan, an analyst with Sterne Agee CRT.

"The commodity business was a significant drag, not only on valuation but on the resources of the company," Sullivan said.

Alcoa did not provide details on the cost of carrying out the split, which it said should be tax free for shareholders. It is targeting an investment grade credit rating for its "value-added" business and

"strong non-investment grade" rating for its legacy business.

The company also said that as of Dec. 31, 2014, its pension was underfunded by about \$3.3 billion. Executives said Alcoa will allocate debt and pension liabilities "in a manner that is prudent for the two businesses to have the balance sheet" the company is targeting.

A 25 percent drop since last September has pushed aluminum prices to six-year lows. An unprecedented plunge this year in premiums — surcharges paid for physical delivery — to their lowest in 3-1/2 years have posed the biggest threat to producers' margins since the 2008 financial crisis.

As a result, more than 10 percent of smelting capacity outside of China, or 3.5 million tons of production, is running in the red. Alcoa Inc has closed or curtailed 170,000 tons of annual output this year, part of a review of 500,000 tons of smelting capacity announced in March.

Aluminum output in China, the world's biggest producer, climbed 12 percent during the first seven months of the year.

At the same time, the company has bet on growth from higher-margin titanium and high-strength aluminum sales to the aerospace industry, as its order book swells for airplane production and amid

renewed global spending on automobiles. About 40 percent of revenue for the new value-added business was generated by the aerospace sector.

Recent purchases include aerospace and defense industry-focused titanium supplier, RTI International Metals Inc, for \$1.3 billion and privately-held TITLAL, which makes titanium and aluminum structural castings for aircraft engines and airframes.

The company has also been working to improve in-house technology. Last December, Alcoa unveiled a process it calls Micromill to produce high-strength aluminum alloy, targeting automakers who are seeking an alternative to heavier steel.

In mid-September Alcoa announced a deal with Ford to provide components for the 2016 model F-150 pickup, the best-selling U.S. vehicle since 1982, using Micromill.

"They have been acquiring more businesses away from what they founded the company on," said Phil Gibbs, an analyst at KeyBanc Capital Markets.

The company did not provide a timeline for choosing a CEO for Alcoa after the split. The division of the company does not need shareholder approval, sources familiar with the matter said.

Drone

From Page A1

and "pathway advising," or the counseling of students on the benefits and requirements for enrollment in the drone curriculum.

Leas said students in several of the college's programs will likely be interested in the new drone classes, including those in computer science, commercial piloting, aviation maintenance, along with science, technology, engineering and agricultural offerings.

The federal grant will provide around \$520,000 a year for five years, according to Leas. The first year of the grant is dedicated to hiring staff, developing curriculum, renovating 5,560-square feet of an existing college hangar

for lab space, developing an advising system and training advisors.

The equipment list includes fixed wing and helicopter drones, as well as mapping software. Flight simulation software will also be purchased so students can practice the essentials of flight in a controlled environment.

The \$2.6 million federal grant was received from Hispanic Serving Institutions (HSI), which provides funds to help local Hispanic students complete college degrees. BBCC has been designated as an HSI school because of the demographics and income levels of the surrounding population. All students in BBCC's service district benefit from the HSI funding.

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