

AIR ATTACK

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RAPID INITIAL ATTACK THE WAVE OF THE FUTURE?

STORY BY MICHAEL ARCHER

PHOTOS COURTESY DAUNTLESS AVIATION





Despite a relatively quiet wildfire season in 2019, increasingly ferocious wildfires are bound to occur again as in years past. Although initial attack on wildfires has been proven to work time and again, helping U.S. Forest Service, the Bureau of Land Management, and state agencies limit the percentage of wildfires that burn out of control, is something more needed? Could there be an approach that would do more to snuff wildland blazes faster, limit them to fewer acres, and better cope with the problem of overgrown forests that lead to explosive blazes? One man thinks there is.

AN IDEA FORMS

“As a relatively new executive in an industry that’s been around for a while, I was struck by the growing size and severity of wildfires,” reflected Brett L’Esperance, CEO of Dauntless Air, a Minnesota-based operation with a fleet of twelve Fire Bosses and one wheeled Single-Engine Air-Tanker (SEAT). “These fires are becoming a new normal that’s concerning me and some of the most veteran people in the industry.”

“For example, I had a conversation with a friend who has been fighting fires for over three decades,” said Brett. “He’s a recently retired Chief of a southern California county. Last fall, he came back to help on the Mendocino Complex Fire with another retiree. They were lamenting over the fact that wildland firefighting isn’t ‘fun’ anymore. The fires they help fight today are a different animal from the ones they used to fight; they’re bigger, more destructive, and there’s almost always

a firefighter who dies. The chief said to me, “The fires we fought in the 90’s, we felt like we could win, but every fire I’ve been put on in California in the last 6 to 7 years you don’t feel like you’re winning, you’re just trying to make sure that nobody gets hurt.”

Brett continued: “Because I didn’t grow up in the industry, it was easy for me to ask a simple question in the face of these worsening threats: ‘Why don’t we just respond more quickly to fire starts?’ Isn’t it easier to rapidly respond to a small fire and suppress it quickly than it is to mobilize the resources needed to deal with a fire that’s grown to 500 to 1,000 acres?”

This country already has the resources for rapid response. “There are already hundreds of small, forward-attack aircraft around the U.S. Fire Bosses, wheeled SEATs and type 3 helicopters,” said Brett. “It has become obvious to me that distributing these less costly assets across the map, concentrated in the most fire prone





areas, and getting on fires quickly has numerous benefits.”

At industry conferences, Brett presents and discusses these benefits of Rapid Initial Attack. “Fortunately, our experience supporting the Washington Department of Natural Resources has proven that this approach is successful. In that state, where the attitude is ‘see smoke, send aircraft,’ our aircraft are probably on a fire, working a fire, within an hour of being asked to respond. Since the phrase ‘Initial Attack’ generally means getting air assets over a fire within 2-6 hours after being called in to help, we’ve started calling this faster response time ‘Rapid Initial Attack.’ We believe that 2-3 hours in a region might as well be two days given today’s fire conditions! Allowing that much time to pass is an unacceptable option that almost guarantees the manufacturing of a larger campaign fire.”

Larger wildfires require more money to suppress, which takes funding away from critical forest health programs that

can help to reduce the occurrence of large fires in the first place. “When you spend a lot of your available budget on putting the fires out, you have less to spend on forest health efforts such as forest thinning and prescribed burns, which are the only efforts that will really slow the impending wildfire threat. We have between 60 and 80 million acres that need to be treated in the U.S., and we may be doing 2-3 million acres a year at best. This is resulting in larger fires threatening a lot of lives and structures. With funding well below the necessary levels to achieve suppression and better forest health, we need to seek more firefighting assets that get the job done in a reliable and more cost-effective way, so we can reduce the spend on suppression and increase the spend on forest management.”

Contrary to the so-called CNN drops, with massive Large Air-Tankers (LATs) and Very Large Air-Tankers (VLATs) hogging the limelight over a wildfire, the smaller fry are ideal for this job. “Fire Bosses, wheeled SEATs, Type 3





helicopters and some of the Type 2s are ideal for Rapid Initial Attack,” Brett added. “Better yet, a lot of these assets already exist and are ready to respond.”

WASHINGTON STATE LEADING THE WAY

One Washington State official has proven to be a driving force behind the concept of Rapid Initial Attack. “After a destructive 2015 wildfire year that saw the deaths of three firefighters, almost 600,000 acres burned, and many hundreds of millions spent on suppression, Washington state realized it needed a different approach. So the newly elected Commissioner of Public Lands, Hilary Franz, went around and talked to the fire chiefs, asking them how to best combat the growing wildfire threat. They told her ‘Get on a fire as fast as you can. The faster you knock it down, the cooler you keep it, and the more likely it isn’t going to get away from you,’” said Brett.

With this feedback from the frontlines, Washington approached the 2016 season with a goal: don’t let any wildfire get to be larger than 10 acres. To accomplish this, the state switched to a Rapid Initial Attack approach. Since then, over the last four seasons

the state has been able to achieve its 10-acre goal well over 90% of the time. This achievement is even more impressive considering the fact that fire starts have continued to increase over the last four seasons. However, because of the state’s efforts, the number of acres burned, and the dollars spent on suppression have come down substantially, freeing up funds to focus on forest management. The success of Rapid Initial Attack enabled Ms. Franz to go to the state Legislature last winter and get \$55 million more for forest health programs.

The benefits of Rapid Initial Attack don’t stop there, said Brett. “This approach is also helping to make the jobs of wildland firefighter less taxing, dangerous and stressful, leading to a safer and more stable workforce.”

Another benefit is steady employment. “We can keep more wildland firefighters employed year-round if we put fires out more quickly. By saving money on suppression, fire agencies have the funds to hire more fulltime firefighters to manage and execute forest health initiatives in the off season. A safer and more stable workforce leads to less turnover and less dollars spent on recruiting and training every year.” It also means that they wouldn’t be away from home as much as they are on campaign fires and instead,





collecting a steady year-round income – definitely a plus for families whose breadwinner is a wildland firefighter.

Adding safety and stability to the jobs of wildland firefighters is growing in importance because it's not just injuries and deaths on the fire line that are increasing. "There's a growing occurrence of Post-Traumatic Stress Disorder among wildland firefighters due to lengthy campaign fires, and suicide is becoming a bigger and bigger deal," Brett concluded sadly. "We need a new and more effective approach that will bring some relief to these men and women who already risk so much for us."

Brett sees Rapid Initial Attack as a ray of hope amid a dismal picture of rampant wildfires blazing across the West. "If Washington state can do it, other states can do it as well," he said. "The key to Washington's success, which can be replicated in other places, is pre-positioning Fire Bosses across the state in the most fire-prone areas during the season. Fire Bosses can operate from any FBO and are not tethered to retardant bases like

LATs and VLATs. When fire managers see smoke, they deploy two loaded Fire Bosses and one of state-owned helicopter to attack the fire early and keep it small until the ground troops arrive to finish off the work. With the relatively low daily and hourly cost to operate Fire Bosses, Washington has shown that spending the money up front on Exclusive Use contracts pays off and is much less costly than the old alternative way of approaching fires. Washington is seeing that they can have improved suppression outcomes, with increased fire starts, for a lot less than they used to spend. Fire Bosses end up costing between \$0.50 and \$1 per gallon to drop water in the state."

A TESTAMENT TO THE EFFECTIVENESS OF RAPID INITIAL ATTACK

The Dauntless Air Chief Pilot, who does a lot of flying up in Alaska, told Brett a unique story that helps further illustrate the effectiveness of Rapid Initial Attack.



“In the summer of 2017, National Geographic magazine sent a reporting and film crew to Fairbanks, Alaska to do a story on the smokejumpers up there. Over the course of one month, the photographers planned to jump in with the smokejumpers on a couple of fires. They were hoping to get some great pictures of the smokejumpers fighting California-size wildfire flames. However, the film crew had to spend an extra month in Fairbanks in 2017 and come back again in the summer of 2018 to finally get enough photos for the story. That’s because every time a wildfire would start, the Fire Bosses would arrive at the scene first, knocking down the flames and cooling the fire environment for the smokejumpers who would arrive and, rather quickly, put out a small, contained blaze. This left the National Geographic crew without the photos they had hoped for. At one point someone from the magazine was so frustrated over the lack of big-flame photographs that he yelled at one of our pilots because our Fire Bosses were so efficient at helping to keep the fires under control!”

“This story does so well to illustrate the benefits of this approach,” said Brett. “Combining Rapid Initial Attack aircraft with smokejumpers is probably the most cost-effective fire suppression combination in existence.”

THE VIRTUE OF PUBLIC-PRIVATE PARTNERSHIPS

In addition to a different concept of fighting wildfires, Brett also discussed a better way to fund Rapid Initial Attack. “When more Camp Fires happen, where more homes are destroyed, people are killed and hundreds more are injured, people are going to say, ‘there’s got to be a better way.’”

At a meeting in California, after the Camp Fire, Brett had an interesting conversation about changing the designation of severe wildfire incidents. “It comes back to a question that was raised by a woman whose own home was destroyed by the Camp Fire: ‘Why aren’t wildfires treated like national security threats? If terrorists had shown up in Paradise and killed 100 people



and burned 20,000 structures, wouldn't we have a different response?' It was a good question. I asked her, 'How many LATs and VLATs do you think the U.S. Forest Service and CAL FIRE have at their disposal?' She answered, 'It must be like the military, probably hundreds?' When I told her that there were roughly 30 LATs, VLATs and Super Scoopers combined, she became visibly irritated. When I added that the Forest Service currently only has 13 Exclusive Use contracts for those aircraft and doesn't have any Exclusive Use or Call When Needed Fire Bosses or wheeled SEATs, she became angry."

"She asked, 'What's it going to cost the insurance industry to rebuild this house? And when we start doing rolling blackouts and brownouts in California, when power companies start shutting off power to prevent wildfires and people's food starts to spoil, what's that going to cost us?'"

"She's exactly right," reflected Brett. "The suppression cost to put out a large wildfire is one thing, add on top the total social and cardio-vascular health costs and the situation is even more out of control."

What about an alternative to federal funding? "Part of my belief is that this Rapid Initial Attack mindset is going to need a public-private partnership to come to fruition. All of our fire agencies have the right intentions, they just don't have the budget to make it work. There are private individuals and companies who want to be part of the solution. This willingness to help fund the effort privately needs to be met by fire agencies that are willing to receive the help."

"Let's look more closely at the numbers," continued Brett. "CAL FIRE has around 22 S2Ts and 18 helicopters to cover the entire 156,000 square miles of the state. That means for every 4,000 square miles - which is the approximate size of Connecticut - there's one aircraft, including the helicopters which are slower than the S2Ts. Going a step further, on a national basis, we have 28 LATs and VLATs that are spread around the country in the summer, greatly impacting response time because the aircraft often travel a far distance to reach a large fire. Add to this the fact that only 13 Exclusive Use contracts have been



funded at the federal level and a few things become obvious: First, we have significantly fewer air-tankers than we need and second, we have a funding infrastructure that doesn't want to support more LATs, VLATs and Type 1 helicopters."

As Brett sees it, a solution to this is private funding sources. "Forest Resilience Bonds, private individuals and companies can supplement state and county budgets and enable regions to fund the pre-positioning of less costly, rapid attack aircraft such as Fire Bosses, wheeled SEATs and Type 2 and 3 helicopters. With willing private support in states like California, Oregon and others, we could create a formidable, widespread and cost-effective, 'networked' response to the wildfire challenge."

FINAL THOUGHTS

We close with a story from India that

epitomizes the concept of Rapid Initial Attack in a unique way. A village in the country was being overrun by Burmese pythons, which can get up to over 18' in length. The chief called together the elders to go over ways to deal with these massive reptiles.

As they were discussing snake pit traps, hunting parties and other methods, the chief's young daughter, playing in the corner of the room, started to giggle, which upset her father. He demanded to know what she was laughing about, and she answered, "It's so simple, just kill them when they're in the eggs!"

Just as the simple logic of a child applied to an onset of invasive snakes, the same logic can be applied to wildfires. Remove the threat when it's small, before it becomes a monster that can kill and destroy. Rapid Initial Attack with the right assets could be the solution that fire managers have been searching for to bring massive wildfires to heel at last. **AA**