

## A Pilot's Perspective, #3

By Fred Benton

### “FLYING FIRE”, part 2

Sunday, July 8. Yreka-Montague airport has morphed into a major helibase. Siskiyou's skies are gray with wildfire smoke from the Klamathon fire. Once again aerial firefighters are doing their best, with limited resources, to protect lives, property and support their fire service counterparts on the ground. Similar action is happening throughout the drought-impacted western states. I'd like to add a little general information which I didn't have space for in the first FF column. Understanding what these air attack folks do and how they do it may translate sometime into a vote, or a call to a legislator in support of increased funding for the dwindling national fleet of airtankers. In no way is that fleet keeping pace with the “new normal” of extreme wildfire behavior...

Do retardant or water drops “put out fires”? Sometimes—if the blaze is very small and in grass or very light brush. Even then, ground personnel must check and mop-up any hot spots. The fact is, the vast majority of air drops are made in close coordination with the incident commander's plan of attack. They are a superb and specialized tool in the IC's bag of tricks. For example, they can construct a retardant fire-line; slow the spread in critical areas; protect structures from advancing flames; knock down dangerous flare-ups and spot-fires; quickly build a safety-island for threatened crews, engines or dozers to escape into; make (high) drops directly onto a ground unit in imminent danger of being burned-over. Aircraft are a wonderful asset—but we shouldn't forget that almost every wildfire will ultimately be “put out” by the hard, sweaty work of firefighters on the ground using shovels, McCleod tools, axes, pulaskis, saws, back-pumps, dozers and hose-lays.

What *is* fire retardant? No, it isn't borate. In the early days of airtanker operations, the term “borate bomber” was accurate—those WWII vintage TBMs and B-17s hauled loads of borate or Bentonite. Although effective retardants, these compounds also killed vegetation, sterilized soil and were toxic to many critters. For decades now, Phos-Chek and Fire-Trol (trademark descriptors) have been the primary air-delivered long term retardants—used worldwide. They are fertilizer-like compounds, gum or clay-thickened, with added red colorant for visibility

from the air. They are supplied in powder-form, in large bags, to air bases--then mixed with water to form a slurry and pumped from storage tanks into airtankers or helitankers. These retardants chemically alter vegetation, making it resistant to flames. And there are a couple of bonuses: the red coloring fades within a few weeks, and the area covered by the drop will green-up faster than surrounding areas because it has been fertilized!

Water drops, usually made by helicopters with fixed-tanks, snorkels or sling-loaded buckets, are a great way to cool-down and partially extinguish smaller targets in close support of ground crews. With a nearby water supply (like Iron Gate reservoir or the Klamath river) quick turnarounds are possible and the copters can really save the day in many situations--especially on steep or remote sections of line.

Now, a word about MAFFS--modular airborne firefighting system. There are presently 8 air national guard C-130 Hercules aircraft with fully fire-trained crews available in the US to augment the contract-airtanker fleet. By agreement between USFS and the Department of Defense, some or all of these aircraft can be used on major wildfires when the private fleet is maxed-out. A 3000-gallon capacity tank can be quickly installed in the aircraft's cargo bay. The retardant-release is driven by high pressure air and channeled through exterior nozzles. (full disclosure: my son Doug is a qualified MAFFS C-130 loadmaster, based in Cheyenne, Wyoming, and has logged quite a few missions in California.)

Let's get down to some nitty-gritty. We general aviation pilots can do several things to help the air attack efforts. Here are some essentials:

If you spot a small fire with no ground units at scene, report it to ATC—and then LEAVE! If there *are* ground units—LEAVE! Stay alert for approaching fire aircraft.

When flight planning, always check FAA TFRs (temporary flight restrictions) so you can avoid fire areas.

When reasonable and safe to do so, via communication with a tower or with tankers on CTAF, allow fire aircraft to make expedited take-offs and landings.

NEVER go sightseeing over an active wildfire.

Where are the closest airtankers to Siskiyou county? On a normal day in summer, the closest available USFS contract heavy airtankers are based in Medford, Klamath Falls and Redding. CalFire bases two 1200 gallon S2Ts at Redding and one at Rohnerville, near Eureka. In my opinion, there is clear justification to base an airtanker at Siskiyou county airport.

My greatest hope, as I finish this piece today, is that every aircraft and every flight crew member now helping us here in Siskiyou county will return safely to their home bases at the end (if there is an end) of Fire Season 2018. God Bless them all.

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