A Pilot's Perspective, #2

"FLYING FIRE"

By Fred Benton

Recently, the distant rumble of a Huey helicopter approaching Lake Shastina to fill its water bucket reminded me that another fire season has arrived. It also reminded me of my good fortune in having spent the back half of a 34-year CalFire career closely involved with a truly dedicated group of air-program colleagues and aviators. Aerial fire fighting has progressed steadily—from the first time I got drenched on the fireline by slurry from a single-engine N3N biplane—until today, when a converted DC-10 jet can haul up to 10,000 gallons of retardant per trip. Today's air tankers, helicopters, smoke jumper aircraft, lead planes and air attack (pilot plus air attack supervisor) planes are generally bigger, better and faster than their predecessors. Agency-authorized drones and drone pilots are rapidly proving their worth as recon/video assets.

One thing that remains unchanged: risk. Newer, more reliable aircraft, constant safety awareness and training, better radios and navigation equipment—all these improvements help; but here's the thing: especially for the low-and-slow helo and tanker pilots, this is difficult, dirty and dangerous flying. There is no getting around that truth. The late Monroe E. "Buzz" Blaylock, a good friend and Grass Valley S2 tanker pilot (also a retired Air Force colonel) told me: "Flying fire is as close as you can get to combat flying without people shooting at you." He said it with a chuckle. Like every one of his cohorts, "flying fire" was in his blood and he loved it. Buzz was instrumental in helping acquire CalFire's fleet of Grumman S2 Tracker airplanes from the Defense Department. I'm sure he'd be proud to know California's 23 upgraded turbine-engine S2T's are the largest state-owned tanker fleet in the US.

What happens when a wildfire report comes in and aircraft are needed? First of all, realize that the entire state has been plotted and divided into "response areas". The air bases, helibases and emergency command centers (ECCs) have these files ready at their fingertips. Each one contains the magnetic bearing and distance from several of the closest bases, plus GPS and other pertinent information. The ECC determines which aircraft are needed for initial attack and launches them, giving heading, distance, ground and air contacts, known hazards, etc. Additional air resources are dispatched as required, based on requests from air attack supervisor (AAS) or incident commander (IC). FAA is contacted immediately and asked to

issue a temporary flight restriction (TFR) covering the fire area. The specified TFR is off-limits to all aircraft except those assigned to the fire. TFR information is instantly available online to pilots for flight-planning purposes and is also relayed as necessary to in-flight aircraft by air traffic control centers.

When civilians on the ground watch an air attack, it may seem random and chaotic. It is anything but! These are tightly controlled and choreographed operations. Air organization over a wildfire usually looks like this: AAS at high level in a right-hand orbit (better downward visibility for AAS); air tankers at mid-level in left-hand orbits (better downward visibility for pilots); helicopters at or below 500 ft. above terrain. All tanker and helo runs are observed and directed by AAS. Example of radio traffic from AAS: "Tanker 74—watch 75's drop on the left flank. Follow up and extend his line. Copter 205 hold your position until both tankers are clear." After both tankers drop and depart: "Tanker 74, tanker 75—reload and return. Copter 205 cleared for water drop on the spot fire."

The radio workload for AAS is heavy. He or she must keep all aircraft safe and separated, keep the IC informed, watch for flare-ups, spotfires, structures threatened or ground crews in jeopardy. The AAS and pilot work as a team, watching for hazards, monitoring multiple radio channels, backing each other up.

Whether the fire is in USFS or CalFire jurisdiction, the two agencies work closely together. One difference is that USFS employs lead planes in addition to AAS. These aircraft, usually fast twin-engine types like the Beechcraft KingAir, are flown by Forest Service pilots. They lead the tankers into their drop runs and radio drop istructions as they pass over the target. CalFire uses the OV-10 Bronco (Vietnam-era forward air control aircraft) with a contract pilot and CalFire AAS. All of CalFire's UH-1F/UH-1H helicopters are flown by permanent civil-service pilots—most of them with prior military experience. Helitack fire fighters assigned to these ships are supervised by a Fire Captain, who is responsible for the complete helitack unit, including support vehicle.

More to come in a future column. Meanwhile, I hope some of you will take a moment to go online and visit airtanker.com, the official website of Associated Aerial Firefighters. Click on their Memorial Wall. You may be a bit humbled as you scroll down the list of names and aircraft. Later, when the summer sky darkens with smoke and you hear the rumble and roar of approaching aircraft, you can better appreciate the sacrifices made and the risks still being taken.

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