Forest Community Fire Issues
by Stephen Skinner   (9/25/06)
How can we be prepared for Wildfires ?

Quick response with forward looking tools (i.e.: satellite network),each fire response region has; fast / low stall speed (variable speed capable),initial response incident verifying aircraft with suppression capability, air tankers
with all condition flight capabilities; including large capacity, rugged maneuverable with austere field capability. This is supported from seasonally permanent sites. On call manpower / equipment. The most long term damaging to the environment should be called in with care (i.e.: mechanical firebreaks and large man-power encampments- these are from temporary field sites). **Reducing fuels** with regular low intensity prepared pre-scribed burns. Only with the proper control in place. **Demand the insurance industry encourage proportional rates** for fire-proof to fire-prone structures. Promote fire-proof ! County / Community support more independent water storage for private fire suppression. Having more timeliness from the fire suppression management (i.e.: better & more accountable to the general public, monies spent to be more efficient, possibly less people & equip., but what's used is more responsive. **Getting more from less.** Have a public debate at the national level on a "National Fire Plan". Then go around at a regional level to get a more specific breakdown based on the a "National Plan" & "Calif. Plan". Question / review if privatization has been the best method for the tax payers, including pay policy of "suppression stand-by-status". A public reviewable website, public library available & any local government site; on the monies spent & to be spent for that fire season. With a public forum in place on such site. Need accountability with representation. This is a America ?
Allowing fuels reduction thru public permits of under growth removal (i.e.: diseased trees and at some future time forest mulch industry) Develop a criteria,1st for what type equipment & cost to operate to make this activity profitable. Maybe hydrogen or solar electric powered chainsaws. These **new tools could come about thru an "X-Prize" method** to foster creation to application. Issues of noise and minimal to no impact on the forest are of prime concern. It's possible. A large demand for local available fuels(biomass residue) could be fostered if greater production numbers (resulting in lower initial costs) of **multi-fuel high efficiency boilers** (wood/petroleum) came to market. They exist in Europe but need the initial cost to be reduced thru contract buying (**coop type purchase**) or C.E.C. rebates. This would help toward forest community autonomy. If more of the firefighting was done by the military. especially the aerial aspect. Air National Guard and etc. Maintenance and flight. Dual uses of the military would be accomplished by fighting fires & maintaining flight skills. The equipment is there & the manpower. This is a war of another type. Not to forget that fire does need to be in the natural system, but with today's population impact, drought cycles, they need to be controlled. Not to become wild! Response time is everything. Without it monies are being wasted. For those who benefit the most on using the best tools for fighting fires (those who live in and forests & fire prone areas around) should pay more than those who don't use these areas. A surtax be applied for the insurance that the best is available. It would be reviewable a month before the fire season starts to say yes or no for that seasons coverage. If an area pays for this level of fire suppression security, they should have avail-able a reduction in fire insurance costs. Again the insurance industry needs to be more pro-active. Also taxes & fees taken for this endeavor should be accountable / reviewable to the public & easily accessible. A q**uantitative analytical system of aircraft effectiveness** needs to be developed, collected and evaluated. In other words we need a measurement relating response time / capacities needed to reduce property value losses, resources (natural & manmade) and lives lost per fire season. This should include evaluations in all conditions: night, smoke, dust. In less words, no visibility. A battle condition tool. Maybe you start with what it can do per hour. The criteria would be; take-off from any field within 100 miles of the fire & drop / reload potential per hour: take-off, out-flight, drop-transfer, inflight, reload & stage for out-flight. In other-words, **"full cycle support capacity"**. This speed needs to

relate with load capacity. Maybe the most important tool would be one that looks forward, a satellite surveillance system. Though there's one in use known as the "Wildland fire Assessment System", it's only measuring fire potential. Another system maps existing fires thru MODIAS (NASA "Terra" spectro-radiometer satellite). Again not the tool needed. It's light measuring, not heat seeking & can only give a reading every orbit (about 90 min. interval) .We need a real time system that sees the birth of a wildfire (measures anything above 500 sq. ft. and with over lapping intervals) & can gives G.P.S. coordinates with maybe site conditions of humidity and wind.

   With this system there needs to be an aircraft as mentioned in the beginning of this recommendation.