

Nov. 16, 2022

SUGGESTION: TO OREGON DEPARTMENT OF FORESTRY

PARTNER WITH DRAGONSLAYERS.COM, TO BUILD A:

"NATIONAL WILDFIRE HANDTOOL MANUFACTURING CENTER"

This factory to produce Premium wildfire tools that will be the new American Standard for all U.S. fire agencies, American Interface Dwellers and all foreign fire agencies and people who are troubled with enhanced wildfire problems from Climate Intensification. There are not any good, basic wildfire tools anywhere on earth. Dragonslayers tools are the versatile, ergonomic, safer, advancements, that the era of fire needs.

Half of all profits from sales goes into the Annual Oregon State Fire Suppression Coffers.

IN ADDITION: THE SAME FACILITY MENTIONED ABOVE CAN BE USED TO BE AN ACADEMY

"A UNIVERSAL WILDFIRE SURVIVAL MITIGATION CENTER"

This facility be a training center for establishing a Universal fire management scheme designed and engineered for all federal, state, local fire agencies to start a Universal Blueprint that all first responders can recognize and immediately use it to neutralize the power and might of a fire storm that cannot be suppressed before it rolls over the Critical Site.

Fire fighters can no longer do it alone. The time has come for all interface dwellers to become wildfire adapted for the survival of self, family and home. The biggest burden and responsibility will be on the land owner to set the Universal Blueprint up to let the fire fighters save their home. The home owner has to be able to save their own home if the fire fighters cannot get there.

The facility will have circular cauldrons for both fire fighters and home owners become qualified by actually being able to strategically, "BLACK-LINE", the entire, "Blueprint", around their home. All people attending the Mitigation training will have to successfully, BLACK-LINE, a training house set in light fuels around the paper house.

There will be one and only one mitigation procedure for all vegetation and fuel types.

THERE IS NO NEED TO LOSE ANY MORE HOMES OR TOWNS TO EXTREME FIRESTORMS.

The State Insurance Commissioner needs to require any insurance company selling fire insurance to people living in wild fuels must set up a, "Universal Blueprint", so wildfire will pass and do no harm in a wildfire adapted home.

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Randy Moore, (Forest Service Chief)

USDA , U.S. Forest Service

1400 Independence Ave S.W.

Washington D.C. 20090-6090

Dear Chief Moore,

My name is troop Emonds, a humble old smokejumper retiree. 25 years a jumper 526 jumps all over Alaska, Canada, the American West, even the Ozarks and Appalachian Mountain States. Also, was an FMO with the USFWS in Alaska. So worked 3 different federal fire agencies. Worked inside U.S. 30 years, & Australia, Spain and Asian fire for 10 years.

After retirement formed a research company. Developed a, "Wildfire Survival Mitigation Scheme", to save homes, and give fire fighters, (an option to revert to); for fire storms too strong to stop before they rolled over and destroyed critical sites. It is now possible to save homes and towns from being lost and destroyed. This is, beyond, "Defensible Space".

The other contribution was to develop safer, more versatile, and effective hand tools for all fuel type wildfires. The USDA gave, (dragonslayers.com) \$300,000 in SBIR Grants to crack tool mysteries, that two U.S.F.S. Equipment Development Centers, just could not solve.

I've been watching the Senate and House Committee and sub-committee hearings on our wildfire problems. I've written to all my Congressmen, Senators, even gone back there to D.C. and tried to plea to them, and prior USDA / DOI Leaders with suggestions, regarding what to do about the growing wildfire losses. Never a reply or response. Gate keepers???

In the recent hearings, Politicians asked agency leaders if they know what to do? Will money being thrown at the problem; fix the problem? Various land management Reps. said they know what to do, yet could not explain anything except broad generalities, thinning and pruning forest stands, and adding prescribed fire back to the land. Standard, say nothing talk.

The sad truth Congress, (House and Senate), concluded nobody could explain what to do or how to fix or invest Billions to address the growing losses from fast moving fire storms.

So, Congress put together, that Bipartisan, 47 member, "Wildland Fire Mitigation and Fire Management Commission", based on H.R. 3684. I could be wrong, but I doubt anything worthwhile will unfold. Very few of the 50 person Committee know anything about what can be done with wildfire storms. The deliverables are flat zero, and far behind. I fear It will be the same old thing. At the risk of again being ignored, I would like to get 5 pretty-clear suggestions to both you and the three co-chairs of the Mitigation and Fire Mgt. Committee.

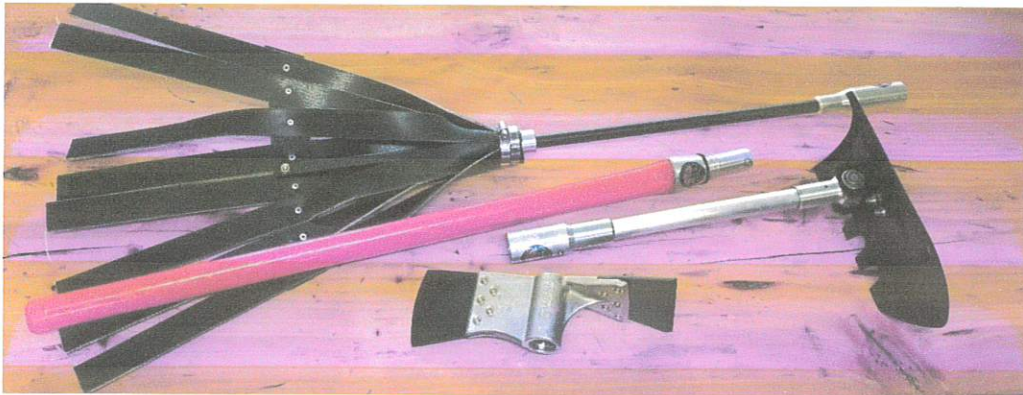
Please pass to Congress, and the 3 Co-Chairs of the Committee on, "Wildfire Mitigation and Fire Mgt.", to consider the following 5 suggestions for a helpful fix for Fire Storm threats:

SUGGESTION # 1.

ADVANCE WILDFIRE HAND TOOLS TO MAKE ALL FIRE FIGHTERS 3 TIMES SAFER & 3 TIMES MORE VERSATILE & EFFECTIVE AT ADDRESSING WILDFIRES IN ALL VEGETATION FUEL TYPES



DO AWAY WITH THESE TRADITIONAL, FIXED, AWKWARD, SINGLE FUNCTION TOOLS. They are dangerous to carry/use; can't be stowed in travel bags. Today's fire tools need to be always with fire fighters. They also must be versatile. Allow the user to comfortably do all the different, changing chores on any given fire. If you arm people with a single function fire tool, (shovel, Pulaski, or Mcleod), you are wasting valuable human resources. Tools should be, ergonomic, able to do different chores. Responding to what is needed, increases production.



DRAGONSLAYERS UNIVERSAL WILDFIRE TOOL KIT: EFFECTIVE, ON ALL VEGETATION FIRES

New Official Standard for all fire fighters. Engineered to last an entire career. User carries a universal handle, to snap- lock on a primary tool head & a 2nd tool head, (8 lbs.). Tools stow in fire pack; always with fire fighters. Dragon Swatter, for tough turf grass fires. It's flexible, plows through brush, kills flames in rocky areas & irregular ground. The Universal Handle 3" longer, 3 X stronger than a traditional tools. New Pulaski has a Grubhoe 3" wider. Blades are replaceable as they wear. Same weight as regular Pulaski, just balanced center of mass, feels lighter. Troop Tool, is an angled fire shovel, a far better Mcleod for line scraping, better fire rake for Eastern Hardwoods, first safety staff, and first stand erect mop-up device, ever.

Dragonslayers has sold 6,000 sets of these tools to elite crews like Smokejumpers, Hot Shots, Rapellers, Helitack crews, brush engine folks, and various ground District Crews, that have seen the Jumpers and Hot Shots armed with them. These are advancements. Experienced fire people who see the jumpers, and hot shots with them actually go and feel them, and that is how they spread. All fire fighters should be using them, simply because they are the "BEST" fire tools. They allow people to do more, truly be safer, upright, & comfortable.

Foreign nations are ordering them, because there just are not any good fire tools available anywhere else in the world. Dragonslayers went to all continents with fire problems; got on fires there, and got ideas from brother grunt fire fighters of the world. These new fire tools are a world-wide contribution from international fire fighters. Advance basic, bottom line technology. Those who do dangerous, tough, dirty jobs of grubbing, digging, throwing dirt, raking, swatting, scraping, tilling wildfires amid steep often bad ground, deserve them.

USDA with U.S. Forest Service Reviewers selected Dragonslayers to receive a Phase I SBIR Grant to develop a, "Forever Pulaski". It ended up having a 3" longer handle, that was 2-3 times stronger than a traditional Pulaski. It's grub-hoe blade was twice as wide as a Pulaski, but its balance was at the center of mass. This made the, "Forever Pulaski", safer. The weight was the same as, a Traditional Pulaski, but that balance made the user feel like it was lighter. The blades were replaceable, which made it last forever. We have crews now that have had 10 blade changes on the same special alloy core plugs, that hold the blades. Those core plugs look like they can hold up for at least another 10 more blade changes.

USDA was so pleased with the, "Forever Pulaski", they asked Dragonslayers, "If we gave you a Phase II Grant, of \$225,000, What could you do with that"? The answer was, "Consolidate and improve all 14 traditional fire tools; make them stowable with only two additional tool heads, but make each individual fire fighter able to triple their efficiency on all wildfires".

There are 18 different, precise parts made from various forgings, castings, stampings, and milling, turning CNC machined, and tempering of components to assemble these premium fire tools. In the long run; they save time and money on fires. Dragonslayers can produce only 500 sets of these tools a year. In order for, Dragonslayers, to become a profitable Company an expanded, larger factory needs to be built. This new facility needs to be stocked with modern CNC machines and high-tech tools to fabricate their own parts. The tools have proven themselves to be of high value in saving production time, making things safer and logistically simplifying our system to save millions of dollars each fire season. A small investment of 3 million dollars from the SBIR Grant Program for a Phase III Grant from various combined federal agencies to substantially improve Homeland Security, National Science Foundation, USDA, DOI, National Transportation, and Energy Departments, would improve our basic wildfire fighting capabilities. "National Wildfire Hand Tool Manufacturing Center".

Dragonslayers would release all specifications and trade secrets to keep low bid system working, so all manufactures could compete against Dragonslayers for large contracts.

SUGGESTION # 2.

PRESENT A UNIVERSAL WILDFIRE MITIGATION SCHEME FOR FIRE AGENCIES & CIVILIANS, A SIMPLE, UNIVERSAL UNDERSTANDING, & BLUEPRINT, THUS, EXPECT TO BE BURNED OVER



Presently there is no concept to set up all critical sites, so that they can be immediately converted into, "Safety Harbor Areas". Climate change causes a new need to stop loss.

We have arrived at the place, where there are too many houses/towns; out there, set in wild fuels. Red flag fire conditions are showing up more and more often, and too few fire trucks. Wildfires are often starting in close, and moving so fast, there just is no time to get fire fighters at the scene. It is too late to start dropping trees to the ground, and build fire line. Four engines to defend one structure. We need a different Universal procedure to stop loss.

The facts are; we are only good at the easy fires. Two things fire fighters cannot bring to fire storm threatened homesteads/towns, are: TIME & SPACE. A simple, standard, Universal Blueprint Scheme, allows more protection, and survival of all homes and towns.

The role of fire is to take out all things, that are not wildfire adapted, reduce it all to ashes to recycle nutrients for rebirth. New vegetation springs forth, so all fire adapted species get a mosaic of what they need for a balanced ecosystem. If humans want to survive and preserve their dwellings and holdings, they have to become wildfire adapted. Humans will have to earn their survival or go the way of Darwin's theory, survival of the fittest. Not adapt....gone.

Dragonslayers developed a learning and remember guide called the: "DRAGON WIZZ WHEEL".

This simple plastic tool shows both first responders, and homeowners how to set up, then use the Universal Blueprint, (depicted in the cloth patch above). This has either a home or town, set in managed wild fuels with 3 circular control lines, "DRAGON RINGS", around what is to be protected. First Ring encircles the foundation. 2nd meandering, DRAGON RING, is set in about a 100' feet out from that first one around the foundation. The 3ed DRAGON RING goes out another 100' and gets set in.

All the vegetation in between the three Dragon Rings is thinned. Selected leave trees have 25' between tree crowns, (not tree trunks). Aerial fuels are separated from ground fuels by pruning all ladder fuels up as high as you can reach, 8'- 10'.

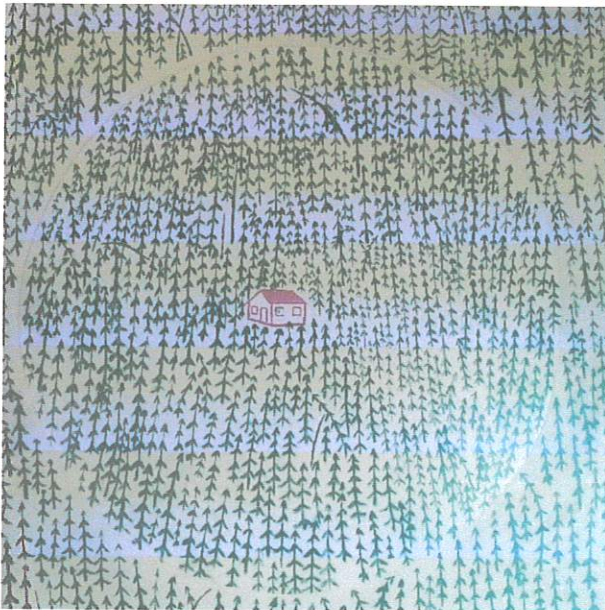
Roofs should be colored steel, tile, or some not combustible material. Dragon Rings around foundation should be 6' to 10' wide pavers, flag stone or crushed rock atop plastic sheeting to make pioneer weeds and grasses more difficult to gain a foothold. Windows should have metal screens to keep wind carried embers from being blown inside the structure.

The middle or second Dragon Ring should be at least 2' wide and permanent. Dug in 5" deep trench, covered with heavy plastic sheeting; then crushed rock dropped and filled to ground level. Outer Dragon Ring also 2' wide another 100' out from the middle Dragon Ring.

The idea is to convert a natural forest to a managed Savanna or park like set up, so there is plenty of space between your heavy fuel or the trees that are selected to stay. The ground cover inside the Dragon Rings is grass or light leaf litter.

The beauty of Dragon Rings is you are prepared to receive a fire storm from any 360 degree direction. The wind is always blowing in the right direction to burn off all the calories in the light fuels. Just learn the simple skills. Knowledge, and real use of fire, gets it all done safely. The elements of wind speed, direction, high drought codes are always your allies to assist you in your mission to turn the entire area around your home into a BLACK SPOT. Devoid of fuel.

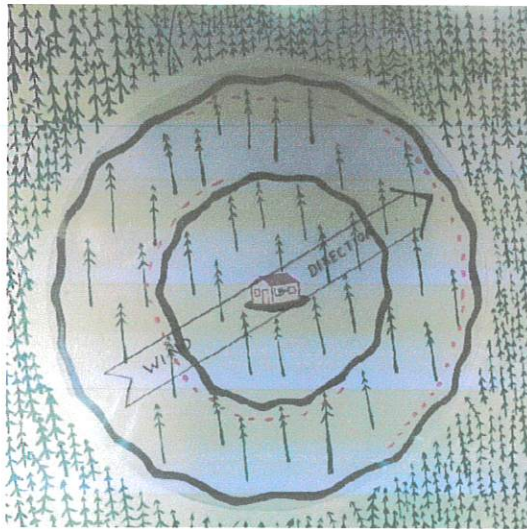
All fire fighters know that the best place to be is in, "THE BLACK", where the wildfire has already consumed all the deadly calories. If a fire may have turned on you; headed your way. This is what we engineered the, "Universal Blueprint", to be. Always have this option to revert to, when an extreme wildfire cannot be suppressed, and will burn over your home.



This is a cabin set in a sea of congested, inter-meshed, unmanaged natural forest fuels.



Here we see forest cabin positioned in a forest that has been thinned and pruned with 3 Dragon Rings set in strategically, so that fire fighters can use the prepared Blueprint to safely burn off all calories; to create a Black Safety Harbor Area around, what is to be protected. Land Owner who created the cauldron or fire place must be practiced, and confident to do the burn off of light fuels for times, when fire fighters cannot or will not come there to do it.



This is a Dragon Wizz Wheel. It is a picture of the Blueprint. It has a clear plastic disk with a Wind Arrow printed on it with two red semi-circles to represent the place where you will lay strips of fire from a propane torch or a drip torch. There is a rivet that attaches the wind arrow disk to the center of the house. So, the wind arrow spins. Here is how you use the tool. Stand in front of the little house. Lay the Wizz Wheel on the horizontal. Then orientate the wind arrow so, that it is in harmony with the wind, that is blowing on site. Here the wind is blowing from the lower left-hand corner of the training aid. The red dots show you where to ignite the grass, in front of the Dragon Ring. The tiny flames you just ignited will blow into the line and go out; making your line bigger. Lay another strip of fire against the black ground Quickly, about 15 minutes it all burns into an outer, "BLACK DONUT". The Smokejumpers,

Both BLM, and Forest Service Smokejumpers in Alaska called the procedure, the, "BLACK DONUT OF DEATH". During rainy periods the BLM Smokejumper Base Manager used to send me plane loads of jumpers to parachute into remote admin cabins in my 25 million acre fire jurisdiction to set in these Blueprints around the U.S. Fish and Wildlife Service facilities. Some 17 Government owned cabins were set up with these blueprints around them.

In times of huge fires heading toward our cabins we could drop a couple jumpers in on the already set up Blueprints. The jumpers then calmly, "Black-Line", the Dragon Rings, they turn the area inside the Dragon Rings into a, "Black Spot", we get the jumpers out by chopper or boat before they get smoked in.

The huge fire rolls through, goes around the, BLACK SPOT, cabin is spared. The taiga, a moss covered organic mattress; burns down to a gray ash area. The sun thaws the frozen soil beneath the ash and new vegetation springs forth giving all the animals what they need for food berries and hardwoods usually.

The eventual idea was to set up all remote villages like this. For towns and settlements; the two outer Dragon Rings must be about 4 feet wide with the space between the Rings being about 500 to 600 feet wide. In temperate areas the Dragon Rings around Towns should be asphalted. Critical sites set in grass or other light fuels need to have these Dragon Rings around them with people designated to actually feel good and practiced to use a Dragon Wizz Wheel, and fire-raising tools to safe guard, and break up the mechanics of destruction.

ALL LAND MANAGEMENT STARTS AT THE CRITICAL SITE, & MOVES OUTWARD FROM THERE!!!

ALWAYS POSITION YOUR HOLDINGS, TO EXPECT TO BE BURNED OVER. IT'S A NEW FRONTIER,

LIVING WITH FIRE, MEANS YOU UNDERSTAND THE WILDFIRE DRAGON WILL COME ACROSS THE TERRAIN & THREATEN YOUR SURVIVAL. NOT A MATTER OF, "IF", JUST, "WHEN"?

IF YOU ARE TO BECOME ONE WHO BELONGS, THERE IN NATURE, YOU MUST PREPARE YOUR HOLDINGS, SO YOU ARE ALWAYS ABLE TO PARRY THE POWER, NEUTRALIZE THE MECHANICS OF FURY, MAKE IT WANE, MAKE THE DRAGON PASS, AND DO NO HARM. "BECOME ONE WITH THE EARTH, WIND, VEGETATION, AND FIRE". Either belong there or be taken out.

These are the new rules for survival, and living with fire. If you are not willing to learn the basics, the laws of reality, then you really should move to an asphalt jungle.

The same, "DRAGONSLAYERS, NATIONAL WILDFIRE HANDTOOL MANUFACTURING CENTER", Facility; can be used as the, "NATIONAL WILDFIRE SURVIVAL MITIGATION CENTER".

Dragonslayers can set up the facility to have several outdoor training cauldrons set up for outdoor, "Fire in Hand", training areas to train all federal, state and local fire department trainers, and community leaders; a, (one day), training skills and methods day to enable everyone to return to their home bases, to train All people, skills needed to be adapted.



DRAGONSLAYERS, "OUTDOOR, FIRE IN HAND TRAINING" , of 40 Spanish fire fighters and forestry students to mitigate terrorist spawned fire attacks, in Catalonia, Spain. We had 40 vulnerable paper houses set up in horrendous loads of light fuels in 25 MPH winds. We had an acre of dry straw around the first training house. We ignited fuels up wind. In 8 foot long flames; the House was totally destroyed in a violent fire storm. The mission was to have 40 students each, use a Dragon Wizz Wheel, and a lighted drip torch to consume, the same fuel load, under the same conditions; burn, (all stored calories), around 40 training houses. The goal was to burn off the fuel; yet save all the paper houses. 40 students became believers. Fire in hand students quickly grasped this simple, safe, systematic, method of pre-training, and pre-suppression arrangement work to, "SHAPE THE BATTLE SPACE", around a real home, set in wild fuels. Confidence came from doing. Make house or town stand in the "BLACK", insulated from the rolling dynamics & mechanics of destruction, from fire storms.

BOTTOM LINE: TRAIN ALL FIRE FIGHTERS FEDERAL, STATE, LOCAL FIRST RESPONDERS TO RECOGNISE, & use, "UNIVERSAL SURVIVAL MITIGATION SURVIVAL BLUEPRINT", & "DRAGON WIZZ WHEEL", TO "BLACK-LINE", 3 CIRCULAR CONTROL LINES SET IN AROUND, WHAT IS TO BE SAVED. ALL LOCAL FIRE DEPARTMENTS NEED TO CONVINCED INTERFACE DWELLERS HOW THEY CAN SET THINGS TO HELP THEM, AND LEARN HOW TO USE FIRE CONFIDENTLY TO SAVE THEIR OWN HOLDINGS, IN EVENT FIRE FIGHTERS CANNOT GET TO THEIR CRITICAL SITE.

THIS IS AN EMERGENCY PROCEDURE FOR TIMES, WHEN NOTHING IS WORKING, AND NO ASSURED ESCAPE ROUTE WITH HIGH WINDS BLOWING DOWN TREES ACROSS ROADS. DEATH COMING ON FAST IN A NEW AGE OF EXTREME FIRE STORMS VIA CLIMATE CHANGE.

SUGGESTION # 3.

INCREASE THE NUMBER OF SMOKEJUMPERS FROM JUST OVER 400 TO 800. KEEN, TOUGH, BOLD, SELF STARTING, ELITE FIRE FIGHTERS. More importantly, indoctrinate the entire wildfire system to use Smokejumpers during fire season; FOR ANY FIRES, THAT WILL TAKE GROUND FORCES MORE THAN AN HOUR TO INITIAL ATTACK, call jumpers and be covered.

The U.S. Forest Service for some unknown reason started using Smokejumpers less and less in the late 70s, and closed down four jump bases. LeGrand, Or, Cave Junction, Or, Boise, Id. And Idaho City, Idaho, were shut down. USFS tried to also shut down North Cascades Smokejumper Base in Twisp, Wa., but all the surrounding Forest Supervisors protested, and that Base was allowed to stand. Very nearly shut down the Redding, Ca. Jumper Base.

BLM moved down from Alaska, saw opportunity, and established the BLM Smokejumper Base at the National Interagency Fire Center in Boise, Id. , and sub-bases in Redding, Ca. and Grand Junction, Co. BLM, acted quickly on letting their people develop the Ram Air Parachute system, against the USFS Development Center experts who never had made a parachute jump with any kind parachute, yet held arrogant ideas, that smokejumpers did not know what was good for themselves. Russia had smokejumpers before America and had 6,000 of them using Ram Air or square, parachutes, before BLM adopted them.

BLM came up with a parachute that could be jumped in 30 mile an hour winds, where USFS round chutes are not jumped if winds are exceeding 10 miles per hour. BLM also totally adopted Dragonslayers tools full bore, and bought 1,850 sets of the new tool system. USFS jumpers only use traditional Pulaskis. They abandoned totally the break-down lady's shovel, which was so much a part of jumper lore. When USFS jumpers would jump grass fires in the Eastern areas of ground beyond the Rockies the Rapellers would tell the stories of having to go beat out the fires with Dragon Swatters, as the jumpers could not do the job with Pulaskies in thick rooted grasslands. BLM upper level managers let the jumpers themselves develop Ram Air Parachutes, and aggressively took the main lead in progressive, and aggressive fire-fighting.

Granted, USFS spent a lot of energy and resources on social issues, and were more progressive on those matters, but leadership in fire bent toward the BLM.

The Forest Service somehow sunk into a system, where the middle managers were rewarded for saving money. Penny wise, dollar foolish, empire building. More and more middle managers were not fair to their people who did all the exhausting and dangerous work of actually being out there doing the work on the line. They hired more and more admin types gave them full time jobs, with good benefits. The obsession became to lay off temporary fire fighters as soon as possible. Change work hours, specifically geared to cut overtime, made it more and more difficult for the young people to make it through their winters; cheating them out of the overtime they needed for survival. They just did not take care of their people very well at all.

Smokejumpers, having and using more of them, is only one aspect of our growing fire management problem. Climate change/intensity snuck up on all the federal, state, local, even private fire agencies.

Californians came up with the INCIDENT COMMAND SYSTEM. It became Universal to all the different fire agencies, so they could plug in, understand each other, and work together.

The new way was to form a team to roll out to handle large extended attack fires. A team would amass in a fire camp some distance behind the incident with a Command group, and all sorts of different crews sent to form a flexible organization needed to start at the tail of the fire, and advance up the flanks to eventually encircle the fire with a control line. Contain it, mop it up, then declare victory. That became the main wildfire culture innovation for big fires. It was a lot more expensive, and created an entire subculture of people who grew up in fire camp and not actually on fire lines learning all the mistakes, and building blocks that come with actually fighting the flames in all sorts of vegetation fuels in different ecosystems.

Meanwhile, back at Climate Central the drought codes got higher, the winds stronger, fuel moistures, and relative humidity readings got lower resulting in faster moving, killer firestorms. Forest health had little to do with it. Killer fires were happening in intensive forest areas near private ground, accidental boo boos by humans. Natural Grasslands, weed, shrub, brush areas. Light fuels in grass were killing more people and houses than ever.

Climate intensity has gone beyond fire suppression capabilities. Our entire nation is now vulnerable to terrorists. We are now, targets of opportunity. No longer is it a fire protection problem, we now had a true homeland security, and national defense issue.

SECURITY OF PEOPLE & STATE IN THE EMERGING MEGA FIRESTORM ERA

With our open borders, freedom of travel, and history of Jihad terrorist, and evil empires. Federal, State, and local fire departments can no longer do it alone.

We have to develop a defensive survival scheme for our citizens. Give them an opportunity to save their families, homes and towns from intentional aerial fire attacks.

It is time to develop a UNIVERSAL WILDFIRE MITIGATION SCHEME. The people who live in the wild fuels must become Wildfire Adapted. Consider the following scenario.

A handful of enemy agents enter America, build a small fleet of ultra-light aircraft and lie in wait for red flag fire weather to form over Northern Ca., Oregon, and Washington. From different locations they launch. Preferably at night, drop small ignitions every quarter mile for hundreds of miles, in a single line pattern; perpendicular to strong regional winds. Not until morning; will we realize what had been orchestrated against us. Those small ignitions will have all converged into on huge wave of fire gobbling across the terrain. No place to put jumpers or Incident Command Teams. This might never happen, but if we institute the # 2 Suggestion it would wildfire adapt our nation against all accidental and natural fire storms.

SUGGESTION # 4

BUILD A MIX OF SAFE, MODERN DAY AIR TANKERS, CAPABLE OF RESPONDING TO RED FLAG AREAS OF EXTREME FIRE DANGER. PERHAPSE, A FLEET OF 30 GOVERNMENT OWNED PLANES. AT LEAST 6 LARGE WATER SCOOPERS. AND 6 SMALL SINGLE ENGINE WATER SCOOPERS. THE REMAINDER CAN BE FIXED BASE TANKERS, BUT, REALLY WE HAVE TO GEAR UP FOR THE FUTURE OF MUCH MORE, EVER INCREASING RAVAGES IN A FIRE WORLD OF HIGH WINDS, & HIGHER DROUGHT CODES SHOWING UP MORE AND MORE CONTINENTAL IN SIZE AND TIME.

This need for air-tankers or retardant planes is world-wide. It is a good time to encourage some of our defense contractors, like Boeing, Grumman, and other aircraft builders to put out modern versions of the old amphibious aircraft like our old WWII airboats like the old PBY-Catalina. They would enjoy a waiting list of orders from fire troubled nations, all over Europe, Asia, Africa, South and North America, and Australia. With our military threats in the Pacific; we really do have to return to the air boat for recon and rescue missions, not to mention resupply. Some of those military airboats can be used as water scoopers.

If we can't build our own there are alternatives from Australia, as Amphibian Aircraft Industries, (AAI) are starting production of the old Grumman Albatross equipped with modern turbo-prop engines from Pratt and Whitney. This airboat can be quickly, converted into a modern water scooper.

The Japanese ShinMaywa Aircraft Company is marketing their US - 2 , a large and very good although expensive water-scooper.

The Canadians, Bombardier, (Viking Air), are retooling up to produce an improved CL- 414 , which will be called the Cl – 515, The CL- 414 has been proven world-wide, and we are already using one for a 5 year period around Lake Tahoe.

The Texans produce a small water scooper, Air Tractor, (AT – 802F). It only holds 800 gallons of water but when used with a couple of fellow small aircraft flying in tandem; they have such a quick turn around time and such long time on station they really can dump a lot of water, and can be very effective.

For fixed base air tankers, Horizon Air are disposing of some 50 Dehavilland DHC-8-400n known as Dash 8 aircraft and they would make a great platform as land based air tankers.

Ought to be able to pick those up fairly economically to be converted over to retardant ships.

If we ever are hit with a terrorist spawned, coordinated fire attack hundreds of miles long; a fleet of air tankers would be key in attempting to disrupt the wall of flames to give some hope for some of the communities that lay in front of the great wall of fire headed their way.

SUGGESTION # 5

BREAK UP FORESTS INTO COMPARTMENTS DETERMINED BY ROADS AND NATURAL BARRIORS. THIN AND PRUNE ALL BORDERS OF THESE COMPARTMENTS. USE END OF YEAR STORMS PREDICTED TO FIRE OFF AS MANY BOUNDARIES AS IS POSSIBLE VIA PING PONG MACHINES IN FIXED WING AIRCRAFT OR DRIP TORCH LIKE HELITORCHES SUSPEMDED FROM HELICOPTERS.

This system of preparing the ground to have useful strengthened receiving lines for wildfires, will set up the ground to be ever more prepared to add fire into the ecosystem and produce mosaics that will prove helpful to ever expand future additions of controlled fire into the environment. It will also help with smoke management.

There just is so little time and opportunity for everything to line up within the proper, "WINDOW", to light the match. Therefore adding fire to the landscapes that need it in our extensive forests makes it really quite difficult to administer the right fire to the scenario.

It is best to give intensive forest management first around critical sites, with proper thinning, pruning, and circular control line preparation there and move outward into the wild fuels from there.

Not all ecosystems benefit from prescribed fire. Fire effects depends on what is there via species, soils and climate. In some areas that do not have a high frequency of natural fire. If you add fire to it you may end up creating a more frequent fire cycle. Pioneer species and coppice growth may evolve into a powder keg of potential in 10 to 12 years from the burn.

Understand the needs of the ecosystem, grass areas may be fertilized by the burn and produce an even more volatile thicker, heavier fuel load when drying out cures everything into a much worse potential.