



SCA Fire Prevention Intern, BIA, Chickasaw Agency

~ Kathryn Lidington, SCA Chickasaw Agency, Ada Oklahoma

Table of Contents

Aviation.....	2
Fuels.....	4
Operations.....	12
Blacksnakes Corner.....	14



The author, Kathryn Lidington, SCA Fire Prevention Intern.

When I first interviewed for the Student Conservation Association Fire Prevention Intern position with the Bureau of Indian Affairs, Chickasaw Agency in Ada, Oklahoma, I could understand about one word in three that Sheldon Sankey, my future supervisor, said to me. I'd never had much of a problem understanding Southern accents, despite being a Yankee from Boston, Massachusetts. Unfortunately, it seemed that Oklahoma accents were another thing altogether. I opted to say "yes" a whole lot and just hoped that I wasn't agreeing to anything that I would come to regret. Considering how often the word "tornado" came up in the course of the conversation,

I was left with the uneasy feeling that this may not have been the best approach.

In the end, I was hired on for the internship, and I packed my bags, reassured my mother (and myself) one last time, and headed out, first for training in Boise, Idaho, then to Ada, Oklahoma. On my second day of work, I went with Sheldon and William "Tommy" Schultz to survey a tract of land for a prescribed burn. They took advantage of the long drive (the Chickasaw Nation covers a total of 7,648 square miles in 13 different counties across southeastern Oklahoma) to educate me in the ways of my newly adopted land. This included in-depth discussion on their part of noodling, 4-wheeling, shotguns, hog hunting, brush-hogging, ribs, wild boars, spiders, snakes, ticks,

chiggers, heat stroke, tornados (again!), and, of course, fire, and a lot of bewildered head-nodding on my part. It wasn't just the Oklahoma accents this time; I simply had no idea what they were talking about, other than what seemed like a ridiculous number of natural dangers, and other glimmers quickly lost in the torrent of information flooding past me. I sat in my hotel that evening watching the local news on raging fires and tornado watches, smoke thick in the air and 70 mile-per-hour gusts of wind outside, and I couldn't help but smile. Whatever the chain of events that had brought me to this strange land within my own country, I had the feeling that I'd landed in a good

place for that best of all experiences: an adventure.

Learning to drive a tractor was by no means my first adventure in Oklahoma, but it was certainly one of my favorites. There is much more to fire prevention, I quickly learned, than just Smokey Bear, so when Tommy said that we were heading out to build line for a prescribed burn, I was excited by the opportunity for another new experience. We secured the tractor to the trailer, a tale in and of itself, and drove east out of Ada to the Kullihoma Reservation, the site of the planned burn. There Tommy unloaded the tractor, showed me the few controls, and turned it over to me. Due to an overly cautious nature and a complete unfamiliarity with the clutch-shifting process, I was afraid to put the tractor in any gear higher than first, and therefore putt-putted down the road at approximately four miles per hour toward the appropriate site. Finally realizing I was literally getting nowhere fast, I managed to shift to second, then third, gear with only minor grinding. Tommy laughed when he heard what had taken me so long, but I was just proud of myself for having – eventually – gotten out of first gear.

Brush-hogging with the tractor turned out to be a lot of fun, at least when it only involved mowing the grass and low brush. Eventually, however, we reached a section of the line with fallen trees and logs that would have to be cleared before we could run the brush-hog through. Tommy showed me how to use the bucket to clear the way, making it look like the simplest of processes. Of course, I found this not to be the case. The bucket rolled over logs I was trying to scoop up. It scooped up huge clumps of dirt, mud, and grass when I was trying merely to run the blade lightly across the surface. I'd push a log one way and watch, befuddled, as it went in the other direction completely. All in all, even as I got a little bit better at it—I couldn't possibly have gotten worse—it was an infuriating and frustrating process. At long last, I had only one small log left in the way. However,

this log defied my every attempt to remove it from the path. Finally, making sure that Tommy was out of sight around the corner, I hopped out of the cab, picked up the log, and threw it into the brush beside the line. It was, without a doubt, the most satisfying moment of the day.

Similarly satisfying was my tomahawk-throwing lesson at the Chikashsha Ittifama. The Chikashsha Ittifama, which translates as Chickasaw Elders' Reunion, is an annual event that takes place at the Kullihoma Reservation. Tommy, Sheldon, and I set up a fire prevention booth for the two-day event, as well as bringing along the air-conditioned fire prevention trailer due to a heat index of well over one hundred degrees. Despite smaller-than-expected crowds, our booth proved a huge draw because of our Smokey fans and water bottles, and because Sheldon would occasionally turn on the engine and let the kids cool off in the hose spray. We talked fire prevention and fire safety, and made sure that the booth's visitors got fire prevention literature in addition to their fans and water bottles. Due to the smaller crowds, however, I had ample opportunity to check out the other booths, which included a wide array of American Indian crafts including wood-working, metal-working, and beadwork, as well as story-telling, drumming, and traditional food. One booth in particular drew my interest. There, you could practice throwing tomahawks at a mounted log target. My first attempt went slinging off into the woods behind the target, but it wasn't long before the tomahawk was bouncing off the log, though not actually sticking. Finally, I threw one that stuck perfectly in the target, though maybe a bit to the right of center. But best of all, my next throw lodged itself not in the target, but instead straight in the shaft of the previous throw. In congratulations, I got to bring the split shaft home with me, and it currently sits in a place of honor on my bookshelf.

Sadly, there's not enough space to detail the many other excellent events

in which the fire prevention team participated, nor the myriad of other projects that made up my internship, nor the support that Sheldon and Tommy gave me and the many things they taught me, not only about wildfire and prevention, but also about Indian culture and history. But as my internship winds to a close, I am happy to say that I can now understand the Oklahoma accent, as well as (most of) the conversations I have these days. I've encountered ticks, chiggers, spiders the size of my hand, and extended periods of 100 degree weather, and I've survived. I've eaten catfish, hush puppies, fried okra, and ribs, and I've become addicted to that marvelous Southern invention: sweet tea. I've pushed my own personal boundaries, which is what adventures are all about. And though I haven't seen a tornado yet, I find that I now look upon the experience with anticipation instead of fear. Provided, of course, that it is miles and miles away from where I'm standing.



Aviation

Plastic Sphere Dispenser Operator

~ David B. Martin, Assistant Regional FMO,
Great Plains Region

On October 6-7, 2009 the Great Plains Region sent 7 firefighters to Plastic Sphere Dispenser Operator training (PLDO) in Grand Rapids Minnesota. The objective for the Great Plains Region BIA firefighter personnel attending this training was for our region to become more self sufficient and qualified to perform aerial ignition operations for both wildland fire and fuels management projects. The Great Plains Region has all the key fire



Bert Shields on the left performing dry simulation runs with the Premo Mark III.

aviation positions filled by qualified folks except the PLDO position, hence the reason for attending the PLDO class.

The Great Plains BIA PLDO students were Melvin Rossman and Marjoe Janis (Pine Ridge Agency), Jim Bowman (Cheyenne River Agency), Hoss Pearman and Bert Shields (Rosebud Agency), and Heath Estey and David Martin (Great Plains Regional Office). David also served as the Helicopter Manager.



Marjoe Janice, Bert Shields and Melvin Rossman.

The Midwest Region BIA PLDO students were David Rosebear, Pat Norquay, and Joey Johnson (Red Lakes Agency)

The Minnesota Department of Natural Resources (MN-DNR) also had a

PLDO student, Darren Neuman, who also trained under David Martin, the Great Plains Assistant Regional Fire Management Officer, as a Helicopter Manager trainee (HMGB-t) with the type 3 helicopter from Brainerd Helicopters.

As the Helicopter Manager (HMGB) and a PLDO trainee for this training, Mr. Martin had first hand exposure to the Great Plains and Midwest Region BIA PLDO students who set the standard of professionalism at the PLDO trainee and Helicopter Management levels. The training opportunity was an interagency effort to train ten BIA firefighters from two different regions (the Great Plains and Midwest Regions) and one Minnesota DNR firefighter to become PLDO trainees.

Doug Lloyd and Lee Kessler were the PLDO instructors from the MN-DNR. Doug Lloyd was the Lead Instructor for the class. The class was a great success and of high quality in both the classroom and field exercise sessions (3.3 hours flown in the Brainerd type 3 helicopter with actual



The "Red Dragon" by S.E.I. Industries which dispenses "dragon eggs".



live firing runs with the Premo Mark 3 and Red Dragon aerial ignition firing devices). Each PLDO student received a training certificate and a task sheet that will log flight hours for the students to get qualified for the PLDO IQCS qualification in the immediate future.

Mr. Martin stated, "The BIA PLDO students represented our BIA Regions at the highest level amongst other interagency fire management partners (MIFC level). I wanted to extend a big thank you to the Minnesota DNR for having us over for the needed training and assisting with the instruction of the class."



The PLDO students maintaining the Premo Mark III.

BIA Fireboss Makes Waves with New Amphibious Single Engine Airtanker

~ Robyn Broyles, Fire Communication and Education Specialist



Pilot Jesse Weaver stands next to the Fireboss, BIA's new amphibious single engine airtanker. ~ Photo by Robyn Broyles

The impressive debut of the two-seater Airtractor 802F Fireboss has Washington State and BIA aviation experts talking. The Single Engine Airtanker (SEAT), equipped with amphibious water floats, and capable of delivering retardant, gel or water, is the only SEAT of its kind in the federal aviation program. Contracted and managed by the Bureau of Indian Affairs (BIA), and paid for by the Washington State Department of Natural Resources (WA-DNR), this aircraft shows promise as the next aircraft of choice for supporting areas with plentiful water sources in Indian country.

On September 9, 2009, representatives from three cooperating agencies (BIA, WA-DNR and FS) met for an after action review to discuss the

Fireboss's future. Centrally housed at Deer Park, WA, the amphibious airairtanker is quickly gaining the favor of ground resources that need air support immediately. From a runway, the SEAT can take off fully loaded and head directly to an incident. When it's time to refill, amphibious floats provide an additional option to refill from large water sources. Gliding on water at 75 miles per hour, the Fireboss can refill its 800-gallon tank in 8 seconds, making turn-around times fast. To add to its versatility, it is equipped with larger fuel tanks that stretch flight times up to four hours while displaying increased agility following hilly terrain. The airtanker has heads nodding in approval. WA-DNR Northeast Assistant Regional Manager Chuck Johnson is enthusiastic about the success of the Fireboss for other reasons. "Though

we shoulder the cost of the airtanker, it's much easier for the BIA to handle the management and contracting of the aircraft. It's a smart agreement that works well for all agencies."

The BIA is also pleased with the interagency participation the agreement makes possible because it allows reservations like Colville to have immediate air support if needed.

Managers are looking at the safety history of the airtankers for further evaluation. Of the almost 50 hours of flight time during the summer, the SEAT had only one breakdown due to a faulty part. After replacing mounting brackets, it returned to operations the following day. No other incidents occurred throughout the summer.

Pilot Jesse Weaver says flying the Fireboss "is a kick in the pants and a lot of fun. There's just nothing else like it out there."

After watching the success this summer, BIA Fire Aviation Program Lead Joel Kerley looks forward to seeing more of these in the future. The BIA plans to put a four-year contract up for bid next year for the Fireboss and to maintain the agreement with WA-DNR. The BIA is currently seeking locations throughout the U.S. willing to host additional Firebosses. "When more airtankers become available, additional contracts are likely," says Kerley.

For further information, contact Joel Kerley at 208-387-5371.



Fuels

In the beginning of June, Karrie Stevens and Laura Atkins of the

Fire Monitoring in the Last Frontier

~ Laura Atkins, SCA, NW Region

Northwest Regional office in Portland made a northward journey to Anchorage. Their mission: gather information to finish a fuels monitoring plan that could be applied

to the entire region of Alaska. Currently, there are BIA funded Alaska fuels projects that are receiving some form of monitoring, but there is not an established protocol in which to follow.

The beginning of the trip was spent in the West Central Alaska field office, located in midtown Anchorage at the Frontier Building. Karrie, having made two previous trips to Alaska was more versed in the land management structure of Alaska; however, Laura appreciated the orientation from the BIA fuels specialist Larry Adams. He explained there are currently 229 Native entities within the state of Alaska, recognized and eligible to receive services from the BIA. A large percentage of these Federally Recognized Tribes are organized and located within local villages. Currently, there are around 20,000 allotment parcels in Alaska, and an estimated 17,000 allottees. The 1.2 million acres of land is held in trust by the United States Government. Within the state of Alaska, there is only one American Indian Reservation, the Metlakatla Indian Community, Annette Island Reserve.

There are twelve regional boundaries in Alaska, as defined by the Alaska Native Claims Settlement Act (ANCSA). The ANCSA Regional and Village Corporations are incorporated under the State of Alaska. The ANCSA corporations are managed as profit seeking organizations by their elected board of directors for the benefit of their Alaska Native shareholders. These corporations are not Federally Recognized Tribal Governments, and the US Government does not hold the lands owned by the ANCSA corporations in trust.

After a review of the land management structure and an in depth look at local maps, Karrie and Laura were ready to get out into the field to see some Alaska fuels projects, and to learn how to effectively monitor these projects.

Larry made arrangements to drive down to the Kenai Peninsula to visit previous and potential future project sites. A newly hired forester, Nathan Lojewski, from the Chugachmiut Corporation, also attended the field trip. Four stops were made with discussions on fuel treatment methods and effectiveness, vegetation



Laura Atkins, Karrie Stevens, Harold Andrew taking a boat to a Native village in Aleknagik, Alaska

types, and treatment longevity. The northwest corner of the Kenai Peninsula will soon be receiving treatments. Larry Adams explains the goal of the projects is to create a biomass industry from the fuel that will be removed. A total of 700 acres are set to be treated. Larry explains there will need to be emphasis on the importance of the public awareness on the opportunities of utilizing biomass from fuels projects.

Another site visit was scheduled to the Bristol Bay area in Dillingham. There, the group met with the Bristol Bay Native Association Forestry Program Manager, Harold Andrew, and the Forestry Technician, Tom Dearlove. The two had organized a highly informative agenda. This included an explanation of current monitoring methods, introductions to the corporation's Natural Resource director, Molly Chythlook, and the C.E.O, Ralph Anderson, fuel project visits, and discussions on the BIA's policy on fuels monitoring, as well as the current development of the Alaska monitoring plan. For the 2009 fuels season, the Bristol Bay Native Association received funds from the BIA to complete Firewise fuel reduction projects around Native allotments. The success of those projects is rapidly spreading throughout the community, and subsequent treatments are planned for the 2010 season for additional

homeowners. The group traveled to several of the homeowner sites, and was even able to meet some of the satisfied customers. Stories were heard of initial skepticism of tree removal, but when treatments were completed, homeowners were highly appreciative of the fire wise areas around their house and surrounding structures. The group was also able to take a boat ride across Lake Aleknagik to visit prospective fuel treatment sites that surround the local Aleknagik grade school. Overall, the trip to Dillingham was insightful and will be useful in finishing Alaska's monitoring plan.

Upon returning to Anchorage, more work was accomplished on the Alaska monitoring plan. After seeing the work that was being completed on the ground and the remoteness of the projects, the goal to make the Alaska monitoring plan simple, cost effective, and useful was carefully considered.

With a regional monitoring plan quickly coming together, and dedicated fuels staff throughout the state, the fuels projects are likely to receive a valuable method of monitoring. This will provide for a better understanding on the effectiveness of the treatments, and lead to even better fuels management decisions throughout Native lands.



Multiple Agencies Contribute to Successful Rx Burn

~ Rich Gustafson, FMO Southern Ute Agency



George Burn, named after a plan by the late Gerry George.

From October 16th through 19th, four Bureau of Indian Affairs Agencies, the Southern Ute Indian Tribe and local fire departments came together in cooperative spirit to complete the 1,200 acre George burn. The project was located seven miles southwest of Pagosa Springs, CO on the Southern Ute Reservation. The Southern Ute Agency hosted the project with the Southern Ute Indian Tribe, Ute Mountain Agency, Jicarilla Apache Agency, Navajo Agency, Los Pinos Fire Protection District and Archuleta County Office of Emergency Management participating.

Each agency supplied personnel and equipment to fill various roles in conducting the burn operation. Southern Ute Agency filled the overhead positions with Rich Gustafson, Fire Management Officer directing the burn as the Burn Boss, Jesse Ramirez, Fuels Specialist as Firing Boss and Howard Richards Jr., Supervisory Forestry Technician as Holding Boss. Jicarilla Agency supplied the knowledge and positions to complete the aerial ignition as Walt Gomez, Andy Mora, Bill Muniz and Harold Tecube performed mix-master duties.

Ute Mountain Agency supplied AD firefighters supervised by Rawley Holliday and Type 6 engines that Myron Baker supervised. Casey Rosenberg managed the helicopter and ensured that both heli-torch and PSD operations went smoothly. Navajo Agency supplied the Navajo Hot Shots who aided in black-lining seven miles of the project perimeter. They did an excellent job and were, no doubt, tired after the project. Kevin Pellman, Navajo Hot Shot Superintendent was the PSD Operator and stepped forward in overseeing the entire aviation operation. Southern Ute Forestry personnel assisted with hand ignitions and Los Pinos Fire Department and Archuleta County Emergency Management supplied two type six engines and a water tender. Los Pinos Wildland Coordinator, David Vega stepped forward and performed



effective strike team leader duties. It was truly a cooperative effort where teamwork was developed among neighboring agencies.

The objective of the prescribed burn was to reduce hazardous fuel



The late Gerry George.

accumulations resulting from decades of fire suppression and to improve wildlife habitat. The George burn was named after Gerry George who initially envisioned the project and was the Fire Management Officer for the Southern Ute Agency from 1998 through 2002. Gerry George died in 2005.



The Superintendent, Southern Ute Agency would like to extend his gratitude and appreciation to all of the cooperating agencies for making their resources available for this highly successful project.



Michigan Agency A Milestone Year

~ Will Wiggins, FMO



Doreen Blaker, Keweenaw Bay Indian Community, igniting at the first Rx burn at Michigan Agency.

2009 has been a milestone year for Michigan Agency starting with a first time 35 acre Rx fire at Keweenaw Bay Indian Community. The objective of the burn was to re-introduce fire into the ecosystem and reduce the threat of wildfire to tribal housing. Monitoring objectives include restoration of native vegetation. After the success at Keweenaw Bay, the agency conducted two other burns for the Grand Traverse Bay Band totaling 54 acres. The objectives for the burns at Grand Traverse were restoration of native plants and wildlife habitat improvement.

Additionally, the Pinery Fire, a 700 acre wildfire occurred over Memorial

Day weekend. The Pinery Fire was the first large fire to occur at Michigan Agency. Even though resources were limited, the Agency was successful in its suppression efforts due to local Native American hand crews from the Keweenaw Bay Indian Community and the Ottawa National Forest.

Another first for the Agency was the development of an Interagency BAER team that developed a recovery plan for the Pinery Fire. This was the first BAER team to be assembled for the Bureau of Indian Affairs Midwest Region. The BAER Team successfully mitigated water quality and cultural resource issues.



Tony Shalifoe and Jordan Ekdahl, Keweenaw Bay Indian Community firefighters.

Early Bird Prescribed Fire and FEMO Assignment Training

~ Laura Atkins, SCA, NW Region

The Early Bird prescribed burn took place on the NW corner of the Northern Cheyenne Agency on August 2nd, 2009. The area had been previously burned by the Early Bird wildfire in 1988, burning 18,289 acres of mature timber. The Craig 2 fire burned in 2004 at 8,575 acres over a portion of the Early Bird wildfire carried by grass and the 1000 hour fuels (which also increased intensities and resultant high fire severity). The re-burn of the Early Bird wildfire killed the plantation (a loss of the planting investment) and made planting all the more difficult because the seedling survival was low.

The intent of the Early Bird Rx broadcast burn was to reduce the 1000 hr fuels in hopes of reducing the fire behavior if and when another fire burns through this area again. Prior to implementing the prescribed burn, fuel managers broke up this 80 acre piece of land into 6 different areas, each receiving a different kind of mechanical treatment. Units ranged from 10-14 acres each, and were the same aspect, slope, stocking level, and fuel model. Mechanical treatments were as follows:

1. Thin & Pile
2. Thin & Trample
3. Trample Only
4. Mastication of downed woody and thin.
5. Thin, prune, lop & scatter, pull back and slash
6. No treatment

The CFI plot data in the area showed an average of 320 trees per acre before thinning. The fuel loading averaged 22 tons/acre with a range of 3.5-39 based on three nearby CFI plots. The 1000 hour fuels comprised over 90 percent of the fuel loading.

Tree heights were estimated at 6-16 feet. Units 1, 2, and 3 were thinned to 16 foot spacing for an average of 170 trees per acre. Unit five was also pruned to four feet. The units that were trampled or masticated had the same fuel loadings but the fuel arrangement had gone from intact logs to chip-sized material.

Project objectives were to find a treatment which efficiently protects the investment of tree planting(s) plus growth (15-20 years). In addition, fuel and fire managers aimed at finding the most cost effective fuel treatments. Finally, fuel managers wanted to find a treatment that minimizes tree mortality during a prescribed burn and a treatment that enhances tree survival during a wildfire.

The Rocky Mountain Region put in 16 monitoring plots using FIREMON protocols for level 1 and level 3 monitoring. The level 1 plots were measured by the SCA crew in the fall of 2008, while the level 3 plots were measured by the regional monitoring crew in May of 2009 and then again 5 days after the burn in early August. Below is a comparison of the post burn results and the burn objectives.

Objectives	Outcomes
• Burn 90 percent of the burnable acreage within the project area.	• Blackened about 60% of the area.
• Reduce 1 & 10-hr. tlf by at least 90%.	• Achieved a 10% reduction.
• Reduce 100-hr. tlf by at least 90%	• 18% decrease in 100 fuels.
• Reduce 1000-hr. tlf by at least 75%.	• Reduced the 1000 hr tlf by 81%.
• Reduce duff by at least 75% outside of the timber area.	• Achieved a 40% reduction in duff and litter.
• Limit tree mortality in the southeast corner to 10 percent or less.	• No mortality in this corner, but will have mortality in the unit that is above 10%.
• Exclude fire from designated areas.	• There were no escapes.
• No charring on power poles and fence bracing is accepted.	• This was achieved.

Taking advantage of this fuels project for a training experience were two qualified FEMOs and five trainees. Trainees were broken up into two separate groups, with Karrie Stevens, Fire Management Specialist (Ecosystems) for the Northwest, Alaska, and Rocky Mountain Regions, leading one group, and Daniel Rasmussen, Assistant Fuel Specialist for the Rocky Mountain Region, leading the second. After reviewing the objectives of the burn,



FEMOs



Rx burn

the FEMOs took to the field, taking weather, measuring fuel moistures, observing fire behavior and smoke characteristics, and calculating rates of spread. After the burning was

Regional Office, and Laura Atkins, of the Northwest Regional Office. Shandi Eagle Feathers and Ken Bixby of the Rocky Mountain Regional Office were able to complete a number of tasks in their FEMO taskbooks. Thanks to those at the Northern Cheyenne Agency for allowing this training experience!



Forest conditions prior to 1988 Early Bird wildfire.



Common Nighthawk's nesting (we dug line around them and notified the burn boss about their presence).



We Don't Need No Stinking Windows

~ Buff Jebsen-Ross, SWRO Region Fuels Planner & Part Time Equipment Coordinator



Buff Jebsen-Ross

What started out as a demonstration project for alternative fuels treatment methods presented to the tribes in the Southwest, became a whole new section under the Forestry/Fuels Branch. We wanted the tribes to get involved in contracting or running their own equipment. Instead they thought it was a better deal that we were doing it for them. So the management at the Southwest Regional Office (SWRO) reluctantly got into the mastication business.



Dominic Lente, at Jicarilla: now laid off.

With only one operator, Dominic Lente, various detailers, and a WHOLE lot of imagination this operation has been able to treat over 6100 acres in the last 6 years.



Gene Jiron and Ben Chavez, detailers checking out an FTX440.

Early on it was Dominic, (a term employee), Gene Jiron (part time detailer), and Ben Chavez. Ben was a SEAT manager and worked with us off season until he got a full time job with Isleta Pueblo.

The organization started out with a Gyro Trac 18XGP masticator and a trailer.



Gene on the Gyro Trac at La Juita, Jicarilla '06.

The Gyro Trac 18XGP was modified with a new Bull Hog 85 cutting head and then transferred to the BIA Mescalero Agency where it is now working exclusively for their fuels program. The cost to the agency was zero; we even delivered it to them.



The modified Gyro Trac at Mescalero '05.



Dominic on the RT 400 finishing, S Tularosa, '05.

Now the SWRO has 3 heavy masticators (2 RT400s & Franklin 4550 C), a light FTX140, a heavy duty chipper, and tractor-trailer to haul them all. The only thing missing is a crew to operate it all. We have one full time operator and a part time Coordinator to the run the whole shooting match. The older RT400 and the Franklin 4550 are on their last legs and need to be replaced.

We work year round in all types of fuels on reservations from Mescalero to Ute Mountain Ute. Like migrating tribes of old, the heavy metal of SWRO moves to the warmer lowlands in winter, and then to the cool mountain forests in the summer.

From Bosque, our winter favorite:



Post treatment shot of a Sandia Pueblo treatment '05.

To mid-elevation Pinyon:



FTX440 at Ramah Navajo, '06

Then on to higher elevation juniper woodlands:



Gene Jiron, detailer from SPA teaching a Roads operator at Chapin Mesa, '06

Yes, these are Junipers with some pinyon and it was a waste to masticate them but access was a real problem.



The mesa after treatment.

The treatment unit was on a finger mesa south of Mesa Verde National Park. One of our guys was locked in one night because he worked past 5:00 PM. The Park Rangers had locked the gate to the southern portion of the park, not realizing there was someone still working out there.

In the summer we move to the higher elevation Ponderosa pine stands: We have even treated some mixed



Gene with Dominic in the background, at La Juita, Jicarilla '06



Sheep Corral completed at Jicarilla '08.

conifer at Isleta Pueblo in the Monzano Mountains around 9000 feet.



Isleta Boundary, '03

In the above picture: Dominic Lente and Hal Luedtke are in the far left with Gene Jiron running the RT400. Maynard Martinez is doing brush work with a chain saw. He was a seasonal Fire Fighter that we picked up after his fire season was over.



Isleta Boundary, '03



The same Bosque after being treated. Try that with hand crews!

We treated it all at an outrageously low average cost of \$350/acre! The money saved by doing the work ourselves, helps justify the purchase of new equipment.

Unlike most fuels treatments that are limited by weather, burning windows, and seasons, the mastication equipment can work year round. The only thing that has kept these guys out of the woods is either cultural clearances or Human Resources. When things get too wet or cold, they move



Dominic (far left) and Gene at Rio San Jose, Laguna winter '05



Dominic at Southern Ute; winter of '05

to another part of the region where it is warmer and dryer; and the acres keep getting treated. Most of the work is done on Condition Class III forests or river Bosque.

Deep snow doesn't bother the machines but it hides the material on the ground that needs to be masticated reducing the fuel loading. By waiting and coming back in the summer we can treat all the heavy fuels.

This makes it easy for the "Smoke eaters"; to follow up in a couple years. Now they'll have lesser intense understory burn to accomplish; that is, **if and when they get a window.**

Spokane Monitoring Plan

~ Molly Cox, Spokane SCA
~ Laura Atkins, SCA BIA NWRO

The 2009 field season was very successful for the Spokane Tribe fuels program. Not only was the Spokane Tribe Fuels Monitoring Program created, but the season's end brought a finalized fuel-treatment monitoring plan to the Spokane Tribe. The plan was drafted, field tested, and



Gary Hughes, Molly Cox & Roger Brandom

finalized with collaborative efforts from individuals of the Spokane Tribe, Regional office staff, the Forest Service at the Pacific Northwest Research Station in Seattle, and interns from the Student Conservation Association.

In the winter of 2008, Roger Brandom was hired as the Spokane Tribal Fuels Monitoring Supervisor, and the first version of the monitoring plan was drafted. Roger met with Karrie Stevens, BIA NWRO Fire Management Specialist (ecosystems), to discuss incorporating the Spokane Fire Management Plan and Forestry Management Plan into the Monitoring Plan. Also at this time, Karrie and Spokane Tribal Fuels Manager, made a formal request to the National office for an individual placement Student Conservation Intern. Laura Atkins, SCA BIA NWRO Individual Placement Fuels Program Technical Assistant, and Karrie developed a working draft of the plan in May.

Beginning in the summer of 2009, Molly Cox, Student Conservation Intern Individual Placement was placed in Spokane to help the Spokane Fuels Monitoring Program implement and provide feedback from the draft monitoring plan. In July, the monitoring program hired tribal

employee, Gary Hughes, as a fuels monitoring field technician. Over the course of the next few months, Roger, Gary, and Molly field- tested the plan and provided feedback to the region on areas of concern or possible areas of improvement.

At the end of September, Molly Cox met with the Regional office staff, including Karrie Stevens, and her assistant, Laura Atkins in Portland to provide comments,



and written appendices attached to the plan. After a week of fine-tuning, the final draft monitoring plan was sent back to the Spokane Tribe for review.

On October 22, 2009, Karrie Stevens presented *The Spokane Indian Reservation Monitoring Plan: Hazard Fuel Treatment Monitoring* to Spokane fuel and tribal personnel, including tribal council members. The stand-alone document establishes the minimum monitoring protocol that will be used on the Spokane Indian Reservation to monitor the effectiveness of project-level fuel treatments funded by the Bureau of Indian Affairs Fuels Program.

The monitoring plan includes three sampling strategies of pre and post-treatment vegetation and fuel loadings: statistical with quantitative analysis,



relevé with qualitative analysis, and walk-thru with subjective analysis. The data taken from the statistical and relevé plots are analyzed with the fire potentials reporting tool in the Fuels Characteristics Classification System (FCCS). Because of the plan's wide scope of monitoring methodologies, as well as its easy-to-use analysis tool, the Spokane Indian Reservation Fuels Monitoring Plan is a great example of a field-tested, comprehensive, and efficient monitoring plan.

Please contact Roger Brandom, Spokane Tribe Fuels Monitoring Supervisor, for more information about the plan. You may contact him via email or phone. RogerB@SpokaneTribe.com or (509) 626 4460

Shakopee Mdewakanton Sioux Community Prairie Restoration Project

~ Paul Pooler, GPR/MRA Fire Ecologist

The Shakopee Mdewakanton Sioux Community has engaged in re-establishing native prairie on Community lands. More than 500 acres of farmland has been reclaimed since 2000. These prairies are in multiple developmental stages ranging from newly seeded to functioning as mature prairie ecosystems similar to those that existed prior to European settlement. Objectives of the project include reduction of erosion, habitat for nesting birds, increase species diversity and add aesthetic value.

Restoring prairie is not as simple as just spreading some seed around and waiting for it to grow. It is a detailed, many layered project that takes years to complete and includes site preparation, planting, and post-management which includes prescribed fire. Native peoples set fire to the prairie for many reasons and prescribed burning falls directly in-line with what has been documented in Minnesota, particularly with the Eastern Dakota Tribes that used fire as a tool.

The Tall Grass Prairie ecosystem was impacted greatly from European settlement. Less than 1/10th of 1 percent remains of an ecosystem that stretched from Texas to Manitoba and central Nebraska to western Indiana. Tall Grass prairie was one of the nation's most diverse terrestrial ecosystems. An unbelievable 900 plant species have been recorded in remnant prairies and up to 300 or more species per individual remnant. Many of these species are traditional medicines of the Dakota people.



Rx burning at Shakopee Mdewakanton Sioux Community.



Restoration of native prairies on Community lands at Shakopee Mdewakanton Sioux Community using Rx burning.

If there is an air fitting available pressurize the system with 50psi and open the valves slowly. Do this systematically for each valve.

1. Run fuel out of carburetor
Start and run pump
Close fuel valve while motor is running
2. Vehicle should be parked, facing uphill. Let gravity drain tank and plumbing.
3. Open all valves, uncouple hose from reel and then drain with the nozzle removed.
4. Open petcocks on the pressure gauge and primer. Pull primer/ operate until the unit is water free.
5. Disconnect foot valve assembly and drain. Pour antifreeze mix into the foot valve and re-install.
6. Pour antifreeze into the hose connect on the reel and reinstall hard line hose.

Antifreeze should then be added through the access hole at top of the pump end keep all valves cracked open to allow the antifreeze to enter the valves. As soon as the antifreeze starts to drain out of the valves shut them. This will be done systematically and it will take approximately three gallons of 50/50 mix and anticipate about 30 minutes to completely winterize the entire plumbing system. The remainder of the antifreeze can be poured into the tank.

Bear in mind that automotive antifreeze is toxic. Always wear the proper eye and hand protection.

During an assignment

If weather changes in your area during an assignment:

Leave your pump running. Keep the water circulating in the plumbing system during the operational period.

When shift is over obtain antifreeze and follow the steps above.

When there is no anti-freeze available, then open all valves a little over halfway. Hand crank motor to remove most or all water from pump end.

Open petcocks located behind the pressure gauge.

Before Leaving Your Station

Check the following items on your model 52 unit and vehicle:

- Battery
- Antifreeze (EXTRA FOR PUMP)
- Wipers and windshield washer fluid
- Lights
- Flashing hazard lights
- Exhaust system
- Heater
- Brakes
- Defroster
- Oil level (if necessary, replace existing oil with a winter grade oil or the SAE 10w/30)
- Maintain at least a half tank of gas during the winter season

Winterization / Storage of Model 52 Unit

Steps for storage:

Mix anti-freeze at 50:50 or 1 gallon of anti-freeze to 2 gallons of water.



Operations

Winterization of Model 52 Units

~ Northwest Model 52 Program



To prevent costly repairs to your Model 52 unit, it is fundamentally important that you know how to winterize the plumbing system. *The leading cause of plumbing breakage during winter is cold temperatures.*

After operating the primer to extract the residual water open the petcock located at the bottom of the primer unit.

Remove the foot valve and drain all the H2O and re-install.

Drain hose reel

Residual Moisture in the system could freeze, preventing the valves from moving, but there should be no serious damage in result of using this system.

If this should happen this is a tip on how to become operational after a freeze-up:

- 1) Hand crank pump to see if pump head is frozen (small amounts of anti freeze will prevent **Hard Freeze**). Pour hot water on the pump head to free up.
- 2) Pour boiling water on all the valves and move to operational positions.
- 3) If primer is hard to operate pour boiling water on the primer valve
- 4) Check the foot valve. (thaw if necessary)

Move quickly to fill tank. Start pump and keep it running for recirculation.

BE AWARE: Storing a small amount of water in the tank during a hard freeze may damage the recirculation and gravity/fill valves.

For technical assistance, feel free to call the NW Model 52 Center in Missoula, MT at 406-829-6756 or your respective Model 52 center.



Harry Wheeler on a prescribed fire.

28 years was spent at the Mescalero Agency, in Mescalero, New Mexico, where he held several positions within the Branch of Forestry. In 2005, he accepted the position of Assistant Fire Management Officer (AFMO) at the Northern Pueblos Agency, San Juan, New Mexico, which he occupied



Harry Wheeler entering his surprise party until his retirement. While working with the BIA, one of Harry's greatest passions was mentoring and coaching kids.

During his time at the Northern Pueblos Agency, he established a challenging firefighter training program. His knowledge of fire and firefighting will be greatly missed, but his presence will never be forgotten by the people he worked with and the firefighters that he trained.

At his retirement luncheon, he requested Traditional Pueblo food (especially red chile and desserts). Many of Harry's friends, coworkers and family members praised his work ethic, positive attitude, skills, wit, humor and his relentless drive to help people.

Harry Wheeler, Sr. Retires after 32 Years of Federal Service

~ Danny A. Gomez, Supervisory Forester
~Matt Escalanti, Engine Assistant, Northern Pueblos Agency

On June 19, 2009, Harry Wheeler Sr. retired with 32 years of Federal service with the Bureau of Indian Affairs. Of those 32 years, approximately



Harry Wheeler's going away party.

Blacksnake's Corner

~ Walt Lara - Yurok Forestry

I'd like to share with you an article, I recently wrote for the Yurok Tribal Newsletter about a traditional game played by the local tribes of Northern California. The comparison of respect, dedication, physical training and teamwork for stick players and wild land fire fighters is distinctly similar. The article is entitled "Tradition Stick Games by Stick Player Walt Lara Sr."

It is my privilege, as well as, my responsibility to share my experiences of the traditional Yurok Stick game. First, I must apologize to all the families whose loved ones, ah wok, I must mention. Stick games are historic to our people and I would be amiss not to mention the dedication, knowledge and skill these loved ones possessed. I was taught to play at a very young age by my grandfather, Jimmy Marks. Teachers and coaches such as Grizzly Ike, Oscar Taylor, Frank Douglas, Dewy George, Grover, Don and Glenn Moore. These men often idolized my grandfather's ability to play and shared that with me. So, for the last 75 years, I have taken great pride in the teachers I had, because they were the best and their knowledge came from their grandfather's dating back from the beginning of time. Grandfathers groomed their grandsons as stick players. We were taught that sticks was a mans game.



Young Walt

Individuals from villages often made medicine on their sticks. Training was consisted and perfected to develop discipline, strength, endurance and skill. Rules were strictly adhered to and there were spiritual locations among the Yurok people to train.

The game is played on an open field, river bar or the beach, usually between 150 to 300 feet depending on area. A team is made up of three players on the field, a center man, an anchor man, and a runner. Teams align themselves with their counterpart, anchor against runner, center against center and runner against anchor. Each grouping is approximately 50 feet or



Walt "Blacksnake" Lara

more from the next grouping. Spread along the field. The spectators circled the field and cheered on the players.

The stick, approximately 36" long with a 2" curve (3/4 angle), on the end, and approximately 1" in diameter is made of iron wood, hazel or mock orange. Tossels are 4" long, 2" diameter and tied together 5" apart with a buckskin strap. It is made of oak or manzanita wood.

To start the game there is a coin toss to see which center man gets the tossel. The tossel is then held in the mouth of the coin toss winner. The two end counter parts lock arms. The two center men scratch the ground, marking an x in the dirt with their sticks. Once the tossel is dropped, the game is on. The centers will try to toss the tossel in the direction of their goal line. If he is fast he will run ahead of the other player and toss the tossel across the goal. Or if the center doesn't think he can out run his opponent he can wrestle him down, hold on to him until his team mate can break free of his counterpart and get to the tossel. He can also drag the one holding him to one of his team mates to hold down. This will allow for him to break free and run for the tossel. Each counterparts will wrestle each other down, preventing participation of that player. Many times, I have had to hold two guys down so that my team mate could make the goal. The stick can be as a tool to hold your counterpart down. It was not meant to be used to harm or disable your opponent. We were taught, not only, to respect the game but each other!

There is a coach for each team on the field. The coach might straighten out the tossel if it were tangled and preventing the stick from hooking the tossel smoothly. There is also a coach on each goal line to verify that the tossel crossed the line. A coach carries a extra stick just in case one of his players lost or broke a stick. A coach

would hand it to his player. The old timers would make medicine on the sticks, if he left or dropped it an opponent may pick it up and steal his medicine. Skill and ability to wrestle and contain the opponent is a strategy but the goal of the game is get the tossel across the finish line.

The game is played in rounds. The rounds would last as long as it took to get the tossel over the finish line. The boys could be wrestling for hours. Whatever team won two-out-of-three rounds won the game.

You could say that the stick games were like the NBA but, instead of cities being represented villages and tribes were represented. Yurok villages played among themselves and the winning team would represent the tribe against other tribes. During this time a winning team may borrow a player from another village to play against another tribe.

Training as a young boy, Oscar would have me run the beach for miles, sometime twice a day. I learned to slinging the tossel ahead of me as I ran. Don and Grover would wrestle with me around for hours at a time. They were big and tough and they wouldn't cut me much slack. That's how I learned to wrestle and to break free of their holds. My



Young Walt

grandmother would say, "oh dear," every time she saw me coming in with dirty clothes. Later in life, Glenn would take me to Rockpile at the head of Ha-ah-mar creek the stick game training field. He would share the old stories of stick players that he knew had trained there. In my early teens, Grizzly took Ralph Downs and myself to Kenick, the center of the Yurok world, where Wou peck amou and other spirit beings played sticks. Grizzly said this was a stick field where he trained.

Dewy had me train across the river from Sragon. He pointed out a tree up the hill. Then he had me fill my mouth with water and run up the hill to the tree. The run may be 3 to 5 minutes, maybe more, I had to breathe through my nose to strengthen my lungs.

My Grandfather was around for all the games. He was much older than my coaches and like to watch all the different kinds of training I went through. My Grandfather seriously supported the efforts and medicine of my trainers. He didn't allow me around the dances and I had to keep my distance from women and strangers during training times. Frank Douglas and Dewy were my elders and they were constantly going over the rules with me so that there weren't disputes of how the game should be played.

Sticks was and is today a sport, not done to settle conflicts or disputes among villagers. We are an orderly people and have always had a very strict way in which to address a conflict. Our coaches taught us discipline and teamwork. We were told over and over, "the kind of man you were on the stick field was the kind of man you would be in life." We had a commonality among us, we listened, and played our hearts out. I was 24 years old when my Grandfather passed away, but I played on. The last game I played in Hoopa, I was 54 years old. We Won!

It is difficult to talk about these memories with so many of my mentors gone. I am proud to say that there are stick players today that are accomplished players who maintain the highest standards of the stick game. The training, the discipline, the teamwork, the medicine and the respect for the game and each other, are spiritual requirements. Sticks are not only played here but in the spirit world by our ancestors. Over the years, I have seen changes in the game, new rules or a different understanding for the purpose of a game. But if you were to ask me what I know about the game, I can testify to my experiences. I had the privilege to learn from the old timers, I myself am an old timer. The stick field has been a 75 year journey. Again, I apologize for mentioning

the names of those who have crossed over but it is my spiritual responsibility to pass this knowledge on to the descendants of those mentioned.

Through this article we can make the comparisons of stick players to fire fighters in so many ways. I took a group of young men and women to MF Mountain, Sycuan Indian Reservation, in Southern California, to the Wildland Fire and Aviation Academy a few years ago. The training was strenuous and disciplined. During the graduation ceremony a team of fire fighters told a story of their challenges. The team had been given a task to run the Mountain, within a time line. There was a woman on the team who had difficulty with the task. The other team members pulled her up and over the mountain. All completed the task together. The spirit of team work and respect for each other was overwhelming to me. I'd like to dedicate this article to those fire fighters, men and women on a "different kind of field," who understand the spiritual responsibility to lives, homes and resources! Walt "Blacksnake" Lara



Thanks!

Thanks again to those of you who have submitted articles and photographs. Keep up the great work!

Submission Criteria

Please include the author's name, title and location, captions and high resolution photographs attached as separate jpeg files. The article submission deadline for "Smoke Signals" is as follows:

March 1
June 1
September 1
December 1

Please start submitting articles for the next issue of Smoke Signals as soon as you can! Thank you!

"When in doubt, tell the truth." ~ Mark Twain

Distribution

Please route this publication to your staff as well as to your EFFers. If you need additional copies for your staff, or need copies sent to an another address please contact us. Please make sure your seasonal fire employees have an opportunity to read Smoke Signals!

Contact Information

Dave Koch ~ 208/387-5577
Dave_Koch@nifc.gov
FAX: 208/387-5580
Laurel Simos ~ 208/387-5313
laurel_simos@nifc.blm.gov

Mailing Address

BIA/NIFC
Old Administration Building
3833 So. Development Ave.
Boise, ID 83705-5354
Attn: Smoke Signals

Thank you!

Smoke Signals has had a lot of really excellent submissions over the past few months. So many that we were unable to print them all in this volume, so stay tuned, because we will put those we were unable to include into the next issue. Thanks again for the tremendous response!

Article Submission Checklist

- Author's name
- Author's title
- Author's agency/location

- High resolution jpg photos
- Photo captions
- Names of people in photo and where they work

- Contact name, number, and email address