

THE BEGINNING OF FIREFIGHTING ON THE PAYETTE NATIONAL FOREST 1905-1960



Compiled and Edited by
Kolleen M. Bean and Peter Preston 1999
Expanded and revised by Steve Stoddard
Heritage Program, Payette National Forest
Forest Service, Intermountain Region
U.S. Department of Agriculture

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Preface

The National Forest System had its beginning with the Forest Reserve Act of 1891, wherein expansive tracts of timbered land were set aside from the public domain and administered by the Department of the Interior. Early foresters, led by Gifford Pinchot, Chief of the Division of Forestry, regarded fire protection to be a fundamental mission of the profession and was so noted in Pinchot's 1899 *Primer on Forestry*. On horseback or foot, the early ranger was expected to rush to a fire and control it. If he was lucky, he would have the help of a team of local residents, but more often, he did so on his own (West 1991:1)

On February 1, 1905, the Transfer Act established the Forest Service within the Department of Agriculture, with Gifford Pinchot appointed its first Chief. Pinchot continued his earlier policy of fire control as the principal mission of the newly formed Forest Service, which had been used to justify the creation of the agency (Pyne 1981).

On June 3, 1905, the Payette Forest Reserve was created, a large area that covered most of the Payette River watershed. From this large reserve, the Idaho National Forest was designated on July 1, 1908. The Idaho National Forest and the adjacent Weiser National Forest were combined on April 1, 1944 to form the current Payette National Forest (Hockaday 1968:28, 34).

From the earliest days of the Payette Forest Reserve to the present, controlling wildfires has been a primary mission for those employed by the Forest Service. Starting with only a handful of rangers to cover the vast area, there is now a fire fighting force of hundreds of people supported by technology that was unheard of in 1905. The following accounts provide an insight to the conditions of early fire fighting on the Payette National Forest.

This monograph was produced as a part of the Heritage Program of the Payette National Forest under the auspices of the Forest Archaeologist and Program Director, Lawrence A. Kingsbury. The original work was produced by Dr. Kolleen M. Bean in April of 1999, with more elements of forest history added by Peter Preston in October of 1999. In December, 2000, it was revised by Steve Stoddard and the sections outlining lookout history were added.

TABLE OF CONTENTS

Introduction	1
Map of Payette National Forest Showing Location of Major Fires	3
Tree Ring Records of Early Fires	4
1906 Loon Lake Fire	4
1908 Early Fires	5
1910 Fire Season on the Weiser National Forest	5
1910 Fire Season on the Idaho National Forest	6
1919 Fire Season on the Weiser National Forest	6
1919 Fire Season on the Idaho National Forest	7
Lookouts and Smokechasers 1910-1919.....	7
Lookouts and Smokechasers 1920-1933.....	8
Salmon River Breaks Fire, 1931	8
Air Transportation in Fire Control	32
Carey Creek Fire, 1934	33
Lookouts 1933-1950.....	36
Fire Communications and Lookouts in Warren, 1934	37
Sheep Creek Fire, 1934	39
Porphyry Creek Fire, 1935	41
First Smokejumper Fatality, 1946	43
Zena Creek Fire, 1946	46
Circle End Fire, 1949	48
Lookouts, Firefighting Techniques and Strategy 1950-1960.....	50
Glossary of Terms	51
References Cited	52

Introduction

The National Forest System had its beginning with the Forest Reserve Act of 1891, wherein expansive tracts of timbered land were set aside from the public domain and administered by the Department of the Interior. Early foresters, led by Gifford Pinchot, Chief of the Division of Forestry, regarded fire protection to be a fundamental mission of the profession and was so noted in Pinchot's 1899 *Primer on Forestry*. On horseback or foot, the early ranger was expected to rush to a fire and control it. If he was lucky, he would have the help of a team of local residents, but more often, he did so on his own (West 1991:1)

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In southwestern Idaho 1910 and 1919 were particularly bad fire years. Prior to 1919 the National Forests of the area had very limited equipment and there was not much organization for fire control. A typical fire fighting force on a Ranger District was the Ranger, a Fire Guard, and a lookout. A result of the 1919 fire season was the initiation of district fire plans in 1920, which included provisions for trail maintenance, telephone maintenance, tool caches, securing horses and other transportation, manpower, and ration depots. During the 1920s and 1930s there was a continual upgrading of fire control equipment and procedures. The road, trail, and telephone systems were expanded to facilitate travel and communications. Portable telephones became available and were carried by key personnel, to be attached to a nearby telephone line (Murray 1957:10-11)

In 1926 the Intermountain Region (R-4) Fire Manual was written and distributed. More lookouts were established and cabins were built to replace the tent sites. In 1929 fire training was organized on a school basis. Gasoline-powered fire pumps became available in 1929 with practice on its use on brush burning jobs. In 1930 the standard smokechaser outfits were made up to replace the tool cache system. The smokechaser outfit included two shovel sizes and the Koch tool, which was a handle to which a grub hoe or shovel could be mounted. The back-pack pump came into use about this time. A valuable early tool was the Pulaski, an ax and grub hoe combination head on an ax handle (Ibid:12-13).

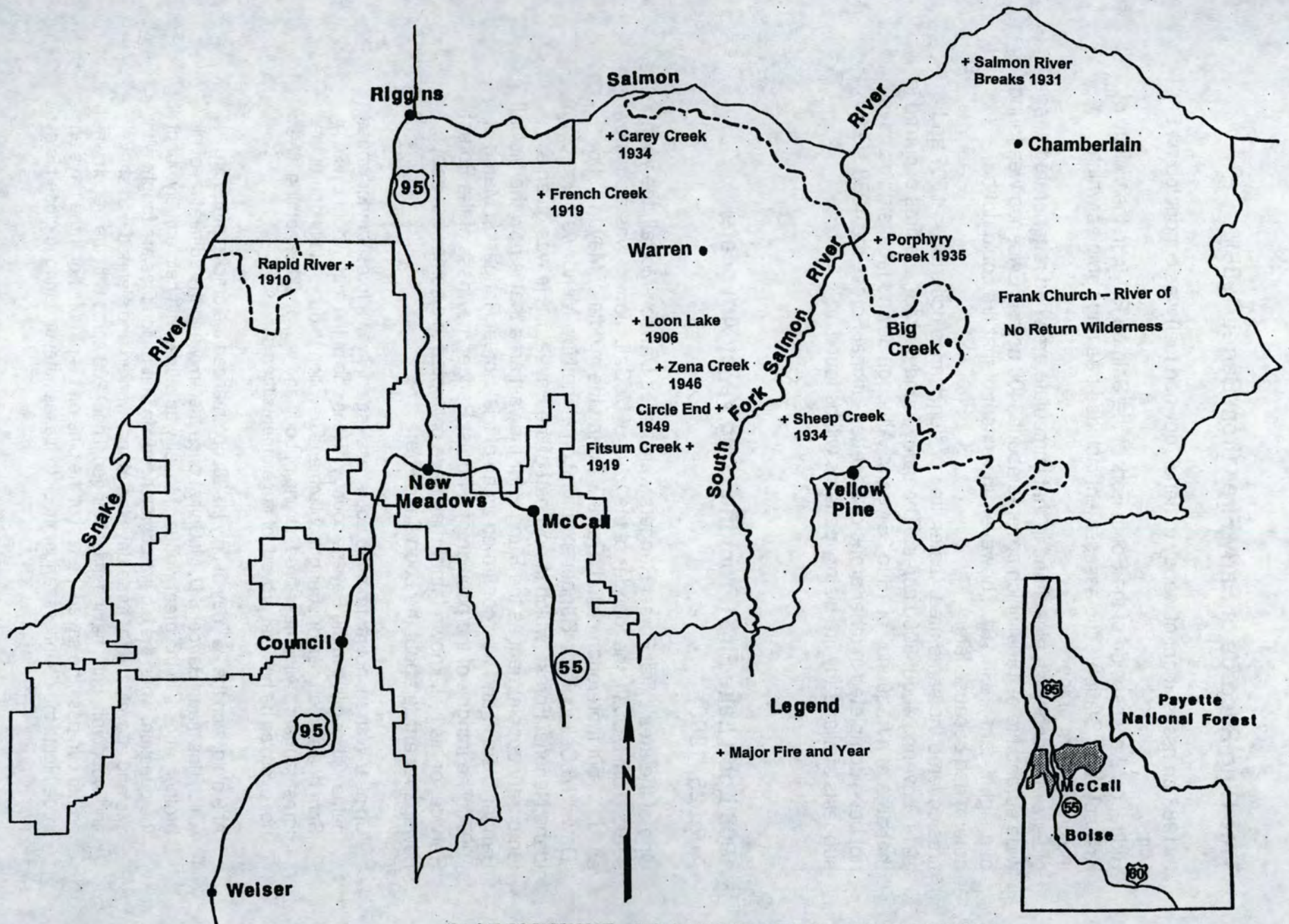
The Civilian Conservation Corps (CCC), established in 1933, became a very

effective fire fighting force through intensive training and experience. The "one-lick" or "step-up" system of building a fire line was adopted, where fire fighters are spaced several feet apart and each one turns a shovel full and moves on, keeping the crew moving and rapidly lengthening the fire line. The mid-1930s saw the introduction of Travelair and Ford tri-motor aircraft to drop supplies to fire crews. Small pumper trucks came into use about the same time. Two-way radios were introduced in the late 1930s. Smokejumper experiments began in 1939 and in 1940 small smokejumper units were established. World War II put a severe strain on the manpower that could be put to bear on the fire control problem, however, no serious conflagrations occurred (Ibid:17-18,20).

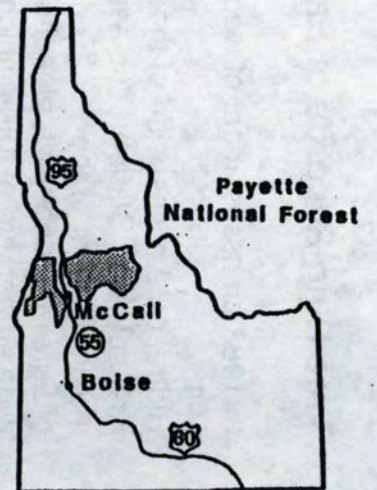
Documentation of the fire control history on the Payette National Forest for the period 1944-1989 is contained in *Fire Control History on the Payette National Forest*, by Melanie Jones, 1990, a monograph of Cultural Resources Management Program, Supervisor's Office, Payette National Forest.

From the earliest days of the Payette Forest Reserve to the present Payette National Forest, controlling wildfires has been a primary mission for those employed by the Forest Service. Starting with only a handful of rangers to cover the vast area, there is now a fire management force of hundreds of people supported by technology that was unheard of in 1905. The following accounts provide an insight to the conditions of early fire fighting on the Payette National Forest.

The following page is a map of the Payette National Forest showing the location of the major fires described in this text.



PAYETTE NATIONAL FOREST



Tree Ring Records of Early Fires (from Barrett 1988)

In 1988 an assessment of woody material (downed fuel) was conducted on Six Mile Ridge, on the west side of the South Fork of the Salmon River, in the vicinity of Krassel Work Station. The assessment included tree ring samples which indicated most of the old growth ponderosa pine stand in that immediate area had regenerated after a wide spread fire of 1808 which covered about 3400 acres. Evidence was found of a significant fire in 1611, however, the extent of that fire could not be determined because later fires covered the same area. Later fires of significance occurred in 1901 and 1911, covering about 8000 acres. The study found that surface fires occurred in that area at a frequency of 16 to 35 years. Although downed fuel studies have not been completed in other areas of Payette National Forest, the 1988 study suggests similar early fire history patterns will be found.

1906 Loon Lake Fire (From the *Long Valley Advocate*, Aug. 26, 1906)

One of the area's first Forest Rangers was James Dawson McCall, the youngest son of Tom McCall, the founder of the town of McCall. James was also known as "J.D." but more often called "Daws." During the middle of May in 1906, "Daws" McCall took the Ranger examination at the New Meadows office of the Idaho National Forest (which is now part of the Payette). He was given a temporary appointment as the Ranger for the vast area that is now the McCall Ranger District, and was confirmed as an official Forest Ranger on March 8, 1907. The intrigue of the position of a Forest Ranger, newness of the Forest Service, or his well-known father may have prompted this somewhat poetic newspaper article about the Loon Lake Fire:

Up near Warren, not far from the Loon Lake region, lives a forest ranger whose name will long live in the Payette country. He is one of the men whom Uncle Sam has singled out for strength of limb and devotion to duty. He is one of the forest rangers - wilderness bred, strong of body and will, afraid of nothing alive, nor even, as he has just proved, of the elements themselves.

At 9 o'clock on the 25th day of July [1906] commenced the crackle of the fire which has made Ranger J.D. McCall at once the envy and the admiration of his brother rangers in the great woods. McCall was alone, with help entirely out of the question, when the big fire commenced. In that region fires are fought with axe and shovel, and for three days the ranger worked and planned with shovel and woodcraft, until, having at last fringed [lined] 200 acres with the trench which no fire can pass, he saved the rest of the pine on his patrol. For three days and three nights the dauntless ranger stuck to his task, never daring to close his eyes

for sleep, nor to leave the spot. Help was out of the question, but the ranger's nerve was good, watching the crawl of the fire like a cat and heading it off with stratagem and sureness. His single-handed fight is quite unmatched in recent history, and hardly 25,000 [board] feet of timber were destroyed. McCall is a native of Long Valley and is 23 years of age.

1908 Early Fires

A forerunner of the present backpack pump was first used on the Weiser Reserve. A fire started that year on Boulder Creek in a bad location. It was burning in dense underbrush with numerous rotten logs. There were five or six men on the job when the Forest Supervisor, J.B. Lafferty, arrived. He found that one of the crewmen, Frank Laib, had removed his overalls, tied knots in the legs, and was carrying water in them to put out the fire in the logs. The overalls were covered with pitch, making them watertight and good water bags (Lafferty n.d.).

1910 Fire Season (From Lafferty n.d.)

Up until the 1910 fire season, the Weiser National Forest was fortunate to have no major fires. Established as a Reserve in May of 1906, it originally contained about a million and a quarter acres of land. Extending from Ola on the south to Whitebird on the north, and from the Snake River on the west to the Payette River on the east, the Weiser measured approximately 120 miles north and south by 40 miles east and west.

The 1910 season opened the eyes of those in charge of the forest. By July of that year several fires were burning on the Weiser, three of which had reached large proportions. The Boulder Creek Fire burned almost 2500 acres before finally being corralled. One fire in Round Valley, just east of what was known as the Black Bear Inn, burned more than 3,000 acres before a crew of ten men had it under control.

The Rapid River Fire, which started near North Star Butte, was put under the direction of Ranger Clabby. R.E. Clabby was an earnest and hard working Ranger. He was with Engineer John Clark when he surveyed the west boundary of the Weiser Reserve and Clark recommended him very highly for a Ranger position. After transfers to several other Forests, Clabby came back to the Weiser.

After Clabby had the fire practically surrounded, strong winds picked up and the fire blew up. Spreading over Pollock Mountain and down the east side of Rapid River, it nearly trapped Ranger Clabby. As he was crossing Frypan Creek, a steep funnel shaped gulch just above the fire, he saw the flames crown out and start towards him with a high wind behind them. Clabby said he never new how he did it, but he managed to outrun the fire and escape. When he reached camp, only a short distance from there, he found Assistant Ranger L.G. Wallace

walking back and forth wringing his hands and praying like a good fellow. Wallace had seen the fire make the run up Frypan Creek and was sure it had caught Clabby.

The Rapid River Fire burned more than 20,000 acres before being controlled. In its path it ran over a band of sheep belonging to Holt and Rhodes of Pollock, Idaho. Lucky for some, the ones that were bunched closely together were only slightly hurt, the fire ran quickly over their backs and passed on. However, about 400 head were strung out along the trails or in small groups. These were blinded and had to be killed. Since Ranger Clabby had only 12 men to assist him with this fire, the weather was actually the hero of this firefight, getting the fire under control before the crew was able to.

After this experience, the Weiser took fire prevention more seriously... although they still kept their crews small. They planned their organization in advance of the season, distributing tools throughout the reserve, and treated fire prevention and suppression as the number one job during fire prone periods. Prior to 1920 they never had more than 50 men on any one fire (Lafferty n.d.).

1910 Fire Season on the Idaho National Forest

There is no narrative record of 1910 fires on the old Idaho National Forest, however, available records of the current McCall Ranger District note fires of significance at Fisher Creek, Brundage Mountain, Little French Creek, Lake Fork Creek, and Hazard Creek.

1919 FIRE

As of record, I, Glenn Thompson (1971), was born on the old Thomas Gray Ranch in Indian Valley on May 8, 1909. Through those early years our ranch was one of the most accessible to travelers where food, lodging and care of stock could be had without charge. As most of the visitors and travelers were old timers, I heard many first hand accounts of the areas early history.

With the exception of one ranch, this valley was cattle and horse country from the first settlement of bottomlands in the late 1860's. Every boy from the age of 8 or 9, helped in handling the cattle on the ranch and on the range. Our chief job during beef round up was to herd and hold the selected animals to be shipped. These range round-ups sometimes lasted two weeks, especially during the World War I years when so many extra stock were involved, and their homestead type owners had only work horse to ride and had little knowledge of the range or their cattle.

I recall vividly the forest fires of 1919. All able bodied permittees with hired hands were called to fight fires by the ranger. We boys went along to serve as horse wranglers and horseback waterboys. From high points at night we could

sometimes see crown fire topping peaks over 50 miles away. The rapid burn up the west side of Council Mountain on a clear night was especially spectacular.

[Glenn Thompson was Chamberlain District Ranger on the old Idaho National Forest 1940-1942, Supervisor of the Salmon National Forest, and completed his career as Assistant Regional Forester for the Southeastern Region]

1919 Fire Season on the Idaho National Forest

There is not a narrative account of the 1919 fire season for the old Idaho National Forest, however, existing records indicate the following fires of significance:

Three Mile Creek	8000 acres
Jessie Creek	17000 acres
French Creek	19000 acres
Fitsum Creek	18000 acres
Thomas Creek	3840 acres

Lookouts and Smokechasers 1910-1919

After the devastation of the "Great Fire" of 1910, it was obvious that fire detection had to be improved. A system of fixed observation points, called lookouts, was established throughout Idaho, with the first being built at Bertha Hill above the town of Pierce. These consisted of platforms built in trees or just camps on high peaks, linked to a central office by telephone. The job of the person stationed at these points was to look for "smokes" and then to communicate the location of the fire to a central dispatcher who could get a crew to the fire and put it out before it got large. Forest Guards and "smokechasers" were also given regular routes to patrol with periods of observation at each high point on the route.

The effectiveness of this method was proven to work well; by 1920, fire inspectors were recommending the construction of more and better lookout facilities. A comprehensive fire analysis was submitted by John McLaren, National Forest Examiner in 1920 to the Regional Forester, in which he made the following observations:

"... On many peaks no shelter of any nature is provided for the observer or to house instruments, on another a crude shelter has been rigged, while in a few cases glassed in observatories have been constructed.

At high elevation in the mountainous country there is almost a continuous strong wind and it is impossible to be physically comfortable and remain on duty except for short periods of time. Efficiency is decreased materially by absence from duty even for short intervals and it is therefore of prime importance that buildings be provided.

For the forests in the fire group it was found that living quarters are

distant from the observation points ranging from a ten minute walk to two and one half miles. It is not only essential that the observer be made comfortable to get best results but it is just as essential that he be at the point of observation as nearly continuously as possible.

It is therefore logical that wherever there is suitable space for living quarters on top of the peak that with few exceptions the observatory and living quarters should be combined one above the other" (McLaren 1920:6-7).

By 1921, these recommendations were put into practice, and permanent lookout cabins began to be constructed through out the forest, including the remote section known as the Idaho Primitive Area.

Lookouts and smokechasers 1920-1933

After analysis of the 1919 fire, the effectiveness of the lookout system was recognized, so more were built, most to be staffed for the full fire season, and others (usually older camps on lower elevations) only occasionally. Most of these were constructed according to a standard plan, but some were unique: built in remote, inaccessible areas, these were made largely out of local materials so that the absolute minimum had to be packed in. Some of the old tree platforms were still in use, but cabins were built near them for the comfort of the lookout. Each observation point had a lookout, who spotted the fires, and many had a "smokechaser" who would go to the fire and put it out if it was within 12 miles of the post. When fires got out of hand, several lookouts and smokechasers from adjacent points would converge on a fire. If more help was needed, there were logging camps, homesteads, and mines spread throughout the Forest. The lookout system proved to work very well when the fires could be quenched when they were still small. By 1933, over 40 permanent lookouts were in operation.

Salmon River Breaks Fires, 1931 (Briggs 1963:75-104, 130-132)

In July of 1931, A.E. Briggs was called to McCall, Idaho as a fire detailer to help out on a serious fire situation in the breaks of the Salmon River Canyon. Being new to large fire details, Briggs sought the suggestions of a more experienced firefighter on what to bring. The following is an adapted version of his account on the Idaho National Forest (Briggs, 1963).

I was assisted in the selection of a pair of heavy logger boots, which would keep my feet in good shape, as I was told I would be doing a lot of walking in rough country. I was also advised to take several pairs of good woolen socks. My friend, Frank, suggested I carry an extra pair of socks in my belt so I could change often. He also cautioned me to bath my feet in cold water several times each day, as there is nothing more pitiful than a detailer with sore feet on a project fire. Frank was aware that my experiences on big fires was lacking and

he wanted to help me avoid mistakes and as much distress as possible.

Upon reaching the Forest Office at McCall around 11:30 p.m. I could see the outline of a building through the darkness. A large lawn area and several large yellow pine trees surrounded the office building. As I started across the lawn in the darkness, I stumbled over some object. I recovered my balance and started to move toward the building only to stumble over another object, and I continued to stumble over similar ones until I reached the building. At dawn the next morning, I counted over 100 men leaving their sleeping bags. They were firefighters to be transported to the end of the truck roads and then walk to the fire lines.

That morning I was introduced to C.N. Woods, Chief of the Division of Operation and Fire Control in the Intermountain Region of the Forest Service. C.N., as he was commonly referred to, explained that a serious fire situation existed on the Idaho Forest. It was an extremely bad fire year and the dry weather and low humidity was getting worse each day. Lightning had started four fires in the breaks of the Salmon River and the fires had spread to each other. Approximately forty miles of the breaks of the Salmon River were on fire. There were already 800 men on the fire line.

The Warren Ranger Station was one of the main distributing points for getting food, supplies, and equipment to the fire camps. Located approximately 45 miles from McCall, supplies were hauled by truck and then transported by pack animals to the fire camps. C.N. explained that it was taking too long to supply the crews with food and other supplies and that they were having problems with the packers, the men who handled the pack animals. He gave me the job of straightening out the distribution problem, including the packer troubles.

I didn't get half way to Warren when I was summoned back to McCall. C.N. had received a telegram from Roy Phillips, Supervisor of the Nez Perce Forest, pleading for overhead to lead a 50-man crew he was recruiting and equipping to send to Salmon River Canyon to try and stop the fire from jumping the river to the Nez Perce side. Phillips explained that his men were having difficulties stopping spot fires. The fire camp was to be established at the Ayres Ranch on the north side of the Salmon River, and would be supplied and equipped from the Supervisor's Office at Grangeville, Idaho. They would be boating the fire crew back and forth across the river.

I left for Grangeville around 6 p.m. that evening in a tri-motored Ford airplane. They said it was a dependable wheelhouse for getting men and supplies to the developed landing fields in the "back" country. The seats had all been removed except for those of the pilot and co-pilot. The plane was loaded with sleeping bags, food supplies, and seven men, including myself. They said the plane was good for 2,000 to 3,000 pounds of freight. The pilot was Nick Mamer, a veteran mountain flier.

We had two high summits to cross between McCall and Chamberlain Basin. As we crossed over the second summit, we entered a dense pall of smoke from the fires and visibility was zero. The pilot circled the plane several times over what he thought was the vicinity of the Chamberlain Basin landing field, but could not locate it in the dense smoke. The pilot quickly made the decision to return to McCall, as it would soon be dark.

Lookouts on Pilot Peak, Sheepeater Peak, and other lookout points had been following the progress of our plane, noting the dense smoke over Chamberlain Basin. They had heard the plane circle several times and then turn back toward McCall. Knowing the pilot may be in trouble trying to land in the dark, they informed the men at the Supervisor's Office that we were heading back and would be attempting to land in the dark. The men rushed several cars and trucks, gasoline lanterns, and flares to the McCall airfield and soon had it framed with lights. The pilot had no difficulty landing our plane thanks to them.

When I stepped from the plane, there was C.N. He said "I thought I sent you to Chamberlain Basin and Grangeville. You are a hard man to get out on the fire line!" I informed him that I was well aware of his orders, and had I been equipped with a parachute, I would have jumped from the plane while it was over the Chamberlain Basin.

The flight the next morning was delayed until about 10 a.m. in hopes that the smoke pall would have partly moved out of the Basin. The smoke had cleared out sufficiently to see the landing field when we arrived about 11 a.m. and Mamer had no difficulty landing. The food, supplies, sleeping bags and six fire fighters were unloaded. The pilot then left for Grangeville with only the pilot and me aboard.

When we crossed the Salmon River Canyon, I could see the type of country we were to fight fire in, although the visibility was quite limited because of smoke. Salmon River Canyon is a tremendously deep and narrow gorge for approximately 60 miles between Shoup and Riggins. Precipitous granite ledges box in much of the canyon. The pilot maneuvered the plane over the section of the canyon where the fire had reached its up-river limit. From the air, it appeared that the granite ledges were burning. It was an ominous sight. This was where, with 50 men, I was to attempt to stop the fire.

We reached Grangeville and I was immediately taken to the Forest Supervisor's Office where I was briefed on the job ahead. The fire crew, supplies, and equipment had already left Grangeville that morning for the fire camp. After being furnished with a map showing the location of the fire camp in the Salmon River Canyon I was taken to Dixie over a narrow, winding road, arriving there about sundown. I decided to stay the night in Dixie and start for the fire first thing in the morning.

Salmon River Gorge

At daylight I started down the trail toward the Salmon River. It was a high standard trail with many switchbacks down the steep slopes into the canyon. There were mileposts which kept me informed of the distances I progressed along the trail, it was beginning to warm up when I reached the canyon bottom, approximately three miles down-river from the fire camp.

A benchmark along the trail near the river showed the elevation at 2,400 feet, a drop of approximately 5,000 feet from the crest of the breaks. Temperatures are very high in the Canyon during the summer months with temperatures of 100° to 110° typical. The steep slopes on both sides of the canyon support yellow pine timber and a lush growth of wheat grass and other grass and weed species. Some of the most vigorous growth of *balsamorhiza sagittata*, or balsamroot (wild sunflower) can be found on the steep slopes of the canyon. When the grasses, weeds, and the deep duff from pine needles become dry, an explosive fuel condition is created during periods of high temperatures and low humidity. Yellow pine fringes into lodgepole pine, Douglas fir, and spruce on the upper one-third of the slopes, which finally merge into pure lodgepole pine stands on the crest of the breaks.

During the high heat and windy part of the day, when fire makes its big spread, crown fires develop and hot cinders from burning trees carried by the wind currents are scattered sometimes a mile or more in advance of the main fire and these start spot fires. These spot fires smolder and spread slowly during the night and early morning. Then as the heat and wind increase, crown fires again develop and the whole countryside explodes into flames and a roaring inferno, which can be heard for miles. It is a terrifying spectacle. Man is puny against such forces.

I reached the fire camp about 11 a.m. The fire crew had the camp well arranged and the cook was preparing lunch. I introduced myself to the crew and commended them on the good camp arrangement, just as though I knew what a good camp layout for a fire crew should look like. They were a husky, rugged appearing group. Ranger Higgins of the Nez Perce Forest was in camp and pointed out the man who had been selected to serve as foreman of the crew. His name was Kelly, and he was a typical red-faced Irishman. He almost crushed my fingers when he grasped my hand. After a week or so on the fire line, Kelly was tops with me as a foreman. He knew how to fight fire and how to handle men. The head cook was a slightly built, dark complexioned man, with very dark eyes which could look through men and keep them out of the kitchen space. He proved to be a high caliber fire camp cook. Ranger Higgins said the crew had been carefully screened before they left Grangeville. They were all husky and experienced fire fighters. There were three Nez Perce Indians in the crew.

The fire had started its rapid spread for the day and nothing could be

accomplished on the fire line until early the next morning. Kelly said there was a 14-foot, rough lumber boat anchored on the riverbank near the camp. It was somewhat waterlogged, but serviceable. We would need at least one additional boat to get the men across the river in reasonable time.

After lunch and some organizational planning, I decided to visit and get acquainted with our neighbors, the Ayres', an old couple holding down a one-acre farm at the mouth of a small canyon some 200 yards above the fire camp. The soil was alluvium deposit from the canyon above. The natives on the little farms referred to them as bars. They ranged in areas from a half-acre to several acres. The soils were very fertile and with irrigation, would produce fruits and vegetables abundantly during the long growing season in the canyon bottom. The most flavorful peaches, cherries, apricots, and other fruits I have ever sampled are grown on these little bars. Some folks grow peanuts and tobacco. A small stream of water from the canyon above is used to irrigate the crops. Areas not used to grow fruits and vegetables are planted to alfalfa, which is relished by deer.

The Ayres had a good variety of fruit trees, berry bushes, a fine vegetable garden, and a small patch of alfalfa. They lived in a very rustic 2-room log cabin with a shake roof. On the side of the cabin facing the river, a partly enclosed shelter was furnished with a rustic bunk bed for use by guests.

The Ayres were kindly people and were very hospitable. They had purchased the little farm and cabin two or three years previously and had moved there to get away from the "big rush of people." Their nearest neighbors were approximately three miles up the river on another little farm. They appeared to be very happy and contented. They didn't seem to mind the loneliness and isolation. From their little farm and home it was about eighteen miles by trail to the nearest road and about fifty miles over a narrow winding mountain road to the nearest community of any size.

The Ayres were very much concerned about the fire on the opposite side of the river. They said it would be very dangerous to try to build fire line in efforts to stop the fire on the steep slopes because of the rolling logs and rocks, loosened by the fire. I agreed it would be very dangerous but we must try to stop the fire. I also had my doubts that it would be good business to place men on the steep slopes below the fire.

Mr. Ayres said he was quite sure he could acquire another boat from a man who lived about eight miles up the river and would be willing to try for it. He would float it down the river to the fire camp landing to help get the men across the river. Arrangements were made with Mr. Ayres to acquire the boat and bring it down the river the following day. A husky fire fighter was detailed to accompany him on the trip for the boat. Before I left the Ayres cabin, they invited me to roll my sleeping bag out on the bunk bed in the shelter of the cabin. They said I

would need all the rest I could get and thought it would be more quiet there than at the fire camp. I accepted the invitation.

I returned to the fire camp and arranged through the foreman to have breakfast finished and lunches prepared by daylight the next morning. We would then start boating the fire crew across the river and try to anchor the fire line to the riverbank. The foreman suggested that the only chance we had for success in stopping the fire was to start at the riverbank and then build the fire trench near the end of the fire while it was cooled down. Then when the fire warmed up and started its fast spread during the wind and heat later in the day, we would try to hold the fire line we had built. This was found to be sound advice and strategy in stopping the fire.

Directly across the river from our fire camp there was a fan-shaped bar, about an acre in area, at the mouth of a steep narrow canyon. There were several large yellow pine trees on the area. The fire was spreading rapidly through the grass and duff. It was nearly sundown and through the dim light and dense smoke we spotted five deer on the upper edge of the steep bank. The bench was approximately thirty feet above the water level and there were many house-size and smaller granite rocks between the bench level and the water level. The deer were rapidly milling around and obviously were very confused and in great distress. Judging from their actions, they had been singed by the fire and were being affected by the dense smoke. The deer suddenly disappeared from our view.

After the deer had disappeared, a sizeable black bear appeared on the edge of the bank. He too, was in distress, but unlike the deer, he wasted no time making his way down the steep bank and onto a rock near the water level. He was still there licking his paws when darkness set in.

The next morning, after the men had been boated across the river and started work on the fire line, I walked down the river a few hundred yards to the place where we had seen the deer and bear. I soon found the remains of the deer. They had been burned to a crisp. I could find no bear tracks leading through the ashes from the river and concluded that the bear had crossed the river during the night. Finding the burned remains of the deer was mute evidence of the tragedies and damaging effects of fast running fires. Apparently the deer were unable to realize they could escape a horrible death by making their way down to the water edge or crossing the river. The bear apparently knew how to escape; one of the quirks of wild animal wisdom and behavior. I wondered how many hundreds of other animals had been trapped and lost in the raging inferno.

Fire Line Strategy

The fire trench was started at the bank of the river on the edge of the fire. It was obvious that all the crewmembers were experienced in fire line construction. A

narrow trench was cleared through the duff to mineral soil. All burning materials were thrown on the fire side of the trench. Small trees and limbs on trees on the fire side of the trench were removed to prevent crowning by fire and to prevent hot cinders from crossing the trench when the fire warmed up and started to spread later in the day. As the fire line was built up the slope, a crewmember was left each hundred feet or so along the line to cool down hot spots where the fire might cross the line. This was referred to as "mop-up" work, and insured a cool line and insurance against the crewmembers being trapped by fire rapidly spreading up the slope from below them.

By 11 a.m. the crews had completed approximately three-fourths of a mile of fire line up the steep slope. Then the fire began to make its fast spread of the day as the heat and wind increased. All the crewmembers were then deployed along the completed fire line to hold down hot spots and prevent the fire from crossing the completed line. The mop-up work included catching and extinguishing burning pine cones and logs as they rolled across the line and started new fires. Through what appeared to be almost superhuman efforts in dense smoke and heat, the crew was able to hold the line until evening when the fire started to cool down. What a fire crew that was!

The spread of fire on steep slopes is always in a very irregular line and is diagonally across the slope. The fire front is always much further advanced to the right or left, higher on the slope, depending on the wind direction. The fire line or trench must always be constructed below the fire front on the steep slope. Roll of hot materials loosened by the fire is always a factor to be dealt with. Large dry trees, often referred to as "snags," burn off at the butt end and appear to sail through the air for several hundred feet before landing, breaking up and rolling down the steep slope. Sometimes the snags land on ledges, causing rocks to roll down the slope bullet fast. This is extremely dangerous to fire fighters working below. Overhanging rock ledges are sometimes used as shelters against rolling rocks and logs.

Night work on the fire line was not attempted because of the rugged terrain and the danger of rolling materials. After 14 long days of building fire line during the early part of the day, holding it during the heat and wind later in the day, and enduring dense smoke, the crew had completed approximately five miles of line through the breaks to the lodgepole pine near the crest of the breaks. The slopes were much less steep here and fire lines were much easier to build and hold. Half a dozen or so men still patrolled the line its entire length to pick up hot spots or spot fires outside the line. We had avoided injuries except minor ones. Providence had been kind to us.

On the 14th day, C.N. Woods and Don Park, a fire guard on the Chamberlain District, came to our crew on the fire line. We had been the "lost battalion" for 14 days. There had been no communications or progress reports to headquarters. C.N. wanted to know why I had failed to keep him informed of our progress by

telephone. The nearest telephone was several miles away. I suggested to C.N. that stopping the fire in the breaks was much more important than spending time traveling to and from the telephone. He allowed this was correct and said, "you have done a good job, and we are establishing a fire camp for you at Elk Spring along the main trail near the crest of the breaks." I told him the experienced and husky fire crew was entitled to all the credit for stopping the fire. Elk Spring was approximately two miles from the upper end of our fire line. We returned to our river camp that evening and planned to move to our new camp at Elk Spring the following day.

The Water Problem

Keeping men supplied with drinking water was a problem in the breaks. Each man drinks a number of quarts of water during the heat of the day on the fire line. Five-gallon canvas pack bags with shoulder straps were used to pack water to the men. During the first two miles of line construction our only available water supply was the Salmon River. After the distance had increased beyond a mile, it required six husky men to lug ample supply of water up the steep slopes and over ledges to the crewmembers. One afternoon while patrolling the line below the crew, I heard a thundering roar of rolling rocks ahead. I hurried down the line and found a Nez Perce Indian water carrier in the shelter of an over-hanging ledge. He was unharmed but scared. Many tons of rolling rock had passed over him.

Elk Spring Fire Camp

Early in the morning of the fifteenth day in the breaks, we left the river camp for our new camp at Elk Spring. Each man was to carry a sleeping bag and one fire tool, either a shovel, pulaski, ax, or crosscut saw. This proved to be a full load to lug up through the breaks, a distance of some seven miles to Elk Spring. It required about eight hours to reach the crest of the breaks. It was tough going but there were no complaints.

We finally reached the crest and found a sizable patch of huckleberries. The berries were large and ripe. We decided this would be a good place for a rest and a good fill-up on huckleberries. There were many bear tracks in the berry patch and we regretted having to deprive the bear of some, in fact quite a lot of his favorite food.

We arrived at our new fire camp at Elk Spring and found that the supplies and equipment had arrived by pack outfit a short time before our arrival. C.N. Woods, Dan LeVan, the District Ranger, C.J. Olsen, the fire boss, and the packer were there. Our men were all tired from the long pull through the breaks with the packs, but they immediately pitched in to help establish the camp. This involved

cleaning out the spring for camp water, excavating a sizeable garbage pit, excavating latrine pits, and using sides of cardboard boxes nailed to poles tied between trees to be used as tables and work benches for the cook. After the job was completed, the cook soon had supper prepared. After supper, C.N. called me aside and said, "Gene, you surely have an excellent fire crew. Most crews after a strenuous day such as these men have had would have rested while the cooks established the camp. I wish we had all fire crews of this caliber." It was a real break for me to acquire such a crew, because I was inexperienced on large project fires.

Along with the hard work, smoke and tears on project fires, amusing incidents occur occasionally to help boost morale. Kelly, the crew foreman, had a partner named Hatfield. The morning the sleeping bags were rolled for packing to the new camp, Hatfield, being a good fellow, took it upon himself to roll Kelly's bag. Unbeknown to Kelly, he placed two sizeable rocks in the roll. After we started up the fire trail, I noticed Kelly laboring hard under his pack and wondered if he was tiring more rapidly than the rest of us. When Kelly unrolled his sleeping bag that evening, he found the rocks. He had packed fifteen to twenty pounds of useless weight up those heart-breaking miles. About that time we saw two men heading down through the timber on a fast run. Hatfield was in the lead and Kelly was close behind. Soon after we heard a man pleading for his life. Soon both men returned to camp. Neither of them appeared to be any worse off because of the episode. I venture a guess that Hatfield paid in full for his prank later.

The fire camp at Elk Spring was designated Camp 4. It was given this number presumably to facilitate dispatching of food supplies, equipment, and men from headquarter supply points. There were many other numbered fire camps along the 60 odd miles of fire front to the west. We were told that there were approximately one thousand men deployed along the fire front from the many camps to the west. Camp 4 was on the nose of the up-river front of the fire.

We liked Camp 4 because it was a pretty high elevation and the daytime temperatures were much cooler than in the breaks and on the river. The terrain was much more level and fire line was much easier to build and hold. Ripe huckleberries were abundant. It seemed like heaven to us after spending fourteen days in the breaks.

The nearest neighboring fire camp and crew were located at Harlan Creek Meadows, approximately four miles to the southwest. There were approximately four miles of open fire front to be closed by the two crews through the construction of a fire line to stop the fire. George C. Larson, Assistant Supervisor of the Unita National Forest and a veteran fire fighter, was in charge of the Harlan Meadows fire crew. With good luck it would require two days to connect the line between the two crews and stop the fire spread. That would be the important accomplishment we had been looking forward to. We were all becoming "fire weary" and anxious to get the job over.

The two fire crews met on a ridge in the afternoon of the second day. There were approximately 200 yards of line to build to close the fire front. A stiff wind was blowing from the fire side and trees were beginning to crown with fire. Burning cinders and dense smoke were blowing into the fire fighters and across the line. The tree fallers would almost complete a wide swath when a wave of fire would almost overcome them and it was necessary to hurry back to the completed ends of the fire line until the wind and fire had died down. Then another attempt was made to clear the swath of trees. After several attempts were made, the line was completed and held. The crewmembers were almost overcome with heat, smoke, and strenuous efforts, but they had whipped the fire. It was then a matter of holding the line and completing the mop-up job.

Lightening had started a raging inferno on Whimstick Creek, approximately fifteen miles southeast of Camp 4. About half the men from Camp 4 and other men from camps to the west were sent to the new fire. The remaining men in our camp were held for mop-up and patrol work on the fire line extending from Salmon River to Harlan Meadows, a distance of about fifteen miles. It was my responsibility as sector foreman to hold the line. The fire was still dangerous. There are unaccountably some unburned areas of timber inside the fire line on all large fires. Some of these areas would "blow up" each afternoon during the heat and wind and we could always expect at least a few spot fires to start behind the line from burning cinders carried by the wind. We learned where the dangerous sections of the line were and efforts and men were concentrated there. We had a bad time during days of increased wind velocity and decreased humidity. But due to the alertness, know how, and determination of the crewmembers, and with some help from Providence, the line was held until the start of more favorable weather.

Bear Country

We soon learned that Camp 4 was in an area heavily populated by bear. We saw no signs of grizzlies except an occasional track, but brown and black bear were numerous. An abundance of huckleberries and other preferred food made it bear heaven. Camp refuse placed in a sizeable garbage pit near the camp was cleaned out each night. Tin cans were scattered to the four winds, especially those that had contained honey, syrup, or jam. The cubs loved honey and other sweets, and the cooks placed dobs of honey or syrup on logs near the camp. Soon cubs were frequent daytime visitors and became quite unafraid. They were all through the camp when only the cook and his assistants were there. They loved to put on a clown-like performance, and then suddenly grab a loaf of bread or other food item they could carry or drag and rapidly scamper off into the timber. They are natural clowns and soon learn the art of thievery. The cooks used various methods to keep them out of the kitchen space and teach them to take their food from logs and other places where it had been placed. We could

get only an occasional glimpse of the mothers, restlessly pacing back and forth in the timber some distance from the camp. Whenever we could see the mother when the cubs returned to her, we witnessed a good spanking and some cries. She apparently did not approve of the actions of her offspring in fraternizing with menfolk. No efforts were made to frighten or harm the bear around the camp.

Bears used our fire line as a trail and kept it well padded down with tracks. One afternoon I was walking down the fire line and spotted a mother and two cubs ahead of me. They were going in the same direction as I was. The mother was in the lead. They had not discovered me behind them. They came to a small pool of water which some fire fighter had prepared and had left an empty fruit can to be used for drinking. The mother bear and one cub passed the water, but the other cub decided to have a drink. I approached quietly within a few feet of him. He was busy lapping water and had not yet discovered my presence. I was carrying a shovel and my first impulse was to administer a knockout blow to keep him quiet. My second thought was that this would be a cruel act, so I ruled it out. I wanted so badly to fondle the little guy that I was willing to take the chance of capturing him without harm. The mother and other cub were still moving down the trail. I quietly placed myself in a prone position and slowly moved toward him. He was still lapping water. It was my plan to grab him by the flank, quickly turn him over, and then grip his mouth to prevent him from crying out. I made the grab for his flank, but he was much quicker than I had allowed for. As soon as my hand touched his fur he exploded like dynamite, and in doing so, plastered my face with mud and water. At the same time, he let out a cry. Quick as a flash, the mother turned and started up the trail toward me. In the meantime the cub was making fast time toward his mother. When they met, she administered a powerful paw to his rear end and boosted him down the trail. She then looked me over for several seconds before turning and starting down the trail, with the cubs in the lead. I was glad I had failed to secure a hold on the cub.

While searching for spot fires outside the fire line in a dense stand of spruce trees, where the afternoon wind was occasionally dropping burning cinders, I came upon a mother bear and her two cubs having a feed of yellowjackets, a small species of hornet with a painful sting. The soil was damp and there were many large fallen spruce trees on the ground, making foot travel difficult and slow. Travel was less difficult on the large trees. In order to change direction of travel, it was necessary to leave the tree, cross over a small opening, and climb onto another down tree pointed in the desired direction. I had crossed an open place and started to climb on a down tree when I was hit by two or three yellowjackets. On the opposite side of the tree, within arm reach, were the mother bear and her cubs having a feed from a yellowjacket nest. I wasted no time backing away, as the surviving hornets were mad and the bears were too close for comfort. They did not discover my presence. Hornets, ants, and tree grubs are a delicacy in the diet of bear as indicated by the many destroyed hornet nests, disturbed ant hills and rotten logs torn apart in bear country.

The cook informed me one evening that we were running short of food items such as canned milk, sugar, bacon, and some other items. The mop-up work was well advanced, and the fire was pretty well cooled down along the fire line. We decided that he and I would equip ourselves with knapsacks and head for the headquarters fire camp at Shake Cabin early the next morning. Shake Cabin was in name only. The cabin had burned several years previously, but the name remained on the map. The camp was used as headquarters for the fire boss, as a supply camp, and had telephone communication.

At daylight we were well along the trail toward Shake Cabin camp. The trail led down a gentle slope through open lodgepole pine and huckleberries. It was a beautiful morning and the air was a little crisp and invigorating. We spotted a sizeable black bear having a fine meal of huckleberries approximately a hundred feet below the trail. I had buckled on my 9 MM Luger before leaving the camp, and had mentioned a desire to kill an adult bear before I left the area. When we spotted the bear, the cook said, "Now is your chance to plug a bear." I unholstered the Luger and tried to take careful aim from the side of a lodgepole tree. The bear looked awfully big through the sights and I had difficulty holding the gun steady. I decided it was necessary to take a few minutes to calm myself down. In the meantime, the bear had apparently discovered our scent, or had heard us, and had ambled off into the brush along the stream and out of sight. I felt somewhat relieved, because he was a big bear. The cook started to needle me by expressing his doubts that I really desired to take a chance in shooting a bear. This was too much to endure, so I promised him that if the bear was in sight, and within shooting range when we returned along the trail, I would try for him.

We reached Shake Cabin fire camp and noticed a dressed-out bear cub hanging in a tree nearby. The camp cook offered to prepare us some bear steaks and said they were delicious. We decided to try them and they really were good. This was the first fresh meat we had tasted in nearly a month. The many hours of transporting by pack string, the hot weather, and spoilage of meat before it could be delivered to our tail-end camp precluded having this item of food on our menu.

After serving us a fine breakfast of bear steaks, hot cakes, and coffee, the camp cook prepared a generous supply of bear steaks to send to our camp. We then filled our knapsacks with food items in short supply at our camp and started the return trip. The trail was uphill and the packs were heavy. When we reached the place where we had seen the bear earlier in the day, there he was. The cook said, "Now lets see what you can do." We removed our packs and spent a few minutes recovering from our strenuous climb up the trail, and I should say, to recover some composure that I had lost at the moment.

The bear was standing broadside and within pistol range. I took careful aim from a dead rest on the side of a lodgepole tree and fired. From his rapid contortions

it was obvious the bear had been hit. He finally headed directly toward the cook and me. An old game trail led from his starting place to the main trail near us. He was coming very fast and we had no way of knowing whether he had purposely headed toward us, or if he was unaware of the shot direction and was just trying to escape. In any event, there was little time to think and decide. I looked up and down the trail and then at the lodgepole trees. The limbs were much too high to reach. The bear was closing in and when he arrived within a few feet of us, I yelled, "stop," as loudly as I could get the sound to come out. At my command, the bear quickly turned and disappeared in the brush along the creek below. I fired another two or three shots toward him, but I was in no condition to aim carefully and I missed. When the bear was close we could see that one of his front feet was quite badly mangled and he was trying to hold it off the ground. We saw no more of the bear. After the bear had disappeared and the smoke had cleared away, I looked for the cook. I found him lying on his back near my feet; his face was blue from laughing so hard. I could see nothing so funny about the incident. I couldn't seem to live the incident down after it had been told, and perhaps enlarged upon, among the crewmembers and other folks.

Other Friendly Camp Visitors

The area surrounding Camp 4 was the habitat for a sizeable population of white tail deer. The adult deer were shy and we could see them only rarely in the timber a safe distance from camp. The fawns were very curious and often ventured close. The cook learned they loved salt, so he placed small piles of salt in different locations around the camp area. We soon had half a dozen or more fawns throughout the camp area at all times during the daylight hours. No attempts were made to frighten or harm them, and they soon became very gentle and to some extent, a nuisance in the camp. They probably had never seen a human before the fire camp was moved to the area, but they readily responded to kindness, and the good ration of salt.

The area surrounding Camp 4 was also the habitat for a sizeable population of elk. It was about the first of September and the beginning of their rutting season when the bulls become very active. They are on the prowl, rounding up and trying to hold their harems together. The early morning hours appeared to be the most active part of the day and their bugle calls could be heard frequently echoing through the timbered canyons. It is a real thrill to hear these bugle calls when all else is in quietness, and to hear the answering calls, or challenges, of other bulls. Elk are much more shy than deer, and apparently have greater intelligence. Calf elk almost never become camp pets as do fawn deer.

Harlan Meadows was a favorite area for elk to congregate. When patrolling fire line, I found it convenient to stop overnight at the Harlan Meadows Camp when I was on that end of the fire line. In the early morning hours, starting before dawn, after the rutting season began, the meadows became an area of elk activity

despite the presence of the fire camp and men trying to sleep. There were many bugle calls and when an encroaching bull entered the arena, there was sure to be a bull fight. Not infrequently, the defeated bull would come charging through, or very near, the camp with the victor close behind. This would cause men to leave their sleeping bags in great haste. There were no injuries to men because of the bull fights and it was interesting and great fun. It helped to relieve the monotony of routine fire line patrol and mop-up work.

There were evidences of cougar habitation in the area surrounding Camp 4. People living along the Salmon River told us cougar, or mountain lion, were known to inhabit both sides of the canyon. None of our fire crewmembers reported seeing any, but their tracks were often seen in the dust along the fire line, in the ashes inside the fire line, and in the mud at stream crossings. Quite frequently we found the remains of deer and occasionally a calf elk, which had been partly eaten, and the remains covered lightly with pine needles and small twigs. The remains could easily be found from the odor a few days after the kill. If the number of kills found along the fire line could be used as an indication of the number of kills over the vast areas of timbered canyons and ridges, the number would run into hundreds of animals.

It would seem that this could be considered a serious loss in game animals, but experienced biologists tell us this is nature's way of holding down numbers of game animals to keep them in balance with their available food supply. They term this, "biological balance." They say it is a natural process in areas inhabited by game animals, where man does not step in and disrupt or interfere with the process of nature by removing predators.

There are many examples of the results of man's interference with the process of nature in the mountain and valley areas in the Intermountain Region. Predators have been greatly reduced or exterminated entirely through hunting, trapping, and poisoning. Within a few years the number of game animals and rodents such as rabbits, ground squirrels, and field mice and gophers have increased beyond the food supply. This has resulted in deterioration of the range plants, and later in heavy losses of game from starvation. This is a much more tragic process than allowing nature to maintain the balance in the number of game animals and the available food supply through predators. When the range is depleted, it usually remains in that condition, which results in fewer game animals in much poorer physical condition because of malnutrition. Game animals in poor flesh condition are susceptible to disease and parasites, and the process goes on.

In the Idaho Primitive area the balance between game animals, predators, rodents, and the available food supply was apparently good. Man had not yet stepped in to upset the balance. Seventeen years later after leaving the Camp 4 area, I returned to the campsite and spent eight days with a party of elk hunters. While walking over many of the fire lines and trails throughout the area I saw very

few bear tracks and no bear except one a hunter had killed. I was disappointed and heart sick. The vulnerability of bear to hunters had apparently caused them to be nearly wiped out. The Idaho State Fish and Game Department with inadequate laws and law enforcement, has failed to afford reasonable protection to the clowns of the forest.

Big Bam and Little Bam

In all sizable fire suppression camps there are usually one or more men who have and use the faculty for entertaining other men around the campfires at night. Two husky young men claimed Alabama as their home state. Their very pronounced southern accent proved they were from the deep south. One was a tall, well-proportioned man and the other was short and slender. They were referred to as "Big Bam" and "Little Bam." It is unlikely that anyone in the camp except the timekeeper knew their real names.

Around the campfire at night these two characters would tell about their experiences mullet fishing in the sloughs and swamps in Alabama and their trials and tribulations on the fire line. Little Bam was a member of one of the timber falling crews. His job was to carry an 8-foot crosscut saw and provide the manpower on one end of the saw in cutting and falling trees along the fire line. A sizeable cross-cut saw is a rather troublesome and inconvenient tool to carry over rough terrain, and especially through brush where the sharp teeth and protruding handles have a way of reaching out and grabbing brush and tree limbs. But Little Bam had been doing a good job, not only as a good sawyer, but in avoiding injuries to himself and other men who could have come in contact with the razor sharp teeth during falls in rough places while he was carrying the saw.

In the afternoon of the day the Camp 4 and Harlan Meadows fire crews were trying to close up the last remaining link of the fire line, they were having difficulty because of a strong wind which was pushing the fire through the tree crowns. Before they could clear a swath of trees, the intense heat and smoke made it necessary to retreat to the completed ends of the line until the strong gust of wind died down and then they would try again. After several tries and more gusts of wind and flames, they finally succeeded in clearing a swath of trees and clearing a trench to mineral soil through the duff, and then holding the line.

Around the campfire that night, Little Bam told about his experiences in the smoke and flames and of his battle with the saw. His story ran as follows: "That fire was over top of me and when someone yelled retreat and ah tried to retreat, that damn saw hanged into the bush and wouldn't let me loose. Them thar sparks burned holes in ma back and through ma hat. Ma hair was on fire. Ah yanked and ah yanked on that saw. And finally, ah yanked ma self loose from that damn saw and then ah could retreat." The many holes burned in the back of

Little Bam's shirt and his hat showed he had probably yanked on the saw too many times for his own safety.

Microbe Troubles

In fire camps on project fires where sizeable numbers of men were involved, sooner or later before the camps were disbanded, an epidemic of dysentery would suddenly strike and go through the personnel of the camp like wildfire. Almost no one was ever able to avoid the microbe attack once the camp was invaded. Victims were usually deathly ill and somewhat busy for approximately two days, then quickly recovered.

We were told that cooking for large numbers of men in the open air, and sometimes under adverse conditions, or drinking water contaminated by ashes might have caused the epidemic. In any event the personnel in our camp somehow managed to avoid the microbe until a week or so before the camp was disbanded. We felt quite fortunate because of reports of illness coming in from other camps. Finally the microbes struck hard and all the men were very ill except myself. A night or two later the little microbes struck me violently and in great numbers. They attacked me from both front and rear. Since I was the last victim in the camp to evade them, their attack was well planned. I made great efforts to throw them off, but sometimes it seemed I wouldn't make it. The other victims had almost fully recovered.

About sunup, I was beginning to feel a little more comfortable and was lying on my sleeping bag fully dressed and face down when someone approached and started talking to me. He then rolled me over and kept talking to me. I pleaded with him to go away and leave me alone as I was in no mood to be bothered. It was C.J. Olsen, or Chet, as he was known. He was the head fire boss and I had met him briefly a few days before while the two crews were trying to close up the last section of the fire line. My first impression was that he was a very tall man with a baldhead, and the toes of his logger boots were turned up. The soles of his boots had been overheated in the hot ashes and had broken across the center, causing his toes to turn up.

My pleadings to be left alone were of no avail. Chet continued to roll me over and tried to explain something about a new fire. I was about to reach the boiling point. I finally understood he was trying to explain that a new fire had started on Dillinger Creek, a very steep and rugged canyon some four miles up the river. The fire was burning in the lower reaches of the canyon and was accessible only by foot travel, which necessitated transporting the food supplies and camp equipment into the canyon by man pack. I had been selected to head the fire crew being sent to the new fire because of my experience with fire in the breaks of the Salmon River Canyon.

Chet continued to needle me and finally expressed his opinion that I had

received advance information concerning the hell-hole where the fire was raging, which would cause anyone to become ill to avoid going to the fire. He finally left me alone after stating that George Larson would be sent to head the fire crew.

Up to this time Chet had evaded the dysentery microbe. I quickly recovered from the episode and two days later I walked to the Shake Cabin headquarters fire camp to report our section of the fire safely under control. When I reached the camp, I inquired if Chet Olsen was present. The camp cook said, "Oh yes, he's in camp and very sick this morning. You will find him on his sleeping bag out there in the timber." I soon found Chet. He was lying face down on his sleeping bag, and was fully dressed. I looked him over and the thought struck me that I should not overlook this fine opportunity to even up the score between us, so I rolled him over. His face was a gray pallor and his eyes were closed, but he was breathing quite normally. No doubt it was a microbe attack. I rolled him some more and kept inquiring as to how he felt. His only retort was, "Oh boy, oh boy, please go away and leave me alone, Gene, I am terribly sick." I finally left him alone and returned to Camp 4. A few days later Chet came to our camp and immediately apologized for ruffling me up a few days before when I felt so badly. He admitted that since the microbes had gotten at him he knew how I felt that morning.

This was the beginning of a long and loyal friendship with Chet Olsen. He later became my boss as Regional Forester. We spent a lot of time together, and whenever the demands of our jobs would permit, we spent our spare time hunting big game and ducks together. We worked out many difficult problems, both in the field and in the office. I will always think of him as the big man with the baldhead and turned up toes, and as a man who always thought that no problem or job was too tough to tackle and solve. We experienced pleasant working relations.

September 9th brought the first break in the weather. A forty-mile wind and extremely low humidity caused unburned areas of timber inside the fire line to explode and there was great danger of spot fires from burning cinders crossing the line. The fifteen miles of line for which we were responsible with fifteen men was a long and difficult one that day. I started to inspect the line early that morning as the wind velocity increased, smoke began to boil up in great volume. It looked bad, but somehow we managed to hold the line. I reached camp about 10 p.m. so exhausted that I crawled into my sleeping bag without removing the grime from my hands and face, nor bothering to eat anything. About 4 a.m. I was awakened by rain falling on my face. It was the most pleasant rain I had ever experienced because if it continued a few hours, it would end the fire danger. At sunup there was approximately three-quarters of an inch of rain in the cooking utensils and it was cloudy and threatening more rain. Everyone was happy. We were all fire weary. The dense smoke we had endured over a long period of time had irritated our lungs until it had been difficult to sleep at night because the men were almost continually coughing.

In the afternoon of the last day on the fire line when the wind and smoke were at their peak, I was hurriedly crossing Harlan Meadows. Along Harlan creek there was an open stand of beetle-killed lodgepole pine trees, and they were large ones. I had been hearing many old, dry trees being blown over by the wind and was alert to the danger. When I reached Harlan creek, I was very thirsty and decided to have a drink of water. I lay down and took one or two swallows and then hurried on my way. I had barely raised to my feet and moved a few feet way when a large tree fell with a loud whop across the spot where I had just been laying. Had I not been in such a hurry, and taken several swallows of water, I would have been crushed down in the mud by the tree and would probably have been hard for searchers to find. It was a close call and I thanked providence many times for saving my bacon. I guess it was just not my time to depart from this earth.

Built by Bishop and Burned by God

A lookout and fire guard named Bishop had recently completed the construction of a one room log cabin on Burnt Knob about four miles southwest of Camp 4. Fire had destroyed the cabin. After the fire had cooled down in the area, Bishop prepared a rustic sign and placed it on a tree near the charred remains of the cabin. The sign read: "Built by Bishop and Burned by God."

Bishop had kept a saddle horse and rigging while serving as a fireguard and smokechaser in the vicinity of Burnt Knob. A few days before I was to leave Camp 4, he offered to loan me the horse to ride to Big Creek because the fire had burned all the feed in the vicinity of Burnt Knob.

It was frosty in the early morning when I saddled the horse. He was humped up and shivering from the cold, and this is a bad sign. I was a stranger to him, which added to the potential. I securely tied the knapsack behind the cantle of the saddle. I could see the horse was skeptical about the knapsack, so I led him down the trail a mile or so before mounting. It was about gray dawn and very quiet. Suddenly a bull elk approached from the opposite direction along the trail, breaking the silence with a loud bugle. He was quite close to us. Quick as a flash the horse decided to unload me, which he did very effectively without delay. He was as startled as I was and apparently wanted to make his escape unencumbered. Fortunately I held a long lead rope and was able to prevent him from leaving the country. After gathering myself up and quieting the horse down, I decided to walk and lead him the remaining distance to the Shake Cabin camp where I was to meet Chet Olsen and accompany him to Big Creek the following day.

Two Buck Indians on Horses in a Snow Storm

I left Camp 4 with a feeling of satisfaction. The fire had been stopped cold during

the peak period of unfavorable weather, fuel conditions, and in rugged terrain. The experience, persistence, and determination, and the almost unlimited endurance of the crew was given the credit for stopping the fire. Bark beetle attacks had killed all the mature and most of the younger lodgepole pine trees in the area. The dry pine needles still attached to the tree limbs created the most explosive kind of fuel conditions.

The little cub bears and a number of fawn were still daytime visitors in camp. The cubs were still begging for honey or other sweets and were performing their clown acts and then suddenly scampering into the timber with a loaf of bread, hunk of bacon, or anything not too hard to chew. One or two fawn deer could often be seen eating salt from the cook's hands. I wondered what the future held for them. When I took a last look at the cubs and the fawns, I vowed I would return some day when the demands of fire suppression did not interfere with my time and shoot the wild animals with a camera and study their wild wisdom and behavior.

During the period of time after I left Camp 4 and the day the camp equipment and supplies were moved to headquarters, the few men who were left to complete the mop-up work and attend the camp, constructed a rustic chair from lodgepole pine poles. The following summer the trail crew posed a rustic sign reading: "Brigg's Camp." The sign had been made up in the Forest sign shop the previous winter and was made from Douglas fir two-by-four material. It had grooved lettering, was nicely varnished, and the letters were painted white. The sign remained posed from 1932 to 1954, when it became somewhat deteriorated and was replaced by a new sign. An inspector from the Regional Office in Ogden was in the area when the old sign was replaced. He brought it to my office in Ogden as a relic and gift to me. It now hangs over the entrance door to my den in the basement of our home. Inspectors from the Regional Office delighted in photographing the sign on the tree with the rustic chair directly below it. Then they would label the sign with the lettering, "This is how Briggs stopped the Salmon River Fire in 1931."

It was cloudy and threatening to storm when we bedded down for the night at Shake Cabin camp. The only shelter in the camp was a sizeable tarpaulin stretched over the kitchen space where the food supplies and cooking utensils were kept. The sleeping bags were in the open under the trees. We crawled out of our sleeping bags in about eight inches of snow the next morning, and it was still snowing.

Neither Chet nor I had any semblance of a coat, and it was cold. One of the men offered me a well-worn sheep lined coat. The large holes in it allowed only about half coverage, but it was better than no coat at all. The owner said he had a better one for himself, so I accepted his offer. Chet found himself a wool army blanket that he used as a wrap-around. It was better than my coat.

After breakfast and a lot of shivering in the cold, we saddled the horses and started over the trail to Big Creek. It continued to snow. Our well worn slouch hats with many holes burned in them, my coat with many holes, and Chet with his wrap-around blanket, and both of us humped over in the saddles, caused men at the rest camp at Chicken Spring to remark that we were perfect images of two genuine buck Indians making their last stand in a snow storm.

After a snack of hot coffee and sandwiches, we left for Big Creek and arrived there in the evening. The next day we were taken to McCall by truck. We wasted no time soaking the cinders out of our hair and scrubbing the grime off our bodies in the bathtub at the hotel. The town barber really earned his money by removing our long hair and whiskers. We discarded our tattered fire clothes, put on our uniforms, and felt like new men and humans, and not like two buck Indians lost in a snowstorm. We weighed on platform scales at the Forest Service warehouse. Chet had lost about 60 pounds, and I had lost about 50. Our uniform trousers were much too large, but we had lost the weight for a good cause.

The dispatching crew at the Forest headquarters was tired and fire weary and were glad to see the end of the fire season. The packers still had a tremendous job to gather up fire equipment and supplies from the many fire camps in remote areas in the backcountry.

Fire Board Review

I returned to the Snake River Ranger Station on September 15, after an absence of approximately 45 days. My wife, Hiley, was holding down the station along. My daughter Georgia, had been sent away to school. It had been a lonely vigil for Hiley, but she had no complaints.

I called Supervisor Frank Moore at Montpelier and reported my return to the District. I told him there were many planned jobs on the District that would have to remain undone because the work season in the high country would soon end. Frank said, "You will be surprised to find how many of those planned jobs have been completed. We didn't care much whether or not you returned to the District because we think your wife is a better ranger than you are." This was Frank's way of expressing appreciation to Hiley for her willingness to stay on the job and keep the programs moving as best she could during my absence.

Soon after I returned to the District, I received a letter through the Supervisor from C.N. Woods. He informed me that I was to prepare to attend a fire board of review meeting at the Supervisor's Office in McCall in October. It was the policy at that time to review the performance on all major fires that had occurred during the previous fire season. The purpose of the reviews, apparently, was to determine good and bad practices and performance, the need for improved

methods and equipment, and reasons for any apparent high costs of the project.

This was my first experience at a board of review meeting. The meeting was attended by the Regional Forester, the Regional Chief of Operation, and Fire Control, the personnel of the Idaho National Forest, and many men like myself who had been detailed from other forests. It required four days to complete the review. There was little discussion about good performance and judgement, most of the deliberations dealt with individual cases of apparent poor performance and judgment. I wondered when my turn in the witness chair was to come up. I was unable to recall any performance on the section of the fire I was responsible for, that could be considered as poor accomplishment and bad practice on the part of the crew or myself. I wondered why I had been called to attend the meeting.

It was the general opinion among many Forest Service administrative men that a major fire was where a man was either "made or broken." In my case, I could easily have turned in poor performance and lack of accomplishment because of my inexperience in directing suppression work on my first major fire. But I had avoided this through my good fortune in drawing an experienced fire crew with a high caliber foreman. Other men inexperienced as I was on the 1931 fires, were less fortunate. Their inexperience, coupled with the inexperienced and less enthusiastic fire crew members were the ones who "got the ax," through no fault of their own. They were simply sent out on the fire front to direct large numbers of men and forgotten until their mistakes and lack of accomplishment began to show up, then all hell broke loose. The deficiencies resulted from the lack of training, schools, and opportunities to gain experience in fire suppression work under older, more experienced men. This did not help the unfortunates who had already gotten the ax by demotion and transfer to less responsible positions, or releases from the service.

Charley Gray had served as District Ranger on the Warren District for eleven years, and because of health conditions and age, was more than ready for a transfer to a lighter district where the fire hazard was low and where he could get away from the heat, smoke, and worry that was caused by major fires. The Warren District at the time was considered to be the hot spot district for large fires on the Idaho National Forest.

During the afternoon of the last day of the meeting, Woods announced that Charley Gray and I were to meet with the review board and that Charley would be taken on first. It immediately dawned on me that the reason for my attendance at the meeting was to be notified that I was to trade Districts with Charley Gray.

I had no desire to transfer to the Warren District, and I quickly thought up several reasons why I preferred my present assignment. Charley Gray emerged from the meeting room with a broad smile on his face and said they were ready for

me. I half-heartedly tried to put on a bold front when I entered the meeting room and seated myself on the opposite side of the table from Assistant Regional Forester, C.N. Woods, and Supervisor Scribner. As I had anticipated, C.N. explained that the Warren District had been having too many major fires and a younger man was needed to replace Charley Gray as District Ranger. I had been selected as the man and was expected to transfer to Warren the following spring. I informed C.N. that my first reaction was to dislike the proposal, but I would discuss the matter with my wife and let him know of our decision. He said he would give me ten days to make up our minds.

Before the end of ten days I prepared a letter to C.N. expressing our appreciation for his confidence in our ability to straighten out the fire problem on the Warren District. However, we had decided that after careful consideration, the disadvantages in changing assignments outweighed the advantages, and we would not accept the offer to transfer. I explained that my primary objection was the prospect of subjecting my family to oblivion and burying them up in the snow bound, semi-ghost town, of Warren for several years, where there were no schools or doctors, and where the environment was anything but desirable. Secondly, I preferred to specialize in range management work; I explained that a good program of range management had been initiated on the Snake River District and I wanted to carry it through to completion. I made no mention of it in the letter, but the Warren District was no place for a Ranger who was inclined to worry a lot about fire emergencies over which he had little control.

In reply to my letter, C.N. stated that I was to attend a fire conference in the Regional Office in Ogden in December, and in the meantime, he hoped we would reconsider the transfer. I had learned that C.N. was a man who was determined to carry out his plans and was difficult to dissuade once his mind was made up. So, I prepared my defense against the transfer accordingly and decided to stand pat, knowing that it might be necessary to hand in my resignation from the Forest Service. We remembered that we still owned a farm that we could fall back on, if necessary.

Supervisor Frank Moore and I roomed together at the hotel in Ogden during the fire conference. Frank helped me plan my defense against the transfer, but he and I both knew C.N.'s determined attitude in matters of this kind, and we both had to be very cautious to avoid involving Frank in the matter.

During two or three evenings at the dinner table, C.N., Regional Forester Rutledge, and Supervisor Scribner confronted me. C.N. started his efforts to persuade me to accept the transfer but I stuck to my guns. I could see he was becoming more and more provoked at my refusal to be persuaded. After two or three evenings, the dinner table conferences ended. Then one evening Frank informed me that C.N. had given him the responsibility of persuading me to accept the transfer. If he failed, C.N. had said he might have to issue an ultimatum. I had expected the ultimatum, and knowing the determined attitude of

C.N., I was prepared for it. I informed Frank that he had my permission to tell C.N. that I would have my resignation in his hands before the ultimatum was issued.

The following day Frank informed me that he had told C.N. about my intentions and C.N. about my intentions and C.N. had stated he wanted another conference with me at the dinner table that evening; just he and I. When we met at the dinner table, I could see his attitude had moderated considerably. I had my resignation in my pocket, ready to hand to him. He asked me to state my main objections to the transfer in order of their importance to me. I told him I just wouldn't ask my family to live yearlong in the snow-bound semi-ghost town of Warren, where the environment was anything but desirable and where no school or doctor was available. C.N. stated that this was a reasonable objection, and he would authorize winter headquarters for us in McCall where I could be used advantageously in the Supervisor's Office during the winter. Further, he would approve yearlong headquarters in McCall for us and place a key guard at Warren, if this would be a more desirable arrangement for us. Thus, C.N. made a good start toward removing the props from under my defense.

He then asked me if I had other objections to the transfer. I told him we were satisfied with our present assignment with winter quarters in Idaho Falls, where there were good schools and doctors, and that I was interested in range management work. Further, I was unable to develop any enthusiasm towards the fire problem in the South Fork and Main Salmon River canyons. C.N. then proceeded to remove the remaining props from under my defense. He said, "Gene, I should have told you this when I offered you the transfer to Warren. We have designs on you for a higher position in the Forest Service than District Ranger. We think you should be given an opportunity to get more experience in timber management, fire control, and other functional activities in Forest Service administrative work, to become a well-rounded administrative officer. You are well experienced in range management administration, and your grade and salary rate is higher than we should be paying the ranger on the Snake River District. We have a difficult fire problem on the Warren District and we want you to try and straighten it out. You will also get some timber management experience. If you will agree to spend four years on the Warren District, and do the best you can, we will transfer you to a higher position."

This removed the last remaining prop from under my defense. I agreed to discuss the matter with Hiley in the light of the new prospects, and I was quite certain she would go along with me and accept the transfer, which she did. We were to consummate the transfer by June 1, the following year (Briggs 1963).

Air Transportation in Fire Control

The use of airplanes for the transportation for men, equipment and supplies to

and from the few landing fields in the back country during the many major fires in 1931 marked the beginning of air transportation in fire control in the Intermountain Region. Analysis of accounting records showing the costs for truck, pack animal, and air transportation showed little difference in cost. There were many advantages in air transportation over the much slower deliveries by truck and pack strings. Men, equipment, and supplies could be placed on going fires in remote areas in much less time and in better condition. The old practice of walking men loaded with sleeping bags and fire tools for one to three days over rough country to get them on fires was soon outmoded by air transportation. After walking over steep trails for many miles under heavy loads, men were in no condition to do effective work on the fire line until they were given an opportunity to rest. Some of them were incapacitated during the period of the fire because of blistered feet from excessive walking.

The few developed landing fields in the back country beyond the end of the truck roads had been used to good advantage, but many of them, such as Big Creek, Soldier Bar, and Chamberlain, were located in canyons or basin areas from where it was necessary to walk men many miles upgrade to going fires. It was necessary to transport supplies and equipment from these landing fields by pack strings. There was urgent need to develop additional landing fields on broad ridges, plateaus, and high meadows.

In 1933 an engineer, Henry Shank, was detailed from the Regional Headquarters at Ogden, Utah, to examine the areas spotted and proposed for landing fields, and to prepare cost estimates and recommendations. The landing fields most urgently needed that could be developed at the most reasonable costs were started first. Within a few years, landing fields were developed on Hyda Ridge, Elk Meadows, Mackey Bar, and Cold Meadows. A great deal of convincing information, detailed costs, and pleas were necessary to get the "higher ups" to loosen their grip on the money purse and allot funds in small dribbles for landing field development. It was difficult to convince them that air transportation was less expensive in the long run because of the savings in fire suppression costs than the much slower pack strings and trucks

The rangers on the ground agreed that air transportation should go beyond landing fields. They could foresee many advantages and great savings in fire suppression costs by dropping food supplies and equipment by parachutes to fire crews on going fires in remote areas. The advantages in air drops had to be convincingly demonstrated to the higher authorities before this type of transportation would be authorized and made a part of the fire control plans. After much deliberation, there appeared to be only one way to prove the advantages of air drops... for the rangers to take on the job.

The Idaho National Forest had two or three airplanes and pilots under contract to transport men and supplies to and from landing fields. The rangers managed to acquire a dozen or so parachutes which were suitable for dropping cargoed food

supplies and equipment from the air. One of the planes under contract was a Travelair, a seven-passenger ship with a short wing span. It was powerful, maneuverable and also rough. Removing all the seats except one for the pilot provided space for several cargoes of food supplies, sleeping bags, or fire tools. There was also space for folding the chutes in the rear section of the fuselage. When placing the folded chutes, the top was tied to a ring with a light cord or string so the chutes would unfold properly when the attached cargo was dropped from the plane. The door of the plane was removed to provide an opening through which cargo was dropped when the pilot yelled, "let-er go!" It was a narrow doorway, narrower at the bottom, making it necessary to lift the cargo before pushing it out the door.

The pilot of the plane used in our first dropping experiments was Chick Walker. He was skilled and experienced in handling planes in mountainous areas. He would maneuver the plane over the fire before selecting the dropping place, and these places were usually in rough areas. In the interim, the dropper was to attach the shroud line of the chute to the cargo. After a trip or two over the dropping place, the pilot would yell, "get ready," and then, "let-er go." He would then bank the plane sharply and point the nose of the plane upward at the same time. After the dropper had lifted and pushed the cargo out of the door, he found himself braced with a hand on each side of the doorframe, looking down into space. When the top end of the chute left the door, it was traveling like a bullet and there was always a loud crack similar to a sharp clap of thunder. The pilot would continue to maneuver the plane over the dropping place until all the cargo had been dropped. He explained that it was necessary to bank the plane sharply and nose it up in order to prevent the chute from becoming entangled in the tail piece of the plane. In any event, it was rough on the dropper.

During the dropping operation, our only thought concerning safety was our hopes that the pilot could keep the plane under control. We gave no thought to what might happen if a chute became tangled with one of our feet or legs and flipped us out of the plane into space, or if we blacked out while braced against the door looking into space below. In later years, strict rules were set up requiring safety belt securely attached to the body and to a safety ring on the opposite side of the fuselage, and also a folded chute strapped to our back, with orders to keep one hand on the rip cord ring. I presume our failure to take precautions for our own safety was just one of those things foolish people will do sometimes.

The rangers had agreed to take turns in the dropping experiments, but during the first trip some of them developed nausea and became very ill. They really appeared sick after their return to the landing field. In fact, the pilot returned to the field a few times still loaded with cargo because the dropper had become too ill to do the dropping. It finally evolved that Fred Williams and I were the only rangers who could make the dropping trips without air sickness, so we bore the brunt of the dropping job to prove it could be done at reasonable cost. The only effect I experienced was a severe headache for several hours after each trip.

The doctors said the headache was caused from nervousness and high tension.

Our dropping experiments marked the beginning of more extensive use of airplanes in fire control. Men were trained as parachutists and in the techniques of fire suppression. They were young, husky individuals and were organized in squads and called smokejumpers. After intensive training in the techniques of parachuting, safety and fire suppression, they were put on fires within minutes after the fires were discovered and while they were small and easily extinguished. Many of these jumps were made on fires in remote locations where it would have required hours, and in some cases days, for men on foot to reach them. No doubt, the fast suppression action saved many thousands of acres of timber and watershed and hundreds of wild animals from destruction by fire. Men were also trained as cargo droppers and soon, hot, well-balanced meals were being successfully dropped to fire crews in disposable containers.

Airplanes were used extensively for reconnaissance over blind areas after lightning storms, and many smokes were discovered while they were small and easily handled. Air transportation was finally accepted as indispensable in fire control.

Only one incident marred the otherwise successful dropping operation and experiment. This incident threatened to wreck the whole promotional program. A fire camp had been established near the Black Mare lookout house on the Lake Fork District. Food supplies and sleeping bags were being dropped to the fire camp. Ranger Fred Williams was the cargo dropper. After the first dropping trip, the fire boss called headquarters from the lookout by telephone and complained that the cargo was not landing near enough to the camp. Fred received the complaint before starting the second trip and decided to land the cargo closer to the camp that was located very close to the new lookout house. A quarter of beef was pushed out of the plane at the time when Fred thought it would land close enough to camp to satisfy the camp boss. The beef landed squarely on the roof of the lookout house and almost went through the floor below. Fortunately no one was injured, but it necessitated an expensive repair job. The air drop promoters had a real struggle to extricate themselves from the resulting entanglements with the higher authorities who investigated the mishap (Briggs 1963).

Carey Creek Fire, 1933 (from Briggs 1963:123-128)

Civilian Conservation Corps

There were five companies of 200 enrollees each of the Civilian Conservation Corps program allotted to the Idaho National Forest during the summer of 1933. The Warren District had two companies, or two camps fully staffed with Forest Service and Army overhead men. The Army overhead consisted of a captain, a lieutenant, and a doctor for each company of enrollees. The Forest Service or

work agency overhead consisted of a project superintendent, a crew foreman for each 24 enrollees, and the District Ranger. Blacksmiths and equipment repairmen were employed for each camp.

At the time the CCC camp was established at French Creek, we were instructed to use the enrollees for fire suppression work. I questioned the use of enrollees on this type of work unless adequate overhead could be provided because of the dangers involved in using inexperienced youths from the big cities to suppress fires in the rough, heavily timbered areas without training in the use of tools.

CCC Crews and Fire fighting

The first major fire occurred on the Warren District after the CCC camps were established. Two hundred enrollees with a foreman in charge of each twenty-four boys were sent to the fire. Then my real troubles began. The boys were inexperienced in the use of an ax, shovel, pulaski tool, and crosscut saw. They wore leather-soled shoes that became very slick on the steep, grassy slopes, and it was impossible for them to hold their footing. After a few hours on the fire line, there were many injuries from contact with the razor sharp tools, some of them were deep gashes.

The Forest Service provided the food to fire crews and there was always a plentiful supply of various kinds for well-balanced meals. After the boys had subsisted on near starvation rations in the CCC camps, and found that in the fire camps there were no limits, dozens of them overloaded themselves, with many resulting upset stomachs. At the end of the first day on the fire line, more than half of the crew were incapacitated from tool accidents and belly aches and it was necessary to send them back to the base camp. The futility of efforts to suppress fires with this type of help was clearly obvious. I issued orders against replacing the sick men with other enrollees. I requested replacements of local experienced men. This caused a great furor among the high ranking army officers, and one or two forest officers, who had apparently failed to recognize the futility of trying to suppress fires in rough, heavily timbered areas with inexperienced boys. It was indicated that I would be subjected to an investigation and a hearing because of my refusal to use enrollees in fire suppression. The furor subsided after a preliminary investigation on the ground. Experienced man stopped the fire, but only after it had covered some two thousand acres of heavy timber.

In organizing the enrollees into groups for assigned jobs on the fire line during the first day on the fire, six husky boys were detailed to carry water to the fire fighters along the line. A trail was blazed to a spring on the mountainside above the fire front. The carriers were furnished 5-gallon canvas manpack water bags with shoulder straps. They were accompanied on one or two trips to the spring by a foreman and instructed to use the spring as the source of water supply. It was a long climb from the fire line to the spring, but when loaded with water, the travel was downgrade. Carey Creek was located in an inaccessible box canyon

below the fire front, and waterfalls could be clearly heard from the fire line. The water carriers could hear the water and requested permission from several of the foremen to be allowed to fill their water bags from the creek to avoid climbing the hill to the spring. The foremen refused permission to go into the canyon and explained that it was a box canyon and inaccessible and that they would have a hard time finding their way through the ledges. They were also told that it would be impossible to make their way out of the canyon with five gallons of water on their backs. I had made several trips along the fire line during the day and the carriers had asked about permission to go into the canyon for water. Each time I had also warned them to stay out of the canyon and explained why. However, the waterfalls sounded much closer than they were and the carriers were unconvinced that the creek was not the easiest and best source of water.

Along in the afternoon, the men on the fire line began to ask for water. No water was available. The foremen managed to keep the men working until the end of the day. They felt quite certain the water carriers had become tired and had returned to the fire camp. The crews returned to the fire camp about sundown and the men were counted. The six water carriers were missing. I returned to the camp after darkness had set in and was told about the missing boys. The fire had made a fast run in the canyon bottom during the afternoon. There was excitement and concern about the missing boys and search parties were organized to start the search during the night. I immediately ruled against sending men into the rough canyon and explained that it would be foolhardy and very dangerous for searchers to enter the canyon in the darkness, this would almost surely result in the loss of additional men through serious or fatal injuries. The excitement subsided when I agreed to head a search party into the canyon at daylight the next morning.

At daylight, I started the search with six selected men. The ashes were still pretty hot among the ledges as we made our way into the canyon. In a steep draw leading into the main canyon between ledges, we found the charred remains of two water bags. After finding these, we expected to find the remains of some of the boys. After a thorough search of the areas surrounding the steep draw, we proceeded to the bottom of the canyon to a main trail. We found footprints of several men in the dust leading down the canyon. Large spruce trees located in swampy places in the canyon bottom had not burned. We felt more relaxed and knew there was a good possibility the boys had made their way into the canyon and were safe.

We followed the footprints on the trail several miles to the Salmon River. The tracks led to a cable way across the river, and no tracks led away from it, so we concluded the boys had crossed the river and would eventually find their way back to the base camp at French Creek. The cable cage was on the opposite side of the river and we were unable to follow the tracks. Soon after we returned to the fire camp, a messenger arrived and reported the water carriers had showed up at a ranch across the river from the base camps at French Creek.

They had then been boated across the river and were safe at the camps.

After several more episodes of lost youths, serious injuries, and some fatalities during efforts to use enrollees on major fires on other Ranger Districts, the top brass of the Army and the Forest Officers finally began to look into the situation. They decided to hold a hearing in McCall to learn the facts about the problems of using inexperienced enrollees on project fires in rough, timbered areas.

They were finally convinced that enrollees and foremen alike should have intensive training in the use of fire tool and equipment, and on how to avoid pitfalls and dangers while working on the fire front. The youths were to be provided with at least two changes of wool socks, and properly fitted with hobnailed or composition soled foot gear. A trained first aid man was to patrol the fire line among the men while the work was in progress with adequate first aid supplies and equipment. An Army officer with at least the rank of lieutenant was to be assigned to each fire camp to lend a hand to the District Ranger or fire boss in determining the needs of the enrollees and other wise looking out for their welfare. The number of enrollees under each foreman was not to exceed seven.

This reorganization, including the weeding out of poorly qualified and disinterested Army Officers and some project foreman, marked the beginning and continued development of orderly and effective training and work accomplishment organizations. A good percentage of the enrollees continued to reenroll until they had completed their training as equipment operators, blasting experts, blacksmiths, and mechanics, and were qualified for employment as skilled men with private contractors. This was the objective of the Civilian Conservation Corps (Briggs 1963).

Lookouts 1933-1950

In 1933, three things happened to increase the use of lookouts. The L-4 was perfected, the Aermotor Corporation began to produce metal lookout towers, and the CCC came to Idaho.

The L-4 lookout cabin, which had been in production in three different styles since 1929, began production of a completely pre-fabricated "kit". For \$500.00 and freight from Portland or Seattle, an entire 14' by 14' lookout and matching privy would be delivered, including the pre-cut lumber for the cabin and privy, windows, doors, and lightning protection, a complete set of instructions and a list of necessary fasteners and parts. The Aermotor towers were also prefabricated, allowing construction of the 74 foot towers with their 7' x 7' cabs in remote timbered locations. By 1950, there were 54 L-4 lookouts and 7 Aermotor towers on the Payette National Forest.

The CCC did a great many things to facilitate the spread of lookouts. In addition

to actual construction of over 20 new lookouts and replacement of many more, the CCC also built access roads, strung miles of telephone line, and built trails and pack bridges. Their presence also provided a body of men to fight fire when trained and properly led.

Fire Communications and Lookouts at Warren (from Briggs 1963:111-114)

A sizeable telephone switchboard arrangement was maintained at the Warren Ranger Station where the many telephone lines from lookout points, guard stations, and Ranger Stations on the Warren and Big Creek Districts converged. It was a very busy switchboard during the fire season, especially during periods of extreme fire danger and during fire emergencies. It was the Ranger's wife's responsibility to receive and relay fire weather reports, fire reports, and other messages coming in over the many lines. During the fire emergencies it required her constant attention day and night. About her only relief periods were when the key guard or myself were at the station for a few hours occasionally. I will never know how she endured the strain over the long periods, but she did and without complaint.

The switchboard was equipped with a "high powered" telephone instrument, especially designed to function on grounded or one-wire lines during all kinds of weather conditions. The switchboard was the only link to the lookouts stationed on the high points over the District. It was a lonely vigil for the lookouts. About their only relief from the loneliness came after night fall when they could call the Ranger Station and Hiley (the Ranger's wife and switchboard operator) would connect all of the lines so they could visit with her and each other and learn the events of the day. Many of the lookout men were equipped with musical instruments, typically a violin, guitar, or banjo, and they would put on a concert. What they lacked in musical talent, they made up in volume and enthusiasm. When they tired of the concert or ran out of wind, they would remain on the line while Hiley gave them recipes for pies, cakes, and other foods.

Lookouts were located on War Eagle and Pilot Peaks. They provided shelter and living quarters for the occupants and equipment. By 1934 there were lookouts constructed on Bear Pete, Steamboat, Carey Dome, and Cottontail Lookout points. The structures placed on Carey Dome and Cottontail Points were 72-foot steel towers with a cupola on top to house the fire finder and serve as a shelter against the weather. Living quarters were provided near the base of the towers. Standard lookout houses were placed on Bear Pete and Steamboat points. The house on Steamboat was placed on 12-foot stilts. These buildings were constructed in accordance with an approved building plan. They were built on high points previously selected to provide the widest possible view of the surrounding landscape. They had to be substantially built and well anchored with guy cables or heavy wires to withstand the high velocity winds on the high points. They had to be well wired and bonded with heavy copper wire to provide protection from lightning, because lightning seems to prefer high, rocky points to

administer heavy blasts.

The houses were hip-roofed, and glass was used in the upper half of the four walls to provide an unobstructed view of the surrounding country. They were equipped with a small, wood burning cook stove, two steel cots hinged to the wall, a cupboard for storage of food supplies and utensils, and a small table hinged to the wall. They were also equipped with a fire finder mounted on a stand in the center of the room. The fire finder was a device designed for use by the lookout to find the location of discovered smokes before calling the fire dispatcher. It consisted of a 360-degree vernier approximately 20-inches in diameter and was graduated in degrees. A small shaft or pin was located in the center of the circle. A half-inch scale map was mounted under the fire finder. This showed the location and names of canyons, ridges, and high points that were located within a ten-mile radius from the center point on the map. A 4-inch circle graduated in degrees was printed on the map. 0 degrees was oriented with the 0 degrees on the 20-inch vernier, and then the map was securely pasted to the 20-inch circle. The vernier was then oriented to the four cardinal directions and with the other lookout points, the location of which were known in relation to other points from previous triangulation surveys. 0 degrees pointed to magnetic north. The vernier was then securely set in the fixed position. An instrument known as an alidade was used for sighting on smokes and determining the location in degrees from the lookout point. This instrument was 20-inches long, one inch wide and one-eighth inch thick, with 6-inch vertical and slotted ends. A thread of fine hair was tightly stretched and fastened in the center of one of the slots for more accurate sighting and degree reading. When a smoke was sighted, the lookout would telephone the degree reading to the fire dispatcher.

Alidade

The dispatcher's office was equipped with a large wall map showing all the natural features, with a 4-inch verniers graduated in degrees, and their center points directly over the point for all the lookout points on the Forest. A string was attached to the center of the circle for each lookout point, with a pin on the movable end of the string. When a fire location reading came in, it was simply a matter of pinning the string over the degree reading given by the lookout to determine the direction of the fire from the reporting point. Other lookouts could usually see the same smoke and would call in their readings. Where the strings on the map intersected, as determined from two or more readings, pinpointed the location of the smoke without question. It was a reliable method for locating fire while they were small, and saved many hours of searching in rough, timbered areas and enabled smokechasers to get to fires while they were small, in many cases putting them out before they became raging infernos.

Lookout men vied with each other in efforts to call in the first reports on smokes. All the lookouts considered it quite a letdown if a lookout within another zone or area called in the first report of a smoke in their area. This did not occur often, as the lookouts were usually alert and on their toes. Records were kept of the number of first reports for each lookout. These were used in preparing efficiency

reports for each man at the end of the fire season.

It was necessary for new and inexperienced lookouts to learn to distinguish the difference between smoke and dust, and most of them soon did. Areas of old burns, where ashes from deep duff remained on the ground and where large dry trees were blown over during high winds, would send up puffs of dark dust and often be mistaken the inexperienced lookouts as fires. During days of high winds, when many falling trees were sending up frequent puffs of black dust, it was difficult to hold inexperienced men on the lookout until the smoke or dust could be checked by more experienced men. Sometimes when these new men believed they were seeing smoke and not dust, and where there was some question, they were allowed to leave their points and see for themselves.

*packer
use*

Food and supplies were delivered to the lookouts approximately every two weeks by pack animals, and a packer was employed for that purpose. The lookout inspection requirement called for a least two inspections by the District Ranger during the period of occupancy of the lookout each year. The purpose of the inspections were to determine how well the lookout knew his job and his area, and to check on the condition of his equipment and quarters. More frequent inspections were made when there were questions concerning the qualifications of the man to effectively handle the job, to insure against any slip-ups in discovering and getting to fires while they were small. It was the general practice of the District Ranger to see to it that a late newspaper, magazine, some fresh vegetables and meat were in his packs when making trips to the lookouts.

The water supply for the lookouts was typically obtained from a spring or small stream sometimes located as much as a mile or more from the point. The water was packed up a very steep trail early in the morning. Snow banks sometimes held near the lookout point until late in the season and were the source of water supply for some points.

*Temporary
emergency
points*

Some emergency points were occupied only during critically dangerous fire weather and fuel conditions. These points had telephone communication, but no constructed living quarters. Tents were set up to shelter food supplies and the occupant. In some areas bear would raid the camp, scatter the contents, and then carry off the food supplies. This resulted in some angry and hungry lookouts before a new supply of food could be delivered to the camp. One provoked lookout exhibited some bruised knuckles which he said were caused from punching a thieving bear in the nose (Briggs 1963).

Sheep Creek Fire, 1934 (From West, 1986)

The Sheep Creek fire of 1934 was a big fire, one of the largest in the region that year. One of the very large ones. We had a lot of problems controlling it. I [J. William West] was on it at the outset and then after about 3-4 days, the supervisor [Charlie Scribner] called me back to McCall to do the dispatching. I had been doing the dispatching the previous years, but I wasn't supposed to be

doing it that year. But when they got in to this big fire, they were having problems and they called me back in. So I didn't get to see the windup of it. I was on it the first few days - it wasn't too many days. I went in one day, got in there in the early morning and worked on the fire that day, but we weren't able to get it under control. We lost the creek office [fire camp] on the other side, and then we moved camp down the river from the Sheep Creek office [fire camp]. I worked that day; I guess it was three days that I was on the fire before I came in.

The thing was getting away from us every day. I recall very definitely, out there it was their own fire. The day before I had gone up to contact two other crews that had come in from Yellow Pine to the head of the fire on the northeast side of Sheep Creek. When I got up there I went the next morning around the head of the fire. I was with the foreman of one of the crews, and I went around the head of the fire, and we found spot fires all the way through quite a distance away from the head of the main fire. I remarked to Arnie Standing, the foreman, that it was no place for a crew to be and suggested that he ought to get back and warn his men about it. Well, he didn't think that it would be necessary. Yet when we crossed one of the side drainages of Sheep Creek and went up on the other slope a little ways so we could look back on the hillside that had the spot fires on it, I said, "Arnie, I don't think you had better even try to get back to your camp now. You and I know that it is too dangerous." "Well," he replied, "I'll have to get back. We've got those men standing out in front of that. They may be in danger." I couldn't talk him out of it. So he left me and went back.

I stayed there for a while longer because it was not quite the hottest part of the day yet. Then I saw the blowup come. I was wondering if Arnie had had time to get back to his men, but I couldn't do anything about it then. So, I went on down to camp, down on Sheep Creek. The fire was all on the opposite side of the slope that I was on, in the Sheep Creek drainage, not the little side drainage I was on. The fire was crowing away from me.

When I got there I found that one of the foremen in charge of the one of the crews, had come down to the Sheep Creek camp and had left a message for me, saying that he had his side of the fire controlled and that his crew would be available to work somewhere else the following day. There were two crews: Arnold Standing (we always called him Arnie) was the foreman of one, and Henry Shank had the other. Henry had been down there about noontime. I didn't get down there until 4:00 in the afternoon or something like that. Well, he found out that he wasn't able to get back to his camp. It had burned up in the meantime. His camp had burned and we had lost all the line that they had.... And he had thought that they had it under control! There was quite a lot of wind and there had been fire above him that he wasn't aware of that was creating the problem. We thought his crew was going to be able to tie in down to the creek and they weren't able to do that. He left them too soon. The crew was all okay because they were working right along the line, so when the thing blew-up, all they had to do was get back into the burned-over area. It was quiet enough that

they could do that. But it went around and flanked them and burned out the camp. So, anyway, they lost all of their bedrolls and things like that. It just burned them up. So what he thought was a controlled fire didn't turn out to be controlled.

Then that same night, they got a message to me to call the office. That's when the supervisor called me back to McCall to do the dispatching again. So, from then on, I didn't have anything more to do with the Sheep Creek fire myself. It took them another 2-3 days or longer to control it. It was a *bad* fire! Bad burning conditions. It was really quite a fire. But they finally got it under control. They said there were embers, not live fire, but ashes, reaching as far as Big Creek headquarters 19 miles away. Quite a distance (West 1986).

Porphyry Creek Fire, 1935 (from Briggs 1963:145-147)

Porphyry Creek Drainage, a creek leading into the South Fork of the Salmon River from the east, was one of the areas that firefighters dreaded a fire to originate. It was a very rugged canyon, boxed in at the lower reaches by sheer granite ledges and fanned out into a basin area at the head under Chicken Peak. Where there was any soil on the lower slopes, it supported an open stand of yellow pine, tinder dry grass, and other vegetation. The basin area was covered by dense stands of Douglas fir, spruce timber, and a heavy undercover of down timber. It was the most dangerous type of explosive fuel condition because of the great volume.

The lower reaches of the rugged canyon were known as a blind area because none of the lookouts could see into the canyon depths. Firefighters were aware that if lightning started a fire in the blind part of the canyon, it would develop into a large fire before the smoke could be seen. It would require several hours for men to reach the canyon after smoke was discovered.

During the peak of the fire season in 1935, a lightning storm passed over Porphyry Creek Canyon and was accompanied by a small amount of moisture. No smoke showed up for several days after the storm, and we were beginning to relax in the hopes that no fires had been started in the canyon. Then one afternoon, when the humidity was at an extremely low point and accompanied by gusty winds, a huge volume of smoke mushroomed in the air from the canyon bottom. The moisture, which had accompanied the lightning, had apparently held the fire down until the fuels dried out several days later.

Large numbers of men, equipment, and supplies were rounded up at McCall and started for the fire by pack strings from South Fork Ranger Station. Men were recruited in Boise and other places where they were available. The first few guards to arrive at the fire were helpless against the roaring inferno. The fire simply exploded and spread in all directions. The rugged canyon served as a flue and the flames soon reached the heavy fuels in the basin area. It was a

major fire in a short time. A real "cookie," as Fred Williams referred to large explosive fires.

It was a dangerous area for men because of the steep, rugged terrain and the explosive fuel conditions. The roughness of the terrain precluded the use of heavy equipment such as tractor bulldozers, and the fire lines had to be cleared with hand tools. It was a heart-breaking job to start on.

I was picked up in Warren by airplane and flown over the burning area to look the situation over and try to decide locations for fire camps and note the progress of the fire. The dense pall of smoke in the area obstructed the view and little was accomplished during the air reconnaissance. All I determined was that it was a vicious fire and was still spreading rapidly over the countryside.

I arrived at the mouth of Porphyry Creek where the base camp was to be established. The fire had started approximately a mile from the mouth of the canyon. A few men had arrived, including two experienced and top fireguards, Glenn Thompson and George Mosher. Other overhead men such as sector foremen and camp bosses were on their way to the fire from other forests. By noon of the second day, large numbers of men began to arrive at the fire camp, along with pack strings loaded with camp equipment, tools, and food supplies. Campsites were located along the base of the fire front. The problem of transporting equipment and supplies into the rough areas by pack strings was a tough assignment as there were no regular trails. But the packers had been in rough places before and were willing to tackle the job. A few mules were lost from rolling over cliffs and steep slopes, but the camp equipment and supplies were delivered to the designated campsites.

The roughest and most difficult problem confronting the ranger or fire boss was during the period of time between the arrival of large number of men, equipment and supplies, and the arrival of overhead men to assist in locating fire camps, organizing and equipping fire crews and getting them started on the designated sectors of the fire front. The arrival of overhead men from one to three days after the arrival of large numbers of fire fighters and equipment and supplies was always a serious deficiency in organizing for fire suppression work on large fires. It appeared to be very difficult if not impossible to correct this deficiency. It was a rough and sometimes heart breaking effort for the ranger or fire boss to handle the organizing and placement of men alone. He was fortunate if he could endure the physical and mental stress and strain during the two or three days until the overhead men arrived to help carry the responsibility for several hundred men in rough country and on dangerous fires.

I had considered myself pretty tough and able to endure physical and mental strain and I had done so successfully on many other occasions, but I found there are limits to endurance capacity. My legs simply gave out during the second day on the Porphyry Creek fire and refused to carry me over the rough terrain. It was

necessary for me to leave the fire and consult the doctor. I was heartsick because this was the first time my two strong legs had failed me. By the time I was able to return to the fire, it was well under control after burning over several thousand acres of timber and watershed. The heavy Douglas fir and spruce in Porphyry Creek Basin had all been burned.

First Smokejumper Fatality, July 4, 1946 (from Ferguson and Webb n.d.)

On July 3, 1946, the Payette National Forest Fire Dispatcher Harold (Slim) Vassar received a lookout's report of a small, lightning caused fire on Fall Creek Ridge, near the Middle Fork of the Weiser River. Dispatcher Vassar discussed initial attack procedure with Glenn Thompson, the Fire Control Officer, and they agreed the fire was in a remote area and was a smokejumper assignment. Vassar contacted Stewart (Lloyd) Johnson, the smokejumper co-leader, who then alerted John P. Ferguson. Together they initiated the first attack action. On call on the jump roster were a number of jumpers and three were selected based on the evaluation of the fire situation. The three jumpers chosen were Lester Lycklama, John L. Hennessey, and Coston T. Aguirre. Lloyd Johnson went along as a spotter, Bob Fogg was the pilot, and John Ferguson assisted on the fire run.

When they arrived in the area, the fire was clearly visible from the air. The plane circled the area and located spot close to the fire as a landing spot for the jumpers. A drift chute was then dropped to check the wind direction and velocity. Johnson spotted the jumpers and they bailed out and landed on the selected location without incident. Ferguson then helped Johnson drop the cargo, and as the plane departed the area, two jumpers were seen heading for the fire with the remaining jumper dealing with the gear. The operation seemed routine in every respect.

The Forth of July 1946, was a warm, sunny day. Everyone was looking forward to the big celebration. Johnson and Ferguson allowed all the jumpers to go to town with the caution that those at the top of the roster be quickly available and in good physical condition (in other words... no partying). It was near noon when a telephone call from the fire dispatcher alerting Ferguson and Johnson that one of the jumpers on the Fall Creek Ridge Fire was seriously injured. The entire unit was well trained in safety and first aid, and all had received Red Cross training with Johnson, Webb and Ferguson as instructors. What action to take was Lloyd Johnson's decision to make, so he directed us to get out there with the men immediately available. Ferguson notified Bob Fogg at the airport, then he, Johnson, and Webb assembled jump gear and equipment (which was ready, it just had to be loaded on to a vehicle). Two jumpers, Edward Case and Bruce Froman, were immediately available and joined the group as they began dressing in their jump gear in route to the airport where the plane was ready and waiting. Co-leaders, Ferguson and Johnson, with jumpers Wayne Webb,

Edward Case and Bruce Froman comprised the rescue mission. Ferguson later learned that upon hearing the news, the jumpers enjoying the celebration uptown rushed back to the unit to provide their help.

The plane first landed at the Council airport (located almost in a direct line between McCall and the fire) where arrangements had been made to meet Doctor Alvin S. Thurston of Council, Idaho. Johnson stepped out to receive emergency instructions from the doctor and a more complete medical kit that included blood plasma. Dr. Thurston was to accompany the ground party to a preselected road location. This was selected as the quickest route to get the injured jumper from the fire area to the Council Hospital. The airplane reached the fire on Fall Creek Ridge and the rescue squad jumped without incident. Wayne Webb later found out that the elapsed time between getting the initial call and landing on the ground near the injured Lycklama was only 38 minutes.

After 40 plus years the exact sequence and some of the happenings are vague, but Ferguson remembers that Coston Aguirre was somewhat confused and disoriented and not able to lead the rescue party to the injured man. The rescue team had to look for the injured jumper, who was found almost immediately, very seriously injured but alive. With the assistance of the other team members, Johnson administered the blood plasma, dressed the wounds and prepared him for transportation down the mountain to meet the ground party coming up from the road.

The cause of the injury was related to firefighting, not parachute jumping. After the three jumpers were dropped off near the fire on July 3rd, the three located the source of the fire, an old ponderosa pine tree that had been struck by lightning and was burning approximately two-thirds of the way up the tree. Around 9:30 p.m. that evening Lycklama and Hennessey were busy cutting the ponderosa with a crosscut saw to fall the pine tree. Aguirre was posted up the slope to serve as lookout to warn of possible falling limbs. While they were sawing, the tree burned in two and the top third fell, almost in an upright position. Aguirre shouted the warning and the sawyers started running in their preselected escape routes. Unfortunately, Lycklama tripped on a root, fell face down and was struck on the head by a tree limb, knocking him unconscious and resulting in a severe head injury. Hennessey and Aguirre stayed with the victim until daylight when it was decided that Hennessey would go for help. He traveled about eight miles cross-country down the slope to the road on the Middle Fork of the Weiser River and started down river when a passing motorist stopped at his urgent plea and drove him to Council. He quickly found a phone and called the Forest Dispatcher in McCall.

The rescue squad carried the injured jumper on a stretcher about four miles cross-country to a trail and had just started down to the road when they met the ground party headed by Dr. Thurston. Johnson, Ferguson, and Aguirre continued on with the group to the hospital while Webb, Case, and Froman

returned to the fire to finish putting it out and gather the gear to await the packer who came in the next day.

Lester Lycklama died at 5:30 a.m. on July 5, 1946, while on the operating table at the Council Hospital, never having regained consciousness.

Lester Lycklama's obituary

Lester Lycklama of the 101st AIRBORN DIVISION, serial #20-927-009, STAFF SERGEANT of the 377th parachute field artillery battalion received an HONORABLE DISCHARGE at the separation center Fort Douglas Utah, November 21, 1945.

In April of 1946, Lester Lycklama was employed by the Forest Service to be a Smoke Jumper. He died on July 5, 1946 from injuries received while fighting a forest fire on the Middle Fork of the Weiser River on Indian Mountain, 20 miles southwest of McCall.

Smoke Jumpers Dispatch Sheet

REGION:	4	
FOREST:	Payette	
DATE:	7-3-46	
TIME:	2:00 PM	
FIRE:	MICA RIDGE	
SECTION:	19-20	
TWP:	15N	
R:	2 EAST	
EST. SIZE:	MED.	
FUEL TYPE:	Br.	
# OF JUMPERS NEEDED:	2 -3-Jumpers:	Lester Lycklama
JUMPERS REQUESTED BY:	Perkin	John L. Hennessey
ORDER RECEIVED BY:	Vassar	Coston T. Aguirre
JUMPERS DISPATCHED:	McCall	
NAME OF CREEK OR RIDGE:	Near Mica Ridge	Spotter: Stewart S. Johnson
		Pilot: Penn Stohr
		Co-pilot: John P. Ferguson

Footnote:

A rescue mission was dispatched on July 4, 1946, to assist in emergency medical treatment and transporting Lycklama, by ground method, to the nearest access road and hospital, following the accident. Rescue personnel consisted of:

Penn Stohr, Pilot
Stewart S. Johnson
John P. Ferguson

Wayne Webb
Edward Case
Bruce Froman

Zena Creek Fire, July 30, 1946 (from Ferguson and Stover, n.d.)

July 30, 1946 was a day of mixed weather, hot and dry throughout the morning, with the afternoon bringing in a fast moving dry-lightning storm from the west. I watched it cross over McCall and continue east over Lick Creek Summit toward the primitive area. I had more than a passing interest in the storm for I knew that James (Smokey) Stover and myself were listed at the top of the jump roster, on call for the next fire jump. Stewart (Lloyd) Johnson and myself, John P. Ferguson, were the co-leaders of the McCall Smokejumping Unit on the Payette National Forest. We were the original and only unit in the Intermountain Region at that time. Our being the co-leaders made no difference - every one of the squad of 50 jumpers took their allotted position on the jump roster in their turn.

At the McCall Unit, in the summer fire season, we could anticipate a fire call within 15 to 30 minutes following a dry-lightning storm that crossed over the forest - if we didn't get a call for jumpers from another forest in the Region in the meantime. Sure enough, the telephone rang and Johnson answered it. It was the melodious voice of Harold (Slim) Vassar, the Payette's renowned fire dispatcher, known for his cheerful manner of passing along bad news and cheerful manner of admonishing a person who needed it. Slim said, "Fire - 2 jumpers, get with it." Johnson, a man of few words said, "Right," gave Smokey and me the high-sign and proceeded to take down the fire report details. We were ready, except for putting on our jump suits. I said, "It's probably in Chamberlain Basin or the Salmon." Smokey replied, "No, I'll take the Boise or Challis on the Middle Fork of the Salmon." Johnson showed up immediately at the equipment shed and enlightened us, "Both wrong, its just over the mountain, in the head of Zena Creek, on the Secesh drainage." It made a difference, if the flying time to a fire was of any duration we suited up in the plane on the way. If it was close to McCall and there was not much time, we suited up on the way to the airport, which is what we did while Johnson alerted the pilot, "Warm up the plane and be out there in 5 to 10 minutes." So far this yarn has been strictly routine... now we get to the good stuff and why it was a unique experience.

At the airport, W. Penn Stohr (Idaho's veteran mountain pilot) and the Travelair was away on a prior fire mission. It was routine to use Penn and the Travelair for a 2-man jump. However, a Ford Tri-Motor, with Pilot Everett A. "Slim" Phillips (the so-called "Screaming Eagle" and a good friend) had flown in from Hale Field, Missoula with what could be called "excess baggage," the Region One Smokejumper Safety Officer Victor I. Carter. Vic was a nice fellow, but a stickler on safety - and rightfully so. He was paying McCall a surprise safety inspection. Fire was first priority, so we commandeered Slim and the Tri-Motor. It was not much of a big deal as Slim and the Ford were regularly used at McCall for fire jumps requiring more than 2 jumpers. The Ford could handle up to 8. However,

we also got Safety Officer Carter along for the ride. In accordance with the Murphy Principle, or some other twist of fate, if something is going to happen, it will with the Safety Officer present... and it did.

The short flight to the vicinity of the fire was a rough one. The storm had not completely passed and the winds were on the red line for making a jump. Johnson was the spotter and it was his decision to determine if the jump was feasible for if we had to wait for calmer conditions. Johnson, Slim, Smokey and I discussed the situation and we agreed to jump, but from a lower altitude.

The Ford Tri-Motor circled the fire; the winds were acting badly, so we figured jumping about 80 to 1,000 feet above the fire. Even at that planned height and the steepness of the terrain in Zena Creek, we still had the potential of missing the jump spot and drifting toward the Secesh River, miles away. Johnson dropped a drift chute, he must have caught the calm before the blast, because it wasn't good but it wasn't bad either. Slim dropped altitude, the Screaming Eagle was cussing, the Tri-Motor was known to drive like a truck since the controls were all manual - no hydraulics, and it certainly was handling like one now. One pass over the fire and I prepared to jump on the next pass. Murphy's Law then took over. On the next pass the plane drifted closer to the steep hillside, but conditions being less than optimal, Johnson slapped me on the shoulder and out I went into the.... How do you say it?... the wild gray yonder. It proved to be not much of a ride. As I recall, I left the plane and simultaneously got the opening shock of the parachute and at the same time my feet entered the needles at the crown of the trees as I hit the ground. After that I recollected that it didn't take much specialized training to do that. What had happened? The plane had been blown in closer to the mountainside and it was estimated that I had jumped from about 500 feet or lower. At any rate, I made it and was fine and on the next pass, Smokey jumped. He jumped higher, but still hit the ground in a hurry. Slim Phillips, Johnson and Safety Officer Vic Carter left in a hurry after dropping the fire tools, bedrolls and rations. Smokey and I gathered the chutes up, got the fire tools and walked about 200-300 feet to the fire. The fire was in a stand of trees, a lightning strike, with a half-dozen trees on the fire and the brush burning nicely underneath them. Except for the wind, the fire presented no problem and Smokey and I worked on it in a routine matter.

Nighttime was creeping up on us and it began to rain hard, and I mean real hard. Lightning was striking all along the ridge, so I told Smokey, "The hell with this, I'm going to bed down under that big old fir tree." Smokey said, "Nothing doing! That's the first place the damn lightning will hit." To make a long story short, he bedded down out in the open in the downpouring rain and I settled down under the tree. I was, within reason, dry; but Smokey was a drowned rat. I distinctly recall looking out from my, more or less, dry place and seeing the water running down the hillside and washing over Smokey. He actually opened the snaps on the bottom of his bedroll and the water flowed in the top of the kapox and out the bottom. He was right about the lightning, it hit every place, however, I still

planned to die relatively dry.

By first daylight, the fire was drowned out and we gathered the gear and hiked down the mountain toward the Secesh River and the road. At the Lick Creek road we were picked up and taken to McCall. Upon arriving at the Smokejumper Unit, I stored my gear and went home. Smokey also went home, but I understood the first thing he did was take a shower... after all he was water trained.

The Zena Creek Fire was a dud for me. Vic Carter, the Safety Officer, gave me a lecture about jumping low, put a reprimand in my folder, and I was glad when he left for Missoula (Ferguson and Stover n.d.).

Circle End Fire, August 16th, 1949 (from Mitchell 1949)

On August 16, 1949 a storm moved over the Salmon River Mountains near the junction of the Secesh River and the South Fork of the Salmon River. From his perch in the Williams Peak Lookout, the lookout saw a number of lightning strikes along the Salmon River. He reported one fire near Reservoir Creek and another near Circle End Creek. At the time of his report, he believed the Circle End Creek Fire was on the east bank of the South Fork of the Salmon River. Men were soon dispatched to both fires.

Two men staying at the Willey Ranch started for the Reservoir Creek Fire as well as a brush crew of seven men staying at Camp Creek. Lafe Johnson and the Krassel District Ranger, Yale Mitchell, set out for the Circle End Fire. When they arrived at where they thought the fire should be, they realized that it was on the west side of the river. Deciding against traveling through the rough country at night and attempting to ford the river in the dark, Ranger Mitchell and Johnson went back to the Williams Peak Lookout and ordered two other men to go to the Circle End Fire at about 10:30 p.m. that evening. These two new men could not find the Circle End Fire; instead they ended up at the Reservoir Creek Fire, leaving the Circle End Fire unmanned during the night.

The Circle End Fire was left until August 19th, when two smokejumpers jumped the fire early in the morning. The jumpers succeeded in getting a line around the 2-acre fire, but soon lost control of it as the wind picked up and sent the fire over the control line and up the extremely steep slopes and bluffs. Within an hour the jumpers received help from five of the Camp Creek brush crewmen who had left the now controlled, Reservoir Creek Fire. Fatigued from working the other fire, the men gave their best effort, but the Circle End Fire was soon completely out of control and by that evening had spread to over 100 acres. Ranger Mitchell and seven others soon arrived. When the severity of the situation was realized, the Ranger called the McCall office by radio and ordered seventy-five more men.

By morning, a fire line was begun around the top of the fire and reinforcements

soon began arriving. A logging crew from Brown's Tie and Lumber Company were contracted to build a line from the river up the west side of the fire. A fire crew of twenty-six men, led by Easterbrook, was sent to build line from the ridgetop down the east side of the fire to the river. The objective was to anchor the line to the river on both sides of the fire and burn out from both lines. A direct approach was not attempted due to the steep slope the fire was on, and the danger of rolling logs, rocks and embers. By now the fire had backed down the slope, nearly to the river and where it had started.

By 11 a.m. all of the line was completed and the burning out begun. At the same time, the winds began to pick up, and were soon blowing an estimated 20 to 40 MPH. The day continued to worsen fire conditions. The humidity was low, fuels were very dry, and winds continued to blow. The fire soon jumped the lines and by 2 p.m. was completely out of control. It jumped the South Fork of the Salmon by 8 p.m. and was burning towards Moss Creek and Williams Peak.

On August 21st a new fire camp was made at the junction of Oompaul Creek and the road and more reinforcements were called. Lee Thomas from California soon arrived with 100 men, as did Jack Morgan and his 75 loggers. McCrandy from Region 5 was sent out as Division Boss with 50 men to the Willey Ranch to establish a camp and take over the forth division of the fire. The strategy was to get a secure anchor at the river and a fire line built to prevent the fire from burning out the Williams Peak side into the old Sheep Creek burn, and to anchor that back to the river just above the Willey Ranch. Lee Thomas was sent to Williams Peak with 125 men including Morgan's loggers.

On the morning of August 22 the fire left the hands of the Ranger Mitchell and was taken over by Wally Dresskell. The strategy for fighting the fire was essentially unchanged but conditions remained difficult for anchoring the fire line along the river. Due to the adverse conditions, the original fire camp was moved from inside the fire line to Indian Springs, located under the Tailholt Lookout.

On August 24th, there were approximately 230 men at the Indian Springs camp, and 150 men at the Willey Ranch camp. The winds were especially strong and the fire made its biggest run, burning over 6,000 acres in one day. Luckily, most of the fire lines held. More reinforcements were called in and new camps were established at Rock Creek, upper Rock Creek, Bear Creek, and Fritser Creek. A total of 560 firefighters were working the fire now.

On August 25 containment of the fire was finally accomplished. Fire lines were anchored on both sides of the river. And lines ran from Savage Point to Willey Ranch, then to Williams Peak, and from there to the South Fork, Tailholt and Fritser Creek. The fire was declared under control on September 7th, and called out on October 7th. In all, it was estimated that this fire effected approximately 14,000 acres(Mitchell 1949).

Lookouts, firefighting techniques and strategy 1950-1960

By 1950, radio communication and air spotting and transport brought about changes in strategy which resulted in the reduction of continuously staffed lookouts necessary to detect fires on the forest. The last new lookout on the Payette National Forest was built on Boulder Peak in 1950, and by 1960 more than half of the lookouts were abandoned or reduced to only temporary use. Those in use were modified, updated and rebuilt as necessary. Many of the L-4 types have been replaced by the newer R-6 flattop types. When the L-4 on Sheepeater (arguably the most active lookout on the forest) was replaced in 1976, the abandoned metal R-6 type from Lookout Mountain was airlifted onto the peak. There are currently 14 lookouts still in use on the Payette National Forest.

GLOSSARY OF TERMS

Burn out: A strategy used to fight fires where a fire line is made away from the main fire, then the fuel on the side of the fire line that the fire is on is ignited. The new fire will then burn from the fire line towards the actual fire creating a break that the actual fire can not pass.

Blow up: When the weather conditions cause a fire to significantly increase in activity, typically involving the fire crowning.

Crowning: When a fire rapidly jumps from tree to tree from the crown. A very dangerous situation to be in when firefighting.

Direct Approach: A strategy used to fight fires where the firefighters work right next to the fire.

District Ranger: Each Forest is divided into a number of Ranger Districts. The District Ranger is the person in charge of all employees who work on that District.

Fire Line (sometimes also called "Line"): A trail made in the dirt, typically using shovels, pulaskis, and McClouds, where the firefighters clear away all vegetation so that only bare mineral soil is exposed. It is used as a fuel break that a fire will not pass.

Forest Ranger: A term typically used to refer to anyone employed by the Forest Service.

McCloud: A tool used by firefighters that is toothed like a rake on one side of the tool and flat edged on the other.

Mop-up: A strategy used to fight fires where the fire fighter puts out individual areas that are still hot. Typically this is used to put the fire out near the fire line to eliminate any chance of the fire going across the line.

Pulaski: A tool used by firefighters that has an axe on one side of the tool and a hoe on the other.

Spot Fires: Fires started outside of the fire line by flying embers.

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