

HISTORIC FIRE LOOKOUTS
ON THE
UMATILLA NATIONAL FOREST

A DETERMINATION OF ELIGIBILITY
TO THE
NATIONAL REGISTER OF HISTORIC PLACES

USDA FOREST SERVICE
PACIFIC NORTHWEST REGION
UMATILLA NATIONAL FOREST

GRANT, MORROW, UMATILLA, UNION AND
WALLOWA COUNTIES, OREGON
AND
ASOTIN, COLUMBIA AND GARFIELD COUNTIES, WASHINGTON

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September 4, 2002

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INTRODUCTION

The following report is a thematic evaluation of the extant fire lookouts and associated structures on the Umatilla National Forest (NF) for eligibility to the National Register of Historic Places (NRHP). This evaluation will provide a foundation for determining the future management of these unique properties.

The Umatilla National Forest had at least 53 fire lookout locations over the years. A listing of all known lookout locations is provided in Appendix A with information on the types of structures that were built over the years at each location and their current status. Today, there are 13 fire lookout structures still standing on the Umatilla National Forest. Most of these lookouts have at least one associated structure such as living quarters, garages and outhouses. There are 24 permanent associated structures. The majority of these extant lookouts are the second or third generation of a lookout structure at the site, testifying to the long history of these locations serving as primary fire detection sites. Several other lookout sites still have remains such as foundation blocks of former lookout structures and garbage dumps. These sites are potential historic archaeological sites. Subsurface testing is needed to determine if any archaeological materials are present. This report addresses only the standing structures. Table 1 lists all the extant lookouts and their associated structures.

Not all of the extant lookout towers are presently being used in fire detection. Some are continuously occupied throughout the fire season, while a couple others are used only during high fire danger or in emergencies. The remainder of the lookouts and associated structures are abandoned, awaiting management decisions regarding their future use. Figure 1 shows the locations of the extant lookouts on the Umatilla National Forest.

Table 1
Extant Lookouts and Associated Structures on the Umatilla National Forest

Lookout Name	Location	Date Built	Building Type	Current Status
Big Butte	T7N, R44E, S1 (WA)	1950	Standard 1936 L-4 cab on 67' treated timber (TT) tower	Staffed by Dept. Nat. Resources
		1930? Unknown	Garage Outhouse	Converted to storage bldg. Still in use
Bone Point	T7S, R31E, S6 (OR)	1961	Metal live-in cab on 40' tower	Not used
		Historic	Outhouse	Abandoned, poor condition
Clearwater	T8N, R42E, S5 (WA)	1933	7x7 cab w/ 87' MC-39 or -40 Aermotor steel tower	Used for emergencies
		1940s?	Cabin	Cabin rental
		Modern	Heliport office	Still in use
		Modern	Storage bldg. Outhouse	Still in use Still in use

Desolation Butte	T8S, R34E, S30 (OR)	1961 1923? Modern Modern	R-6 flat-roofed cab on 67' TT tower Garage Outhouse Radio building	Staffed during fire season Not used, poor condition Still in use Still in use
Goodman Ridge	T1N, R37E, S5 (OR)	1936-37 1936-37	L-6 cab on 67' TT tower Cabin	Not used, poor condition Not used, poor condition
High Ridge	T2N, R38E, S6 (OR)	1959 Modern	R-6 flat-roofed cab on 67' TT tower Outhouse	Used for emergencies Still in use
Hoodoo Ridge	T6N, R42E, S31 (OR)	1933 1933 1933 Unknown	7x7 cab on 101' MC-39 or -40 steel Aermotor tower Cabin Garage Outhouse	Not used Being restored for cabin rental Not used Possible restoration for use?
Lookout Mountain	T4N, R40E, S3 (OR)	1948 Unknown Modern	Standard 1936 L-4 cab on 83' wooden tower Outhouse Radio bldg.	Currently needs structural repairs before able to use; Staffed during fire season Still in use Still in use
Madison Butte	T5S, R27E, S29 (OR)	1957 Modern Modern	37' steel tower w/ flat cab Battery Bldg. Outhouse	Staffed during fire season Still in use Still in use
Oregon Butte	T7N, R41E, S4 (WA)	1931 Modern	Gable-roof L-4 cab on ground Outhouse	Staffed during fire season Still in use
Table Rock	T6N, R39, S3 (WA)	1949 N/A	Standard 1936 L-4 cab on 1-story concrete under-story Portable outhouse	Staffed during fire season; modernized ca. 1989 Not addressed in study
Tamarack Mountain	T8S, R26E, S18 (OR)	1933 1933 Modern Modern	7x7 cab on 96' steel Aermotor tower Garage, converted to cabin ca. 1966 Outhouse Radio Bldg.	Not used Cabin rental Still in use Still in use
Tower Mountain	T6S, R34E, S14 (OR)	ca.1929 -1935 ca.1936 Modern ca.1992	Aermotor 7x7 cab on 88' MC-39 or -40 steel tower Cabin Radio Bldg. Outhouse	Staffed during fire season Living quarters for lookout; built at Lucky Strike L.O., moved to Tower Mtn. 1949 Still in use Still in use

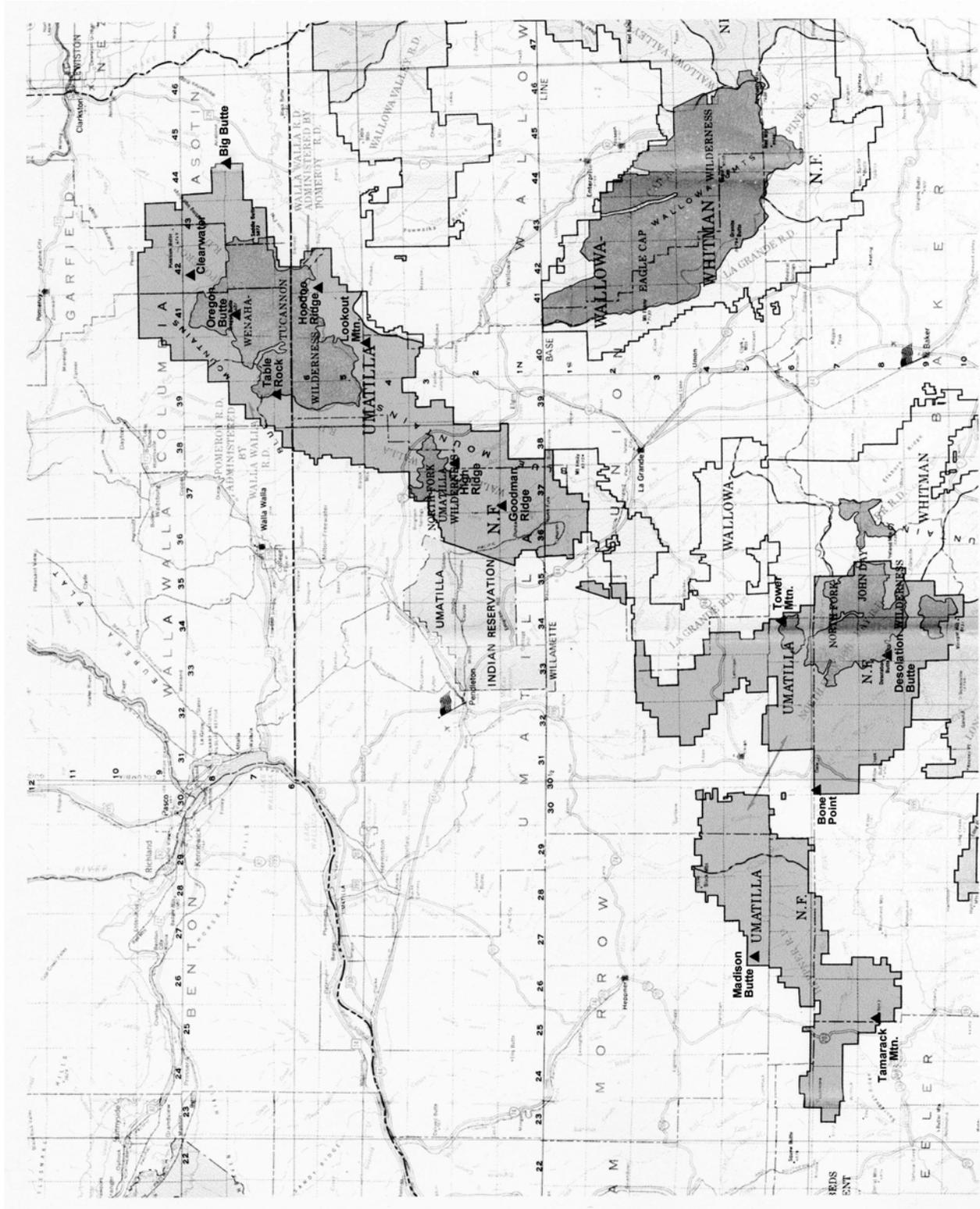


Figure 1. Vicinity map of the Umatilla National Forest showing locations of extant lookouts.

METHODOLOGY

Historic Archaeologist/Preservationist Jan Tomlinson conducted the extensive research, field inventory, and evaluation of the extant fire lookouts in accordance with *National Register Bulletins 15, 24, and 39*. Research was also conducted to identify all the former lookout stations on the forest, and the descriptions of the fire lookouts and associated structures once existing at those locations (See Appendix A). This compilation of lookout sites shows how extensive the fire lookouts once covered the Forest. The information should also be helpful to the archaeologists on the Forest in identifying probable historic archaeological sites. Further research was completed to provide the background information for the historical overview and the historic context that provided the foundation for the evaluations. The extant fire lookouts were documented on their respective State historic property inventory forms, and evaluated using the Secretary of the Interior's criteria.

Field Inventory

Each fire lookout and their associated buildings were visited at least once to inventory and photograph the structures. The fieldwork was carried out in the fall of 2000, and the summer and fall of 2001. The author accompanied the Forest Facilities Engineer, Jane Stuessy, to some of the lookouts to assist with and learn how to conduct the deferred maintenance reporting. Jill Bassett, North Zone Archaeologist, accompanied the author to Oregon Butte Lookout. For the remainder of the lookouts, the author was accompanied by her husband, Steve Tomlinson. Data was recorded on the deferred maintenance forms and additional information for the historic structures was reported in a field notebook. Each building was photographed with color film on a standard 35 mm camera.

Research

Background research materials on the history of fire suppression and the evolution of fire lookouts on National Forests were acquired mainly through interlibrary loans. This approach proved to be very time consuming, sometimes taking weeks to receive any materials at a cost of up to \$10.00 per item. Personal visits to the Whitman College Library, in Walla Walla, Washington, and Eastern Washington University Library, in Cheney, Washington proved to be more productive when these libraries were identified as having certain reference materials.

Detailed research on each structure began with visits to the Forest Headquarters in Pendleton, Oregon to search the Heritage files, the Facilities Engineering files and lookout building plans, and fire dispatch records on the lookouts. Steve Lucas, former North Zone Archaeologist, provided information about what records were located at the Walla Walla Ranger District, and copies of Umatilla Lookout information from his files. Later, trips were made to the Walla Walla Ranger District to review the extensive historic records and maps of the North Zone of the Forest (Walla Walla and Pomeroy Districts). Among the records were transcribed interviews with former district employees who recalled information about some of the lookouts. The South Zone Archaeologist, Gary Popek, supplied the author with site records and photographs of former and current lookouts on the Heppner and North Fork Ranger Districts. Records and

historic photographs of the lookouts were limited on the Forest. Conflicting or uncertain dates of construction led the author to search other locations.

The Civilian Conservation Corps were of particular interest. Two of the four Aermotor lookout towers and associated buildings were reported to be built by the CCC. The other two were lacking confirmed construction dates and information on who built them. The CCC Alumni web site <http://www.cccalumni.org> was searched and provided useful information on the known CCC camps in the vicinity of the Forest. CCC camps are listed by state with the company number, project number, a date (which may have been the start date), the nearest railroad, and nearest post office. With this information, the National Archives in Washington D.C. was contacted to find out whether any records for camps in and near the Umatilla NF were archived there and if so, what type of information the records contained. Some records for some of the camps from limited time periods were located, but unfortunately, there were no records pertaining to the projects the “CCC boys” worked on. The majority of the information was regarding the administration of the camps.

Research was conducted at the National Archives, Pacific Northwest Region, in Seattle, with limited success. Very few historic records from the Umatilla NF pertaining to the fire lookouts had been submitted to the National Archives. More extensive Regional Office, Engineering Department records were found, but these were primarily from the 1940s and 50s. The Regional Office records included contracts and purchase orders for lookout construction on the lookouts that were built during that time period. Civilian Conservation Corps records were also searched, but nothing could be found concerning whether any lookouts were built by the CCC.

While in Seattle, a trip was made to the University of Washington Library. A copy of *The Civilian Conservation Corps Camp Newspapers: a Guide* was known to be housed at the library. This guide is a catalog of all the CCC camp newspapers stored at The Center for Research Libraries (CRL) in Chicago, Illinois, the largest collection in the country. With the CCC camp and company numbers from the CCC alumni website, the author found several entries for camps that were located near the Umatilla NF, and hoped that these newspapers might mention the projects the enrollees were working on. Upon contacting the CRL, however, the cost of obtaining copies was extremely prohibitive. Other small collections around the country that reportedly contained Oregon CCC Camp newspapers were contacted, but they did not have any of the Umatilla NF camp newspapers.

Michael “Smoke” Pfeiffer, from the Ozark-St. Francis National Forests, provided copies of two undated Aermotor catalogs from ca. 1920s-30s, and introduced the author, via e-mail, to Ray Kresek. Kresek, the author of *Fire Lookouts of the Northwest*, and owner of a private fire lookout museum at his home in Spokane, Washington, was interviewed about his knowledge of the Umatilla fire lookouts and the different styles of lookout structures including the steel Aermotor lookout towers and cabs.

A valuable source of information on fire lookout locations, former lookout structures, associated buildings and cultural features is the panoramic photos taken from existing and potential lookout sites between 1935 and 1937 on the Forest. A CD of compiled photos, *Osborne Panoramic Images of Eastern Oregon*, was created by IamWho Panoramic Imaging. A copy of this

searchable CD was loaned to the author by Jim Beekman at the Walla Walla Ranger District Office.

Finally, two helpful sources of information were current and past lookout staff. Charles and Beverly Heebner, who have staffed the Oregon Butte Lookout for many years, have done extensive research on that lookout as well as others on the north end of the Forest. They have collected photos, newspaper articles and other documents, including a document of a chronology of fires reported from every lookout location on the forest. This incomplete document which is the only source of information on several former lookout locations apparently came from the Forest Headquarters' Fire Dispatch Office several years ago. Unfortunately, on a return visit to that office to locate the missing pages, no one was familiar with that document.

A former lookout staff on the Tower Mountain Lookout, Michael Duffy, has also done a great deal of research on Tower Mountain and other lookouts on the south end of the Forest. He has interviewed or corresponded with several other former lookouts at Tower Mountain, and has a small collection of photos, primarily of Tower Mountain, which he supplied to the author.

HISTORICAL OVERVIEW

The U. S. Forest Service policy of protecting National Forest Lands from fire evolved from a 19th century conservation movement that emphasized the protection of the Nation's supplies of timber and water, the conservation of soil, the maintenance of navigable waterways, and the protection of wildlife. As the West was being settled, numerous monumental natural and man-made fires burned vast amounts of American forests and caused major damage and tragic loss of life. At the same time, migrating logging companies and settlers were cutting trees down in a wasteful manner at an unsustainable rate. These events stimulated growing fears of an imminent timber famine, coupled with a widely held belief that loss of the forest cover would cause a long-term drought resulting in the permanent conversion of forested lands to desert (Pyne 1982:182-190).

To prevent the depletion of the last great timber stands, primarily in the Northwest, Congress, under the Federal Reserve Act of 1891, authorized the President to

. . . set apart and reserve, in any state or Territory having public land bearing forests, in any part of the public lands wholly or in part covered with timber or undergrowth, whether of commercial value or not, as public reservations, and the President shall, by public proclamation, declare the establishment of such reservations and the limits thereof (26 Stat. 1095 (March 3, 1891), Section 24).

After having over 40 million acres set aside without any means of protection or management, in 1897 the Sundry Civil Appropriations Act (also known as the Organic Act) was passed that directed the Secretary of the Interior (under who's department the Forest Reserves were placed), to make rules and regulations for the protection of the reserves from fire and depredation. The law also stipulated that reserves were only to be established to

. . . improve and protect the forest within the reservation, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States . . . (30 Stat. 34-36 (June 4, 1897)).

On February 1, 1905, President Theodore Roosevelt, transferred what had expanded to 63 million acres of Forest Reserves to the jurisdiction of the Department of Agriculture's Bureau of Forestry, headed by his friend, Gifford Pinchot. The Bureau was renamed the United States Forest Service. Two years later, the Reserves were renamed National Forests to reflect Pinchot's philosophy that the natural resources of the federal forests should not be reserved from multiple use, but should be managed "from the standpoint of the greatest good of the greatest number in the long run" (1905 letter quoted in Pinchot 1947:261). The change to managed forests was also in response to the early opposition that the creation of the reserves took away local control over the various resources. In an unprecedented move, Pinchot decentralized his agency's decision making authority by creating, initially, six district offices [now called regional offices] and a headquarters on each Forest. This action was taken to ease the administrative burden in his office, although he also insisted that the administration of each National Forest be "left largely in

the hands of the local officers, under the eye of thoroughly trained and competent inspectors” (Ibid:262). This concept of decentralized management also encouraged positive interactions between the local officers on each forest and the general public.

In these early years, each National Forest had a forest supervisor and a small cadre of forest rangers. The rangers were responsible for on the ground management of their respective districts. They patrolled their district on horseback making sure that the various types of users were using the forest appropriately without causing damage. Rangers also built cabins for their ranger stations, surveyed and marked forest boundaries, and blazed trails. Among their chief responsibilities was fire prevention and control. Though the rangers often put the fires out single-handedly, grazing, timber and other permittees were also obligated to fight fires without compensation whenever their permit area was threatened. Interestingly, fire protection was often listed as a major justification for issuing permits (Steen 1991:175).

To insure that the public’s right to use the National Forests was protected, while at the same time preventing wasteful destruction of the forests, Pinchot had a “*Use Book*” created soon after the establishment of the Forest Service in 1905. This manual contained all the regulations and instructions for Forest Service officers to follow and enforce. The *Use Book* was intentionally made small enough for the Ranger to carry around in his pocket, and hopefully, so that the Ranger could commit to memory all its contents (Steen 1991:78-9). What the *Use Book* had to say about forest fire control and enlisting public cooperation was to the point:

The utmost tact and vigilance should be exercised where settlers are accustomed to use fire in clearing land. Public sentiment is rightly in sympathy with home builders and the control of their operations should give the least possible cause for resentment and impatience with the reserve administration, but it should be exercised firmly none the less. Settlers should be shown the injury to their own interests, as well as to the public, which results from forest fires. But while the aim ought always to be toward cooperation and good will, it is equally important to have it well understood that reserve interests will be protected by every legal means (Pinchot 1974:277).

The *Use Book* followed with advice and instruction on building a campfire, how to suppress small fires and how to escape fires that get out of control (Ibid:277-78). The small manual was revised a few times before it could no longer fit in a shirt pocket and has evolved into today’s multivolume set of directions.

The need for the Forest Service to develop a strategy to deal with backcountry fire was brought to the forefront in 1910. Lightning and human activities such as land-clearing and campfires caused hundreds of fires, which burned five million acres of forest lands throughout the West. This included some massive conflagrations in Idaho and Montana. For the first time, suppression went on the offensive. After the supplies of local men were exhausted, President Taft authorized, for the first time, the regular Army to send troops to assist in the fire suppression efforts. Many towns were evacuated, sometimes only moments before they were engulfed by the fires. The casualty list was enormous – 85 people were killed and 100 more hospitalized (mostly firefighters). Additionally, an estimate of almost eight billion board feet of marketable timber was burned (Pyne 1992:241-49).

The devastating fires of 1910 spawned a change in how the National Forests were managed. Fires in these remote and inaccessible areas that were set-aside from the typical expansion of settlement could not be dealt with in the same way as fires near populated areas. Without the normal transportation and communication systems, new networks would need to be set up to deal specifically with fire detection and suppression. Additional staffing, hired just to fight forest fires would be necessary. Fire protection to preserve timber and watersheds soon became the dominant activity on national forest lands.

Fortunately, the Forest Service did not have to deal with forest fires single-handedly. Cooperative efforts to suppress forest fires extended to state forestry agencies and private forest landowners who also wanted to protect their timber resources. This cooperation among the three entities was particularly true in the Northwest. In 1911, Congress passed the Weeks Law which included a section authorizing federal matching funds to be allocated to states that have a forest protection agency that met government standards (Steen 1991:129). Later on, in 1924, The Clarke-McNary Act expanded federal participation in state and private forest protection and reforestation programs (Steen 1991:189).

Following the 1910 fires, the Forest Service began conducting fire research to manage fires more scientifically. Coert duBois, California's District Forester, developed the first comprehensive plan, in 1914, titled "*Systematic Fire Protection in the California Forests.*" Many of his ideas were implemented nationwide. This policy of fire prevention and control included locating high points on mountain and ridge tops where smoke from fires could be readily observed. These first "lookout stations" were simply high vantage points with open views of the forested landscape. The Umatilla National Forest likely had some of these lookout stations. In 1923, Albert Baker, the Asotin District Ranger, wrote in his work diary on August 9th. "Left Clearwater 7 A.M. Went to Mt. Misery. . . Went out on lookout point. No fires. Left Mt. Misery 1 P[M]. . ." (Albert Baker Diaries, 1923, transcribed). A ranger station, converted from an old trappers cabin, was located at Mt. Misery (Tucker 1940:146), but there is no record of a lookout structure ever being built there.

Lookout stations, whether just open vantage points or lookouts towers, became critical components of the "fixed point fire detection system" that developed over several decades. Initially, the lookouts used primitive, portable instruments such as the compass and heliograph to locate fires and communicate to others. The first "constructed" lookout type may have been the lookout tree, often referred to as "crow's nests," which usually had wooden slats nailed to the tree trunk or a ladder that led up to a platform in the top of the tree. The Umatilla NF had at least 14 crow's nests and several other "emergency lookout stations" that may have been crow's nests or just vantage points. An example of a crow's nest on the Umatilla was at Pearson Ridge. This crow's nest was captured in a panoramic photo in 1935 from a newer lookout (See Figure 2). The crow's nest lookouts were most likely built on the Umatilla NF during the 1910s and 20s. Freestanding lookout towers may have also been built concurrently with the crow's nests. The earliest reference to a tower being constructed on the Umatilla NF was in 1914, at Tower Mountain (then called Lookout Mountain):

In duBois' plan, he described how every detail of fire protection should be laid out. Regarding the construction of lookout stations his principles were:

1. Living quarters and working stations will be combined.
2. Stability of the building is essential.
3. The comfort of the building is essential.
4. The maximum view must be obtained from inside the building.
5. Insulation against lightning must be provided.
6. The interior arrangements must be adapted to the purposes of the station.

Specifically regarding the lookout structure he recommends that:

The lookout man's dwelling, office, and workroom should be centered in one house, on one floor, and in one room. The room can be no less than 12 feet square, and must be so constructed that at any moment of the day, with a turn of the head, he can see his whole field. He must be fixed so that while he is cooking, eating, reading, writing, dressing, washing his clothes, walking about, or sitting down, he can not help but be in the best position to see. (duBois 1914:55).

District Forester duBois indicated a steel tower would be the standard for use in California. Specifically, he recommended steel towers manufactured by the Aeromotor Co. of Chicago, Ill. This is the earliest reference to the Aeromotor steel towers, of which at least four were built on the Umatilla National Forest in the 1930s (More discussion of these towers will follow later). When a steel tower could not be delivered to a site, duBois recommended either a pole or lumber tower (Dubois 1914:50).

Early detection of fires proved to be an important factor in suppressing fires while still small; it was also the most efficient. Consequently, lookout structures were built on almost every mountain or ridge top that had an expansive view. On the Umatilla NF, the records are scanty about other lookout structures that were built before 1930. Many locations were "lookout stations" in the 1910s and '20s, but these may have just been high vantage points without structures. Bone Point had a "cupola cabin" built sometime in the 1920s, Madison Butte and Table Rock each had a D-6 cupola lookout built in 1923 and 1929, respectively. Desolation Butte had a 50 or 60 foot steel tower with a 6x6' cab built in 1923. Spout Springs had a platform on top of a 30' log tower built around 1928. It might have had a cab built on top but the Forest ran out of money. Tower Mountain may have had another pole tower built sometime in the 1920s to replace the earlier 1914 tower. All of these early lookouts structures (except Desolation Butte) were replaced in the 1930s and 40s with newer styles (Desolation Butte was not replaced until 1961). A discussion of the different lookout styles follows in the next section.

Osborne fire finders became standard equipment in the lookouts for plotting fire locations. W. B. Osborne, who invented the fire finder, also designed a 360 degree panoramic photo-recording transit. Between June 1933 and December 1935, Albert Arnst and a crew from the Regional Office in Portland took panoramic photographs using this transit from 813 lookout stations in Oregon and Washington including 35 on what is now the Umatilla National Forest (a

few were on the Whitman National Forest at the time). Subsequent photos were taken by others as late as 1942. These panoramic photos were taken of existing lookout stations and a few potential lookout sites. The photos were oriented so that three photos were taken, each showing a 120 degree sector of the azimuth circle, one view north, the second view east-southeast, and the third west-southwest. Copies of the photos were supplied to each Forest and used at the offices and by the lookout. The primary purpose of the photos was to prepare ½ inch base and topographic maps of the “seen areas” from the lookouts. These maps were then used by the lookouts to more accurately report where fires were located, and by forest planners to determine where a lookout’s blind spots were, or if there was excessive duplication of coverage from combinations of lookout stations (Arnst 1985:1-4).

One of the values of the panoramic photos today is the information about the lookout structure and associated cultural features such as buildings that sometimes appear in the photos (as shown in Figure 2). Each photo also has the name of the lookout station, date of photo, photographer’s name, height photo was taken from (i.e. the height of the lookout structure plus height of transit, though errors have been noted), and whether the lookout was a tower or a ground house. A great deal of new information about the Umatilla lookouts was found from these photos. The table in Appendix A, which lists all known lookouts on what is now the Umatilla NF, includes information on which lookout stations had panoramic photos taken from them.

Beginning in April, 1933, one of the most successful New Deal programs was established by President Franklin D. Roosevelt to alleviate widespread unemployment during the Great Depression. The Emergency Conservation Work (ECW), later and more widely known as the Civilian Conservation Corps (CCC), continued until 1942 when it was terminated because of the United States’ involvement in World War II and an improved economy. During its 9-year existence, the CCC enrollees worked on thousands of public works and conservation projects, the majority of which were on National Forests.

The CCC put to work many young unemployed men from local communities near the forests; other enrollees, especially those from urban areas, were relocated far from home. The influx of manpower and funding provided a much needed boost to the Forest Service which had been struggling to accomplish numerous programs including its fire protection work. Trails, roads, guard stations, telephone lines and an estimated 600 lookouts were built across the country (Sinclair 1991:12). CCC boys also worked on hazard reductions, fuel breaks, and became a tremendous fire fighting army (Pyne 1982:275).

On the Umatilla NF, records are limited from the 1930s that would indicate which lookout structures the CCC may have built, although a number of lookouts were constructed from 1933-42. According to Gerald Tucker, a CCC camp was on the Asotin Ranger District (now Pomeroy and Walla Walla Ranger Districts) the summer of 1933, and the enrollees accomplished a great deal of building projects. Among those projects were the following:

Barn, warehouse, oil house, garage and **steel tower** [still standing] **at Clearwater Ranger Station**. . . . Telephone line from Saddle Butte to Bucket Spring. . . . **Smoothing Iron emergency lookout house**. . . . Reconstructed telephone line from Iron Springs to Clearwater, Clearwater to Tucannon, Clearwater to Mt. Misery and put in a new line

from Wickiup Spring to Smoothing Iron emergency station. . . . **Hoodoo steel tower, house and garage** [all still standing]. . . . (Tucker 1940:148-49).

On the south end of the Forest, the only structure known to be built by the CCC is the house that was built for the lookout at Lucky Strike Lookout Station and moved to the Tower Mountain Lookout in 1949. Other CCC crews worked on the Umatilla NF, but their accomplishments are gone from Forest Service records. Of the 35 Osborne panoramic photos taken from lookouts now on the Umatilla NF, 21 of the locations had towers or ground lookout houses that may have been built during the 1933-42 era (before or after 1935), suggesting more than the above-mentioned lookouts and associated structures might have been built by the CCC. However, many of the lookout structures have very conflicting dates of construction as illustrated in Appendix A.

During WWII, no lookout construction projects were recorded. With the male labor force dramatically cut, the Forest Service increased the number of women lookouts (one of the few field positions available to women at the time). The Umatilla NF apparently staffed a few lookout stations with women. In an article in the *Walla Walla Union Bulletin* (*WWUB*) the attitude of the times is readily apparent:

Women and girls will not be dispensed with as smoke-chasers and fire spotters on the national forests this year, but the number so employed will probably be slightly less than a year ago. These courageous women and girls have stepped into a man's job under lonesome circumstances.

Ranger Ward reports Mrs. Elsie Ralph of Walla Walla will take the Lookout Mountain fire sentinel job. . . .

Over in Wallowa County Darlene Wilson will again do her smoke-chasing and fire spotting job at the Dorrance cow camp. This station is about 30 miles north of Hat Point which reveals the isolation of her sphere of influence. Miss Wilson has become definitely celebrated in forest service circles for the remarkable way she carries on her work in a wilderness area. She asks no favor of any man. . . . (*WWUB*, "Girl Lookouts," June 24, 1945).

From 1946 to 1950, six lookout structures were built on the Umatilla NF, all replacements of earlier structures. Following WWII, fire detection methods began to change in response to technological advances. Surplus equipment from the military was acquired by the Forest Service and put to use in fighting fires. Two-way radios replaced telephone lines for communication. Aerial patrols and smokejumpers became more common, making many fixed-point detection facilities increasingly obsolete. Improved access by roads left many of the trails abandoned, but brought more recreationists to the Forests who would also report fires. Nationwide, the number of lookout towers peaked in 1953 to 5,060 then began a steady decline (USDA Forest Service 1969:5).

Only four more lookouts were built on the Umatilla NF, all between 1957 and 1961, and all to replace earlier structures. All during the time that the Umatilla NF was building new lookouts they were abandoning and tearing down others. The destruction of lookout towers (as well as other surplus Forest Service buildings) increased dramatically in the mid-1960s. This was

primarily the result of legislation passed by Congress in 1965 that allowed citizens to sue federal agencies for injuries they received while on government property (Spring and Fish 1981, in Sinclair 1991:15). With all these “attractive nuisances” that recreationists love to climb, the Forest Service reduced their liability by tearing many abandoned lookout towers down. The majority of lookout structures that remain were ones still needed for fire detection and those that no one got around to tearing down (perhaps because no funding was available).