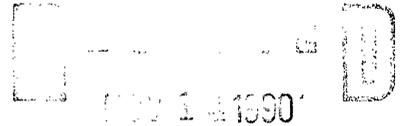


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National Park Service



National Register of Historic Places Multiple Property Documentation Form

**NATIONAL
REGISTER**

This form is for use in documenting multiple property groups relating to one or several historic contexts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. For additional space use continuation sheets (Form 10-900-a). Type all entries.

A. Name of Multiple Property Listing

USDA Forest Service Fire Lookouts on the Wenatchee National Forest

B. Associated Historic Contexts

USDA Forest Service Fire Lookouts within Washington State built
by the Civilian Conservation Corps

C. Geographical Data

Wenatchee National Forest

The State of Washington

See continuation sheet

D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR Part 60 and the Secretary of the Interior's Standards for Planning and Evaluation.

James G. Thom

Signature of certifying official

7/12/89

Date

Washington State Office of Archaeology and Historic Preservation

State or Federal agency and bureau

I, hereby, certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

Antoinette G. Lee

Signature of the Keeper of the National Register

12/26/90

Date

E. Statement of Historic Contexts

Discuss each historic context listed in Section B.

Introduction

The fire lookout houses which comprise this multiple property group are extant examples of a unique property type which currently remain on National Forests within Washington State and possess historic significance and exhibit physical integrity. The properties within this group possess historic significance as they relate to two principal unifying themes. Firstly, their association with the historical development of the USDA Forest Service, the steward of our National Forest lands, as an essential part of the comprehensive forest fire surveillance and detection system which functioned to conserve and protect natural resources for over 50 years. Secondly, as they embody the distinctive characteristics of a uniquely functional building type designed for and typically constructed in isolated and challenging mountaintop environments. Individual Fire Lookouts within the group also possess significance as they relate to the accomplishments of the Civilian Conservation Corps and as they relate to domestic defense during World War II as part of the U.S. Army Aircraft Warning Service.

Establishment of USDA Forest Service

Concern for the protection of America's natural resources led to the Forest Reserve (Creative) Act of 1891. Section 24 of this law authorized the President to withdraw certain forest lands from the public domain. These reserves were administered by the General Land Office of the Department of the Interior. The first forest reserve in Washington State was the Pacific Forest Reserve, established in 1893 and later known as Mt. Rainier Forest Reserve and eventually as Mt. Rainier National Park. Mt. Baker National Forest (originally Washington Forest Reserve), and Olympic Forest Reserve (now a portion of Olympic National Park) were established by presidential proclamation in 1897, the same year that Federal legislation was enacted which provided Federal protection and management, primarily custodial, of the Reserves by Forest Rangers. In 1905, when the USDA Forest Service was created, the Forest Reserves became known as National Forests and Rangers and Supervisors began to develop a comprehensive system for administration of the forests which included the construction of forest trails and roads and Ranger and Guard Stations. By 1908, five additional National Forests had been established in Washington State and included; Chelan National Forest, Colville National Forest, Columbia National Forest (name changed in 1949 to Gifford Pinchot National Forest), Snoqualmie National Forest and Wenatchee National Forest. In 1908, the Forest Service also began to formally recruit paid fire crews, which greatly strengthened forest fire suppression abilities. Previous to this period, fire detection and suppression had been basically provided by the volunteer efforts of miners, loggers, ranchers and homesteaders, the travelers and users of the forests. The creation of this Federal agency, however poorly equipped and

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meagerly financed, was a tremendously important historic advance in public attitude and recognition of natural resource conservation and the need to anticipate and respond rapidly to the threat of forest fires.

Development of a Surveillance and Detection System

In order to provide surveillance of vast areas of relatively unpopulated mountainous country, a specialized detection and communication system, the network of fire lookouts, was begun early in the administration of the National Forests. The essential feature of this system was the placement of men (and occasionally women), during the fire season, on selected mountain peaks, where the largest possible area of forest land could be seen, for the sole purpose of discovering, reporting and in some cases fighting forest fires. Concerns based on risk (the probability of fire starting) and hazard (the probability of rapid spread of fire) or accessibility were not important governing factors in the selection of early lookout sites. Due to extensive forest fires of 1910 and subsequent Federal aid to States and forest owners, the lookout system rapidly expanded between 1911 and 1915. Little emphasis was placed on providing a type or kind of structure which would enhance the working conditions and performance of the lookoutman. Typically, the lookoutman, also commonly referred to as the "fire lookout" or "lookout," camped in a tent below the peak and hiked daily to and from his station which was most often a tree platform or a pile of rocks provided with a compass or crude firefinder and a means of communication by either telephone line or a heliograph. An essential tool used by the lookout to pinpoint (on a map) the exact location of smoke (i.e. fire) was the "fire finding" instrument. The prototype "Osborne Fire Finder" came into use in 1914. It functioned to obtain an azimuth reading and a vertical angle, similar to an engineer's transit. Ideally, these readings would be taken in conjunction with sightings from other lookout stations for a "triangulation," thus was the basis for the lookout network.

Development of Specialized Lookout Structures

The development and construction of specialized lookout structures began in the Pacific Northwest with the construction of a prototype lookout house placed on Mt. Hood in 1915. This 12' x 12' pre-cut wood frame house was developed by Lige Coalman and

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was the basis for the standard D-6 (District 6, now known as Region 6) Lookout House. The D-6 plan featured windows all around the upper portion of the structure and included a hipped roof with a glassed-in, second-story observatory (cupola) and a protective shutter system. Eventually, a few hundred lookouts, based on this design were placed on forests in Oregon, Washington, Idaho and Montana. The record of construction of standard D-6 plan lookouts on Mt. Baker-Snoqualmie National Forest is fairly indicative of developments on forests elsewhere in Washington State. The earliest D-6 lookout houses built on Mt. Baker-Snoqualmie National Forest were at Sourdough Mountain (1917, demolished 1933), Mt. Pugh (1919, destroyed 1965) and Mt. Pilchuck (1921, demolished 1938). None of approximately ten cupola-style lookout houses built on the Mt. Baker and Snoqualmie National Forests remain. Although the cupola-style lookout house was typically constructed on forests throughout the State and Region during the 1920's, several other lookout house styles of varied form and building fabric were built nationwide by the Forest Service, a reflection of variable topography, capital investments, site locations, and available materials and builders' skills.

Early Fire Surveillance and Detection on Wenatchee National Forest

The northern portion of Wenatchee National Forest was initially included as part of the Washington Forest Reserve in 1897. It was later administered as part of the Washington Forest-Eastern Division until 1907, at which time it was added to adjacent withdrawn lands as part of the Yakima Division, soon thereafter known as the Wenatchee Division, Washington National Forest. This division also included what is now the old Snoqualmie National Forest portion of Mt. Baker-Snoqualmie National Forest, (these two forests were combined for administrative purposes in 1974). In 1908, the Wenatchee Division was divided into two forests along the summit of the Cascade Mountains and the Wenatchee and old Snoqualmie National Forests were each established. The forest was named "Wenatchee," the name of the Native Americans indigenous to the locality of its historic and current headquarters location and a lake and river within its geographic area. WE-NAT-CHEE means "opening out of the mountains" according to Native American legend.

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Historically, the original east-west road into the Wenatchee Valley was over Colockum Pass, a very steep and difficult route. Thus, most transportation was by steamer up the Columbia River. Prior to the establishment of the Forest, the area had been heavily overgrazed by sheep, which caused serious conflicts between established orchard owners and sheepherders. Drastic reductions in the number of sheep, from 40,000 to 20,000, were then undertaken; all permittees who did not own ranch property were eliminated and the period of grazing on the forest was shortened. Early Forest records and maps reflect the broad extent of the Forest Service role in the management and administration of grazing permits. In addition to these grazing activities, mining, trapping and orcharding were the principal commercial activities on or adjacent to forest lands. Due to these activities, a fairly extensive system of trails and wagon roads existed on the forest by 1908. The degree to which the forest was utilized, in conjunction with the dryer climate east of the Cascade Crest, contributed to an extensive fire history. This fire history was both the result of access and required access to these forest lands.

By 1914, several fire lookout stations had been established by the Forest Service on Wenatchee National Forest. These camps, on selected mountain peaks, included Dirty Face Ridge, Sugarloaf Peak, Icicle Ridge and Tiptop. The establishment of these stations and the subsequent construction of D-6 cupola-style lookouts followed a regional trend. By 1922, good automobile roads connected eastern and western Washington and extended well into the forest. A fairly well developed system of trails provided access to all parts of the forest by foot or pack horse. An official Forest map from this period promoted the 'beautiful' views from fire lookout stations, which were accessible by trail and included; Tumwater Mountain, Dirty Face Peak, Sugarloaf Peak, Tiptop, Red Top and Jolly Mountain. Permanent lookout houses, most often constructed according to the D-6, cupola-style plan had been placed on at least eight lookout points by 1925 and several more triangulation points and/or tent camps were in use.

Design and Construction of the Plan L-4 Fire Lookout House

An important variation on the standard D-6 Lookout House design was the standard Plan L-2 (Lookout house #2) developed in 1928 in Region 1. This design is credited to Clyde P. Fickes and J.B. Halm, who were both important early Forest Service personnel.

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The Plan L-2 was based on a strict budget to be constructed with specifically pre-cut members which could be delivered aboard eight mules along with simple construction tools and easy-to-follow instructions. The basic idea was that the lookoutman could match the pre-cut and numbered pieces together and build the shelter by himself. Few Plan L-2 lookout houses were constructed and did not, rather understandably, stand up well. The design of the 1930 standard Plan L-4 (Lookout house #4) was the logical evolution of the basic concept of the earlier plan and is also credited to Clyde P. Fickes and J.B. Halm. The standard Plan L-4 was also pre-cut and shipped in bundles specifically limited in length and weight, to be packed by horses or mules, but was intended for more permanent construction by a skilled carpenter and crew. Most importantly, it included several distinctive design features which addressed the functional nature of the building type and the associated site and living conditions.

The site specific circumstances related to the construction of standard Plan L-4 Lookouts and towers serve to illustrate the tremendous ingenuity, individual courage and physical stamina possessed by the men who packed-in and typically built these buildings and structures on isolated mountaintop sites. In most cases, besides the specific construction, the work included the development of lengthy trails and/or roads to the site, as many as 20 pack trips with 6-8 horses or mules and the difficult removal of trees and rock outcroppings. Additionally, most of the packing and construction occurred in late summer and early fall during variable and unpredictable weather conditions.

Expansion of the Fire Lookout Network 1932-1938

The standard L-4 Plan was slightly revised twice between 1930 and 1936 and continued to be used by the Forest Service until 1953. It proved to be a feasible and economic solution to the placement of lookout personnel in efficient shelters on mountaintop and/or tower locations. Over a thousand were built throughout the National Forests, primarily on Region 1, in Montana and Idaho, and Region 6 in Washington and Oregon. The development of the standard Plan L-4 and the expansion of the fire lookout network between 1932 and 1938 coincided with two important events; the initiation in 1932 of an extensive ten-year National Plan for forest projects and the establishment of the Civilian Conservation Corps (CCC) in 1933.

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The founding of the CCC in April of 1933, was the result of President Franklin Roosevelt's Executive Order #6106 and Congressional passage of the Act for the Relief of Unemployment through the Performance of Useful Public Works. Officially named Emergency Conservation Work, although better known as the CCC, it was the first of numerous New Deal emergency relief measures taken by the Roosevelt administration in response to the economic crisis created by the Great Depression.

The CCC influenced the physical development of the U.S. Forest Service more than any other single group or Federal program. While several Federal agencies utilized the manpower of the CCC, the Forest Service was one of its first and most enthusiastic supporters. The CCC had a particularly significant impact on the development and improvement of National Forests in the Pacific Northwest. Between 1933 and 1942, the accomplishments of the CCC included the construction of hundreds of lookout houses and towers, the installation of thousands of miles of telephone lines, and the construction and maintenance of foot trails, forest roads and fire breaks. Such contributions greatly improved the forest fire detection and suppression system and ultimately facilitated the conservation of important forest and natural resources. There were approximately 40 CCC camps on National Forests in Washington State. The CCC provided the essential workforce necessary to access the site by trail or road and to expand the entire fire lookout network. A CCC crew would typically construct a Plan L-4 lookout while under the supervision of a Local Experienced Man (L.E.M.) who was a skilled carpenter. In addition to their contribution in terms of physical improvements to the forests, CCC enrollees often served as fire lookouts and patrolmen and also made up firefighting crews on major fires during the 1930's.

CCC projects were undertaken on Wenatchee National Forest by enrollees stationed at Camp Taneum (F-80) near Thorp, Camp Icicle (F-29) near Leavenworth, Camp Brennigan (F-78) on the Entiat River, Camp 25 Mile Creek (F-77) on Lake Chelan, and the Soil Erosion Camp at Mission Creek (SCS-7) near Cashmere. Each of these camps housed 200 enrollees who were supervised by the U.S. Army when in camp (in the morning and evening) and by the Forest Service during the work day. In order to better accomplish isolated projects, several other "side" or "spike" camps were also established and operated entirely by the Forest Service. In addition to the construction of 30+ lookout houses on the Forest,

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the CCC also constructed roads to nearly all lookout sites and constructed administrative and service buildings for Stations at Cle Elum, Leavenworth and Steilico. The CCC continued projects on Wenatchee National Forest through 1939.

Subsequent Fire Lookout Use and Abandonment

During World War II, a number of existing fire lookouts in Washington, Oregon and California were used as part of the U.S. Army Aircraft Warning Service (AWS). The Forest Service and the War Department believed that the Japanese might attack the West Coast and set fire bombs in the western forests. Thus, AWS were staffed (most often by husband and wife teams) 24 hours-a-day, 365 days-a-year in order to give early warnings of enemy aircraft. Also during World War II, the Forest Service employed hundreds of women, as they had during WWI and the early 1920's, to serve at fire lookout stations throughout the Pacific Northwest.

After World War II, many outlying lookout sites were abandoned while centrally located lookouts remained in use. It was common during the late 1940's, where feasible, to dismantle and then relocate unused Plan L-4 lookouts to preferred lookout points still occupied by older D-6 cupola cabins. Change in fire management policy and the increasing ability to utilize aircraft patrols made an extensive network of lookouts no longer necessary. Airplanes were recorded in limited use for detection purposes by 1917, and early fire detection records are interspersed with fire reports "by aeroplane." The combination of selected fire lookout sites and aircraft patrols proved to be a cost effective method to identify and locate forest fires, particularly after electrical storms when the greatest number of fires are ignited. Gradually, as the number of abandoned lookout houses and structures increased, they were considered both hazardous and dangerous to forest visitors, and vandalism became a management and maintenance problem. The extent to which abandoned fire lookouts were then sold or intentionally burned varied between Ranger Districts on each National Forest, and some few 1930-era lookouts were retained.

Since 1960, several "user groups" have acquired special use permits from the Forest Service in order to repair and maintain abandoned lookouts for club and public use. Typically, during

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the late 1960's and early 1970's, the vast majority of these structures on National Forests throughout Region 6 were demolished, burned, or sold and removed. Thus, very few historic fire lookouts, of what was once a vast network, remain intact or in use for their intended purposes.

Among this multiple property group are those few intact lookouts on National Forests in Washington State which survive, often due to private initiatives and, in some cases, due to their continued utility. Several remain in use by Forest Service volunteers who primarily provide visitor rather than fire detection services or by users' organizations for recreation purposes. These extant fire lookouts, which typically remain in pristine mountainous forest environments, continue to evoke the isolated life and responsibilities of their original users. They represent a unique property type that functioned as a pivotal component in a comprehensive fire detection, surveillance and communication network which protected and conserved National Forest lands and natural resources throughout Washington State for over 50 years.

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Each of the fire lookouts within this multiple property documentation exhibit similar although uniquely different site characteristics, topographic conditions and degrees of accessibility. The purpose of the network of fire lookouts from its inception was to provide comprehensive surveillance in order to rapidly detect and extinguish forest fires. Inherently, sites were strategically selected on high mountain peaks with clear visibility of extensive forest lands. Congruently, these buildings are typically located between +2,500 feet and +6,000 feet above sea level and command panoramic views of forested areas. According to the elevation above timberline and site geology and topography, the immediate site conditions vary from massive granitic and basaltic outcroppings to subalpine ridge tops with meadows and semi-arid lands with sagebrush. Currently, the subject lookouts are often accessible by forest road, although many remain accessible only by Forest Service trails of varied length and terrain. These trails commonly traverse dense fir and hemlock forest, alpine meadows, permanent snow fields, glacial meltwater, subalpine ridges, loose rock and rock outcrops. Thus, accessibility to many fire lookouts remains, as it was historically, fairly difficult. Accessibility is a significant factor in current and historic levels of alteration, maintenance and vulnerability to vandalism.

The fire lookouts within this multiple property group were each constructed according to a similar standard Lookout House plan. This basic plan was initially adopted by the Region 6 Forest Service in 1929-30 and was referred to as "Plan L-4" (i.e. Lookout house #4). The form of this one-story, single room, 14' x 14' cabin appears to have evolved from previous standard plans which had been in use in Region 6 (then District 6) since c. 1915. The earliest standard Plan L-4 specified the construction of a simple gable roof form, often referred to as "grange hall" style. By 1932, this plan had been revised to call for a more structurally efficient pyramidal (or hipped roof) form. Both roof forms are exhibited within the multiple property group. In 1936, the standard Plan L-4 was again revised to utilize a variant window shutter support system. Examples of this additionally revised plan are also included within the multiple property group. The standard Plan L-4 included several distinctive design features which reflect the functional nature of the property type and the conditions involved in the construction and use of it.

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Structural Frame

The building design is based on a 14' x 14' x 6'-9" high structural frame which made it feasible to limit nearly all pre-cut framing and finish members to 8'-0" lengths. The logistics required to transport pre-cut materials by pack teams and to construct the buildings in isolation were addressed in the symmetrical structure frame, length limitations and uniform finish materials and millwork.

Foundations

Wood frame floor systems are typically supported by and anchored to indigenous rock materials which vary from rock pinnacles and ridge outcrops to relocated loose rock. This is a particularly unique and distinctive lookout feature. Guy anchorage systems are also utilized, to additionally secure the vulnerable structures against severe wind, snow and ice exposure. The guy cables are also typically secured to rock outcrops.

Towers

While ground houses located on high mountain ridges or pinnacles are common, lookout towers (standard plans ranged from 10 feet up to 120 feet in height) were often required for efficient fire detection elsewhere on forested lands. Tower construction was predicated primarily by the degree of isolation (i.e. accessibility) and ability to transport treated timber to the site. In cases where such transport was too difficult, native timber poles were utilized. The most common construction technique was treated timber with vertical, horizontal and cross-braced members pre-drilled and secured together with galvanized machine bolts. The tower structures are held in place by a carefully specified guy anchorage system. The vertical tower members and guy cables are typically anchored at ground level to concrete piers.

Catwalks

Lookouts constructed on towers or on rock pinnacles with adjacent steep drop-offs generally included a 3'-0" wide porch area all around. Catwalks were typically constructed with 2x decking and 2 x 4 dimensional lumber for guard rails and stairs. Catwalks provided easy access for shutter operations and additional living space.

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Roof Form

As discussed above, a variation in roof form distinguishes the 1930 plan from the later (1932 and 1936) standard Plan L-4 lookout houses. The more common pyramidal (or hipped roof) form required less lumber and functioned to carry a greater snow-ice load, thus rapidly superseded the earlier design.

Fenestration

An essential feature of the lookout house as a particularly unique and functional property type is the arrangement and placement of windows. The L-4 Plan incorporated a band of windows around the entire upper two-thirds of the exterior walls. This expanse of glazed areas functioned to provide a 360 degree view for fire surveillance and fire finding purposes. The standard Plan L-4 (1930) called for nine-light operating and fixed wooden sash while the revised 1932 plan specified two-over-two fixed and pivoting sash. The 1932 plan also included 2 x 2 interior window supports which were suspended from the ceiling and propped the upper sash rail open inwardly. This feature provided cross-ventilation in addition to an unobscured open area for azimuth and vertical bearing readings from the firefinder instrument. The standard exterior door is a wooden panel type with upper lights which match the muntin/mullion patterns of the window sash. The lower one-third of the exterior wall area was typically clad with 1 x 6 single "V" (groove) rustic siding. The interior side was typically finished with 1 x 4 T & G paneling which was also utilized for the ceiling finish.

Window Shutters

An important and multi-functional feature of the standard Plan L-4 was the provision of window shutters. Not only did the shutters function to cover and protect the wide expanse of vulnerable glazed area, but when secured in a closed position, provided necessary structural support for a relatively weak frame under snow/wind loads, and when open, served to provide shade and reduce sun glare. Original shutters were constructed on the site with 1 x 6 shiplap and reinforced with double z-bracing. Three different hardware systems were used to support the shutters; 1/2" bent steel rods secured through single eye-bolts; 2 x 2 wood braces secured with carriage bolts through double eye-bolts; and per the revised 1936 plan, a system secured shutters with lag bolts through perimeter blocking at projecting ceiling joists.

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Window shutters have typically been subjected to severe weather exposure and have suffered a greater degree of damage, deterioration, removal and replacement than other character defining features of the L-4 Plan lookout houses. They are currently a general maintenance and safety concern due to the short-term and transitory nature of current lookout users and visitors.

Lightning Protection System

This system is an essential feature of this property type and functions to protect these vulnerable mountaintop structures and their inhabitants from the distinct possibility of a direct lightning strike. Each of the subject lookouts typically exhibit a sharp-pointed, solid copper rod, approximately an inch thick at the roof peak or ridge ends. Quarter-inch copper wires descend from it, around the roof eave line, and down each corner of the cabin (and tower) to patches of moist soil on the mountain slope. Branches of wire also connect to typical steel and metal furnishing including the firefinder and woodstove.

Interior Furnishings

The standard Plan L-4 included construction details for on-site construction of pre-cut wooden furnishings. Such furnishings are typically found in the subject lookouts and include: a firefinder stand on which the Osborne Firefinder is mounted; a 2'-8" x 4'-0" table used for dining and other purposes; and, in some cases, a bunk constructed from bolted 1 x 6 lumber with a rope base for mattress support. Other simply constructed furnishings typically found in the lookouts include a lightning stool (commonly referred to as a "prayer chair"), kitchen cabinets, open storage shelves and small benches.

All properties within this multiple property nomination exhibit strong similarities as a distinct property type based on a standardized building plan designed to be constructed from pre-cut lumber. Despite the strong design similarities and common construction techniques, the lookouts feature variations in workmanship and site engineering, roof forms and finish materials, and general maintenance level and physical conditions. Construction materials were typically packed in by a Forest Service packer with mule or horse teams for construction by crews made up of Civilian Conservation Corps enrollees, available Forest Service employees and a hired carpenter, often a Local Experienced Man (LEM). The siting of the buildings and execution of rock foundations, guy anchorage systems and towers required

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innovative engineering and specialized skill, not to speak of outright courage and physical stamina. The physical condition of the lookouts vary greatly due to several influential factors; degree of use, accessibility and climatic exposure. Several of the buildings continue to be staffed by the Forest Service during the fire season for emergency purposes and/or are used and maintained by active hiking and mountaineering organizations.

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III. Significance

The properties which comprise this multiple property documentation are all USDA Forest Service administered Fire Lookouts, located in Washington State, constructed between 1930 and 1938 and which exhibit physical and architectural integrity. The principal unifying historic context of all of the properties within this documentation is their association with the historical development of the USDA Forest Service and its stewardship and conservation of our National Forests, as part of a comprehensive forest fire surveillance and detection system. A secondary theme to which all of the properties relate is as they embody the distinctive characteristics of a uniquely functional building type designed for and constructed in isolated and challenging mountain terrain, primarily during the era of the Civilian Conservation Corps from 1933-1942.

The fire lookout or lookout house is the principal property type associated with a comprehensive surveillance and fire detection system which evolved on National Forests primarily between 1914 and 1938. Previous to the establishment of the USDA Forest Service in 1905, fire detection and suppression had been basically provided by the volunteer efforts of miners, loggers, ranchers and homesteaders, and the travelers or users of the forests. The establishment of a formal fire lookout system, however poorly equipped or meagerly financed, was an important outgrowth of public attitude and recognition of the value of natural resource conservation and the need to anticipate and respond rapidly to the threat of forest fires. Thus, evolved an initial network of fire lookout sites manned by lookoutmen often housed in tents and stationed on a tree platform or mountain pinnacle without the benefit or protection of any permanent structure. These lookoutmen were often responsible for not only siting and locating, but for fighting forest fires sited in the vicinity of their lookout station.

Development of Specialized Lookout Structures

The development and construction of specialized lookout structures began in the Pacific Northwest with the construction of a prototype lookout house placed on Mt. Hood in 1915. This 12' x 12' pre-cut wood frame house was developed by Lige Coalman and was the basis for the standard D-6 (District 6, now known as Region 6) Lookout House. The D-6 plan featured windows all

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around the upper portion of the structure and included a hipped roof with a glassed-in, second-story observatory (cupola) and a protective shutter system. Eventually, a few hundred lookouts, based on this design were placed on forests in Oregon, Washington, Idaho and Montana. The record of the construction of standard D-6 plan lookouts on Mt. Baker-Snoqualmie National Forest is fairly indicative of developments on forests elsewhere in Washington State. The earliest D-6 lookout houses built on Mt. Baker-Snoqualmie National Forest were at Sourdough Mountain (1917, demolished 1933), Mt. Pugh (1919, destroyed 1965) and Mt. Pilchuck (1921, demolished 1938). None of approximately ten cupola-style lookout houses built on the Mt. Baker and Snoqualmie National Forests remain. Although the cupola-style lookout house was typically constructed on forests throughout the State and Region during the 1920's, several other lookout house styles of varied form and building fabric were also built nationwide by the Forest Service, a reflection of variable topography, capital investments, site locations, and available materials and builders' skills.

Design and Construction of the Plan L-4 Fire Lookout House

An important variation on the standard D-6 Lookout house design was the 1928 standard Plan L-2 (Lookout house #2) developed in 1928 in Region 1. This design is credited to Clyde P. Fickes and J.B. Halm, who were both important early Forest Service personnel. The Plan L-2 was based on a strict budget to be constructed with specifically pre-cut members which could be delivered aboard eight mules along with simple construction tools and easy-to-follow instructions. The basic idea was that the lookoutman could match the pre-cut and numbered pieces together and build the shelter by himself. Few Plan L-2 lookout houses were constructed and did not, rather understandably, stand up well. The design of the 1930 standard Plan L-4 (Lookout house #4) was the logical evolution of the basic concept of this earlier plan and is also credited to Clyde P. Fickes and J.B. Halm. The standard Plan L-4 was also pre-cut and shipped in bundles specifically limited in length and weight, to be packed by horses or mules, but was intended for more permanent construction by a skilled carpenter and crew. Most importantly, it included several distinctive design features which addressed the functional nature of the building type and the associated site and living conditions.

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The site specific circumstances related to the construction of the standard Plan L-4 Lookouts and towers serve to illustrate the tremendous ingenuity, individual courage and physical stamina possessed by the men who packed-in and typically built these buildings and structures on isolated mountaintop sites. In most cases, besides the specific lookout construction, the work included the development of lengthy trails and/or roads to the site, as many as 20 pack trips with 6-8 horses or mules and the difficult removal of trees and rock outcroppings. Additionally, most of the packing and construction occurred in late summer and early fall during variable and unpredictable weather conditions.

Expansion of the Fire Lookout Network 1932-1938

The standard L-4 Plan was slightly revised twice between 1930 and 1936 and continued to be used by the Forest Service until 1953. It proved to be a feasible and economic solution to the placement of lookout personnel in efficient shelters on mountaintop and/or tower locations. Over a thousand were built throughout the National Forests, primarily on Region I, in Montana and Idaho, and Region 6 in Washington and Oregon. The development of the standard Plan L-4 and the expansion of the fire lookout network between 1932 and 1938 coincided with two important events; the initiation in 1932 of an extensive ten-year National Plan for forest projects and the establishment of the Civilian Conservation Corps (CCC) in 1933.

The founding of the CCC in April of 1933, was the result of President Franklin Roosevelt's Executive Order #6106 and Congressional passage of the Act for the Relief of Unemployment through the Performance of Useful Public Works. Officially named Emergency Conservation Work, although better known as the CCC, it was the first of numerous New Deal emergency relief measures taken by the Roosevelt administration in response to the economic crisis created by the Great Depression.

The CCC influenced the physical development of the U.S. Forest Service more than any other single group or Federal program. While several Federal agencies utilized the manpower of the CCC, the Forest Service was one of its first and most enthusiastic supporters. The CCC had particularly significant impact on the development and improvement of National Forests in the Pacific Northwest. Between 1933 and 1942, the accomplishments of the CCC included the construction of hundreds of lookout houses and

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towers, the installation of thousands of miles of telephone lines, and the construction and maintenance of foot trails, forest roads and fire breaks. Such contributions greatly improved the forest fire detection and suppression system and ultimately facilitated the conservation of important forest and natural resources. There were approximately 40 CCC camps on National Forests in Washington State. The CCC provided the essential workforce necessary to access the site by trail or road and to expand the entire fire lookout network. A CCC crew would typically construct a Plan L-4 lookout while under the supervision of a Local Experienced Man (L.E.M.) who was a skilled carpenter. In addition to their contribution in terms of physical improvements to the forests, CCC enrolles often served as fire lookouts and patrolmen and also made up firefighting crews on major fires during the 1930's.

CCC projects were undertaken on Wenatchee National Forest by enrolles stationed at Camp Taneum (F-80) near Thorp, Camp Icicle (F-29) near Leavenworth, Camp Brennigan (F-78) on the Entiat River, Camp 25 Mile Creek (F-77) on Lake Chelan, and the Soil Erosion Camp at Mission Creek (SCS-7) near Cashmere. Each of these camps housed 200 enrolles who were supervised by the U.S. Army when in camp (in the morning and evening) and by the Forest Service during the work day. In order to better accomplish isolated projects, several other "side" or "spike" camps were also established and operated entirely by the Forest Service. In addition to the construction of 30+ lookout houses on the Forest, the CCC also constructed roads to nearly all lookout sites and constructed administrative and service buildings for Stations at Cle Elum, Leavenworth and Steliko. The CCC continued projects on Wenatchee National Forest through 1939.

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IV. Registration Requirements

To be eligible for listing in the National Register, a fire lookout house must strongly convey its historic character in both physical and associative ways and must have documented historic significance when evaluated within the context of USDA Forest Service history in Washington State. Due to the simple although functional features and distinctive siting of this unique property type, eligible fire lookout houses must retain integrity of essential lookout house or Plan L-4 features including; scale, massing, roof form and exterior features in order to convey their historic character. Clearly identifiable character-defining features include; tower structures, indigenous rock foundations, gable or hip roof forms, expansive window areas, glazed door construction, standard roof and exterior cladding materials and operable shutters with support hardware. All alterations to the character-defining features of these small buildings must be carefully evaluated in order to determine the degree to which each lookout house retains sufficient physical integrity. Due to their inherent isolation and their vulnerability to climatic conditions and vandalism, deterioration or alteration of exterior finishes, particularly shutters is relatively common. Special consideration ought to be given in order to allow a limited degree of alteration of some character-defining features due to specific site and maintenance constraints.

It is desirable that eligible lookout houses also retain the integrity of their interior finishes and interior furnishings. Intact original interior finish materials and the retention of standard interior furnishings (i.e., bunks, firefinder stand, table/desk, benches, cabinets and lightning stool) are important features which also serve to convey the historic character of this unique property type.

While location and setting are often important and dramatic features, historically fire lookout houses have been dismantled and moved to other compatible mountaintop sites where they continue to be used as they were originally designed and constructed. Although some lookouts do possess site specific significance, most relocated lookouts retain their essential form and character-defining features and continue to convey historic significance in both physical and associative ways.

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Another site-related concern is the degree to which alteration may have occurred to the immediate site, alterations which may obstruct the view to or from the lookout house. While it is relatively uncommon to encounter extensive site alterations, such alterations ought to be taken into consideration according to the degree and effect of the specific site intrusions. The extensive introduction of modern intrusions may impact the sense of primitive isolation, thus diminish the physical character of the property type.

G. Summary of Identification and Evaluation Methods

Discuss the methods used in developing the multiple property listing.

Since 1981, two fairly extensive independent studies have been published regarding this unique property type; Fire Lookouts of the Northwest by Ray Kresek and Lookouts: Firewatchers of the Cascades and Olympics by Ira Spring. Each of these publications was based on extensive field investigations, research, and review of Forest Service records. Based on a corroborative review of these works and Forest Service records, the USDA Forest Service Archaeologist for Wenatchee National Forest identified the subject properties for possible inclusion in a multiple property nomination. Additional field investigations were conducted by Cultural Resource Specialist Katheryn H. Krafft, a consultant to USDA Forest Service. The physical integrity and historic significance of the subject properties were examined and researched by the consultant in order to develop an appropriate nomination. This multiple property group, although varied in

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H. Major Bibliographical References

Bromily, Doug. East Wenatchee, WA. Telephone interview, 9/12/88.

Butler, Ovid (ed.), Youth Rebuilds-Stories of the C.C.C., The American Forestry Association, Washington, D.C. 1934.

Beeson, Simeon. Chelan, WA. Transcribed interviewed February 22, 1974.

Beeson, Simeon. Chelan, WA. Telephone interview, 9/12/88.

Jenkins, Morris. Cle Elum, WA. Telephone interview, 10/11/88.

See continuation sheet

Primary location of additional documentation:

- State historic preservation office
 Other State agency
 Federal agency

- Local government
 University
 Other

Specify repository: USDA Forest Service,
Wenatchee National Forest, Forest Supervisor's
Office, Wenatchee, WA

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G. Summary of Identification and Evaluation Methods

physical condition and maintenance levels, represents the only remaining Fire Lookouts under current USDA Forest Service jurisdiction on or administered by Wenatchee National Forest which possess and exhibit the quality of historic significance. Note should be made, however, that although the historic contexts statement and description of associated property types addresses USDA Forest Service Fire Lookouts throughout Washington State, only those resources on the Mt. Baker Snoqualmie National Forest and Wenatchee National Forest have been specifically identified, investigated and documented herein or in previous nominations. The contexts statement is intentionally broad in order to allow for the evaluation of other similar fire lookouts situated on National Forests elsewhere in Washington State. Site specific information ought to be provided with any supplemental nomination forms. The standards of integrity for all representative properties are and shall be based on National Register standards and criteria.

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H. Major Bibliographic References

Krafft, Katheryn H. "USDA Forest Service Fire Lookouts on the Mt. Baker-Snoqualmie National Forest." National Register Nomination Form. USDA Forest Service, Regional Office, Portland, OR., 1986

Kresek, Ray. Fire Lookouts of the Northwest. Ye Galleon Press, Fairfield, WA., 1984.

Kresek, Ray. Spokane, WA. Telephone interview, 10/12/88.

Simmons, Alexy. "Historic and Archaeological Resources in the Greater Wenatchee Irrigation District," CH2M HILL, Seattle, WA. 1986.

Spring, Ira. Lookouts: Firewatchers of the Cascades and Olympics. The Mountaineers. Seattle, WA. 1981.

Stanaway, Haven. Entiat, WA. Telephone interview, 10/12/88.

Throop, E. Gail, "USDA Forest Service Administration Buildings in the State of Oregon & Washington built by the Civilian Conservation Corps," National Register Nomination Form, USDA Forest Service, Regional Office, Portland, OR. 1986.

Miscellaneous Administrative records and documents on file at Forest Supervisor's Office, Wenatchee National Forest, Wenatchee, WA.

Miscellaneous Historic Maps - 1908-1936, Wenatchee National Forest, Forest Supervisor's Office, Wenatchee, WA.

Miscellaneous standard lookout house plans, 1915-1932. Obtained from Richard Miller, Pleasant Hill, OR.

Otis, Alison T. et.al, The Forest Service and The Civilian Conservation Corps: 1933-1942, USDA Forest Service, 1986.

USDA Forest Service Standard Lookout Structure Plans & Specifications, 1936. Obtained from William Bowman, Eldorado National Forest, Placerville, CA.

Williams, Gerald, W. "The USDA Forest Service in the Pacific Northwest: Major Political Controversies and Societal Problems Between 1891-1945," Umpqua National Forest, Roseburg, OR, 1985.