

WILDERNESS TOWER SITE
(Lampe Tower Site)
Mark Twain National Forest
East of intersection of Missouri Highways 13 & 86
Lampe vicinity
Stone County
Missouri

HABS No. MO-1913

HABS
MO-1913

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY
MIDWEST REGIONAL OFFICE
National Park Service
U.S. Department of the Interior
1709 Jackson Street
Omaha, NE 68102

HISTORIC AMERICAN BUILDINGS SURVEY
WILDERNESS TOWER SITE (Lampe Tower Site)

I. Introduction

Location: 1/8 mile east of intersection of State Highways 13 and 86
Stone County, Lampe vicinity, Missouri

Quad: Lampe, Missouri, 7.5 minute

UTM: Zone: 15 E:460950 N:4046270

Construction Date: ca. 1937 to 1939

Present Owner: Mo-Ark Water Company, Inc.
P.O. Box 37, Blue Eye, Missouri 65611

Present Use: The site is no longer in use as a fire lookout station. A microwave repeater station occupies a part of the site, and a water supply well and storage tank will be built on the site. The tower will most likely be relocated or demolished. No projected date for removal has been given.

Significance: The Wilderness Tower Site is a Civilian Conservation Corps-built, U.S. Forest Service fire lookout station which included a 100-foot, standard plan, steel lookout tower, in addition to a towerman's dwelling and associated outbuildings. The tower site is significant in its association with President Franklin D. Roosevelt's New Deal program to put young men to work reclaiming and developing the nation's natural resources. The site reflects the program's contributions to relief, recovery, and reform.

The Wilderness Tower Site was a key element in the Forest Service fire protection system, and is a physical reminder of the importance of fire detection and suppression in U.S. Forest Service land and resource management policies. It is also a reminder of the success of federal resource renewal and protection efforts in Missouri's forests.

The Wilderness Tower Site embodies the evolution of a distinct architectural style which came to be characterized by standardized U.S. Forest Service plans as a result of specific functional requirements related to fire detection.

Historian: Cynthia R. Price, Mark Twain National Forest, November 1992

II. Historical Context

A. Development of U.S. Forest Service Fire Protection Policies and Systems

The creation of the U.S. Forest Service brought the first "...truly concerted efforts to intensively manage the Nation's timbered lands" (Thornton 1986:14). The need for fire control in the nation's forested lands and the absence of any efforts to develop organized fire protection in the private and state sectors, made fire protection a primary part of the land management programs of the US Forest Service (West 1992:43). Passage of the Forest Reserve Act in 1891 had created the nation's first forest preserves on public lands in the west under the jurisdiction of the Department of Interior's General Land Office, with Bernard Fernow as the agency's first chief. It was not until 1897, however, that Congress passed the Forest Management Act giving the Secretary of the Interior the authority to manage, and provide for fire protection, on the forest preserves (West 1992:30). The forest ranger carried out management programs on these preserves. The scope of their duties was not well defined; they were charged simply with "protecting the reserves". A rangers' certificate of office issued in 1898 stated that their first duty was "...to protect the public forests from fire or any other means of injury to the timber..." (West 1992:31).

Although land management was practiced to some extent under the Department of Interior, the agency functioned principally as an advisory one. Agency function changed, however, after ca. 1905. In that year, the Forest Transfer Act was passed, which transferred administration of the federal preserves from the Department of Interior to the Department of Agriculture's Bureau of Forestry. This change in administrative control gave the agency the opportunity to actually practice forestry in the preserves, and scientific forestry in North America "...regarded fire protection to be a fundamental mission of the profession" (West 1992:39, 43). Gifford Pinchot succeeded Fernow as Chief Forester in 1898, and like Fernow, he was a professional forester. He "... was aware that forestry in the United States meant fire fighting and grazing management as much if not more than silviculture" (Roth 1980:12 in West 1992:39). In the belief that all fires (except for slash disposal) were detrimental to forest and rangelands, Pinchot made fire protection one of his earliest and strongest emphases (Thornton 1986:14; USDA Forest Service 1989:12). The importance of fire protection is emphasized in the duties assigned to the forest rangers. The first Forest Service Use Book, issued by the Secretary of Agriculture in 1905, clearly repeats that "Officers of the Forest Service, especially forest rangers, have no duty more important than protecting the reserves from forest fires (in USDA Forest Service 1989:6).

The Weeks Act, passed in 1911, authorized, for the first time, the purchase of private lands - "cutover, burned out, and farmed out" - as National Forests (Bergoffen 1976:25). The authorization to purchase these lands for federal forest expansion marked the beginning of National Forest establishment in the eastern states. This Act not only expanded the scope of the Forest Service and its fire control programs geographically, it also expanded the scope of the agency's fire control responsibilities, as it authorized matching funding for State forest protection when state agencies met federal standards (West 1992:43).

In order to develop an effective and efficient system of fire protection for the expanding National Forests, Chief Forester Henry Graves, who replaced Pinchot in 1910, initiated a program of scientific research on fire behavior, detection, and suppression (West 1992:43). Although Region 5 (California) assumed the lead in this research, the results were disseminated through USDA Forest Service publications, so that this research would influence development of fire protection systems in forests nationwide (see for example duBois 1914; Show and Kotok 1937; and Show et al. 1937; and USDA Forest Service 1989:22).

Initially, fire detection was accomplished by rangers who spotted fires from mountain tops or prominent points on the landscape while they patrolled the forests on horseback. By ca. 1900, fixed lookout points were coming into use. The earliest lookouts in the nation's forests were simply map boards mounted to a post set on a mountain top, or a platform mounted to a tree. By the 1910s, however, permanent lookouts, with more substantial structures, were coming into use (USDA Forest Service 1989:6-7). In 1914, for example, Coert duBois published plans for a 12' x 12' live-in wooden lookout cab and endorsed the use by the Forest Service of the Aermotor Company's steel lookout tower (USDA Forest Service 1989:7). By the 1930s, this system of fixed point fire detection, employing the use of permanent lookouts which housed the alidade or fire finder, was firmly established. These permanent lookouts, connected to ranger stations by telephone lines, became the key elements in the Forest Service's fire detection and protection system in both western and eastern forests.

The use of lookout towers in the National Forests reached a high point during the late 1930s and very early 1940s (see Malouf 1991 and USDA 1989:8). Following World War II, the number of fire lookouts constructed, as well as in use, declined nation-wide (USDA Forest Service 1989:49). With a decrease in numbers of fires on the National Forests, resulting from successful public education efforts, and with changes in fire detection methods over time, the lookout towers ceased to be useful. The dwellings and outbuildings associated with the tower sites, as well as a number of the towers themselves, were declared surplus and their removal from Forest lands began.

B. Fire Protection in Missouri's Forests

Before the 1930s, there was no organized fire protection in the state. In the absence of such protection, unchecked wildfires burned tens of thousands of acres of Ozark forest land each year. Most of these wildfires resulted from fires that were intentionally set in woods and fields by Ozark farmers in the belief that such burning would rejuvenate native grasses and improve grazing for livestock (Hoy 1985; Anonymous 1935:1). Wildfire was one of several factors that worked together to deplete the natural resources of the Ozark hills by the third decade of the twentieth century. Kelleter notes that (Kelleter 1936:7-8 in Malouf 1991:26):

Destructive logging, woods burning, and overgrazing -- working hand in hand, caused such an impoverishment of the productive capacity of the soil as to result in declining communities and low incomes with all their attendant social and economic problems. Fire alone has caused untold losses by the destruction of trees, habitats for wild life, forage for livestock, and the leaf litter which has in turn resulted in the erosion of the top layer of soil...

As a direct response to this environmental abuse, Missouri passed a consent act in 1929 and enabling legislation in 1933, allowing, for the first time, the formation of a National Forest in the state (Anonymous 1935:1-2). The first Purchase Units were authorized later in 1933. The Forest Service wasted no time in beginning resource renewal and management efforts.

The Forest did not wait until the examination and purchase programs were completed, but started immediately to relieve the distressed people and restore the natural resources...The first step in the development of a forest enterprise is a complete fire protection system...(Anonymous 1935:2).

As was the case in the National Forests in the west, fire protection, along with public education, became a principal component in the Forest Service's plan to manage Missouri's Forests. By the 1930s, the use of fixed point lookouts had become established components in National Forest fire detection systems, and these became the key elements in Missouri's fire protection plan as well. The plan called for construction of a series of fire lookout towers, both 100 foot primary towers and 50 foot secondary towers, sited approximately 12 miles apart and connected to ranger station headquarters by telephone lines. The system of lookout towers was supported by the construction of a system of truck trails in the Forest to facilitate rapid deployment of suppression crews to the site of the fire (Malouf 1991:29-30).

The fire protection plan for Missouri's first four National Forest Purchase Units in 1935 specified "...the erection of twenty-eight one hundred foot lookout towers, four hundred sixty-eight miles of telephone lines connecting the towers with ranger headquarters and 1,076 miles of roads". In less than two years time following the establishment of those Purchase Units, those projects were "...approximately 1/4 completed" and "...provided seasonal employment to 5000 men" (Anonymous 1935:2). With the protection provided by 1935, it was reported that 315 fires were detected and suppressed, with a total burned area of only 25,000 acres, or about 1% of the total Purchase Unit acreage (Anonymous 1935:2).

By the early 1940s, there were 87 fire lookout towers in Missouri's National Forests and another 15 towers on State lands. By this time, it was estimated that less than 0.5 percent of the area under Forest Service protection burned each year (Westveld 1950:179-180 in Malouf 1991:42). Along with this decrease in numbers of fires, changes in fire detection methods made the towers obsolete. Removal of the dwellings and outbuildings associated with the towers, as well as a number of the towers themselves, began. By 1991, there were only 22 towers still standing in Missouri's Mark Twain National Forest, and only three sites retained the full complex of original buildings.

C. Implementing the Plan: The Civilian Conservation Corps

The Civilian Conservation Corps, established as one of President Roosevelt's New Deal Programs in 1933, enabled the U.S. Forest Service to build a more systematic and efficient fire protection system in the nation's National Forests. Dedicated to resource restoration and conservation, "Roosevelt's Tree Army" gave federal, state, and local governments the labor force they needed to carry out conservation projects which yet awaited funding for implementation (USDA Forest Service 1989:9, 203). With forest protection as one of its two principal objectives (forest improvement being the other), fire fighting and fire protection became one of the Corps' principal duties (Otis et al. 1986:9-10; McEntee 1942:15; Salmond 1967:121-122). According to McEntee (1942:15), it was in the fire protection field "...that the Corps was to make its greatest record...".

The forest fire problem was attacked in two ways by the Corps: CCC enrollees were integrated into regular fire fighting forces, and CCC enrollees constructed the fire towers, truck trails, and telephone communication lines that were the essential elements in the Forest Service's fire protection system (McEntee 1942:36). A former Missouri CCC camp commander stated that in 1933-34, "...our top priority was roads, then telephone lines and fire lookout towers..." (Sho-Me Smoke Signal 1983:37). A former enrollee in the CCC camp at Bardley, Missouri, remembered that

"Everyone was on fire alert at all times. Wherever we were, we dropped everything and ran to the trucks when the alarm sounded. Each truck was outfitted with a large wooden box of tools, always ready..." (Palmer n.d.:1).

By the time the CCC was established, use of standard plan towers by the Forest Service was the rule. The move toward standardization in tower design had begun during the early 1900s and culminated in the 1938 USFS Standard Lookout Structure Planbook (USDA Forest Service 1989:22). Given the large pool of CCC labor available, the advantages of standardizing plans for towers, as well as for other Forest Service structures, had become apparent (see USDA Forest Service 1989:38).

The towers were assembled from prefabricated parts, or kits. Architectural plans were as simple as possible so that the structures could be assembled fairly rapidly by a relatively untrained cadre of CCC enrollees (Thornton 1986:30). By way of example, in 1937, the Berryman CCC enrollees boasted that "...somewhat of a record was established in building the Johnson Mountain Lookout Tower. This tower, one of the standard 100 foot steel type, was erected by Foreman McCormack and a crew of fourteen boys in three and one-half days in near zero weather..." (quoted in Malouf 1991:38). A more "official" estimate of the time needed to assemble such a tower was 10 days, by a crew of 10 trained men (KWTO 1936-1937, in Malouf 1991:38). Former CCC enrollee in a camp at Elsinore, Missouri, William Perkins recalled that "They showed me a pile of scrap iron near Elsinore and said, 'This is a fire tower. It's marked where the pieces go on the diagram. Can you read a diagram? Yes? Well, put it up'" (Perkins n.d.:3).

D. CCC Accomplishments in Fire Protection in Missouri

The CCC certainly allowed the Forest Service to make substantial gains in its forest protection, and particularly its fire protection, efforts during its early years in Missouri. The CCC arrived in Missouri in 1933, along with the US Forest Service (see Sho-Me Smoke Signal 1983:36). Between November, 1933, and June, 1942, the number of CCC camps in the state averaged 41 (McEntee 1942:110), with 23 camps on lands now included in the Mark Twain National Forest (Malouf 1991:24). All told, between 1933 and 1942, the CCC in Missouri was credited with building 111 new lookout towers; 977 miles of new telephone lines; and 1,534 new miles of truck roads. These Missouri enrollees also built 321 miles of new fire breaks, and reduced fire hazards on 1,344 miles of roads and trails and on another 39,519 acres of forest land. In the area of Forest Protection in Missouri, the Corps is credited with 95,478 man/days of fighting forest fires; 243,351 man/days for fire suppression; and 8,732 man/days of fire prevention (From the Director's Report, printed in the Sho-Me Smoke Signal 1983:40-43; Note that the figures include both federal and state lands).

III. Architectural Context

A. Tower Designs

Fire lookout stations evolved from mountaintops where a tent and map board were temporarily set up, to crude tree towers, platforms, and log cabins to fully standardized and prefabricated steel and wooden structures designed for a specific function - fire detection. The early lookout structures, which began appearing in western forests ca. 1905, reflect the use of readily available materials as well as individual innovation in design. The earliest observation-only towers were probably constructed before World War I, and many of these early timber towers borrowed designs from the railroad and oil industries (Thornton 1986:29; USDA Forest Service 1989:213). Experimentation and experience between the years 1910s and 1930s led to standardization in tower design. By the time fire lookout towers were constructed in Missouri, the permanent lookout, built to a standardized plan, was the rule. The design of these standard lookout plans varied from region to region. Tower height, cab size, whether live-in or observation only, and bracing systems are among these design variations.

Missouri's towers were of four general types: pole towers with, or without, a crow's nest on top; wooden towers with open platforms; steel towers with open platforms; and steel towers with enclosed cabs (Malouf 1991:29). The lookouts were all observation-only towers, rather than live-in observation lookouts. Characteristics of the towers in each of the four basic categories varied: towers were of different heights, either ladders or stairs might be used, and cab sizes varied. Often, shorter towers were replaced by taller towers at a lookout site, and steel towers replaced "short temporary wooden ones" (Malouf 1991:29,38; also Sho-Me Smoke Signal 1983:28). These prefabricated towers were supplied to Missouri's forests by at least two manufacturing firms: the Aermotor Company, one of the largest tower suppliers to the U.S. Forest Service, and Bethlehem Steel. A variety of tower types can be documented as having been in use at some time in Missouri, but by 1991, all of the towers that remained standing on the Mark Twain National Forest were 100-foot steel towers with enclosed 7' x 7' cabs.

B. Ancillary Lookout Station Structures

The lookout towers were often manned by full-time towermen, and, through time, additional structures were added to the lookout stations to accommodate the towerman and his family. The number and arrangement of these structures varied among lookout station sites, but included one or more of the following: dwelling cabins, combination garage and woodsheds,

cisterns, latrines, garbage pits, storage buildings, fire caches, weather stations, barns, and poultry houses. As early as the 1930s, some of the tower sites on the Mark Twain were developed into public picnic areas complete with tables, fireplaces, and sanitary facilities; and the towers were open to the public (Malouf 1991:41).

Like the towers themselves, ancillary structures at the lookout stations were built according to standard architectural and structural plans and sited according to lookout station design plans. Unlike the towers, which came as kits, there was more flexibility in actual building construction, so that the "standard plan" often served as only a very general guide. The residences, for example, might be tailored to fit the needs of a particular family (personal communication, Linda Martin, Mark Twain Forest Archaeologist, 1992). Nonetheless, like the towers themselves, most of these tower site buildings were remarkably similar and are yet readily recognizable as such.

IV. The Wilderness Tower Site

A. Date of Construction

The Wilderness Tower Site is an architectural and historical archaeological site which originally contained a 100-foot steel fire lookout tower and an associated dwelling complex to house the towerman. The property on which the site is located was purchased in 1936. It is not certain just when the tower and the other buildings were actually constructed at the lookout station. According to Mr. Walter Scott, who lived at the Wilderness Tower Site, the tower was assembled sometime between 1937 and 1939 by "boys" from the Shell Knob CCC camp (F-Mo-20), which opened July 7, 1935 (Scott and Scott 1992; Malouf 1991:86). The towerman's dwelling was completed by 1940, as Mr. Scott, whose father was the first towerman at Wilderness Tower, remembers moving into the structure during that year. Mr. Scott thought that the dwelling and support structures were built by a local carpenter, Charlie Coe and his dad, rather than by the CCC enrollees who built the tower (Scott and Scott 1992).

B. Description of the Wilderness Lookout Tower

The Wilderness Lookout Tower is an observation-only lookout structure, consisting of a 99.9-foot steel tower which supports a 7' x 7' enclosed cab. The tower was manufactured by the Aermotor Company, Chicago, Illinois. The tower and cab conform to U.S. Department of Agriculture

(USDA) Forest Service standardized plans for lookout towers, T1001-A to T1010-A (see photos 14-20). It appears also to be an example of Aermotor tower plan MC-39.

The tower is of an open, battered, design employing an "X"-brace support system. It is constructed of galvanized steel angle iron, cut to plan specifications and stencilled, in black, with numbers that correspond to the packing list and assembly plan (see photos MO-1913-1 through 3, 5, 6, 8, 15, and 18). The cab is reached by an interior stairway which is constructed with galvanized steel rails and support elements, wood plank landings, and wooden stair treads (see photos MO-1913-7, 16 and 17). The tower legs rest on 16" x 16" concrete piers, and the stairway base rest on a 37" x 29" concrete base (see photos MO-1913-7, 8 and 19). The brass Aermotor Company plaque with "Aermotor Company Chicago Illinois", in relief, is still attached to the northwest tower leg.

The cab is constructed of galvanized steel framing elements covered with #20 gauge galvanized steel sheets for the walls. The pyramidal hipped roof is likewise covered with #20 gauge steel roofing. The cab windows are nine-light, three-over-three pattern, single sash design. Styles and sashes are metal. There are two sashes per wall, with one sash fixed and the other attached with pivot hinges, so that one sash in each wall could be opened. Originally, the panes were of clear, double-strength glass. A flagpole was attached to the cab exterior, and a ventilator was attached on a galvanized, cast iron base, to the center of the pyramidal roof. The cab was accessed through a trap-door in the floor (see photos MO-1913- 4, 14, and 20).

Little information is available on the original appearance of the cab interior. Interviews with a former towerman at Blue Buck Tower, a very similar tower on the Willow Springs District of the Mark Twain National Forest, suggest that there were no interior wall or ceiling coverings in the cabs when the towers were first built. The bare, galvanized steel sheets formed the wall interiors (USDA Forest Service 1990). The tower plans called for 1" double wood flooring (see photo MO-1913-14). Again, indications from the Blue Buck Tower suggest the flooring layers may have been separated by tar paper sheets. The alidade, or fire-finder, was set up in the center of the cab interior. The cab of the Wilderness Tower was heated with a small "pot-bellied", wood-burning stove. One glass pane was removed from the windows to accommodate the stove pipe used to vent the stove (Scott and Scott 1992).

The cab was not accessible at the time this research was conducted, so we have no information on modifications to the cab over time. We might note that many of the interior walls and ceilings of the tower cabs elsewhere on the Mark Twain National Forest were covered with various kinds of material,

such as plasterboard and plywood, sometime after tower construction. Many of the coverings were painted a dark green color. Floors, likewise, were often covered, usually with vinyl flooring. These wall, ceiling, and floor coverings provided insulation and eliminated some of the draftiness inside the cabs. Remnants of wood quarter-round, painted a dark green, noted on the ground below the Wilderness Tower suggest that interior coverings were installed in its cab at one time.

At the present time, the steel tower structure itself appears to be in good condition. The board treads are missing from the lower stairway sections. The glass is missing from the window panes in all of the window panels in the cab leaving the cab exposed to the weather. The cab interior has substantially deteriorated. The alidade and other cab furnishings were removed sometime in the past.

C. Description of Ancillary Structures and Archaeological Remains

The dwelling complex was located approximately 365' east of the lookout tower and included a house, garage, poultry house, latrine, cistern and garbage pit, all constructed according to USDA Forest Service, Region 9, Standard Plans (see photo MO-1913-24). Only the latrine remains standing; the other structures and features are evidenced by archaeological remains (see photo MO-1913-9). Because only the latrine is still standing, we have little data on construction and original appearance of the structures and features in the dwelling area. Furthermore, because some flexibility was apparently permitted in actual construction of the buildings relative to the standardized plans, we do not know how closely the local builders adhered to the plans. The information we do have for these structures, as well as a description of the remains at the site, are presented below.

(1) Lookout Station Dwelling (Plan # B34, or #37B; see photo MO-1913-21): 20' x 30', three-room cabin with a full basement; wood frame construction; originally painted gray in color (Scott and Scott 1992); removed during the early 1960s and the basement filled in; the structure is now located on private property on the north side of the access road from Missouri Highway 13 to the Wilderness Tower Site; the structure has been substantially modified and is no longer recognizable as a lookout station dwelling; no evidence of the foundation remains at the Wilderness Tower Site.

(2) Garage/Woodshed (Plan #B16, or #26; see photo MO-1913-22): 12' x 24' overall dimensions subdivided into an 18' x 12' garage and a 6' x 12' woodshed; concrete pad foundation still visible (see photo MO-1913-10); wood frame construction with horizontal wood siding; wood shingle roofing with metal ridge cap and metal finial over front doors (very similar to the

ridge cap and finial on the latrine; see photo MO-1913-12 for comparison); originally painted gray in color (Scott and Scott 1992); moved from the site during the early 1960s; the structure is currently in use as a cow barn and is located on private property in the pasture north of the Wilderness Tower Site; it is now red-brown in color; it is recognizable as a lookout station garage/woodshed.

(3) Poultry House (Plan #B129-01; see photo MO-1913-23): 10' x 14'; concrete pad foundation still visible (see photo MO-1913-11).

(4) Latrine (Plan #19): 4' x 5'; set on concrete foundation; wood frame construction; covered with horizontal wood siding; roofed with wooden shingles; metal ridge cap with metal finial over door; wooden bench inside with single hole (see photos MO-1913-12 through 13); the structure is still standing on the site, but was moved from its original location near the garage (see photo MO-1913-24) to its present location in the extreme northeast corner of the property.

(5) Cistern (Plan #66): 10' square and 10' deep; concrete; intact with opening visible.

Other features in the dwelling area include stone paths from the dwelling locus to the latrine; concrete post for the rain gauge; garbage pit, originally fitted with a metal lid, and now evidenced by a slight depression in the ground near the garage (see photo MO-1913-24 for plan location). The woven wire fence along the eastern property boundary remains. The towerman had a garden plot on the adjoining private land which was accessed by a wooden picket fence, made by the Mr. Orley Scott, the first towerman to live on the site. The gate remains on the site. Domestic plantings still in evidence include a lilac bush near the front of the latrine, forsythia along the eastern fence, and daffodils scattered about the yard near the dwelling locus (see diagram 3, page 19, for a field sketch map of the Wilderness Tower Site made in 1992).

D. Modifications to the Wilderness Tower Site

Modifications to the site include the removal of all of the structures, with the exception of the latrine, in the towerman's dwelling portion of the site; re-location of the latrine while the site was under permit to the Missouri Department of Conservation (see below, Ownership and Future); installation of radio repeater antennae on the tower structure and transmitter equipment boxes near the base of the tower; and construction of a microwave tower and equipment building, surrounded by a chain-link security fence, very near the original locus of the towerman's dwelling (see diagram 3, page 19, and below, Ownership and Future).

E. Ownership and Future

The 3.5 acre tract of land on which the Wilderness Tower Site is located was purchased by the US government, under the authority of the Weeks Act, from Caroline Ballantine, on August 25, 1936. The tract was in the Table Rock Purchase Unit, which was authorized in 1935. The Table Rock Unit was first a part of Gardner National Forest, which included those purchase units in the central and southwestern part of Missouri. In 1939, Gardner National Forest was re-named the Mark Twain National Forest. In 1973, the Mark Twain and Clark National Forests, the two National Forests in Missouri, were consolidated into one Forest, the Mark Twain (Malouf 1991). While in federal ownership, the Wilderness Tower Site was a part of the Cassville Ranger District. The Mark Twain National Forest is a part of USDA Forest Service Region 9.

The land and tower remained in federal ownership until September 21, 1992, when ownership of both land and tower passed to the Mo-Ark Water Company, Inc., of Blue Eye, Missouri, in a land-for-land exchange.

While in federal ownership, the Wilderness Tower Site was used by the Missouri Department of Conservation (MDC), under a special uses permit, from 1955 to 1987. The first permit, issued on June 17, 1955, permitted MDC to use the tower, cabin, garage, and access road. At this time, MDC manned the tower for fire detection purposes. The special uses permit to MDC was re-issued on September 27, 1962, covering only the tower and access road (the cabin and other buildings had been removed just prior to this time). On January 18, 1968, MDC was issued a permit for installation of a radio repeater antenna on the tower structure and a transmitter near the base of the tower. In 1987, at the request of MDC, its special uses permits were terminated. The tower itself had been maintained and used for fire detection by MDC until the voluntary termination of the permits.

In 1978, while the tower site was under permit to MDC, a permit was also issued to the Missouri Department of Public Safety, Division of Water Safety to install an antenna on the tower and two boxes housing transmitter equipment near the base of the tower. This permit was still in effect when the Wilderness Tower Site was transferred out of federal ownership.

In 1984-1985, the U.S. Army Corps of Engineers was issued a special uses permit to construct a microwave tower and equipment building, surrounded by a chain-link security fence, on the Wilderness Tower Site. This microwave installation, covering an area 30' x 34', was placed very near the locus of the towerman's dwelling (see diagram 3, page 19). This permit was still in effect, and the microwave installation still in use, when the property left federal ownership.

The Mo-Ark Water Company, Inc., the current owner of the site and the tower, intends to construct a new water supply well and storage tank on the site just to the west of the lookout tower. The lookout tower will most likely be removed from the site. It may be taken down and reassembled elsewhere if a group, agency, or individual wishes to relocate the tower. If a new owner for the tower is not found, the structure will probably be demolished. There is no projected date for tower removal.

V. Biographical Information: The Aermotor Company

The Aermotor Company began manufacturing windmills, pumps, and tanks in 1888. The company was then located at 110-112 South Jefferson Street, Chicago, Illinois, and company president was L.W. Noyes. In his 1914 report, U.S. Forest Service researcher Coert duBois endorsed the use of Aermotor towers by the Forest Service (duBois 1914), and they began appearing in some western forests by the early 1920s (USDA Forest Service 1989:216). Through time, the company came to have a special relationship with the USFS and became a major supplier of prefabricated steel lookout towers for use in the National Forests. The Aeromotor tower designs came to be incorporated into the USDA Forest Service standardized plans for lookout towers.

For over fifty years, until the early 1960s, Aermotor supplied thousands of lookout towers to both federal and state forestry agencies. In some regions, Aermotor towers represent at least 50 percent of the lookout towers inventoried. During its existence, the Company worked out of several different locations in Chicago. Aermotor ceased operations during the late 1960s (the above summarized from USDA 1989:32, 41).

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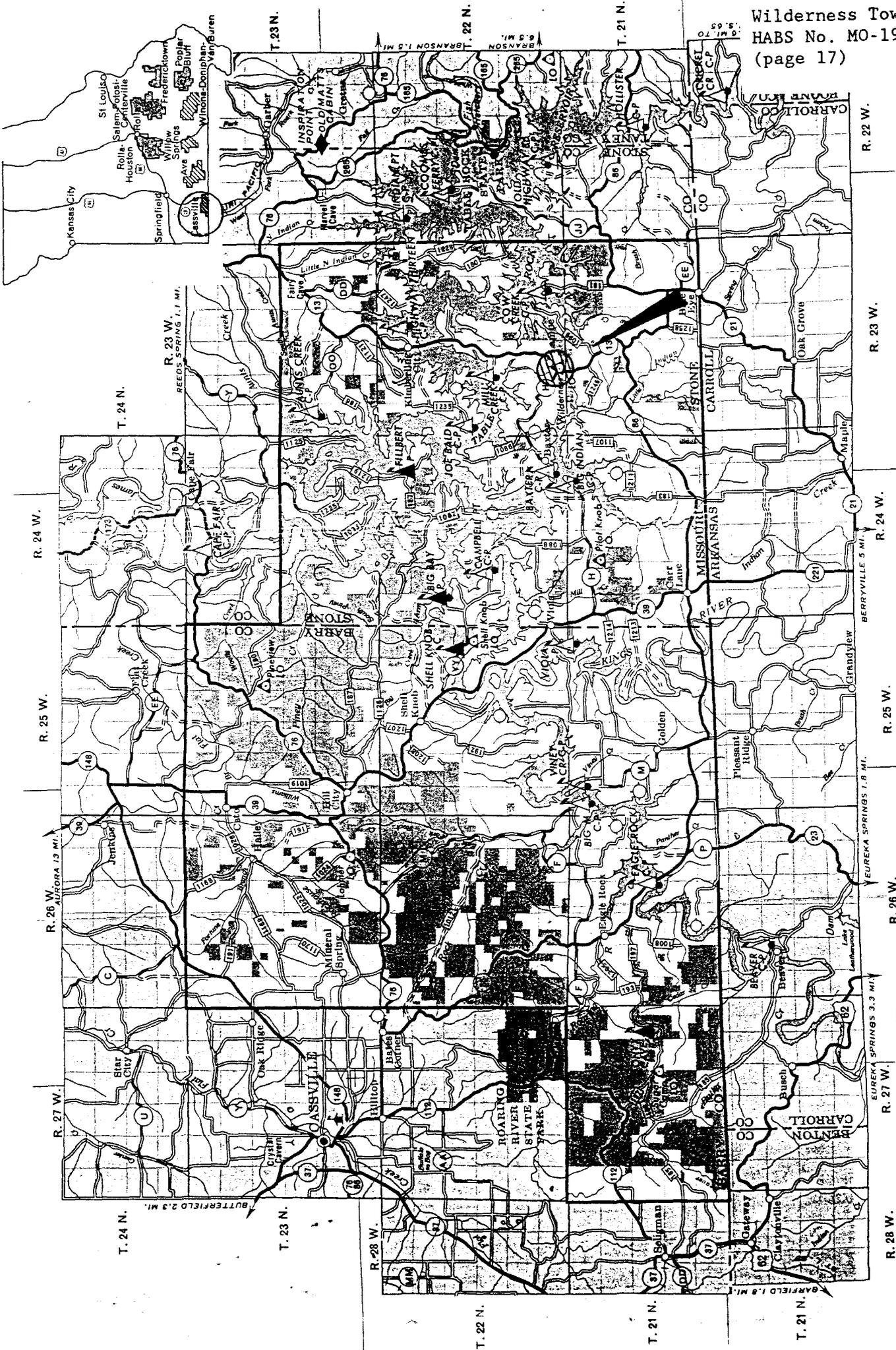
VII. Project Information

The Wilderness Tower Site was removed from federal ownership on September 21, 1992, when the deed to the tract of land on which the tower site is located was passed to the Mo-Ark Water Company, Inc., of Blue Eye, Missouri, in a land-for-land exchange. No restrictive covenants to protect the tower site were included in the deed which transferred the Wilderness Tower Site from federal to private ownership. Because the Missouri State Historic Preservation Officer (SHPO) determined the Wilderness Tower Site to be eligible for inclusion in the National Register of Historic Places, its transfer from federal to private ownership constituted an Adverse Effect per 36 CFR 800.9(b)(5). The Mark Twain National Forest, therefore, carried out the HABS recordation of the tower site to mitigate the adverse effects on the tower site of the land exchange. The project was carried out under a Memorandum of Agreement executed September 23, 1992, by the USDA Forest Service, Mark Twain National Forest, the Missouri SHPO, the Mo-Ark Water Company, Inc., and the Advisory Council on Historic Preservation.

The HABS recordation of the Wilderness Tower Site was completed by the Mark Twain National Forest. The following individuals participated in the project:

Lloyd Grotjan, Full Spectrum Photo, P.O. Box 1441, 209 East High Street, Jefferson City, Missouri, prepared all of the photographs for this HABS project. The photographs of the tower structure, the standing latrine, and the archaeological remains at the Wilderness Tower Site were taken August 5, 1992. Mr. Grotjan took the photographs of the USDA Forest Service Region 9 standard plans during September, 1992.

Cynthia R. Price, Shared Service Area Archaeologist, USDA Forest Service, Mark Twain National Forest, prepared the historical and descriptive narrative which accompanies the photographs.



CASSVILLE RANGER DISTRICT
Wilderness Tower Site
Vicinity Map

Wilderness Tower Site
HABS No. MO-1913
(page 18)

M A R K T W A I N

N A T I O N A L

F O R E S T

Wilderness Tower Site
Location
U.S.G.S. Lampe, Mo. 7.5' Quadrangle

Highview Ch

