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Fort Huachuca History of Development

Existing Reports and Contexts

Dawn A. Morrison and Adam D. Smith

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Fort Huachuca History of Development

Existing Reports and Contexts

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Abstract

The Fort Huachuca Environmental and Natural Resources Division (ENRD) tasked ERDC-CERL to compile a history of the development of Fort Huachuca for use in evaluating existing facilities and how they fit within the larger, overarching history of the fort. Fort Huachuca desires a comprehensive history of the fort for use in better understanding how its various facilities integrate into the overall history and development of the fort and its existing National Historic Landmark (NHL) and proposed existing evaluated, eligible, and listed National Register of Historic Places (NRHP) properties and districts. This comprehensive history will help ENRD in making determinations on how to address future National Register of Historic Places (NRHP) nominations and/or recommendations for adding new historic districts or expanding the existing historic district. ERDC-CERL compiled content from 18 existing historic contexts, building inventory and cultural resources reports, NRHP nomination and registration forms, and Historic American Buildings Survey (HABS) forms previously completed for the ENRD, and used these resources to compile the current history.

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Preface

This study was conducted for the ENRD at Fort Huachuca, Arizona, under Project Number 473343, “Historic Dist Reevaluation – Ft. Huachuca.” The technical monitor was Martyn Tagg, Conservation Branch Chief (Cultural Resources Manager (CRM) at the time of the project).

The work was performed by the Land and Heritage Conservation Branch, of the Installations Division, of the Engineer Research and Development Center, Construction Engineering Research Laboratory (ERDC-CERL). At the time of publication, Mr. Jedediah Alvey was Chief, Land and Heritage Conservation Branch; Ms. Michelle Hanson was Chief, Installations Division; and Mr. Alan Anderson was the Technical Director for Environmental Quality and Installations. The Acting Director of ERDC-CERL was Dr. Kumar Topudurti.

COL Teresa A. Schlosser was Commander of ERDC, and Dr. David W. Pittman was the Director.

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1 Introduction

1.1 Background

Fort Huachuca ENRD contracted with ERDC-CERL to compile a history of the development of Fort Huachuca for use in evaluating existing facilities and how they fit within the larger, overarching history of the fort. This report represents part one of two tasks, which is to prepare a history of Fort Huachuca. The second task, which will be presented in a separate report, will identify specific properties and provide recommendations for expanding the existing National Historic Landmark (NHL) district. Fort Huachuca has a long, and storied history that spans several major historic periods within U.S. history. From its inception as a frontier outpost, involvement with the Apache Wars, Mexican-border issues, Buffalo Soldiers, World War II (WWII) and the Works Progress Administration (WPA), to its contributions to advanced communications during the Cold War, Fort Huachuca has been witness to, contributed to, and as a result, reflects, significant events throughout our country's history. This is evidenced by the Fort Huachuca properties listed on the National Register of Historic Places (NRHP), including Garden Canyon Archaeological Site in 1975, the Mountain View Officers' Club listed in 2017, and the Fort Huachuca Historic District (Old Post) listed in 1974. The Old Post was also incorporated into an NHL district in 1977. The Old Post NHL was reevaluated in 1993 resulting in a proposal to expand its boundaries to include additional contributors, although this proposed expanded boundary has not yet been approved.

Currently, an additional historic district has been established at Fort Huachuca: a WPA discontinuous historic district (2014). In response, Fort Huachuca desires a comprehensive history of the fort for use in better understanding how its various facilities will integrate into the overall history and development of the fort. This comprehensive history will help the CRMs in making determinations on how to address future NRHP nominations and/or recommendations for adding new historic districts or expanding the existing district in the Old Post area.

“Fort Huachuca was established in 1877 to protect settlers in the southern portion of the Arizona Territory, only 15 miles north of the United States/Mexico border. Cavalry and Infantry stationed at Huachuca continued a frontier pacification and protection mission until the 1890s. As

frontier posts throughout the West were consolidated or decommissioned, Fort Huachuca remained active due to its proximity to the international border and favorable location. Permanent buildings constructed during this period reflect the growth in size and importance of Huachuca. The Buffalo Soldiers of the 10th Cavalry Regiment called Fort Huachuca home for 18 years beginning in 1913, and the post acted as the staging area and supply base for the Punitive Expedition of 1916-17 (Smith 1978:174-6, 198). Drastic troop reductions after World War I [WWI] resulted in the 10th Cavalry being transferred in 1931, while Huachuca became the home of the 25th Infantry from 1928 to 1942 (Smith 1978:198). Fort Apache was deemed surplus to requirements in October 1922 and one of the few remaining Indian Scout detachments was transferred to Fort Huachuca. The Indian Scouts remained activated, dwindling in number until only four remained and the detachment was deactivated along with the post in 1947 (Smith 1978:273).”*

“During the depression, construction by the Civilian Conservation Corps (CCC), WPA, and Civil Works Administration (CWA) modernized and upgraded Huachuca, replacing or renovating existing buildings and building new facilities. These groups were integral in rehabilitating existing or building new roads, wells, buildings, bridges, and other infrastructure critical to the survival of the base. These work projects continued to the beginning of WWII when the [fort] turned its focus to training soldiers headed to Europe and the Pacific. This new and largely temporary construction centered near the East Gate [currently the Buffalo Soldier Gate] of Fort Huachuca (Van West et al. 1997).”[†] Called the New Cantonment, it included 1,400 buildings in a V-shaped layout and was located primarily east of the Old Post between the Buffalo Soldier and Van Deman gates on Fort Huachuca’s West Reservation.”

“Following [WWII], the [fort] closed in 1947 in an effort to curb post-war spending, was reactivated in 1951 for the Korean War, and again shut down in 1953 when operations for the war subsided (Smith 1978:311). However, in 1954 the [fort] was returned to permanent use and became the site of the ... [EPG]. As a result, the fort saw another growth spurt during the 1950s and early 1960s that put it at the forefront of military research and development for electronic warfare. Other related Army

* Daniel Hart and Chad Blackwell. 2008. *CCC_WPA Resources Legacy Grant Case Study: Fort Huachuca, Arizona*. p. 2-3.

[†] Ibid.

organizations were sited at Fort Huachuca during the 1960s and 1970s. These include the U.S. Army Strategic Communications (STRATCOM) command in 1967 and the U.S. Army Intelligence Center and School (USAICS) in 1971. These major commands operate at the [fort] and are the main focus of activity through the present time (Van West et al. 1997).”^{*} USAICS later became the U.S. Army Intelligence Center of Excellence (USAICoE) and the senior mission.

1.2 Objective(s)

The objective of this report is to provide a comprehensive history of the development of Fort Huachuca compiled from previous research reports, NRHP nominations, and HABS forms.

1.3 Researchers

This project was conducted by the U.S. Army Corps of Engineers, Engineering Research Development Center, Construction and Engineering Research Laboratory (ERDC-CERL) based in Champaign, IL. The research team that compiled this history included Adam Smith (M. Architecture), with 22 years of military cultural resources experience and Dawn Morrison (Ph.D. Geography), with 20 years of military cultural resources experience. Susan Ensore (Ph.D. Geography), with 28 years of military cultural resources experience was a content reviewer.

1.4 Approach

Researchers reviewed numerous existing historic contexts, building inventory and cultural resources reports, NRHP nomination and registration forms, and Historic American Buildings Survey (HABS) forms previously completed for the ENRD, and used these resources to compile the current history. The Historic Contexts, Reports, NRHP Nomination Forms and HABS Reports compiled into the current document are listed below in order by date of publication. The following list does not, however, represent a comprehensive index of all building evaluation reports available for Fort Huachuca. Rather, the following list represents only the major sources used

* Ibid.

to compile the historic context. Additional Fort Huachuca resources are referenced and cited throughout the text and noted in the references section.

- O.A. Cochran, Post Historian. *Fort Huachuca Building History*. Unpublished document. 1964. [FH-64-1].
- Herman V. Puzzi, 1974. *Old Fort Huachuca: National Register of Historic Places Inventory—Nomination Form*. U.S. Department of the Interior, National Park Service. May 1974. [FH-74-1].
- George R. Adams, 1976. *Fort Huachuca National Register of Historic Places Inventory – Nomination Form*. (National Historic Landmark). U.S. Department of the Interior, National Park Service. January 1976. [FH-76-1].
- Rand E. Herbert, W. Turrentine Jackson, and Stephen R. Wee. 1990. *Fort Huachuca, Arizona: A Century of Development and Changing Missions 1877-1977*. Prepared by Jackson Research Projects, California. Fort Huachuca, AZ: U.S. Army Garrison Fort Huachuca. [FH-90-10].
- Stephen R. Wee and Stephen D. Mikesell. 1993. *National Register of Historic Places Registration Form for Fort Huachuca Historic District*. National Register No. 74000443. Unpublished document, U.S. Department of the Interior, National Park Service. [FH-93-9].
- Center of Expertise for Preservation of Historic Structures and Buildings, Seattle District Corps of Engineers, Seattle, Washington, 1998. *Range Houses (Buildings No. 15335 & 15339): Black and White Photographs, Written Historical and Descriptive Data, Fort Huachuca, AZ*. HABS, National Park Service, HABS AZ-210-A-a.
- Center of Expertise for Preservation of Historic Structures and Buildings, Seattle District Corps of Engineers, Seattle, Washington. 1999. *Capehart Housing at Fort Huachuca, Arizona: Determination of Eligibility for the National Register Due to Association with Richard Neutra, Architect*. Prepared for Directorate of Installation Support, U.S. Army Intelligence Center and Fort Huachuca, Fort Huachuca, AZ 85613. [FH-99-5].
- Janet H. Parkhurst and J. Homer Thiel. 2005. *A Historic American Buildings Survey of the Fort Huachuca Cavalry Stables, Cochise County, Arizona*. HABS, National Park Service, HABS AZ-210. [FH-05-6].
- CP&Y, Inc. 2009. *National Register of Historic Places Evaluation of WPA Resources within the Residential Communities Initiative Footprint*. Fort Huachuca, Arizona. CPY Project #MMH09023.00. CP&Y Inc., Austin, Texas. [FH-09-5].
- Daniel Hart and Chad Blackwell. 2009. *CCC-WPA Resources Legacy Grant Case Study: Fort Huachuca, Arizona. Appendix D in Nationwide*

- Context, Inventory, and Heritage Assessment of Works Progress Administration and Civilian Conservation Corps Resources on Department of Defense Installations*. Legacy Project No. 07-357. Engineering-Environmental Management, Denver, Colorado. [FH-08-8].
- Elizabeth Valenzuela. 2011. *FY 12 SRM Facilities and Demolition Projects: Documentation and National Register Evaluation of 29 Buildings on Fort Huachuca, Arizona*. Fort Huachuca, Arizona. Fort Huachuca Cultural Resources Report FH-11-8. Valenzuela Preservation Studios, Austin, Texas, and Vernadero Group, Phoenix.
 - Adam D. Smith, Susan I. Ensore, and Samuel L. Hunter. 2012. *Analysis of the Mountain View Officers' Club*. Fort Huachuca Cultural Resources Report FH-12-5. ERDC/CERL TR-12-14. Champaign IL: ERDC-CERL.
 - Rein Vanderpot and William Graves (editors). 2013. *A 3,977-Acre Intensive Survey and NRHP-Eligibility Evaluations of 32 Previously Recorded Sites on Fort Huachuca, Arizona*. Prepared for the ENRD, Directorate of Public Works, U.S. Army Garrison Fort Huachuca, Arizona. Fort Huachuca Cultural Resources Report FH-12-7. Technical Report 12-31. Statistical Research, Tucson.
 - Angel Tomes. 2013. *Architectural Survey, Documentation, and Evaluation of 110 Buildings and Structures at Fort Huachuca, Arizona*. Fort Huachuca Cultural Resources Report FH-12-6. Statistical Research, Tucson.
 - Angel Tomes and Scott Thomas. 2014. *Inventory, Documentation, and Evaluation of 30 Buildings and Structures, 194 Works Progress Administration (WPA) Features, and Identification of a Potential WPA Historic District at Fort Huachuca, Arizona*. Fort Huachuca Cultural Resources Report FH-12-21. Statistical Research, Tucson.
 - Adam D. Smith and Courtney F. Wesa. 2016. *NRHP Eligibility of the Fort Huachuca, Arizona, Elevated Water Tank (Facility 49001) and Reservoir (Facility 22020)*. ERDC/CERL TR-16-12. Fort Huachuca Cultural Resources Report FH-14-17. Champaign, IL: ERDC-CERL.
 - Anna E. Schneider. 2017. *Historic District Coal Bins: Cultural Resources Evaluation, Fort Huachuca, Arizona*. [Draft] Cultural Resources Report FH-17-17, Fort Huachuca, AZ.
 - Adam D. Smith, Caroline M. Wisler, Susan I. Ensore and Sunny E. Adams. 2019. *Fort Huachuca Electronic Proving Ground: Historic Context, Inventory, and Evaluation*. ERDC/CERL TR-19-DRAFT. Fort Huachuca Cultural Resources Report FH-15-19. Champaign, IL: ERDC/CERL TR-16-12.

The following history is compiled from the above reports. For the most part, text was directly copied from the original reports and combined in this document. References and footnotes contained in the original source materials were maintained, and where necessary, converted to in-text citations. Footnotes in the current document were used to reference the source of the original content. Where entire sections were copied from one original source document, this notation will be placed at the beginning of the section. Otherwise, each paragraph is footnoted with the reference to the original source from where that paragraph was obtained. In some instances, individual sentences and sections of a paragraph are footnoted in the same manner. Content contained in brackets (“[]”) within the quoted text indicates material added by the compilers.

A table listing the facilities constructed during each historical period covered in this report can be found at the end of the corresponding history section. This is intended as a reference to help better understand how the physical development of Fort Huachuca evolved over the course of its entire history. The information contained in the table is compiled from the original reports used to compile this history.

2 Fort Huachuca History

2.1 Geography and topography

“Fort Huachuca is located in the middle San Pedro Valley of southeastern Arizona, 75 miles (121 km) southeast of Tucson and 15 miles (24 km) north of the Mexican border [Figure 1].”^{*} “The 73,272-acre (115-square-mile) military reservation encompasses an irregular-shaped area on the eastern side of the San Pedro River.”[†] Fort Huachuca is divided into two reservations, with the West Reservation containing the built-up Cantonment, the West Range (west of the Cantonment), and the South Range (south of the Cantonment); and the East Reservation contains the East Range (east of State Highway 90). [Figure 2]. “Fort Huachuca’s western and southern boundaries mostly straddle the high ridges of the Huachuca Mountains, and the installation extends northeastward almost to the channel of the San Pedro River. The northern boundary is just south of the Babocomari River, a tributary of the San Pedro River.”[‡] The fort is divided into 33 training areas on the three ranges that “support a variety of training activities, such as live firing, field exercises, bivouacs, driver’s training, and the full spectrum of intelligence and communications training and testing.”[§]

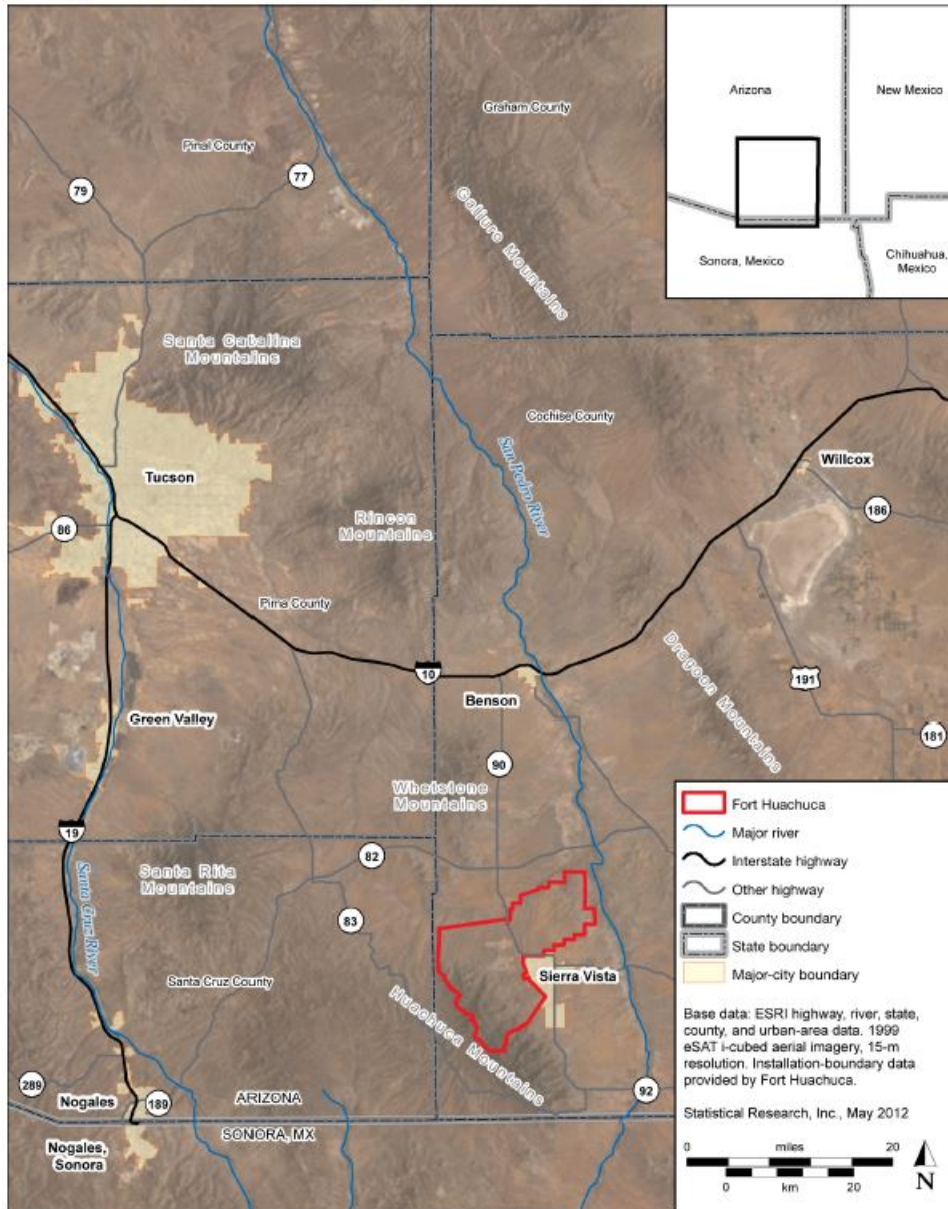
^{*} Vanderpot, Rein, and William M. Graves, eds. A 3,977-Acre Intensive Survey and NRHP-Eligibility Evaluations of 25 Previously Recorded Sites on Fort Huachuca, Arizona. Fort Huachuca Cultural Resources Report FH-12-7, June 2013, p. 9.

[†] Vanderpot and Graves, 2013, p. 1.

[‡] Vanderpot and Graves, 2013, p. 1.

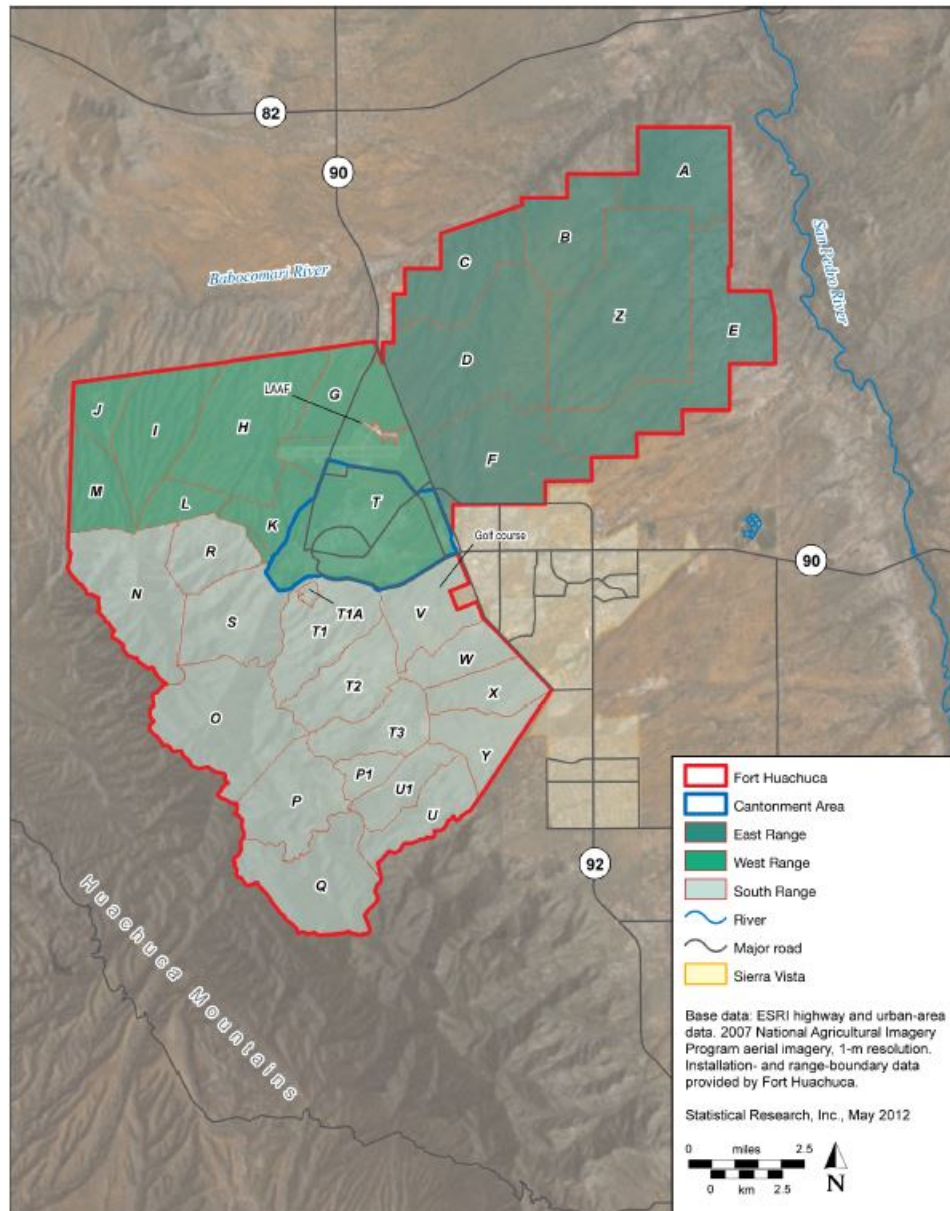
[§] Vanderpot and Graves, 2013, p. 1.

Figure 1. Location of Fort Huachuca in southeastern Arizona.



Source: Vanderpot and Graves (2013, p 2).

Figure 2. Map of Fort Huachuca showing ranges and training areas.



Source: Vanderpot and Graves (2013, p 3).

The climate at Fort Huachuca is hot in summer and mild in winter, and precipitation ranges from 30 inches (76 cm) per year, on the crest of the Huachuca Mountains, to less than 15 inches (38 cm) per year, on the East Range. About 60% of the annual precipitation falls during the summer monsoon rains, and about 30% falls during winter (Trousil 2001:63). The average yearly temperature is 62 °F (17 °C), with an average summer high

of 88 °F (31 °C) and an average winter low of 32 °F (0 °C). The average growing season is 232 days (Trousil 2001:63).*

Elevations range from about 3,900 feet (1,190 m) above mean sea level (AMSL) on its eastern boundary, near Charleston (which is just outside the installation), along the San Pedro River, to 8,410 feet (2,563 m) AMSL at Huachuca Peak. The environment encompassed by the [East, West and South] training ranges varies considerably. Two-thirds is situated along the eastern and northern flanks of the Huachuca Mountains and the *bajadas* sloping down to the floodplains of the San Pedro and Babocomari Rivers. The remaining portion lies within the rugged terrain of the mountains. Most of the fort's western boundary straddles the high ridges of the Huachuca Mountains, and the installation reaches eastward almost to the channel of the San Pedro River. The northern boundary lies just south of the Babocomari River, and a 1.5-mile (2.4-km) section of the East Range boundary overlaps with the channel. In places, the southern perimeter of the reservation follows Scheelite Ridge, is bounded by portions of State Highways 90 and 92, and incorporates many sections and partial sections of land north and northeast of the city of Sierra Vista as it wends its way northeastward toward the San Pedro River.†

With only 4.5 miles (7.2 km) of perennial streams and [numerous] documented springs (Trousil 2001:62), Fort Huachuca contains limited surface water. Numerous drainages flow west to east and east to west into the San Pedro River. The most prominent tributary is the Babocomari River, originating in the Canelo Hills and running east along the northern boundary of the fort and into the San Pedro River. It was once a substantial stream flanked by lush riparian vegetation, cienegas, and a broad floodplain covered with a luxuriant growth of grass. It is still perennial (for 12 miles [19 km] along two reaches but not at its mouth) and still has cienegas along its course (Arizona Department of Water Resources 1990). In the southern portion of the fort, the most notable drainages—Garden Creek and its tributary, Woodcutters Creek, as well as Graveyard Gulch, which originates in Sierra Vista and flows along the southern edge of the East Range—flow directly into the San Pedro River. The drainages north of these flow into the Babocomari River (Trousil 2001:62). Major streams running east from the Huachuca Mountains are (from north to south) Huachuca, Garden, Ramsey, and Miller Creeks. Other important but more-ephemeral drainages at

* Vanderpot and Graves, 2013, p. 9.

† Vanderpot and Graves, 2013, p. 11.

the fort that flow from the mountains toward the Babocomari River are (from west to east) Sycamore, Blacktail, Slaughterhouse, Coyote Canyon, and Split Rock Canyon washes and Rock Spring Canyon and Soldier creeks.*

At Fort Huachuca, the East Range has a history of particularly hard use that, by far, predates the U.S. Army's (Army's) ownership of the land. The East Range had become eroded in the late nineteenth and early twentieth centuries as a result of overgrazing, drought, and fires and [was] then further damaged by troop training and large-vehicle maneuvers by the Army after its acquisition of the East Range during [WWII] (Cook 2003a:96). When the Army fenced the range, ca. 1952, the entire area was in a severely depleted state and suffered from excessive erosion, and little was left of the native grass cover.†

The San Pedro River flows northward from its head waters about 25 miles south of the international boundary in Sonora, Mexico, and crosses into Arizona just south of Palominas. The river enters the United States at an altitude of 4275 feet and joins the Gila River at Winkleman at the 1920 foot elevation. Most of the mountains bordering the San Pedro Valley rise to altitudes of greater than 6,000 feet. The highest point is Miller Peak in the Huachuca Mountains, at elevation 9,466. The river drains an area of approximately 4,500 miles, all but about 15% of which is within the United States (Walker and Bufkin 1979, 1-6; U.S. Army, RG 94).‡

2.2 Frontier Period (1821-1886)

The resources and advantages afforded by the geography and topography of the Fort Huachuca area made it attractive to early and Native American Indians who have settled in the area reaching as far back as the Clovis era (ca. 11,500-11,000 B.P.).§ Vanderpot (1994a:213, 1994b:199) identified five topographic zones at Fort Huachuca that were important for prehistoric settlement and land use: (1) the mountain flank and canyons, (2) the alluvial fans and upper *bajada*, (3) the middle *bajada*, (4) the Babocomari River terrace, and (5) the lower *bajada* next to the San Pedro River.** In

* Vanderpot and Graves, 2013, p. 13.

† Vanderpot and Graves, 2013, p. 13-14.

‡ Herbert Jackson and Wee 1990, p. 1.

§ For a detailed history of the cultural history of the Fort Huachuca area, see, Vanderpot and Graves eds. A 3,977-Acre Intensive Survey and NRHP-Eligibility Evaluations of 25 Previously Recorded Sites on Fort Huachuca, Arizona. Fort Huachuca Cultural Resources Report FH-12-7, June 2013.

** Vanderpot and Graves, 2013, p. 13.

these areas lived the “Pueblo farmers of the Rio Grande, as well as the desert irrigation Sobiapuri and Pima farmers of southern Arizona and the Yuman-speaking floodwater farmers of western Arizona,”* but they were eventually forced out of the area by Gila Apaches.

When the northern provinces of New Spain passed from Spanish to Mexican control in 1821, authorities tried to reassert their influence in the northern province of Sonora. They were faced with two related problems: how to distribute the land and how to control the nomadic and warlike Apache Indians who demonstrated no inclination to become shepherds or sedentary farmers and had completely intimidated earlier colonization efforts in Sonora. On December 25, 1832, the Mexican government granted land in the Huachuca area to Ignacio Elias for the purpose of grazing his stock. This land grant was known as San Ignacio del Babocomari. Soon thereafter, in 1835, the Sonoran government announced the establishment of the Proyecto de Guerra to deal with marauding Indians. Although a few large land grants were made and several ranches begun in the upper Santa Cruz and San Pedro basins during the Mexican Period, there were too few settlers to hold the ground. By the 1840s, the Apaches had driven off nearly all the cattle and most of the people, leaving no more than perhaps 1000 Hispanics and Christianized Indians concentrated around Tubac, Tucson, and San Xavier del Bac (Spicer 1962; Hafen and Rister 1941:252-262; and Haskett 1935:7).[†]

The commercial repercussions of the 1821 shift in political control over the region that would become Arizona were profound. Spain had rigidly restricted trade on its northern frontier, but Mexico was eager for foreign commerce. Trade routes opened up during the 1820s between the Anglo-American frontier and the Hispanic frontier by way of the famous Santa Fe Trail. The aggressive tentacles of Anglo-American commerce soon extended across the continent to California forging a lateral link between the two settled provinces of northern Mexico. By the 1840s, the trade of Santa Fe was so enlarged and extended as to become a rivalry between eastern America and central Mexico for the trade of the entire northern Mexican region.[‡]

* Herbert, Rand F., W. Turrentine Jackson, and Stephen R. Wee. *Fort Huachuca, Arizona: A Century of Development and Changing Missions, 1877-1977*. Davis, CA: Jackson Research Projects, August 1990, pp. 1-2.

† Herbert, et al., 1990, pp. 3.

‡ Herbert, et al., 1990, pp. 3-4.

[From 1821 to 1846, annoying commercial incidents had arisen] between the United States and Mexico. The Mexican government also accused the United States of engineering the Texas revolution and subsequently planning the annexation of the northern Mexican states. War broke out between the two countries in 1846 and resulted in the American conquest of California and New Mexico. The Treaty of Guadalupe Hidalgo, signed by the United States and Mexico in 1848, redefined the political boundaries in the Southwest. West of the Rio Grande the new international boundary established by the treaty reflected the northern limits of effective Spanish and Mexican advance. An arbitrary line was drawn due west to intersect the easternmost tributary of the Gila and hence along the Gila River to the Colorado. This left Tucson, the northern outpost of Sonoran settlement within Mexico (Rives 1913; and Mark 1966:24-60).*

Before surveyors could even mark the new boundary, the gold discovery in California sent thousands of Americans streaming across the northern margins of Mexico bound for the gold fields. Much of the vast western semi-arid region from the 49th parallel south to the Mexican border was occupied by Indians. The Americans looked upon the Pueblo Indians, who lived in organized communities and were dependent on agriculture for subsistence, as “civilized Indians.” Quite different were the “wild” Apaches and Navajos, who lived by tending their sheep and raiding Mexican settlements. The Apaches presented a huge problem for the American government, which tried to prove its superiority over the Mexican government by extending military protection to the peaceful inhabitants of the region that they had never received under Mexican rule. The Treaty of Guadalupe Hidalgo did not greatly alter the military picture. Article XI of the treaty provided that the United States would stop Indian raids into Mexico and had given the United States the power to pursue Apaches crossing the international boundary. In compliance with this article, the U.S. Government organized the Ninth Military District in 1848.†

U.S. military policy for New Mexico Territory called for a display of military force that would end Indian depredations, followed by settlement of the Indians on reservations. The plan depended on military force to keep the Indians on their reservations, and the establishment of military posts in Indian country. The U.S. Government found the Mexican Cession country hard to control. In the territory of New Mexico (which included

* Herbert, et al., 1990, pp. 4.

† Herbert, et al., 1990, pp. 5.

Arizona) from 1851 to 1863, from 1,400 to 1,800 troops were distributed among eight forts. Army patrols were constantly sent out to escort emigrants through the region or to protect isolated settlements against roving bands of Indians (Prucha 1984:270-380).*

During the 1850s, the United States was seeking the most desirable route for a transcontinental railroad and one potential area lay south of the Gila River where the terrain was more level than further north. President Franklin Pierce instructed the U.S. Minister to Mexico, James Gadsden, to confer with Mexican officials about the purchase of land to ensure American control of key features including Guadalupe Pass and several roads threading the ranges through the San Pedro and Santa Cruz Valleys. On December 30, 1853, Mexico and the United States ratified the Gadsden Purchase. President Franklin Pierce signed the treaty on April 25, 1854. The agreement shifted the international boundary south capturing the old Hispano-Indian settlements along the Santa Cruz Valley and much of the San Pedro Valley. The Gadsden Purchase treaty eliminated the responsibility of the United States to prevent raids into Mexico, but the new territory also included more western Apaches within the boundaries of the United States. These Indians were not amenable to the goals of American Indian policy (Riegel 1964:12-16; Hafen and Rister 1941:322-343, 498-501; Emory 1857:94).†

During the next 20 years, the U.S. Government was primarily concerned with establishing a government and a military organization in the newly-acquired region. The Gila River country, a huge block of diverse and difficult land, was occupied by many Indians, few Hispanics, and fewer Americans. Anglos filtered in as soldiers and traders, and then later as ranchers and farmers. In all, 11 new military posts were built in Arizona south of the Gila between 1856 and 1876. The vast majority did not last for more than a few years.‡

On the military frontier of the Southwest, the Army established, moved, and abandoned posts with “bewildering rapidity,” writes historian Robert Utley (Utley 1973:171). The Army occupied a constantly changing array of forts, sub-posts, and temporary camps rather than a single line of strategic defensive positions. The degree of permanency and the extent of construction depended upon the mission of the Army in the area. Only five forts

* Herbert, et al., 1990, pp. 5.

† Herbert, et al., 1990, pp. 5-6.

‡ Herbert, et al., 1990, pp. 6.

south of the Gila lasted for more than a decade, and of these all, except Forts Huachuca and Grant, were abandoned by 1894 when the Apache threat had ended. Of the more than 70 military posts constructed in all of Arizona during the Frontier Period, only Fort Huachuca remains today as an active military post.*

Bearing little resemblance to Spanish presidios or wooden stockades, the Army's southwestern posts were instead collections of buildings, often adobe, grouped in a rough square without protective walls. From these bases, the military conducted raids and launched large-scale offensives as it had done across the Midwest. Infantry men were out of place. Because troops were primarily cavalry, they required horse-scale parade grounds. There were ample open spaces in the fort complexes (Hart 1965:9-12).†

As early as 1857, President Buchanan recommended that Congress carve out a separate Territory of Arizona to manage political affairs in western New Mexico, but Congress rejected his proposal. Arizona did obtain independent territorial status in February 1863. Between 1866 and 1872, temporary reservations were set up for some bands of Apaches on the military reservations at Camps Goodwin, Grant, McDowell, Beale Springs, and Date Creek, but the Apaches of the Southwest rejected reservation life. They remained restless, constantly leaving their reservations to renew raiding in Mexico and throughout the Southwest. Several military campaigns were organized to subdue them and return them to the reservations. Major General George Crook's vigorous campaign against the Apaches in 1871-72 brought a degree of order to the chaotic conditions in Arizona and led to the establishment of the San Carlos Indian Agency on the Gila River, where the Chiricahua Apaches were moved in 1876. But Apache raids continued, leading to long and weary guerilla conflict with the U.S. Army that lasted until 1886 when Geronimo and the last of the hostile Apaches finally surrendered (Utley 1973:369-396).‡

When Arizona became a territory separate from New Mexico in 1863, control of the Apaches became a main priority. The Army established camps and forts (including Camp Huachuca in 1877, see below) and launched campaigns against the Apache, increasing its efforts after the end of the

* Stephen R. Wee and Stephen D. Mikesell, *National Register of Historic Places Registration Form for Fort Huachuca Historic District*, U.S. Department of the Interior, National Park Service, October 1993, p. 47.

† Wee and Mikesell 1993 p. 48.

‡ Herbert, et al., 1990, pp. 6-7.

Civil War. The Apaches were forced onto reservations, the boundaries of which were soon reduced to accommodate mining, grazing, and other interests (Walker and Bufkin 1986). With the arrival of the transcontinental railroad in 1880 and the end of the Apache Wars in 1886, mining flourished in southeastern Arizona. In the early years of the twentieth century, a mine was established on the western edge of Fort Huachuca, and additional claims were filed nearby. A survey in 1932 found the mine to be at Fort Huachuca, and the owner was ordered to stop mining and remove all improvements, but the mine was still shown on a 1948 map (Van West et al. 1997:283–285). Recorded by Statistical Research, Inc. (SRI) in 1992 (Vanderpot 1994a), it is the only mine present at Fort Huachuca. Known initially as the Manila Mine and then later as the Panama Mine, it is shown on the first U.S. Geological Survey (USGS) map of the area (1912–1913).

The earliest railroads in the area connected mines and smelters. In 1881–1882, the New Mexico & Arizona Railroad (NM&AR) was built to connect Benson and Nogales, running south up the San Pedro River from Benson to the Babocomari River, then west up the Babocomari River (Walker and Bufkin 1986:47). In 1888–1889, the Arizona Southeastern Railroad, owned by Phelps Dodge, constructed a line from Bisbee to the NM&AR at Fairbank (Walker and Bufkin 1986:46). In 1901, Phelps Dodge established the El Paso & Southwestern Railroad (EP&SWR), incorporating the lines of the older Arizona Southeastern Railroad, and began to expand its lines west to Tucson and east to Douglas and El Paso (Walker and Bufkin 1986:46). In 1912, a spur of the EP&SWR was extended to the Old Post at Fort Huachuca (Van West et al. 1997:265). The development of farming and ranching in southeastern Arizona, including the East Range of Fort Huachuca, followed the stereotypical pattern of the West, in which large ranches were originally established and then replaced by smaller homesteads. In terms of ranching sites, this process left its mark archaeologically on the East Range of Fort Huachuca, which was outside the military reservation until [WWII].*

2.2.1 The founding of Fort Huachuca (1877-1886)

The establishment of Fort Huachuca in the late 19th century began with the signing of the Treaty of Guadalupe Hildago, which ended the Mexican-American War in 1848. As a result of the territory gained under the terms of the treaty, the United States formed the Ninth Military District to

* Vanderpot and Graves 2013, p. 30-31

protect and maintain peace in the California and New Mexico territories. In 1853, the United States gained additional land south of the existing international border with the Gadsden Purchase. The United States looked to the territory to construct a transcontinental railroad route and connect the new territories to the rest of the United States. To do so required a military presence to safeguard American interests in the regions.*

In December 1876 Colonel August V. Kautz, headquarters of the Department of Arizona, received a petition from 30 beleaguered residents of southeastern Arizona complaining of frequent depredations committed on them by Mexican bandits and Apaches. The most recent incident involved the theft of 21 head of horses and colts from a ranch in Santa Cruz Valley near the site of Old Camp Crittenden. The ranchers requested that the Army assign a scouting party to permanent duty at a location in the Upper San Pedro Valley. Responding to the settlers' request, Colonel Kautz dispatched a company of scouts from Fort Bowie to search for the outlaws and petitioned the Military Division of the Pacific for \$20,000 to establish a new camp nearer the Mexican border in southeastern Arizona (U.S. Army RG94, Box 52).†

In February 1877, Colonel Kautz ordered two troops of the 6th Cavalry from Fort Lowell, under the command of Captain Samuel Marmaduke Whitside, to establish a temporary camp to protect settlers in San Pedro and Santa Cruz Valleys. Captain William A. Rafferty, from Camp Grant, accompanied the exploring party which was supplied with rations sufficient to sustain it for a month in the field (U.S. Army RG94, Box 52). On March 3, 1877, Whitside made temporary camp on the northeast side of the Huachuca Mountains at the base of Huachuca Canyon along the banks of a mountain stream. After inspecting neighboring canyons and scanning the region from nearby mountain peaks, Whitside concluded that topography, climate, location and an abundance of key natural resources made Huachuca Canyon an ideal spot for a permanent camp. Sheltered from the elements by ridges on three sides, the site also commanded key high ground that provided unobstructed views of the passes through the mountains from Mexico. It also possessed an abundant water supply from Huachuca Creek and ample pasture land on the surrounding mountains

* S. Elizabeth Valenzuela. "FY12 SRM Facilities and Demolition Projects: Documentation and National Register Evaluation of 29 Buildings on Fort Huachuca, Arizona," Fort Huachuca Cultural Resources Report FH-11-8, December 2011, pp. 27

†Wee and Mikesell 1993 p. 49.

and plains. Old cottonwoods and sycamores lining the creek afforded shade during the hot summer months and pine forests in the nearby mountains would yield lumber for building purposes. Captain Whitside named the site Camp Huachuca.*

Shortly after establishing camp, Whitside initiated routine cavalry patrols extending out to a radius of about 40 miles from camp, spilling over into Mexico. The troops were constantly in the saddle. Although Captain Rafferty was successful in catching and killing a number of desperados, raids by Apaches and Mexican bandits continued. Rafferty's incursions south of the border infuriated Mexican authorities, who protested to officials in Washington. Whitside received orders to stay north of the border (Smith 1978:17-18). By May 1877, additional reinforcements arrived at Camp Huachuca. Lieutenant Hanna, with a company of Apache Scouts from Camp Grant joined Whitside's cavalry troops. He launched a second campaign against the Apaches. Lieutenant John Anthony Rucker with 18 men from the 6th Cavalry and a company of Hualpai scouts joined the others in August. The reinforced column patrolled in the field for several weeks, often suffering from lack of food and water. They finally engaging the Apaches in a running fight that continued for 22 days in which 10 Apaches were killed and 13 taken prisoner (Smith 1978:19-21).†

The camp had proven useful from the start as an advance cavalry post to control outlaws and depredatory Indians.‡ Within months of the establishment of the Army camp, a group of farmers came to settle the valley. In November 1877, they arrived with their families from a Mormon colony at Mesa near Phoenix to establish an irrigation outpost on the San Pedro River. A Mormon colony known as St. David was established the following May — the southernmost American settlement in Arizona. Other ranchers followed into what is now Cochise County by 1880, among them were Brannick Riggs on the west side of the Chiricahuas, Rockfellow and Servoss near the Cochise stronghold, the Munk Brothers in the vicinity of Railroad Pass, and Dan Murphy on the San Pedro south of Mammoth (Bryan et al. 1934:24; Lockwood 1932:235-242). On December 21, 1877, Captain Whitside moved to stake out his claim and reserve critical resources on behalf of the Army. He "reserved a nine mile square area, approximately 42,000 acres, on the east side of Huachuca Mountain for the

* Wee and Mikesell 1993 p. 49-50.

† Wee and Mikesell 1993 p. 50.

‡ Wee and Mikesell 1993 p. 50.

Army,”* and announced the limits of Camp Huachuca subject to the approval of the Commander of the Arizona Department in Prescott:

Beginning at the Cemetery of Old Camp Wallen thence on a line due south through the western canon of the Huachuca Mts., to its intersection with a line running east and west through terminus of military road to the pinery, thence east nine miles to intersection with north and south line running one mile and a half to the westward of eastern canon of Huachuca Mountains, thence north to intersection with line passing due east from Cemetery of Old Camp Wallen, thence to point of starting.

The above described limits nine miles square [area 81 square miles], are plainly marked, and are set aside for the benefit of the United States, until such time as a military reservation shall be declared.

All persons are forbidden to erect buildings, establish camps, or herd stock or cut timber within the boundary mentioned (U.S. Army RG 94 Box 52).†

Whitside’s order, General Order No. 91, was returned from Headquarters, Department of Arizona with an endorsement from the commanding general approving the measure “until such time as a Reservation can be surveyed for a camp, and set apart by the proper authority” (U.S. Army RG 94 Box 52).‡ “On January 21, 1878, the Army designated it a permanent ‘camp’.”§

The Army’s role in changing the cultural and physical landscape of southeastern Arizona should not be underestimated. With the establishment of a permanent Army camp in the Huachuca Mountains, small groups of farmers began trickling into the valley once again. Despite the Army’s shortcomings in defeating the Apaches in warfare, the military presence had improved security, attracted settlers, and injected needed money into the local economy. Soldiers at Huachuca patronized stores and saloons; civilians found employment as clerks, guides, and laborers; local freighters, contractors, farmers and ranchers also found in the Army an outlet for

* Wee and Mikesell, 1993, p. 49-50.

† Herbert, et al., 1990, pp. 13-14.

‡ Herbert, et al., 1990, pp. 14.

§ Wee and Mikesell 1993, p. 50.

their goods and services. In 1880, Captain Whitside reflected upon the effect his Army post had on the region:

When the present camp was located March 3, 1877, I found the whole region deserted, but one or two ranches within thirty miles of the camp, owing to border and Indian troubles. Previous to this time many settlers had been killed and large numbers of horses and mules driven away by Indians and Mexicans, but since the establishment of the post, the border troubles have been quieted, the troublesome Apache has been corralled, and today I believe I may safely say that over ten thousand persons are living within thirty miles of the post. Rich mines have been discovered, large towns have been built, mills have been erected, and at least \$500,000 in bullion is being sent monthly out of the district (U.S. Army RG393, Entry 2).*

With the discovery of silver in the Tombstone area, a boom town of over 1,200 residents brought miners, stockmen, and adventurers into southeastern Arizona. Copper deposits were soon discovered and the Southern Pacific Railroad, which had completed its line to Tucson in March 1880, talked of building a spur south from Benson to Tombstone. Miners and ranchers rushed to the San Pedro Valley and by the middle of the 1880s Tombstone boasted a population of 15,000.†

The new American interest in southeastern Arizona was vividly illustrated by activities following the invasion of the last frontier by the Southern Pacific Railroad. The Southern Pacific finally joined the Atchison, Topeka, and Santa Fe at Deming in 1881 giving Arizona access to two trunk lines leading eastward. Sylvester Mowry's dream of a railroad to Guaymas became a reality a year later when the Sonoran railroad projected a line from the Mexican port city to Benson, Arizona, connecting with the Southern Pacific (Bancroft 1888:603). The coming of these railroads, together with the boom in silver and copper mining, had a dramatic effect on the nature of the territory. The silver rush to Tombstone, for example, served as the impetus for several satellite villages such as Charleston, Contention City, and Richmond, and brought about the organization of Cochise County in 1881. Mining and gold bullion attracted capitalists and miners, as well as claim jumpers, highwaymen, and outlaw cowboy outfits to the region. These outlaws robbed and killed miners, rustled cattle from the newly

* Wee and Mikesell 1993, p. 52.

† Wee and Mikesell 1993, p. 52.

established ranches of southeastern Arizona, and periodically raided towns in Sonora (Lockwood 1932:191-217; Meyers 1950:22; McClintock 1916:410-41; Walker 1935).*

The rush to Tombstone also coincided with the rise of less famous mining communities at Globe, Florence, and Bisbee. As chemists and engineers learned to extract Arizona's oldest known mineral — copper — in a more efficient way, large copper firms, like the California-backed Copper Queen Mining Company, joined individual miners in exploiting the resources of the old Apache country. By the end of the 1880s the need for copper for telegraph and electrical wire led the Phelps Dodge Company to invest in the Bisbee making its copper mines the territory's leading industry. The presence of thousands of miners created an enormous demand for food. Ranchers drove cattle into the southern Arizona valleys, and soon local ranching enterprises, which had been established for the purpose of feeding Army installations and Indian reservations, expanded to supply beef for the growing mining towns.†

By orders of the commander of the Department of Arizona, a board of officers convened at Willcox Station, Arizona Territory, in November 1880 to discuss consolidation of military reservations in southeastern Arizona. The board voted to abandon old Indian posts at forts Bowie and Grant and to establish a new fort at Railroad Pass that could be supplied directly from the Southern Pacific Railroad. General William Tecumseh Sherman disagreed with the board. The proposed site on the railroad had logistical advantages, but was not of sufficient value militarily to police and control the entire border region. His plan was to neglect one of the old posts, keep the other open temporarily “until the further developments will demonstrate a single post that will fulfill all the conditions of the military problem of Eastern Arizona,” and to upgrade Camp Huachuca, located nearest the Mexican border, to a permanent fort. However, before making a final decision, Sherman ordered a thorough reconnaissance of the whole country [Arizona Territory] (U.S. Army RG94, Box 52).‡

Carl F. Palfrey, 1st Lieutenant of Engineers, Department of Arizona, was appointed to carry out the reconnaissance. He reported favorably on three potential sites for a permanent military post: a site near the north spur of

* Wee and Mikesell 1993, p. 53.

† Wee and Mikesell 1993, p. 53.

‡ Wee and Mikesell 1993, p. 53-54.

Huachuca Mountain, another in Dragoon Pass, and a third at Railroad Pass. Since a branch of the Southern Pacific Railroad was proposed through San Pedro Valley, Palfrey favored the Huachuca site — it could sustain a large garrison of up to six companies and it was centrally located with respect to the three great valleys of southeastern Arizona (U.S. Army RG94, Box 52).*

Major General McDowell, commander of the Pacific Military District, endorsed Palfrey's recommendations and requested that General Sherman act "without delay." On April 20, 1881, Sherman directed McDowell to prepare a final survey and map of the military reservation at Camp Huachuca and forward it to Washington, together with a legal description of the proposed boundary line that would enable President Chester Arthur to declare the reservation. In the meantime, Sherman issued instructions that would ensure Camp Huachuca's continued operation until the next fiscal year: money allotted to the Department of Arizona from the Quartermaster General for Barracks and Quarters was to be spent at Fort Bowie and Camp Huachuca, neglecting other posts (U.S. Army RG94, Box 52).†

As part of the planning for the conversion of the camp to an enlarged permanent post, the Adjutant General's Office established a three-man board of officers to locate and sketch a site plan for the fort and identify its boundaries. Appointed to the board were officers from various departments of the Army: Captain G. C. Smith, represented the Quartermaster's Corps, Department of Arizona; Captain T. C. Tupper, a veteran of the Indian campaigns and post commander with the 6th Cavalry stationed at Camp Huachuca; and First Lieutenant Palfrey, who represented the Engineering Department at headquarters, Department of Arizona. The board completed its work before the end of September 1881. One month later, President Arthur signed an Executive Order setting aside approximately 42,000 acres as the Camp Huachuca military reservation (U.S. Army RG94, Box 52).‡

The designation of the post was upgraded to Fort Huachuca, pursuant to General Orders, No. 2, Headquarters Military Division of the Pacific, on February 11, 1882 (U.S. Army RG94, Box 52).§

* Wee and Mikesell 1993, p. 53-54.

† Wee and Mikesell 1993, p. 53-54.

‡ Wee and Mikesell 1993, p. 54-55.

§ Wee and Mikesell 1993, p. 50.

2.2.2 Construction of the Old Post Area

Typical of other frontier outposts in the American West, the first buildings constructed at Camp Huachuca between 1877 and 1880 consisted of crude troop-built structures. Soldiers that had been on the southwestern frontier for any length of time learned from Mexicans how to build flat roofs and to make adobe bricks. Adobe huts functioned as residences for officers, various stockade buildings with elevated shingle or flat mud roofs served as storehouses, mess hall, or stables. Standard issue canvas A-frame tents housed many of the enlisted men. Built as temporary structures, even the best officers' quarters had only one or two rooms and the roofs leaked badly during thunderstorms. The wooden picket buildings, made from green wood, shrunk, aged quickly and required constant maintenance. Several of these buildings collapsed during the first 3 years.*

Captain Whitside, Commanding Officer at Camp Huachuca from 1877 to 1881, considered the temporary adobe and canvas buildings that housed the first soldiers at the post totally inadequate. In an incredible series of thunderstorms that pelted the Huachuca Mountains during the months of July and August 1877, legend has it that some 30 to 40 inches of water fell at the fort. The commissary store flooded damaging all the perishable supplies stored there. The roof of the Quartermaster storeroom leaked badly and water poured directly into the quarters of Captain Rafferty and Lieutenant Craig. All the mud-mortared fireplaces in the soldier's squad rooms were washed away. Portions of the troop's stables collapsed, killing three horses. Whitside was forced from his own quarters because he hourly expected them to fall down (U.S. Army, RG94, Box 52).†

Whitside remained determined in the face of this setback to improve the post and obtain the Secretary of War's approval for establishment of a permanent installation in the Huachuca Mountains. In April 1879, he began a sawmill operation near the mouth of Huachuca Canyon hoping to obtain lumber to replace the unsatisfactory temporary adobe buildings. The pine trees grew high on the slopes of the Huachucas and the enlisted men were employed to climb up the hillside, fell trees, skin the trunks and then snake the huge logs down the mountain side. Soldier volunteers, who were given extra pay for their labors, did milling and construction work (Smith 1978:26).‡

* Wee and Mikesell 1993, p. 51.

† Herbert, Jackson, and Wee, 1990, p. 25.

‡ Herbert, Jackson, and Wee, 1990, p. 26.

Opinions differed widely concerning the administration of Whitside. Soldiers complained to Congress that in addition to [military] drilling, they had guard duty, care of horses, arms and equipment, cooking, baking, police of quarters and stables. Worse, they were obliged to perform labor building quarters, stables, storehouses, bridges, roads, and telegraph lines “involving logging, lumbering, quarrying, adobe and brick-making, lime-burning, masonry, plastering, carpentering, painting, blacksmithing and sometimes woodchopping and hay-making.” All of these chores, they insisted, led to the neglect of drilling (Smith 1978:26-27).*

The Inspector General of the Department of Arizona, visiting several years later in 1883, reported unfavorably upon the drilling ability of troops at Fort Huachuca, confirmed that their training had been neglected. Post commanders protested that their men, of necessity, had been engaged in essential tasks of labor and military drills had been of secondary importance. Residents of Arizona Territory, who were appreciative of the protection provided by the soldiers, were more impressed with the progress in the appearance of this remote frontier cantonment even if it was largely a tent city. A reporter for the *Arizona Star* of August 27, 1879, described the post as an attractive and tidy community: “officers’ quarters are built in neat style of adobe brick, and are very home-like. ... The hospital tents were clean and cheerful, and the mess room, built of lumber was large enough for eighty soldiers. ... The tents of the troops were fixed upon a base of boards three feet high. ... The whole camp was clean, bright, embowered and attractive” (Smith 1978:27).† In September 1879 the first permanent structure on the post was begun as the post hospital (22108), an 8-bed facility built of adobe. The building, [currently] known as the Carleton House, still stands on the southeast side of the parade ground. Over the years it has served as a hospital, school, officers mess, and officers’ quarters.‡

At one location or another, Apache warfare had been virtually continuous in the Southwest since Spanish colonial times. In the early 1870s, General Crook had seemed on the verge of ending these battles with his campaign of 1872-73 that placed the most troublesome Apaches on dispersed reservations run by the military. Crook was transferred out of Arizona Territory in March 1875 and almost before he left the Interior Department set in motion a new policy to bring together all the Apache tribes together on the San

* Herbert, Jackson, and Wee, 1990, p. 26.

† Herbert, Jackson, and Wee, 1990, p. 26-27.

‡ Wee and Mikesell, 1993, p. 51.

Carlos Reservation. The Apaches, who were widely separated tribes that did not constitute a united people, resented being herded together on a single reservation. By 1881 the comparative peace that Major General George Crook had fashioned in Arizona had worn thin. In August 1881, during an attempt to arrest an Apache medicine man (Noch-ay-del-kinne) accused of preaching a new religion whites considered incendiary, the Army killed the Indian prophet and some of his followers. Frightened by the military action and discontent with inter-tribal rivalries and corrupt agents, Geronimo and several other Apache leaders broke out of the San Carlos Reservation and headed for Mexico with 74 followers. At a mass meeting on September 19th in Tucson citizens of the territory passed resolutions demanding the eviction of all Apaches from the area. The following spring, Geronimo returned to the San Carlos and took several hundred Apaches with him back to Mexico. This event prodded the U.S. Government to order the “Gray Fox,” General Crook, to Arizona where he resumed his old policy of exterminating outlaws and encouraging friendly Apaches by liberal grants of land and annuities (Bourke 1950, 1886; Porter 1986:141-164).*

In response to the outbreak of hostilities, General Sherman estimated that the permanent military force in Arizona should be increased by two regiments of Infantry and one of cavalry. He planned to station these troops at Forts Apache, Grant, Thomas, and Huachuca (Camp Huachuca had been redesignated Fort Huachuca on February 9, 1882). Between June 1881 and June 1882 Troop I of the 6th Cavalry, Troop K of the 12th Infantry, and a troop of Indian Scouts arrived at Fort Huachuca doubling its strength to 187 men (U.S. Army RG94, Roll 490).†

On May 21, 1882 General McDowell recommended in a letter to the Adjutant General in Washington that the Army construct one field-staff and four company quarters, barracks, a guard house, officers’ storehouses, and stables at Fort Huachuca at a cost of \$52,000, and to provide for a subsequent enlargement to an eight company post capable of stationing four companies of cavalry and four of Infantry at an additional cost of \$30,000. The Adjutant General forwarded the request with his endorsement to Secretary of War Lincoln who asked for an urgent appropriation of \$205,000

* Herbert, Jackson, and Wee, 1990, p. 27-29.

† Herbert, Jackson, and Wee, 1990, p. 29-30.

from Congress for use at the forts. President Chester A. Arthur transmitted the request to Congress on June 26th (Senate Executive Document 1882).*

Captain G. C. Smith, of the Quartermaster's Department in Prescott had been charged in September 1881 with preparing estimates and plans for permanent buildings at Camp Huachuca. Colonel J. C. Kelton, Assistant Adjutant General of the Military Division of the Pacific, completed the first map showing a site plan for Camp Huachuca in October 1881. The plan was for a typical unfortified frontier fort arranged in a formal pattern around a broad, rectangular parade ground. Kelton surrounded the central open space with clusters of functionally related structures: hospital facilities and medical corps housing at the north end; officer's quarters along the eastern flank; commissaries and storehouses on the south at the entrance of the canyon; troop barracks, kitchen, bakery, and administration buildings along the western flank.†

The original plan was flawed by at least two critical factors: first, the central parade ground was bisected by Huachuca Creek; second, the rectangular plan did not fit well with the topographical constraints of the canyon. Before 1883 the site layout was significantly modified to adapt to the natural terrain of Huachuca Canyon with the parade ground narrowing at its southern (upper) end and the barracks and quartermaster buildings being moved to the east side of Huachuca Creek (U.S. Army, 1887).‡

On August 14, 1882, the Secretary of War approved the recommendation of the Quartermaster General for an expenditure of funds from the Barracks and Quarters allotment of Division of the Pacific. The building program got underway at Fort Huachuca that summer as the Post Quartermaster hired some 47 civilian employees, including 19 carpenters, nine masons, and 14 general construction laborers (U.S. Army RG94, Box 52; RG94, Roll 490).§

The War Department requested the Military Department of Arizona to resurvey the boundaries of Fort Huachuca in February 1883 in order to enlarge the post. Lieutenant G. J. Fieberger, Corps of Engineers, performed the resurvey and submitted a report dated March 30, 1883 "showing the necessity for extending the northern side of the Reservation to the

* Herbert, Jackson, and Wee, 1990, p. 29-30.

† Herbert, Jackson, and Wee, 1990, p. 27.

‡ Wee and Mikesell 1993, p. 55-56.

§ Herbert, Jackson, and Wee, 1990, p. 30.

southern boundary of the Babocomari Grant, as originally intended, for the purpose of securing to the Government the valuable grazing lands in the vicinity of the post” (U.S. Army RG94 Roll 490).*

On May 12, 1883, the Secretary of War recommended to the President that the boundaries of Fort Huachuca be enlarged. The resurvey added a triangle of land to the north and east of the base of the Huachuca Mountains extending to the south line of the Babacomari Grant, and a smaller block located at the lower end of Garden and [Ramsey Canyon] (U.S. Army RG92 Box 426).†

Two days after receiving the Secretary of War’s recommendation, on May 14, 1883, President Chester A. Arthur signed the Executive Order enlarging the military reservation as requested.‡

General Sherman visited the post in April 1883 and gave his approval for the construction of permanent facilities. During the spring session that year, Congress approved the special appropriation of \$200,000 requested by the War Department for military posts in Arizona the previous year. Fifty thousand dollars was earmarked for buildings and other improvements at Fort Huachuca. The Army spent only a portion of this money and the remainder carried over to the next fiscal year. The Chief Quartermaster’s Office reported on July 18, 1883 that the Army had more than \$75,000 available in 1883-84 for construction and repair work at selected military posts in Arizona. Of this total the Quartermaster Department would spend more than \$61,000 at Fort Huachuca, primarily for the construction of 11 officer’s quarters. The Quartermaster in charge of the Washington, DC Office, Quartermaster George H. Weeks, noted that while Fort Huachuca received most of the available construction funds there was much left to accomplish in future years to complete the fort’s plans. “The total cost of the building asked for at Huachuca,” wrote Weeks, “would, at the present prices of material and labor, cost \$143,544.82. I now recommend expenditure of \$61,258.82 leaving \$82,284.97 to be provided for from future general appropriations for Barracks and Quarters, or by special appropriation by Congress—the latter of which is urged” (U.S. Army RG94 Box 52).§

* Herbert, Jackson, and Wee, 1990, p. 34.

† Herbert, Jackson, and Wee, 1990, p. 36.

‡ Herbert, Jackson, and Wee, 1990, p. 36.

§ Herbert, Jackson, and Wee, 1990, p. 30-31.

By the latter half of 1883, there was an average of about 250 Officers and enlisted men stationed at Fort Huachuca, or about double the average of the previous year. In addition, for several months following September 1883 the quartermaster had more than 100 civilian employees at work building permanent structures to house these troops [Figure 3 and Figure 4] (U.S. Army RG94 Roll 490). In 1883-84, the Army finally completed 11 sets of two-story adobe Officer's Quarters [22112, 22114, 22116, 22120, 22126, 22128, 22132, 22138, 22140, 22144, 41010] on the east side of the parade ground [Figure 5 through Figure 7]. The quartermaster also oversaw construction of four two-story frame buildings [barracks 22208, 22216, 22218, 22320] opposite the Officer's Quarters and fronting the parade ground [Figure 8 through Figure 10]. The Army converted one almost immediately into an administration building, the other three were used for their intended purpose as barracks. Each unit consisted of two squad rooms upstairs and office space downstairs for the company's non-commissioned officers. Other buildings constructed during this initial phase of construction included the quartermaster's storehouse [22322] [Figure 11], a guardhouse [22328] [Figure 12], hospital [41408] [Figure 13 through Figure 15], magazine [22330], troop stables [Figure 16 and Figure 17], a commissary storehouse [22408] [Figure 18], and quartermaster shops (U.S. Army 1887).*

Figure 3. View south towards Post Hospital [41408] and parade ground, 1885.



Source: NARA College Park, RG165-FF.

* Herbert, Jackson, and Wee, 1990, p. 31-32.

Figure 4. Plan of Fort Huachuca, no date [likely 1903].



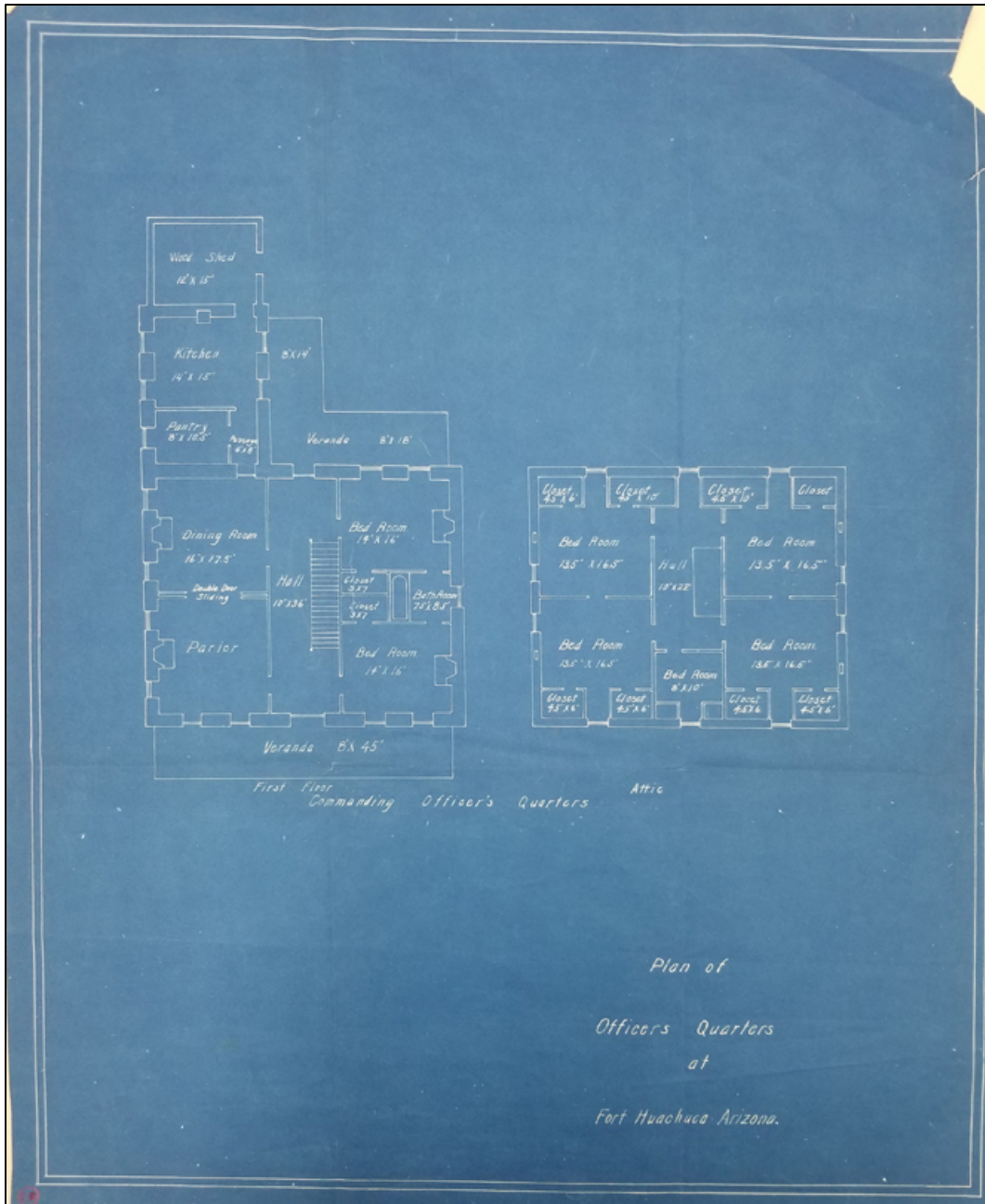
Source: NARA College Park, RG92.

Figure 5. Looking north at the front of the Officers' Quarters on the east side of the parade ground, 1883.



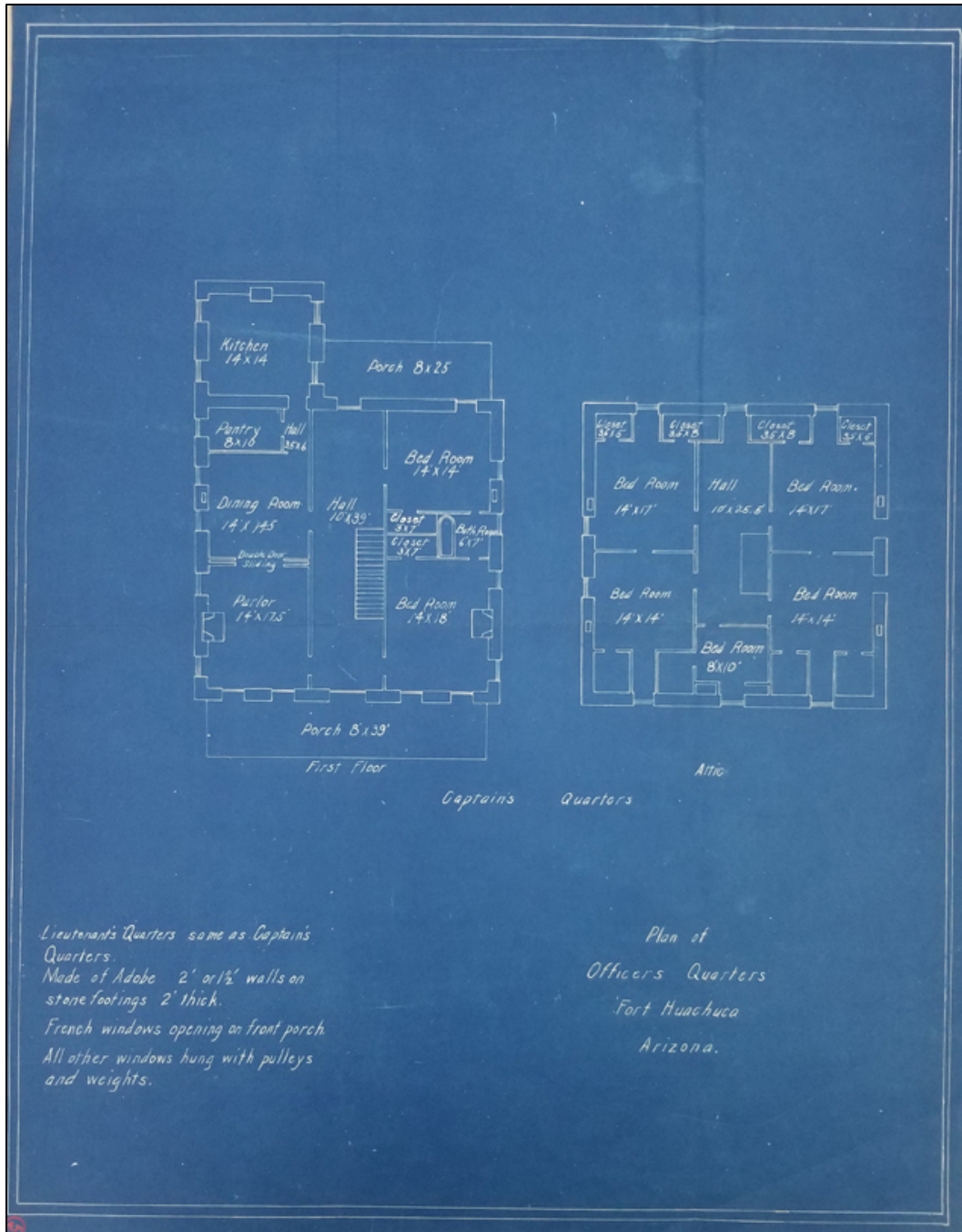
Source: NARA College Park, RG165-FF.

Figure 6. Plan of commanding officer's quarters, no date.



Source: NARA College Park, RG92.

Figure 7. Plan of officers' quarters, 1903.



Source: NARA College Park, RG77.

Figure 8. Looking west at a two-story frame barracks (22208) on the west side of the parade ground, 1883.



Source: NARA College Park, RG165-FF.

Figure 9. Looking east at the rear of barracks (22208), 1900.



Source: NARA College Park, RG92-F.

Figure 10. Interior of barracks, 1900.



Source: NARA College Park, RG92-F.

Figure 11. View to the west of the Quartermaster Office and Storage (22332) on the west side of the parade ground, 1900.



Source: NARA College Park, RG92-F.

Figure 12. View to the west of the Guard House (22328) on the west side of the parade ground, 1900.



Source: NARA College Park, RG92-F.

Figure 13. View to the north of the Post Hospital (41408), 1900.



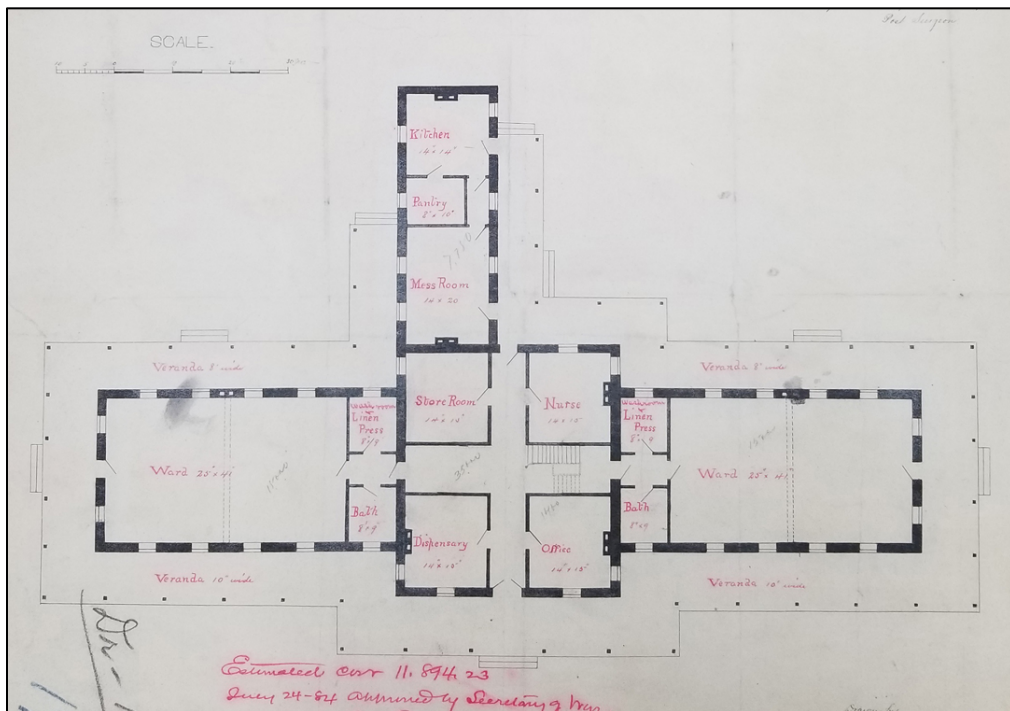
Source: NARA College Park, RG92-F.

Figure 14. Front elevation of Post Hospital (41408) on the north side of the parade ground, 1884.



Source: NARA College Park, RG77.

Figure 15. Plan of Post Hospital (41408) on the north side of the parade ground, 1884.



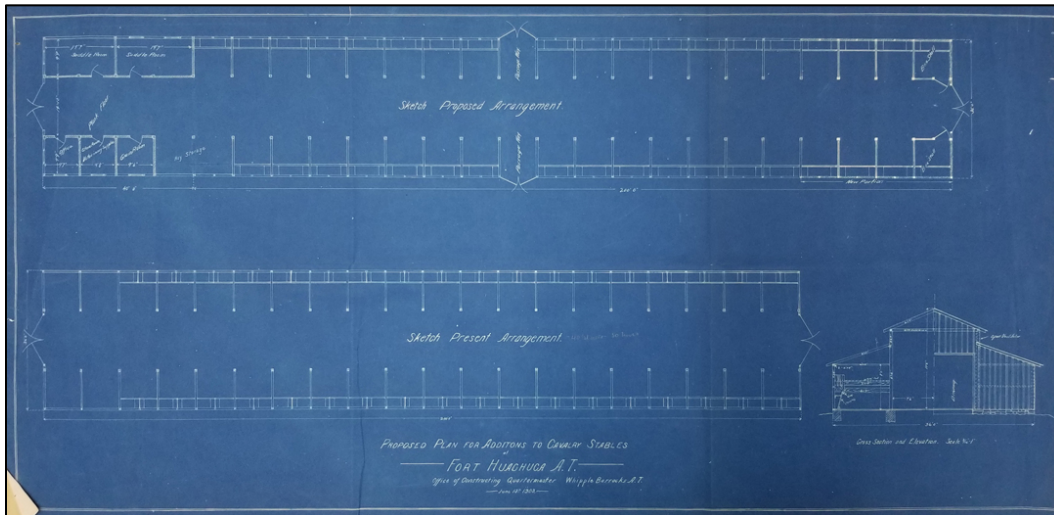
Source: NARA College Park, RG77.

Figure 16. Cavalry stables (not extant), 1900.



Source: NARA College Park, RG92-F.

Figure 17. Plan of cavalry stables (not extant), 1903.



Source: NARA College Park, RG77.

Figure 18. Looking west at the Commissary Office and Storehouse (22408), 1900.

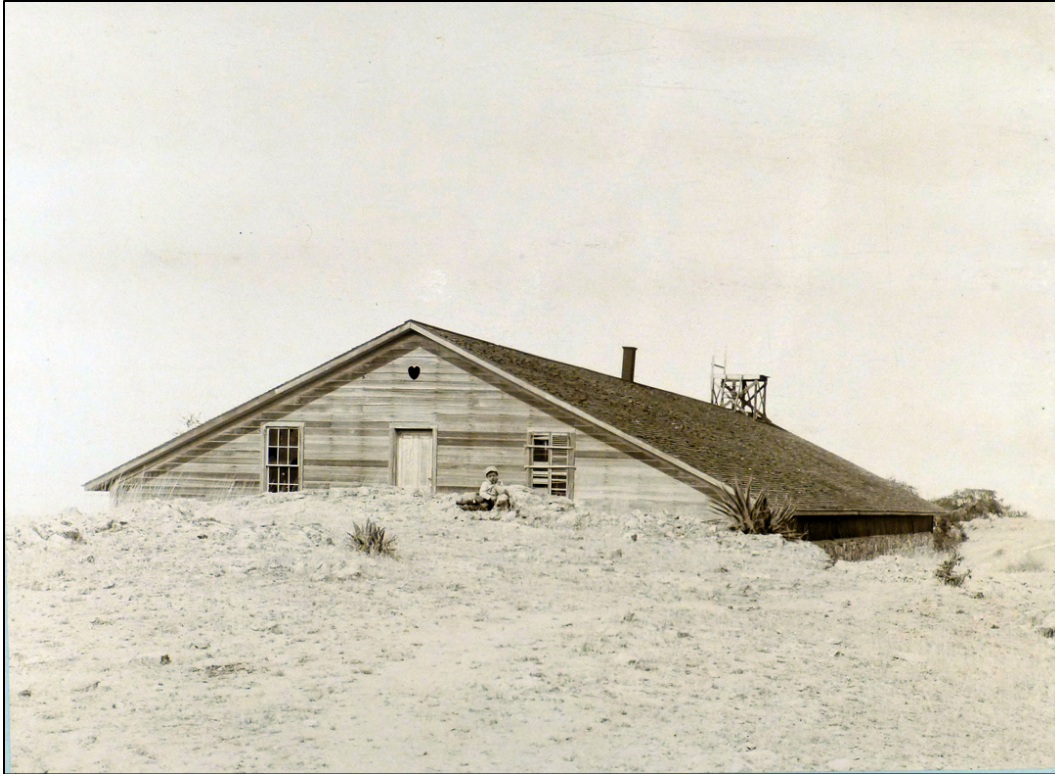


Source: NARA College Park, RG92-F.

The Fort Huachuca building program included more than “public structures.” As is typical for all environments, the fort and the surrounding region became increasingly dependent on a steady water source. In 1884, a 200,000-plus-gallon water storage reservoir was constructed [22001] [Figure 19] to capture water from a spring 3 miles up the canyon. Water from the spring moved through pipes by gravity to two reservoirs. From the reservoirs, water moved through iron pipes to various locations throughout the fort. Although additional springs were utilized in Garden Canyon for use by the post, Fort Huachuca continued to struggle with low water problems during dry seasons (Van West et. al 1997:236-251).*

* Valenzuela 2011 pp. 28.

Figure 19. View to the north of the Reservoir (22001), 1900.



Source: NARA College Park, RG92-F.

Within 5 years, the core of the Old Fort had been completed. In 1889, the U.S. Quartermaster general requested a report on structures at the fort. In addition to each building being described and presented in map format, water and sewer systems were also identified. The resulting letter report listed the number of buildings on post with their years of completion. Between 1880 and 1888, over 30 buildings were constructed including Carleton House [22108], frame barracks [22208, 22216, 22218, 22320], Officers' Row [22112, 22114, 22116, 22120, 22126, 22128, 22132, 22138, 22140, 22144, 41010], Post Hospital (41408), stables [not extant], Bakery [22324] [Figure 20], granary [not extant], and amusement hall [not extant], among others (Van West et. al 1997:236-251, Adams 1976: Section 8, continuation sheet 8-6).*

* Valenzuela 2011 pp. 28.

Figure 20. View to the east of the Bakery [22324], 1900.



Source: NARA College Park, RG92-F.

2.2.3 Apache Wars

From the fort's founding in 1877 to Geronimo's final surrender in 1886, Fort Huachuca's primary mission was to subdue the Apaches. The Army began employing Apaches as scouts in the 1870s. Apache Scouts and their families lived at Fort Huachuca from 1877 to 1916, when they were moved north to Fort Apache. Despite this move, Apache Scouts participated in the Punitive Expedition into Mexico in 1916–1917. The Apache Scouts returned to Fort Huachuca in 1922, and the last Apache Scouts retired in 1947 (Vanderpot and Majewski 1998). Before 1933 or 1934, the Apache Scouts and their families lived in tents and traditional dwellings at a camp near the Old Post. In 1933 or 1934, the Apache Scouts were moved to adobe structures at Apache Flats (AZ EE:7:115 [ASM]) (Vanderpot and Majewski 1998).*

The steep ridges and plunging gorges of the Sierra Madre of Mexico afforded the Apache shelter and protection and a secure base for raiding on both sides of the international border. In the spring of 1883, the Apaches who had left the reservation 18 months earlier struck like a hurricane all

* Vanderpot and Graves 2013 p. 32

over southern Arizona and New Mexico. In one 6-day period in March, Apache raiders killed 25 persons, one young boy was captured, and a number of ranches looted and burned. Chatto and his Apache braves raided a charcoal camp at Canelo, near Fort Huachuca then disappeared across the border. Crook reacted swiftly. Gathering a powerful force he crossed into Mexico and invaded the Sierra Madres where he defeated Chatto's Chiricahua warriors. In a 3-week campaign of alternate fighting and deft diplomacy, General Crook had forced the surrender of the Chiricahua irreconcilables. Chatto, Geronimo, Natchez, Loco and others along with their followers agreed to march to the San Carlos reservation and remain under control of the Army. The Indians were slow to come in but by spring 1884 they were on the reservation a few miles southwest of Fort Apache. Peace had come, but once back on the San Carlos Reservation tensions began to build almost immediately (Bourke 1886, 1950).*

On the night of May 17, 1885 after a "tiswin drunk," Geronimo, Natchez, Nana and Chihuahua with 32 braves and 100 or more women and children, broke from the reservation. Once again they hid deep in the Sierra Madre. Troops were in the saddle within an hour but failed to overtake them. Crook threw every available man in the field to hunt them down. By May 20 Grierson and his [B]uffalo [S]oldiers were hunting in the Black Range, Mogollons and Chiricahua Mountains. Units of the Third, Fourth and Sixth Cavalry accompanied by Apache Scouts swarmed in all directions, yet not a trace of the Indians could be found.†

On June 10, the hostiles revealed their whereabouts when they surprised a detachment of encamped Fourth Cavalry, killed four troopers, and crossed into Mexico. Crook dispatched troops across the Mexican border and to cut off their return to the United States, stationed detachments at every water hole along the border and a second line paralleling the Southern Pacific Railroad. For 3 months, the troops toiled through the Sierra Madre without bringing about a decisive encounter. On September 28, the Chiricahuas fled back across the border and eluded patrols. Pursued and almost cornered, the Apaches encountered the remuda of a ranch engaged in a roundup of cattle and descended on the herd to replace their worn out mounts. Pursuit continued in the Sierra Madre.‡

* Herbert, Jackson, and Wee, 1990, p. 32.

† Herbert, Jackson, and Wee, 1990, p. 32-33.

‡ Herbert, Jackson, and Wee, 1990, p. 33.

By March 25, 1886, General Crook arranged a conference with the Apaches at Canon de los Embudos where the hostiles agreed to surrender and return to the reservation as they had 2 years earlier. Crook set out from the border with Geronimo, Nachez, Chichua, Nana and 111 men, women and children, but 2 nights later Geronimo and Nachez stole away and fled to the mountains with 20 warriors and 16 women and children. The remaining Apaches, 77 in all, were taken to Fort Bowie and entrained for Fort Marion, Florida, as prisoners of war.*

Upset about the escape of Geronimo and Natchez and with Crook's extensive use of Indian Scouts, General Sheridan issued statements critical of Crook's methods. Smarting under criticism, Crook asked to be relieved and on April 2, 1886 General Sheridan obliged, replaced Crook with General Nelson A. Miles.†

General Miles subscribed to a theory that the Apache renegades must be taken by force and force alone, a rejection of Crook's diplomatic methods. During the Geronimo Campaign of 1886, General Miles obtained a detachment of the Army Signal Corps to establish a system of 30 heliograph stations on peaks in Arizona, New Mexico, and Mexico that used mirrors to reflect the sun's rays to flash messages in Morse code across the Apachería (Thrapp 1967:351).‡ Covering southern Arizona and New Mexico with a network of heliograph stations, tripod-mounted mirrors flashed messages about Indian raiders over distances of 25 to 30 miles. The heliograph station at Fort Huachuca communicated messages with other stations located at Antelope Springs to the east, Baldy Peak to the west, and Colorado Peak to the north. General Miles also stationed small detachments all along the frontier that gathered information on the location of the Indians. Finally, he put a principal column in the field with the task of pursuing Geronimo relentlessly until he and his band were captured or destroyed. Miles chose Captain Henry Lawton who commanded troops of the 4th Cavalry at Fort Huachuca to lead the principal expeditionary force against Geronimo. A tough, practical field officer, Lawton had entered the Civil War as a volunteer officer, accepted a commission in the Regular Army after the war, and served in several Indian campaigns in the West.§

* Herbert, Jackson, and Wee, 1990, p. 33.

† Herbert, Jackson, and Wee, 1990, p. 33.

‡ Vanderpot and Graves 2013 p. 32

§ Wee and Mikesell, 1993, p. 63.

Accompanied by Leonard Wood (a young graduate of Harvard Medical School who had come to Arizona as a contract surgeon for the Army) as his medical officer, one company (25 men) of the 8th Infantry, 35 hand-picked cavalry men, 20 Indian Scouts, 100 pack mules, and 30 packers, Captain Lawton left Fort Huachuca on May 5, 1886 with orders to “capture or destroy” Geronimo and his followers. Lawton’s expeditionary group was on the trail 4 months with little rest, marching more than 3000 miles over some of the wildest, most rugged country in North America. The composition of the expedition changed constantly as men became sick or exhausted or were replaced with fresh troops. Only Lawton and Wood served the entire campaign. In August 1886, General Miles finally sent Lieutenant Charles B. Gatewood, with two Indian Scouts, to join Lawton and try to contact Geronimo to open negotiations for his surrender. Geronimo knew and respected Gatewood from his days with General Crook. The two men met in Skeleton Canyon on September 4, 1886 (Hagedorn 1931:48-103; Utley 1973, 201; and Smith 1978, 69-92).^{*} After 4 days, Geronimo and the last of the hostile Apaches finally surrender[ed]. This time no chances would be taken. The terms of surrender provided that the Apaches must be loaded on trains and sent into exile in Florida where they could no longer escape to terrorize the settlers of southern Arizona (Utley 1973:369-396; Hafen et al. 1970, 370-372).[†]

Conflicts with Native Americans largely ended at that time. Afterward, Fort Huachuca was retained while other bases in Arizona were closed. Soldiers stationed at the fort protected southern Arizona from threats caused by bandits and outlaws. They also patrolled the United States-Mexico border. Local residents of the area used the fort hospital and school. The late 1880s saw the construction of a new stables complex immediately to the west of the troop barracks. Each of the new stables was estimated to cost \$2,092.80, according to blueprints prepared in September 1884 (National Archives and Records Administration [NARA] Record Group 77, Fort Huachuca, Ariz., no. 22). The troop blacksmith shops and the quartermaster’s shops and stable were to the west of the troop stables (these stables are not the subject of this HABS documentation). The Fort Huachuca

^{*} Wee and Mikesell, 1993, p. 63-64.

[†] Herbert, et al. 1990, p. 33-34.

region remained relatively peaceful into the early twentieth century (Lage 1949; S. Smith 2001).*

2.2.4 Facilities constructed during the Frontier Period

The 24 facilities listed below (Table 1) were constructed during the Frontier Period, specifically, beginning in 1880 through 1886. Facilities constructed before 1880 did not last very long and as discussed above were replaced with the establishment of Fort Huachuca.

Table 1. Facilities constructed from 1880 – 1886 in order by date of construction.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
22108	1880	Carleton House/Post Hospital/Officer's Quarters and the oldest Building on Post	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22302	1880	Brown Field	Wee and Mikesell 1993
22214	1882	Barracks	Wee and Mikesell 1993
22330	1882	Ordnance Storage	Wee and Mikesell 1993
22208	1883	Double Barracks for Enlisted Men/Post Education Center	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22214	1883	Enlisted Men's Barracks/Administrative Area	Puzzi 1974; Adams 1976
22216	1883	Enlisted Men's Barracks/Administrative Area	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22320	1883	Administration and Telegraph Building/Administrative Area/Barracks	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22332	1881†/1883	Storehouse/Quartermaster's Storehouse	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22001	1884	Reservoir	Tomes and Thompson 2014
22112	1884	Officer's Quarters	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22114	1884	Officer's Quarters	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22116	1884	Officer's Quarters	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22120	1884	Officer's Quarters	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22126	1884	Pershing House/Officer's Quarters/Commanding Officer's Quarters	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22128	1884	Quarters for a Major and the Post Surgeon/Officer's Quarters	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22132	1884	Officer's Quarters	Puzzi 1974; Adams 1976; Wee and Mikesell 1993

* Janet H. Parkhurst and J. Homer Thiel, "A Historic American Buildings Survey of the Fort Huachuca Cavalry Stables, Cochise County, Arizona," Historic American Buildings Survey, National Park Service, HABS AZ-210, 2005, pp. 5-6.

† Puzzi 1974 lists a construction date of 1881 for Building 22332, Storehouse, while Wee and Mikesell 1993 and Adams 1976 list a construction date of 1883.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
22138	1884	Officer's Quarters	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22140	1884	Officer's Quarters	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22144	1884	Officer's Quarters	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
41012	1884	Officer's Quarters	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22328	1885	Guard House/Administrative Area	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
41408	1885	Post Hospital/Post Finance/Leonard Wood Hall	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22324	1886	Post Bakery/Telephone Exchange/Bakery	Puzzi 1974; Adams 1976; Wee and Mikesell 1993

2.3 International Border Defense, 1887-1917

After the surrender of Geronimo in 1886, the role of Fort Huachuca shifted to international-border defense, culminating in its role in the Punitive Expedition in 1916–1917.* Overall military numbers in Arizona decreased with many western posts consolidated or closed. However, the troops assigned to Fort Huachuca remained constant due to the post's proximity to the international border with Mexico and the need to protect the region's mining industry and cattle interests (Herbert, Jackson and Wee 1990:52, Tate 1974:343-364).†

[Fort] Huachuca had been earmarked as a permanent post. At the height of the Geronimo Campaign in 1886, the 1st and 8th Infantry and the 4th Cavalry were stationed at Fort Huachuca — a total of some 400 officers and enlisted men. The following year only the 4th Cavalry remained, but with its attached units the post population averaged about 320 military personnel. In 1888, the 4th Cavalry was again joined by the 9th Infantry. Not until the Philippines Insurrection at the turn of the century (which only temporarily drained the post of its military personnel) did the number of troops stationed at Fort Huachuca drop below 300 persons for any extended period (U.S. Army RG94, Reel 491-491).‡

In the closing decade of the nineteenth century, the contours of Army life in the Southwest changed as the Indian Wars ended. Many small frontier posts

* Vanderpot and Graves 2013, p. 32.

† Valenzuela 2011 p. 28.

‡ Wee and Mikesell 1993, pp. 64.

built to control rebellious Indians no longer served any need and were abandoned. The resulting concentration of troops in larger garrisons broadened possibility for training at regiment strength and to practice field maneuvers. It also made for a more amenable social life. Athletics began to flourish. There was greater emphasis on professional improvement. *

In September 1889, the Military Department of Arizona was reduced to 57 troops and companies of the line and three companies of Indian Scouts. Soon thereafter, the Army abandoned Forts McDowell, Mojave, Verde, Apache, and Lowell in Arizona Territory. With the abandonment of Fort Bowie in 1894 and Fort Grant in 1905, Fort Huachuca remained as the sole permanent military post in southern Arizona. During the years after 1886 the primary duties of troops at Fort Huachuca, in addition to the daily routine of garrison life, was engaging in escorts, scouting after outlaws and remnant bands of Apache hostiles, road building, and patrolling the Mexican border (U.S. War Department 1892; Walker and Bufkin 1979:37).[†]

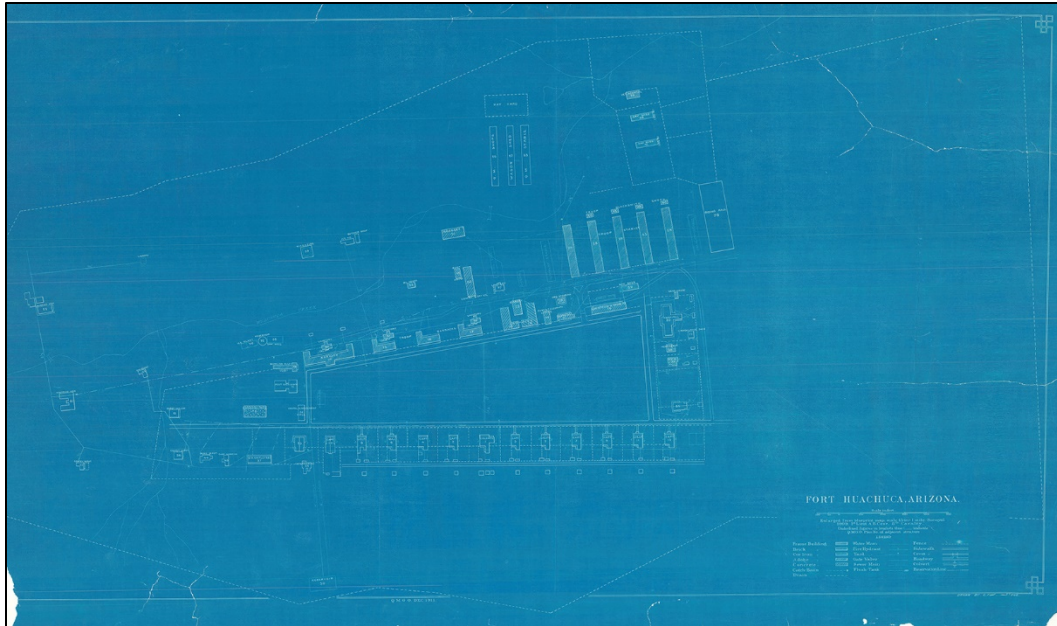
Construction was an ongoing affair at Fort Huachuca in the 1890s. The fort had the capacity to permanently accommodate about 20 officers and 400 enlisted men [Figure 21]. Periodically during the 1890s consolidation Fort Huachuca stationed troops in excess of its capacity. Brigadier General [Alexander McDowell] McCook, commander of the Department of Arizona, recommended that Fort Huachuca be expanded so that it might remain fully garrisoned in the future. In his annual report for 1891-92, the Secretary of War agreed that the key strategic position of the fort warranted increased Federal expenditures to improve and enlarge the post (U.S. War Department 1892, 256).[‡]

* Wee and Mikesell 1993, pp. 64.

† Wee and Mikesell 1993, pp. 64-65

‡ Wee and Mikesell 1993, pp. 65.

Figure 21. Plan of Fort Huachuca, 1911.

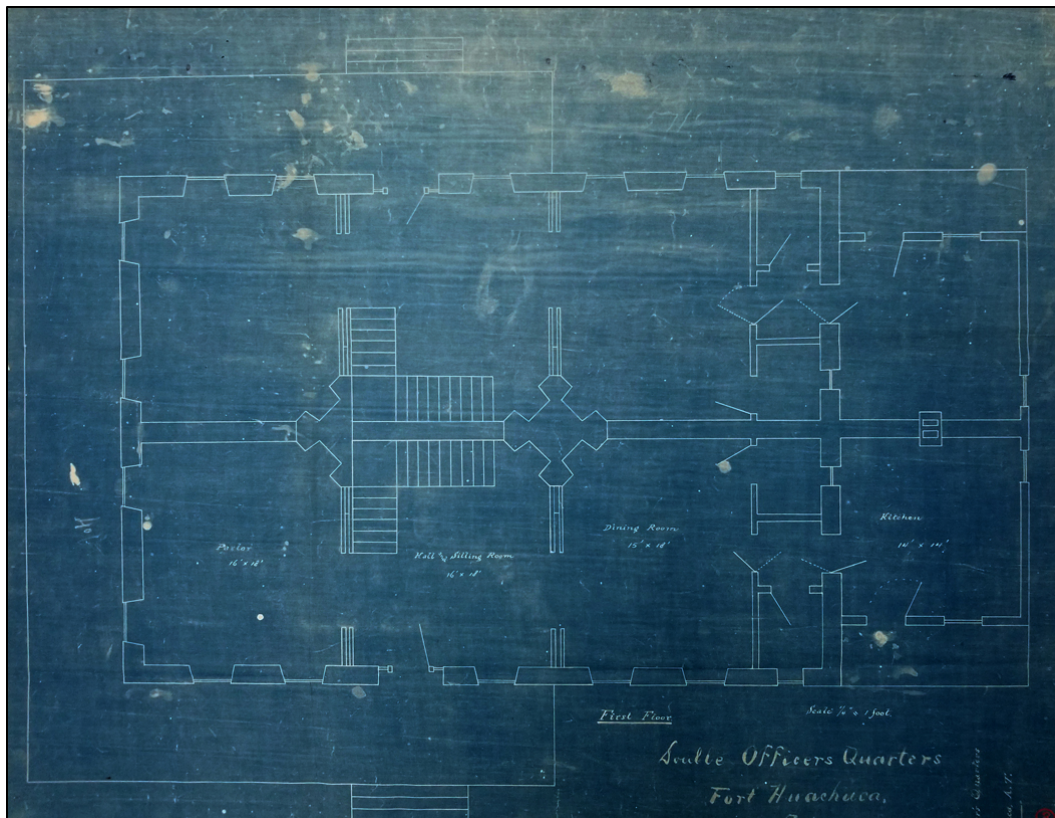


Source: NARA College Park, RG92.

Although the housing stock for enlisted troops at Fort Huachuca remained relatively constant throughout the decade, the Army constructed several important new buildings to relieve overcrowding among the officers. The first was a two-story double officers' quarters (22104) [Figure 22] built in 1891 at the south end of Officers' Row. In 1892, the quartermaster erected another two-story adobe double bachelor officers' quarters (41401) opposite the northeast corner of the parade ground. Several other quarters were built during the 1890s, none of which exist today. Among these was a new hospital stewards quarters located immediately east of the hospital complex.*

* Wee and Mikesell 1993, pp. 65.

Figure 22. Plan of double officers' quarters (22104), no date (NARA College Park, RG92).



Source: NARA College Park, RG92.

On vacant land south of Officers Row on Grierson Avenue, the quartermaster began to lay out a new sector of the base reserved for civilian employees, non-commissioned officers and married enlisted men. A motley collection of substandard buildings dotted this general region of the post during the early years. In the 1890s, the Post Quartermaster began to erect new residences arranged in neat blocks, as a southern extension of Officers Row. By 1893, several modest single-story residences of adobe on stone foundations were built in this sector of the post [Figure 23 and Figure 24]: a single-story apartment complex for four civilians employed at the post — a plumber, carpenter, blacksmith, and painter; four small residences for non-commissioned staff; a house for the post engineer; and three married soldiers' quarters. None of these buildings remains on the post today — they were removed for a late 1950s subdivision of cinder block duplexes.*

* Wee and Mikesell 1993, pp. 65-66.

Figure 23. Noncommissioned Officers' Quarters (not extant), 1900.



Source: NARA College Park, RG92-F.

Figure 24. Noncommissioned Officers' Quarters (not extant), 1900.



Source: NARA College Park, RG92-F.

The Quartermaster Corps sector of the post, west of the central parade ground, also expanded during the 1890s with the construction of a second

ordnance magazine, an ice house, a butcher shop and two troop blacksmith shops on the west bank of Huachuca Creek; a small root house and an L-shaped storehouse adjacent to the commissary storehouse (22408); and a granary, wagon shed and hay shed near the quartermaster corrals. [Except for Building 22408, none of these buildings have survived]* (Map of Fort Huachuca, Arizona, May 1893).[†]

During the Spanish-American War (1898), the primary mission of the troops at Fort Huachuca remained border patrol. Following the war, among the possessions in the Spanish imperial system, the Philippines alone resisted American rule. Between 1899 and 1901 American occupation forces engaged in a series of battles from island to island across the Philippines. During this period, many cavalry troops trained at Fort Huachuca before going to the Philippines to fight. After the last large troop exodus in July 1900, the permanent post garrison had been reduced to a minimum of about 90 to 150 officers and troops of the 5th and the all-black 9th Cavalry — many buildings stood vacant, but only temporarily (U.S. Army RG94 Reels 491-492).[‡]

The Spanish-American War and the Philippines Insurrection ended with American troops occupying far-flung territories for the first time. Since 1898 the size of the permanent Army had tripled to 75,000 men in 1902. But unlike after the great Civil War, when the mammoth armies dissolved, after the lesser Spanish-American War, the Regular Army retained its strength. The new role of the United States in international politics demanded a larger and better Army with skill to coordinate an overseas expedition or occupation force. The mandate of reforming the Army for the changing demands it might encounter passed to Elihu Root, who was appointed Secretary of War by President William McKinley in 1899. It was a task that led in turn into a general reorganization of the Army and the creation of the General Staff in 1903 (Matloff 1969:350-51).[§]

Root believed that colonial responsibilities required a permanent military expansion of the Regular Army and a well-trained reserve militia capable of coordinating with the Regular Army. Congress agreed to increase the 25 Regular Army Infantry regiments to 30 and the regiments of cavalry from

* According to ENRD, Building 22408 did survive; this appears to be an error in Wee and Mikesell's (1993) report.

† Wee and Mikesell 1993, pp. 66.

‡ Wee and Mikesell 1993, pp. 66.

§ Wee and Mikesell 1993, pp. 66-67.

10 to 15. With the passage of the Militia Act of 1903, the National Guard companies and regiments were designated the “organized militia” and agreed to follow the Army’s pattern in training and equipment and to attend summer encampments and maneuvers (Fletcher 1988:4-5).*

The reforms initiated by Root began to transform the Army into a modern, effectively organized force which was able to perform a variety of tasks. One continuing role was that of policeman. Instead of dealing with the Native Americans as they had done in the 19th century, the Army was called up to perform this task at garrisons in the Pacific and Caribbean. American relations with Mexico also frequently involved the Army. Fort Huachuca continued its long-standing task of protecting the border against foreign and bandit incursions.†

Improvements of equipment, military instruction and training, and quality of life on Fort Huachuca reflected Root’s program of expansion and reorganization. On November 11, 1901 Root issued Special Order No. 261 authorizing organization of a Board of General Officers to study and report upon the location and distribution of military posts required for the accommodation, training, and instruction of the reorganized Army. The board presented its findings to Congress in May 1902. It recommended consolidation of Army posts into larger units both for efficiency and for greater opportunity for specialized instruction. Furthermore, the board recommended more suitable buildings at military posts for the conduct of post exchanges,‡ schools,§ libraries, reading rooms, lunch facilities, amusement centers, and gymnasiums. The goal was to make the quality of military life on Army installations comparable to that of civilian life. Congress appropriated \$1.5 million for the inauguration of this work between 1902-1905 (Matloff 1969:347-52; Risch 1962:580-83; Humphrey 1905).**

The report of the Board of General Officers in 1901 recommended Fort Huachuca as a permanent post for headquarters and four troops of cavalry (U.S. War Department 1904). The general reforms proposed by the board,

* Wee and Mikesell 1993, pp. 67.

† Wee and Mikesell 1993, pp. 67.

‡ At Fort Huachuca, the old quartermaster’s storehouse (22332) was converted into a post exchange and barber shop in about 1905. The concessions were operated by Sam Kee.

§ Fort Huachuca built its first school in 1899. It was a one-story front gabled, adobe building that also served as the post office. The building (22326) still stands today along the west side of the parade ground between the old post bakery and the guardhouse.

** Wee and Mikesell 1993, pp. 67-68.

together with the post's designation as headquarters for the 5th Cavalry in March 1904, led to significant efforts to modernize the post in the early years of the 20th century. * [This] had a significant impact on the quality of troop housing, work environment, and recreational facilities at Fort Huachuca [Figure 25]. The progress of improvements can be charted by the number of civilian engineers, plumbers, painters, carpenters, and masons employed by the Post Quartermaster [Figure 26] for construction projects on the post. Four new blacksmith shops, two hay sheds, a carpentry shop, and a riding hall were among the improvements to the cavalry stables area. West of Huachuca Creek, the Quartermaster Department erected three new buildings for its own use as a shop and storehouse (22526), stables (22530), and a wagon shed (22528 [no longer extant]). Non-commissioned officers received five new residential units (U.S. Army RG 77, Box 3; Wheeler and Kasten 1927:14). †

Figure 25. Detail of plan of Fort Huachuca, 1913.



Source: NARA College Park, RG92.

* Wee and Mikesell 1993, pp. 68.

† Herbert Jackson and Wee 1990, pp. 72.

Figure 26. View of Quartermaster Shops (1: 22526), Wagon Shed (2: no longer extant), and Quartermaster Stables (3: 22530), 1904.



Source: NARA College Park, RG92.

The post had suffered from periodic chronic water shortages and efforts were made to increase the volume of good quality water available to the troops by drilling for underground water supplies. Sanitary conditions for the enlisted men were vastly improved in 1903 by replacement of old water closets with modern flush lavatories (22212 and 22322) behind some of the barracks. Other simple improvements such as installation of a 3,000 lbs. per day ice plant, new laundry facilities, and a tailor shop made post life more enjoyable.*

At the south end of the parade ground, the Army carved out a new area to serve as a recreational center. Adjacent to the old amusement hall/chapel, the Army erected [a Post Exchange] Brayton Hall (21115) [Figure 27] an elegant two-story adobe building that served primarily as a gymnasium/theater and library [Figure 27]. Its neo-classical portico and fanlight entry on the facade make it one of the most prominent buildings on the parade ground. In the basement of Brayton Hall, to the left of the colonnade was what might be considered the first Officers' Club at Fort Huachuca. It

* Wee and Mikesell 1993, pp. 68.

contained a famous Chinese Restaurant operated by Sam Kee where gourmet dinners of stuffed or pressed duck, venison, steak, and Chinese delicacies were served. To the right of the colonnade was the enlisted men's canteen where soldiers gathered to socialize and drink beer. Behind Brayton Hall and the amusement hall the post's first swimming pool was built in 1908. While the gymnasium was furnished with the most modern apparatus for athletic training [Figure 28], apparently enlisted men made little use of the gymnastic equipment. After surveying the recreational preferences among enlisted men, the Quartermaster General's Office found that they preferred bowling alleys to gymnasiums. In 1908, a one-story wood-framed recreational complex for enlisted men containing a bowling alley, billiard room, and reading room (21114) was constructed to the west of Brayton Hall (U.S. Army RG77 Entry 392 Box 3; U.S. War Department 1905, 285-87).*

Figure 27. Looking southeast at Brayton Hall (originally the Post Exchange) (21115), 1905.



Source: Fort Huachuca Museum Collection.

* Wee and Mikesell 1993, pp. 68-69.

Figure 29. Aerial over the new officers' duplexes [41014, 41015, 41016, 41019, 41020, 41021, 42010, 42011, 42014, 42015, 42018, 42019, 42020], 1929.



Source: NARA College Park, RG 77 entry 393 box 94.

Fort Huachuca became the headquarters for all troops of the 5th Cavalry in 1904 (Van West et. al 1997:256-261). Fort Huachuca was well established as a modern post by the end of the first decade of the 20th century (JRP 1990:76-78). During the next years, border disturbances, as well as the expansion involved in the success of the mining industry led to an increase in the garrison at Fort Huachuca. Two cavalry troops were transferred to the post in 1909 increasing troop strength to a full squadron. Border patrols were increased, and Fort Huachuca expanded from 150 and 901 cavalry troops and 136 to 879 horses. The 6th Cavalry Regiment was transferred to Fort Huachuca to aide in the pressure for elevated troop presence along the border. As a result, a building program ensued to accommodate the expansion of the post and included the construction of troop barracks, cavalry stables, officer housing, and an expansion of the water system. The Post Quartermaster received an \$110,000 appropriation

to support the building program (JRP 1990:76-78, Adams 1976: Section 8, continuation sheet 8-7).*

This construction program primarily addressed the population growth created by the assignment to the fort of the officers and men of the 10th Cavalry Regiment. The black regiment of the 10th Cavalry, one of only two black cavalry units in the Army during this period, was staffed by white officers. While black troops had been stationed at Fort Huachuca in the past, those earlier stays had been temporary, mostly associated with military actions such as the Spanish-American War. "From 1892 to 1896, Companies A, B, C, and H of the 24th Infantry [Black units] were stationed at the fort. ... In 1896, the 24th was sent north to Utah. From 1898 to 1912, a few small detachments of African-American soldiers were stationed at the fort."† In December 1913, all but one company of the 10th Cavalry, commonly known as the Buffalo Soldiers, arrived at Fort Huachuca. The 10th Cavalry was well-known for its role of pacifying Native Americans on the Great Plains in the late nineteenth century. It is thought that Native Americans gave the cavalry soldiers their nickname, either because they thought the African-American men had hair like buffalo or because they showed the same courage (S. Smith 2001). The 10th Cavalry was commanded by white officers, with some junior positions held by African-Americans. The number of cavalry mounts increased dramatically. By January 1915 there were 426 "serviceable" and 28 "not serviceable" horses at the post (NARA microfilm M617, roll 493).‡

The move in 1913 signaled the increase of the post from regiment to brigade size. To meet the needs of additional troops stationed at the fort, five double sets of officer quarters [41014-41016, 41019-41021, 42010, 42011 and 42014], two company barracks [41412 and 41415], and one cavalry stable [demolished] were constructed and additions were made to the commissary and hospital. The 10th Cavalry would be the only unit stationed at the post from 1913 until 1927 (Smith 2001:197-210, Van West et. al 1997:288-301).§

As the first decade of the new century drew to a close, soldiers at Fort Huachuca found themselves responding to recurrent incidents at Douglas,

* Valenzuela 2011 pp. 28-29.

† Valenzuela 2011 pp. 28-29.

‡ Parkhurst and Thiel, 2005, p. 6-8.

§ Valenzuela 2011 pp. 29.

Nogales, and Naco along the Mexican border.* The border disturbances of the 1910s were the result of the Mexican Revolution from 1910 to 1917. The Mexican Revolution kept the U.S.-Mexico border in a state of turmoil throughout this period, and Fort Huachuca became an important military post in border defense, resulting in construction of new facilities there.†

[As] revolution ripped through Mexico, [r]ival factions under leaders like Obregon, Orozco, Villa, Huerta, and Carranza battled each other frequently in the border towns of Sonora. These incidents posed an increasingly serious threat to peace. Following the end of the regime of Diaz in 1911, Mexico entered a long era of political turmoil. The revolution spread quickly in the northern states of Mexico, a stronghold of those opposed to central control by the Federal government. On April 28, 1911 Mexican and Federal troops and rebels fought in the streets of Agua Prieta showering bullets across the border into Douglas, Arizona. Alarmed that the Mexican Revolution would spill across the border, President Taft ordered more troops to the southwest to strengthen border patrols. Between January and June 1911, the number of troops stationed at Fort Huachuca increased from 150 to 901 men when the entire 6th Cavalry Regiment was transferred to Fort Huachuca. To accommodate the new forces, the Post Quartermaster received an appropriation of \$110,000 to build troop barracks, cavalry stables, and officer's housing. However, events in Mexico interrupted these expansion plans for a few years (U.S. Army RG94 Roll 492; U.S. War Department 1912; Fort Huachuca Post Museum 1903-16).‡

In 1913 full-scale civil war broke out in Mexico and troops from Fort Huachuca responded once again. In February after 10 days of battle in the streets of the capitol, General Victoria Huerta seized the office of the presidency and assassinated his challenger, Gustavo Madero. President Woodrow Wilson, in a shift of traditional American policy, refused to recognize Huerta on constitutional grounds. Rebel forces continued to challenge Federal authority in the northern state of Sonora, especially at Nogales, a border town that for years had been the object of contending Mexican political and bandit factions. Troops G and A, 5th Cavalry from Fort

* Wee and Mikesell 1993, p. 69.

† Vanderpot and Graves 2013, p. 32.

‡ Wee and Mikesell 1993, p. 69.

Huachuca were sent to patrol the international border in March where they participated in a skirmish at Nogales (Smith 1978:159-65).*

Following an inspection of Fort Huachuca by Secretary of War L. M. Garrison in August 1913, the War Department decided to station the “buffalo soldiers” of the all-black 10th Cavalry at Fort Huachuca. Black companies of the 24th and 25th Infantry had served at Fort Huachuca briefly in the 1890s. As mentioned already, the 9th Cavalry also was stationed at Huachuca from 1898-1900, and briefly again in 1912. Transfer of the 10th Cavalry to the post in 1913 began a long and distinguished period of service by that black cavalry regiment at Fort Huachuca. The 10th Cavalry remained responsible for border patrol duties until 1931 (Smith 1978:197-210, 243-250).†

Because of the unstable political situation in neighboring Mexico, Secretary of War Garrison ordered the Post Quartermaster to make plans and cost estimates for increasing the post permanently from regiment to brigade size. The main focus of new construction was along Rhea Avenue, a northern extension of the existing line of barracks; in the quartermaster sector on the west side of the parade ground; and on Henry Circle, a horse-shoe-shaped park-like boulevard north of Officers Row.‡

In 1912 the Post Quartermaster experimented by building one standardized two-story wood frame officers’ duplex (41414) on the north end of Grierson Avenue. The model proved successful for adaptation to Arizona and 2 years later eight sets of the same duplex (41015, 41016, 41019, 41020, 41021, 42010, 42011 and 42014) were built on the northern extension of Grierson Avenue and on the south side of Henry Circle. In 1915, two additional officers’ duplexes of the same type (42015 and 42018) and a Bachelor Officers Quarters (42017) were completed at the head of Henry Circle. Finally, in 1917 the Henry Circle loop was filled in with the completion of the final two officers’ duplexes (42019 and 42020) [see Figure 29].§

Seven new barracks with a capacity to house nearly 600 men were built on Rhea Avenue between 1914 and 1916. Two two-story, stucco on frame company barracks (41412 and 41415), designed similar to the earlier wooden

* Wee and Mikesell 1993, p. 70.

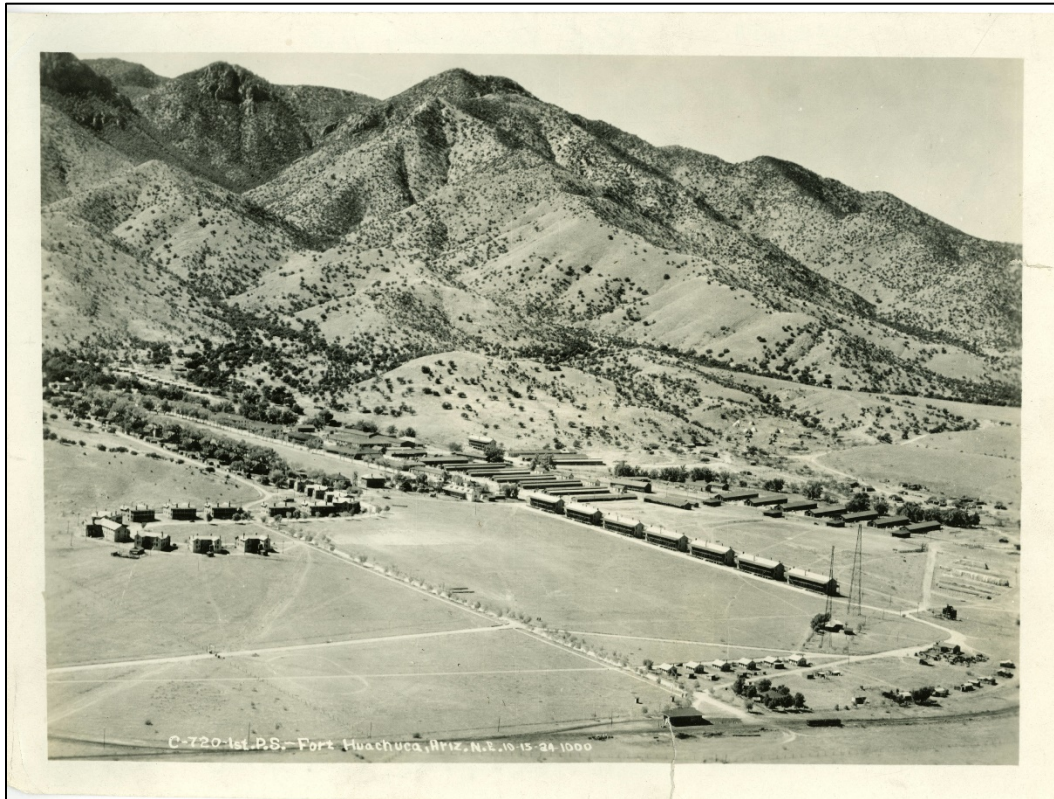
† Wee and Mikesell 1993, p. 70.

‡ Wee and Mikesell 1993, p. 70.

§ Wee and Mikesell 1993, p. 70.

barracks on the exterior elevations, were erected first just north of Hungerford Avenue. An accompanying lavatory (41414) was placed between the two structures at the rear of the barracks. Five additional barracks of the same type (41416, 41418, 41419, 41420, and 41421), but slightly longer, were added to the Rhea Avenue row at its north end in 1916. Lavatories for these barracks were placed in the basement [Figure 30].*

Figure 30. Looking west over Fort Huachuca showing the expansion from the 1910s, 1924.



Source: Fort Huachuca Museum Collection.

Many of the 19th century buildings underwent modifications during the buildup after 1913. Each of the single troop wooden barracks was extended to the north, and two modern lavatories (22210 and 22218) were built to serve some of these barracks. Additions to the old quartermaster commissary storehouse (22408) also occurred ca. 1914 when a new “U shaped” structure completely enveloped the old 1886 adobe element. A few years later, a wood-framed lavatory was placed in the center of the “U” to accommodate those who worked in the adjacent building.†

* Wee and Mikesell 1993, p. 71.

† Wee and Mikesell 1993, p. 71.

To serve the expanded cavalry post, the Army built four “double cavalry, stable guard, and shop” buildings west of the Rhea Avenue barracks. These frame and stucco structures contained two blacksmith shops, two saddler rooms, and two guard rooms. They no longer exist. Further west, bordering Huachuca Creek, the Army constructed a row of seven cavalry stables.* The seven cavalry stables at Fort Huachuca were constructed in 1915-1916 using plans generated by the Office of the Constructing Quartermaster Corps. An eighth identical stable was built to the south of the existing 1880s stables (NARA Record Group 77, Entry 393, Box 95, Folder 2 of 6, Building No. 84). The seven cavalry stables are located to the northwest of the original Fort Huachuca core.† Each of these wood frame structures contained 39 double stalls, a forage and grain room, and a saddle room. All of the stables were substantially rebuilt in the late 1930s and have been adapted for other uses (Fort Huachuca Museum History Binder).‡ Only four cavalry stables remain today (30023, 30024, 30028, and 30031); the other three stables (30025, 30026, 30027) were demolished. The exact year of demolition is unknown but occurred between 2003 and 2010.§

Administering the regimental-size post required construction of a new Post Headquarters Building (41402). From 1917 when post commander Captain George B. Rodney first occupied the building (Rodney Hall) until 1941, it continued to function as post headquarters. It is a two-story clay tile building located on the north end of the parade ground; from the porch one looks directly across the parade field to Brayton Hall [21115]. The post headquarters was the communication and command center for the post. In the basement were a large workroom, store rooms, a printing press, and a photograph development lab. On the main floor, it contained a post office and message center, the commanding officer’s room, and offices for the post adjutant, the officer’s assembly room, and headquarters for the intelligence office. The second floor housed administrative clerks, the post court house, clerks, the personnel sergeant, and the switchboard (U.S. Army RG77 Entry 393 Box 94).**

To provision the troops more adequately with fresh dairy products, the Army granted grazing rights for 50 cattle and their calves and leased 2

* Wee and Mikesell 1993, p. 71.

† Parkhurst and Thiel 2005 p. 11-12.

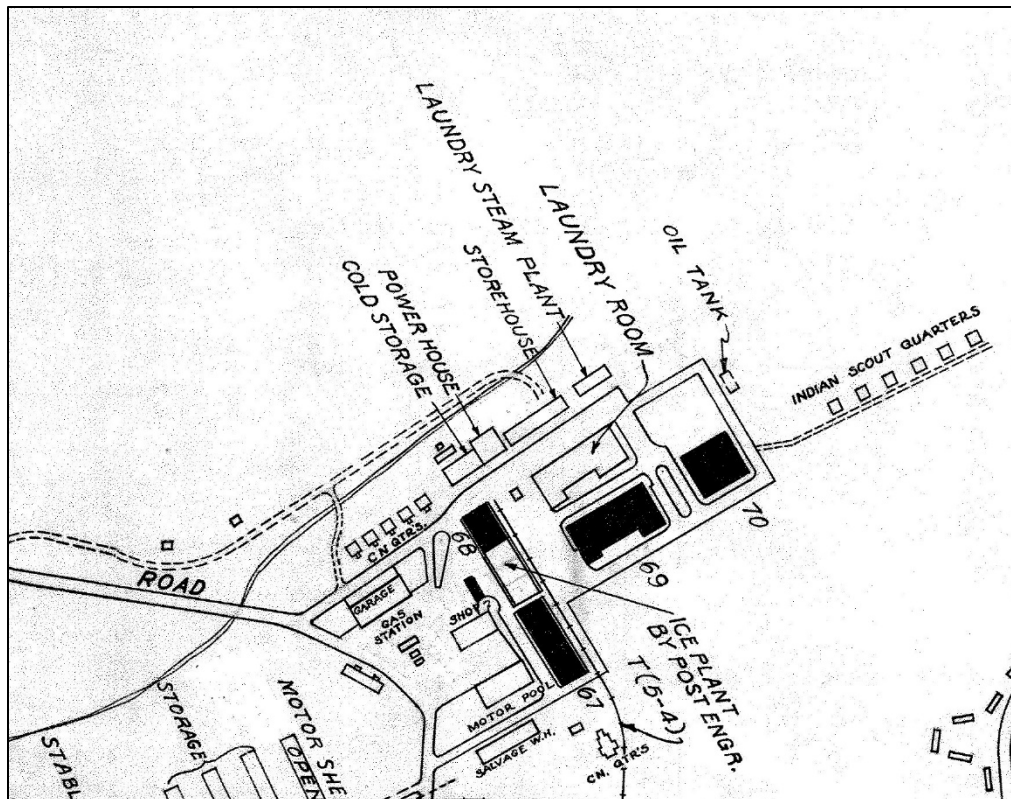
‡ Wee and Mikesell 1993, p. 71.

§ ENRD communication with Susan Bierer, 2020.

** Wee and Mikesell 1993, p. 71.

acres of land to Richard M. Johnson of Garces, Arizona, to operate a dairy upon the military reservation. The Army also began construction of new facilities in an area at the northwest corner of the old post reserved for industrial uses. The Army completed a new ice plant (30134) [Figure 32], a post laundry facility (30138) [Figure 33], and an electric power plant [extant combined with 30134]. The new diesel engine-powered electric plant replaced an old dynamo and steam-driven unit. With the operation of the new power plant, the Army discarded the kerosene lamps that had illuminated residences since 1877 and installed a general system of electrical wiring for lighting and power throughout the post. Finally, during the years 1916-17 the Army spent more than \$30,000 to extend its water distribution lines and sewer systems to all the new buildings erected during the [WWI] era (Fort Huachuca Museum *Expansion*; U.S. War Department 1924, 290, 360) [Figure 31].*

Figure 31. View of locations for Ice Plant/Power House [30134] and Laundry [30138].



Source: Fort Huachuca Museum Collection.

* Herbert Jackson and Wee 1990, pp. 85.

Figure 32. Looking west at the Ice Plant [30134], 1916.



Source: Fort Huachuca Museum Collection.

Figure 33. Looking west at the Post Laundry [30138], 1917.



Source: NARA College Park, RG 77 entry 394 box 9.

2.3.1 The Punitive Expedition (1917-1918)

Between 1914 and 1916, Mexican bandits consistently raided U.S. border towns for weapons and provisions. Fort Huachuca served as the staging area for troops patrolling the Mexican border in Arizona and western New Mexico in an effort to protect U.S. interests. In 1913, the number of troops stationed at Fort Huachuca had grown from a regiment of several hundred to a full brigade of a few thousand (USACE 2000:12).*

At that time, Mexican-border patrol was a primary focus of U.S. military interest; over 100,000 troops were stationed along the border (Fort Huachuca Museum 1999:83–85).† American troops twice entered Mexican territory for extended periods between 1914-1917. For a while in April 1914 following the American landing of 8,000 troops at Veracruz and the occupation of the city, it appeared that war with Mexico was inevitable. However, under an agreement made between President Wilson and Huerta, the Mexican leader agreed to resign. In July he fled from Mexico City and was succeeded by Venustiano Carranza. Carranza had barely time to assume office when his one-time ally, Francisco “Pancho” Villa, rebelled and proceeded to gain control over most of northern Mexico. Occupation of Veracruz had intensified anti-American feeling in Mexico and when President Wilson recognized Carranza’s government, Villa decided to show his resentment by raiding into the United States. A series of border attacks, reminiscent of the raids of the Apaches in the 1880s, culminated in a surprise assault on Columbus, New Mexico, by Villa’s troops on March 9, 1916.‡

On 9 March 1916, Pancho Villa led an early morning attack against the town of Columbus, New Mexico. Soldiers stationed in the town had heard rumors of a possible attack, but these had been discounted. They were surprised when almost 500 Mexican men led by Villa entered the town and fought with civilians and a small force of soldiers. Eighteen U.S. citizens, including eight soldiers, were killed, and several buildings were destroyed. Villa lost dozens of men and retreated back to Mexico, taking along arms, ammunition, and a herd of horses and mules stolen from civilians and the U.S. military.§

* Angel Tomes, and Scott Thompson (contributor), “Architectural Survey, Documentation, and Evaluation of 110 Buildings and Structures at Fort Huachuca, Arizona,” Fort Huachuca Cultural Resources Report FH-12-6, June 2013, p. 8.

† Tomes and Thompson 2013 p. 8.

‡ Wee and Mikesell 1993 p. 72.

§ Parkhurst and Thiel 2005, pp. 8.

News of the attack was quickly spread by telegraph, reaching Washington, DC, within a few hours. The American government immediately demanded that Carranza's government hunt down Villa, threatening to enter Mexico to pursue him and his followers. The Mexican government protested, but to no avail. President Woodrow Wilson quickly appointed Brig. General John J. Pershing to lead the American Expeditionary Force, more commonly known as the Punitive Expedition (Stout 1999).*

John Pershing was born in 1860 and graduated from the U.S. Military Academy in 1886. He was stationed on the Great Plains and participated in the last major campaign against the Apaches and later against the Sioux. He joined the 10th Cavalry in 1895, leading the African-American troops in the Spanish-American War in 1897 and in the Philippines in 1899. He was later stationed in Washington, DC, and became a brigadier general in 1906. He was given command of the 8th Infantry Brigade at the Presidio of San Francisco in 1913 and was transferred to Fort Bliss in Texas the following year as border problems escalated. Pershing was chosen by President Wilson for a number of reasons including his experience in combat, his knowledge of both Infantry and cavalry, and his past leadership of Buffalo Soldiers (Stout 1999:43).†

At Fort Huachuca, 9 March 1916 began as an ordinary day. But by 11:30 a.m., telegraph operators had relayed news of the early morning attack, and the leadership at Fort Huachuca ordered their troops to prepare for further orders. The fort leadership suspected that the 10th Cavalry would be sent into Mexico, and preparations commenced. Shortly afterward the regiment was ordered to head for Douglas, Arizona, to the east, fully equipped. The 10th Cavalry members packed their gear and were saddled by 4:00 p.m. Under the direction of Commander William Brown, the horsemen rode out of Fort Huachuca (Finley 1999:3).‡

The cavalry rode east, reaching Culbertson's Ranch in New Mexico on 13 March. The men entered Mexico on the 15th and 16th of March, joined in their endeavor by members of the 7th Cavalry and the 6th Field Artillery, among others. Also joining in were motorized vehicles, obtained by General Pershing (Finley 1993).§

* Parkhurst and Thiel 2005, pp. 8.

† Parkhurst and Thiel 2005, pp. 8.

‡ Parkhurst and Thiel 2005, pp. 9.

§ Parkhurst and Thiel 2005, pp. 9.

The 10th Cavalry did not have an easy time during the expedition. Supply trains failed to bring provisions, cooking equipment, and blankets. The men had to live off foraged food, including cattle they shot and butchered along the way. Clothing wore out and was patched with pieces of tents (Finley 1999:3-4). The Mexican government resented the intrusion of American forces and as the months progressed, it was often difficult to ascertain who was the enemy. Many of Villa's men had already been killed or scattered. Several battles also took place against *Carranzistas* (Mexican government forces), in which a number of men from Fort Huachuca died.*

Pershing's troops chased Villa through unfriendly territory for hundreds of miles, dispersing his followers but never capturing Villa.† Carranza soon showed that he had no desire to have the U.S. Army do his job for him. After fighting a brief skirmish with Pershing's troops at Parral on April 12, 1916, Carranza demanded his withdrawal. Pershing agreed to withdraw gradually provided that Carranza could control Villa. Pershing's troops did clash with Mexican Government troops, the most serious incident occurring at Carrizal in June. This action prompted President Wilson to call out the National Guard of Texas, New Mexico, and Arizona before a plan for evacuation of Pershing's troops was determined in January 1917. Although Pershing failed to capture Villa, the commander had demonstrated great ability, the troops had reached a new level of readiness, and Villa's band was broken up (Vindiveer 1977:595-668; Braddy 1966:1-82; and Tompkins 1934).‡

As the war in Europe grew more intense, President Wilson ordered the Punitive Expedition home, and the 10th Cavalry re-crossed the border on 5 February 1917, never having killed or captured Villa, who would eventually be assassinated in 1923 (Finley 1993). This was the last major use of mounted cavalry forces, and although Villa was not captured, the Punitive Expedition was effective in ending the cross-border raids that had troubled the region.§ Two months later, the United States officially entered WWI (USACE 2000:11).**

* Parkhurst and Thiel 2005, pp. 9.

† Pershing chose Colonel DeRosey C. Cabell, 10th Cavalry (Ft Huachuca) as his Chief of Staff. The expeditionary force was comprised of a provisional division of two cavalry brigades and one infantry brigade. The 10th Cavalry, with 22 officers and 450 men, formed part of the 2nd Cavalry Brigade (Provisional).

‡ Wee and Mikesell 1993, p. 72.

§ Parkhurst and Thiel 2005, pp. 9.

** Tomes and Thompson 2013, p. 9.

2.3.2 Facilities constructed during the International Border Defense Period

The 52 facilities listed below (Table 2) were constructed during the International Border Defense period, specifically, from 1887 through 1917.

Table 2. Facilities constructed from 1887 – 1917 in order by date of construction.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
22007	1887	Stable	Wee and Mikesell 1993
22102	1887	Quarters	Wee and Mikesell 1993
22408	1887	Storehouse	Wee and Mikesell 1993
41409	1887	Morgue	Wee and Mikesell 1993
21115	1887/1905*	Brayton Hall/Post Amusement Hall/Recreation Hall/Public Information Office/ Library/Gym	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22008	1890	Servants Quarters	Wee and Mikesell 1993
22104	1891	Duplex Office's Quarters/Hazen House, Guest House/ Captain's Duplex	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
41401	1891/1892†	Chaplain's Office/Post Museum/ Double Officers Quarters/Post Chapel	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22106	1895	Servants Quarters	Wee and Mikesell 1993
22136	1895	Servants Quarters	Wee and Mikesell 1993
22326	1896	Post Office and School/Administrative Area	Puzzi 1974; Wee and Mikesell 1993
22212	1903	Lavatory	Wee and Mikesell 1993
22322	1903	Lavatory	Wee and Mikesell 1993
22526	1903	Quartermaster Shop	Tomes and Thompson 2014
22530	1903	Quartermaster Stable	Tomes and Thompson 2014
21114	1908/1915‡	Bowling Alley, Recreation Hall, Post Office/Part of Colonel Young Elementary School	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
41014	1912	Officers Duplex	Wee and Mikesell 1993; Adams 1976
90002	ca. 1912	Soldier Creek Trestle Bridge/Railroad Bridge	Tomes and Thompson 2014
41420	1913	Barracks	Adams 1976; Wee and Mikesell 1993
41015	1914	Officers Duplex	Adams 1976; Wee and Mikesell 1993
41016	1914	Officers Duplex	Adams 1976; Wee and Mikesell 1993
41019	1914	Officers Duplex	Adams 1976; Wee and Mikesell 1993
41021	1914	Officers Duplex	Adams 1976; Wee and Mikesell 1993
41407	1914	Hospital Annex	Wee and Mikesell 1993
41412	1914	Barracks	Adams 1976; Wee and Mikesell 1993

* Adams 1976 states that Building 21115, Brayton Hall, was first constructed in 1887, but later modified and completed in 1905, which is when Puzzi 1974 and Wee and Mikesell 1993 list the construction date.

† Adams 1876 provides a construction date of 1891 and calls the facility the Post Chapel; Puzzi 1974 and Wee and Mikesell 1993 list a construction date of 1892 and call the facility the Chaplain's Office/Post Museum and Double Officer's Quarters.

‡ Puzzi 1974 and Wee and Mikesell 1993 list a construction date of 1908; Adams 1976 lists the construction date as 1915.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
41414	1914	Lavatory	Wee and Mikesell 1993
41415	1914	Barracks	Adams 1976; Wee and Mikesell 1993
42010	1914	Officers Duplex	Adams 1976; Wee and Mikesell 1993
42011	1914	Officers Duplex	Adams 1976; Wee and Mikesell 1993
42014	1914	Officers Duplex	Adams 1976; Wee and Mikesell 1993
nn	1914	Henry Circle	Wee and Mikesell 1993
22410	1915	Lavatory	Wee and Mikesell 1993
41421	1915	Barracks	Adams 1976; Wee and Mikesell 1993
42015	1915	Officers Duplex	Adams 1976; Wee and Mikesell 1993
42017	1915	Bachelors Officers Quarters	Adams 1976; Wee and Mikesell 1993
42018	1915	Officers Duplex	Adams 1976; Wee and Mikesell 1993
30023	1915-16	Calvary Stable/Veterinary Care Facility	30023
30024	1915-16	Calvary Stable/Warehouse/Office	Parkhurst and Thiel 2005
30028	1915-16	Calvary Stable/Warehouse	Parkhurst and Thiel 2005
30031	1915-16	Calvary Stable/Ordnance Inspection Station	Parkhurst and Thiel 2005
15476	1916	Golf Clubhouse/Golf Course Maintenance	Tomes 2013; Tomes and Thompson 2014
22210	1916	Lavatory	Wee and Mikesell 1993
22218	1916	Lavatory	Wee and Mikesell 1993
22418	1916	Masonic Lodge/General Instruction Building, Organization Storage Building/Fire Department and Arizona Ambulance	Valenzuela 2011
30134	1916	Powerhouse, power Plant/Engineering/Housing Maintenance	Tomes 2013
41020	1916	Officers Duplex	Adams 1976; Wee and Mikesell 1993
41416	1916	Barracks	Adams 1976; Wee and Mikesell 1993
41418	1916	Barracks	Adams 1976; Wee and Mikesell 1993
41419	1916	Barracks	Adams 1976; Wee and Mikesell 1993
30138	1917/1920*	Post Laundry/Quartermaster maintenance/Engineering/Housing Maintenance	Tomes 2013

2.4 WWI (1917-1918)

Shortly following the close of the Punitive Expedition in 1917, the United States officially entered the Great War (WWI).[†] When the troopers of the 10th Cavalry rode out from Fort Huachuca on March 9, 1916 with supply wagons and pack trains, it was reminiscent of 30 years earlier when the 4th Cavalry rode away to pursue Geronimo.[‡] The cavalry soldiers returning to Fort Huachuca after the Punitive Expedition had probably seen the

* Herbert, et al. (1990) indicate that the Post Laundry was built in 1917.

† Tomes and Thompson 2013, p. 9.

‡ Wee and Mikesell 1993 73.

proverbial writing on the wall. Horse mounts had been an important component of the expedition, but the military saw that motor vehicles had many advantages—they did not require fodder, could often be quickly repaired if damaged, and did not require rest.*

The U.S. Army still considered that horse-mounted soldiers had their place, so men continued to train at Fort Huachuca and completed their routine duties. Men from the 10th Cavalry were stationed in small camps along the border. In January 1918, a band of Yaqui Indians crossed into the United States and were spotted by members of the cavalry. A firefight took place, resulting in the capture of 10 Yaqui, one of whom later died from his wounds. The Yaqui men later explained that they had thought the African-Americans were Mexican soldiers and that the gunfight sprang from this mistake. This battle was the last between United States soldiers and Native Americans (Finley 1999:15-20).†

The Punitive Expedition marked the last major mounted campaign of the U.S. Cavalry. The cavalry branch became mechanized for employment in future wars. The internal combustion engine had its first influence on warfare tactics when it was applied to the movement of equipment and supplies. Reluctantly, the Army began to use trucks, though early their unreliability, especially over rough terrain, made their use problematic. This was first illustrated during the 1916 Mexican campaign. The internal combustion engine also played a role in [WWI] and figured prominently in military planning for the next war. Tanks and personnel carriers provided mobility and strengthened the Infantry division. In addition, light tanks were developed which had speed, but little armor or firepower. During the Inter-War period, the Indian War tradition of a small, mounted police force gave way to the mobile, mechanized cavalry brigade.‡

When the United States declared war against the Central Powers in Europe in 1917, the troops at Fort Huachuca had just returned from the Punitive Expedition. During the expedition, there were more than 1000 officers and enlisted men with about 850 horses attached to Fort Huachuca. Between April and June 1917, some 800 recruits joined the veterans of the Mexican Campaign at Fort Huachuca to train for possible deployment

* Parkhurst and Thiel 2005 10.

† Parkhurst and Thiel 2005 9.

‡ Wee and Mikesell 1993 73.

overseas.* At Fort Huachuca, training in modern warfare became a priority. During that time, some expansion in the number of troops stationed at Fort Huachuca and an associated increase in facilities occurred. New recruits and seasoned veterans alike were preparing for possible deployment overseas. As part of the training, a trench system was devised in Huachuca Canyon for exercises in the use of improved military equipment, such as gas masks and the hand grenades (Smith 1976:211).† The current location of these trenches is unknown.

Although individual officers were detached and assigned overseas duties and 62 non-commissioned officers (NCOs) received commissions, “a vast regimental deployment to Europe from Fort Huachuca never occurred,”‡ and the 10th Cavalry never saw combat action in Europe and spent the war years guarding and patrolling the Mexican border.§ Local-area concerns, however, would turn Fort Huachuca’s attention south of the border. Area residents’ complaints of raids increased, resulting in the establishment of a system of border patrols by military authorities, such as Camp Stephen D. Little (Nogales) and Fort Huachuca. Although bands of Yaqui Indians were often in arms against Mexican authorities, encounters with U.S. citizens did occasionally occur, but it would be encounters with Mexican forces that would ultimately trigger a new military campaign (Smith 1976:211–212).**

2.4.1 Battle of Ambos Nogales

In early August 1918, U.S. military intelligence reported the presence of well-armed Mexicans and Caucasians in the vicinity of Nogales; the Caucasians were purportedly German nationals who had been in the area since issuing arms to Mexican nationals during the Veracruz affair 4 years prior. Mounting tension with U.S. border troops escalated with the imminent dispatch of the 35th Infantry Regiment from Camp Little to France. Encouraged by the news of lessening U.S. forces along the border, Mexican nationals (presumably militia) began to cross onto U.S. soil on the afternoon of August 27, 1918. Orders to halt by U.S. Customs guards were

* Wee and Mikesell 1993 73.

† Tomes and Thompson 2013 p. 9.

‡ Tomes and Thompson 2013, p. 9.

§ Wee and Mikesell 1993 73.

** Tomes and Thompson 2013, p. 9.

ignored, and shots were fired by both sides, triggering what would become known as the Battle of Ambos Nogales (Smith 1976:214).*

Three troops of Fort Huachuca's 10th Cavalry proceeded to Nogales; A Troop was under the leadership of Captain Roy V. Moreledge, C Troop was under the leadership of Captain Joseph D. Hungerford, and F Troop was under the leadership of Captain Henry C. Carol. Heavy fire from the Mexican side quickly wounded Captain Carol and killed Captain Hungerford, but U.S. forces began to overtake the Mexican side with the arrival of additional forces, which included the Machine Gun Company of the 25th Infantry (Smith 1976:216–217).†

By early evening, the Mexican commander raised a white flag and requested a meeting with Lieutenant Colonel Herman, commander of the Nogales operation. With formal diplomatic closure from Brigadier General De Rosey C. Cabell, Commander, District of Arizona, the 1-day engagement was officially over (Smith 1976:217–218).‡

2.4.2 Facilities constructed during WWI

The six facilities listed below (Table 3) were constructed during WWI, specifically, from 1917 through 1918.

Table 3. Facilities constructed from 1917 – 1918 in order by date of construction.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
22422	1917	Quartermaster Corps (QMC) and Supply Troop Barracks/Administrative General Purpose/Main Directorate of Public Works Building/Quartermaster Barracks	Valenzuela 2011; Tomes and Thompson 2014
41331	1917	Radio Station/Credit Union	Tomes 2013
41402	1917	Rodney Hall/Office of the Regimental and Post CO/HQFH/ Post Headquarters	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
42019	1917	Officers Duplex	Adams 1976; Wee and Mikesell 1993
42020	1917	Officers Duplex	Adams 1976; Wee and Mikesell 1993

* Tomes and Thompson 2013, p. 9.

† Tomes and Thompson 2013, p. 9.

‡ Tomes and Thompson 2013, p. 9.

2.5 Inter-War Years (1918-1941)

2.5.1 Transition from Cavalry to Infantry

Soon after the armistice of November 1918, the War Department asked Congress to authorize the organization of a permanent Regular Army of 600,000 and a universal 3-month training system. Congress rejected the proposal. Within 9 months, the War Department demobilized nearly 3,250,000 officers and men. By the end of 1919, the active Army was reduced to a strength of about 19,000 officers and 205,000 enlisted men. However, revolutionary disturbances in Mexico in 1919 and 1920 kept troops from Fort Huachuca busy guarding the border.*

During the period between the two world wars, 1918–1941, the mission at Fort Huachuca was primarily one of training and continued patrol duty along the Mexican border. During that time, two black regiments served on the post. The 10th Cavalry, which was stationed at Fort Huachuca in 1913, would remain there until 1931. A second regiment, the 25th Infantry, arrived on post in 1928 (Smith 1976:243).†

[O]n the difficult, largely roadless, terrain near the Mexican border, the mounted cavalry still had a significant role to play in patrolling the international boundary through the 1920s.‡ The men stationed at Fort Huachuca continued to use mounts [for] marches to nearby communities (Finley 1999:57). In the mid-1920s the 10th Cavalry had a polo team and participated in equestrian events at the fort (Finley 1999:61).§

Both regiments were utilized for various duties at Fort Huachuca during that time, such as telegraph and radio operators, clerks, and other needed services; the Post Quartermaster also utilized the troops for building roads throughout the post (USACE 2000:19). Leisure activities during the Inter-War period increased and included recreational sports, such as baseball, track and field, boxing, and shooting. Recreational facilities constructed during that time included a theater [41305] [Figure 34], a swimming pool [22010], and a baseball field with two grandstands [31123 and 31124] (USACE 2000:19).**

* Wee and Mikesell 1993 pp. 73-74.

† Tomes and Thompson 2013, p. 9.

‡ Wee and Mikesell 1993, pp. 73-75.

§ Parkhurst and Thiel 2005 10.

** Tomes and Thompson 2013, p. 9-10.

Figure 34. View to the west of the Post Theater (41305), 1934.



Source: NARA College Park, RG 77 entry 391 box 132.

The immediate price of the Nation's sacrifice in [WWI], both in human lives and in the material cost of fighting a war, was a reduction in the military's size and budget shortly after peace was declared. This tightening of Congressional purse strings had a direct effect on the Army's buildings and their maintenance. These tasks were done by the Construction Service, a small division within a much larger organization (the Quartermaster Corps) that was concerned with: acquisition, supply, and distribution of supplies and equipment.*

In the 1920s, the Army calculated yearly maintenance costs at 3% of the construction cost of permanent buildings and 8% of temporary buildings. In 1922, the Army received 1.5% for permanent and temporary buildings; in 1923, maintenance funds came to 0.82% (Fine 1972:45). These fiscal constraints were not fully removed until Federal depression-era recovery plans were crafted in the early 1930s. Meanwhile, the Army's physical plant (composed mostly of [WWI] wood mobilization buildings) deteriorated at a rapid rate. This decline was compounded by years of scarce funding. The Quartermaster General's annual reports for the 1920s show deferred maintenance costs of around \$10 million per year.†

* Center of Expertise for Preservation of Historic Structures and Buildings, Seattle District Corps of Engineers, Seattle, Washington. *Range Houses (Buildings No. 15335 & 15339): Black and White Photographs, Written Historical and Descriptive Data, Fort Huachuca, AZ*. Historic American Buildings Survey, National Park Service, HABS AZ-210-A-1, 1998, 2.

† Center of Expertise for Preservation of Historic Structures and Buildings 1998, 2-3.

[As a result, t]he 1913-1917 fort expansion program was the last major period of new construction during the old post's period of historic significance through [through WWII]. In 1920, as non-commissioned officers returned from [WWI] and settled into routine garrison life, the Army did construct two new rows of wood frame NCO residences at the southern end of the old post along Grierson and old Carter Roads. South of Brayton Hall [21115], the Army erected a U-shaped vocational school as the Post Public School (Colored). Completed in June 1920, this wood-frame schoolhouse for black children contained eight school rooms and a library [Figure 35].* The 39 NCO residences and the vocational school were dismantled and salvaged in 1956-1957 to make room for a new housing project. Only three buildings in the [Old Post] historic district date to the 1920s, all three were constructed in 1920. One was a new stone building (22334) that housed the restaurant and market of Mar Kim, the nephew of Sam Kee. A post dental clinic (41410), which operated as a dental office until 1941, was located near the other medical buildings. The third structure was a small utility building (22103) that protects the main water valve from the reservoirs to the distribution mains on the post (Matloff 1969:405-07; U.S. Army RG77 Entry 392 Box 3).[†] It is also believed that concrete coal bins were constructed to serve the adobe officer's quarters, the duplexes, and the Public Affairs Office located along the southeast side, and southern end, of Brown Field, along Grierson Avenue and Henry Circle.[‡] Nineteen of these concrete coal bins are still present, with 18 behind the officer's quarters and duplexes and one adjacent to Brayton Hall (21115).[§]

* Schools on the post were segregated; the larger and newer of the two schools was occupied by the black children of the 10th Cavalry troopers. The white children's school was in the old Amusement Hall at the corner of Grierson Street and Adair Avenue. The old Amusement Hall was demolished in 1962. Fort Huachuca Building History Binder. No 228-01. Fort Huachuca Museum. NOTE: According to Cochran (1964: 68) this building was salvaged in March 1956; the Building Number associated with this structure in 1948 was 1025.

[†] Wee and Mikesell 1993, pp. 74.

[‡] For a detailed discussion of the coal bins, see Anna E. Schneider, *Historic District Coal Bins: Cultural Resources Evaluation, Fort Huachuca, Arizona*. Cultural Resources Report FH-17-17, Fort Huachuca, AZ, March 1, 2017.

[§] Communication with Marty Tagg, ENRD, 2020.

Figure 35. View of the Post Public School, Colored, (not extant), 1941 (NARA College Park, RG 77 entry 393 box 95).



Source: NARA College Park, RG 77 entry 394 box 9.

In 1923 and 1924 numerous magazine and newspaper stories appeared describing miserable and unsanitary living conditions at Army posts. The Quartermaster General proposed a \$110 million program to build permanent new buildings and water and sewage systems over 10 years. This program was to be funded by the sale of posts that the Army no longer needed. In 1926, Congress approved the plan, making \$8 million immediately available for new construction. Appropriations for maintenance, repairs and utilities came to nearly \$14 million. Very slowly, the “homeless Army” began to move into new, permanent buildings.*

At Fort Huachuca, however, “no structures were built within the Fort Huachuca Historic District until the mid-1930s.”†

Congress decided to expand the Army Air Corps in 1926, and cuts in other units were needed. The 10th Cavalry and 25th Infantry in Arizona were among those slated for reduction, despite the objections of the African-

* Center of Expertise for Preservation of Historic Structures and Buildings 1998, 3.

† Wee and Mikesell, 1993 p. 74.

American press and civic leaders.* By the end of the decade the Army had decided to disband the 10th Cavalry as a regiment and to attach the black cavalry troops to service squadrons at military schools.† Beginning in October 1931, the cavalry was split up with troops stationed at various posts including West Point, New York; Fort Leavenworth, Kansas; and Fort Riley, Kansas. The duties of these men were transformed. Instead of providing protection against bandits and illegal border crossers, they escorted VIPs or cared for horses at other cavalry schools. Some members were absorbed by other units (Finley 1999:73-76, 92).‡ In November 1931, the last of the 10th Cavalry troops boarded a train and left Fort Huachuca; they were replaced by the 25th Infantry. From 1877 to 1931 Fort Huachuca had 99 post commanders, all but 10 had been officers in the U.S. Cavalry.§ Horses or mules were still housed at the fort until at least 1941. However, the lessened need for stables led to the demolition of the older stables built in 1907 and 1912 in the late 1930s (NARA Record Group 77, Entry 393, Box 95, Folders 1 and 2 of 6).**

After 1931, the post was turned over to a commander of Infantry regiments and the post became an Infantry garrison and training facility (Smith 1976:387-393).†† Most cavalry troops were disbanded by 1931, but the 25th Cavalry unit continued in its pre-war combat training role and the base became an Infantry installation. Additional military units were transferred to Fort Huachuca in the late 1920s with the 3rd Battalion, Headquarters and Service Company of the 25th Infantry transferred to the fort, sharing the post with the 10th Cavalry. Additional NCO housing was constructed to support the added troop presence. A total of 39 housing units and auxiliary buildings were built from 1933 until 1934 south of the main post complex. Facility No. 22028 was constructed during this period as NCO housing. In addition, existing recreational facilities were improved and post infrastructure was constructed or updated (JRP 1997:102, Van West et. al 1997:302).‡‡

By 1931, the 25th Infantry replaced the 10th Cavalry altogether. The transition from cavalry to Infantry was part of the downsizing of the military in the wake of the Great Depression, and most of the black regiments were

* Parkhurst and Thiel 2005, pp. 11.

† Wee and Mikesell, 1993 p. 75.

‡ Parkhurst and Thiel 2005, pp. 11.

§ Wee and Mikesell, 1993 p. 75.

** Parkhurst and Thiel 2005, pp. 11.

†† Wee and Mikesell, 1993 p. 75.

‡‡ Valenzuela 2011 p. 31.

relegated to support functions. As Fort Huachuca became home to the 25th Infantry, the post experienced a new round of construction, as well as various New Deal programs (JRP 1997:102-105).*

2.5.2 WPA and New Deal Programs at Fort Huachuca

During the 1930s, Fort Huachuca's mission changed from protecting the border with Mexico, which was no longer in a state of revolution, to training.[†] The Inter-War period [also] saw the shift of military buildup and training at Fort Huachuca to a series of civilian preparedness programs developed by the War Department.[‡] Between 1929, the year of the Wall Street crash, and 1932, Congress appropriated extremely modest increases in the Army's construction budgets. In 1932, the Emergency Relief and Construction Act was passed and \$15 million was earmarked for housing construction at 60 Army posts. In 1933, President Roosevelt signed the Military Appropriations Act which included \$12 million for the Army's routine maintenance.[§] At the same time, to address the economic crisis in the United States as a result of the Great Depression, the Federal government instituted a series of worker relief programs, commonly referred to as the New Deal Program. The programs employed private citizens to undertake projects aimed at improving overall infrastructure and completing public works projects across the United States. Fort Huachuca utilized laborers of the CCC, the WPA, and CWA to complete improvement and new construction projects on post (Van West et. al 1997:302-307, Hart and Blackwell 2009:3-7).^{**} "The New Deal presence at Fort Huachuca was not a matter of luck. Locals lobbied aggressively to keep the fort active, responding to rumors of potential deactivation in the early 1930s. The public outcry brought both Federal funding and work camps for the CWA, CCC, and WPA to Fort Huachuca" (Bischoff 1998).^{††}

At Fort Huachuca, these organizations set about updating the post's facilities by renovating or replacing existing buildings and constructing roads, wells, bridges, and other infrastructure. CCC Camp 2871 (known as Army 1-A), stationed at Fort Huachuca, undertook several projects, including

* Valenzuela 2011 p. 31.

† Vanderpot and Graves 2013 p 32.

‡ Valenzuela 2011 p. 31.

§ Center of Expertise for Preservation of Historic Structures and Buildings 1998, 3.

** Valenzuela 2011 p. 31.

†† CP&Y, Inc. *National Register of Historic Places Evaluation of WPA Resources within the Residential Communities Initiative Footprint, Fort Huachuca, Arizona*. Prepared for Michaels Military Housing, Marlton, New Jersey. CPY Project #MMH09023.00. CP&Y Inc., Austin, Texas, March 20, 2009, p. 12.

stream confinement, erosion control, and general building construction. By the fall of 1933, projects under the CWA began at Fort Huachuca. Like the CCC, the CWA repaired buildings, built roads, and laid sewer line until the organization's liquidation in March 1934 (Goodfellow et al. 2009:23; Hart and Blackwell 2009:2).*

Also in 1933, the Army was ordered to put 250,000 civilians to work in the Nation's forests and, at the request of General Douglas MacArthur, secured \$135 million from the [Public Works Act (PWA)] for work on its own posts. Shortly after passage, this figure was cut back to a more manageable \$61.4 million since the Construction Service was to supervise activities and its post-war staff was stretched to the limit. PWA projects included "extensive construction at Aberdeen Proving Ground, a photolithographic plant at Fort Belvoir, a riding hall at Fort Meyer, a chapel at Fort Meade, and needed improvements at several dozen other posts" (Fine 1972:53). The CCC was organized under authority of the Army's area commanders and, as a peacetime Army, recruited single men, dressed them in Army-style uniforms, gave them shelter in barracks, and fed them in mess halls.†

By 1933, Fort Huachuca had a CCC training camp and acted as the distribution center for CCC camps in Arizona [Figure 36].‡ In his papers, Lieutenant Colonel Matthew Tomlinson, commander of the 25th Infantry and Fort Huachuca, remembered that in 1933 and 1934 "the only important work performed ... was the organization of the CCC camps in central and southern Arizona" (Finley 1996:52). The War Department was responsible for administering CCC camps at the local level and Fort Huachuca had a CCC training camp and acted as the distribution center for CCC camps in Arizona. Tomlinson recalls the locations of many of the early camps in the region, but remarked in the early days of the CCC in southern Arizona not much was accomplished due to a lack of work and the uncertainty of the longevity of the program (Finley 1996:52). Four CCC Companies (832, 841, 1841, and 2871) were active near Fort Huachuca from 1933 onward, all on Department of Forestry or National Forest projects (<http://www.ccclegacy.org/arizona1.htm>) except for 2871 assigned to Huachuca (CCC Camp Inspection Report, 1 November 1935). The Huachuca CCC Camp (named Army-1-A) performed work at Huachuca that included erosion control, construction of

* Tomes and Thompson 2013 p10.

† Center of Expertise for Preservation of Historic Structures and Buildings 1998, 3-4.

‡ Valenzuela 2011 p 31

check dams, stream confinement, road construction, and fire break construction (CCC Inspection Report, 1 November 1935).*

Figure 36. Photograph of CCC Camp at Fort Huachuca.



Source: Fort Huachuca Museum Collection.

The majority of the buildings constructed at Fort Huachuca during that time, however, resulted from WPA projects. The WPA was active on post from 1934 to ca. 1940, and projects included over 60 buildings and a system of retaining walls, ditches, and rock walls (Levstik 2007:10; USACE 2000:45).[†] WPA workers transferred from the Bisbee Employment Office arrived on post in July 1934, and soon the first major appropriations for the WPA at the post resulted in improvements and new construction. Over the next 8 years, WPA forces completed a number of projects including upgrades to existing buildings, completion of waterworks infrastructure, and the construction of stone masonry structures throughout the post. The stone masonry walls of the WPA era building programs have become a significant character-defining feature of the present [Old P]ost (Hart and Blackwell 2009:3-7).[‡]

The harsh winter of 1933-34 saw creation of another depression-era relief agency, the CWA, funded by \$1 billion transferred from the PWA. Designed primarily to put people to work, CWA projects were characterized

* Hart and Blackwell 2008 p.3.

† Tomes and Thompson 2013 p.10.

‡ Valenzuela 2011 p 31.

as “pick and shovel” type and included much road work. The Army benefited from this program as well, with CWA projects at 265 posts. In 1934, the CWA gave way to the Federal Works Administration (FWA) and later the WPA. Both agencies participated in improving Army posts. Meanwhile, funding for maintenance and repair decreased until, at the low point in 1935, only 0.39% of the appraised value was appropriated by Congress. While funds from depression-era relief agencies were considerable, most of the money was spent on wages rather than maintenance and repair. Fine and Remington [1972] conclude in *The Corps of Engineers: Construction in the United States*, that because much labor was unskilled, the Army got a low return for the money spent.*

At Fort Huachuca, a WPA camp was organized in 1934 and grew to a grand total of 615 men in 1936. Their projects, executed under the supervision of the post Quartermaster, included general renovations and rebuilding the foundations of quarters, offices and many other buildings; construction of schools, a cistern, garages, and expansion of a CCC Camp for military training; rebuilding the reservation fence; and road paving.† The WPA laid out runways at the Emergency Landing Field near the present-day main gate [once known as East Gate and now known as the Buffalo Soldier Gate 90020], drilled wells [90013, 90017, 90431, 90672], and built the provost marshal station house (90020). In addition to various rehabilitation and new construction projects, the WPA built grandstands at the baseball field (31124 and 31125), laid out a ditch system, and rebuilt a fence around the perimeter of the post (USACE 2000:46). The increased importance of motor vehicles to U.S. Army activities resulted in the construction of several buildings used to facilitate automobile-storage and -maintenance functions. In addition to numerous garages built throughout the post, two filling stations (30110 and 30012) were constructed in 1934 and 1939, respectively. A motor-transport pool (30114) was built in 1934, and an adjacent shop building (30115) was built in 1939 (Janus Associates, Inc. [Janus] 1988:26–27).‡ These were substantial and wide-ranging construction projects for which standardized Quartermaster plans and construction techniques were used when appropriate.§

* Center of Expertise for Preservation of Historic Structures and Buildings 1998, 4.

† Center of Expertise for Preservation of Historic Structures and Buildings 1998, 4.

‡ Tomes and Thompson 2013 p. 10.

§ Center of Expertise for Preservation of Historic Structures and Buildings 1998, 4.

From 1934 to 1936, the first major appropriations for the WPA at Fort Huachuca resulted in work to bring the post into the twentieth century. In the fall of 1936, the supervisor of the early appropriations, Maj. S. J. Raymond, Quartermaster Corps, wrote a summary of work completed between 1934 and 1936. According to the Quartermaster's summary, the post was first advised of the availability of funds on July 8, 1934 and work began at Fort Huachuca almost immediately (Finley 1996). Appropriations were split between improvements and new construction with the Post Quartermaster (Maj. Raymond) supervising the former and the Constructing Quartermaster supervising the latter. Under these early works, electrical and plumbing systems were upgraded in existing structures, repairs were made to existing structures, roads were paved, and improvements made to the training camp area that housed workers hired to perform the work (Finley 1996). By July 18, 1934, eight men were hired through the Bisbee Employment Office and work had started. By April 1936, the number of workers supervised by the Post Quartermaster had swelled to 358 men. Similarly, 60 men were placed on the Constructing Quartermaster's payroll in September 1935 and by May 1936 the payroll included 257 workers (Finley 1996).*

The availability of water at Fort Huachuca had been one of the most important factors in the long-term viability of the post since its inception. A number of the WPA projects undertaken at Fort Huachuca attempted to address the problem of a reliable water source and secure the long-term future of the post. One of the first projects was the drilling and construction of a well at the East Gate [now known as the Buffalo Soldier Gate]. Two more wells [Wells #1 and #2] were constructed with WPA funding near the East Gate [now the Buffalo Soldier Gate] in 1936 [90017] and [1941] [90013], along with a treatment plant (1938) [22004] and a second reservoir (1939) [22002], both on "Reservoir Hill."†

Raymond's description of the aim of the paving projects at Huachuca sums up the overall philosophy of the WPA: "*Use of as many workers as possible and simultaneously to use what machinery was available efficiently, to give the post a good, durable, paved highway, was the aim*" (Finley 1996). Highlights of the work completed between 1934 and 1936 mentioned in the Quartermaster's report included: drilling of a well at the Emergency Landing Field to provide water for the post, construction of two schools (segregated) [21112 and 41330], paving and rerouting of

* Hart and Blackwell 2008 p.4.

† Hart and Blackwell 2008 p.4.

existing roads, reconstruction of the reservation fence with barbed wire and metal posts, construction of garages [20310, 22006, 22007, 22021, 22022, 22023, 22026, 22109, 22113, 22119, 22131, 22135, 22143, 41010, 41406, 41411, 42021, 42022, 42023, 42024] for garrison personnel, and addition of improvements to allow the establishment of a summer training school for local military accessory schools. The report concluded with a description of the CCC Camp established to house the workers and the provisions they were given (“a cot and blankets, and mess equipment”).*

In the spring of 1936, the U.S. Congress authorized appropriations for military posts nationwide that included \$1,641,828 in appropriations for Fort Huachuca (U.S. Senate 1936). According to the accompanying report, the appropriations were largely designed to modernize the installation’s late nineteenth century structures and infrastructure. Modernization upgrades included those to the adobe hospital built in 1882, reconstruction of the water supply system, and motorization infrastructure to support the military’s move to motorized forces. Also included in the appropriations was money for paved roads, recreational facilities, and garages for personal automobiles. From these appropriations came the bulk of the WPA-funded work at Fort Huachuca (House of Representatives [HR] Report No.2654 to accompany HR 12511, May 14, 1936).†

WPA and CCC projects completed at Fort Huachuca between 1936 and 1940 included some of the largest undertakings. The “Million Dollar Barracks” [31122, now Alchesay Barracks], a three-story, poured concrete Spanish Colonial Revival structure, was completed in 1939 and is the most visible reminder of this period at Fort Huachuca (Van West 1997:305) [Figure 37]. Two new wells (Well No. 1 [90017] in 1936 and Well No. 2 [90013] in 1940) were drilled at the Emergency Landing Field (now the East Gate [today known as the Buffalo Soldier Gate, [90020]]) and the success of Well No. 1 [90017] precipitated the construction of Reservoir No. 2 [22002] in 1939 on Reservoir Hill, which is the ridge overlooking the Old Post (Van West et al. 1997:305). Improvements to the officers’ quarters along the parade ground were also made during this period (Van West et al. 1997:305). Grierson Street directly behind Officers’ Row contains a number of WPA/CCC improvements including: stone garages for officers’ automobiles [20310, 22006, 22007, 22021, 22022, 22023, 22026, 22109, 22113, 22119, 22131, 22135, 22143, 41010, 41406, 41411, 42021, 42022, 42023, 42024],

* Hart and Blackwell 2008 p.4.

† Hart and Blackwell 2008 p.4-5.

servants' quarters [22008, 22106, 22111, 22118, 22122, 22124, 22130, 22134, 22136, 22142, 41011], retaining walls, and drainage ditches.*

Figure 37. Looking north at the “Million Dollar Barracks” [31122, Alchesay Barracks], 1940.



Source: NARA College Park, RG 77 entry 394 box 9.

Among the last of the WPA projects was the construction of the “Million Dollar Barracks” (31122, Alchesay Barracks) to house the troops of the 25th Infantry (USACE 2000:48). The barracks was so named because of the cost of construction; at the time, it was the most expensive building on post. Most of the WPA projects completed before 1940 consisted primarily of infrastructural upgrades and the rehabilitation of buildings not directly related to pre-war-personnel increase and mobilization.† The prime exception, construction of the “Million Dollar Barracks,” marked the beginning of a shift towards projects addressing expansion of both the post and its mission that would continue into the early 1940s (Van West et al. 1997:305). WPA work at Fort Huachuca between 1940 and 1942 saw the construction of the officers’ mess (43002), one of the largest buildings constructed during the [WWII] period. A number of storage buildings (22526, 22528, and 22530)‡ were overhauled between 1940 and 1942.§ By

* Hart and Blackwell 2008 p.5.

† Tomes and Thompson 2013 p. 10.

‡ Marty Tagg, ENRD, notes that these buildings were not storage, indicating an error in the original report.

§ Hart and Blackwell 2008 p.6.

1942, WPA funding was largely reallocated toward facilitation of the United States' entry into (WWII) (Hart and Blackwell 2009:6).*

2.5.2.1 *Water management resources*

With the increased population of Fort Huachuca during the Inter-War years, the availability of an adequate water supply continued to be a major concern of the post.† Several of the WPA/CCC-era projects at Fort Huachuca were constructed to establish a regular source and storage of water for the post. Resources associated with WPA water source and retention projects include Reservoir No. 2 [22002] [Figure 38] and the Water Treatment Plant [22004] on Reservoir Hill to the south of the Old Post parade ground‡ In one of the first projects, workers drilled and constructed a well [90117] at the East Gate [now known as the Buffalo Soldier Gate 90020]. Two more wells were constructed near the East Gate in 1936 and in 1940 [90113 and 90431]. ... The new 250,000-gallon reservoir (22002) was constructed adjacent to the 1884 structure [22001] (Hart and Blackwell 2009:3-7) [Figure 39].§

From the founding of Fort Huachuca, the securing of a reliable water source has been paramount to the viability of the post. Therefore, it is no surprise that a considerable amount of the WPA funding and labor expended at Huachuca related to sourcing and storing water. Collectively, these two structures are similar in their utilitarian design, with the reservoir [22002] constructed of poured concrete structural walls and the Water Treatment Plant [22004] reflecting the fieldstone construction typical of many WPA and CCC projects. While neither of these structures are individually significant [they contribute to the WPA historic district, together they represent a concerted effort to secure and store water at Fort Huachuca through WPA-funded construction projects.**

* Tomes and Thompson 2013 p. 10.

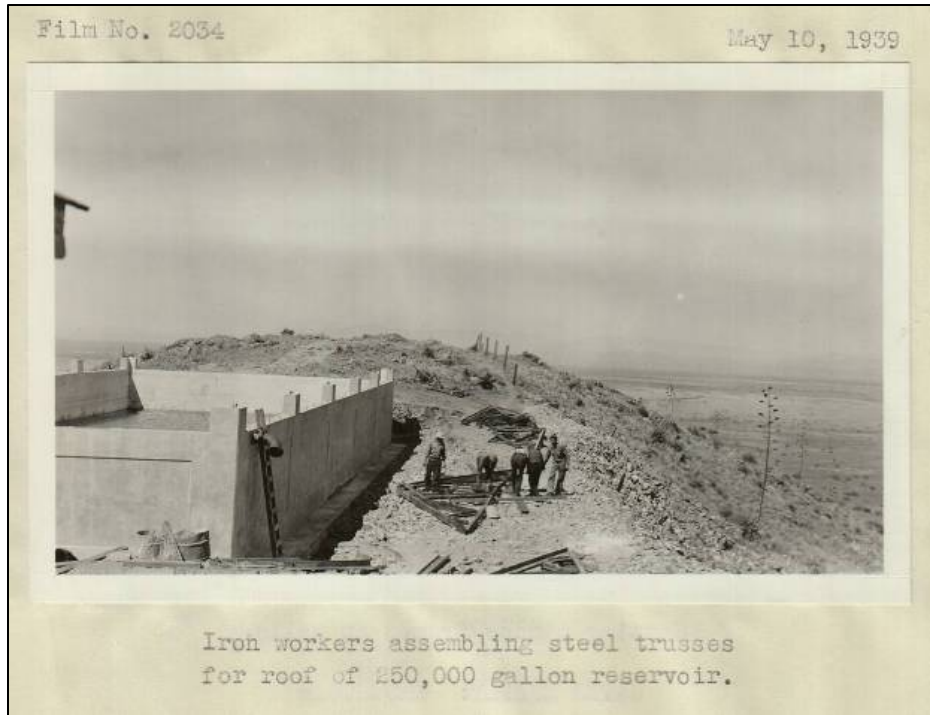
† Valenzuela 2011 p. 31.

‡ Hart and Blackwell 2008 p.7.

§ Valenzuela 2011 p. 31-32.

** Hart and Blackwell 2008 p.8.

Figure 38. Looking north at Reservoir No. 2 (22002) under construction, 1939.



Source: From WPA Photo Album, Fort Huachuca Museum Collection.

Figure 39. Looking north at Reservoir No. 1 (22001) with WPA stone arch, no date.



Source: Fort Huachuca Museum Collection.

2.5.2.2 Recreation resources

Several WPA projects at Fort Huachuca related to the recreation of soldiers stationed there. Huachuca holds a prominent place in Army athletics, from equestrian and polo events to track and field, and perhaps most notably, baseball (Smith 1978: 245). The 25th Infantry “Wreckers” baseball team in the Teens and the 9th U.S. Cavalry team in the Twenties both featured players who later played professionally in the Negro Baseball Leagues. Players such as Charles Wilbur “Bullet” Rogan, Oscar “Heavy” Johnson, Moses Herring, Robert Fagan, and Lemuel Hawkins played on the 25th Infantry baseball teams and had distinguished professional baseball careers. The 9th Cavalry baseball team won the Army Baseball League Championship in the 1920-21 season (Fort Huachuca Museum & Archives). Therefore, it is not surprising that two of the WPA projects at Fort Huachuca were to construct grandstands at Brock Field located at the rear of the Million Dollar Barracks [31122, Alchesay Barracks]. The Enlisted Men’s Grandstand [31124] along the first base line included a dugout, canopy, wood bleachers and storage rooms along the rear facade. The Officers’ Grandstand [31123] located behind the home plate backstop originally had a canopy and folding stadium chairs [Figure 40]. The Officers’ Grandstand was constructed at the same time as the Enlisted Men’s Grandstand [Figure 41] and also holds architectural significance for WPA associations.*

* Hart and Blackwell 2008 p.10-11.

Figure 40. Looking east at the Brock Field Officers' Grandstand [31123 under construction, 1937.



Source: from WPA Photo Album, Fort Huachuca Museum Collection.

Figure 41. Looking north at the Brock Field Enlisted Men's Grandstand [31124], 1941.

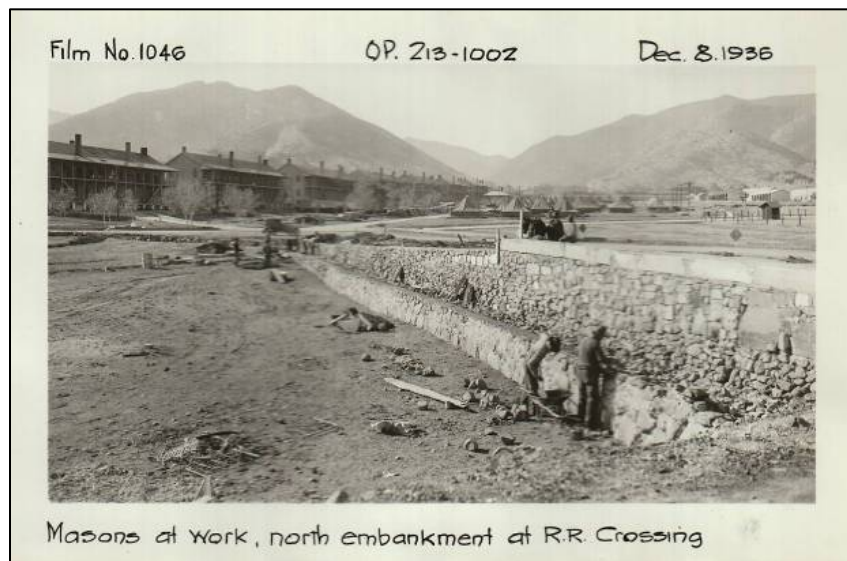


Source: NARA College Park, RG 77 entry 393 box 95.

2.5.2.3 Infrastructure resources

A number of WPA projects at Huachuca are related to water or drainage conveyance and transportation. These infrastructure resources were built using WPA funding, but also may have used CCC labor under the direction of a skilled mason hired out of the Bisbee Employment Office. The bridge over Huachuca Creek is constructed of poured concrete and stone masonry piers with a poured concrete deck. The bridge was expanded to two lanes at an unknown date, evidenced by the flat underside and masonry piers on the downstream side and the arched openings and concrete piers on the upstream side. The Southern Pacific Railroad (SPRR) embankment on Whiteside Road was constructed to raise the Southern Pacific Railroad spur out of a low-lying area [Figure 42]. The raised embankment has poured concrete and rubble wall construction with fieldstone veneer facing. Although originally intended to convey railroad traffic, the embankment now has asphalt-paved Whiteside Road on top. ... The system of drainage ditches and access structures along Grierson [Service] Road to the rear of the Officers' Quarters Row is another WPA infrastructure resource at Huachuca. The stone lined drainage ditches, culverts, stairs, and coal boxes were constructed in conjunction with the other projects. A stone-faced retaining wall was also constructed between Grierson [Service Road] and an earlier officers' pool [22010].*

Figure 42. Southern Pacific Railroad embankment under construction, 1936.



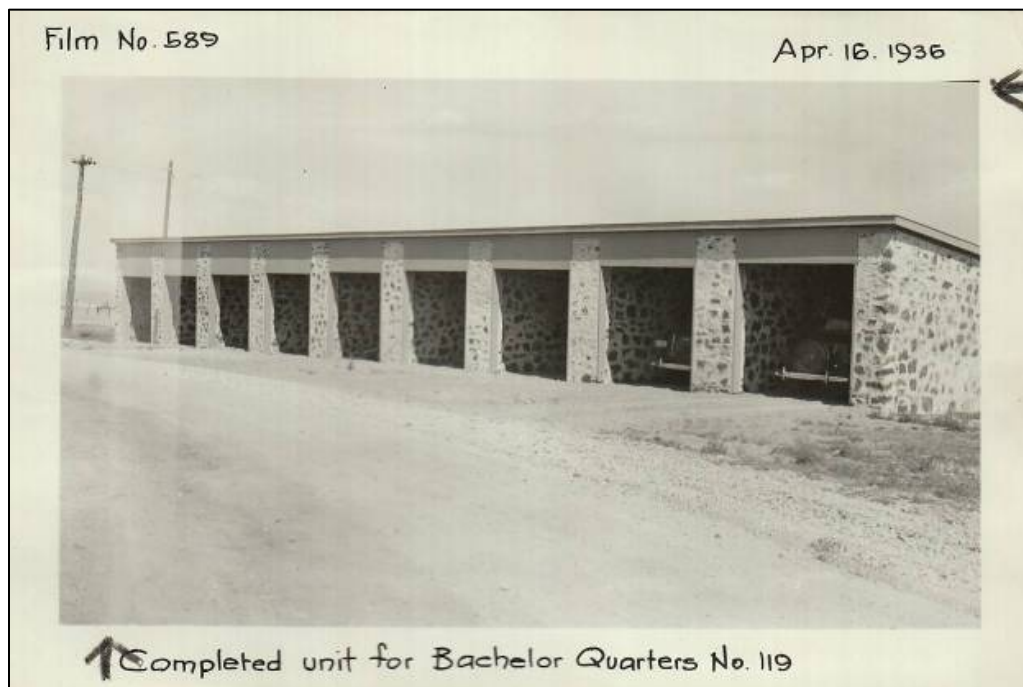
Source: Fort Huachuca Museum Collection.

* Hart and Blackwell 2008 p.14.

2.5.2.4 WPA new construction

Along with upgrades and renovations to existing buildings at Huachuca, the WPA funded new construction projects enabled the fort to meet its growing needs. The Million Dollar Barracks [31122, Alchesay Barracks] was the largest and most visible of these new construction projects, but many other smaller, support buildings were also built. The largest concentration of these structures is located along Grierson [Service] Road, to the rear of the row of officers' quarters facing the main parade ground, and includes the maid quarters and garages. The WPA funded the construction of [20] one-, two-, four, and nine-bay garages [20310, 22006, 22007, 22021, 22022, 22023, 22026, 22109, 22113, 22119, 22131, 22135, 22143, 41010, 41406, 41411, 42021, 42022, 42023, 42024], with the largest [42021] located behind Allen House [42017], the Bachelor Officers' Quarters [Figure 43]. Typically, the garages were constructed with concrete slab foundations, irregular stone masonry walls, and wood frame shed roofs. Work was directed by skilled masons from the Bisbee Employment Office and likely performed by CCC enrollees who received "on the job" training.*

Figure 43. Looking southeast at the garage [42021] behind Allen House [42017] shortly after completion, 1936.



Source: Fort Huachuca Museum Collection.

* Hart and Blackwell 2008 p.16.

The WPA also provided funding for a new guardhouse at the Canelo [West] Gate [11510], the west entrance into the post. The guardhouse is a rectangular stone masonry structure with a side gable roof and shed roof porch supported by two stone masonry columns.*

Another new construction project under the WPA at Huachuca is a double latrine [15331] at [Range 6] [Figure 44]. The building has stone masonry construction on a slab concrete foundation and a side gable roof.†

Figure 44. Looking north at the Range 6 target range latrine (15331), 1938.



Source: NARA College Park, RG77 Entry 391 Box 133.

* Hart and Blackwell 2008 p. 18.

† Hart and Blackwell 2008 p.19.

2.5.2.5 WPA renovations

In the 1930s, Fort Huachuca still used a number of buildings remaining from its frontier post days and the turn of the century. A number of WPA-funded projects focused on bringing these buildings up to modern standards. Most of the earliest buildings were constructed of adobe brick, while those from the turn of the century were predominantly wood frame. The Utilities Warehouse [22414], located on the south side of Butler Road and to the west of the main parade ground, was constructed in 1920 as a utilities warehouse [Figure 45]. It was built at the terminus of the Southern Pacific Railroad spur at Huachuca. A historic photo taken before WPA renovations, shows a wood frame structure with wood siding and wood decked loading docks with a hollow tile firewall and the midpoint. The WPA renovations to the building included adding stone masonry walls and poured concrete loading docks. A steel inset in the concrete reading “USA-WPA” remains today, as does a remnant of the wooden loading docks on the west side. Along with the improvements to the SPRR spur at Whiteside Road and upgrades to other existing warehouses, the WPA renovation of the Utilities Warehouse [22414] reflected the need to modernize the transportation of supplies to the post in a pre-war buildup.*

Figure 45. Utilities Warehouse (22414) before and after WPA renovations, no date.



Source: Hart and Blackwell 2008.

* Hart and Blackwell 2008 p.20-21.

In general, authorized appropriations for military posts nationwide included over \$1.6 million for Fort Huachuca, which were designed to modernize the installation's late 19th century structures and infrastructure. Many of the WPA projects completed before 1940 consisted primarily of infrastructure upgrades and repairs to buildings. The construction of the "Million Dollar Barracks" [31122, Alchesay Barracks] and Stone Quarters [21103] [46], however, were two exceptions and marked a shift towards projects addressing the expansion of the post and its mission. Between 1940 and 1942, WPA projects included the officers' mess [43002], one of the largest buildings constructed during the [WWII] period, as well as the overhaul of a number of storage buildings. [An example of this is Facility 22530, a 1903 wooden QMC stable that the WPA clad in stone in 1937. One stone on the north facade has "WPA 193_" in raised concrete—the last number was covered or destroyed by later repair work. Martyn Tagg, Conservation Branch Chief, personal communication, 2020]. By 1942, WPA funds had largely been reallocated towards the impending conflict, which had been building since the late 1930s (Hart and Blackwell 2009:3-7, Janus 1988:27-30).*

Figure 46. Looking east at the Stone Quarters [21103] during construction, 1939 (NARA College Park, RG 77 entry 394 box 9).



Source: NARA College Park, RG 77 entry 394 box 9.

* Valenzuela 2011 p. 32.

2.5.3 Facilities constructed during the Inter-War Years

The 109 facilities listed below (Table 4) were constructed during the Inter-War years, specifically, from 1919 through 1941.

Table 4. Facilities constructed from 1919 – 1941 in order by date of construction.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
21117*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
22123*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
22103	1920	Water Valve Building	Wee and Mikesell 1993
22105*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014
22115*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
22117*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
22121*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
22127*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
22129*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
22137*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
22139*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
22145*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
22147*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
nn	nd	Bridge of Huachuca Creek/Transportation	Hart and Blackwell 2008; Tomes and Thompson 2014
22334	1920	Post Exchange Restaurant/Administration Building/Mar Kim Hall/ PX/Restaurant	Puzzi 1974; Adams 1976; Wee and Mikesell 1993
22423*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014
30033	1920	Quartermaster Oil House/Administration Building	Tomes 2013
41013*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
41017*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
41018*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014
41022*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014
41023*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
41024*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
41410	1920	Dental Office	Wee and Mikesell 1993
42009*	1920	Coal Bin	CP&Y 2009; Tomes and Thompson 2014; Schneider 2017
22414	1920 (rebuilt 1937)	Quartermaster Warehouse/General Instruction Building, Storage General Purpose, Organization Storage Building, Drug/Alcohol Abuse Facility	Valenzuela 2011; Tomes and Thompson 2014
31114	1928	Wagon Shed/Engine Maintenance	Tomes 2013
30136	1929	Water-softener Plant/Storage Building	Tomes 2013
30012	ca. 1929	Gas Station/Storage	Tomes 2013
31013	1932	Warehouse/Engagement Skills Trainer-2000	Tomes 2013
22028	1933/34	NCO Quarters/Army Lodging/Utah House	Valenzuela 2011
15343	1934	Storage/Range 6 Target Building	Tomes 2013
22336	1934	Fire Station/Fire Station 1	Wee and Mikesell 1993; Tomes 2013
22420	1934	QMC Warehouse/ General Instruction Building/Educational Services	Valenzuela 2011
30114	1934	Automobile-maintenance Shop/Vehicle Maintenance Shop	Tomes 2013
30110	1934	Filling Station	Center of Expertise for Preservation of Historic Structures and Buildings 1998
15335	1934	Range House	Center of Expertise for Preservation of Historic Structures and Buildings 1998
15339	1934	Range House	Center of Expertise for Preservation of Historic Structures and Buildings 1998
nn	1935-1940	Retaining Walls/Erosion control/19 Retaining Walls	CP&Y 2009; Tomes and Thompson 2014
22108, 22112, 22114, 22116, 22120, 22126, 22128, 22132, 22138, 22140, 22144, 41012, 42014	1935-1940	Improvements to Historic Housing/Decorative features added to Officer's Housing	CP&Y 2009
11510	1936	Sentry Station/ West (Canelo) Gate Guardhouse/Guardhouse	Hart and Blackwell 2008; Tomes and Thompson 2014
20310	1936	Garage/Vehicle Storage	CP&Y 2009; Tomes and Thompson 2014
22006	1936	Garage/Vehicle Storage	CP&Y 2009; Tomes and Thompson 2014
22021	1936	Garage/Vehicle Storage	CP&Y 2009; Tomes and Thompson 2014
22022	1936	Garage/Vehicle Storage	CP&Y 2009; Tomes and Thompson 2014
22023	1936	Garage/Vehicle Storage	CP&Y 2009; Tomes and Thompson 2014
22026	1936	Garage/Family Housing Garage	Tomes 2013; Tomes and Thompson 2014
22109	1936	Garage/Vehicle Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
22111	1936	Servants Quarters /Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
22113	1936	Garage/Vehicle Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
22118	1936	Servants Quarters /Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
22119	1936	Garage/Vehicle Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
22122	1936	Servants Quarters /Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
22124	1936	Servants Quarters /Guest House	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
22130	1936	Servants Quarters /Guest House	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
22131	1936	Garage/Vehicle Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
22134	1936	Servants Quarters /Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
22135	1936	Garage/Vehicle Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
22142	1936	Servants Quarters /Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
22143	1936	Garage/Vehicle Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
41010	1936	Garage/Vehicle Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
41011	1936	Servants Quarters /Storage	Wee and Mikesell 1993; CP&Y 2009; Tomes and Thompson 2014
41403	1936	Vault/Furnace/Heat Building	Wee and Mikesell 1993; Tomes 2013; Tomes and Thompson 2014
41406	1936	Two-Car Garage/Storage	Wee and Mikesell 1993; Tomes 2013; Tomes and Thompson 2014
41411	1936	Warehouse, garage/U.S. Army Intelligence Museum	Wee and Mikesell 1993; Tomes 2013; Tomes and Thompson 2014
42021	1936	Garage behind Allen House/Garage/ Vehicle Storage	Hart and Blackwell 2008; CP&Y 2009; Tomes and Thompson 2014
42022	1936	Garage/Vehicle Storage	CP&Y 2009; Tomes and Thompson 2014
42023	1936	Garage/Vehicle Storage	CP&Y 2009; Tomes and Thompson 2014
42024	1936	Garage/Vehicle Storage	CP&Y 2009; Tomes and Thompson 2014
68059	1936	Dispatch Office/Dispatch Building	Tomes 2013
90020	1936	Military Police Station, provost station house/Widowed Support Center	Tomes 2013; Tomes and Thompson 2014
31125(23)	1936	Officer's Grandstand/Brock Field Officer's Grandstand	Tomes 2013; Tomes and Thompson 2014
nn	1936; 1935-39	Box Culverts/Drainage/86 Culvert Openings	CP&Y 2009; Tomes and Thompson 2014
nn	1936; 1935-39	Stacked Stone Ditches/Drainage/29 Drainage Ditches/ Drainage Ditches and Walls along Grierson Street/Drainage	Hart and Blackwell 2008; CP&Y 2009; Tomes and Thompson 2014

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
nn	1936-37	Stone Embankment at SPRR Crossing/Transportation	Hart and Blackwell 2008; Tomes and Thompson 2014
22007	1936-37	Garages	CP&Y 2009
nn-WPA	WPA era	18 Walls	Tomes and Thompson 2014
nn-WPA	WPA era	39 Stairs	Tomes and Thompson 2014
nn-WPA	WPA era	Dam	Tomes and Thompson 2014
31123	1937	Officer's Grandstand/Recreation	Hart and Blackwell 2008
31124	1937	Enlisted Men's Grandstand/Recreation	Hart and Blackwell 2008; Tomes and Thompson 2014
90018	1937	Pump Plant/Disabled Veterans Office	Tomes 2013; Tomes and Thompson 2014
15331	1938	Double Latrine at Target Range/Range 6 Latrine/Vacant	Hart and Blackwell 2008; Tomes 2013; Tomes and Thompson 2014
22004	1938	Water Treatment Plant/Water Treatment/Chlorine Building	Hart and Blackwell 2008; Tomes and Thompson 2014
90016	ca. 1939	Booster pump/Pump House/Well 1 Booster Pump House	Tomes 2013
21103	1939	Warrant Officer's Quarters House/Residential Officer's Quarters/Office	CP&Y 2009; Tomes and Thompson 2014
21104	1939	Warrant Officer's Quarters Garage/Vehicle Storage	CP&Y 2009; Tomes and Thompson 2014
21112	1939	School/Education Center/Young Hall	Tomes 2013
22002	1939	Reservoir No. 2/Water Storage	Hart and Blackwell 2008; Tomes and Thompson 2014
30113	1939	Maintenance Shop, Automobile repair Garage/Storage	Tomes 2013
30115	1939	Automobile-maintenance Shop/Vehicle Maintenance Shop	Tomes 2013
31122	1939	Barracks/Million Dollars Barracks/Alchesay Barracks	Tomes and Thompson 2014
90017	1939	Water Well/Well No. 1/Well House	Tomes 2013; Tomes and Thompson 2014
90333	1939	Motor Repair/Vehicle Training	Valenzuela 2011
22406	1940	Bank/Administration Building	Tomes 2013
22528	1940	QM Storage/Storage General Purpose	Valenzuela 2011; Tomes and Thompson 2014
22538	1940	Warehouse/Paint Storage/Storage	Tomes 2013; Tomes and Thompson 2014
30152	1940	Shed/Storage Building	Tomes 2013
30118	1941	Refrigeration Storage/Ice Plant/Storage Building	Tomes 2013
49001	1941	Elevated Water Tank/Elevated Water Tank	Smith and Wesa 2016
68421	1941	Pump House/Fire Station 2 Storage	Tomes 2013
68422	1941	Fire Station/Fire Station 2	Tomes 2013
90013	1941	Water Well/Well No. 2	Tomes 2013
90014	1941	Pump House/Pump House Surge Tank/Water Supply/Treatment Building	Tomes 2013
90015	1941	Chlorinator house/Pump House Chlorinator Inspection Station/Water Supply/Treatment Building	Tomes 2013

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
90320	1941	Chlorinator Station/Sewage/Wastewater Treatment	Tomes 2013
22008	WPA era	Servants Quarters	CP&Y 2009
22106	WPA era	Servants Quarters	CP&Y 2009
22136	WPA era	Servants Quarters	CP&Y 2009

* The coal bins listed in this table are not on the current facility list. Therefore, the numbers associated with each bin are just projected based on the research and are not "real" facility numbers at this point.

2.6 WWII (1942-1945)

The German annexation of Austria in March 1938 followed by the Czech crisis in September of the same year awakened the United States and other democratic nations to the possibility of another world war. With war in Europe appearing inevitable, the Army initiated a building expansion program at Fort Huachuca to provide for new trainees. As early as July 1938 ground was broken for the construction of the "Million Dollar Barracks," a barrack for enlisted men that dwarfed anything constructed on the post before this time (Fort Huachuca Museum 1938). After Germany seized Czechoslovakia in March 1939, Great Britain and France decided they must fight rather than yield to Hitler. In August, Germany made a deal with the Soviet Union to partition Poland and Finland, then Hitler invaded Poland. France and Great Britain responded by declaring war on Germany. Although the American people wanted to remain out of the war if possible, President Roosevelt and his advisors had already launched the Nation on a preparedness campaign as early as the beginning of 1939.*

2.6.1 WWII Army expansion

The rapid expansion of Germany across Europe in 1940 solidified fears at the U.S. War Department that America might soon be party to an expanding conflict. The first steps toward preparation for this impending war were taken when Congress authorized the president to call up the National Guard and approved the Selective Service Act of 1940. As a result, the Army increased in troop strength from a low of 230,000 to over 1.6 million by December 1941 (Hogan 2000:292-93). This rapid influx of soldiers resulted in a tremendous need for construction – not only expanding existing military installations, but also creating entirely new training camps from scratch.†

* Herbert Jackson and Wee 1990 pp. 117.

† Adam Smith, Susan Enscoe, Zimnicki, and Campbell, 2003, 2-1 – 2-5. Quoted in Smith, Enscoe and Hunter 2012, 8.

Germany's 1 September 1939 invasion of Poland sparked concern in the United States and prompted President Roosevelt to proclaim a limited national emergency 1 week later. Troop strength was increased slightly, and the Army began to build temporary shelter to house them. During the late 1930s, a series of cantonment drawings begun a decade earlier were updated and revised by the Construction Division of the Quartermaster Corps. These "700 Series" drawings formed the basis for the small amount of new construction that fall required by the declaration of limited emergency. Events on the world stage during the spring of 1940 jolted American military and government strategists, awakening them to the potential threat to the United States evinced by the rapid German occupation of Denmark, Norway, Belgium, and the Netherlands. By the end of June, supplemental military appropriations approaching \$2 billion had been requested and granted to Roosevelt. Troop strength expanded first to 375,000, and \$217 million became available for military construction (Wasch et al. 1993:9). These were the first of many appropriations and troop expansions, and in the following months vast sums of money were expended to recruit, house, train, supply, and feed 1.5 million new soldiers. Twenty new cantonments were completed by the time America formally entered the war on December 7, 1941 (Garner 1993:16).*

To speed construction and provide ease of oversight, the cantonments were developed according to standardized plans. General guidelines for WWII training cantonment layout provided the Army's principal requirements concerning troop placement, facilities siting, and safety concerns (Fine and Remington 1972:208):

Every unit, large and small, would remain intact. Companies would be grouped into battalions and battalions into regiments. Regimental areas would adjoin a central parade ground. Hospitals would be in isolated spots, away from noise and dirt. Storage depots and motor parks would be near railway sidings or along main roads. To prevent the spread of fire, one-story buildings would be at least 40 feet apart, two-story buildings, 50. Firebreaks, no less than 250 feet wide, would be spaced at 1,000-foot intervals throughout the length of the camp. Showing grid-platted streets and straight rows of buildings, the typical envisaged a quadrangular arrangement.†

* Smith, Enscoe and Hunter 2012, 9.

† Smith, Enscoe and Hunter 2012, 9-10.

Early in the war, the most common design shifted from a quadrangle to a triangle layout, as Army organization shifted to Triangle Divisions consisting of three regiments under a Division command. Each leg of the cantonment triangle contained a regiment, with their training ranges adjacent (Garner 1993:65). Cantonments were based on the “company block” concept, with each 125-man company unit provided with two 63-man barracks with indoor plumbing and a separate mechanical room for the furnace, one mess hall, one recreation building, and one administration and supply building (Wasch et al. 1993:12).*

Design for buildings placed in the cantonment also proceeded rapidly through standardization. Many individual types of mobilization buildings were designed, providing every necessity of life in these virtual towns. Plans were created for laundry facilities, bakeries, motor pools, administration, hospitals, officer’s quarters, chapels (one per regiment), athletic arenas, clubs, warehouses, communications, etc. The 700 Series of standard plans envisioned structures that would meet the criteria of housing an expanded Army for an indefinite period of time in a manner that would provide a degree of comfort to the newly inducted soldier. Primary distinguishing characteristics of the more than 300 building types designed included the use of wood stud construction with exteriors painted an ivory color, concrete foundation piers and footings, doors on the narrow front gable ends, ventilators in the gable end wall of two-story buildings, and skirt-roofs – an overhanging eave over the first floor windows that continued around two-story buildings to protect the exterior from water. These design elements were chosen for ease and speed of construction, and consideration of the unskilled laborers likely to be accomplishing the construction (Wasch et al. 1993:34-35, 39).†

The 800 Series of standard building plans supplanted the 700 Series during 1941, and were the primary designs used in the latter part of that year and 1942 for mobilization construction. The new designs altered the 700 Series by eliminating the skirt-roof, which tended to leak, raised the ceiling heights in two-story barracks to allow double bunks and increased the length to allow quarters for specialized personnel, scaled back the eave depth, and reduced the number of nails per connection. As lumber became

* Smith, Enscoe and Hunter 2012, 10.

† Smith, Enscoe and Hunter 2012, 10-11.

scarcer in late 1942, asbestos shingles were sometimes used instead of shiplap siding (Garner 1993:41).*

With construction proceeding on an assembly-line structure with framing crews moving from one building to the next, the physical labor was also formalized for efficiency. The combination of standardized layouts, standardized building plans, expedited alterations, and specialized crews resulted in cantonments that seemed to leap into existence. From August 1940 to June 1941, the Quartermaster Corps built facilities for nearly one million troops.†

Immediately after the European War started, the President proclaimed a limited national emergency and authorized increases in the Regular Army and National Guard enlisted strength to 227,000 and 235,000, respectively. The Army concentrated on making its Regular force ready for emergency action by providing it with full and modern equipment as quickly as possible, and in April 1940 by engaging 70,000 troops in the first genuine corps and Army training maneuvers in American military history. Fort Huachuca was to have a distinctive role as a mobilization and training center for black soldiers. The National Association for the Advancement of Colored People (NAACP) and several national leaders insisted that the best interests of a strong and unified America were to allow the full and equal participation of blacks in the mobilization effort. The military, reflective of the broader society, was not amenable to changing its policy regarding participation of blacks. Regiments were to remain segregated, but the Roosevelt administration in October 1940 announced a plan for “fair and equitable” utilization of blacks in the military. The plan provided, in part, that blacks would be drafted in proportion to their population ratio -about one to every 11 men. They were to be used in every branch of the service and black civilians were to have an equal chance with whites for jobs at arsenals and Army posts. There were limitations. Black reserve officers were to serve in outfits that already had black officers. Black units would be Officered by whites with the exception of the black National Guard Units.‡

* Smith, Enscoe and Hunter 2012, 13.

† Smith, Enscoe and Hunter 2012, 14.

‡ Herbert Jackson and Wee 1990pp. 117-118.

2.6.2 Fort Huachuca WWII Cantonment

At the beginning of WWII, Fort Huachuca was a small installation with a cantonment, service areas, and training lands. As of June 1940, the post was occupied by “the 25th Infantry, a colored unit, with 1065 enlisted, a medical detachment with 29 men, and a Quartermaster Corps detachment of 49 men” (“Expanded Army to Keep Racial Bias” 1940). Ten months later, these troops had been joined by the 368th Infantry Regiment, bringing the total strength of black troops at Fort Huachuca to 5,292.* The 93rd Infantry Division was a black division first activated in 1917 at Camp Stuart in Newport News, Virginia. When reactivated at Fort Huachuca in 1942, the division was composed of the 25th, 368th, and 369th Infantry Regiments and the 593rd, 594th, and 596th Field Artillery Battalions.† This increase coincided with the first major building phase for the WWII cantonment area. In addition to the Regular Army buildings constructed, a Federal Works Agency Defense Housing project provided duplex housing for 30 families of non-commissioned officers of the two regiments (“officers Occupy New Homes at Fort Huachuca” 1941).‡

The new cantonment, located to the east of the Old Post, followed the “common design” of a “triangle layout [Figure 47].”§ The WWII cantonment at Fort Huachuca grew in distinct phases, dictated by the pending arrival of troops and War Department budgets. As one phase ended, plans and specifications were being created for the next mass of construction at the post. The work progressed mostly at full speed, as illustrated in a newspaper article discussing the first phase of construction, and commenting that, “well over 200 of them [buildings] were built within 90 days, an average of 2.6 completed buildings a day. A mess hall was readied for use within 12 hours at the start of work” (Wright 1941:2-1). By the end of construction, over a thousand buildings had been completed, presenting a sea of identical barracks [Figure 48] and supporting buildings spreading down the slope, with the mountains as a backdrop. According to Steve Smith in his historical review of [Black] soldiers at Fort Huachuca, “...by January 1941 some \$6 million was already at work building the cantonment for the 368th Infantry, and when it was decided that a full division would train there, another 23 million dollars were spent to construct 1,242

* Smith, Enscoe and Hunter 2012 pp. 24.

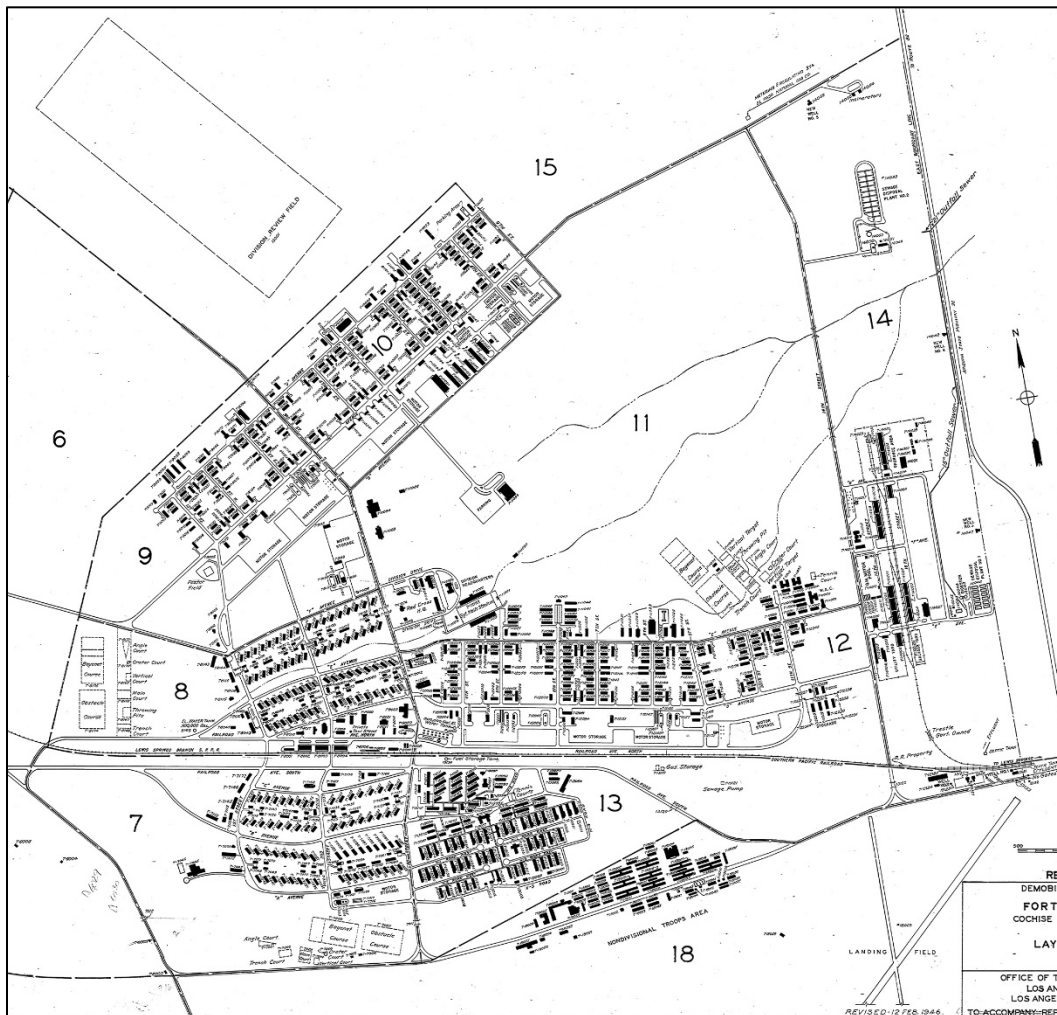
† Tomes and Thompson 2013 p 11.

‡ Smith, Enscoe and Hunter 2012 pp. 24.

§ Smith, Enscoe and Hunter 2012 pp. 10.

buildings for housing, 58 facilities (clubs, recreational buildings, post office, churches, guest houses, headquarters, guard houses, hospitals) and 26 storage buildings on 75,000 acres of land. To support this city on the desert, over 1,400 civilians were employed” (Smith 2001:83).*

Figure 47. Fort Huachuca New Cantonment, 1945.



Source: Fort Huachuca Museum Collection.

* Smith Ensore and Hunter 2012 pp. 24-25.

Figure 48. View of typical WWII 700-series barracks at Fort Huachuca, no date.



Source: Fort Huachuca Museum Collection.

Conducted under Procurement Authority No. QM 7616 P1-3211A, the fixed-fee contract for the first cantonment construction was negotiated during October 1940 and used the architecture/engineering firm of Headman, Ferguson, and Carollo of Phoenix to assist with supervision of the construction. The Del E. Webb Construction Company of Phoenix handled the actual construction, with White & Miller, Contractors, Inc. of Tucson as a junior member (Headman, Ferguson, and Carollo 1941). The site layout “had been made during the year before the start of actual construction by the War Department, resulting in a definite location of site with reference to the established Post and the well water supply” (Headman, Ferguson, and Carollo 1941). The project began on 24 October 1940 with the troop housing completed by 28 February 1941. During this first phase of new cantonment construction, housing for 5,240 men and officers was built, resulting in 80 barracks (63-man), 26 mess halls, 27 day rooms, 27 storehouse and company administration buildings, five officers’ quarters (40-man), two officers’ mess halls, and 18 other buildings for utilities, storage, security, and recreation. The latter category included a regimental-size recreation building, a theater (364-man), a guest house, and one service club (type SC-3, plan 700-1275). Additionally, this contract covered construction of a 190-bed hospital with wards, mess hall, infirmary, storehouse, dental clinic, administration building, and quarters for nurses and officers (Headman, Ferguson & Carollo 1941). To accomplish this in a period of months, over 3,600 persons were employed, and weekly payrolls ran as high as \$160,000 (Wright 1941, 2-1).*

* Smith Ensore and Hunter 2012 pp. 25-26.

Located to the east of the existing [Old Post] cantonment, the new construction extended east-west along a spur of the Southern Pacific Railroad. The regimental buildings were placed on 1st Street, facing inward to the cantonment [Figure 49]. Located on slightly higher ground, occupants of these buildings were provided with a view over the regimental area (Headman, Ferguson and Carollo 1941). There was a recreation center between Railroad Avenue North and D Avenue. Contained within this area were a “post office, theater, post exchange, regimental recreational building, service club, fire hall, and guard house” (Headman, Ferguson, and Carollo 1941). All cantonment buildings in this first phase were likely of the 700 Series of temporary building standardized plans. Project Architect Sam Headman was quoted in a local newspaper stating that, “the buildings will last almost indefinitely” (Wright 1941:2-1).*

Figure 49. Partial view to the east of WWII cantonment with Mountain View Officers' Club (66050) in the lower right, 1948.



Source: Fort Huachuca Museum Collection.

Up until this time, Fort Huachuca was served by its own utility service, but an outside electric power source was nearly within reach of the post by 1940. The Army had been generating its own electric power from five

* Smith Ensore and Hunter 2012 pp. 26.

small diesel engine-driven units. The closest main trunk natural gas pipeline was at Curtiss, 25 miles away, but the Army had completed negotiations in 1940 on a contract to extend a line to the fort for heating and fuel purposes. The post sewer system consisted of two cesspools that frequently overflowed on the surface of the ground “causing a nuisance and a menace to health.” As part of the cantonment project, the Army constructed a sewage disposal plant. Water was supplied to the post by springs and a gravity flow system until just recently. Once Well #2 [90013] in the East Gate [now known as Buffalo Soldier Gate] field was completed, said S. S. Headman, consulting engineer on the construction project, the post would have sufficient water “to meet the needs of any size cantonment that might be considered.” The cantonment area as designed by Headman and the Post Quartermaster in 1940 required construction of several new components to the water system including a new supply main and storage tank, a grid work of distribution pipes, and a new production well (Well #2 [90013]) (U.S. Army RG77 Box 134; *Phoenix Gazette* November 11, 1940).*

As part of the [WWII] cantonment construction project, the Army contracted to have a second 14-in. diameter well (Well #2 [90013]) drilled in the vicinity of the East Gate [now known as the Buffalo Soldier Gate] approximately 500 ft west of the well put in the previous year. This well was completed in November 1940 and was tied into both the old post water system and the new cantonment area in the spring of 1941 (Turner and Cushing 1942).†

An additional construction contract to the same firms was let shortly after the original construction for 10 additional buildings. The \$134,644 contract included two regimental chapels, three barracks for an anti-tank company, a post exchange, patients’ recreation building, mess hall, recreation building, and a storehouse and administration building. The work was completed on 15 August 1941 (Wright 1941:2-1). The two recreation buildings and the post exchange were constructed under the effort to provide additional recreational facilities for black troops (Carlin 1941).‡

By mid-September, the final addition to the cantonment for the 25th and 368th Infantry Regiments was started. Also constructed by the Del. W

* Herbert Jackson and Wee 1990, p. 119.

† Herbert Jackson and Wee 1990, p. 119.

‡ Smith Enscoe and Hunter 2012 pp. 26-27.

Webb Construction Company, the 36 buildings include 22 barracks, six battalion administration buildings, two company storehouses, two recreation day rooms, two mess halls and two native-stone gatehouses. By 15 November, the additional buildings were complete, and the troops then moved in, bringing the two regiments to full wartime strength (“Builders at Fort Huachuca Get Florence Camp Contract” 1941; Wright 1941:2-1). By the end of the full first phase of construction, over \$7 million had been expended on creating the cantonment and 300 new buildings were in place. At the same time, the post population had expanded from about 1,300 to more than 6,000 (Wright 1941:2-1). This expansion was just a hint of things to come.*

The firm of Headman, Ferguson, and Corollo was selected to provide architectural and engineering services for the new training camp at Fort Huachuca on 28 March 1941. This was part of a group of firms announced for the 28 new camps planned as part of the increase of forces in anticipation of American involvement in WWII. The Fort Huachuca project was described as a Triangular Division for 30,000 troops, the same as new camps in Alabama, California, Georgia, Illinois, Indiana, Arkansas, Kentucky, Mississippi, Missouri, New Mexico, Ohio, Oklahoma, Oregon, Texas, and Virginia. The projects all had different architecture-engineering firms assigned that were regionally located to their assigned camp construction project (U.S. Army RG92 Box 703).†

The new construction took place under a revised War Department construction policy. Released on 19 August 1941, the policy reflected the strain on resources caused by the massive building program and other Army expansion costs; it limited the numbers and types of buildings that could be constructed in the new cantonments, particularly suspending the construction of family housing for married officers and non-commissioned officers (War Department 1941). For the new camps, the essential facilities included in the policy, in addition to barracks, were administration, supply, service, maintenance, security, recreation, welfare, and health. At existing posts, the policy dictated that new construction of service, administrative, and recreational buildings were to be provided only where these facilities were considered essential for the increased garrison. Funding would not be made available for

* Smith Enscoe and Hunter 2012 pp. 27.

† Smith Enscoe and Hunter 2012 pp. 30.

construction of swimming pools (War Department 1941). Instead, it was suggested that WPA funds be used for this purpose.*

In a 4 November 1941 correspondence from the Quartermaster General's Office to the Constructing Quartermaster in Zone VIII, the cantonment facilities required by the location of a full Triangular Division at Fort Huachuca are laid out. Funded by part of a 1942 Supplemental National Defense Bill, this construction effort was designed to provide the additional facilities needed for an authorized total strength of 18,633 officers and enlisted men (Leavey 1941). Plans had been underway for expanding the fort since earlier that year ("Minutes of Staff Conference," 1941). According to testimony given at the appropriation hearing by Brigadier General Brehon B. Somervell, chief of the Construction Division of the Quartermaster Corps, "we have had on the ground a group of engineers for some months, who have been doing the advance planning; we have made surveys, laid out buildings, the water and sewer system, roads and other facilities" ("\$11,590,720 Huachuca Fund Approved" 1941). Preliminary plans had been submitted and approved in early September ("\$11,590,720 Huachuca Fund Approved" 1941). Subsequently, the list of facilities had been revised, approved, and a contract awarded by 20 January 1942 (Leavey 1941).†

Funding for the division-size cantonment project at Fort Huachuca was approved by the House Appropriations Committee on 3 December 1941 at a cost of \$11,590,720 ("\$11,590,720 Huachuca Fund Approved" 1941). The pace of activity increased immediately. That same day, Army officials were on the ground at the fort looking over the site and the finalized plans for the planned cantonment:

The architect engineering firm adapted the layout here from a typical layout provided by the War Department. The Infantry regiments will be ranged along one side of the parade and recreation area, approximately 6,000 by 3,000 feet, with the artillery, special battalions and division troops on the other. Motor storage areas will be in the rear of these. Each Infantry regiment will have 224 motor vehicles, the artillery 599, and the special troops 518 ("\$11,590,720 Huachuca Fund Approved" 1941).‡

* Smith Enscore and Hunter 2012 pp. 30.

† Smith Enscore and Hunter 2012 pp. 30-31.

‡ Smith Enscore and Hunter 2012 pp. 31.

The project was designed to provide the facilities needed to increase the size of the post's military population to 17,903, an increase of 11,309 men ("\$11,590,720 Huachuca Fund Approved" 1941). Construction of the necessary buildings was expected to be completed in 5.5 months ("\$11,590,720 Huachuca Fund Approved" 1941). These buildings were all of standardized construction (mostly 700 Series temporary type) identical in style with those at Army posts across the country. The building list included:

158 barracks, 71 mess halls, 65 company and administration buildings, 67 company recreation buildings, more regimental chapels, six post exchanges, 11 storehouses, five infirmaries, seven guardhouses, one central dental clinic, one sports arena, 14 motor repair shops, 11 officers quarters, two residences for regimental commanders, two for brigadier generals, and one for a major general; one oil shed, 12 oil houses, 17 wash racks, 12 grease and inspection racks, one dispatcher house, four service stations, nine 12,000 gallon fuel tanks, 38 dispensing nozzles, one station quartermaster office, one station finance office, two theaters with stages, three fire stations, 10 general warehouses, one ordinance repair shop, one inflammable storage building, two loading ramps, 15 portable igloo magazines, one stockade office and tool house, four sentry boxes, one laundry including a boilerhouse, one bakery, one quartermaster utility shop, one clothing and repair shop, two incinerators, five shop company maintenance buildings with arms rooms, 19,000 lineal feet of fence, and the addition of 12 bays, six by 25 feet each, to the post office. The hospital will be expanded by 741 beds, with all attendant necessities such as operating rooms, clinics, and the like ("Bids for Fort Expansion are to be Sought" 1941).*

The advertisement for bids on the project went out 8 December and responses were due 29 December ("Bids for Fort Expansion are to be Sought" 1941). In addition to the massive amount of buildings, the specifications included complete water and sewer systems, an electrical distribution system, motor fuel supply and distribution system, a natural gas distribution system, and 15 ammunition magazines ("Bids for Fort Expansion are to be Sought" 1941). A contract for the project was awarded to the Del E. Webb Company of Phoenix, along with the Ford J. Twaits Company and the Morrison-Knudson Company, both of Los Angeles ("Contract Awarded for \$11,000,000 Fort Huachuca Job" 1942). Work was underway immediately,

* Smith Ensore and Hunter 2012 pp. 31-32.

and the cantonment was largely ready for the arrival of the 93rd Infantry in May 1942 [Figure 50].*

Figure 50. Troops in the New Cantonment, no date.



Source: NARA College Park, RG111-SC.

The only other major construction at the post during the war was a new compound for several hundred Women's Army Auxiliary Corps (WAAC) soldiers that were attached to the 92nd Division.[†] In November 1942, 6 months after the reactivation of the 93rd Infantry Division, the 32nd and 33rd WAACs arrived at Fort Huachuca [Figure 51]. The women of these companies took over roles that would allow more men to serve in combat duties, including, but not limited to, cooks, bookkeepers, truck drivers, and mechanics.[‡] Facilities for women at that time were segregated as fully as those for blacks. For the WAACs, six barracks, two mess halls, and a large administration building that housed a library, game rooms, a post exchange, and a beauty parlor were constructed (Smith 1976:283). [They] were constructed in an area that was generally "off limits" to men. The

* Smith Enscoe and Hunter 2012 pp. 33.

† Smith Enscoe and Hunter 2012 pp. 34.

‡ Tomes and Thompson 2013 p.11.

construction contract, priced at \$100,000 was won by the Murphey-Keith Company of Tucson (“Tucsonans Get WAAC Contract” 1942).*

Figure 51. WAACS en route from train to barracks, 1942.



Source: NARA College Park RG111-SCA #162447.

On April 13, 1943, the 92nd Infantry Division was formed at Fort Huachuca, organized from troops at stations scattered throughout the southern states (see Figure 52). With the arrival of the 92nd Division, Fort Huachuca became home to the largest number of black soldiers in the country; each of the two divisions totaled approximately 15,000 men (Smith 1976:295; Levstik 2007:7).

Training activities at Fort Huachuca during the new wartime mission included long marches wearing full packs, tactical exercises, demolition training, and various drills.† Training of both the 92nd and 93rd Infantry Divisions at Fort Huachuca was intense during 1942-1943 with as many as 32,000 troops from these regiments quartered at the fort’s barracks (Fort Huachuca Post Museum, History Binder). The 92nd began “D” exercises in the countryside around the fort, and in January 1944 went to Louisiana for

* Smith Enscoe and Hunter 2012 pp. 34.-35

† Tomes and Thompson 2013 p.11.

maneuvers.* Additional duties utilized Fort Huachuca's increased staff and facilities. During that time, the post functioned as the supply distribution center for all of Arizona's military units and for many military units in New Mexico and southern California. Equipment and ration distribution and laundry service for men assigned to posts throughout the state were done at Fort Huachuca (Fort Huachuca Museum 1999:13; Smith 1976:300–301). After the 92nd and 93rd Infantry Divisions were deployed overseas in 1944, the remaining population at Fort Huachuca was composed of soldiers who stayed behind to receive additional training or who did not meet the military's requirements for combat soldiers (Levstik 2007:9).†

Figure 52. The 93rd Division training somewhere on Fort Huachuca, 1942.



Source: NARA College Park RG111-SCA #148129.

During 1944-1945, the 92nd Division, known as the Buffalo Division, fought in the European theater; the 93rd, the Blue Helmet Division, fought in the Pacific. In March 1944, the advanced echelon of the 93rd Division arrived at Guadalcanal in the Solomon Islands. Combat units were

* Herbert Jackson and Wee 1990, pp 129.

† Tomes and Thompson 2013 p.11.

attached to the American Division at Bougainville in the Solomon Islands. Between April and October 1945, the division occupied Morotai.*

In June 1944, the 370th [Regimental Combat Team (RCT)], 92nd Division left Fort Huachuca for duty in the European theater. The following month they were in combat duty in Italy. In February 1945, the 92nd Division attacked Monte Canale, near Massa, Italy and suffered heavy losses. In April 1945 elements of the division entered La Spezia and Genoa, as the conflict came to a close. The war over, the 92nd Division left Europe sailing to the United States on November 16, 1945. On January 17, 1946 the 93rd Division sailed for home from the Philippines (Smith 1978:308-09).†

2.6.3 WWII recreation at Fort Huachuca

The remote location of Fort Huachuca placed severe limits on the recreational opportunities available to the military population in their off-duty hours. The lack of a nearby sizable black community compounded the isolation for black soldiers. These geographic factors, combined with homesickness, the strangeness of sudden military life, and the daily difficulties inherent in black soldiers under the command of high-ranking white officers brought about a serious morale problem at the fort among both the black enlisted men and black lower-ranking officers. Soldiers needed places and activities to blow off steam. A 1942 newspaper article outlined the difficulties (“Huachuca Soldiers to Get Clean Amusement” 1942).‡

The amount of recreational facilities constructed at installations during the WWII buildup was directly related to the number of troops posted. The War Department construction policy provided the specifics. As of 7 August 1940, triangular and square division encampments included one day room per company, one recreation building per regiment, one service club per division, and two movie theaters per division (War Department 1941). Two months later, this was amended to add one guest house per division, and the provision of a service club was further clarified, “for camps over 5,000 and less than 10,000 capacity, one service club will be provided for each station” (War Department 1941). For Fort Huachuca, this meant one service club in the 1940-41 first expansion. The growth of the post in 1941-42 meant that the post was entitled to a second service club. The 19 August

* Herbert Jackson and Wee 1990, pp 129.

† Herbert Jackson and Wee 1990, pp 130-31.

‡ Smith Enscoe and Hunter 2012 pp. 35.

1941 construction policy added a field house for garrisons with more than 10,000 enlisted, and authorized a recreation building for posts with more than 200 officers (War Department 1941). Officers' clubs were not specifically included in the approved list of buildings.*

There were hostess houses (also called guest houses) often constructed near service clubs and officer clubs for housing visiting relatives of soldiers for a few days. In an area as isolated as Fort Huachuca, there would have been few options available for short-term housing of blacks near the fort, so these guest quarters served a vital function for morale purposes (Smith et al. 1998:67).†

In addition to facilities, there were various hobby clubs, theatrical groups, musical groups, and newspapers produced on post for the enjoyment of the soldiers. Plays were presented in the various regimental recreation halls ("93rd Division Practices 3 New Plays" 1942).‡ Many new recruits possessed skills that proved useful in providing entertainment, teaching courses, or running workshops, in addition to ex-newspaper men that established papers for both the 93rd and the 92nd Divisions.§

Within a few more months, additional athletic facilities had been provided including volleyball courts, a "hardball diamond in the Old Fort with grandstand," and several baseball and softball fields (Batchelor 1942:12). By September 1942, both the number and type of facilities had been expanded even further, with officers' clubs, swimming pools, tennis courts, a hand-ball court, boxing arenas, 10 Post Exchanges, four theaters, and a Red Cross building where personnel did welfare work ("Huachuca Soldiers to Get Clean Amusement," 1942). A newspaper article several months later notes the presence of a football field ("Ft. Huachuca Says Goodbye to Bad Fry" 1942) [Figure 53].**

* Smith Enscoe and Hunter 2012 pp. 38-39.

† Smith Enscoe and Hunter 2012 pp. 39.

‡ "93rd Division Practices 3 New Plays," *The Baltimore African-American*, 1 August 1942, 5.

§ Smith Enscoe and Hunter 2012 pp. 39. The 93^d Blue Helmet was published from 18 Sept 1942 to 26 March 1943, and *The Buffalo*, was published for the 92^d Division. (Stephen C. Gregory, Museum Technician, Fort Huachuca Museum to Martyn Tagg, Cultural Resources Manager, 7 March 2011), used with permission from both parties.

** Smith Enscoe and Hunter 2012 pp. 41-42.

Figure 53. View of Sgt. Wells Stadium at Fort Huachuca, 1945.



Source: Fort Huachuca Museum Collection.

In addition to recruits that left careers as performers, there were also athletes turned soldiers stationed at Fort Huachuca. Their skills were also utilized for providing recreational outlets. A former professional boxing instructor and trainer, now Private Jones, became the post's primary boxing instructor in the fall of 1942. It is likely that many practice bouts and competitive matches were held on post. The post team was very successful, so they may have often given exhibitions ("Jones Boxing Tutor at Fort Huachuca" 1943).*

Exhibitions were also given by professional boxers who found themselves working for Uncle Sam. Joe Louis, the heavyweight boxing champion, was a visitor to Fort Huachuca, although he was stationed in Texas. His first visit was 17 May 1943, and during his two-day stay he visited soldiers in the hospitals and refereed boxing bouts. In addition, he visited post headquarters, trained with the men on the field, and dedicated a recreation hall. He was quartered in the enlisted barracks during his stay ("Sgt. Joe Louis Visits Fort Huachuca Today" 1943; Gregory [personal communication] March 2011).†

* Smith Enscoe and Hunter 2012 pp. 42.

† Smith Enscoe and Hunter 2012 pp. 44.

He returned to Fort Huachuca from 19-21 November 1943. This time, with Corporal Sugar Ray Robinson, he put on three exhibition bouts with 92nd Division opponents. With crowds estimated at 14,000 for each of the exhibitions, at least two of the three were held during halftimes at the football stadium (Finley 1993:62). Although there are assumptions made that Joe Louis used a boxing ring located in the old 25th Infantry training area near the Mountain View Officers' Club [66050], the soldiers stationed at the fort put on many practice and competitive matches and this could be the reason for the rings near the Mountain View club (see Figure 54). There is no documentary evidence of Joe Louis using the ring, which seems to have been in place since 1941, according to Steve Gregory at the Fort Huachuca Museum. Documentation of the ring consists of a 1941 8mm film segment, and a 1956 aerial photo that shows the ring and a set of old bleachers [the concrete foundation of the bleachers is still present] ("Jones Boxing Tutor at Fort Huachuca" 1943; Gregory, [personal communication] March 2011, April 2012; Tagg personal communication 2020). As the demand to observe a fight would have been huge, it is likely that the only other known fight, the third of the Sugar Ray Robinson exhibitions, would have been in the field house.*

Figure 54. Joe Louis and Col. Hardy at Fort Huachuca, 1943.



Source: Fort Huachuca Museum Collection.

* Smith Ensore and Hunter 2012 pp. 44-45.

In addition to “in-house” talent, many notable performers came to entertain the troops at Fort Huachuca. These artists sometimes came on their own, or in small groups, but were most often organized into traveling shows. As such, they would visit many different military posts as part of a larger tour. The most famous of these were put on in later years by Bob Hope and a large retinue of performers. The administrative organization was Camp Shows, Inc., run by the United Service Organization (USO). Camp Shows, Inc. would receive requests from installations for performers, and a group of entertainers would be dispatched. Most of the artists were at least somewhat well-known nationally, and they included singers, actors, magicians, puppeteers, musicians, dancers, and comedians. There were several of these troupes made up of black artists that were organized to entertain the black soldiers (Brandt 1996:108).*

Fort Huachuca received visits from many entertainers, either as part of the USO program or celebrities making appearances on their own. As with all soldiers, the men at Fort Huachuca were starved for diversion, and these events were highly anticipated. The shows would be put on most often in the theaters. Depending on demand, the more famous headliners would perform in the field house, or outdoors at the open-air arena. There were also many performances in the service clubs for the enlisted men. For example, Ella Fitzgerald performed at a concert and dance in the newly built service club on 22 June 1941. The audience was a combination of officers and enlisted men (“368th Infantry Corporal Scores” 1941). On 31 January 1942, Etta Moten, the first black to perform at the White House, sang for a capacity house in the post theater (“Sing for Soldiers” 1942). Dinah Shore sang for the troops in the field house on 9 January 1943 and gained acclaim for signing hundreds of autographs and posing for photos with the soldiers (Finley 1993:51). Upon her departure, she said, “the 93rd division soldiers are one of the grandest audiences I have ever sung before. I hope I can come back soon” (“Dinah Shore Likes Huachuca” 1943). Louis Armstrong performed at the field house on 18 August 1944, playing two shows. The show was not confined to Fort Huachuca, as it was broadcast over “173 Blue Network radio stations and by short wave to troops overseas” (Finley 1993:70).†

One of the most famous performers to visit the troops at Fort Huachuca was Lena Horne. She joined up with the USO early in WWII and toured

* Smith Enscoe and Hunter 2012 pp. 45-46.

† Smith Enscoe and Hunter 2012 pp. 46-48.

both in the United States and overseas. For black soldiers, she was more than just a singer; she was a symbol of beauty and provided the men “someone we can pin on our lockers” (“Lena Horne” n.d.).*

Ms. Horne was also in the process of becoming a staunch champion of civil rights. Due to the segregation in the military, when she performed for the troops on posts, she usually had to give two performances—the first for a white audience and the second for a black one. There is a widely told story concerning her reaction to discovering black attendees sometimes restricted to the rear of the seating area, with German prisoners of war (POWs) occupying the seats in front. Depending on the source, the story is that Ms. Horne either moved to stand behind the Germans and in front of the soldiers and then gave her performance, or tried this tactic but then abruptly stormed off (Moorehead n.d.). There is documentation to support her refusal to sing for, or displeasure at having German POWs hear her, at least at Fort Riley, Kansas, and Camp Robinson, Alabama (Reich n.d.; Kerr 1945). As Ms. Horne later recalled the Fort Riley incident, “I just walked off the stage and went up and sang to the back of the room. ... It happened a couple of times, and they finally said, ‘Get her out of the USO.’ I just reacted as Lena; you know” (Reich n.d.). As a result, she apparently left the USO and performed at her own expense, exclusively at posts with large contingents of black troops (Brandt 1996:180-81). No reliable documentation was found of Ms. Horne refusing to sing for German POWs at camps in Arizona.†

The star singer had a special relationship with Fort Huachuca, for several reasons. The first reason was purely familial since her uncle, Sergeant John B. Horne, was stationed there and assigned to the editorial staff of *The Buffalo*, the 92nd Infantry’s newspaper (“Official Paper of 92nd Division Comes Off Press” 1943). The second reason pertains to the racial situation discussed above. With its majority of black troops, Fort Huachuca did not pose the same performance dilemma. In fact, she seemed to enjoy performing at the post and visited multiple times. After a stay of several days in mid-March 1943, she announced that “her heart belongs to the 92nd Infantry Division” (“News of the 92d Division” 1943). During that stay, she performed at the field house, both service clubs, and the station hospital (Finley 1993:52). According to an article in the *Blue Helmet*‡, she also joined the Deep River Boys, a Gospel group, in the Headquarters Annex to record an

* Smith Enscore and Hunter 2012 pp. 48.

† Smith Enscore and Hunter 2012 pp. 48-49.

‡ The 93d *Blue Helmet* was published from 18 Sept 1942 to 26 March 1943,

album at some point during the March visit (Gregory [personal communication] March 2011). Ms. Horne was back at Fort Huachuca in August 1943, to dedicate Theater No. 5 as the Lena Horne Theater.*

She sang at a baseball game at Foster Field [no longer extant] and posed for photographs on 22 August 1943, and then took part in the dedication ceremony on 23 August (“Lena Horne Glamourizes Baseball” 1943; Gregory [personal communication] March 2011) [Figure 55]. Her newest film, “Stormy Weather,” premiered at the newly renamed theater. In return, the soldiers crowned her the “Sweetheart of the 92nd Division” (Finley 1993: 60).†

Figure 55. Lena Horne singing at a baseball game at Fort Huachuca, 1943.



Source: Fort Huachuca Museum Collection.

* Smith Enscore and Hunter 2012 pp. 49.

† Smith Enscore and Hunter 2012 pp. 50.

There were also many entertainers that visited Fort Huachuca, but possibly performed at the USO Club in Fry, not on post. In his history of the fort, Cornelius C. Smith Jr. mentions that the USO club was a popular place, “playing host to such luminaries as Dinah Shore, Lena Horne, Pearl Bailey, Hattie McDaniels, Joe Louis, Louis ‘Satchmo’ Armstrong, and many other stars of stage and screen” (Gregory [personal communication] March 2011; Smith 1976, 305-307). “Playing host” could have meant providing accommodation; it is not necessarily documentary evidence of a specific entertainer performing there. Smith’s list of performers at the USO club is not given a citation in his book.*

2.6.4 Enlisted service clubs and officers’ clubs

According to Stephen Gregory [Gregory [personal communication] 2011], Museum Technician at the Fort Huachuca Museum, there was a difference between service clubs and officers’ clubs that went beyond rank. The former were intended for use by enlisted men and were run by the Special Service Division, Services of Supply, U.S. Army. “Service clubs (or Servicemen’s clubs) were funded evidently from morale funds for the benefit of enlisted men and did not require dues” (Gregory [personal communication] November 2011). The service clubs had civilian hostesses and ran the social affairs and staffed the onsite library. Mr. Gregory believes that social activities and entertainment were the predominant uses of service clubs, not dining (Gregory [personal communication] November 2011). As such, they had snack bars or cafeterias but not more elaborate dining rooms. Standard plans were utilized for service clubs. Several designs existed for buildings to support varying numbers of troops. These sets of plans were replicated across the country with nearly every camp or fort receiving some version of the service club designs.†

2.6.4.1 Enlisted service clubs

Recreational activities at Fort Huachuca were the responsibility of the Special Service Division of the post complement in the Army Service Forces. This complement was in charge of maintaining the fort and was entirely stationed at Fort Huachuca as other units such as the 92nd and 93rd Divisions rotated in and out for training (“Fort Huachuca at War” 1943). Special Service was in charge of operating the “theaters, athletic fields,

* Smith Enscoe and Hunter 2012 pp. 52.

† Smith Enscoe and Hunter 2012 pp. 52.

stadiums, and field house; the service clubs; the two officers' clubs; libraries; canteens, postal service, post newspaper ... poster shop with its silk screen process; makes up schedules for athletic teams, theatrical troupes, regular and dance bands; handles correspondence courses, classes of all kinds and organizes any new ones where there is sufficient demand; and operates a summer nursery school, educational motor tours, educational films and map studies" ("Fort Huachuca at War" 1943). With all these duties, the organization was quite complex.*

When new soldiers reported to Fort Huachuca, they were usually placed in the Special Service Division if they had experience in the performing arts, visual arts, and writing, or if they were athletes who could assist with the sports program. The WAAC units at Fort Huachuca were assigned to the Special Service Division and played a large role in the entertainment programs, both administratively and as performers. They performed variety shows in service clubs, the post exchange, the officers' club, chapels, and day rooms to large crowds (Finley 1993:34). In addition, the units arriving at Huachuca were also tapped for individuals with performing or athletic experience to become cast members, team members, or fill other voluntary slots in the recreation program ("Fort Huachuca at War" 1943).†

There were two service clubs constructed in the new cantonment, Service Clubs #1 and #2, with #1 built first (type SC-3, plan 700-1275) during the initial phase of cantonment construction Oct 1940–May 1941. It was located on Third Street near the railroad tracks and next to the fire house; it was assigned building number T-1404 (Headman, Ferguson, and Carollo 1941). Service Club #2 was built during the second phase of cantonment construction to enlarge the post for a division. Club #2 was located on the other side of Third Street, past the Division Headquarters.‡

As the enlisted service clubs were among the most popular and widely used recreational facilities, much work went into programming and making sure the clubs were running smoothly. The activities at the enlisted service clubs were widely publicized in the post newspaper and other outlets (local and national), and activities were often rolled up into unofficial

* Smith Enscore and Hunter 2012 pp. 53-54.

† Smith Enscore and Hunter 2012 pp. 54-55.

‡ Smith Enscore and Hunter 2012 pp. 55.

reports. The importance of the service clubs to the enlisted men is encapsulated in a quote from Sergeant Fred Christian, Service Co, 368th:

Of all of the programs offered at the Fort I like the Service Clubs best. I like the good food served in the cafeterias, reading in the libraries, the evenings of dancing, music, amateur shows, the games such as Pool and Ping Pong, and the make yourself at home, soldier spirit of the hostesses. I do wish that we had a few more girls to dance with (Finley 1993:107).*

2.6.4.2 *Army officers' clubs, white and black*

Officers' clubs were categorized as "open messes," were operated through membership dues received from officers on post and were run by an appointed officer (Gregory [personal communication] November 2011). An "open mess" denoted a facility in which officers could "dine and recreate in an 'open' environment with other officers without the structure of rank interfering" (Gregory [personal communication] November 2011). Officers' clubs were places for relaxation and an informal atmosphere often prevailed, allowing an opportunity for officers to discuss command issues and advise junior officers (Gregory [personal communication] November 2011; Smith 1998, 75-76).[†]

The relaxation of protocol in the officers' clubs was a strong tool for building unit morale and advancement of careers. In the case of black officers, this opportunity was often not available. Due to the lack of facilities for black officers at many installations, existing buildings quite often were repurposed into clubs. In some cases, attempts were made to construct black officers' clubs from scratch.[‡]

For many black officers during WWII, the denial of access to an officers' club was humiliating and detrimental to their careers. It is quite likely that the sting of not being allowed into the clubs was a proverbial "last straw" for many black officers, as it exacerbated the higher-level problem of black officer authority. "The Army staff practice of forbidding [blacks] to outrank or command white officers serving in the same unit not only limited the employment and restricted the rank of black officers but also created invidious distinctions between white and black officers in the same unit. It

* Smith Enscore and Hunter 2012 pp. 55-59.

† Smith Enscore and Hunter 2012 pp. 59.

‡ Smith Enscore and Hunter 2012 pp. 59-60.

tended to convince enlisted men that their black leaders were not full-fledged officers” (MacGregor 1981:37).^{*} At Fort Huachuca, the Mountain View Officers’ Club [66050] was built as a service club and put into use as a black officer’s club in 1942 [Figure 56].

Figure 56. Looking east at the Mountain View Officers Club (66050) at Fort Huachuca, 1943.



Source: Fort Huachuca Museum Collection.

2.6.5 Acquisition of the East Range

Fort Huachuca’s requirements as a training facility during WWII led to the acquisition of a large tract of land on the relatively flat piedmont to the northeast of the original post. During the war troops at Fort Huachuca used the area as a safe down-range for artillery training. This area, known as the Artillery Range (or as it is presently called, the East Range), was composed of tracts acquired from the Department of the Interior through Public Land Orders, land leased from the State of Arizona, and tracts acquired from private landholders. In all, the lands acquired after 1940 amounted to 31,741 acres (U.S. Corps of Engineers, Phoenix Real Estate Office, n.d.).[†]

^{*} Smith Enscoe and Hunter 2012 pp. 60-61.

[†] Herbert, et al. 1990, p. 131.

On March 14, 1942, the War Department Real Estate Division was authorized to acquire land for an extension to the military reservation, containing approximately 34,960 acres, adjacent to Fort Huachuca for use as a Field Artillery Range. Public Order No. 16 of the Department of the Interior, dated July 21, 1942, withdrew Tract A containing approximately 3,853.18 acres for use of the War Department as a Field Artillery Range. The Public Land Order (PLO) stated, “it is intended that the lands described herein shall be returned to the administration of the Department of the Interior when they are no longer needed for the purpose for which they are reserved” (*Federal Register* 1942). The order was later limited to the “duration of the national emergency, plus six months” by Executive Order No. 9526, dated February 28, 1945, which ended October 28, 1952 (Fort Huachuca Directorate of Engineering and Housing [DEH], n.d.).*

Three Real Estate Directives (RE-D) in 1942 and 1943 governed acquisition of lands. RE-D 670, dated 14 March 1942, authorized fee acquisition of lands and other transfers for the Artillery Range. RE-D 670A, dated 21 August 1943 authorized fee acquisition of additional land for the Artillery Range, containing approximately 1,129.53 acres, in sections 27, 33, and portions 34 in T20S/R20E – “Tract 63.” RE-D 670B dated 7 September 1943 related to 670A, by amending acquisition of two parcels owned by the Boquilles Land & Cattle Co. (Fort Huachuca DEH, n.d.).†

Under these real estate directives, the fort acquired the private landholdings of 25 landholders between January 1943 and April 1945. Most were acquired in 1943. These tracts ranged in size from over 3,500 acres to as small as a single acre. The 10 one- or two-acre parcels were in small groups near the eastern border of the original reservation. However, of the remaining 15 most were between 120 and 640 acres; two were 1,129.52 and 1760 acres, respectively, and another was 2657.75 acres. Altogether the lands acquired in fee amounted to 9,588.66 acres. The lands acquired from private parties were those scattered among the public lands acquired from the Federal and state government. A large portion — some 15,177.9 acres — of the Artillery Range was acquired by “implied lease” from the State of Arizona. Of this, 179.16 was a joint lease acquired from the state and Boquillas Land and Cattle Company (U.S. Corps of Engineers, Phoenix Real Estate Office, n.d.) (see Figure 57).‡ Following the conclusion of the

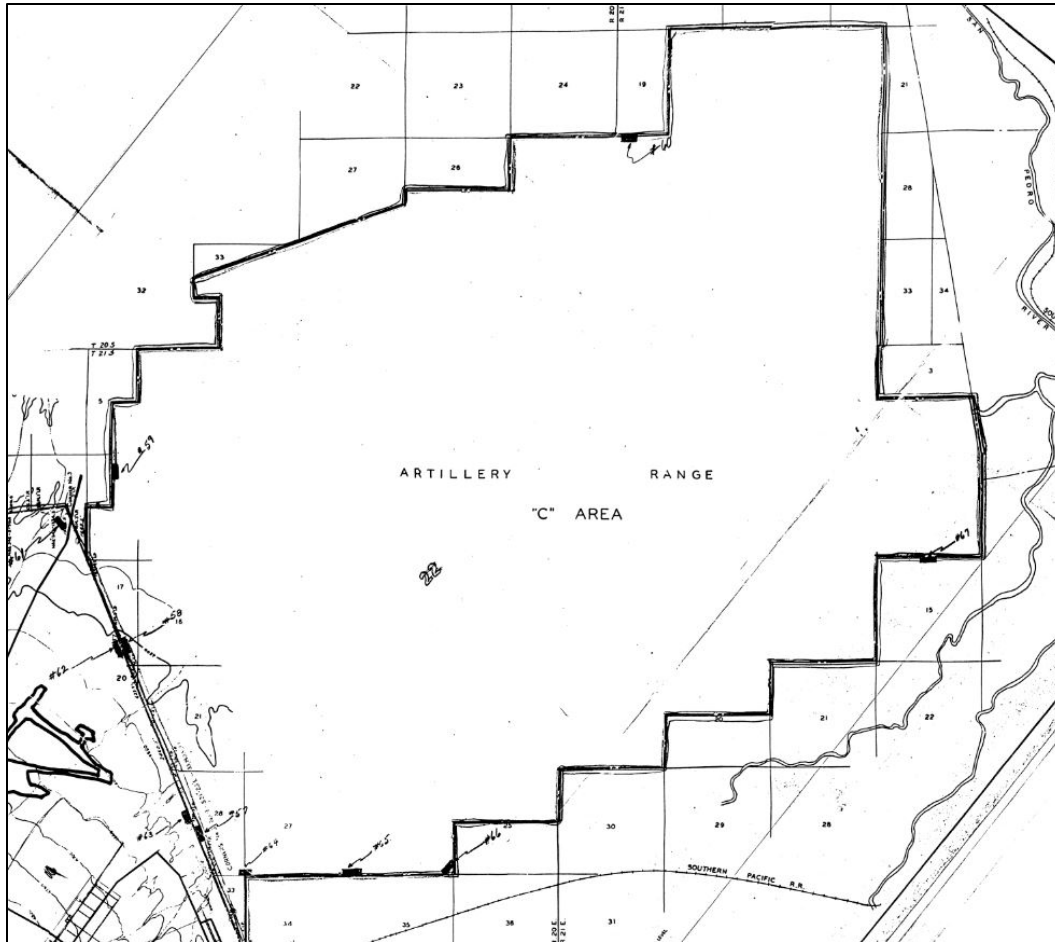
* Herbert, et al. 1990, p. 131-132.

† Herbert, et al. 1990, p. 132.

‡ Herbert, et al. 1990, p. 132.

war, [3,220 acres] of the acquired land was returned to the [State of Arizona, including the] Charleston Town Site in 1951.*

Figure 57. Map of the boundaries of the East Range, 1947.



Source: Fort Huachuca DPW.

2.6.6 Facilities constructed during the WWII

The 26 facilities listed below (Table 5) were constructed during WWII, specifically, from 1942 through 1945.

Table 5. Facilities constructed from 1942 – 1945 in order by date of construction.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
13554	1942†	Riding Stable/Buffalo Corral Stable	Tomes 2013

* Information provided by Marty Tagg, personal communication, February 2020.

† ENRD personnel indicate that this date is potentially incorrect; they have evidence that the buildings were built later, or that this was a WWII building moved to this site. They state “it’s because the Buffalo Corral was not there in WWII,” but they need to verify.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
13555	1942*	Riding Stable/Buffalo Corral	Tomes 2013
31008	1942	Post Engineer Storage/Storage General Purpose, Exchange Warehouse/Hangman's Warehouse	Valenzuela 2011; Tomes and Thompson 2014
41330	1942	Capt. Whitside School/Administrative General Purpose/Whitside Hall	Valenzuela 2011
61609	1942	Water Storage Reservoir/Water Supply	Valenzuela 2011
68052	1942	Oil House /Storage General Purpose Installation	Tomes 2013; Smith et al. 2019†
68053	1942	Oil House /Flammable Material Storage Installation/Storage Shed	Tomes 2013; Smith et al. 2019
68056	1942	Motor Repair/Vehicle Maintenance Shop	Tomes 2013
68057	1942	Motor Repair/Vehicle Maintenance Shop	Tomes 2013; Smith et al. 2019
68058	1942	Storage Building/Storage General Purpose Building	Smith et al. 2019
90431	1942	Water Well, Booster Pump House/Booster Pump House Well No. 3	Tomes 2013
90672	1942	Water Well, Booster Pump House/Booster Pump House Well No. 4	Tomes 2013
90720	1942	Sewage Disposal Chemical House	Tomes 2013
90722	1942	Sewage Disposal Pump House/Sewage Disposal Plant 2 Pump	Tomes 2013
66050	1942	Mountain View Officers' Club	Smith, Enscoe and Hunter2012
90860	1943	Pump House Well No. 5/Water Supply	Valenzuela 2011
70563	1944	Filter Plant/Pool Service Building	Tomes 2013
90338	1944	Dispatch Office/Storage	Tomes 2013
21110	1945	Administrative Office/Accommodation School Administration Office	Tomes 2013
21111	1945	Administrative Office/Accommodation School Superintendent Office	Tomes 2013
90012	1945	Warehouse/Thrift Shop	Tomes 2013
90550	1945	Storage	Tomes 2013
nn-Non WPA	c. 1940s	12 Planters	Tomes and Thompson 2014
nn-Non WPA	c. 1940s	4 Retaining Walls	Tomes and Thompson 2014
nn-Non WPA	c. 1940s	4 Walls	Tomes and Thompson 2014
nn-Non WPA	c. 1940s	Sign/Base	Tomes and Thompson 2014

* ENRD personnel indicate that this date potentially is incorrect; they have evidence that the buildings were built later, or that this was a WWII building moved to this site. They state, "it's because the Buffalo Corral was not there in WWII," but they need to verify.

† Smith, Adam D., Caroline M. Wisler, Susan I. Enscoe, and Sunny E. Adams, 2019. *Fort Huachuca Electronic Proving Ground: Historic Context, Inventory, and Evaluation*. ERDC/CERL TR-19-DRAFT. Fort Huachuca Cultural Resources Report FH-15-19. Champaign, IL: ERDC-CERL (referred to hereafter as "Smith et al. 2019").

2.7 Deactivation, State Control, and Reacquisition, 1946-1954

The end of WWII led to a period of change for the military at Fort Huachuca and around the Nation. Demobilization led military planners to contemplate deactivation or disposal of a number of military posts. Forts and other facilities that had once been centers of great activity and that had great economic impact on surrounding communities were considered for closings. Fort Huachuca was one such post. In the years between WWII and the Korean Conflict (1950-53) the Federal government deactivated the post, declared it surplus, and transferred it to the State of Arizona for the use of the Arizona Game and Fish Commission (AG&FC) as a wildlife refuge and the Arizona National Guard as a training facility.* The Arizona Fish and Game Department ... used it as a buffalo preserve. Herds of buffalo grazed on the East, West, and South Ranges until the mid-1950s. In 1950, a state senator from Cochise County, John Pintek, secured the enactment of Bill 139, a proposal that authorized the acceptance of Fort Huachuca as a gift to the State of Arizona. Pintek then organized Huachuca Enterprises, an organization that sought to lease/rent homes on the post. The corporation also advertised a warehouse, a repair shop, and storage space. Before the venture could be deemed a success or a failure, the military regained ownership of the post in support of the Korean War effort (Smith 1976:314–315).† The deeds making the transfer had recapture clauses and other stipulations that retained for the Federal government some control over the fort, and allowed its eventual recapture during the Korean War. Since its recapture it has remained in Federal hands.‡

The Army during WWII reached a total of 8,000,000 men. With the end of the war and demands rising for demobilization, President Truman announced that by June 1946 the Army would be reduced to 1.95 million; soon thereafter this was further pared by an additional 400,000. By spring 1946, the Army (with the Army Air Forces included) was to be cut to 1,070,000 officers and men. The National Guard, however, was to be enlarged somewhat over its pre-WWII levels, and by June 1950 there were 324,761 guardsmen in 4,597 units. Another 68,785 officers and 117,756 men were in the Organized Reserve's 10,629 units (Weighly 1967:486-87).§

* Herbert, et al. 1990, p. 135.

† Tomes and Thompson 2013, p. 11.

‡ Herbert, et al. 1990, p. 135.

§ Herbert, et al. 1990, p. 135.

The reductions, and reliance on citizen soldiers in the National Guard and reserve forces, reflected a national tradition of maintenance of a small professional Army augmented by citizen troops in times of emergency. Most plans for demobilization considered during WWII by the Army included universal military service as an operating assumption; however, Congress was loathe to establish such an institution, considering it against American tradition. Congress went part way to universal service by requiring that men who joined or were inducted into the armed forces were obligated to military reserve service. A second act (the Armed Forces Reserve Act of 1952), decreed that three levels of reserves were to supplement the armed forces and National Guard, and reserves (Sparrow 1951:30-60; Weighly 1967:529-31).*

The reduction in Regular Army troop strength (partially increased from post-WWII lows by the Korean War) and modest increase in National Guard activity played a role in what happened at Fort Huachuca.†

2.7.1 Demobilization and Disposal, 1946-1949.

As the tide of war in WWII swung toward the Allies, residents and businessmen in southeastern Arizona grew worried over the fate of Fort Huachuca, which played such an important role in the region's economy. In September 1944, S. S. Shattuck, president of the Bisbee Chamber of Commerce, asked Arizona's influential U.S. Senator, Carl Hayden if he had heard of plans to abandon the post once victory was won. The senator assured him that he knew of no such plans. Furthermore, the War Department and others with whom Hayden conferred had agreed that its location was ideal because of available room, varied terrain, and plentiful water. However, Hayden warned that because additional units would not be formed, the post would become inactive and held for possible future use. "Such action would in no way change Fort Huachuca from the permanent station class," Hayden advised [emphasis supplied] (Hayden Collection, 1944).‡

Nevertheless, with the end of the war came the closing that Shattuck feared. By June 1946, the post was superintended by a caretaker staff. Special inspectors from the Adjutant General's Office reported the fort had 125 personnel (with a full population of 400, dependents included). They

* Herbert, et al. 1990, p. 135-136.

† Herbert, et al. 1990, p. 136.

‡ Herbert, et al. 1990, p. 136-137.

pointed out that the greatest danger to the post was fire but noted that among the staff was a trained fire crew (U.S. Army RG417).*

The Army's studies determined that the fort should be turned over to the Arizona National Guard. (Other states' guard units also were to get forts; an example was Fort McClellan, Alabama.) In March 1947, the Adjutant General sent its recommendation to Commanding General, Army Ground Forces. The Director, Organization and Training, recommended that Fort Huachuca be permitted to the state for use by the National Guard. The Adjutant General believed retention of the posts was unnecessary "From a training and organizational viewpoint there is no foreseeable need for the listed installations" (U.S. Army RG417).†

With the news that the Army was seriously considering declaring the fort surplus, various state agencies in Arizona considered how they might obtain it from the Federal government. The agency of the Federal government charged with managing disposal of surplus military property (both land and equipment) was the War Assets Administration (WAA), precursor of the General Services Administration (GSA) (NARA 1974:678).‡

Among the first to act was the ... AG&FC. On April 7, 1947, even before the fort was officially declared surplus, AG&FC Director H. L. Reid informed Clyde P. Fickes, regional director of the WAA, that the commission was "highly desirous of procuring, under any possible arrangement, that portion of the land originally withdrawn for military purposes in 1881, to establish a wildlife study and management area thereon for public use and benefit" (Governor's Papers 1947 Box 37A). The state had established the Arizona Surplus Property Purchasing Agency to aid in obtaining surplus properties following the war. Its Director, Robert O. Kelly, informed Governor Osborn that the Los Angeles Office of the WAA had asked that the AG&FC be given consideration when Fort Huachuca was officially declared surplus (Governor's Papers 1947 Box 37A). Soon thereafter AG&FC Director Reid advised Osborn that the commission only wanted the fort's rangelands. By late April 1947, the Army prepared to place Fort Huachuca in surplus; but May 31, 1947 was the effective date of Fort Huachuca being declared surplus to the needs of the War Department. It would be

* Herbert, et al. 1990, p. 137-138.

† Herbert, et al. 1990, p. 139.

‡ Herbert, et al. 1990, p. 139.

transferred to the WAA for disposal (U.S. Army RG417; Governor's Papers 1947 Box 37A).*

The AG&FC made a formal application to Governor Osborn on January 9, 1948, offering to purchase at fair market value 24,000 acres of range land at Fort Huachuca. Director Reid noted, "in line with the War Department's policy of preparedness in the event of a national emergency, this land would be readily available for conversion to its former wartime use" (Governor's Papers 1948 Box 82; U.S. Army RG417).†

The Arizona National Guard followed with a request of its own. On January 12, 1948, Major General A. M. Tuthill, Adjutant General of the Arizona National Guard, "earnestly requested" that Governor Osborn advise the Army that the Guard wanted Fort Huachuca. Tuthill urged the governor to request such an executive order from the president, "to encompass the present acreage at Fort Huachuca and improvements known as the 'Old Post'" (Governor's Papers 1948 Box 82). By January 15 Robert Kelly of the State Surplus Property Purchasing Agency reported that there were now a number of contenders for Fort Huachuca (Governor's Papers 1948 Box82).‡

The WAA formally declared the fort surplus on March 17, 1948. For the next months that agency considered the applications before it for disposal, and by July it leaned toward granting the entire post to the state and its agencies. However, on March 26, 1948 a small portion of the post had been quickly deeded over to the state: the post cemetery (Governor's Papers 1948 Box 82; Hayden Collection).§

The Arizona National Guard sent its application the next day, for the 31,000-acre Artillery Range, and the land and buildings in the "Old Post" Areas 1-6, Area 10, isolated buildings in Areas 11 and 12, and the airfield in Area 18. Major General Tuthill submitted the application "in the event of withdrawal of the application by the State of Arizona Industrial School." He also wanted small arms target areas with associated structures in Area 17 to be transferred to the state for the use of the Guard. Furthermore, the Guard requested "a Right of Entry" to the entire fort be reserved to the

* Herbert, et al. 1990, p. 140.

† Herbert, et al. 1990, p. 141.

‡ Herbert, et al. 1990, p. 142.

§ Herbert, et al. 1990, p. 142.

National Guard of Arizona to conduct extensive field training maneuvers (Hayden Collection).*

The Air Force in September 1948 apparently made inquiries about taking over a portion of the post. Kelly warned Gov. Garvey that he heard a rumor through WAA's project manager at Fort Huachuca, Ralph Merritt, that the U.S. Air Force (USAF) might try to acquire 9,000 acres in the Garden Canyon area, along with the 500-acre air strip. Merritt warned the USAF that the AG&FC had an approved application; nevertheless, Kelly urged Governor Garvey to ask Arizona's senators to have the U.S. Army Air Force (USAAF) withdraw. The WAA planned to sell a large number of buildings on the post cantonment area to school districts and other public entities. Kelly added that parts of the utilities would also be sold (Governor's Papers 1948 Box 82).†

By November 1948, the WAA was nearing its decision. Hayden had continued to monitor developments regarding the fort's transfer, and at the beginning of the month WAA Deputy Director Robert Whittet advised the senator that there were at that time three applications: (1) 42,000 acres and some buildings for AG&FC; (2) 32,000 acres and buildings for National Guard; and (3) 1800 acres and some buildings for use of the State Industrial School. The university dropped out of the competition.‡

In the meantime, the Army expressed its support for the National Guard. Brig. Gen. Garrison H. Davidson, Chief of Staff, HQ Sixth Army, advised the Army's Director of Logistics that the Sixth Army considered transfer of Fort Huachuca to the Arizona National Guard "essential" for three reasons: (1) present training facilities at Fort Tuthill were insufficient; (2) Fort Huachuca could cheaply be put into shape for use; and (3) the fort could be used (as it was in the 1930s by reserves and the [Citizen's Military Training Camps (CMTC)] program) by [Reserve Officer Training Corps (ROTC)] and [Operational Response Command (ORC)] units as well as the National Guard. The application, Gen. Davidson stated, "fully warrants approval" (Governor's Papers 1948 Box 87; Hayden Collection). At the beginning of December, the National Guard Bureau asked Jess Larson, administrator of the WAA, to favorably consider the Arizona National Guard's application. Their petition included the Sixth Army's letter and a certification

* Herbert, et al. 1990, p. 142-143.

† Herbert, et al. 1990, p. 143-144.

‡ Herbert, et al. 1990, p. 144.

from Secretary of the Army that the “1164 buildings, all utility systems and approximately 44,000 acres of land at Fort Huachuca, Arizona, are both suitable for and needed by the State of Arizona for use in the training of the Arizona National Guard” (Governor’s Papers 1948 Box 87; Hayden Collection).*

With these filings the transfer from the WAA to the Arizona National Guard and AG&FC went rapidly ahead. Since two agencies were to use the post the WAA was concerned that each be given access to water. The WAA urged that the National Guard be given control over the post water supply, but with provision for providing water to the AG&FC. On December 10, 1948, Thomas L. Peyton, Director, Non-Industrial Division, Office of Real Property Disposal, WAA, prepared an analysis of Fort Huachuca disposal urging that land be granted to AG&FC subject to limitations imposed by use of other areas by the National Guard. Reserved from the transfer to the AG&FC should be “all developed springs located on land herein transferred in Garden Canyon and Huachuca Canyon; and all pipe lines connecting such springs with reservoirs on Reservoir Hill (in National Guard area), together with necessary easements, with rights of ingress and egress to repair and maintain same.” This recommendation was approved by the WAA deputy administrator (Governor’s Papers 1948 Box 87; Hayden Collection). On the next day Senator McFarland’s assistant Thomas L. Hall advised Governor Garvey that the two applications had been accepted. Merritt told Senator Hayden that, basically, the National Guard got “land, buildings and utilities,” the AG&FC got “range and mountainous areas” (Hayden Collection).†

If the Arizona National Guard took possession of the built-up portion of the post, it would have to maintain it. However, the Guard did not have the necessary capital to do so without the ability to raise money through sales of facilities or rental of a portion of the post. In January 1949, Merritt, who hoped to stay on at the fort after transfer as its manager, presented Governor Garvey an estimate of costs for maintaining and managing Fort Huachuca for the Guard, and how they might be met. He proposed to raise money through lease of Areas 1 to 6 and Area 18, which were housing areas and would remain so; military use would be kept to Areas 7 through 17 and the Artillery Range. He believed his plan would provide an “opportunity for opening to the public an unique historical monument and a

* Herbert, et al. 1990, p. 144-145.

† Herbert, et al. 1990, p. 145-146.

recreational and housing area which, when combined with the proposed plans of the [AG&FC] in the protection and increase of native wildlife, will become of great importance to this part of Arizona.” Merritt proposed to attract light industries, rent houses, lease portions of the post to recreational and educational institutions, and make use of “other opportunities to create income offered to the National Guard by the terms of the deed of Fort Huachuca” (Governor’s Papers 1949 Box 99).*

Despite the necessity of prior publication in the Federal Register, it was the deed from the United States to Arizona for use as a wildlife refuge under the AG&FC that was ready first. The deed granted a portion of the fort for specific use as wildlife refuge and reserved to the grantor (U.S. Government) springs and conveyances taking water from Garden Canyon. The commission received the range lands to the north, along with the mountains on the western side of the post, extending to the south and southeast, essentially enclosing on three sides the post’s built-up area. The Artillery Range and built-up portion remained outside this deed. The 32,752.56 acres of land was supplemented with 18 buildings “and certain water rights” (the AG&FC was to be supplied with water from the post system at no charge). The deed specified that if the area were not used as a wildlife refuge, ownership would revert to the U.S. government (U.S. Corps of Engineers, Phoenix Real Estate Office, 1949). Official transfer took place at midnight February 15, 1949 (Governor’s Papers 1949 Box 77).†

The National Guard’s deed was delayed at its own request. The guard wanted time to take a careful inventory of property, make changes in personnel, survey boundaries, and complete plans for the state takeover. It also wanted to provide for adequate fire and police protection for the post (Governor’s Papers 1949 Box 99).‡

By March 2, 1949, the [U.S. Government] and State of Arizona signed the deed transferring the remainder of the post, the “old post” area plus the Artillery Range, to the Arizona National Guard. It included the Fort Huachuca Artillery Range; the remaining buildings; utilities; the spring water system that had been specifically excepted from the deed to the state on behalf of the AG&FC; all wells and water pipes, in Areas 1-6, 7, 10, 13, 14; water pipe lines in Areas 8, 9, 11, 12 “necessary to active service with the water system”;

* Herbert, et al. 1990, p. 146-147.

† Herbert, et al. 1990, p. 147.

‡ Herbert, et al. 1990, p. 147-148.

and all wells in Areas 12 and 14, with pumps, chlorinators, and connecting services. The deed also contained seven stipulations: (1) that for 20 years the area be used for no other purpose than to train civilian components of the armed forces; (2) that the state could not sell, lease, or otherwise dispose of the premises described in the deeds (except for some livestock leases) without Federal approval; (3) that the state could abrogate conditions and covenants with specified payments and approvals; (4) that the United States could reacquire full possession “during the existence of any national emergency” declared by the president or Congress, at Federal cost, and that the Federal government would pay rent for use of facilities erected during state possession; (5) that if conditions stipulated were not met by the state, the Federal government could immediately take possession; (6) if so taken, Arizona would take action to return the premises to the Federal government; and (7) that the Arizona National Guard would furnish AG&FC the necessary utilities to them for free (U.S. Corps of Engineers Phoenix Real Estate Office 1949; Governor’s Papers 1949 Box 82).*

2.7.2 The Period of State Ownership and Control, 1949-1951

The transfer of the National Guard portion of the post to the state was done with the aim of providing the state adequate facilities for its state military units, which the Army had wanted to do before the WAA got the task of handling its disposal. The deed attached strings to assure continued military use of the area transferred at least for 20 years. This was done partly to assure that, should the post later be reacquired for Federal use, it would be in a ready condition. General Federal military policy also played a role. As noted earlier, with the mass demobilization that followed WWII the Army decided to increase the National Guard to levels higher than those of the pre-war period. The troops would need proper places to train, and surplus military posts like Fort Huachuca would serve admirably. One string attached in the deed specified that if the National Guard were to lease building space, or sell surplus buildings or other equipment, all income derived was to be deposited with the state National Guard fund and limited to use for maintenance of Fort Huachuca. Furthermore, the Federal government would provide some money each year for repairs and maintenance, for “opening and closing costs” associated with annual training activities (Weighly 1967:486; Governor’s Papers 1949 Box 99).[†]

* Herbert, et al. 1990, p. 148.

† Herbert, et al. 1990, p. 149.

The title problems affected both the National Guard and AG&FC areas. At the end of May, Atkinson warned the AG&FC and Guard that there were irregularities with the deeds granted for Fort Huachuca; most important, both deeds specified the same areas.*

The interested parties — WAA, and the governor, land commissioner, and attorney general of Arizona — conferred about land title problems at Fort Huachuca in late August. Jess Larson, administrator of the General Services Administration/War Assets, later advised Hayden that issuing a correction deed regarding land titles in the Artillery Range was an acceptable solution, and Larson sent this request to Secretary of Defense Louis Johnson, noting that besides the problems in the Artillery Range, “it further appears that in connection with a portion of the military reservation which was intended to be conveyed, some errors in description occurred with the result that no portion of the lands within the military reservation was effectively conveyed to the State of Arizona.” Larson asked Johnson to order issuance of a correction deed to clear up the title confusion (Governor’s Papers 1949 Box82; Hayden Collection).†

As noted earlier, the Arizona National Guard was concerned about how it might raise sufficient funds to maintain and operate its new facility. The confused title did not help. In November 1949, Maj. Gen. A. M. Tuthill reported to Governor Garvey on the situation at Fort Huachuca (Governor’s Papers 1949 Box 99).‡

Soon thereafter Tuthill asked Atkinson to try to expedite issuance of the corrected deed, as all required actions seemed to have been taken in Washington. Lacking a deed and title surety, he complained, held up planning and expenditures of state National Guard funds earmarked to protect the fort (Governor’s Papers 1949 Box 82).§

At the same time, the state continued efforts to lease and sell areas of buildings within the post to raise money for the guard. In April Lyndon L. Hargrave of the Benson Chamber of Commerce wrote to Garvey to express his support of a proposed lease between the state and Fort Huachuca [Enterprises] Inc., a non-profit corporation “for the dual purpose of

* Herbert, et al. 1990, p. 150.

† Herbert, et al. 1990, p. 152-153.

‡ Herbert, et al. 1990, p. 153.

§ Herbert, et al. 1990, p. 153.

maintaining the installation and furnishing low-rental housing to disabled veterans, health seekers [sic] and others in need of such housing” (Governor’s Papers 1950 Box 87). Also, in early April a meeting of the Arizona National Guard General Staff (among whom were Tuthill and Barry Goldwater) discussed the proposed sale of Area 10 and 13, with all improvements. The Army had advised that if the state wanted to sell portions of Fort Huachuca, they would have to submit a written request and “recommend to the Governor that he make formal request to the Federal agency for the sale of the areas and to justify and explain how the money will be used.” The General Staff explained, “it is necessary to sell facilities in Areas 10 and 13 to maintain and repair Fort Huachuca, such as warehouses, motor pumps, tanks, quartermaster depot, ice plant and others ... as things are now going to rack and ruin” (Governor’s Papers 1950 Box 99).*

The state kept trying to find a commercial or industrial enterprise to lease the fort, especially as unemployment in the area was increasing. One fell through in July 1949. In mid-April, the state found a tenant for the “Old Post” portion of Fort Huachuca. On April 11, 1950, Governor Garvey signed a lease for a portion of the post with John Pintek’s Fort Huachuca Enterprises, Inc. The lease included use of certain buildings (listed in the lease’s Appendix A) in Areas 1-6. It ran for 10 years at \$1.00/yr., plus 35% of gross income once \$5000 had been earned. Pintek’s group had an option to renew for another 10 years. Fort Huachuca patrons and guests could have the run of the reservation, subject to areas warned as dangerous; the state was to be held harmless. Tuthill had earlier informed Garvey that he and his staff had looked over the lease and approved (Governor’s Papers 1949 Box 42, Box 42).†

On April 18, 1950, the [U.S. Government] issued a correction deed to the State of Arizona. It remedied some of the ambiguities and other problems found in the deed of March 2, 1949 to the state for the National Guard area. It reaffirmed the grant to the National Guard of the water system; it also specified land, “together with those developed springs and the water rights appertaining thereto, known as Garden Canyon and Huachuca Canyon heretofore conveyed for the use and benefit of [AG&FC] by deed dated January 14, 1949.” The deed restated the seven stipulations listed in the

* Herbert, et al. 1990, p. 154-157.

† Herbert, et al. 1990, p. 157.

guard's previous deed (U.S. Corps of Engineers Phoenix Real Estate Office 1950; Governor's Papers 1950 Box 82).*

With the deed in hand Governor Garvey sent a request to GSA Director Larson that the guard be allowed to sell buildings and improvements in Areas 10 and 13, and the income used for "maintaining the portions of the old post and that of the cantonment area necessary for the housing and training of the Arizona National Guard" (Hayden Collection).†

During the period of state control, January 1949 through January 1951, the cantonment (built-up) portion of the fort was under the control of the Arizona National Guard, as specified in the deed that it be used for "military purposes" for the first 20 years. While portions of the post were leased — particularly residences or other buildings — and other items were sold (buildings and equipment), all proceeds went into the National Guard fund for use at the fort. At least for the National Guard portion of the post, military use has been constant.‡

2.7.3 Korean War and Reacquisition, 1951-54

The uneasy calm existing after WWII in international affairs was broken with the outbreak of war on the Korean Peninsula. After June 1950, the Nation found itself drawn into a widening war in Asia, a conflict that caused the Army to expand, at the war's height, to more than 2.8 million men. Some of the additional troops were federalized National Guard Units from California and Oklahoma, others were Regular Army troops; all were augmented by extension of Selective Service. The initial invasion of North Korean troops pushed an unprepared South Korean force nearly off the peninsula; troops rushed from the United States and under the United Nations forced the North Koreans back deep into their territory. However, in late November 1950 the Chinese Army launched 300,000 men into North Korea to defend their ally and push Allied forces away from their borders. After the Chinese attack, and the resulting withdrawal of Allied troops to the south, the war settled into a costly stalemate (Weighly 1967:506-526).

* Herbert, et al. 1990, p. 158.

† Herbert, et al. 1990, p. 158.

‡ Herbert, et al. 1990, p. 188-189.

The needs of the war played a role in the reactivation, and eventual reacquisition, of Fort Huachuca by the Federal government.*

The start of the Korean War resulted in the reactivation of Fort Huachuca in 1951, this time as a U.S. Air Force base. In a letter to the governor of Arizona dated January 18, 1951, the U.S. Secretary of the Air Force invoked the reversion clause in a 1949 deed to the state. By February 1 of that year, the U.S. Air Force took official possession of the fort, which served the 417th and 419th Aviation Brigades and the 45th, 304th, 923rd and 934th Engineer Aviation Groups. The 419th Brigade was attached to the 6th Army and was officially known as “SCARWAF,” or Special Category, Army with Air Force (Fort Huachuca Museum 1999:102; Smith 1976:312).†

The few individuals who had moved onto the property under the Huachuca Enterprises system were moved out. In support of the Korean War effort, the post trained aviation engineers in airfield construction. As part of their training, one of the first tasks of the aviation engineers and engineer aviation groups was the on-post construction of Libby Army Airfield (LAAF), which was named after Sergeant George P. Libby, Medal of Honor recipient in Korea. The field included a control tower, a fire station, a hangar building, and an airstrip (Smith 1976:315). Several of the airfield’s original wooden buildings, [including those listed above,] were later dismantled and replaced with metal structures (Steve Gregory, personal communication 2012).‡

The AG&FC was opposed to reacquisition by the military. On January 29th AG&FC Director Kimball urged Governor Pyle instead that the state provide the Air Force a lease. Kimball noted that the commission had made expensive improvements, including fencing, corrals, and watering devices, and if title were to revert to the Federal government the commission would present an itemized list for payment. They wanted to preserve the buffalo and antelope ranges in particular. Kimball also noted that senators Hayden and McFarland “saw no reason” why the Air Force could not get what it wanted through a lease. Pyle was non-committal in his reply (U.S. Corps of Engineers Phoenix Real Estate Office Box 61; Governor’s Papers 1951 Box 77).§

* Herbert, et al. 1990, p. 159.

† Tomes and Thompson 2013 p 11-12.

‡ Tomes and Thompson 2013 p 12.

§ Herbert, et al. 1990, p. 166.

The military, however, did not intend to simply lease the post back from the state, and various branches of the military cooperated on the effort to reacquire the fort.*

The AG&FC was faced with the problem of relocating herds of buffalo and antelope and decided to request a lease from the Army of 13,000 acres on the northwest side of the post (Governor's Papers 1951 Box 77). This became more pressing when the state failed to get the Army and Air Force to use Fort Huachuca as it wished. On March 5, 1951, Under Secretary of the Army Alexander advised Pyle that the Army had decided to reacquire title and reoccupy Fort Huachuca. "This will be done in such a manner," assured Alexander, "as to cause a minimum of disruption to the activities now conducted by the State of Arizona" (Governor's Papers 1951 Box 82). Similarly, Col. Francis Shearer of the National Guard Bureau advised the Arizona National Guard Adjutant General, Frank Fraser, that the Air Force planned to turn the post over to the Army. This decision arose out of a meeting between the Army, Air Force, and the vice chairman of the Munitions Board on March 2nd. The Air Force would vacate Fort Huachuca no later than May 15, and "the Department of the Army would acquire and reactivate the installation" (U.S. Corps of Engineers Phoenix Real Estate Office Box 61).†

The Sixth Army, through General Order No. 62, designated the fort a Class I military installation effective April 20, 1951. The USAF turned the post over to the Army in March (U.S. Corps of Engineers Phoenix Real Estate Office Box 61).‡

The AG&FC continued its application for a lease to a portion of the post as soon as it learned that the military planned to reoccupy the area. By October 1951 it had gotten approval from the Arizona Attorney General as to the form of a lease between the [U.S. Government] and the commission for 13,120 acres of Fort Huachuca, for 5 years use as a "Wildlife Refuge." The lease included specific land use provisions. Among these were specifications for pothole water developments for animal watering....(Governor's Papers 1951 Box 82). However, state authorities advised the Secretary of the Army that they signed "under protest" and suggested amending the lease to "provide for an indefinite period of occupancy to continue until such time as the wildlife thereon is found entirely incompatible with

* Herbert, et al. 1990, p. 166.

† Herbert, et al. 1990, p. 167-168.

‡ Herbert, et al. 1990, p. 169.

military operations.” The state based its protest on six specific reasons, including the assertion that the AG&FC “formally acquired title to Fort Huachuca Military Reservation in 1945 under the terms of Public Law 537, and has occupied the reservation since that time for the purpose of restoring, propagating and conducting research projects on the various Arizona wildlife species, until recapture of the title by the Army.” They also noted that the state spent over \$25,000 on development and maintenance, another \$13,600 for research, surveys, investigation projects, and \$15,500 for “water developments and buffalo corral” (Governor’s Papers 1951 Box 76).*

Active or inactive, the post was firmly in Federal hands, so the AG&FC pressed its efforts to continue projects begun in 1949. In May 1953 Director A. W. Yoder of the AG&FC asked Col. D. M. Dunn for a lease on a 22,000-acre area of the post south of the commission’s pending requested lease of the northwest corner. Most of the land was mountainous, with 7,000 acres of grasslands. Yoder noted that “during the two year tenure of the Fort by the Arizona Game and Fish Commission [1949-1951] considerable land improvement work was accomplished in the form of completely fencing the reservation, over half with page wire, additional watering facilities, cross fences, pastures, large corrals and the repair and maintenance of five dwellings subsequently used by military personnel.” The commission was ready to initiate additional improvements “such as wells, earthen tanks, fencing and any other developments where needed” (Governor’s Papers 1953 Box 77; U.S. Corps of Engineers Phoenix Real Estate Office Box 21).†

During the Korean War, the Army used the post to train aviation engineer units for duties in and around airfields, but by August 1952 the need for such units declined. Fort Huachuca headquarters complained to the Phoenix Real Estate Field Office that nothing had been done to “expedite the reconveyance of the Fort Huachuca Military Reservation to the United States for use of the Army.” They demanded an explanation, noting that it seemed that no agency of the Federal government had expressed any interest since the passage of HB 170. Fort Huachuca asked the commanding general of the Sixth Army to push the Phoenix Office (U.S. Corps of Engineers Phoenix Real Estate Office Box 61). The decrease in activity worried Hayden, who asked the Secretary of the Army to explain the Army’s plans for the post. On August 26, 1952, Karl R. Bendetsen, Acting Secretary of the Army, explained

* Herbert, et al. 1990, p. 172-173.

† Herbert, et al. 1990, p. 173.

that reduced demand for engineer units would mean that as the last one was shipped out, the fort would not be required. The Army, however, would evaluate it in light of potential uses by other units. “As a result of the Korean situation, which necessitated the reactivation of Fort Huachuca, some 48,800 acres of land [of the 76,500 acres used during WWII] were recaptured from the State of Arizona. Some \$5,900,000 were expended for the rehabilitation of this facility.” Bendetsen assured the senator that the Army was well aware of the post’s value; “therefore, there is no plan to declare this facility surplus to the requirements of the Army, and it will be retained for possible future use” (Hayden Collection).*

At the end of October 1952, it seemed the state would obtain the assurances that the post would be retained as an active facility (Governor’s Papers 1952 Box 82). Nevertheless, its future remained uncertain, and as the Eisenhower Administration took office the political landscape in Washington changed as well. In March news began to leak out of Washington that the post would be put into inactive status. The *Tucson Citizen* announced that the Army planned to put Fort Huachuca in stand-by status on June 1st. “It was not being abandoned and would be returned to service if needed” (Hayden Collection).†

Hayden sought some means to keep the post open and was heartened to hear later in April that the Signal Corps was interested in Fort Huachuca, news confirmed to him by a source in the Pentagon (Hayden Collection). Hayden learned that in the last 2 months Officers of the Signal Corps had thoroughly assessed its facilities (Hayden Collection). The interest of Signal Corps was not enough, at least in 1953, to keep the post on the active list, and on June 1, 1953, the Army announced that Fort Huachuca had been placed on a stand-by status.‡

Despite the Army’s reoccupation and control of the fort in 1951, by fall of 1953 the state still had not quite claimed title back to the Federal government for the entire fort as it was in WWII. The Headquarters of the Sixth Army requested action from the South Pacific Division engineer, noting that the fort was deactivated but still in the Army’s long-range plans. This request flowed down the chain of command to the Phoenix Real Estate Field Office. Real Estate Officer S. C. Farrington again wrote Governor

* Herbert, et al. 1990, p. 174-175.

† Herbert, et al. 1990, p. 177-178.

‡ Herbert, et al. 1990, p. 179.

Pyle regarding the state's position on transferring the fort back to the [U.S. Government]. The Sixth Army, he advised, made Fort Huachuca inactive, but included it the Army's Installation Program "with a long-range mission" (U.S. Corps of Engineers Phoenix Real Estate Office Box 61; Governor's Papers 1953 Box 77).*

The war was a relatively short one, and by 1953, Fort Huachuca was again placed on inactive status. Its short time as an airfield made Fort Huachuca the only active U.S. Army installation that had an existence as a U.S. Air Force base (Fort Huachuca Museum 1999:102). A caretaker detachment was left on post for the next several months.† [However], technical advances made during the war, with resulting changes in tactics and required training, led to increased military research and development that was also a factor in Fort Huachuca's future. [A]fter the Korean War the United States assumed a more international role and maintained a standing military force commensurate with such duties; Fort Huachuca became part of this effort.‡ In 1954, Fort Huachuca reopened under the control of the Army Signal Corps and was named site of the Army Proving Ground (Trousil 2001:42; Van West et al. 1997:315). That same year, the EPG was established at the fort. Thereafter, the Army continued to assign programs in military intelligence, research, and training to the post.§

2.7.4 Facilities constructed during Deactivation, State Control, Reacquisition, and the Korean War

The nine facilities listed below were constructed during deactivation, state control, reacquisition, and the Korean War, specifically, from 1946 through 1954. No information was found regarding the construction of the buildings listed in Table 6. In some instances, previous reports indicate that the given construction date may be wrong, but without further information, an alternate determination cannot be made.

Table 6. Facilities constructed from 1946 – 1954 in order by date of construction.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
13375*	1951	Water Supply Treatment/Water Treatment Building	Tomes 2013
22040	1951	Storage/Organization Storage Building	Valenzuela 2011

* Herbert, et al. 1990, p. 180.

† Tomes and Thompson 2013 p 12.

‡ Herbert, et al. 1990, p. 136.

§ Vanderpot and Graves 2013, p. 33.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
50010	1951	Service Station/ACS Center/Hayden Hall	Valenzuela 2011
90322*	1951	Pump House/Storage/Carl Krueger Archaeological Laboratory	Tomes 2013
nn	1951	Flagpole	Wee and Mikesell 1993
76911*	1952	Classroom/Dispatch Building	Tomes 2013
62500*	1954	Booster Station	Tomes 2013
66150*	1954	Storage	Tomes 2013

*Tomes 2013 indicates that these buildings may not have been constructed during the 1950s, but that there is a lack of information on the buildings, including real property cards.

2.8 Electronic Proving Ground (Cold War and Beyond), 1955-2015*

The EPG was the first unit to occupy the post upon its permanent reactivation in February 1954. The EPG was an arm of the Signal Corps, which up to that time operated primarily from Fort Monmouth, New Jersey. Fort Huachuca's remote location made it a better area than New Jersey for testing military electronic devices, as it was free from other signal interference and was far enough away from major cities not to disrupt civilian radio and television signals[†] (Figure 58–Figure 59). The creation of the EPG marked a significant shift in the application of electronic technology within the U.S. Army. Before the technology's new application, the increasing presence of electronic equipment during WWII and the Korean War demonstrated both a need for and application of communications technology and electronics systems during military activity. Further, the increase of electronic devices both on and off the battlefield caused concern that the presence of electronic noise would negatively impact the field operations' capability of the military. As a result of this concern, the active development, testing, and evaluation of electronic equipment for tactical purposes became a necessity. The EPG at Fort Huachuca was established as a facility to “bridge the gap between the scientist working in the laboratory developing and improving equipments [sic], and the soldier who must rely on the equipment in battle” (“Mission of the AEPG,” 1958). Thus, the preexisting landscape of Fort Huachuca was shaped to fulfill the needs of both mission and operations for the EPG. Although most apparent during its early years, this evolution continued in response to the operational- and mission-based changes the EPG experienced over the course of its 60-year history to date.

* This section focuses on EPG, but there were other significant missions and buildings constructed for other purposes during this time period that are not discussed in detail.

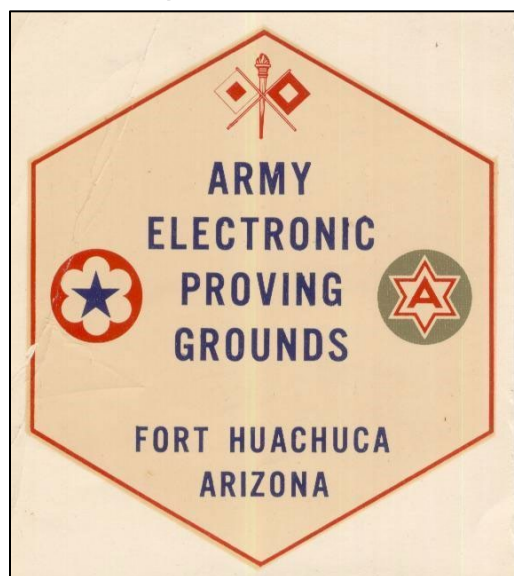
† Herbert, et al. 1990, p. 192.

Figure 58. Looking west at the Main Gate [now known as the Buffalo Soldier Gate] of Fort Huachuca in 1958, at which time the EPG held post command, with Building 90020 in background.



Source: Fort Huachuca Museum Collection.

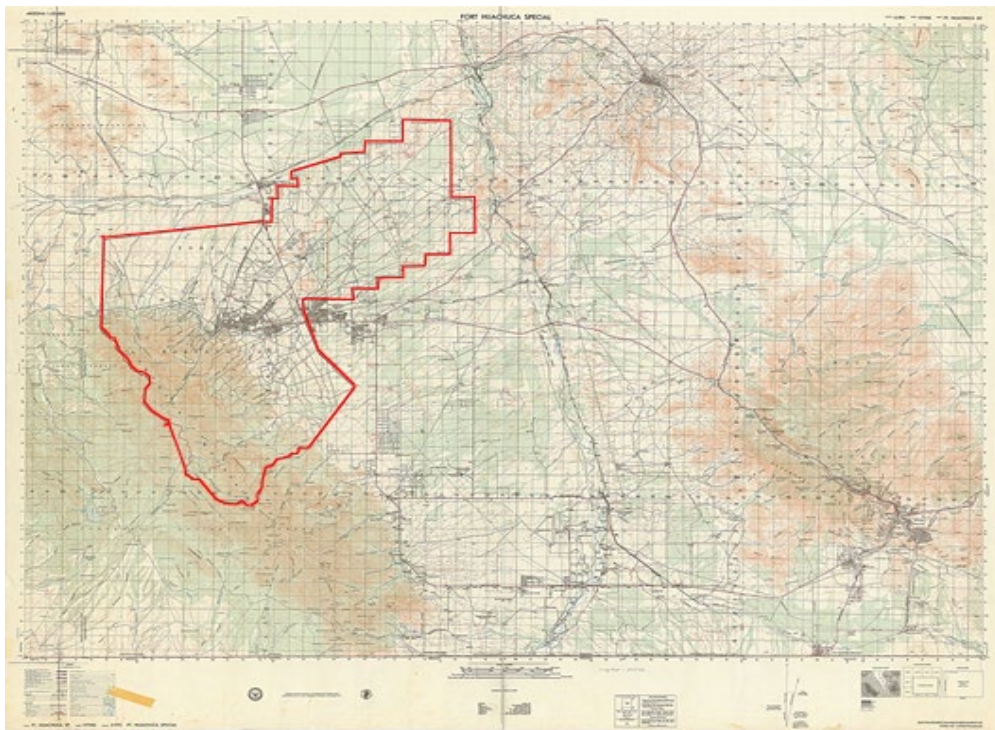
Figure 59. EPG decal.



Source: Fort Huachuca Museum Collection.

After a thorough site search, Fort Huachuca was chosen as the home of the EPG based largely on its location, terrain, climate, and size. Isolated from larger urban centers, Fort Huachuca encompassed about 75,000 acres and was relatively free of electromagnetic noise and air traffic in 1954 (“The Modern Era” 1999) [Figure 60]. This lack of electromagnetic interference provided a controlled testing site for electronic and communication systems for military use.* The desert climate also supported year-round field testing; extreme weather was of short duration and would rarely cause any long-term interruption of field tests (“The Modern Era” 1999).

Figure 60. Map showing Fort Huachuca (outlined in red) and the surrounding region, 1970.



Source: Fort Huachuca Museum Collection.

* The assessment that Fort Huachuca lacked electromagnetic interference based on location, development, and population density was not entirely accurate. After establishment of the USAEPG, it was discovered that Fort Huachuca had a higher level of electronic noise present than was expected. This was a result of the antiquated electrical distribution system, portions of which had been installed as early as 1913. By conducting a test in 1960 (Sunday, 12 June between 0518–0817), during which time the post electrical supply was turned off, the USAEPG was able to identify that the underlying electronic noise was a result of the metal arm braces and the incompatibility of different electrical distribution systems that had been installed over time. According to Dr. Frese’s account within the Fort Huachuca Recollections 1959-1963, “some of the 2,400-volt lines were on old 440-volt insulators.” Only the more recent extensions made to the distribution system used “radio-freed pin insulators and static-proof hardware.” Robert E. Frese, “Fort Huachuca Recollections 1959-1963,” [a supplement to the HMS Bulletin] Sierra Vista, Arizona, The Huachuca Museum Society, 2001-2005, vol. 4, Gregory Chronologic Files, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.

2.8.1 Establishment of the EPG

On 14 January 1954, the Department of Defense (DoD) officially announced the formation of the EPG, which formally established Fort Huachuca as a Class II installation with an active status (Army General Order No. 2) under the command of the Signal Corps (Headquarters U.S. Army Test and Evaluation Command Aberdeen Proving Ground, 1963). On 1 June 1954, the Secretary of the Army approved Fort Huachuca as a permanent installation (Army General Order No. 60, 16 August 1954) (“Organization of the USAEPG” 1962). The EPG was part of the continuous evolution of the Signal Corps which was needed for the advancement and application of technology in warfare (“Activation of the Army Electronic Proving Ground” 1961).

The first commander of the EPG was Major General (MG) Emil Lenzner (1954–1957). Two organizations immediately transferred to the EPG at Fort Huachuca with its reactivation: the Signal Corps Electronic Warfare Center and the 9460th Technical Service Unit, Signal Army Aviation Center, both of which originated at Fort Monmouth, New Jersey, in 1950. The 1st and 505th Signal Groups arrived at Fort Huachuca in May and June 1954, respectively. By September 1954, the small staff of 100 had grown to about 5,000 civilians, enlisted men, and officers (Herbert, Jackson and Wee 1990). General Orders 2, Headquarters Department of the Army, on 14 January 1954 defined the official mission of the EPG as follows:

The mission of the Army Electronic Proving Ground in the fields of electronic warfare, battlefield surveillance, Signal Corps aviation, meteorology and related activities is to perform the necessary technical and engineering tests and evaluation of communication and electronic systems and equipment; conduct operational research; experiments and field tests; formulate doctrine, techniques, and new concepts of Signal organizational elements required; and to provide specialized individual and unit training (Headquarters United States Army Electronic Proving Ground 1963:47).*

By 26 April 1957, the EPG had become sufficiently established to warrant the visit of Mr. Wilbur M. Brucker, Secretary of the Army. This was the first visit made by a Secretary of the Army to Fort Huachuca in the fort’s then 80-year history (“Visit of Wilber M. Brucker, Secretary of the Army”

* Smith et al. 2019.

1957).^{*} In November 1958, Gen. Bruce C. Clarke, the Commanding General of the Continental Army Command (CONARC) made a tour of inspection of the EPG, followed shortly thereafter by another inspection by Lt. Gen. James D. O’Connell, Chief Signal Officer (Headquarters United States Army Electronic Proving Ground 1959).[†]

Although the establishment of the EPG marked a significant shift in the use of Fort Huachuca, the Fort already had a history of use within military communications as a station in the heliograph network that occupied the peaks of the desert southwest.... While the technology had clearly changed between the last decades of the 19th century and the 1950s when the EPG was established, the goals remained largely the same—the improvement of communication over space for tactical advantage, through the use of current technologies.

The organization of EPG and Fort Huachuca was broken down into three corresponding sectors: technical and scientific, support and administrative, and troop command and training (Headquarters United States Army Electronic Proving Ground 1959, 49).[‡] These divisions were born of necessity, based on both expertise in a field of research as well as the dual civilian and military workforce on site. A Chief Scientist acted as key advisor to the Commanding General in the scientific arena and undertook a leadership role for associated personnel, many of whom were civilian experts in their fields of study rather than of a military background. The responsibilities of the technical program were to: “evaluate communications and electronic systems and equipments [sic]; to conduct operational research and field tests; to formulate doctrines and techniques; and to develop new concepts of Signal Corps organization”(Figure 61–Figure 63) (Headquarters United States Army Electronic Proving Ground, 5).[§] These responsibilities were undertaken by each of the technical departments. In 1954, these departments included Combat Development, Electronic Warfare, Battlefield Surveillance, Aviation and Meteorological, and Engineering and Technical.

^{*} Smith et al. 2019.

[†] Smith et al. 2019.

[‡] Smith et al. 2019.

[§] Smith et al. 2019.

Figure 61. The EPG Electronic Warfare Department evaluated the first experimental model of K-band jammer, shown, 1959.



Source: Fort Huachuca Museum Collection.

Figure 62. The EPG Drone Air Frame and Engine Laboratory hosted practical instruction in the developing field of drone technology, 1960.



Source: Fort Huachuca Museum Collection.

Figure 63. Tactical testing of the portable AN/TRD-22 at the EPG, Fort Huachuca, 1965.



Source: NARA College Park, RG 111-SC Box 1453 #619445.

While the divisions and titles of the technical departments evolved over time, these original areas of technical specialization remained relevant to the mission at EPG and continued to be represented at Fort Huachuca, despite the changing organization. By 1956, a Signal Communications (SigComm) Department had been added, while the Engineering and Technical Department had disappeared from the departmental makeup of the EPG (Fort Huachuca Museum Collection 1956-1957).^{*} In a 1960 briefing to Frederick W. Ford, Chairman of the Federal Communications Commission in Washington, D.C., the technical departments were outlined as: Combat Surveillance and Avionics, Electronic Warfare, Signal Communications, Automatic Data Processing, and Meteorology.

The description of the technical departments and their activities illustrate that, when combined, their relative areas of specialty helped to inform and enable the successful completion of mission related tasks that integrated multiple fields of research. Much like the facilities and instrumentation sites that were located within and surrounding Fort Huachuca, the departments functioned as an interdependent and highly functional network or system.

^{*} Smith et al. 2019.

The product of this operational policy was physically demonstrated through semi-annual expositions in which the technical departments coordinated their efforts in a “dynamic, static display of electronic equipments [sic] comporting with the latest developments” for visiting military and civilian dignitaries (Headquarters United States Army Electronic Proving Ground 1955).^{*} The Dynamic Display Control Building (13562), located at Demonstration Hill (on the West Range of Fort Huachuca), was designed specifically for exhibiting the technological achievements of the EPG (Figure 64–Figure 68).[†] Added to the integration present at Fort Huachuca (a key to the EPG’s success) was its involvement with the activities of different Department of the Army (DA) installations across the country (e.g., Fort Monmouth, Fort Hildebrand).

Figure 64. The rear side view of the Dynamic Display Control Building (13562) located on Demonstration Hill on the West Range of Fort Huachuca, 1958.



Source: NARA College Park, RG 111-SC Box 1335 #586335.

^{*} Smith et al. 2019.

[†] Smith et al. 2019.

Figure 65. The rear side view of the Dynamic Display Control Building (13562), looking north at Demonstration Hill, 1958.



Source: NARA College Park, RG 111-SC Box #586336.

Figure 66. The face and observation area (bleachers) of the Dynamic Display Control Building (13562) at Demonstration Hill, 1958.



Source: NARA College Park, RG 111-SC Box 1335 #586334.

Figure 67. The Landing Strip (135XXb) below and west of Demonstration Hill, Fort Huachuca, Arizona, 1960.



Source: Fort Huachuca Museum Collection.

Figure 68. Arizona State Senator Barry Goldwater (front row, second from left) visited the EPG on 18 December 1959, during which time a demonstration of AN/USD-1 Surveillance Drone was given by the Combat and Surveillance and Avionics Department at the Dynamic Display Control Building, 1959.



Source: Fort Huachuca Museum Collection.

The testing, evaluation, and monitoring accomplished at Fort Huachuca often played a role in the work being conducted elsewhere. This was particularly apparent, for example, within the Meteorological Department. Although the work being done by the Meteorological Department addressed the specific needs of the research being conducted at Fort Huachuca and within the regional space of southern Arizona, the Department was also part of an expansive network within the United States and abroad. The official 1961 *Summary of Major Events & Problems* cites 13 meteorological teams, including those functioning with the EPG, which together contributed to Army Research and Development activities. Further, the EPG Meteorological Department collaborated with the related research efforts of several U.S. universities, including the University of Wisconsin, University of California-Davis, and Cornell University (Headquarters United States Army Electronic Proving Ground 1961:64-65). *

2.8.2 EPG operational organization: Technical departments (1954–1961)

Although the early organization of the EPG allowed for and even relied on the integration of the technical departments, each department was assigned its own area for testing and development of relevant equipment. Many of the technologies upon which the EPG was focused were relatively early in their development for the uses to which they were being applied. As such, it was key that areas of technical specialization were created to encourage functional improvements while the simultaneous integrated application of technologies was being explored. The work done at the EPG no doubt had a significant impact on the refinement of the same technologies intended for public consumption. The following is a breakdown of the departments and a description of their activities and interactions during the first decade the EPG was in operation.

2.8.2.1 Aviation and Meteorological Department

The goal of the Aviation Department was to provide the Army with the “fastest, safest and most accurate air mobility in the combat zone” (Army Electronic Proving Ground 1956, 9).[†] This goal required the development of both ground- and air-based navigational and communications equipment as well as the improvement of aircraft in their safety performance, including reliability during adverse weather. The pursuit of these goals, in

* Smith et al. 2019.

† Smith et al. 2019.

turn, was to aid (for example) in the development of a Tactical Navigation System (TACAN) and Army Air Traffic Control and Navigation System (AATCAN), which could be made easily operational in diverse contexts and variable conditions. The EPG was responsible for testing a system in order to identify its “use and application, its accuracy and dependability and to discover any adverse effects terrain may have on it” (Army Electronic Proving Ground 1956, 9).^{*} Not only were projects such as TACAN widely applicable to both civilian and military system demands, but they were also indicative of the integration required of the technical departments, and by extension, the facilities and instrumentation each operated. The research of the Aviation and Meteorological Department would necessarily involve the expertise of the other departments, as described below.

AATCAN was designed for rotary and fixed wing aircraft; the system developed for testing was described as “the freeway system or one-way air traffic movement” (Army Electronic Proving Ground 1956, 8).[†] Activity at the EPG was intended to develop, acquire, and test the new equipment which AATCAN required, including both ground- and air-based navigational aids. The need during combat scenarios to communicate over long distances required the use of wide-band frequencies and specialized equipment. Some of the specific projects being worked on at the EPG and within the Aviation Department in particular in the mid-to-late 1950s were the testing of the following: Summers Autopilot system for military needs, a lightweight intercommunications system, and the Decca Navigation Chain (Army Electronic Proving Ground, 9).[‡] The Decca Navigation System was developed and first implemented during WWII to allow ships and aircraft to plot their position through the reception of radio signals from fixed-transmission beacons. This type of navigational aid persisted until the 1990s, when Global Positioning System (GPS) was adopted. The Decca Chain associated with the EPG in Arizona was a navigational system composed of one master station located in Willcox, Arizona (83 miles northeast of Fort Huachuca) and three surrounding auxiliary stations (also referred to as “slave” stations) in the Arizona towns of Tucson (79 miles northwest), Douglas (50 miles southeast), and Clifton (120 miles northeast), all of which included an antenna tower, transmission building, and coil hut (Figure 69). All of the stations were 150 feet tall and composed of 15 10-foot steel sections. The system provided continuous air and ground

^{*} Smith et al. 2019.

[†] Smith et al. 2019.

[‡] Smith et al. 2019.

Aviation section to form its own department. Meteorological research continued in support of the development, evaluation and testing activities in the area of aviation and other departments at the EPG. It was due to the establishment of the EPG that Fort Huachuca reestablished its weather station (Figure 70–Figure 72), which had been closed since 1920; the weather station had initially opened in 1886 and was maintained by the U.S. Army Post Surgeon (Herbert, Jackson, and Wee:88).* Meteorological support, including the installation of regional Automatic Weather Stations, was essential for both the drone testing carried out at the SSTF located between Yuma and Fort Huachuca as well as the interference testing conducted at the Electromagnetic Environment Test Facility near Gila Bend, Arizona (195 miles northwest; see Figure 69). More specifically, the impact of low-level winds and wind density were a major concern for both the landing and recovery of drones; forecasts were likewise needed for the flight corridor. Local weather patterns and weather oscillations were studied for their potential impact upon Army activities, including electronic and visual surveillance and artillery fire.

Figure 70. Wind speed and velocity were recorded by the Meteorology Department at the EPG, 1959 (Fort Huachuca Museum Collection).



Source: NARA College Park, RG 111-SC Box 1071 #491405.

* Smith et al. 2019.

Figure 71. Meteorologist Mary Lou White, working with a humidity-measuring instrument, 1957.



Source: NARA College Park, RG 111-SC Box 1071 #491405.

Figure 72. A weather station located at LAAF, looking west, was operated by the Meteorological Department, 1960.



Source: NARA College Park, RG 111-SC Box 1353 #591334.

The Battle Area Surveillance (BAS) Department (renamed Combat Surveillance and Avionics Department in 1958) undertook the development, testing, and evaluation of various sensory devices involving television, radar, photography, infrared, acoustics, and remotely controlled drones. The goal for the use of such equipment was to provide information about hostile forces in as close to real time as possible in order to be of tactical value to the commander (Army Electronic Proving Ground :10). * In 1956, the goal of this department was to test and make operational a BAS system for immediate use. To accomplish this, the department modified existing equipment originally intended for other purposes. Results from early tests informed the development of future systems. The focus of BAS was “the support of front line battalions, detailed analysis of ‘enemy’ disposition and rapid delivery of this analysis to company and battalion commanders” (Army Electronic Proving Ground :10) †

2.8.2.2 *Combat Surveillance and Avionics Department*

In 1958, the BAS Department was modified. The objectives of the newly established Combat Surveillance and Avionics Department was to develop, test, and evaluate the equipment and systems used for extending the commander’s situational knowledge of “reconnaissance and target acquisition” (USAEPG 1960:1) ‡ This included the development of communication and electronic systems used in Army avionics. The combat surveillance program at the EPG was an extension of the early use of the airplane during (WWI) for reconnaissance through both photographic and visual surveillance, and for combat. These technologies had improved steadily after WWI—sound and flash devices, radar, and infrared were introduced during WWII in response to the increased range of weapons and missiles, and the increased dispersal of troops. The technologies associated with combat surveillance helped to overcome issues of poor weather, visibility, and distance while improving and extending the range of surveillance possible.

Of central importance to the EPG combat surveillance program was the development and testing of pilotless drone technology (Figure 73). By the late 1950s, drones that were controlled remotely and propelled by rocket boosters were being tested onsite; boosters were mounted to the sides of the drone, ignited electronically, and had the capacity to propel the drone

* Smith et al. 2019.

† Smith et al. 2019.

‡ Smith et al. 2019.

to 120 knots within 2 seconds (USAEPG 1960:2).^{*} Drones were equipped with two parachutes— a pilot chute and a reefed parachute, both of which allowed the drone to be slowly lowered to the ground for recovery following flight (USAEPG 1960:2).[†] The parachutes would fully open after the drone had slowed to a predetermined speed, and once on the ground, the parachutes would disengage from the drone. Drones outfitted with still cameras for aerial photography were able to record images during both day and night (Figure 74). Radar technology was also integrated into drone design and enabled the remote detection of movement. The engineering for these early drones was tested at the EPG SSTF; the use of the system over enemy territory for reconnaissance was also tested at the EPG Test Range in Willcox [Playa], Arizona (see Figure 69) (USAEPG :3).[‡]

Figure 73. Drone launch at EPG, 1958.



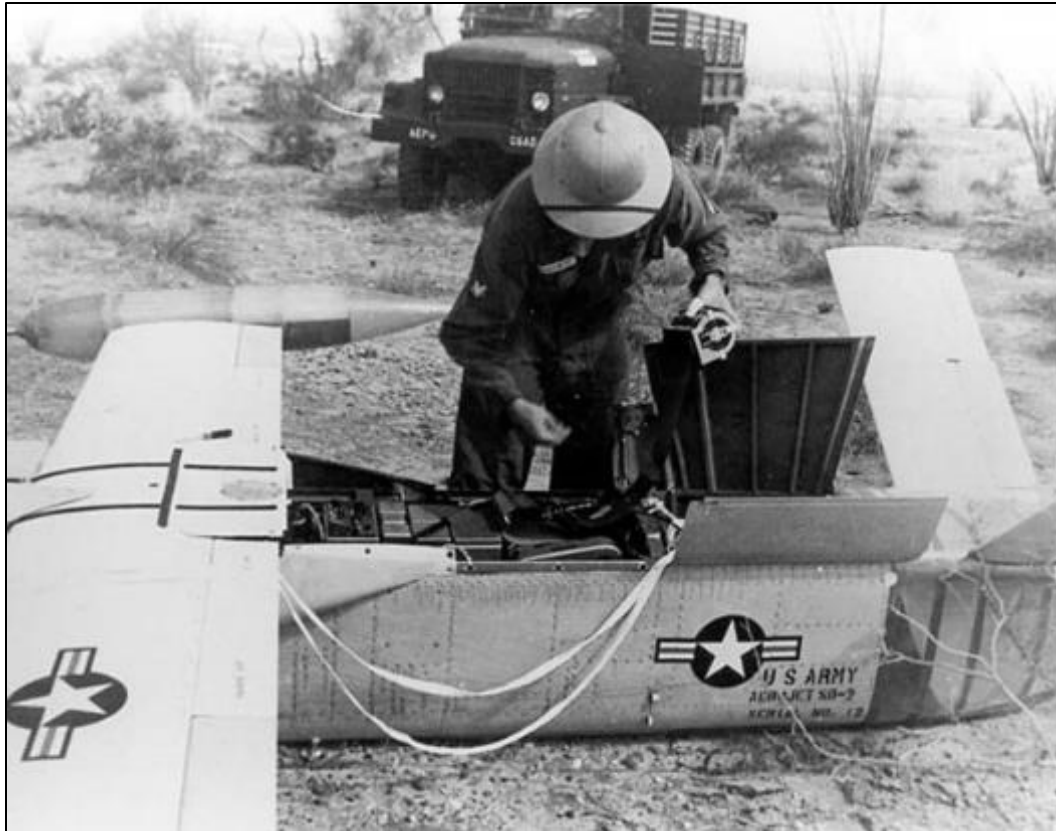
Source: Fort Huachuca Museum Collection.

^{*} Smith et al. 2019.

[†] Smith et al. 2019.

[‡] Smith et al. 2019.

Figure 74. Film removal from an Aerojet Surveillance Drone-2 (SD-2) at Fort Huachuca, 1959.



Source: Fort Huachuca Museum Collection.

In addition, equipment needed for on-ground surveillance was also advanced through the departmental activities. Compact “Silent Sentry” ground radar was a personal microwave device that had the capacity to detect movement of men and vehicles up to a distance of 5 miles; the on-ground “Vantage Point Radar” was a microwave device used to locate moving targets such as vehicles and was accurate up to 16 miles (EPG 1949: 4).^{*} Another ground-to-ground radar system in development during the early 1960s provided ground surveillance from a terrain vantage point and illustrated the data on an electronic map overlay, detecting moving objects at a distance of 50 miles (Figure 75) (EPG:4).[†]

^{*} Smith et al. 2019.

[†] Smith et al. 2019.

Figure 75. The compact, all-weather radar “eye” (AN/PPS-4 Radar Set), which detected motion in variable conditions, was field tested at Fort Huachuca (AN/PPS-4 Radar Set), 1956.



Source: Fort Huachuca Museum Collection.

The Avionics sector supported the development of drone technology as well as the overall refinement of communication, air and ground navigation, identification and control systems as well as flight instruments and stabilization devices incorporated into Army avionics. These technologies were aimed at improving all avionic use (both pilotless and manned) during periods of less than ideal visual conditions.

The data collected through surveillance activities increasingly came in the form of images. The dependency on the use of images in the production of tactical knowledge led to the specialization of imagery interpretation, a field which included photographic imagery as well the multiple forms of radar imagery (infrared, Moving Target Indicator [MTI], etc.). Together, multiple image types significantly increased the information that could be learned by an interpretive expert about a surveilled location. In an effort to develop interpretative skills of this nature, Fort Huachuca had mobile unit identified as a Tactical Image Interpretation Facility (Figure 76). During the Cuban Missile Crisis, Henry Hauser, a retired colonel, was summoned to the Pentagon. Hauser was an EPG expert in image interpretation who was working in the Combat Surveillance Department at that time (Frese 1959-1963, The Huachuca Museum Society 2001-2005). * It was interpreted imagery gathered by way of a reconnaissance overflight of Cuba that provided important evidence of offensive ballistic missiles in Cuba.

* Smith et al. 2019.

Because of the “growing multiplexity” of the Combat Surveillance and Avionics Department, the department was split on 6 November 1960 (Frese: 32).^{*} At that point, Combat Surveillance and Avionics functioned as independent departments, encouraging greater specialization in either field.

Figure 76. Tactical Image Interpretation Facility, Fort Huachuca, AZ., 1966.



Source: NARA College Park RG 111-SC Box 1485 #628453.

The SigComm Department installed, tested, and evaluated the communication equipment used by the Army. In doing so, SigComm responded to the demands placed on Army communications, which required both flexibility and mobility with the advent of modern warfare. The objective was an improved Army communications system (Army Electronic Proving Ground 1956:11).[†] The new communications system, called the Grid (1956), ensured continuous and flexible communication during combat; if one communication center was destroyed, communication was enabled through the remaining units.

Although primarily responsible for the field and engineering testing of equipment developed by the Signal Corps Laboratories, other governmental agencies, and commercial manufacturers, SigComm had additional responsibilities. These included the (1) comparative evaluation of equipment, (2) field testing of signal systems and organizations, (3) writing communication field test plans for other Army agencies, and (4) development of equipment (EPG 1960:1).[‡] In 1960, SigComm was particularly

^{*} Smith et al. 2019.

[†] Smith et al. 2019.

[‡] Smith et al. 2019.

concerned with “tropospheric scatter, net radio, tactical antennas, radio relay, carrier, automatic switching and wire laying” (EPG 1960:1).^{*} The development of a new wire laying system in 1960 led to a patent for the Aircraft Field Wire Dispenser Set AN/ATE-1 under the name of David C. Buscall (the Task Manager for the project in the SigComm Department), which was a major accomplishment. This patent was for a high-speed system for laying wire by air to create communication circuits in the field. While other systems had been developed previous to this, Buscall’s system avoided the typical shortcomings such as high frequency of wire breakage and limitations of length (Headquarters, Department of the Army 1962).[†]

Advances in tropospheric scatter radio technology were another significant achievement for the SigComm. The department was focused on the adoption of commercial communication equipment for military use, including packaging. SigComm was able to modify radios to include 24 channels/ranges that were able to reach over a distance of 150 miles without relay stations, which was a substantial increase from the then-current 30-mile distance (EPG:1).^{*} At the time, tropospheric scatter was superior to more standard microwave radio communication systems, because it did not rely upon line of sight and could move beyond the visual horizon. Making this equipment fit for field use through increased setup efficiency reduced the number of men and amount of time needed for assembly. Among other efforts, SigComm provided technological expertise to developing the tropospheric package being designed to accompany the Pershing Missile. By 1960, the department had already completed a 3-year study of tropospheric system propagation and another study on lower-frequency tropospheric equipment, and it had evaluated over 200 commercial antenna systems and developed a replacement antenna for a standard radio relay (Figure 77) (EPG:2-3).[§]

The SigComm Department’s involvement in the development of radio communications also included work toward the adoption of the single sideband radio (for which the transmission power and bandwidth was more efficient than alternative technologies), thereby lessening power consumption in the field for tactical communications. This development effort included testing military prototypes of single sideband radios as well as

^{*} Smith et al. 2019.

[†] Smith et al. 2019.

[‡] Smith et al. 2019.

[§] Smith et al. 2019.

commercial single sideband transmitters and receivers. Other examples of activity in the development of radio communication technology included the evaluation of a 300-mile transmission range capability for a mobile AM radio unit. Another early project was the evaluation of an automatic electronic switching system for the field Army, which reduced manpower and logistics requirements to one truck and four operatives.

Figure 77. EPG Tropospheric Scatter Antenna Tuning Units located near Garden Canyon, no date.



Source: NARA College Park, RG 111-SC
Box 1335 #586313.

The Electronic Warfare Department (EWD) enabled the Army's electronic warfare (EW) capabilities while also depriving enemy forces from gaining tactical advantage through the use of their own electronic equipment; the latter of these two goals is referred to as Electronic Countermeasures (ECM). Methods of ECM explored the distortion of radar signals, jamming communications, and the redirection of drones (Figure 78 and Figure 79). In 1960, the EWD at the EPG represented the only "fully instrumented test facilities" for ECM (EPG:3). * Simultaneous to disabling the capabilities of enemy forces,

* Smith et al. 2019.

ECM prevented the disruption of electronics and communications equipment being used by U.S. forces through identifying any vulnerabilities present. The EWD closely tracked developments in the electronics field, attempting to anticipate the changes 5–10 years out in EW and ECM.

Early work in the area of EW and ECM produced useful but cumbersome equipment that would not perform well in combat conditions due to size and transmission power. The transmission level of ECM equipment was in particular an obstacle to overcome because it resulted in the interference of electronic systems of the home Army as well as the enemy, thereby reducing its performance in the field. According to a 1960 briefing packet, the research projected between 1960 and 1965 was expected to engage with these concerns in particular (EPG:3).*

Figure 78. Electronic Warfare detachment at Fort Huachuca in the 1960s.



Source: Fort Huachuca Museum Collection.

* Smith et al. 2019.

Figure 79. Soldiers wearing the experimental model of the Manpack Jammer EP/EDL-39 at Fort Huachuca, Arizona, 1960.



Source: Fort Huachuca Museum Collection.

2.8.2.3 Automatic Data Processing Department

The Automatic Data Processing (ADP) Department focused on the automation of various activities in the areas of both command and tactical operations and administration and logistics. For the Tactical Field Army, the application of ADP facilitated the rapid and accurate handling and processing of tactical information, aiding in areas such as battle planning and artillery fire. Through the use of an automated system, the first round of artillery could hit the target, thereby lending the element of surprise. With the increased amount of data collected from the field, the computer facilitated its more efficient analysis and application.

Central to the EPG's early ADP program was the use of the IBM-709 computer. Along with an IBM-1401, the computer systems were located in the ADP center in Greely Hall (61801) and "provid[ed] data processing services for the support of the technical and tactical automatic data processing program" (EPG:3) * by occupying 25,900 square feet in Greely Hall (Figure 80). In the Data Reduction Center, also located on the first floor of Greely Hall, raw data was converted into digital form for input into the IBM-709 for processing (Figure 81).

Figure 80. Aerial of Greely Hall (61801) looking east, 1960.



Source: Fort Huachuca Museum Collection.

* Smith et al. 2019.

Figure 81. Military personnel operate the equipment at the ADP center in Greely Hall (61801), 1961.



Source: NARA College Park, RG 111-SC Box 1343 #588634.

The first notable use of ADP for military purposes, referred to as “The White Plan,” was a demonstration of the application of computer automation to a tactical scenario with the intent of improving combat effectiveness (Frese, Robert E 1959-1963, The Huachuca Museum Society 2001-2005).* The demonstrations occurred on three occasions: October 1960, March 1961, and May 1962. This program was designed to automate artillery functions, considering multiple variables including communications, weather, survey, and ballistic trajectory. By automating the system, time efficacy would become greater and last-minute changes could be incorporated into artillery plans without substantial time needed for their implementation. Multiple approaches to neutralize a target could be more easily compared and evaluated.

The impact of the ADP Department was not limited to the battlefield. In May 1961, the IBM-709 was used for the first automated military pay of 450 soldiers on base (the 512th Military Policy Company and Combat

* Smith et al. 2019.

Surveillance Company; Figure 82) and in the history of the U.S. Army (Frese 1959-1963).^{*} Before this, the payroll at the EPG was conducted by two teams of clerks (with a third team managing disparities). The IBM-709 would later be replaced by subsequent computer models, including the IBM 7090, which was used to process the data collected in the testing and evaluation facilities operated by the EPG (U.S. Army Electronic Proving Ground, Gregory Chronologic File 1964-1966).[†]

Figure 82. Interior of the electrical accounting machine room in the ADP Department located in Greely Hall (61801), 1960.



Source: Fort Huachuca Museum Collection.

In 1961, Gen. Francis F. Uhrhane restructured the EPG for the purpose of improving its efficiency to meet its mission objectives (Headquarters United States Army Electronic Proving Ground 1961, 13).[‡] The purpose of this reorganization was to promote the three major functions of the EPG: “the field testing of electronic equipments [sic]; the development of communications-electronics systems for the field Army; and the operation of an Army post in support of the testing and development effort” (Headquarters United States Army Electronic Proving Ground 1961, 188).[§] The intention of the restructure was to establish three operating activities to oversee the necessary specialized personnel and facilities meant to

[†] Smith et al. 2019.

[‡] Smith et al. 2019.

[§] Smith et al. 2019.

correspond with these functions. This objective promoted the scientific and technical aspects of the EPG missions, and the optimal use of EPG facilities and personnel. Post functions shifted to Support Command.

In 1962, the U.S. Army underwent a major reorganization which had a substantial impact on the operations of EPG. General Orders number 44, effective 1 August 1962, consolidated the “Army’s Technical Services.” Prior to this, each of the Technological Services (Signal, Ordnance, Transportation, Chemical, etc.) had a large degree of autonomy, being responsible for “concepts & doctrine, training, research & development, test & evaluation and procurement” (Frese 1959-1963, The Huachuca Museum Society 2001–2005). * Previously under the singular command of the Signal Corps, the EPG was now placed under the U.S. Army Test and Evaluation Command (USATECOM) by General Order No. 9, dated 8 August 1962; USATECOM was a subordinate to the newly established Army Materiel Command (AMC). AMC was the Army’s research and development branch, the purpose of which was to equip the Army in the field (U.S. Army Materiel Command 1962, Fort Huachuca Museum Collection 1961-1963).† Despite these changes, the EPG would retain the post command (i.e., host activity) at Fort Huachuca until the arrival of STRATCOM in 1967 (Meek, Walter M. 1962, 192).‡

The subsequent restructuring of the EPG’s internal organization was a response to changes made in the Army chain of command. Initially, the EPG was divided into technical departments, each of which undertook research and testing in a particular specialty (defined largely by the technology being worked). While these technical departments evolved slightly from 1954–1961 as the technology became increasingly specialized, the same areas of research and testing were generally represented (Headquarters United States Army Electronic Proving Ground 1954).§

With the reorganization of operations at EPG on 11 June 1962 came the establishment of the Electronics Test Agency, which was composed of three departments: the Test Operations Department (TOD), the Test Programs and Evaluation Department (TPED), and the Field Test Facilities Department (FTFD). Together, these three departments would “execute that

* Smith et al. 2019.

† Smith et al. 2019.

‡ Smith et al. 2019.

§ Smith et al. 2019.

portion of the mission of the EPG pertaining to Electronics Tests,” thereby taking over a role of the original technical departments and the more recent Combat Developments Command (Headquarters United States Army Electronic Proving Ground 1962 & 1964, 22 & 25).^{*} The Electronics Test Agency was assigned to USATECOM, subordinate to AMC.

Simultaneous to the creation of the three Electronics Test Agency departments (TOD, TPED, and FTFD), six tenant organizations dependent upon the EPG for both administrative and logistical support were installed at Fort Huachuca. Three of the tenant organizations were created from former EPG elements, also a result of the Army reorganization. As such, the objectives of these organizations were very much linked to the mission objectives of the EPG. These organizations included the U.S. Army Combat Developments Command Communications Electronics Agency (CDCCEA), the U.S. Army Electronic Research and Developments Activity, Arizona (ERDAA) and the Office of the Project Manager, U.S. Army Command Control Information Systems, Fort Huachuca – 1970 (CCIS – 70) (Headquarters United States Army Electronic Proving Ground 1964:89).[†]

In addition to these new tenant organizations was the continuation of two previous establishments. The first was the U.S. Army Combat Surveillance School (formerly CS&TATC), which initially had arrived at Fort Huachuca in 1957, and as of 19 September 1963, it was subordinate to the U.S. CONARC. The second was the 52nd U.S. Army Security Agency Special Operations Command (ASASOC), which was subordinate to the U.S. Army Security Agency. The sixth tenant organization at Fort Huachuca was the Command Control Information System Group, newly established on 15 June 1963. This group worked in combat developments and specifically in the integration of computer technology into the field (Headquarters United States Army Electronic Proving Ground 1964:94).[‡] This was a subordinate agency of the U.S. Army Combat Developments Command, located in Fort Belvoir, Virginia.

2.8.3 EPG organization and activities (1967–2015)

In July 1967, the Army’s STRATCOM moved its headquarters to Fort Huachuca from Washington, D.C. Under the command of STRATCOM, the

^{*} Smith et al. 2019.

[†] Smith et al. 2019.

[‡] Smith et al. 2019.

EPG. The desired outcome of these changes was to improve efficacy in testing and evaluation and to reduce the length of time needed for equipment to become operational in the field. These demands must have been recognized even before the major DA reorganization which occurred in 1962. Commanding General Francis F. Uhrhane's earlier internal reorganization of the EPG (1961) responded to this same need; the goal was to shorten time needed to deliver on the testing and development of equipment, the two main objectives of the EPG mission.

After the initial arrival of STRATCOM in 1967, STRATCOM was designated the U.S. Army Communications Command (USACC) in 1974 and in 1984, STRATCOM was renamed U.S. Army Information Systems Command (USAISC). In each of these three cases, the EPG fell under the command as a tenant activity at Fort Huachuca. In 1971, the U.S. Intelligence Center and School (USAICS), under the U.S. Army Training and Doctrine Command, arrived at Fort Huachuca from Fort Holabird, Maryland. The USAICS's main school was to train military personnel and civilians from the United States and Allied countries in areas of counterintelligence, area studies, combat intelligence, and other specializations (Department of the Army Headquarters 1974:10).*

The 1980s saw the EPG look toward space and become heavily involved in the tracking of space shuttle flights as part of a national network that was used in support of the National Aeronautics and Space Administration (NASA) program. On 15 July 1985, Headquarters Fort Huachuca was renamed the U.S. Army Garrison Fort Huachuca as part as an overall attempt to standardize the management at U.S. Army installations located in the United States.†

In 1990, the defense management review suggested that the EPG be moved to the Dugway Proving Ground near Salt Lake City, Utah. After the review was completed, Senator John McCain of Arizona wrote to Secretary of Defense Dick Cheney that the potential move of the EPG from Fort Huachuca was rejected due to the substantial long-term investment made in the development of the EPG at Fort Huachuca, and the costs associated with the consolidation and move. Around this time, the headquarters of the EPG was moved from Greely Hall (61801) to Banister Hall (56301). In 1994, the EPG was reorganized under the White Sands Missile Range (WSMR) in southern

* Smith et al. 2019.

† Smith et al. 2019.

New Mexico. Although the test companies, headquarters, and commander were retained at Fort Huachuca, the EPG technical director position at Fort Huachuca was eliminated. Under the organization of the WSMR, the EPG would “focus on test technologies, instrumentation and distributed test for large, complex and computer-based command control, communications, computer and intelligence, or C41. The proving ground also provided test services for electronic and information warfare systems.”*

The position of technical director was reestablished at the EPG at Fort Huachuca in 2000 and on 4 February 2004, the EPG was provisionally reactivated as an independent test center, no longer organized under the WSMR. Reactivation was made official on 1 October 2004 making the EPG a semi-autonomous Army test center under the U.S. Army Developmental Test Command. The EPG was reassigned to the Army Test and Evaluation Command after the Developmental Test Command was inactivated.

Today, Fort Huachuca is the headquarters for [USAICoE] and the U.S. Army Network Enterprise Technology Command/9th Signal Command, formerly the U.S. Army Signal Command (U.S. Fish and Wildlife Service 2007:4).[†] USAICoE is the senior mission.

2.8.4 The EPG built environment

While [Fort Huachuca had the right] conditions suited to the testing of electronic equipment, the infrastructure and technological facilities present on site were insufficient to support the EPG mission. The built environment of Fort Huachuca was quickly shaped according to the technological demands of development, testing, and evaluation as well as to sustain the civilian and military population now hosted on site..... The majority of the facilities designed and built for the EPG were located on the West [Reservation which includes the Cantonment, the South Range, and LAAF] and East [Reservation]; however, several extended beyond the boundaries of Huachuca and were scattered across the southern portion of Arizona, including Yuma Test Site (YTS) [Stone Cabin] and [Oatman Mountain in] Gila Bend. By comparison, the South Range, which occupies the land directly west of the southeastern development of Sierra Vista, had and continues to have relatively little development.[‡]

* Smith et al. 2019.

† Smith et al. 2019.

‡ Smith et al. 2019.

The arrival of the [EPG] resulted in a building boom both on and off the post. There was an immediate need for all types of buildings on the post [such as] technical facilities, barracks, messes, warehouses, shops, and family housing for both military and civilian personnel. The [EPG] used existing structures, particularly WWII era mobilization buildings, to fill immediate needs upon arrival. Folsom Moore, Senator Carl Hayden's long-time friend and political ally from Bisbee, advised him that during a visit to the fort post commander General Emil Lenzner had described needed additional buildings, including recreational facilities, industrial and testing centers, and "Wherry Housing." The general saw housing as particularly important. Moore noted, "he says that he simply must have housing to obtain the civilian assistance absolutely necessary for the full activation of the Fort." General Lenzner requested \$11 million to cover the necessary construction (Hayden Collection). Hayden learned from the Secretary of Defense that until Fort Huachuca became a Class II installation (permanent and under the Chief Signal Officer rather than Sixth Army) it would not be eligible for Wherry Housing; the other items were in the budget process and would depend on Congressional action (Hayden Collection) (Herbert Jackson and Wee:192-193).*

Once Fort Huachuca was declared a Class II installation (by General Order No. 2, 14 January 1954) the Secretary of Defense approved a 500-unit project at the fort on October 8, 1954. The Army began processing the project soon thereafter. News that it would get Wherry units caused some cheer at the post, although the houses might address only a quarter of the overall need. General Lenzner advised the Phoenix Star that he was concerned that he would be unable to get the civilian staff he needed without adequate housing. Fort authorities estimated that 2,000 families, both military and civilian, lived off post, some commuting from Tucson and Benson on Army-supplied buses. Many of the officers whose families were unable to join them were living in bachelor's quarters. Planned growth was rapid: from a skeleton staff of less than 100 in January, by September 1954 there were 945 civilian employees, along with 3,600 enlisted men and 407 officers. The Army planned to have 7,200 enlisted men and 800 officers stationed by January 1955; 9,500 military and civilian personnel would be at the post by mid-1955, with an unknown number of dependents (Hayden Collection).†

* Smith et al. 2019.

† Herbert Jackson and Wee pp 193.

The housing boom also spilled outside the fort's boundaries. On October 15, 1954, the Tucson Citizen announced that Busby & Carroll Construction Company, local builders, had plans to build 100 houses at Fry, just outside the fort's main gate. General Lenzner estimated that the town would need 1,000 housing units as the post grew over the next few years; the civilian housing director put the figure at 1,500. Busby wanted to establish a community, donating land for a school and money to start a volunteer fire department. The company also got the franchise for water service in the town and began drilling a well as a part of a \$50,000 water system. They also had plans for another 450 houses, with room for 1,500 in all. Other developers had two other projects underway, one near Bisbee and the other about 4.5 miles from the post's main gate (Tucson Citizen October 15, 1954).*

The Army tried to address housing needs in its annual requests for military construction funds. In February 1955 the District Engineer, San Francisco District, Corps of Engineers, announced that the 500 family units of Wherry Housing slated for the post were to be ready for bid in May or June. For Fort Huachuca, the Army planned 100 three bedroom, 300 two bedroom, and 100 duplex one-bedroom quarters. By March 21, 1955, the fort planners presented construction project justification data to the [DA] for a variety of additional structures and facilities on the post. Among these were the 450 additional family units, a large warehouse [48060], airfield facilities (e.g., control tower [not extant], hangar [91114, 91110], additional apron area, fuel tanks), a field house with swimming pool [61701], bachelor Officer quarters [43086], and other buildings [see Table 7]. The airfield was without permanent utilities; water was piped in through an above-ground "invasion type casing" line. This would be remedied by extension of utilities to the airfield (Hayden Collection).†

Senator Hayden asked the Secretary of the Army about rehabilitation of family housing at Fort Huachuca in March 1955. The secretary's legislative liaison, Major Guy McConnell, advised Hayden that 74 units of permanent quarters were to be rehabilitated, along with 379 units of temporary quarters, besides the 450 new units planned by the fort (Hayden Collection).‡

Development on the post continued into the next year, and Congress and the Army responded by approving another 575 units of Capehart housing

* Herbert Jackson and Wee pp 193-194.

† Herbert Jackson and Wee pp 194.

‡ Herbert Jackson and Wee pp 194-195.

[only 19 of these units remained in 2015: 21001 (MCA), 21101, 21102, 21105-21108, and 21201-21212] (Hayden Collection).^{*} In November, General Lenzner described the building program and housing situation for Hayden. For officers there were 571 family units either existing, being built or programmed; for NCOs, 802 units existing, being built or planned. The new housing was a mixture of Wherry and Capehart program funds. “It should be noted that these figures do not include any quarters which now exist and are of a temporary nature,” added Lenzner. “I am vacating as promptly as possible undesirable family quarters in East Apache now occupied by NCO’s and will, as promptly as possible, convert those into efficiency apartments for single civilians, particularly women.” Another 75 temporary units in the area known as Bonnie Blink were to be sold to make room For the Capeharts (Hayden Collection).[†]

At the end of the year Moore visited General Lenzner and asked that he send a prioritized list of desired construction to Hayden. General Lenzner sent his list on December 28, 1956. It contained 16 items, the first being a battalion headquarters building, followed by recreational facilities For the barracks area, motor park and shops, two classroom buildings, roads and utilities, two enlisted barracks without mess, a four-company mess hall, 60 man bachelor officers’ quarters (BOQ), two civilian dormitories, and a variety of other buildings (Hayden Collection).[‡]

The construction and improvement of housing took precedence, but this was quickly followed by the construction of a large centrally located facility that would serve for an administrative and research headquarters of the EPG. This facility, Greely Hall (61801), enabled the consolidation of the technical program and support staff, which had initially been dispersed over a larger portion of the installation in smaller facilities built and designed for activity that occurred on site before the establishment of the EPG. These structures dated largely from WWI and WWII as well as the Korean War and were not conducive to the mission and objectives of the EPG.[§]

Limited construction in FY 1955 gave way to \$12 million in FY 1956; for FY 1957 expenditures would range near \$16 million. [General Lenzner] hoped

^{*} “Wherry” and “Capehart” refer to housing produced under different acts authored by Representatives Wherry and Capehart and are different styles of housing on the post. Wherry units are the older of the two; Capeharts are the flat roofed units seen west of Meyers School.

[†] Herbert Jackson and Wee pp 195.

[‡] Herbert Jackson and Wee pp 195.

[§] Smith et al. 2019.

that over the 5-year period starting with FY 1956 to invest \$50 million in the fort, in particular for “1600 family homes, troop barracks and a technical engineering building” [Hayden Collection]. Rehabilitation of existing facilities, including buildings and utilities, had run to as much as \$6 million; “we feel that this activity will be stabilized at an amount of six to seven million dollars annually” [Hayden Collection]. The post was staffed to capacity by nearly 7,000 troops (90% enlisted, 10% officers) but was at less than full strength given that additional barracks would not be available for several years; 1800 civilians were also on staff (Hayden Collection). Moore visited the post in May and reported to Hayden that “progress in the building program is astounding.” Within the year the post should be completely staffed and planning for the “Technical Building” was well underway. Additional barracks were still needed, however. The Field House (recreational facility) was under construction, as was the BOQ building. Post planners also had negotiations underway for “the final Capehart housing -the 297 houses for civilian employees” (Hayden Collection).*

The new family housing caused a need to adjust and augment the water system. In 1956, the post installed a 1,500 gpm. booster station (62500) to support the needs of the 500 Wherry units. Three 500 gpm. pumps drew on the 3-million-gallon tank (61609) (installed in 1942), feeding a 10,000-gallon pressure tank that supplied the Wherry distribution system (Hayden Collection).†

Overall, for FYs 1956 and 1957 the Army planned 1,275 units of family housing. In August 1957, Frank Dryden of the Senate Committee on Appropriations, informed Hayden (the committee chairman) that some \$2.703 million in supplemental appropriations for Fort Huachuca were before President Eisenhower for his signature. The projects included two 326-man barracks, a battalion mess and administration and supply building, plus a hangar and shops. “Indications from the Army are that these items will be placed under contract during the year.” Dryden said that the Army was uncertain about “future plans,” but noted that “long-range plans for Fort Huachuca are such as to safely anticipate that construction will continue for several years, current world situations remaining unchanged” (Hayden Collection). The post continued to develop. On December 1, 1957, the U.S. Army Combat Surveillance and Target Acquisition Training Command was activated at the fort. Its mission was “to train selected individuals in the

* Herbert Jackson and Wee pp 196.

† Herbert Jackson and Wee pp 197.

utilization, operation, maintenance and repair of ground or airborne combat surveillance, and target acquisition equipment” (Hayden Collection).*

By the late 1950s, the facilities constructed at Fort Huachuca for the EPG were becoming increasingly specialized, responding to the research being conducted. As the technical program and the equipment evolved, so too did these facilities. While some facilities could be adapted or updated concurrently with developing technologies, other facilities were removed or simply abandoned. The LAAF, for example, was first built during the Korean War, but it was regularly updated with additional runways, navigational equipment, and lighting used by the EPG. Facilities such as the Electromagnetic Environmental Test Facility (EETF) and SSTF, composed of a network of buildings and resources both within and outside of Fort Huachuca, gradually accrued new and increasingly sophisticated equipment, including radars, digital data recording and transmission systems, and photographic equipment. Other facilities, such as the photo calibration targets present at the EPG and elsewhere have become largely obsolete over the last 60 years as a result of the evolution away from film-based cameras and toward high resolution digital technology which is not compatible with this form of calibration and testing.†

By March of 1960, the [EPG] Technical Building’s first increment was completed and the second increment had construction underway. Other projects completed included three additional barracks, extension of utilities, and a variety shops and technical buildings; those under way included another barracks, shop facilities, and test units. The House authorized funds for another 100 units of Capehart family housing on March 6 but had not yet been enacted by the Senate nor signed into law (Hayden Collection).‡

Growth forced the fort, as noted above, to continue development of its water system, and in June 1960 the House passed \$84,000 for expansion of the water distribution system. Congress had earlier allotted \$165,000 under “Urgent Minor New Construction -FY60” and the fort had the project advertised. At the same time the post had received a bid (considered unresponsive and readvertised) for 200 Capehart family housing units. Another 100 units were under FY61 funding. At the end of the year the Capehart Program on the post featured 575 units completed, another 60

* Herbert Jackson and Wee pp 197.

† Smith et al. 2019.

‡ Herbert Jackson and Wee pp 201-203.

under construction, with 300 “in process.” In May 1961, the [EPG] estimated that, once construction on the additional Capehart units was finished, the post would have 1,968 sets of family quarters (Hayden Collection). In 1961, a booster pumping station [12520] with three 500 gpm. pumps were installed at the base of the 1.5-million-gallon reservoir (22020) to feed the small “Old Post” reservoirs at the top of the hill. An additional 500 gpm. pump was also added to the Wherry booster pumping station, so that it could handle 2000 gpm. (Hayden Collection).*

Part of the pressure for growth probably came from the arrival in 1960 of an additional unit to Fort Huachuca, the U.S. Army Security Agency Test and Evaluation Center (USASATEC). USASATEC was responsible for testing the effectiveness and dependability of equipment produced by research and development of the U.S. Army Security Agency. USASATEC used Fort Huachuca’s varied terrain as a test environment to evaluate newly developed systems and equipment, both offensive to defensive systems.†

The design and construction of EPG facilities was heavily concentrated between 1954 and 1962, before the reorganization of the U.S. Army; however, significant work of the development of the EPG continued before the arrival of STRATCOM in 1967 at which point the EPG became a tenant activity. Much of this initial development of the EPG at Fort Huachuca, largely designed by Blanton and Cole (Tucson, Arizona) and Brenner, McIntire, and Arnold (Phoenix, Arizona), is well-recorded.‡

While each facility can be treated individually, they were designed as components of multiple systems, which in turn made up a larger interrelated EPG network at Fort Huachuca. The physical integration of facilities and the work carried out at each paralleled the organization of the technical

* Herbert Jackson and Wee pp 203.

† Herbert Jackson and Wee pp 204.

‡ However, due to the fast-paced nature of technological advances and the subsequent response by specialized groups at the EPG to stay abreast of these developments, it is difficult to track these changes as they were implemented on site. Archival materials do not necessarily indicate precisely when, why, or how the built environment was altered over time, and the physical remains of facilities (if still present)—both in use or abandoned—do little to clarify the history of these sites after their initial installation and over the last 50 years. The content and availability of detailed installation diaries and annual histories focusing upon the EPG also diminishes substantially during the mid-1960s, likely as a result of the U.S. Army restructuring and the change of the EPG’s status at Fort Huachuca. Physical changes were made to the built environment as facilities were either added or existing facilities were adapted to new needs; the names of EPG facilities were altered accordingly. These name variations have been included in the discussion of the facilities to reflect this tendency wherever possible; however, names were not always official, but more akin to slang terminology based on the current purpose and use of the facilities.

departments and the integration of the research being conducted. The built environment was a comprehensive network instrumentalized for accomplishing the research, testing, and evaluation objectives of the EPG.*

In 1965, the Army's 5-year construction plan showed proposed development at the fort: A \$4.6 million Army hospital (45001) [Raymond W. Bliss Health Center] was planned for FY65, BOQs [43083, 43084, 43085, 43086] for FY66 and 67, a telephone exchange for FY68, and medical barracks, water supply development (\$1.197 million, the same figure proposed by Col. Seigler), commissary [61610] and street extension in FY 1969, and two barracks complexes (\$3 and \$6.5 million respectively) and another street extension for FY69 and 70 (Hayden Collection).†

In August [1967] the Phoenix press evaluated STRATCOM's impact on Sierra Vista, observing that its arrival in June stimulated construction of 200 new homes, new sewers, and public amenities like a public swimming pool and city park. New businesses also arose in the city. STRATCOM in 1967 added 900 to Fort Huachuca's population (*Arizona Republic* August 13, 1967).‡

The post Military Construction, Army (MCA) program shown Senator Hayden in July 1967, ranged from \$14.48 million in FY 1969, \$1.8 million in FY 1970, \$5 million in FY 1971, \$3.45 million in FY 1972, and \$3.74 million in FY 1973. Besides the water development and reclamation project mentioned above, plans called for, among other things, five additional barracks, a 40 man BOQ, a new commissary, enlisted men's service club, post library, a variety of shops and maintenance facilities, Warehouses, road and street extensions, a baseball field and 2,000 seat stadium, and automatic irrigation systems at a variety of places around the post (Hayden Collection).§

What was requested and what was eventually authorized and for which funds were appropriated were often not the same. In March 1968, Folsom Moore, tireless promoter of the fort, devoted three separate letters on the same day to Hayden on three important subjects. First, he advised Senator Hayden that what he had hoped would be an eight-barrack complex had been reduced to three, and he hoped that with Hayden's influence they

* Smith et al. 2019.

†Herbert Jackson and Wee pp 211-212.

‡ Herbert Jackson and Wee pp 215.

§ Herbert Jackson and Wee pp 216-217.

might be able to raise the project to five barracks. Troops were being housed in 1942 mobilization barracks because of a lack of modern quarters. “The five barrack complex will go a long way to providing adequate housing for permanent personnel at Fort Huachuca. It leaves some seven or eight other barrack buildings for future construction, but only three of these are for the present permanent personnel.” To Moore, the more permanent developments could be built on post, the less likely that the Defense Department would deactivate or close the post. Closure would be economically devastating to southeastern Arizona (Hayden Collection); Arizona Collection).*

In 1974 one of the two 500,000-gallon steel water tank towers was sold and demolished. It had stood near the corner of North Railroad Avenue and Irwin Street (Fort Huachuca Post Museum History Binders). The post had plans for additional construction projects, continuing work on another 100 units (20 two bedroom, 80 four bedroom of company and NCO grade) of housing, as well as barracks modernization and existing housing rehabilitation in 1975 (Fort Huachuca Post Museum History Binders).†

2.8.5 Facilities constructed during the EPG/Cold War Period

The 178 onsite and 24 offsite facilities listed in Table 7 were constructed during the EPG/Cold War Period, specifically, from 1955 through 2015. ‡

Table 7. Facilities constructed from 1955 – 2015 in order by date of construction.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
13441	1955	TV Hill Transmitter Building/Transmitter Building/ Radio Range Tower/TV Hill Tower	Tomes and Thompson 2014; Smith et.al. 2019
91112	1955	Hangar/Aircraft Maintenance Building	Tomes 2013
21001	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21101	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21102	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001

* Herbert Jackson and Wee pp 217-218.

† Herbert Jackson and Wee pp 228.

‡ This list only includes facilities already investigated for projects. There are addition less-than-50-year-old buildings not on this list not yet investigated/evaluated due to their age.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
21105	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21106	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21107	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21108	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21201	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21202	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21203	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21204	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21205	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21206	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21207	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21208	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21209	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21210	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21211	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
21212	1956	Capehart International Style Housing	Center of Expertise for Preservation of Historic Structures and Buildings 1989; Programmatic Agreement 2001
12624	1956	West Range Artillery Bunker/Electronic Equipment Facility	Valenzuela 2011; Smith et.al. 2019
30116	1956	Battery Shop/Battery Shop/Vacant	Valenzuela 2011
30117	1956	Paint Spray Shop/Vehicle Maintenance Shop, Vacant	Valenzuela 2011

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
52008	1956	Craft Shop/Skill Development/Storage Facility	Tomes 2013
52010	1956	Bowling Center	Valenzuela 2011
71450	1956	Ultra-High Frequency (UHF) Communication Station/ Test Building/Electronic Equipment Building	Tomes 2013; Smith et.al. 2019
87848	1956	Storage Building/Storage General Purpose Installation	Tomes 2013; Smith et.al. 2019
87849	1956	Storage Building/Storage General Purpose Installation	Tomes 2013; Smith et.al. 2019
87850	1956	Storage Building/Storage General Purpose Installation	Tomes 2013; Smith et.al. 2019
87851	1956	Storage Building/Storage General Purpose Installation	Tomes 2013; Smith et.al. 2019
87852	1956	Storage Building/Storage General Purpose Installation	Tomes 2013; Smith et.al. 2019
13562	1957	Dynamic Display Control Building/Demolished	Smith et.al. 2019
13564	1957	Dynamic Display Control Building Latrine/Demolished	Smith et.al. 2019
13566	1957	Dynamic Display Control Building Latrine/Demolished	Smith et.al. 2019
15410	1957	Storage/Recreational Support	Tomes 2013
15412	1957	Trap and Skeet House/Skeet House	Tomes and Thompson 2014
15414	1957	Recreational, Skeet Range/Recreational Support	Tomes 2013
16678	1957/1972*	Observation Tower/East Range Tower/Abandoned	Tomes 2013; Smith et.al. 2019
22013	1957	Garage/Family Housing Carport	Tomes 2013
48060	1957	Warehouse/General Purpose Storage	Tomes 2013
70650	1957	Radar Workshop/Demolished	Smith et.al. 2019
70651	1957	Electronic Warfare Workshop/Demolished	Smith et.al. 2019
91111	1957	Shop/Aircraft Maintenance Buildings	Tomes 2013
91251	1957	Operations Building	Tomes 2013
91253	1957	Fire and Rescue/Fire Station 3	Tomes 2013
135XXa	1957	Landing Strip	Smith et.al. 2019
135XXb	1957	Helicopter Landing Pad	Smith et.al. 2019
22524	1958	Paint Spray Booth/Engineering/Housing Maintenance	Tomes 2013
30018	1958	Post Engineer Shop/Engineering/Housing Maintenance	Tomes 2013
43086	1958	Bachelor Officer's Quarters/Lodging Quarters/Fisher Hall	Tomes 2013
51001	1958	Barracks/Lodging Quarters/Gosselin Barracks	Tomes 2013
52204	1958	Barracks	Tomes 2013
52315	1958	Substation Operations/Main Electrical Station	Tomes 2013

* Tomes 2013 record the construction date as 1959; Smith et.al. 2019 record the construction date as 1972.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
61701	1958	Field House/Physical Fitness Center, Indoor Swimming Pool/Barnes Field House and Pool	Valenzuela 2011
61801	1958	Greely Hall, Technical Building/Engineering and Design Offices/General Purpose Storage	Tomes 2013; Smith et.al. 2019
68056	1958	Motor Repair/Vehicle Maintenance Shop	Smith et.al. 2019
80810	1958	Storage Building/Storage General Purpose Installation	Tomes 2013; Smith et.al. 2019
80811	1958	Storage	Tomes 2013
91114	1958	Rotary Wing Hangar/Aircraft Maintenance Hangar	Valenzuela 2011
13576	1959	Research and Development Test Facility, Transmission Building/Electronic Equipment Building	Tomes 2013; Smith et.al. 2019
13582	1959	AN/FPS-16 Instrumentation Shop, Permanent Control Buildings/Electronic Equipment Building	Smith et.al. 2019
13590	1959	AN/FPS-33/Electronic Equipment Building	Smith et.al. 2019
13592	1959	AN/FPS-6B/Electronic Equipment Building	Smith et.al. 2019
16676	1959	Antenna Test and Evaluation Tower	Smith et.al. 2019
17752	1959	East Range Artillery Bunker	Tomes 2013; Smith et.al. 2019
22020	1959	Water Reservoir	Smith and Wesa 2016
22525	1959	Engineering/Housing Maintenance	Tomes 2013
45002	1959	Storage/Switch Station B	Tomes 2013
51404	1959	Control Office/General Purpose Storage	Tomes 2013
51405	1959	Dispatch Office	Tomes 2013
51406	1959	Motor Repair/Vehicle Maintenance Shop	Tomes 2013
51408	1959	Oil House/Flammable Materials Storage	Tomes 2013
51410	1959	Wash Rack/Fuel Building	Tomes 2013
71902	1959	Dispatch Office	Tomes and Thompson 2014
90890	1959	Gate House/Access Control Facility	Valenzuela 2011
91110	1959	Fixed Wing Hangar/Aircraft Maintenance Hangar	Valenzuela 2011
166XXa	1959	Signal Source Suspension and Control System/Demolished	Smith et.al. 2019
22542	ca.1959	Engineer Warehouse/Storage General Purpose	Valenzuela 2011
41018	1959 (but likely wrong)	Coal Bin	Schneider 2017
41022	1959 (but likely wrong)	Coal Bin	Schneider 2017
nn	1959-1960	Drone Test Corridor /(between) Yuma Test Station and Fort Huachuca	Smith et.al. 2019
nn	1959-1960	SSTF Western Terminal, including control center, drone racetrack, launch complex and recovery areas and instrumentation/Yuma Test Station	Smith et.al. 2019
13583	1960	Engine Room/Electronic Equipment Building	Smith et.al. 2019
14277	1960	Bunker/Magazine General Purpose	Valenzuela 2011

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
15230	1960	Bunker/Magazine General Purpose	Valenzuela 2011
15309	1960	Storage/Range 12 Storage Building	Tomes 2013
16241	1960	Bunker/Magazine General Purpose	Valenzuela 2011
16249	1960	Bunker/Magazine General Purpose	Valenzuela 2011
17828	1960	Radar Moving Target Indicator (MTI) Track Storage Building/Detection Equipment Building/Storage	Tomes 2013; Smith et.al. 2019
17829	1960	Radar MTI Track Generator Shed/Storage/Power Plant/Demolished	Tomes 2013; Smith et.al. 2019
52107	1960	Dining Facility/Thunderbird Dining Facility	Tomes 2013
52110	1960	Administrative and Supply/86th Signal Battalion Headquarters Building	Tomes 2013
80812	1960	Laboratory/Youth Center	Tomes and Thompson 2014
85846	1960	Meteorological Test and Calibration Laboratory/Weather Station	Tomes 2013; Smith et.al. 2019
X4001	1960	Electronic Equipment Building	Smith et.al. 2019
X4001-X4005	1960	Oatman Mountain Radar Complex (surveillance and tracking radar)	Smith et.al. 2019
X4002	1960	Detection Equipment Building	Smith et.al. 2019
X4003	1960	Electronic Equipment Building	Smith et.al. 2019
X4004	1960	Electronic Equipment Building	Smith et.al. 2019
68059	ca. 1960	Unknown/Dispatch Building	Smith et.al. 2019
nn	1960-1961	Electromagnetic Environment (EME)/Gila Bend	Smith et.al. 2019
178xx	1960-61	Radar Resolution Facility	Tomes and Thompson 2014
13580	1960s	Boresight Tower/Abandoned	Smith et.al. 2019
11520	1961	Ground Telemetry/Electronic Equipment Building	Tomes 2013; Smith et.al. 2019
11660	1961	Drone Engineering Laboratory, Drone Engineering and Sensor Integration Laboratory, Sycamore Canyon Test Facility, Black Tower/Black Tower/Maintenance Facility/Aircraft Maintenance	Tomes 2013; Smith et.al. 2019
11661	1961	Septic Tank/Not found	Smith et.al. 2019
11662	1961	Jet Assisted Take Off (JATO) Bunker/Ammunition Storage Building/Vacant	Tomes 2013; Smith et.al. 2019
11664	1961	Range Operations Building/Black Tower/Administration Building	Tomes 2013; Smith et.al. 2019
11666	1961	Petroleum, Oil and Lubricants (POL) Storage	Tomes 2013; Smith et.al. 2019
12508	1961	Ground Radar Engineering Laboratory/Electronic Equipment Building	Valenzuela 2011; Smith et.al. 2019
12520	1961	Booster Pump House/Water Pump Station	Tomes 2013
12586	1961	West Range Countermeasures Instrumentation Building and Fiber Optics Distribution Center (FDC) Center/Electronic Equipment Building	Tomes 2013; Smith et.al. 2019
14658	1961	Control and Monitoring Building for the Common Test Facility, Frequency Monitoring Station, Electronic Instrumentation Building /Electronic Equipment Building	Tomes 2013; Smith et.al. 2019

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
15680	1961	East Range Countermeasures Instrumentation Building and FDC Center/Electronic Equipment Building	Tomes 2013; Tomes and Thompson 2014; Smith et.al. 2019
17826	1961	Radar MTI Track/Abandoned	Smith et.al. 2019
17827	1961/1962*	Radar Resolution Control Building/ Radar MTI Track Control Building/Detection Equipment Building	Tomes and Thompson 2014; Smith et.al. 2019
51402	1961	Dispatch Office	Tomes and Thompson 2014
51411	1961	Fuel/Wash Building	Tomes and Thompson 2014
51413	1961	Fuel/Wash Building	Tomes and Thompson 2014
51414	1961	Fuel/Wash Building	Tomes and Thompson 2014
51419	1961	Vehicle Maintenance Shop	Tomes and Thompson 2014
51420	1961	Vehicle Maintenance Shop	Tomes and Thompson 2014
51421	1961	Vehicle Maintenance Shop	Tomes and Thompson 2014
51423	1961	Oil House	Tomes and Thompson 2014
52111	1961	Administration Office/11th Signal Brigade Headquarters Building	Tomes 2013
54322	1961/1962†	Automatic Data Processing Field Test Facility/Thunder Mountain Evaluation Center/Electronic Equipment Building	Tomes and Thompson 2014; Smith et.al. 2019
55322	1961	Communication Electronic Test Facility/Electronic Equipment Building	Tomes 2013; Smith et.al. 2019
55324	1961	Communication Electronic Test Facility/Information Systems Engineering Command	Tomes and Thompson 2014; Smith et.al. 2019
55326	1961	Communication Electronic Test Facility/Information Systems Engineering Command	Tomes and Thompson 2014; Smith et.al. 2019
55328	1961	Communication Electronic Test Facility/Information Systems Engineering Command	Tomes and Thompson 2014; Smith et.al. 2019
55330	1961	Communication Electronic Test Facility/Information Systems Engineering Command	Tomes and Thompson 2014; Smith et.al. 2019
55332	1961	Communication Electronic Test Facility/Information Systems Engineering Command	Tomes and Thompson 2014; Smith et.al. 2019
55334	1961	Communication Electronic Test Facility/Information Systems Engineering Command	Tomes and Thompson 2014; Smith et.al. 2019
55336	1961	Communication Electronic Test Facility/Information Systems Engineering Command	Tomes and Thompson 2014; Smith et.al. 2019

* Tomes and Thompson 2014 record the construction date as 1961; Smith et.al. 2019 record the construction date as 1962.

† Tomes and Thompson 2014 record the construction date as 1962; Smith et.al. 2019 record the construction date as 1961.

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
55338	1961	Communication Electronic Test Facility/Information Systems Engineering Command	Tomes and Thompson 2014; Smith et.al. 2019
55340	1961	Communication Electronic Test Facility/ Main Communication Test Building/Communication Equipment Building	Tomes and Thompson 2014; Smith et.al. 2019
57428	1961	Avionics Laboratory /Joint Test and Integration Facility	Tomes and Thompson 2014; Smith et.al. 2019
57440	1961	Wooden Turntable, Compass Swing Base/Abandoned	Valenzuela 2011; Smith et.al. 2019
79692	1961	Well 6 Control House	Tomes and Thompson 2014
82810	1961	Environment Test Building 1/Combined with 82812	Smith et.al. 2019
82812	1961	Environment Test Building 2 /Electronic Equipment Building	Tomes 2013; Smith et.al. 2019
82814	1961	Environmental Test Chamber/Electronic Equipment Building	Tomes 2013; Smith et.al. 2019
116XX	1961	Landing Strip	Smith et.al. 2019
178XXa	ca. 1961	Radar Spoke/Abandoned	Smith et.al. 2019
15690	1962	Spatial Resolution Facility/Abandoned	Smith et.al. 2019
52104	1962	Dining Facility/Thunderbird Dining Facility/Army Education Facility	Tomes and Thompson 2014
1569Xa	1962	64 Navigational Aids & 28 Flashlight Pads/Abandoned	Smith et.al. 2019
1569Xb	1962	Spatial Resolution Facility Power Building/Abandoned	Smith et.al. 2019
nn	1962	Drop and Insert Station, Auxiliary Antenna /Sand Tank	Smith et.al. 2019
nn	1962	Repeater Station/Telegraph Pass	Smith et.al. 2019
nn	1962	Repeater Station/Mohawk Pass	Smith et.al. 2019
nn	1962	Repeater Station/Silver-Bell	Smith et.al. 2019
nn	1962	Repeater Station/Ryan Field	Smith et.al. 2019
nn	1962	Repeater Station/Helvetia	Smith et.al. 2019
91252	1962-63	Vault/Navigation Building, Air/Generator/Storage Space	Tomes and Thompson 2014
1569Xc; AZ EE:7:409(ASM)	ca. 1963	Drone Launch Circle/Abandoned	Smith et.al. 2019
187XX; AZ EE:8:331(ASM)	ca. 1963	Drone Launch Circle/Abandoned	Smith et.al. 2019
85847	1964	Meteorological Team Inflation Building/Balloon Inflation Building/Weather Station	Smith et.al. 2019
166XXc	1969	Arc Range	Smith et.al. 2019
166XXb (16678 or 16679)	1969/2014	Indoor Near-Field Range	Smith et.al. 2019
90201	1971	Organization Storage Building	Smith et.al. 2019

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
80809	1973	Electronic Equipment Building	Smith et.al. 2019
91302	1977	Electronic Equipment Building	Smith et.al. 2019
16502	1979	Electronic Equipment Building	Smith et.al. 2019
14610	1980	Electronic Equipment Building	Smith et.al. 2019
22215	1980	Utility Building	Wee and Mikesell 1993
15681	1982	Electronic Equipment Building	Smith et.al. 2019
55350	1984	Electronic Equipment Building	Smith et.al. 2019
56301	1989	Banister Hall/Communication Equipment Building	Smith et.al. 2019
56303	1989	Sentry Station	Smith et.al. 2019
166XXd	1989	Compact Range	Smith et.al. 2019
12509	1990	Overhead Protection	Smith et.al. 2019
41422	1990	Bus Stop	Wee and Mikesell 1993
56302	1991	Recreation Shelter	Smith et.al. 2019
68049	1991	Hazardous Material Storage Installation	Smith et.al. 2019
90204	1991	Hazardous Material Storage Installation	Smith et.al. 2019
56307	1992	Overhead Protection	Smith et.al. 2019
nn	1992	Band Stand	Wee and Mikesell 1993
90206	1993	Recreation Shelter	Smith et.al. 2019
68048	1994	Vehicle Maintenance Shop	Smith et.al. 2019
82813	1990s	Electronic Equipment Building	Smith et.al. 2019
828XXa	2000s	Environmental Test Facility	Smith et.al. 2019
828XXb	2000s	Environmental Test Facility	Smith et.al. 2019
828XXc	2000s	Environmental Test Facility	Smith et.al. 2019
55349	2006	Recreation Shelter	Smith et.al. 2019
X3001	2006	Communication Equipment Building	Smith et.al. 2019
12507	2007	Electronic Equipment Building	Smith et.al. 2019
X2001	2007	Communication Equipment Building	Smith et.al. 2019
X4005	2007	Communication Equipment Building	Smith et.al. 2019
166XXe	2014	Small Arc	Smith et.al. 2019
166XXf	2014	Storage	Smith et.al. 2019
125XX	2015	Canopy	Smith et.al. 2019
178XXb		Tank/Abandoned	Smith et.al. 2019
nn		Antenna Pattern Measurement Range Towers/Demolished	Smith et.al. 2019
nn		200-foot tower with anemometer and weathervane /Gila Bend	Smith et.al. 2019
nn		Radar Geometric Fidelity Large Scale /Willcox Playa	Smith et.al. 2019
nn		Spatial Resolution Facility, Photo Calibration Target/Palomas Plain	Smith et.al. 2019
nn		Decca Chain Master Station/Willcox, Arizona	Smith et.al. 2019

Facility Number	Construction Date	Original Use or Name/Current Use or Name	Source Report
nn		Decca "Slave" Station (antenna tower, transmission building and coil hut)/Tucson, Arizona	Smith et.al. 2019
nn		Decca "Slave" Station (antenna tower, transmission building and coil hut)/Douglas, Arizona	Smith et.al. 2019
nn		Decca "Slave" Station (antenna tower, transmission building and coil hut)/Clifton, Arizona	Smith et.al. 2019

3 Conclusions and Recommendations

This report provides a history of the development of Fort Huachuca for use in evaluating existing facilities and how they fit within the larger, overarching history of the fort. This report is part one of a two-part report; part one contains a history of Fort Huachuca and part two will contain recommendations for expanding the existing NHL district. This report also intends to assist Fort Huachuca ENRD in making determinations on how to address future NRHP nominations and/or recommendations for adding new historic districts as well as expanding the existing Old Post district. This comprehensive history compiled content from 18 existing historic contexts, building inventory and cultural resources reports, NRHP nomination and registration forms, and HABS forms previously completed for the ENRD. The history covers the time period from 1821 to 2015 when the research was completed.

Several historic periods are represented across the Fort Huachuca built environment and landscape. The Frontier Period, 1821 to 1866, and the International Border Defense period, 1887 to 1817, experienced significant construction, much of which is still present and is well represented by the Old Post historic district. The WWI era, from 1917 to 1918 did not experience a significant amount of construction and very little of what was built remains today. The Inter-War years, from 1918-1941, are well represented in the current built environment and a WPA historic district has been established.

The WWII period, 1942 to 1945, experienced significant construction and alteration to the built environment; however, because much of the construction was temporary, it is not well represented in the present environment. The period from 1946 to 1954, during which Fort Huachuca was briefly deactivated and transferred to the State of Arizona before being re-acquired, had very little construction or alteration of the built environment and currently is not represented.

Similar to the Inter-War years, the EPG or Cold War period, from 1955 to 2017, is well represented and an EPG discontinuous historic district has been proposed.

References

NOTE: Fort Huachuca report numbers in brackets after a reference indicate the number was provided after 2010 when the numbering system was established.

“\$11,590,720 Huachuca Fund Approved.” 1941. *Bisbee Daily Review*, 4 December.

“368th Infantry Corporal Scores ‘Barbarism’ at Ft. Huachuca Dance.” 1942. *Cleveland Call and Post* 31 January 1942: 8.

“93rd Division Practices 3 New Plays.” 1943. *The Baltimore African-American* 1 August 1942: 5.

“Activation of Army Electronic Proving Ground Fort Huachuca, Arizona.” 1961. Excerpted from *A History of the Signal Corps* by editors of the *Army Times*. New York: G.P. Putnam’s Sons, 173–174. (Gregory Chronologic File 1955, Fort Huachuca Museum Collection, Fort Huachuca, Arizona).

Adams, George R. 1976. Fort Huachuca National Register of Historic Places Inventory – Nomination Form. Unpublished document, U.S. Department of the Interior, National Park Service. [FH-76-1].

Arizona Collection. Manuscript Collection. Arizona State University.

Army Electronic Proving Ground. 1956. “An Address by Captain Robert E. Brizee on the Systems Test AEPG-1 (AATCAN System).” In transcript of presentation by Army Electronic Proving Ground Fort Huachuca, Arizona (transcript), 7 February 1956. EPG Collection, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.

Army Electronic Proving Ground. 1956. “The Aviation Technical Program in Support of the AATCAN System.” In transcript of presentation by Army Electronic Proving Ground Fort Huachuca, Arizona, 7 February 1956. (EPG Collection, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)

Army Electronic Proving Ground. 1956. “A Briefing and Demonstration Conducted by Lt. Col. S.H. Webster on the Battle Area Surveillance Demonstration Surveillance System.” In transcript of presentation by Army Electronic Proving Ground Fort Huachuca, Arizona, 7 February 1956. (EPG Collection, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)

Army Electronic Proving Ground. 1956. “The Grid Communication System, An Address by Major C.R. Rambo, Signal Communication Department,” in Presentation by Army Electronic Proving Ground Fort Huachuca, Arizona (transcript), 7 February 1956. (EPG Collection, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)

Bancroft, Hubert H. 1888. *Arizona and New Mexico, 1530-1888*. San Francisco: The History Co.

Batchelor, J. R. 1942. “U.S.O.-F.S.A Side Outlined Here.” *The Arizona Daily Star* 20 January: 12.

- Beardslee, Clarence G. 1942. "Development of Army Camp Planning: A Hundred and Sixty-Five Years in Standards for Military Establishment in the United States." *Civil Engineering* 12:2(September).
- "Bids for Fort Expansion are to be Sought." 1941. *The Arizona Daily Star* 6 December 1941: 1.
- Bischoff, Matt C. 1998 *Historic Building Documentation and National Register of Historic Places Significance Evaluations for 26 Buildings at Fort Huachuca, Arizona*. Technical Report 98-4. Statistical Research, Tucson. [FH-98-3].
- Bourke, John G. 1886. *An Apache Campaign in the Sierra Madre*. New York: C. Scribner's Sons.
- Bourke, John G. 1950. *On the Border with Crook*. Columbus, Ohio: Long's College Book Co.
- Braddy, Haldeen. 1966. *Pershing's Mission into Mexico*. El Paso: Texas Western Press.
- Brandt, Nat. 1996. *Harlem at War: The Black Experience in WWII*. Syracuse: Syracuse University Press.
- Bryan, Kirk, G. E. P. Smith, and G.A. Waring. 1934. *Groundwater Supplies and Irrigation in San Pedro Valley, Arizona*. USGS Tucson District, unpublished manuscript.
- "Builders at Fort Huachuca Get Florence Camp Contract." 1941. *Bisbee Daily Review* 14 November: 1.
- Carlin, 1st Lieut. Russell G. 1941. QMC, Assistant to Civilian Aide to the Secretary of War, Office of the Assistant Secretary, 27 October, RG 107: Office of the Assistant Secretary of War 1940-1947, Box 242, National Archives and Records Administration (NARA), College Park, Maryland.
- Center of Expertise for Preservation of Historic Structures and Buildings, Seattle District Corps of Engineers, Seattle, Washington. 1998. "Range Houses (Buildings No. 15335 & 15339): Black and White Photographs, Written Historical and Descriptive Data, Fort Huachuca, AZ" Historic American Buildings Survey, National Park Service, HABS AZ-210-A-1.
- Center of Expertise for Preservation of Historic Structures and Buildings, Seattle District Corps of Engineers, Seattle, Washington. 1999. *Capehart Housing at Fort Huachuca, Arizona: Determination of Eligibility for the National Register Due to Association with Richard Neutra, Architect*. Prepared for Directorate of Installation Support, United States Army Intelligence Center and Fort Huachuca, Fort Huachuca, AZ 85613. [FH-99-5].
- Civilian Conservation Corps Inspection Report. 1935. Camp No. A-1-A, Fort Huachuca, Arizona, Co. 2871, 7 November. National Archives and Record Administration.
- Cochran, O.A. 1964. "Fort Huachuca Building History." Unpublished document on file at Fort Huachuca ENRD. [FH-64-1]. "Contract Awarded for \$11,000,000 Fort Huachuca Job." 1941. *The Arizona Daily Star* 6 December: 1.

- Cook, Patricia. 2003. Integrated Cultural Resources Management Plan for Fort Huachuca Military Reservation, Arizona. Project No. 99-132C. Desert Archaeology, Tucson, Arizona. [FH-03-1]
- CP&Y, Inc. 2009, National Register of Historic Places Evaluation of WPA Resources within the Residential Communities Initiative Footprint, Fort Huachuca, Arizona. CPY Project #MMH09023.00. CP&Y Inc., Austin, Texas. [FH-09-5]
- Department of the Army Headquarters, Fort Huachuca, Arizona. 1974. "Fort Huachuca Arizona History 1973," 7 May 1974. (Binder: Fort Huachuca History, 1973-1975 Annual Historical Summary, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- "Dinah Shore Likes Huachuca." 1943. *Cleveland Call and Post* 13 February: 4B.
- EPG. 1960. "Briefing on Electronics Warfare Program," Colonel W. E. Lotz in Briefing Packet to Chairman Ford (transcript). (EPG Collection, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- EPG. 1960. "Briefing on Overall Combat Surveillance Department," Colonel R.F. Blackmon in Briefing Packet to Chairman Ford (transcript). (EPG Collection, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- EPG. 1960. "Briefing on Signal Communications Program," Lt. Col. F.J. Evans in Briefing Packet to Chairman Ford (transcript). (EPG Collection, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Emory, William H. 1857. *Report on the United States and Mexican Boundary Survey made under the direction of the Secretary of the Interior*. Vol. I. Washington, DC: Cornelius Wendell, Printer.
- "Expanded Army to Keep Racial Bars." 1940. *The Baltimore African American* 1 June: 1.
- Federal Register*. July 31, 1942, vol. 7, no. 150.
- Fine, Lenore and Remington, Jesse A. 1972. *The Corps of Engineers: Construction in the United States*. Washington, DC: Office of the Chief of Military History, U.S. Army.
- Finley, James P. 1987/8. "The 10th Cavalry at Huachuca." *Huachuca Illustrated*. Vol. 2, 1999. *Draft Technical Synthesis Report, Fort Huachuca Architectural/Historical Survey*. Prepared for the Joint Venture Group, c/o Statistical Research, Tucson, Arizona."
- Finley, James P. 1993. "Buffalo Soldiers at Huachuca: Military Events in the American Southwest from 1910-1916." *Huachuca Illustrated*, Vol. 1.
- Finley, James P. 1996. "*Huachuca Illustrated: A Magazine of the Fort Huachuca Museum*. Volume 3, 1996. Buffalo Soldiers at Huachuca. The third of three issues. The End of an Era: Military Life Along the Border from 1930-1939." Fort Huachuca Museum Society. Arizona.
- Finley, James P. 1993. "World War II at Huachuca 1940-1949." *Huachuca Illustrated*. Vol. 9.

- Fletcher, Marvin. 1988. *The Peacetime Army*. New York: Greenwood Press.
- “Fort Huachuca at War.” 1943. *The Arizona Daily Star* 23 December: 8.
- Fort Huachuca DEH. n.d. “Abstract Acquisition History, Fort Huachuca Military Reservation, Cochise County – Arizona.” Fort Huachuca DEH, 11-0002.
- Fort Huachuca Museum, n.d. *Fort Huachuca Building History*. Fort Huachuca Museum, Fort Huachuca, Arizona.
- Fort Huachuca Museum. 1999. *Fort Huachuca: A Sense of Place*. Electronic document, <http://huachucamuseum.com/exhibit3/PDFS/sense.pdf>, accessed January 31, 2012.
- Fort Huachuca Museum. Building History Binder. 228-01. Fort Huachuca Post Museum.
- Fort Huachuca Museum. “Expansion to Brigade Post, 1903-16.” Unpublished MS, History Binders, Fort Huachuca Post Museum.
- Fort Huachuca Museum. Fort Huachuca Records. Background Materials Files.
- Fort Huachuca Museum. Fort Huachuca History Binders. Annual Post Histories, 1971-1984.
- Fort Huachuca Museum. *Expansion to Brigade Post, 1903-1916*.
- Fort Huachuca Museum. Photograph Collection. Boxes 2 and 3. Fort Huachuca Post Museum.
- “Ft. Huachuca Says Goodbye to Bad Fry.” 1942. *The Baltimore African-American* 14 November: 11.
- Frese, Robert E. 2001-2005. “Fort Huachuca Recollections 1959-1963.” In a supplement to the *HMS Bulletin*, Sierra Vista, Arizona. (The Huachuca Museum Society, 2001-2005, vol 1. Gregory Chronologic Files, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Frese, Robert E. 2001-2005. “Fort Huachuca Recollections 1959-1963.” In a supplement to the *HMS Bulletin*, Sierra Vista, Arizona. (The Huachuca Museum Society, 2001-2005, vol 2. Gregory Chronologic Files, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Frese, Robert E. 2001-2005. “Fort Huachuca Recollections 1959-1963.” In a supplement to the *HMS Bulletin*, Sierra Vista, Arizona. (The Huachuca Museum Society, 2001-2005, Vol 3. Gregory Chronologic Files, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Frese, Robert E. 2001-2005. “Fort Huachuca Recollections 1959-1963.” In a supplement to the *HMS Bulletin*, Sierra Vista, Arizona. (The Huachuca Museum Society, 2001-2005, Vol 4. Gregory Chronologic Files, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)

- Frese, Robert E. 2001-2005. "Fort Huachuca Recollections 1959-1963." In a supplement to the *HMS Bulletin*, Sierra Vista, Arizona. (The Huachuca Museum Society, 2001-2005, Vol 5. Gregory Chronologic Files, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Frese, Robert E. 2001-2005. "Fort Huachuca Recollections 1959-1963." In a supplement to the *HMS Bulletin*, Sierra Vista, Arizona. (The Huachuca Museum Society, 2001-2005, vol 6. Gregory Chronologic Files, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Frese, Robert E. 2001-2005. "Fort Huachuca Recollections 1959-1963." In a supplement to the *HMS Bulletin*, Sierra Vista, Arizona. (The Huachuca Museum Society, 2001-2005, vol 7. Gregory Chronologic Files, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Garner, John S. 1993. *World War II Temporary Military Buildings: A Brief History of the Architecture and Planning of Cantonments and Training Stations in the United States*. U.S. Army Construction Engineering Research Laboratory (USACERL, now known as the Engineer Research and Development Center, Construction Engineering Research Laboratory [ERDC-CERL]) Technical Reports CRC-93/01. Champaign, IL: U.S. Army Corps of Engineers, Construction Engineering Research Laboratories.
- Goetzmann, William H. 1966. *Exploration and Empire: The Explorer and the Scientist in the Winning of the American West*. New York: Alfred A. Knopf.
- Goodfellow, Susan, Marjurie Nowick, Chad Blackwell, Dan Hart, and Kathryn Plimpton, 2009 *Nationwide Context, Inventory, and Heritage Assessment of Works Progress Administration and Civilian Conservation Corps Resources on Department of Defense Installations*. Legacy Project No. 07-357. Denver, Colorado: Engineering-Environmental Management. [FH-08-8]
- Governor's Papers. Arizona State Archives.
- Grashof, Bethany C. 1986. *A Study of United States Army Family Housing Standardized Plans*. Atlanta, GA: Center for Architectural Conservation, College of Architecture, Georgia Institute of Technology, May.
- Gregory, Stephen. 2011. Email dated 2 November 2011.
- Gregory, Stephen. 2011. Email to Marty Tagg dated 7 March 2011.
- Gregory, Stephen. 2012. Email to Susan Ensore dated 28 April 2012.
- Gregory, Stephen. 2011. Email to Marty Tagg, Post Archaeologist dated 7 March 2011.
- Gregory, Stephen. 2011. Interview by Susan Ensore, 30 November 2011.
- Gregory, Stephen. 2012. Email to Susan Ensore dated 25 May 2012.
- Hafen, LeRoy R., and Carl Coke Rister. 1941. *Western America: The Exploration, Settlement, and Development of the Region Beyond the Mississippi*. New York: Prentice-Hall, Inc.

- Hafen, LeRoy R., et al. 1970. *Western America*, 3d ed. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.
- Hagedorn, Hermann. 1931. *Leonard Wood: A Biography*, Vol I. New York: Harper & Brothers Publishers.
- Hart, Daniel, and Chad Blackwell, 2009 *CCC-WPA Resources Legacy Grant Case Study: Fort Huachuca, Arizona*. Appendix D in *Nationwide Context, Inventory, and Heritage Assessment of Works Progress Administration and Civilian Conservation Corps Resources on Department of Defense Installations*. Legacy Project No. 07-357. Engineering-Environmental Management, Denver, Colorado. [FH-08-8]
- Hart, Herbert M. 1965. *Old Forts of the Far West*. New York: Bonanza Books.
- Hart, Herbert M. 1967. *Pioneer Forts of the West*. Seattle: Superior Publishing Company.
- Haskett, Bert. 1935. "Early History of the Cattle Industry in Arizona." *Arizona Historical Review* 6(4)(October):3-42.
- Hayden Collection. Arizona Collection, Arizona State University.
- Headman, Ferguson, and Carollo, 1941. *Completion Report: Cantonment Construction Fort Huachuca, Arizona*. 10 May, RG 77: Chief of Engineers, Entry 391 Construction Completion Reports 1917-43, Box 134: Fort Huachuca, NARA, College Park, Maryland.
- Headquarters, Department of the Army. 1962. "USAEPG Employee Wins Meritorious Award For Aerial Laying of Communication Lines." *Army Research and Development*. Monthly Newsmagazine of the Office of the Chief Research and Development 3(8), Washington 25, D.C., August 1962. (Gregory Folder: EPG History, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Headquarters United States Army Electronic Proving Ground. 1954. "Annexes to Summary of Major Events and Problem Fiscal Year – 1954." 1 June 1954. (Gregory Collection, Box 28, Commanders Diaries & Clip Sheets 1954, Folder: Installation Diary 1954, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Headquarters United States Army Electronic Proving Ground. 1964. "Annual Historical Summary United States Army Electronic Proving Ground Fort Huachuca, Arizona Second Quarter Fiscal Year – 1964." January 1964. (Gregory Box 32, Folder: Installation Diary (History) 1965, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Headquarters United States Army Electronic Proving Ground. 1963. "Annual Historical Summary United States Army Electronic Proving Ground. Fort Huachuca, Arizona Fiscal Year – 1963." August 1963. (Gregory Box 32, Folder: Installation Diary (History) 1964, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Headquarters United States Army Electronic Proving Ground. 1955. "Installation Diary Fort Huachuca, Arizona 1 Jan 1955 to 31 Dec 1955." (Gregory Box 29, Commander Diaries & Clip Sheets, Folder: Installation Diary 1955, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)

- Headquarters United States Army Electronic Proving Ground. 1963. "Special Historical Summary U.S. Army Electronic Proving Ground Fort Huachuca, Arizona." February 1963. (Gregory Box 32, Folder: Installation Diary (History) 1963, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Headquarters United States Army Electronic Proving Ground. 1962. "Summary of Major Events & Problems United States Army Electronic Proving Ground, Fort Huachuca, Arizona Fiscal Year – 1962." August 1962. (Gregory Box 31, Folder: Installation Diary (History) 1962, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Headquarters United States Army Electronic Proving Ground. 1961. "Summary of Major Events & Problems United States Army Electronic Proving Ground, Fort Huachuca, Arizona Fiscal Year – 1961." November 1961. (Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Headquarters United States Army Electronic Proving Ground. 1960. "Summary of Major Events & Problems United States Army Electronic Proving Ground, Fort Huachuca, Arizona Fiscal Year – 1960." December 1960. (Gregory, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Headquarters United States Army Electronic Proving Ground. 1959. "Summary of Major Events & Problems United States Army Electronic Proving Ground Fort Huachuca, Arizona Fiscal Year – 1959." December 1959. (Gregory, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Headquarters United States Army Test and Evaluation Command Aberdeen Proving Ground, Maryland. 1963. *Organization and Functions U.S. Army Electronic Proving Ground Fort Huachuca, Arizona*. USATECOM Regulation No. 10-15. 17 January 1963. Gregory Chronologic Files 1961-1963, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.
- Herbert, Rand E., W. Turrentine Jackson, and Stephen R. Wee. 1990. *Fort Huachuca, Arizona: A Century of Development and Changing Missions 1877-1977*. Prepared by Jackson Research Projects, California. Fort Huachuca, AZ: U.S. Army Garrison Fort Huachuca. [FH-90-10]
- Hogan, Jr., David W. 2000. *225 Years of the Army*. Tampa, FL: Faircount, LLC.
- HR Report No.2654. 1936. U.S. Congress. House Committee on Military Affairs. Report No. 2654 to accompany HR 12511. 74th Congress, 2d Session. May 14.
- "Huachuca Soldiers to Get Clean Amusements at Fry." 1942. *Pittsburgh Courier*, 12 September: 1.
- Humphrey, C. F. 1905. Quartermaster-General, U.S. Army, "Military Post Exchanges," November 7, 1905. History Binders: Fort Huachuca, Fort Huachuca Museum.
- Jackson Research Associates. 1989. *Fort Huachuca: An Evaluation of Architectural/Historical Resources on file*. U.S. Army Corps of Engineers, Los Angeles District, Los Angeles. [FH-89-6]

- Jackson Research Projects. 1985. *Presidio of Monterey Cultural Resources Report*. Unpublished, submitted to U.S. Army Corps of Engineers, Sacramento District, October 1985.
- Janus Associates, Inc. Janus Associates, Inc. 1988. *Technical Synthesis Report: Fort Huachuca Architectural/Historical Resource Survey*. Janus Associates, Phoenix, and Jim Wood, Architectural Historian and Principal Investigator. Prepared for Joint Venture Group, Phoenix. On file, Statistical Research, Tucson. [FH-88-7]
- “Jones Boxing Tutor at Fort Huachuca.” 1943. *Atlanta Daily World* 3 July: 4.
- Kelly, Edward J. 1945. “History of Fort Huachuca.” Unpublished Manuscript. Fort Huachuca Museum.
- Kerr, Colonel F. R., 1945. Acting Director, Special Service Division to Deputy Chief of Staff for Service Commands. 4 January 1945. RG 160: Army Service Forces, Correspondence Files 1943-45, Office of the Commanding General, Deputy Chief of Staff for Service Commands, Box 17: 291.2, NARA, College Park, Maryland.
- Lage, Patricia L. 1949. *History of Fort Huachuca, 1877–1913*. Unpublished Master’s thesis, Department of History, University of Arizona, Tucson.
- Leavey, Edmond H., Colonel, 1942. QMC, Assistant, Office of the Quartermaster General, Washington, D.C. to Zone Constructing Quartermaster, Zone VIII, Fort Sam Houston, Texas, November 4, 1941. 8th Ind., 2 February 1942, RG 407 Army AG Project Decimal File 1940-45, Entry 363-A Decimal File, Box 4438, File: 451.9 to 470.1 Fort Huachuca, Arizona 1-1-40, NARA, College Park, Maryland.
- Leckie, William H. 1967. *Buffalo Soldiers: A Narrative of the Negro Cavalry in the West*. Norman: University of Oklahoma Press.
- “Lena Horne.” n.d. The Telegraph. 10 May 2010.
<http://www.telegraph.co.uk/news/obituaries/culture-obituaries/music-obituaries/7706158/Lena-Horne.html>.
- “Lena Horne Glamourizes Baseball at Fort Huachuca.” 1943. *Cleveland Call and Post* 9 October: 2B.
- Levstik, Jennifer. 2007. *Historic Building Documentation for 11 Buildings at Fort Huachuca, Cochise County, Arizona*. Cultural Resources Report 2007-321. SWCA Environmental Consultants, Tucson. [FH-07-4]
- Lockwood, Frank C. 1932. *Pioneer Days in Arizona from Spanish Occupation to Statehood*. New York: The Macmillan Co.
- MacGregor, Jr., Morris J. 1981. “Integration of the Armed Forces 1940-1965.” Defense Studies Series. Washington: Center of Military History, United States Army.
- Map of Fort Huachuca, Arizona, May 1893. National Archives Cartographic Center, RG 77, Civil Works Map File, WDMC, Arizona 14.
- Mark, Frederick. 1966. *Manifest Destiny and Mission in American History*. New York: Vintage Books.

- Matloff, Maurice, ed. 1969. *American Military History*. Army Historical Series, Washington, DC: Office of the Chief of Military History, U.S. Army.
- McClintock, James H. 1916. *Arizona: Prehistoric, Aboriginal, Pioneer, Modern; The Nation's Youngest Commonwealth with a Land of Ancient Culture*. 3 vols. Chicago: S. J. Clarke Publishing Co.
- Meek, Walter M. 1962. "Huachuca, As Never Before, Bustling with New Activity," *Arizona Republic*, 16 September 1962. (Gregory Folder: EPG History, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Meyers, John M. 1950. *The Last Chance: Tombstone's Early Years*. New York: E. P. Dutton and Co., Inc.
- "Minutes of Staff Conference, Construction Division, Quartermaster Corps, Washington, DC." 5 September 1941, RG 92: Quartermaster General, General Correspondence 1936-45, Box 703, File: "600.1 Cost Plus 1941," NARA, College Park, Maryland.
- "Mission of the AEPG." 24 April 1958. (Gregory Chronologic File 1958, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- "The Modern Era, 1950-2000. 1999. *Huachuca Illustrated, A Magazine of the Fort Huachuca Museum 10*(1999). (Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Moorehead, Monica. 2010. "Lena Horne – Civil Rights Pioneer on & off the Screen." n.d. Workers World. 20 May. http://www.workers.org/2010/us/lena_home_0527/.
- Moye, J. Todd. 2010. *Freedom Flyers: The Tuskegee Airmen of World War II*. New York: Oxford University Press.
- National Archives and Record Service. 1974. *Guide to the National Archives of the United States*. Washington, DC: NARA, GSA.
- "News of the 92nd Division." 1943. *Bisbee Daily Review* 16 May:5.
- "Officers Occupy New Homes at Fort Huachuca." 1941. *The Baltimore African-American* 15 March:1.
- "Official Paper of 92nd Division Comes off Press." 1943. *Bisbee Daily Review* 13 May:5.
- "Organization of the USAEPG." 1 October 1962. (Gregory Box 31, Folder: Installation Diary (History) 1962, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Porter, Joseph C. 1986. *Paper Medicine Man: John Gregory Bourke and His American West*. Norman: University of Oklahoma Press.
- Programmatic Agreement. 2001 *Programmatic Agreement among Fort Huachuca, the Arizona State Historic Preservation Officer, the National Parks Service, and the Advisory Council on Historic Preservation Regarding the Replacement of Army Family Housing*. On file, Environmental Natural Resources Division, Fort Huachuca, Arizona.

- Prucha, Francis Paul. 1977. *The Sword of the Republic: The United States Army on the Frontier, 1783-1846*. Bloomington: Indiana University Press.
- Prucha, Francis Paul. 1984. *The Great Father: The United States Government and the American Indians*. 2 vols. Lincoln, NE: University of Nebraska Press.
- Puzzi, Herman, 1972 *Fort Huachuca Old Post National Register of Historic Places Nomination Form*. On file, Environmental Natural Resources Division, Fort Huachuca, Arizona.
- Reich, Howard. n.d. "Legendary Singer, Civil Rights Activist Lena Horne Dies." *Chicago Tribune*. 10 May 2010. http://articles.chicagotribune.com/2010-05-10/entertainment/chi-100510-lena-horne-dies-obit_1_ms-horne-first-black-women-civil-rights/2.
- Risch, Erna. 1962. *Quartermaster Support of the Army: A History of the Corps, 1775-1939*. Washington, DC: Quartermaster Historian's Office, Office of the Quartermaster General.
- Riegel, Robert Edgar. 1964. *The Story of Western Railroads, from 1852 Through the Reign of the Giants*. Lincoln, NE: University of Nebraska Press.
- Rives, George L. 1913. *The United States and Mexico: 1821-1848: A History of the Relations between the Two Countries from the Independence of Mexico to the Close of the War with the United States*. 2 vols. Baltimore: C. Scribner's Sons.
- Robinson, Willard B. 1977. *American Forts: Architectural Form and Function*. Urbana, IL: University of Illinois Press.
- Senate Executive Document No. 187. 47th Congress, 1st Session. Message from the President, June 26, 1882.
- "Sgt. Joe Louis Visits Fort Huachuca Today." 1943. *Arizona Daily Citizen* 17 May 1943: 1.
- "Sing for Soldiers." 1942. *Cleveland Call and Post* 31 January 1942: 8B.
- Smith, Adam D., Susan I. Enscore, and Samuel L. Hunter. 2012. *Analysis of the Mountain View Officers' Club*. Fort Huachuca Cultural Resources Report FH-12-5. ERDC/CERL TR-12-14. Champaign IL: ERDC-CERL
- Smith, Adam, Susan Enscore, Karen Zimnicki, and Elizabeth Campbell. 2003. *Fort Leonard Wood Building Survey 1941 to 1945*. Champaign, IL: ERDC-CERL.
- Smith, Adam D., and Courtney F. Wesa. 2016. *NRHP Eligibility of the Fort Huachuca, Arizona, Elevated Water Tank (Facility 49001) and Reservoir (Facility 22020)*. ERDC/CERL TR-16-12. Fort Huachuca Cultural Resources Report FH-14-17. Champaign, IL: ERDC-CERL.
- Smith, Cornelius Cole, Jr. 1981. *Fort Huachuca: The Story of a Frontier Post*. Washington, DC: U.S. Department of the Army.
- Smith, Cornelius C. Jr. 1978. *Fort Huachuca: The Story of a Frontier Post*. Washington, DC: Government Printing Office (GPO).

- Smith, Steven D. 2001. *The African American Soldier at Fort Huachuca, 1892–1946*. South Carolina Institute of Archaeology and Anthropology, University of South Carolina, Columbia. [FH-01-3]
- Smith, Steven D., and James A. Zeidler, ed. 1998. *A Historic Context for the African American Military Experience*. USACERL CRRC 98/87. Champaign, IL: U.S. Army Construction Engineering Research Laboratories.
- Smith, Steven D., Geoffrey C. Burt, and Suzanna Walaszek. 1998. *A Historic Context Statement for a World War II Era Black Officers' Club at Fort Leonard Wood, Missouri*. TR 99/02. Champaign, IL : U.S. Army Construction Engineering Research Laboratories.
- Sparrow, Maj. John C. 1951. *History of Personnel Demobilization in the United States Army*. USA QMC, Office of Military History, Department of the Army.
- Spicer, Edward H. 1962. *Cycles of Conquest: The Impacts of Spain, Mexico, and the United States on the Indians of the Southwest, 1533–1960*. Tucson, AZ: University of Arizona Press.
- Stout, Joseph A. 1999. *Border Conflict: Villistas, Carrancistas, and the Punitive Expedition, 1915-1920*. Fort Worth, Texas: Texas Christian University Press.
- Tate, Michael. 1974 "Apache Companies in the U.S. Army: 1891-1897." *Arizona and the West* 16(4):343-364.
- "Technical Program Operations Army Electronic Proving Ground Fort Huachuca, Arizona." 1956. In Summary of Major Events & Problems, 18 July 1956. (Gregory Box 29, Folder: 1956-1957, Misc. Tech Bldg., Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- Thirlkeld, Colonel C. M. 1943. Post Commander Camp Hood, Texas to Commanding General, Eighth Service Command, SOS, Dallas, Texas, 9 March 1943, RG 77: Chief of Engineers, Entry 393: Historical Record of Buildings 1905-42, Box 95: Fort Huachuca Thru Camp Huffman, NARA, College Park, Maryland.
- Thrapp, Dan L. 1967. *The Conquest of Apacheria*. University of Oklahoma Press, Norman.
- Tomes, Angel. 2013. *Architectural Survey, Documentation, and Evaluation of 110 Buildings and Structures at Fort Huachuca, Arizona*. Fort Huachuca Cultural Resources Report FH-12-6. Statistical Research, Tucson.
- Tomes, Angel, and Scott Thomas. 2014. *Inventory, Documentation, and Evaluation of 30 Buildings and Structures, 194 Works Progress Administration (WPA) Features, and Identification of a Potential WPA Historic District at Fort Huachuca, Arizona*. Fort Huachuca Cultural Resources Report FH-12-21. Tucson, AZ: Statistical Research.
- Tompkins, Frank. 1934. *Chasing Villa: The Story Behind the Story of Pershing's Expedition into Mexico*. Harrisburg, Pa.: Military Service Publishing Co.

- Trousil, Jeff. 2001. *Integrated Natural Resources Management Plan and Environmental Assessment*. Frederick, MD: U.S. Army Intelligence Center and Fort Huachuca, Arizona, and Universe Technologies.
- "Tucsonans Get WAAC Contract." 1942. *The Arizona Daily Star* 8 September 1942:2.
- Turner, S. F., and E. M. Cushing. 1942. "Ground Water Supplies in the Fort Huachuca Area, Cochise and Santa Cruz Counties, Arizona," in *Annual Report of Medical Department Activities at Fort Huachuca, Arizona*. February 10, 1942. World War II Administrative Records, 1940-1949. 319.1 Unit Annual Reports, RG II 2, Box 170. Office of the Surgeon General, Army, p. 2. 02-0014.
- "USAEPG 60th Anniversary Narrated Slideshow." 2015. Fort Huachuca, AZ: The Army Intelligence Museum, 2015.
- U.S. Army. RG 92: Quartermaster General, General Correspondence 1936-45, Box 703, File: "600.1 Cost Plus 1941." College Park, MD: National Archives and Records Administration (NARA).
- U.S. Army. Record Cards for Descriptions of Post Buildings and Facilities, Fort Huachuca. Record Group 77, Suitland, MD: Washington National Records Center.
- U.S. Army. Records of the Quartermaster General's Office. Record Group 92. Washington, DC: National Archives.
- U.S. Army. Records of the Adjutant General's Office. Record Group 94. Washington, DC: National Archives.
- U.S. Army. Records of Adjutant General's Office. Washington, DC: National Archives. RG 94, Box 52.
- U.S. Army. Records of the Adjutant General's Office; Record Group 417. Washington, DC: National Archives.
- U.S. Army. Records of the Office of the Chief of Engineers. Quartermaster Corps Maintenance Form No. 1 17. Buildings at Fort Huachuca. Washington, DC: National Archives. RG 77 Entry 393, Boxes 94 and 95.
- U.S. Army. Records of the Office of the Chief of Engineers. Record Cards for Descriptions of Post Buildings and Facilities in Series 393, 1922-1941: Fort Huachuca. Washington, DC: National Archives. RG 77, Entry 392, Box 3.
- U.S. Army. Records of the United States Army Continental Commands. Washington, DC: National Archives. RG 393, Entry 2, Letters Sent.
- U.S. Army. Returns from U.S. Military Posts, 1800-1916. Records of the Adjutant General's Office. Washington, DC: National Archives. RG 94, M617, Reels 491-492
- U.S. Army Electronic Proving Ground. 1962. "Decca Navigation Chain," in *Instrumentation and Test Facilities*, 48. Fort Huachuca, Arizona. (Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)

- U.S. Army Electronic Proving Ground. 1966. "Organization and Mission of the U.S. Army Electronic Proving Ground, Fort Huachuca – December 1966 (excerpt from General Briefing, Orientation Section)." (Gregory Chronologic File 1964-1966, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- U.S. Army Electronic Proving Ground. 1962. "Surveillance System Test Facility," in *Instrumentation and Test Facilities*, 49-58. Fort Huachuca, Arizona. (Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- U.S. Army Garrison, Fort Huachuca. 1986. "1985 Annual Historical Review," prepared by Garrison's Historian's Office and Fort Huachuca Museum, Plans and Operations Division, Museums Plans and Operating Division Directorate for Plans, Training and Mobilization, 21 February 1986. (Binder: 1985 Historical Review, Fort Huachuca Museum Collection, Fort Huachuca Arizona.)
- U.S. Army Materiel Command. 1962. "Office of the Commanding General, F.S. Besson, Jr., Communication to All Personnel of the U.S. Army Materiel Command," 1 August 1962. (Gregory Chronologic File 1961-1963, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)
- USACE (U.S. Army Corps of Engineers). 2000 *Historic Context: The Army's Military Mission at Fort Huachuca, Arizona, 1877-1940*. Prepared for the Environmental and National Resources Division, Fort Huachuca, and the Arizona State Historic Preservation Office. U.S. Army Corps of Engineers, Center of Expertise for Preservation of Structures and Buildings, Champaign, Illinois.
- . Phoenix Real Estate Office. Fort Huachuca Files.
- HQDA (Headquarters, U.S. Department of the Army). Division of the Pacific. 1881. *Map of Camp Huachuca, A. T., As Proposed to be Laid Out by Col. J. C. Kelton*, Assistant Adjutant General, Military Division of the Pacific and Department of California. From Sketches by 1st Sergeant Ryan, C & K Troops 12th Infantry, October.
- . 1887. *Map of Fort Huachuca, A.T. Showing the Sewer System as Proposed by 1st Lt. James E. Runcie, 1st Artillery*. Surveyed October.
- USFWS (U.S. Fish and Wildlife Service). 2007. Draft Biological Opinion from the U.S. Fish and Wildlife Service, Phoenix Arizona, to Colonel Jonathan B. Hunter, Commander, U.S. Army Garrison, Fort Huachuca, Arizona, June 14. Reference No. AESO/SE, 22410-2007-F-0132, 02-21-02-F-229, 02-21-98-F-266. http://www.fws.gov/southwest/es/arizona/Documents/Biol_Opin/070132_FortHuachucaFinal.pdf.
- NARA (U.S. National Archives & Records Administration). Microfilm M617, roll 493, Returns from U.S. Military Posts, Huachuca, Fort, Ariz.; Jan. 1907-Dec. 1916. Washington, DC.
- . Record Group 77, Fort Huachuca, Ariz., "Plan, Elevation, and Sections of Cavalry Stables to be Built," no. 22. Washington, DC.
- . Record Group 77, Entry 393, Box 95, Folder 2 of 6, Building No. 84. Washington, DC.
- U.S. Senate. 1936. Senate Bill S.4722, May 12, 1936.

- U.S. War Department. 1912. "Adjutant General's Report" in *War Department Annual Reports* 191 1, Vol. I. Washington, DC: GPO.
- . *Annual Reports*. 1878-1917, 1922, 1924. Washington, DC: GPO.
- . 1892. *Annual Report of the Secretary of War for 1891-92*. Washington, DC: GPO.
- . 1905. *Annual Report of the Secretary of War, 1905* Vol. I. Washington, DC: GPO.
- . Quartermaster General. 1904. *Outline Description of Military Posts and Reservations in the United States and Alaska and of National Cemeteries*. Washington, DC: GPO, October.
- Utley, Robert M. 1973. *Frontier Regulars: The United States Army and the Indian, 1866-1891*. New York: Macmillan Company.
- Utley, Robert M. 1984. *The Indian Frontier of the American West, 1846-1890*. Albuquerque: University of New Mexico Press.
- Valenzuela, Elizabeth, 2011 *FY 12 SRM Facilities and Demolition Projects: Documentation and National Register Evaluation of 29 Buildings on Fort Huachuca, Arizona*. Prepared for Environmental and Natural Resources Division (ENRD), Directorate of Public Works, U.S. Army Garrison, Fort Huachuca, Arizona. Fort Huachuca Cultural Resources Report FH-11-08. Austin, TX: Valenzuela Preservation Studios, and Phoenix, AZ: Vernadero Group.
- Van West, Carla R., Mark T. Swanson, and Jeffery H. Altschul. 1997 *Cultural Resources Management Plan for Fort Huachuca Military Reservation, Arizona*. Technical Series No. 67 1997. Tucson, AZ: Statistical Research Inc. [FH-97-12]
- Vanderpot, Rein. 1994a. *A 6,800 Acre Intensive Survey of Proposed FTX and Other Training Areas on Fort Huachuca, Arizona*. Technical Report 93-20. Tucson, AZ: Statistical Research Inc. [FH-92-16]
- Vanderpot, Rein. 1994b. *A 10,200 Acre Cultural Resources Survey of Three Proposed M1 Tank Training Areas on Fort Huachuca, Arizona*. Technical Report 93-8. Tucson, AZ: Statistical Research Inc. [FH-92-15]
- Vanderpot, Rein, and William Graves (eds.). 2013 *A 3,977-Acre Intensive Survey and NRHP-Eligibility Evaluations of 32 Previously Recorded Sites on Fort Huachuca, Arizona*. Prepared for the ENRD, Directorate of Public Works, U.S. Army Garrison Fort Huachuca, Arizona. Fort Huachuca Cultural Resources Report FH-12-7. Technical Report 12-31. Tucson, AZ: Statistical Research Inc.
- Vanderpot, Rein, and Teresita Majewski. 1998. *The Forgotten Soldiers: Historical and Archaeological Investigations of the Apache Scouts at Fort Huachuca, Arizona*. Technical Series 71. Tucson, AZ: Statistical Research Inc. [FH-94-2]
- Vindiveer, Frank E. 1977. *Black Jack: The Life and Times of John J. Pershing*, Vol. II. College Station: Texas A & M University Press.
- "Visit of Wilber M. Brucker, Secretary of the Army." Installation Diary, Information Office Entry, 26 April 1957. (Gregory Chronologic File 1957, Fort Huachuca Museum Collection, Fort Huachuca, Arizona.)

- Vogelsang, Lt. Col. L.O., 1943. *Historical Record of Buildings 1905-42*. Corps of Engineers, Eighth Service Command, ASF, Dallas, Texas to Chief of Engineers, U.S. Army Washington, 15 April 1943, RG 77: Chief of Engineers, Entry 393: Box 95: Fort Huachuca Thru Camp Huffman, NARA, College Park, Maryland.
- Walker, Arthur L. 1935. "Recollections of Early Day Mining in Arizona." *Arizona Historical Review* 6 April 1935
- Walker, Henry P., and Don Bufkin. 1979. *Historical Atlas of Arizona*. Norman, OK: University of Oklahoma Press.
- Walker, Henry P., and Don Bufkin. 1986. *Historical Atlas of Arizona*. 2nd ed. Tucson, AZ: University of Arizona Press.
- War Department. "War Department Construction Policy." 19 August 1941. (RG 92: Quartermaster General, General Correspondence 1936-45, Box 699, File: "600.1 Misc 1940," NARA, College Park, Maryland.)
- War Department, Adjutant General's Office, 1941. Washington, DC, 19 August 1941, RG 92: Quartermaster General, General Correspondence 1936-45, Box 699, File: 600.1 Misc 1940, National Archives and Records Administration, College Park, Maryland.
- Wasch, Diane S., et al. 1992. *World War II and the U.S. Army Mobilization Program: A History of the 700 and 800 Series Cantonment Construction*. Legacy Resources Management Program, U.S. Dept. of Defense.
- Wee, Stephen, Turrentine Jackson, Rand Herbert, Stephen Mikesell, and Robert Mackensen, 1990 *Fort Huachuca: An Evaluation of Architectural-Historical Resources*. Prepared for the U.S. Army Corps of Engineers, Los Angeles District. Jackson Research Projects, Davis, California. [FH-89-6]
- Wee, Stephen R. and Stephen D. Mikesell. 1993 *National Register of Historic Places Registration Form for Fort Huachuca Historic District*. National Register No. 74000443. Unpublished document, U.S. Department of the Interior, National Park Service. [FH-93-9]
- Weighly, Russell F. 1967. *History of the United States Army*. New York, NY: The Macmillan Company.
- Wheeler, Maj. John P., and Capt. W. H. Kasten. 1927. *History of the Fifth United States Cavalry, from 1855 to 1927*. Fort Clark, TX.
- Wright, Giles. 1941. "Fort Huachuca Military Population at Record Peak, New Buildings Ready for Additional Men; Expansion Described." *Bisbee Daily Review* 30 November 1941: 21.

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Tucson Citizen.

Acronyms and Abbreviations

Abbreviation	Term
AATCAN	Army Air Traffic Control and Navigation
ADP	Automatic Data Processing
AG&FC	Arizona Game and Fish Commission
AMC	Army Material Command
AMSL	Above Mean Sea Level
ASASOC	Army Security Agency Special Operations Command
BAS	Battle Area Surveillance
BOQ	Bachelor Officers' Quarters
CCC	Civilian Conservation Corps
CDCCEA	Combat Developments Command Communications Electronics Agency
CMTC	Citizen's Military Training Camps
CONARC	Continental Army Command
CRM	Cultural Resources Manager
CWA	Civil Works Administration
DA	Department of the Army
DoD	Department of Defense
DTF	Drone Test Facility
ECM	Electronic Countermeasures
EETF	Electromagnetic Environmental Test Facility
ENRD	(Fort Huachuca) Environmental and Natural Resources Division
EP&SWR	El Paso & Southwestern Railroad
EPG	(U.S. Army) Electronic Proving Ground
ERDAA	(U.S. Army) Electronic Research and Developments Activity, Arizona
ERDC	(U.S. Army) Engineer Research and Development Center
EW	Electronic Warfare
EWD	Electronic Warfare Department
FDC	Fiber Optics Distribution Center
FTFD	Field Test Facilities Department
FWA	Federal Works Administration
GPS	Global Positioning System
GSA	General Services Administration
HABS	Historic American Buildings Survey
HR	House of Representatives
JATO	Jet Assisted Take Off
LAAF	Libby Army Airfield
MCA	Military Construction, Army
MG	Major General
MTI	Moving Target Indicator
NAACP	National Association for the Advancement of Colored People
NARA	National Archives and Records Administration

Abbreviation	Term
NASA	National Aeronautics and Space Administration
NCO	Non-Commissioned Officer
NETCOM	[U.S. Army] Network Enterprise Technology Command
NHL	National Historic Landmark
NM&AR	New Mexico & Arizona Railroad
NRHP	National Register of Historic Places
ORC	Operational Response Command
PFC	Private First Class
PLO	Public Land Order
POL	Petroleum, Oil and Lubricants
POW	Prisoner of War
PWA	Public Works Act
QMC	Quartermaster Corps
ROTC	Reserve Officer Training Corps
SPRR	Southern Pacific Railroad
SRI	Statistical Research, Inc.
SSTF	Surveillance System Test Facility
STRATCOM	U.S. Army Strategic Communications
TACAN	Tactical Navigation System
TOD	Test Operations Department
TPED	Test Programs and Evaluation Department
UHF	Ultra-High Frequency
USAAF	U.S. Army Air Force
USACC	U.S. Army Communications Command
USACERL	U.S. Army Construction Engineering Research Laboratory
USAEPG	U.S. Army Electronic Proving Ground
USAF	U.S. Air Force
USAICoE	U.S. Army Intelligence Center of Excellence
USAICS	U.S. Army Intelligence Center and School
USAISC	U.S. Army Information Systems Command
USGS	U.S. Geological Survey
USO	United Service Organization
WAA	War Assets Administration
WAAC	Women's Army Auxiliary Corps
WPA	Works Progress Administration
WSMR	White Sands Missile Range
WWII	World War II
YTS	Yuma Test Site

Unit Conversion Factors

Multiply	By	To Obtain
acres	4,046.873	square meters
cubic feet	0.02831685	cubic meters
cubic inches	1.6387064 E-05	cubic meters
cubic yards	0.7645549	cubic meters
degrees Fahrenheit	(F-32)/1.8	degrees Celsius
feet	0.3048	meters
gallons (U.S. liquid)	3.785412 E-03	cubic meters
horsepower (550 foot-pounds force per second)	745.6999	watts
inches	0.0254	meters
miles (U.S. statute)	1,609.347	meters
miles per hour	0.44704	meters per second
ounces (mass)	0.02834952	kilograms
pounds (mass)	0.45359237	kilograms
quarts (U.S. liquid)	9.463529 E-04	cubic meters
square feet	0.09290304	square meters
square inches	6.4516 E-04	square meters
square miles	2.589998 E+06	square meters
square yards	0.8361274	square meters
tons (2,000 pounds, mass)	907.1847	kilograms
tons (2,000 pounds, mass) per square foot	9,764.856	kilograms per square meter
yards	0.9144	meters

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14. ABSTRACT The Fort Huachuca Environmental and Natural Resources Division (ENRD) tasked ERDC-CERL to compile a history of the development of Fort Huachuca for use in evaluating existing facilities and how they fit within the larger, overarching history of the fort. Fort Huachuca desires a comprehensive history of the fort for use in better understanding how its various facilities integrate into the overall history and development of the fort and its existing and proposed National Register of Historic Places (NRHP) properties and districts. This comprehensive history will help ENRD in making determinations on how to address future National Register of Historic Places (NRHP) nominations and/or recommendations for adding new historic districts or expanding the existing historic district. ERDC-CERL compiled content from 18 existing historic contexts, building inventory and cultural resources reports, NRHP nomination and registration forms, and Historic American Buildings Survey (HABS) forms previously completed for the ENRD, and used these resources to compile the current history.								
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