(Oct. 1990)

United States Department of the Interior
National Park Service

NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM

Resub
00-342

1. NAME OF PROPERTY

HISTORIC NAME: Tierra Amarilla AFS P-8 Historic District
OTHER NAME/SITE NUMBER: El Vado AFS P-8, El Vado Air Direction Center

2. LOCATION

STREET & NUMBER: approximately 9 mi. SW of Tierra Amarilla on NM SR 112 **NOT FOR PUBLICATION:** N/A
CITY OR TOWN: **VICINITY:** Tierra Amarilla
STATE: New Mexico **CODE:** NM **COUNTY:** Rio Arriba **CODE:** 039 **ZIP CODE:** 87575

3. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this _x_nomination ___request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property _x_meets ____does not meet the National Register criteria. I recommend that this property be considered significant ___nationally ___statewide _x_locally. (___See continuation sheet for additional comments.)

Signature of certifying official — Date: 1/02/2001

State Historic Preservation Officer

State or Federal agency and bureau

In my opinion, the property ___meets ___does not meet the National Register criteria.
(___See continuation sheet for additional comments.)

Signature of commenting or other official — Date

State or Federal agency and bureau

4. NATIONAL PARK SERVICE CERTIFICATION

I hereby certify that this property is:

	Signature of the Keeper	Date of Action
✓ entered in the National Register	Patrick Andrus	2/26/01
___ See continuation sheet.		
____ determined eligible for the National Register		
___ See continuation sheet.		
____ determined not eligible for the National Register		
____ removed from the National Register		
____ other (explain): _____		

5. CLASSIFICATION

OWNERSHIP OF PROPERTY: Public-State

CATEGORY OF PROPERTY: District

NUMBER OF RESOURCES WITHIN PROPERTY:	CONTRIBUTING	NONCONTRIBUTING
	16	0 BUILDINGS
	2	2 SITES
	0	0 STRUCTURES
	0	0 OBJECTS
	18	2 TOTAL

NUMBER OF CONTRIBUTING RESOURCES PREVIOUSLY LISTED IN THE NATIONAL REGISTER: 0

NAME OF RELATED MULTIPLE PROPERTY LISTING: N/A

6. FUNCTION OR USE

HISTORIC FUNCTIONS: DEFENSE: military facility

CURRENT FUNCTIONS: VACANT/NOT IN USE

7. DESCRIPTION

ARCHITECTURAL CLASSIFICATION: Modern Movement; No Style

MATERIALS:

FOUNDATION	Concrete
WALLS	Concrete; Asbestos
ROOF	Asphalt
OTHER	Wood

NARRATIVE DESCRIPTION (see continuation sheets 7-5 through 7-13).

8. STATEMENT OF SIGNIFICANCE

APPLICABLE NATIONAL REGISTER CRITERIA

_X_ **A** PROPERTY IS ASSOCIATED WITH EVENTS THAT HAVE MADE A SIGNIFICANT CONTRIBUTION TO THE BROAD PATTERNS OF OUR HISTORY.

___ **B** PROPERTY IS ASSOCIATED WITH THE LIVES OF PERSONS SIGNIFICANT IN OUR PAST.

___ **C** PROPERTY EMBODIES THE DISTINCTIVE CHARACTERISTICS OF A TYPE, PERIOD, OR METHOD OF CONSTRUCTION OR REPRESENTS THE WORK OF A MASTER, OR POSSESSES HIGH ARTISTIC VALUE, OR REPRESENTS A SIGNIFICANT AND DISTINGUISHABLE ENTITY WHOSE COMPONENTS LACK INDIVIDUAL DISTINCTION.

___ **D** PROPERTY HAS YIELDED, OR IS LIKELY TO YIELD, INFORMATION IMPORTANT IN PREHISTORY OR HISTORY.

CRITERIA CONSIDERATIONS: G

AREAS OF SIGNIFICANCE: Military

PERIOD OF SIGNIFICANCE: 1949-1958

SIGNIFICANT DATES: 1950; 1958

SIGNIFICANT PERSON: N/A

CULTURAL AFFILIATION: N/A

ARCHITECT/BUILDER: W. C. Kruger, U. S. Corps of Engineers, architect.

NARRATIVE STATEMENT OF SIGNIFICANCE (see continuation sheets 8-14 through 8-20).

9. MAJOR BIBLIOGRAPHIC REFERENCES

BIBLIOGRAPHY (see continuation sheet 9-21).

PREVIOUS DOCUMENTATION ON FILE (NPS): N/A

_ preliminary determination of individual listing (36 CFR 67) has been requested.
_ previously listed in the National Register
_ previously determined eligible by the National Register
_ designated a National Historic Landmark
_ recorded by Historic American Buildings Survey #
_ recorded by Historic American Engineering Record #

PRIMARY LOCATION OF ADDITIONAL DATA:

x State historic preservation office *(Historic Preservation Division, New Mexico Office of Cultural Affairs)*
_ Other state agency
_ Federal agency
_ Local government
_ University
_ Other -- Specify Repository:

10. GEOGRAPHICAL DATA

ACREAGE OF PROPERTY: approximately 42 acres

UTM REFERENCES	Zone	Easting	Northing		Zone	Easting	Northing
1	13	351720	4054340	3	13	351020	4054040
2	13	351650	4053940	4	13	351080	4054460

VERBAL BOUNDARY DESCRIPTION (see continuation sheet 10-22)

BOUNDARY JUSTIFICATION (see continuation sheet 10-22)

11. FORM PREPARED BY

NAME/TITLE: David Kammer, Ph.D.

ORGANIZATION: Consulting Historian **DATE:** September 1, 2000

STREET & NUMBER: 521 Aliso Drive, NE **TELEPHONE:** 505-266-0586

CITY OR TOWN: Albuquerque **STATE:** NM **ZIP CODE:** 87108

ADDITIONAL DOCUMENTATION

CONTINUATION SHEETS

MAPS El Vado and Heron Reservoir 7.5 minute series quad maps indicating the property's location (see attached).

PHOTOGRAPHS (see continuation sheets Photo-23 through Photo-24)

ADDITIONAL ITEMS

PROPERTY OWNER

NAME: Board of Regents, Northern New Mexico Community College

STREET & NUMBER: 921 Paseo de Onate **TELEPHONE:** 505-747-2100

CITY OR TOWN: Espanola **STATE:** NM **ZIP CODE:** 87532

The Tierra Amarilla Air Force Station Historic District consists of approximately 42 acres comprising the developed portion of a parcel of land that served as an Air Force radar site from 1950 to 1958. Popularly referred to as the old El Vado Radar Station and formally designated as Tierra Amarilla AFS-P8, the district is located on the top of a small mesa at an elevation of approximately 7,300 ft. It includes 16 contributing buildings, two contributing sites, and a few small outbuildings. All of the buildings employ modest modernistic elements characteristic of post-World War II military construction, with four buildings made of concrete block and the remainder of wood frame construction. The former base has been largely unused since it closed in 1958 and declared military surplus in 1960, after which it was sold to the State of New Mexico and briefly used by the state's forestry division. Although many of the buildings have been vandalized and undergone a natural deterioration, and the radar tower removed, the landscape, spatial arrangement of the buildings and their architectural details remain largely unaltered. As a result, the district maintains a high degree of historic integrity as to the location, design, setting, materials, workmanship and feeling of a small, remote military outpost associated with the early years of the Cold War.

The district is located in Rio Arriba County approximately 55 miles northwest of the Los Alamos National Laboratories, where the nation's first atomic weapons were developed, a site that remained critical to the nation's defense throughout the Cold War. The district lies within the Navajo Section of the Colorado Plateau Province, a rolling range land marked by moderate sandstone mesas and covered with vegetation of mixed piñon-juniper and grasslands. Sparsely populated with isolated ranches, the area in which the district is located borders land now included in El Vado State Park, established in 1962. The nearest communities, both with populations numbering less than 500, are El Vado seven miles to the southwest and Tierra Amarilla nine miles to the northeast. The El Vado community is located near the El Vado dam site, completed in 1935 to impound waters from the Rio Chama; Tierra Amarilla is the county seat of Rio Arriba County.

The district is situated on a sandstone table that rises approximately 100 ft. above the surrounding countryside with its most pronounced relief occurring to the south and west. The top of the mesa on which the majority of the station's buildings are located, is relatively flat with a peak elevation of 7,301 ft. The Department of Defense (DOD) eventually acquired 107 acres for the Tierra Amarilla Air Force Station as it added parcels of adjacent or nearby land below the mesa top. It did so to accommodate the trailers housing airmen with dependents and to meet the station's water requirements with the digging of additional wells (U.S.C.E. 1996:1). No evidence of the former trailer housing site remains. Squadron members, however, carried out their mission within the tighter confines of the station compound. With the exception of the sentry house at the entry to the station, only the communications receiver, communications transmitter, and recreation buildings, all located within 600 ft. of the compound, extend beyond the core area of buildings. This compound as well as these three buildings accounted for the majority of buildings composing the station. This core area was defined on the eastern side by an interior wire security fence. Farther to the east beyond the oxidation ponds located on the lower slopes of the mesa at the eastern end of the property, an exterior security fence

marked the station's eastern perimeter. On the northern, western, and southern sides a wire security fence also defined the perimeter of the station. These perimeter fence lines to the north, west and south, as well as the interior security fence line to the east of the compound define the boundaries of the historic district (see Figure 7-1).

An asphalt-topped road cut from NM State Road 112, which borders the district on its west side, enters the gated property, passing a sentry house. It then ascends a gentle canyon slope as it courses approximately 1,000 feet east and then south to reach the station compound on the table top. Slight stone retaining walls define a small picnic site with concrete tables adjacent to the roadway as it passes the recreation hall. Small stones also line portions of the northerly spur road leading to the former recreational court and the communications transmitter building. Immediately south of the recreation hall a second spur road leads to one of the station's former parking lots. The compound is situated on the flat surface of the mesa top, which construction crews cleared most of the vegetation as they erected the station's buildings. Comprising the compound were the barracks, support and operational buildings, and structures necessary for the 767th Aircraft Control and Warning Squadron (AC&W), with a strength of approximately 160 men, to carry out the station's air search mission.

The rectilinear arrangement of the compound, typical of many military sites, is evident not only in the siting of buildings but also in the location of roadways, sidewalks, and in the sparse landscaping denoting the station. The principal buildings, including the operations and headquarters buildings, supply shop, heating plant, dining hall, three of the four enlisted men's barracks and the officer's quarters are situated along parallel axes. The compound's roadway runs between these axes and is lined by concrete sidewalks and Siberian elms and Lombardy poplars, trees often included in mid-century Southwestern landscapes because of their low water requirements. At its southeastern end, the compound's roadway extends another 800 ft. to the station's communications receiver building. At its northwestern end, the roadway turns at a right angle to the southwest, extending past the operations building and electric power plant to the highest point on the mesa, the former location of the station's Arctic tower-mounted search radar.

This portion of the station lying just south of the southwest corner of the station compound presents the most altered section of the historic district. Following the closing of the station in 1958 and the federal government's disposal of the property in 1961, the radar search equipment was removed. More recently as the U.S. Corps of Engineers (U.S.C.E.) has conducted environmental hazard studies of formerly used defense sites (FUDS), recommendations for the cleanup of the former radar station have resulted in the removal and disposal of several underground storage tanks. As a consequence, a circular area approximately 200 ft. in diameter reflects the recent excavation and back filling carried out to remove those tanks. Because the operation of the search radar lay at the heart of the station's mission, this circular area, still marked by the radar tower's concrete piers, is considered a contributing site within the district.

The 16 contributing buildings within the district include all of the buildings that are substantial in size and scale. While all of these buildings display concrete foundations, particularly evident in the case of the three barracks that have been removed, only those related to the operational aspects of the station are of concrete block. Those associated with the station's administrative and housekeeping functions are of wood frame construction and are generally faced with asbestos shingles.

As was the case with much military construction in the years following World War II when the DOD's annual budgets were greatly reduced, the architectural character of the station's buildings is largely utilitarian. The two-story wood frame airmen's barracks suggest standard designs used throughout the period on bases across the country. Wide eaves extending from low-pitched hipped roofs, large-light, metal-framed hopper windows and continuous hoods over the first-floor windows impart a hint of the modernistic design to otherwise conventional military dormitories. Based upon plans of the station prepared in 1958, however, it is quite likely those buildings regarded as permanent, such as the operations building with its concrete roof and tower at its northeast corner, were designed specifically for the site.

The communications receiver and transmitter buildings with their flat roofs, individual mechanical units, and discrete locations well removed from each other as well as the operations building further suggest the individual attention given to adapting a design plan to the specific needs of the station. Since meeting the station's primary mission of air search and warning depended, to a great degree, upon its ability to transmit and receive data, these two critical functions were carried out in two discrete locations well-removed from each other at the north and southeast ends of the complex.

List of Contributing Properties

All of the remaining buildings of substantial size and scale located at the former 767th AC&W Squadron Site at Tierra Amarilla are considered contributing properties. All, save Building #T-22 which was most likely constructed in late 1953, were constructed within a three-year period dating from about late 1949 through early 1952, and were integral to the fulfillment of the station's mission. All are included in the most accurate map available of the station prepared in 1958 when the Air Force made plans to close the station (see Figure 7-2). A year later, when the Air Force prepared a Real Estate Disposal Estimate for the station, all of the properties located therein were listed. The names used to designate the contributing properties and appearing on the accompanying sketch map is consistent with those appearing on the 1958 map and the 1959 real estate property list. Non-contributing properties include the foundations of former buildings not contributing to the significance of the district. The photograph (P) number depicting selected properties is also included with the building number.

Operations Building (#1, P-1). This compound plan building, with a garage located at its rear west side, has a concrete foundation with a small basement, concrete block walls and a concrete roof. The roof displays a slight overhang at the raised portion of the one-story building, as well as at the tower located at the northeast corner. The main entry located on the east-facing elevation is covered with a small cantilevered concrete hood with a small wood frame porch beneath. The door is clad with heavy metal sheeting. Additional entries are located on the west and north elevations, with the entry bays to the garage located on the north side. The building is organized on a central hall plan with concrete-walled rooms on either side of the passageway. The only fenestration occurs in the rear portion, possibly added shortly after the original portion was completed, and consists of single metal-frame hopper windows. Louvered ventilators are located along the walls of the tower.

Electric Primary Power Building (#2). Located immediately south of the Operations Building, the Electric Primary Power Building is a one-story compound plan building with a concrete foundation, concrete block walls, and a concrete roof punctuated with four metal ventilation pipes. A large garage doors is located on the east elevation and is flanked by a louvered opening on the south and door opening on the north. A door and louvered opening also appear on the west elevation. The building's fenestration consists of two single fixed steel casement windows with four lights. Two small concrete block additions, possibly used for tool storage, appear at the southwest corner.

Heating Plant (#4, P-2). The heating plant is a one-story rectangular building made of a concrete foundation, concrete block walls, and a concrete roof. Measuring approximately 28' x 45', the building housed the station's multiple boilers. The building's entry is offset and located on the south elevation. The west elevation contains four large louvered metal grills surmounted by multiple-light steel casement sash windows, and the east elevation contains three multiple-light steel casement windows. The south portion of the building reveals an addition that was most likely added shortly after the building's construction.

Airmen's Dormitories (Buildings #5-A and B, P-4). These identical two-story buildings have concrete foundations and are of wood frame construction with asbestos-cement shingle siding. The roofs are hipped and broadly pitched with wide overhangs. A series of single steel-frame hopper windows line the north and south elevations, and a slight continuous hood extends above the first floor windows. Two entries with wood panel doors containing three small square lights are located at the east and west elevations of the buildings. Referred to in the Real Estate Disposal Estimate list prepared for the station in 1959 as standard Bachelor Officers Quarters (BOQ) type dormitories, the buildings measure 29'x 97' and have a central hall plan with wood walls and partitions. The walls are detailed with a 4 ft. plywood wainscoting.

Dining Hall (#T-7, P-6). The dining hall consists of a concrete foundation, wood frame construction with asbestos-cement shingle siding, and a low, hipped roof with composition roll roofing. The building is one story with entries located on all four elevations. The entries located on the north elevation facing the airmen's dormitories and on the south elevation consist of enclosed wood porches with fixed large-light windows.

Although the east elevation of the building has deteriorated at the location of its entry, the remaining three entries contain transoms and wood panel doors with three small square lights. The interior consists of food storage and preparation areas at the east side and a large dining room with grouped steel-frame hopper windows at the west side. A 4 ft. plywood wainscoting lines the dining area.

Security Guardhouse (#T-8, P-14). The security guardhouse is a one-story building located at the northwest periphery of the station, just inside the interior security fence and approximately 300 ft. from where the station's roadway junctions with NM SR 112. The guardhouse rests on a concrete foundation and is made of wood frame construction with asbestos-cement shingle siding, and a flat asphalt roof with a wide overhang. Large fixed wood frame windows with multiple lights line the east, west, and north elevations. The concrete pad foundation extends beyond the 8' x 12' exterior dimension of the building, enhancing the sentry's line of sight down the roadway to the highway.

Recreational Facility, Multi-Purpose, Squadron Headquarters Building (#T-9, P-7). Located along the southern axis of the compound's buildings, the former recreational and squadron headquarters building is one story and is sheltered by a low, hipped roof with a wide overhang. The foundation is concrete, and the construction is wood frame with asbestos-cement shingle siding. Its two entries are located on the north elevation and include three-panel wood panel doors with small square lights surmounted by transoms. Fenestration consists of paired and grouped large-light metal framed fixed windows. The building is built on a rectangular plan measuring 25'x 118' and divided into two interior spaces. The larger east portion consists of three large rooms, most likely the squadron's administrative offices, and the west portion consists of a large single room with a large overhead rolling garage door.

Water Pump Station (#10, P-15). This rectangular building has a concrete foundation, concrete block walls, and a flat roof. Located near the Security Guardhouse, it housed the motors that pumped water from the station's wells. The building measures approximately 8'x 11' and displays no fenestration. The original door is no longer attached to the entry.

Water Supply Treatment Building (#11, P-8). This building is one story and is made of a concrete foundation, concrete tile block walls, and a flat concrete roof. The building is built on a compound plan consisting of two rectangles sharing a common wall. The larger room on the west side measures 22' x 20', and the smaller room 7'x12'. Each room contains a discrete wood framed entry, located on the south elevation. The doors, most likely double doors, have been removed. Fenestration consists of steel-framed large light hopper windows. A large steel tank set on concrete supports is situated in the west room.

Communications Receiver Building (#12, P-10). Located approximately 600 ft. east of the station's compound, this building is one story and constructed of a concrete foundation, concrete block walls, and a flat concrete roof with a slight overhang. A tall concrete block chimney rises above the roof. Double wood panel

doors are located on the south elevation, and the south and west elevations contain small metal louvered openings. The building displays a rectangular plan and measures approximately 19' x 37'.

Communications Transmitter Building (#13, P-9). Located approximately 600 ft. north of the station's compound, this building is one story and has a concrete foundation, concrete block walls, and is sheltered by a flat concrete roof with a slight overhang. A tall concrete block chimney rises above the roof. The door has been removed from the only entry located on the south elevation. A small metal louvered opening situated in the boiler room is the only break in the building's walls. Although described as having "construction identical" to building #12, the rectangular dimensions of the building differ, measuring approximately 19' x 58'.

Supply and Issue Shop (#T-14, P-11). Located immediately north of the Operations Building, this building is one story with a broadly pitched hipped roof covered with composition roll. It has a concrete foundation and wood frame construction with asbestos-cement shingle siding. The building is built on a rectangular plan. The main entry located on the south elevation is wide with an overhead door. Fenestration consists of grouped steel framed hopper windows located on the north and south elevations. Built-in wood storage racks suggest the building's function as the station's supply and issue site.

Recreation Facility (#T-22, P-12). Quite likely the last building constructed at the station, the Recreational Facility Building is located on a slight rise immediately north of the entrance road as it climbs the arroyo leading to the station compound situated on the mesa top. The building has a concrete foundation and a wood frame construction with asbestos-cement shingle siding. The building is one story but divided into two sections. The east half housing the basketball court has a higher elevation and pitched roof, and the lower western half housing the canteen and game room has hipped roof. The two entries located on the south elevation and single entry located on the north elevation have wood frame entry sheds. The two entries leading into the east section contain paired doors with four lights, and the entry leading into the west section is a wood panel door with four lights. Fenestration in the eastern section consists of paired steel framed hopper windows placed at along the top of the walls just below the roof line on the north and south elevations. Fenestration in the western section consists of similarly raised steel framed hopper windows as well as full-sized single and paired hopper windows located on the south and west elevations. The basketball court retains its wood floor.

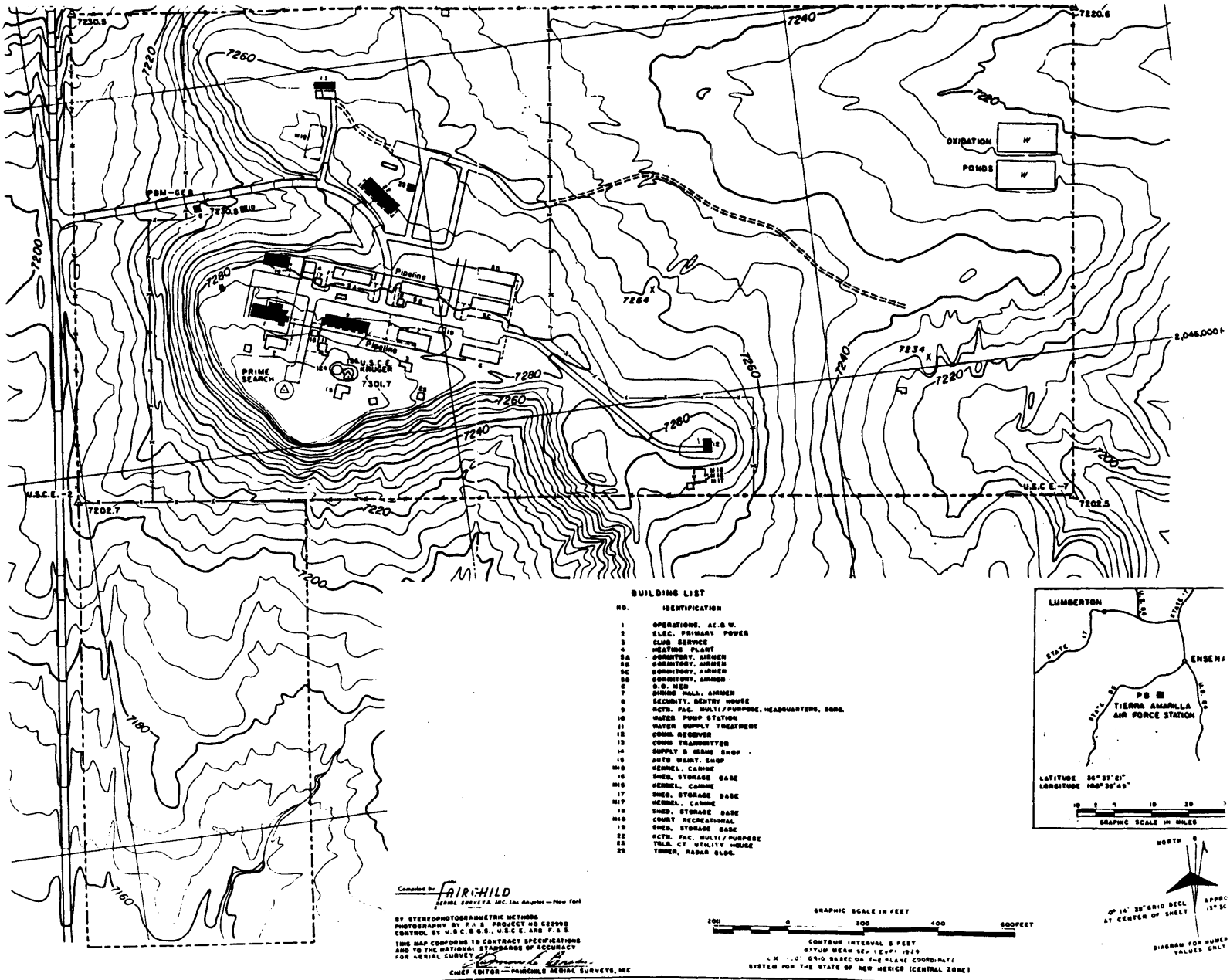
Trailer Court Utility House (#23). This one-story rectangular plan building is built on a concrete foundation and composed of wood frame construction with asbestos-cement shingle siding and a low pitch gable roof. The main façade faces east and reveals a center door flanked on both sides by a steel casement window. The north and south elevations each contain a single eight light steel casement window. While the roofing material is no longer evident, the rafter ends are exposed on the east and west and elevations. This compact building once served as the utility house for trailer housing located just east of the structure. With the exception of the disturbance of the trailer pads, no evidence of the former trailer housing exists.

Paint Storage Building (#25). This one-story rectangular building measuring 8' x 10' is composed of a concrete slab foundation, concrete block walls, and a flat asphalt roof that tilts at an angle upward at the north elevation.

Site #1 Radar Tower Site (P-13). This site consists of an approximate circle with a diameter of approximately 200 ft. with its center located at the southern end of the north-south road leading to the power and water treatment buildings. It includes the location of the towers that were the heart of the station's CPS-5 and, later, AN/FPS-3 radar systems, now only marked by four concrete piers on which the radar tower was constructed. It also includes the remains of the former underground storage tanks located south of the radar tower and the remaining walls and foundation of the former auto maintenance shop.

Site # 2 (#5-D, 5-C, and T-6). Two additional dormitories, Buildings 5-C and 5-D (P-5), with identical dimensions and the former Officers' Quarters, Building T-6, measuring 32' x 101', are no longer extant and only their concrete foundations remain. Together these are considered as one contributing site.

Figure 7-2 Section of U.S.G.S Quad Map Depicting c. 1958 Layout of Tierra Amarilla AFS P-8



Although the Army had established the Air Defense Command (ADC) in 1940, it wasn't until late 1949 that Congress permitted the Air Force to transfer money from other projects to construct a permanent network of air defense radar sites. These sites were designed to protect the continental United States from the threat of Soviet air attack. Receiving priorities for protection under this post-war system of air defense were the industrial cities located along the nation's seaboards and along its northern border and the sites of the Atomic Energy Commission (AEC) located in Washington, Tennessee, and New Mexico. This effort to protect the national laboratories at Los Alamos and Sandia Base resulted in the establishment of two temporary and three permanent Air Control and Warning (AC&W) radar stations in New Mexico during the early 1950s. One of the earliest sites was AFS P-8 near Tierra Amarilla, manned by the 767th AC&W Squadron. Located on land acquired by the Air Force in 1949, the station functioned as an air search site until 1958, when it was closed. During its years of operation, the station played an important role in providing air defense for some of the nation's key Cold War resources. Sold to the state in 1961, but little used, the buildings exhibit deterioration, but are largely unaltered and collectively present a good representative example of an early Cold War-era radar station in New Mexico. The Tierra Amarilla radar station is the only extant site of three Lashup-Permanent Network radar stations once active in the state, and therefore best represents this early Cold War radar detection program in New Mexico. The district meets National Register Criterion A at the state level of significance for the role it played in protecting critical AEC sites in New Mexico during the Cold War, therefore meeting Criterion Consideration G as a significant property less than 50 years of age.

The Army first explored the use high-frequency radios as a defensive tactic in 1935 when it began experimenting with what it termed a Ground Control Interception (GCI) system to vector interceptors toward aircraft that had been visually detected by ground observers. A year later, researchers began to bounce radio waves off of aircraft at a range of up to seven miles. Over the next few years the military services as well as private research facilities such as Bell Telephone Laboratories continued to experiment with radar detection, with the Navy soon inventing the acronym RADAR for "radio detection and ranging." During World War II as radar technology improved, it proved invaluable in the Allied war effort both at sea and in the air. British interceptor aircraft were particularly successful in waging their aerial war against German bombers through the use of radar.

Using this technology as a means of strengthening the defense of the nation's perimeter, the Army established in 1940 the Air Defense Command (ADC) at Mitchel Field on Long Island, New York. During the early years of the war, when concerns over the nation's vulnerability to attack were greatest, a network of 95 radar stations operated along the eastern and western seaboards. Working in conjunction with the civilian volunteers of the Ground Observer Corps, operators used both mobile and fixed radar sets to search to ranges of 150 miles at an elevation of 20,000 ft. (Winkler 1997:10). Designated SCR-270 (mobile) and SCR-271 (fixed), these radar units fell into disuse in 1943, when it became apparent that the remainder of the war would be waged

on foreign soil. This trend away from air defense in favor of offensive capabilities became even stronger with the Allied victories in Europe and Asia brought about, in part, by massive bombing attacks including the use of two nuclear weapons.

With the conclusion of the war and the shift of public attention away from the issues of armaments and international threats, there arose a new concern within the defense establishment regarding the nation's growing tensions with the Soviet Union. Aware that the Soviets were developing a long-range bomber derived from their study of American B-29 bombers that had landed behind Russian lines during the war, Army Air Force leaders sought to develop a radar defense system for the country. Based on recommendations prepared by the Douglas Aircraft Company's Research and Development Project (RAND) in 1946, the Army Air Force reestablished the ADC. It did so despite a vigorous debate within the military community over how to protect the nation. One group advocated pursuing a strategy of developing offensive bombing capabilities. Another advocated a less costly strategy of developing defensive air search and interception capabilities. Even as the debate continued, the ADC developed a plan for deploying surplus World War II radar systems to protect the vital manufacturing areas of the country. Newly created as an independent branch of the military service advanced by the Air Force, the plan was designated Project SUPREMACY and proposed a series of 374 radar stations in the continental United States and some 37 more in the territory of Alaska. By the middle of 1948 about a dozen air search radar stations had been established along the eastern and western seaboards and near the AEC nuclear facility at Hanford, Washington.

Although the plans contained in Project SUPREMACY were never fully implemented, they provided a starting point for the air defense that ultimately emerged in the early 1950s. World events provided the impetus for accelerating its deployment. Although Bernard Baruch first used the term "cold war" during a speech to the South Carolina legislature in April 1947, a series of events soon implanted a popular awareness that the nation was entering a cold war aimed at confronting the advance of communism on a global scale. First came a Communist coup in Czechoslovakia in February 1948, followed by the rapid decline of Chiang Kai-shek's forces in China, leading to his retreat to the island of Formosa in July 1949. In September of that year, President Truman announced that the Soviet Union had detonated an atomic bomb. In response to these events, in January 1950, the president directed the National Security Council (NSC) to assess the nation's strategic position in light of the Soviet's thermonuclear capabilities. By April 1950, the National Security Council had prepared a response known as NSC 68. It warned that America's military strength was "dangerously inadequate" and urged that the United States seek to "contain communism" and preserve its security "by the strategy of the cold war, building up our military strength in order that it may not have to be used." North Korea's invasion of South Korea less than three months later underscored the NSC's analysis and strengthened the nation's resolve to enter into a cold war scenario.

As part of its response to the growing concern for improving national security, the Air Force pushed ahead with the deployment of its air defense system. Reorganized under the Continental Air Command

(CONAC) in late 1948, by late 1949, the ADC began construction of a series of 75 radar sites, beginning with those sites deemed strategically critical. At first, CONAC simply took World War II-era radar systems that had been in mothball and reactivated then as long-range detection systems. Known as Project Lashup, by mid-1950, 44 such sites were in operation. Among those early Lashup sites was the site near Tierra Amarilla, activated in 1950. Designated L-44, as a temporary Lashup site, later LP-8/P8, the site lay within the area referred to as the Albuquerque Air Defense and Interception Zone (ADIZ). The station was included within the command of the 34th Air Division (Defense). First designated in 1950, when it was assigned to protect the Southwest, the division was charged with providing air defense for the AEC's installations at Los Alamos and Sandia Base.

Headquartered at Kirtland Air Force Base (AFB) in Albuquerque, by 1951, the 34th Air Division command consisted of five AC&W squadrons spread across New Mexico. Two of these squadrons were temporary stations located at Walker AFB, Roswell and Kirtland AFB, where their facilities were part of the bases' larger built environment. These stations operated between December 1950 and November 1951. The other three sites, however, were located at remote sites near Moriarty (AFS-P7), Continental Divide (AFS-P51), as well as at the site near Tierra Amarilla (AFS-P8), and became part of the Lashup-Permanent Network operating through the late 1950s. In addition, the command also had fighter/ interceptor squadrons located at Kirtland AFB and at Davis-Monthan AFB, Tucson, Arizona. In concert, these air search and fighter/interceptor units sought to defend the ADIZ through their combined abilities to search the skies and intercept detected intruders.

The only AC&W station located on north of Los Alamos was the station near Tierra Amarilla. Property records show that the Air Force had taken its first steps to acquire land for an "air direction center site" in August 1949, when the Air Force Facilities Division acquired 80 acres from local ranchers and landowners near El Vado Dam. Initially leased but soon purchased, this parcel served as the nucleus for what eventually became a 107-acre parcel (USCE, 1965: np). Shortly after the acquisition, the State Highway Commission granted the Air Force an access road from NM SR 112, clearing the way for establishment of the radar station. Characteristic of the other two AC&W stations not located on existing air bases, the site was located on high land, relative to the surrounding countryside. Part of the Navajo Section of the Colorado Plateau Province, the land in the vicinity of the station exhibits a slight decline toward the west as the rolling slopes descend to the nearby Chama River. Despite the uneven terrain, the mesa top offered engineers a relatively flat surface on which to construct the station's facilities.

Based on the few reports available from the 34th Air Division treating its radar squadrons' activities, it seems likely that by early 1950 the temporary Lashup AN/CPS-5 radar was installed and in use. It also is likely that the station's squadron was quartered in temporary buildings, as crews prepared the concrete foundations for the permanent structures that shortly followed. Bell Telephone Laboratories and General Electric developed this first radar system employed at the station in 1945. Designed to be transportable, it was employed at many of the early Lashup sites. A medium-range search radar, it was capable of searching up to 60 miles at 40,000 ft., and

could be operated by a crew of ten. The search antenna (now removed) was mounted on a steel trussed platform, referred to as an Arctic type tower, and appeared as a large oval dish rotating full circle around a center axis. By 1953, two newer radar systems, the AN/FPS-3 and AN/FPS-5, were operating at the station and set on at least one tower with a concrete footing. With the designation of "F" denoting that they were fixed, or permanent, as opposed to "C", denoting transportable, these newer systems, produced by Bendix and Hazeltine, respectively, permitted a greater search range at higher altitudes (Winkler 1996:73-76).

During 1950, as the 767th AC&W Squadron fulfilled its mission as a temporary Lashup site, the Corps of Engineers moved ahead with construction of the permanent station. The caption "U.S.C.E. Kruger" appearing on the 1958 plans indicate that the plan for the station and the permanent buildings constructed between1950 through 1952 were based upon designs prepared by W.C. Kruger and the U.S. Corps of Engineers. W.C. Kruger (1910-1984), a New Mexican, who had served as the state's architect for the WPA and several PWA projects during the New Deal, designed numerous Cold War-era buildings at various federal installations around the state including Los Alamos, Sandia Base, White Sands Missile Range, and Holloman Air Force Base. Typically the U.S.C.E. collaborated with civilian architects to design military facilities, developing site plans and buildings that met the need of their various clients within the military.

Working primarily with the relatively flat mesa top, Kruger and the U.S.C.E. developed plans for a small compound of buildings. Unlike nineteenth century military posts in the West, which were often oriented along the cardinal points of the compass, the orientation of the station adheres to no cardinal points. The compound does, however, employ a rectilinear plan with most of the buildings located along two parallel axes and facing onto a central road. This plan is more or less mirrored in the plan for the radar station located near Moriarty and now demolished, as is the only other similar site near Continental Divide. At the southwest edge of the compound, the highest point on the mesa, the planners located the Arctic tower for the search radar antenna. Removed from the compound, the Communications Transmitter and Receiver buildings were located some 600 ft. north and southeast of the compound, respectively. To meet the needs for the station's security, the plan also included not only installing a fence around its boundary but also enclosing the portion of the station containing all of the buildings with a 6 ft. galvanized security fence topped by outriggers and barbed wire. Plywood kennels were also built to house the canine patrol included in the station's security operations.

Typical of other military stations erected quickly during national emergencies, the buildings constructed at Tierra Amarilla include several with standard building plans. All of the housekeeping buildings, including the five barracks, mess hall, and squadron headquarters were set on concrete foundations and employed standard wood frame construction with asbestos-cement shingle siding. These similarities of construction are particularly apparent in the contrast offered between the two remaining airmen's barracks and the concrete foundations of two barracks that have been removed. Identical in dimension to those that remain, they reveal the standardized footprint and concrete piers on which the wood frame buildings were rapidly constructed. Suggestive of the importance given to the station's mission, the operational buildings, including the operations, electric plant and

communications buildings, with their use of concrete block construction and, in the case of the former two buildings, concrete roofs, appear more sturdy and resistant to aerial strafing.

By the end of 1951, the permanent facilities at the station had been largely completed, and the 767th AC&W Squadron had settled into the routines associated with life at a relatively remote outpost of the Cold War. While the squadron was supposed to consist of 166 men and 16 officers and commanded by an officer with the rank of major, it rarely, if ever, reached this authorized amount. With the buildup of American troops in South Korea, Europe and other locations in which the Cold War threatened to erupt into conflict, personnel were constantly being reassigned. A report of the 34th Air Division prepared at the end of 1953, for instance, asserts that the squadron never had more than seven officers available for duty (34th Air Division 1953:19). While the report noted that personnel shortages were acute in all areas, especially the area of squadron administration, the shortage also affected the station's ability to carry out its mission. During periods in December 1953, the shortage of radar operators and controllers, consisting of experienced enlisted men in the 5 to 7 levels, caused the squadron to reduce its levels of readiness. Instead of functioning as a full-time Ground Control Interception (GCI) station, capable of directing interceptors toward incoming aircraft, it reduced its readiness to that of simply an early warning unit of 16 hour intervals. The report concluded that because of these personnel shortages the station experienced a reduction in "over all operational efficiency despite long hours of additional duty."

Despite these shortages, the 767th AC&W Squadron went about its mission. Reports indicate the importance that new communications and radar technologies held for the station with references to two frequency modulation (FM) telephone lines with Division headquarters at Kirtland AFB, as well as references to the presence of civilian technicians living at the station in order to service its equipment. Mountain States Telephone maintenance men, for instance, regularly visited the station to service its Teletype machines. Philco Corporation posted a technical representative at the station who was responsible for much of the electronic equipment and provided training lessons for the operators (History of the Outlying Sites 1952: np). Similarly, a communications network established within the station itself so that High Frequency operators at the Communications Receiver Building could monitor the plots the radar operators were developing from radar signals at the Operations Building.

In order to measure how well it was fulfilling its mission, the station maintained monthly records detailing its activities. During March 1952, for example, operators plotted 6,957 aircraft detections, tracking 1,122 of them at distances ranging from four to 140 miles. During the same period, radar power failure "blinded" the station for one hour and 16 minutes, and FM power failures silenced the station for 16 hours and 12 minutes. To reduce these threats to its mission, airmen performed over 183 hours of maintenance on the radar equipment and 60 hours on the radio equipment. Requests for supplies and replacement equipment were sometimes met with special courier deliveries from Kirtland AFB, but most often fulfilled with a weekly shipment from the base.

The quarterly and semi-annual reports that cover 1952 and 1953 also provide other glimpses of life at the station. Since its location was so remote, airmen had few opportunities to leave the base, and the station's bus was regarded as a lifeline for trips to nearby Tierra Amarilla. Because it was so much smaller than Gallup and Albuquerque, the towns located relatively close to the other outlying radar stations, Tierra Amarilla was viewed as inadequate for meeting the airmen's needs for off-base activities, and a greater emphasis was placed on activities at the station. Activities on the base, such as a basketball league with games played on an outdoor court, weekly bingo nights and movies, were regarded as contributing to squadron morale. The report for the second half of 1953 suggested that the construction of a gym at the station, a project soon undertaken, would be a "long range investment in better morale" (34th Air Division 1953:20). Similarly, the availability of refreshments was also considered a morale booster. Although the station's mess hall had been equipped with a walk-in refrigerator in late 1951, it wasn't until 1952, that a snack bar was constructed in the squadron headquarters building. While many of the young airmen were single, some did have families. In an effort to lodge these dependents, in the mid-1950s, the Air Force leased additional acreage west of the station. Outside the fenced periphery of the station and accessible directly from NM SR 112, the land was used to grade pads for trailers.

As the quest for newer weapon technologies and the means to counteract them rapidly advanced for the Americans and the Soviets and their allies through the 1950s, it became apparent that many of the early air defense radar sites were destined to become obsolete. As early as 1952, scientists and engineers began advocating the need for a Distant Early Warning (DEW) Line extending across the northern tier of the continent; a plan embraced by President Truman. Later under President Eisenhower, plans for improving the continent's air defense moved forward, but only as part of a broader strategy that a sound air defense was necessary in order to protect the nation's ability to stage a retaliatory attack using long-range bombers and intercontinental ballistic missiles. By 1958, the first installations of the new air defense, known as the Semi-Automatic Ground Environment (SAGE) System, were in place. By using a broad range of sensors, including ground radar, picket ships, early-warning aircraft, and transferring their data to analog computer-equipped direction centers, the system reduced the need for many of the stations and great numbers of personnel associated with the earlier radar-based air defense system. Within the context of these developments, the Tierra Amarilla station was determined to be in a poor location and deemed expendable, and on December 8, 1958, became the first of the permanent Lashup sites to close.

In 1960, two years after the station closed, the Government Services Administration declared the property excess and shortly thereafter conveyed it to the State of New Mexico by quitclaim deed on July 21, 1961. Although the state's Forestry and Resource Conservation Division briefly used station, it was ultimately turned over to Northern New Mexico Community College (NNMCC), the current owner of the property. Unused and untended for several decades, most of the buildings show deterioration and three of the wood frame barracks have been removed. In the late 1990s the U.S.C.E. carried out an environmental cleanup of the site,

removing two underground fuel storage tanks, resulting in the disturbed surface in the vicinity of the former radar tower.

Because of its largely unaltered state and a growing awareness in New Mexico of the state's unique contributions to the nation's efforts to win the Cold War, the New Mexico State Legislature passed a joint memorial bill during its 1999 session to document and preserve the site. Specifically it directed NNMCC and the state's Office of Cultural Affairs to cooperate in preparing a nomination to the National Register of Historic Places, as well as a management plan for preserving and interpreting the historic site and developing it as an educational facility.

Despite neglect, the station retains a high degree of integrity as to its planning and design, architecture, and as a landscape demonstrative of an isolated Cold War radar search site in New Mexico. Moreover, with the demolition of the radar stations at Moriarty and Continental Divide, the Tierra Amarilla station remains the only example of a Lashup-Permanent Network station in the state. The two other stations at Kirtland and Walker air force bases, were of a temporary nature, operating between December 1950 and November 1951, and replaced by stations developed as part of the Lashup-Permanent Network. As such, the district qualifies for listing at the state level of significance under Criterion A, for the role it played in protecting Los Alamos and Sandia Base during the Cold War, and as the best representative example of a Lashup-Permanent Network radar station in New Mexico, therefore meeting Criterion G as an exceptionally significant property less than 50 years of age.

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Verbal Boundary Description

The boundary for the Tierra Amarilla AFS P-8 Historic District follows the interior security fence on the east and the exterior security fence on the north, south, and west (see Figure 7-1).

Boundary Justification

The district boundary on the east side has been drawn to correspond to the interior security fence of the former radar station which separated all of the station's buildings from undeveloped portions of the base lying farther the east. On the north, south and west sides the boundary has been drawn to correspond to the exterior security fence. The undeveloped portions of the property not associated with the station's operations have been excluded from the historic district in order to permit the current owners of the property latitude in developing the site while protecting its historic resources.

PHOTO LOG
The following information pertains to all photographs unless otherwise noted:

Tierra Amarilla AFS P-8 Historic District
Vicinity of Tierra Amarilla
Rio Arriba County, New Mexico
James Hewat
Negatives on file at the New Mexico State Historic Preservation Office
November 1999

Photograph 1 of 15
Operations Building
Camera facing southwest

Photograph 2 of 15
Heating Plant
Camera facing northeast

Photograph 3 of 15
Compound roadway
Camera facing east

Photograph 4 of 15
Women's Dormitory
Camera facing north

Photograph 5 of 15
Dormitory foundations
Camera facing northeast

Photograph 6 of 15
Dining Hall
Camera facing northeast

Photograph 7 of 15
Squadron Headquarters Building
Camera facing east

Photograph 8 of 15
Water Supply Treatment Building
Camera facing northeast

Photograph 9 of 15
Communications Transmitter Building
Camera facing northeast

Photograph 10 of 15
Communications Receiver Building
Camera facing north

Photograph 11 of 15
Supply and Issue Shop
Camera facing northeast

Photograph 12 of 15
Recreation Hall
Camera facing northeast

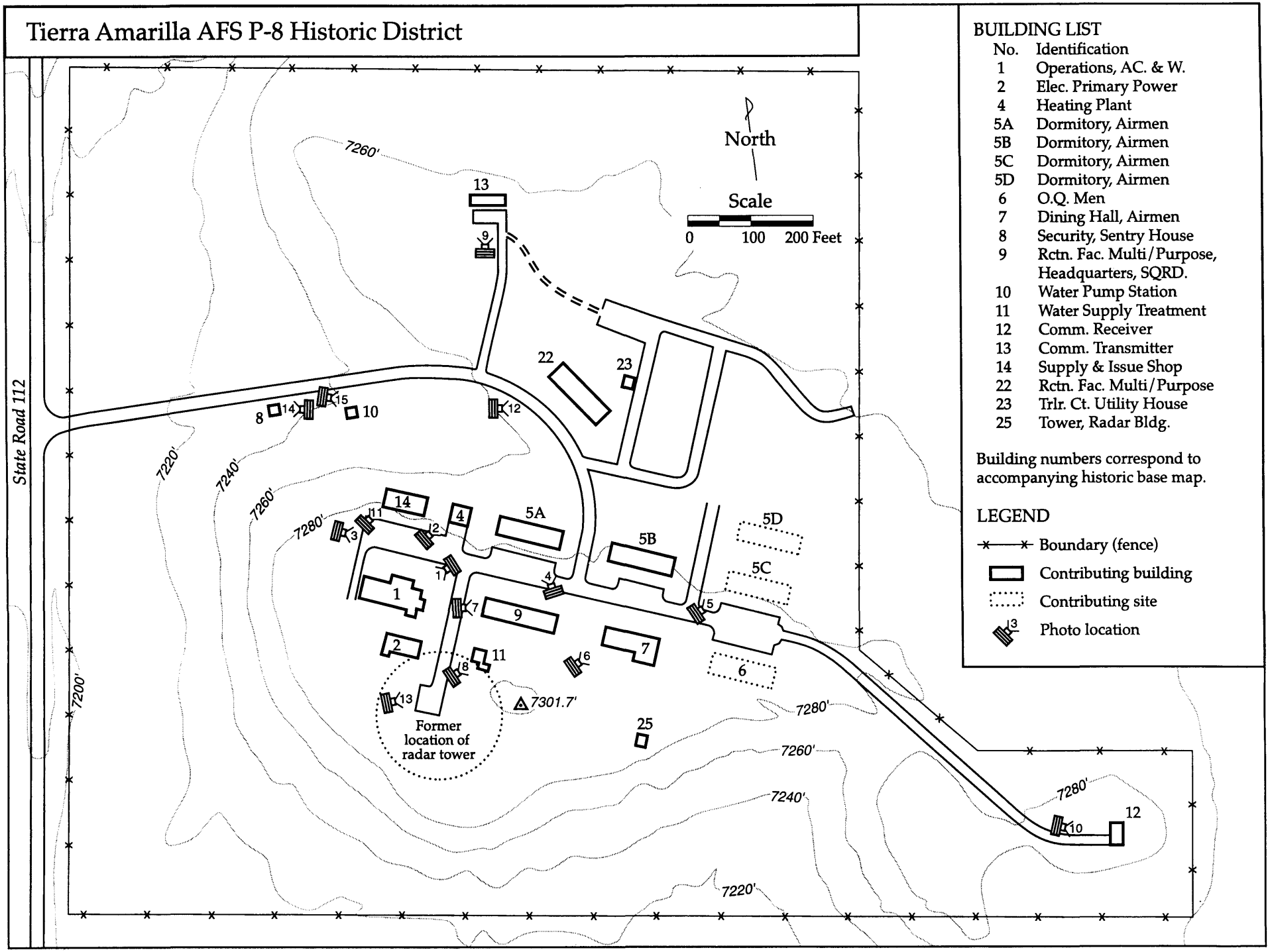
Photograph 13 of 15
Radar Tower Site/former fuel tank
Camera facing north

Photograph 14 of 15
Security Guardhouse
Camera facing west

Photograph 15 of 15
Water Pump Station
Camera facing southeast

Figure 7-1 Tierra Amarilla AFS P-8 Historic District (see reverse).

Tierra Amarilla AFS P-8 Historic District



BUILDING LIST

No.	Identification
1	Operations, AC. & W.
2	Elec. Primary Power
4	Heating Plant
5A	Dormitory, Airmen
5B	Dormitory, Airmen
5C	Dormitory, Airmen
5D	Dormitory, Airmen
6	O.Q. Men
7	Dining Hall, Airmen
8	Security, Sentry House
9	Rctn. Fac. Multi/Purpose, Headquarters, SQRD.
10	Water Pump Station
11	Water Supply Treatment
12	Comm. Receiver
13	Comm. Transmitter
14	Supply & Issue Shop
22	Rctn. Fac. Multi/Purpose
23	Trlr. Ct. Utility House
25	Tower, Radar Bldg.

Building numbers correspond to accompanying historic base map.

LEGEND

- Boundary (fence)
- Contributing building
- Contributing site
- Photo location