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United States Department of the Interior
National Park Service

RECEIVED 2280

National Register of Historic Places Registration Form OCT - 9 2015

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

Nat. Register of Historic Places
National Park Service

1. Name of Property

Historic name: Balloon Hangar at Henry Post Army Airfield

Other names/site number: Building 5037

Name of related multiple property listing:
N/A

(Enter "N/A" if property is not part of a multiple property listing)

2. Location

Street & number: 5037 Tucker Road

City or town: Fort Sill State: OK County: Comanche

Not For Publication: Vicinity:

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 at the following level(s) of significance:

X national statewide local

Applicable National Register Criteria:

X A B X C D

Signature of certifying official/Title:  _____ State or Federal agency/bureau or Tribal Government	Date <u>20151002</u>
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In my opinion, the property <input checked="" type="checkbox"/> meets <u> </u> does not meet the National Register criteria.	
Signature of commenting official:  _____	Date <u>3/30/15</u>
Title : _____	State or Federal agency/bureau or Tribal Government

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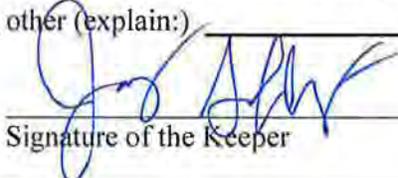
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4. National Park Service Certification

I hereby certify that this property is:

- entered in the National Register
- determined eligible for the National Register
- determined not eligible for the National Register
- removed from the National Register

other (explain): _____


Signature of the Keeper

11-20-2015
Date of Action

5. Classification

Ownership of Property

(Check as many boxes as apply.)

- Private:
- Public – Local
- Public – State
- Public – Federal

Category of Property

(Check only **one** box.)

- Building(s)
- District
- Site
- Structure
- Object

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Number of Resources within Property

(Do not include previously listed resources in the count)

Contributing	Noncontributing	
<u>1</u>	<u>1</u>	buildings
<u>0</u>	<u>0</u>	sites
<u>0</u>	<u>0</u>	structures
<u>0</u>	<u>1</u>	objects
<u>1</u>	<u>2</u>	Total

Number of contributing resources previously listed in the National Register N/A

6. Function or Use

Historic Functions (Enter categories from instructions.)

DEFENSE: air facility

Current Functions (Enter categories from instructions.)

OTHER: museum storage

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7. Description

Architectural Classification (Enter categories from instructions.)

OTHER: METAL BALLOON HANGAR TRUSS HANGAR
WITH OUTRIGGERS

Materials: (enter categories from instructions.)

Principal exterior materials of the property: METAL: steel

Narrative Description

(Describe the historic and current physical appearance and condition of the property. Describe contributing and noncontributing resources if applicable. Begin with a **summary paragraph** that briefly describes the general characteristics of the property, such as its location, type, style, method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

Summary Paragraph

The Balloon Hangar at Henry Post Army Airfield (Post Field), Fort Sill, Oklahoma, was constructed in 1934-1935 by the Manhattan Construction Company of Oklahoma City. The erection of the Balloon Hangar was part of the \$4.5 million building program at Fort Sill in 1933-1935 accomplished under the auspices of President Franklin Roosevelt's New Deal-era Public Works Administration (PWA) program. The Balloon Hangar is the only balloon hangar that is still extant at Post Field and the only one ever constructed of metal. Nationally, the Balloon Hangar was one of nine metal balloon hangars of a similar design constructed at military installations across the United States during the interwar years of the 1920s and 1930s. The 103 foot tall, or roughly eight-story high, building measures 126 feet wide by 220 feet long, making the building an impressive 27,270 square feet. The Balloon Hangar at Post Field was constructed of large sheets of corrugated iron fastened to structural steel girders and support beams. The original corrugated iron panels were coated with tar, asbestos and lead-based paint. Due to environmental concerns caused by the deteriorating coatings, Fort Sill in consultation with the Oklahoma State Historic Preservation Office (SHPO) replaced all of the original panels with matching zinc-coated panels in 1994. While aspects of the building's integrity were affected by the re-cladding of the resource and other modifications made over the years, the Balloon Hangar retains sufficient integrity to ably convey its historic significance. The interior of the building retains a good degree of historic integrity with the majority of interior finishes, the configuration of space and the feeling remaining intact.

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Narrative Description

The Balloon Hangar is located north of Tucker Road, just east of the intersection with Coune Road. The building is situated at an angle with the hangar doors facing a northeasterly direction. The hangar is west of the row of officers' housing at Post Field which forms a segmental arch around a park area that serves to separate the officers' housing from the line of noncommissioned officers' housing to the south. The housing was constructed in 1933-1934 so it predates the Balloon Hangar by little more than a year. To the south and west of the Balloon Hangar are also several administrative buildings constructed during the 1933-1934 timeframe, including a large barracks, dispensary, fire station and Quartermaster garage, all of which supported the airfield operations. Across Post Road to the south and west of the administrative buildings is the large 1932 airplane hangar known as Building 4908. This area of the airfield, consisting of the 1930s housing, administrative buildings and two hangars, has been identified as the Post Field Historic District. The SHPO concurred on April 23, 2008 with Fort Sill's determination that the Post Field Historic District is eligible for the National Register. While the Balloon Hangar is a contributing resource to this district, it is also individually eligible as a highly distinctive building at Fort Sill which represents a significant trend in early 20th century military aviation and possesses significant architectural and engineering value.

The Balloon Hangar has been used for various purposes over the last seventy-plus years. The building remained in use as a balloon hanger until about 1943 when the Army deactivated the balloon squadrons and moved to fixed wing aircraft for all aerial observation. With a large interior clear space, the balloon hangar was then put into service as an aviation-related training area with a parachute equipment room and a three-story parachute drying rack being constructed in the interior of the building. In the late 1950s, the building was utilized for vehicle maintenance, requiring the addition of a garage opening on the east elevation, placement of metal awnings over the first floor windows and other shop-type improvements. In the 1970s through the late 1980s, the hangar was used as a maintenance facility for the Pershing Missiles housed at Fort Sill. Because of this use, the building was included in the 1987 Intermediate-Range Nuclear Forces (INF) Treaty between the United States and the Union of Soviet Social Republics (USSR). The Balloon Hangar, thus, was subject to short notice inspections by the Soviets. Since the late 1980s, the Fort Sill Museum has used the building for storage of their larger aircraft and artillery pieces, as well as other large artifacts in the collection. The Museum has plans to develop an Army aviation museum in the building which will include the display of the observation balloons in their collection. To this end, the Museum has removed the parachute drying rack added in the 1940s and made some repairs to the interior concrete block walls. Overall, at this time, the building remains a large storage area with limited access.

The building has a concrete foundation and a very low-pitched, front gabled, metal roof. The character-defining metal hangar doors are located on the north side of the building with each door measuring 73 feet tall by 35 feet wide. To the side of each door are full-height metal outriggers which permit the hangar doors to completely clear the hangar walls, allowing the opening to provide maximum interior access. Originally, the building had five pedestrian entries,

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two on each of the east and west elevations and a single central entry on the south wall. Two of the original doors, consisting of the northern entries on the east and west elevations, have been modified to accommodate continued use of the facility. As constructed, the building had two rows of clerestory windows at approximately the fourth and seventh story. The seventh story clerestory was covered with matching metal panels sometime after the late 1950s and before the late 1980s. The fourth floor clerestories on the east and west elevations consist of four sections of ribbon windows extending nearly the full-length of both the east and west elevations. The clerestory windows are metal, single pane with wire glass to prevent breakage.

The building's first floor fenestration pattern features various sections of ribbon windows consisting of metal, industrial-style, fixed, nine-, twelve- and fifteen-pane windows. The larger windows include awning openings in the upper center panes and, in the late 1950s, metal shed window coverings were placed over the east and west elevation windows. The south elevation of the building is highlighted by a central design created through a combination of metal louvers and windows. Due to the painting of the upper windows to match the louvers, the design currently looks like a Cross; however, it is actually two equal-width vertical bands bisected by two matching horizontal sections.

In the mid-1990s, a major rehabilitative project was undertaken to address deterioration of the building and serious environmental issues. The original corrugated iron panels were covered on both sides by a layer of tar which was overlaid with an asbestos material and then painted with lead paint. By the 1990s, the deteriorating tar and asbestos coatings were creating an environmental concern due to the airborne friable asbestos fibers, a known carcinogen. In order to alleviate the environmental danger and maintain the building, Fort Sill, in consultation with the Oklahoma State Historic Preservation Office (SHPO), replaced all the original metal panels with zinc-coated steel panels that were identical in size and corrugation to those removed. Other work undertaken at the same time included the installation of new metal awnings to match those in place; in-kind replacement of the 1970 standing seam metal roof; installation of matching metal gutters and downspouts; in-kind replacement of the window wire glass; and installation of fire-rated doors at the northwest pedestrian entry. Because the upper clerestory windows were covered by the time the work occurred in the 1990s, the seventh story clerestory was not restored. The 1994 work was done in accordance with the Secretary of the Interior's Standards for the Treatment of Historic Properties.

There are two noncontributing resources associated with the Balloon Hangar. A noncontributing chain link fence extends around the north end of the building, enclosing a large paved area including the original concrete hangar apron. The fence was probably added sometime after the late 1950s when the building was used for vehicle maintenance. Along the east side of fence line, there is a noncontributing, metal, four-bay garage which was added after 1991. Historically, there were three fueling sheds located off the west side of the building; these were removed, along with the railroad tracks that transported the fuel, at an unknown time but apparently prior to 1975. Other changes to the building's setting include the paving of a parking area on the west side of the building and, within the general area, construction of housing in the late 1950s and 2004. Importantly, no construction activities have occurred north of the hangar to Geronimo

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Road, the main north-south road connecting Post Field to the rest of the cantonment. Overall, the building's integrity of materials and setting has been diminished by the changes over the years. However, the other important historic attributes of the building, including design, location, workmanship, feeling and association, have been maintained so as to allow the building to continue to convey its historic significance as a distinctive property type associated with lighter-than-air military activities.

The Balloon Hangar is an eight-story high, corrugated metal building constructed to house the lighter-than-air aircraft in use by the military during the period, including free balloons, moored balloons and airships. The building is rectangular in form but has a distinctive shape created by the tall single plane walls which slope outwards as they descend to the ground. The foundation of the building is concrete with a concrete trench along both the east and west elevations to facilitate water drainage away from the building. The hangar has a low-pitched, metal, standing seam, front-gabled roof that features a metal lookout tower on the north end. The tower has corrugated metal lower walls, a low-pitched front-gabled roof and eight-pane metal windows on all four sides. The windows on the east and west sides of the tower are single and the windows on the north and south elevations are double. Atop the lookout tower's roof are attached various metal antennas and a platform with a beacon light. The antennas are attached to the metal railing encircling the platform and beacon light. South of the lookout tower on the peak of the roof, there are three large metal vents and systematically located metal lightning rods.

The north elevation features the hangar doors and, therefore, is the primary elevation (see photographs 1 through 3 and 8). The north elevation fronts on to a large paved area that is now fenced by a noncontributing chain link fence. Beyond this, is a large grassy area which eventually gives way on the north and west to housing built in the late 1950s/early 1960s. To the northeast of the hangar, behind the historic housing of Post Field, there is a new development of housing constructed within the last ten years. The north elevation's immense hangar doors are on a track system which allows them to slide completely open with no obstruction on either side of the opening. On each door, there are two metal and wood ledges, each with two hand cranks (see photograph 9). Personnel stood on the ledges and, working together, cranked open the doors. The doors remain theoretically operational; however, they have not been used in some time and the components, including the track and ledges, are exhibiting signs of disuse. To completely clear the opening, the doors use large metal outriggers which extend straight out, past the east and west elevations. The projecting outriggers are one of the distinguishing features of the building. The only other opening on this elevation is a ribbon window located on the east end of the north elevation. This ribbon window has three twelve-pane windows flanked on each side by a single nine-pane window. As with the other twelve-pane windows on the building, the center upper four-panes are operable awning windows. This ribbon window, matching those on the south elevation, does not have metal awnings.

The east elevation of the Balloon Hangar consists of a long expanse of metal panels (see photographs 3 through 5 and 8). The east side of the building fronts onto a grassy area with a concrete walk put in place by the Works Projects Administration (WPA) in the 1930s. The walk extends from the Balloon Hangar to the adjacent officer quarters, also constructed in the early

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1930s. The east elevation features a clerestory at about the fourth story that extends nearly the full length of the wall. The wire-glass windows are set in four sections with the northernmost section being the smallest and the other sections apparently equal. The sections are each separated by a single metal panel that matches the windows in width and height. The vestiges of the seventh story clerestory are evident on the exterior in the different sizes of the metal panels along the seventh story. Photographs from when the building was re-clad in the 1990s and current interior views show that the framing for this clerestory remains in place. It is unknown when exactly the upper clerestory was covered. Historic images of the Balloon Hangar in the 1930s show the upper clerestory, while historic images from the 1950s seem to show some type of covering obscuring the clerestory but not completely. Photographs from circa 1989 show the clerestory as completely covered with metal panels.

Equally spaced on the lower wall of the east elevation are two entries. The north entry on the east elevation is within the fenced area and was enlarged in 1958. The expanded entry has a metal shed roof and contains a large, metal, paneled, overhead door that is operational. The entry extends from just below the fourth story clerestory to the ground. The south entry on the east elevation consists of an in-set, double, historic, metal, slab door with narrow metal straps. The east elevation also features several sections of fifteen- and nine-pane windows. All of these windows have metal shed awnings supported by narrow metal brackets. The awnings were added apparently in the late 1950s/early 1960s when the use of the building changed to vehicular maintenance. Beginning on the north end of the east elevation, there is a single, metal, fifteen-pane window; then four sets of double, metal, nine-pane windows; then a single, metal, fifteen-pane window; then the north garage entry described above; then two single, metal, fifteen-pane windows; then two sets of double, metal, fifteen-pane windows; then the south pedestrian entry described above; then, on the southernmost corner of the east elevation, a set of double, metal, fifteen-pane windows. In several of the various window sets, the bottom two panes have been removed and either a window air conditioning unit put in or, if the air conditioning unit has been removed, the missing panes replaced with metal.

The south elevation of the Balloon Hangar features the distinctive louvered openings that are another character defining element of the building (see photographs 5 and 6). The south elevation faces other operation buildings of the airfield with a grassy area across Tucker Road that contains the airfield's historic heat plant building and the oil, paint and dope house. The only entry on the south elevation is slightly off-center to the west and consists of a single, metal, slab, pedestrian door. A concrete step and walk connect the entry to the black-topped Tucker Road to the south of the building. Above the entry, is a vertical double band of metal louvers. The two vertical rows of louvers are divided horizontally into two sections. Symmetrically located on both sides of the vertical bands are two sets of double windows, one at the third story level and the other at the sixth story. Each set of double windows consists of two, metal, twenty-pane, fixed windows. The panes in the upper flanking windows have been painted silver which allows them to blend with the vertical louver band, creating a Cross effect. The lower windows are not painted and, thus, do not blend as well with the vertical louver band.

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There are two sets of window openings on the first floor of the south elevation. The eastern set of windows is located on the far east corner of the south elevation and consists of a ribbon window created by single, metal, nine-pane window flanking each side of a set of three twelve-pane windows. The west twelve-pane window of the south elevation's east ribbon window is currently completely boarded. The western set of windows consists of a set of two fifteen-pane windows situated in the far west corner of the south elevation. As with the other first floor windows on the building, some of the bottom panes have been removed in both the east and west ribbon windows, including replacement of four bottom panes with louvers in the westernmost window and various panes for air conditioning units in the eastern set of windows. Matching the north elevation ribbon window and, therefore, dissimilar to the east and west elevations, the south elevation windows do not have metal awnings. To the east of the western set of first floor windows, there is a tall, metal, smoke stack which extends vertically the entire height of the south elevation to protrude slightly above the roofline. The smoke stack retains its metal cover cap.

The west elevation of the building fronts onto a paved parking area (see photographs 1, 6 and 7). To the southwest of the west elevation, across Tucker Road, are the quartermaster garage and airfield barracks. Originally, there were three fueling sheds in the area to the direct west of the Balloon Hangar with a railroad track looping around the west side; however, these resources, including the train track, have been gone for thirty plus years based on the 1975 installation map. The west elevation is similar to the east elevation but not identical. The west elevation features two pedestrian entries, both with double doors. The south entry maintains its historic, inset, double, metal, slab doors with metal straps. The north entry has replacement, fire-rated, double, metal, slab doors which are smaller than the historic doors and, therefore, required corrugated metal infill around the doors. To either side of the north entry, there are nonoriginal, large, metal vents in the wall. The fourth story clerestory on the west elevation matches that of the east elevation, including the shorter north section. The west elevation's first floor window pattern is different from the east elevation; however, the west side windows all have metal shed awnings matching those on the east elevation. Beginning on the north corner of the west elevation, there is a long ribbon window consisting of a fifteen-pane window, then a nine-pane window, then a fifteen-pane window that has been removed and the opening infilled with some equipment, then a fifteen-pane window, then two nine-pane windows and finally a fifteen-pane window. To the south of the northernmost ribbon window is the nonhistoric north entry door. South of the north entry door, there is a set of double, fifteen-pane, metal windows. To the south of the double set of windows, is a longer set of seven windows set in an alternating pattern of fifteen-pane then nine-pane windows. The south entry door is located south of the double set of alternating windows. There is only one ribbon window south of the south entry door and this is situated on the southernmost corner of the west elevation. This window, opening onto the boiler room, consists of a five-pane fixed window with narrow sidelights and no horizontal divisions. The southernmost ribbon window has three historic wire glass panes and two plain glass panes.

Around the north end of the building, a chain link fence has been erected to create a secured paved area (see photographs 1 through 4 and 8). Aerial photographs of the building from the 1950s do not show the fence in place; however, the fence was clearly in place by the early 1990s.

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Because it was added after the period of significance, the chain link fence is considered a noncontributing object. The fence wraps around the north end of the building. It touches the building on the east elevation between the two windows in about the middle of the elevation. On the west elevation, the fence extends away from the building at the south end of the north ribbon window. The fence encloses a large paved area on the north side of the building that was likely part of the late 1950s shop modifications but also includes the original concrete apron for the hangar. The apron retains some of the original balloon tie-downs and is easily distinguished from the later paved area by a difference in materials. The apron is concrete and the later paved area is black top.

Within the east line of the fence, there is a metal garage (see photographs 2 through 5). The garage was added after 1991 and, therefore, is a noncontributing building. The garage has four open bays secured with individual chain link gates on the west side. There are no openings on the north, east and south sides of the building. The corrugated metal garage has a side gabled, metal roof that is slightly longer on the west side. Both noncontributing resources are much smaller in scale than the Balloon Hangar and do not interfere with the Balloon Hangar's ability to convey its significance.

The Balloon Hangar's integrity of setting has been affected by the construction of the chain link fence and the garage, as well as the removal of the fueling sheds and railroad tracks that historically were situated to the west of the Balloon Hangar. The fueling sheds and railroad track do not appear on the April 1975 map of the installation so they were apparently removed prior to this date. While there are some concrete runners remaining in the area, this area is now largely grass-covered and does not contain sufficient features to distinguish the presence of the fueling sheds or railroad tracks. Due to the lack of integrity, the portions of this area included within the nomination were done so based on the requirement to provide an easily definable boundary of sufficient size to encompass all of the standing resources currently connected to the Balloon Hangar, including the hangar itself, the noncontributing fence and the noncontributing garage.

INTERIOR DESCRIPTION:

The interior of the Balloon Hangar expresses the original function of the building (see photographs 10 through 14). The center of the building is, and was, a large open area. The steel truss frame of the building is exposed on the interior with a metal catwalk along the north side providing access to the lookout tower. The floor of the building is cement with drains and other necessary ballooning accoutrements included within the original design. On both the east and west sides of the interior is a one-story line of office, storage and bathrooms areas. The partitioned spaces were created using ceramic tile walls and feature nine-pane windows and metal paneled doors with lights and transoms. The spaces remain much as originally designed along both sides of the building. As shown on the building's original plans, the spaces on the east side of the building consisted of an officer's office on the north end; then an engineer's office; then a toilet room and locker room, both accessible only from the engineer's office; then the northeast entrance area that opened onto the main hangar area; then a guard room; then a radio and lecture Room; then the southeast entrance area that opened onto the main hangar area; and,

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finally in the south corner, a large Air Corps supply room. On the west side of the building, the northernmost space was the rigging room; then the northwest entrance area that opened onto the main hangar space; then the enlisted men's toilet; then a large store room; then the southwest entrance area which is bigger than the other entry areas as it includes a large section on the south side aptly called "Open Area;" and, finally, in the far south corner of the west side, a small boiler room. Currently used for storage, the interior of the building is filled with various museum pieces and other materials.

ALTERATIONS:

The Balloon Hangar retains a good degree of historic integrity, including the characteristics of location, setting, design, workmanship, feeling and association. The building is unmistakable in form and size, as well as clearly expresses the immensity of the duty assigned to the balloon squadrons. As discussed above, the setting of the Balloon Hangar has been affected by the construction of the noncontributing fence and garage, as well as the removal of the fueling sheds and railroad track and the construction of newer housing in the general area. However, the Balloon Hangar's integrity of setting has not been completely destroyed. Importantly, the association between the hangar and the other historic airfield buildings remains largely intact. As the airfield remains an active military flying field, the building retains an overall military association and feeling that is unique among the other standing balloon hangars.

Concerning the more immediate area, the noncontributing garage is located away from the hangar and is of insufficient size and scale to have an impact on the Balloon Hangar. Because the fence creates an enclosure around much of the north side of the historic building, it is more intrusive; however, the fence is only one-story in height and, due to its materials, does not create a solid visual barrier to the building. The removal of the fueling sheds removes an important aspect of the use of balloons but does not directly impact the hangar's ability to convey the overall significance of these activities. The construction activities in the general area have not encroached upon the immediate Balloon Hangar area and are readily distinguishable as housing, a need that is historically appropriate as evidenced by the historic housing in the area.

The Balloon Hangar's integrity of materials has also been affected by the replacement of all of the exterior metal cladding in the mid-1990s. While the existing materials are not historic, they match the historic materials in size, configuration, texture and overall appearance. The removal of the historic materials was necessary due to the environmental hazard posed by the asbestos, tar and lead paint coating the original metal panels. Because only the exterior panels were removed in this project, the building retains its integrity of workmanship. The historic craftsmanship of the building is still tangible in the frame, the outriggers and other elements of the building.

Other changes to the Balloon Hangar include the covering of the seventh-story clerestory sometime between 1959 and 1989; replacement of the northeast entry with a garage opening in 1958; the addition of the metal window awnings and other garage-type improvements in the late 1950s; the addition and subsequent in-kind replacement of a standing seam metal roof in 1970

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and 1994; and, the installation of fire-rated doors at the northwest entry in 1994. None of these changes have a significant impact on the building's ability to convey its significance.

The Balloon Hangar ably conveys its historic significance as a unique aviation building at Post Field. The eight-story building is without parallel at Fort Sill or within the state of Oklahoma. It is also one of a minority of extant balloon hangars constructed by the Army in the interwar years of the 1920s and 1930s. The majority of the modifications to the building have been minor with no significant impact on the building's integrity. The changes to the setting of the building to facilitate continued use and the replacement of the environmentally hazardous wall materials were necessary alterations that do not destroy the building's overall historic integrity.

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Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- 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 values, 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

(Mark "x" in all the boxes that apply.)

- A. Owned by a religious institution or used for religious purposes
- B. Removed from its original location
- C. A birthplace or grave
- D. A cemetery
- E. A reconstructed building, object, or structure
- F. A commemorative property
- G. Less than 50 years old or achieving significance within the past 50 years

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Areas of Significance

(Enter categories from instructions.)

Military

Architecture

Engineering

Period of Significance

1934 - 1943

Significant Dates

1935

Significant Person

(Complete only if Criterion B is marked above.)

Cultural Affiliation

N/A

Architect/Builder

Office of the Constructing Quartermaster, Fort Sill

Manhattan Construction Company, builder

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Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The Balloon Hangar at Henry Post Army Airfield (Post Field), Fort Sill, Oklahoma, is eligible for the National Register of Historic Places under Criterion A for its association with the evolution of Army aviation activities, particularly balloons, during the years between World War I and World War II. During these interwar years, much experimentation occurred with both lighter-than-air and heavier-than-air aircraft, all of which contributed to the embedding of aviation into the Army's tactics and training, a trend that continues to the present day. Although lighter-than-air activities provided a tangible advantage for ground forces, the inflatables were increasingly overshadowed throughout the interwar period until finally eclipsed by their heavier-than-air counterparts. The Balloon Hangar at Post Field is emblematic of the lighter-than-air activities that occurred not only at Fort Sill's Post Field but at Army airfields across the nation. Under Criterion C, the Balloon Hangar at Post Field is historically significant in the areas of architecture and engineering as a distinctive, military-related, eight-story, metal balloon hangar. Architecturally, the Balloon Hangar is overwhelmingly utilitarian in style; however, the building is a highly distinctive property type that makes a unique contribution to the built environment. From an engineering standpoint, the building represents the unusual construction challenges necessary to construct a 103 foot tall building that included a predominately open interior and massive doors that used outriggers to completely clear the opening. The hangar is eligible at the national level of significance because it represents an important aspect of the military's early twentieth century aviation activities. The hangar is also nationally significant because it is one of only a few extant, eight-story, metal balloon hangars constructed by the Army during the interwar years and it is an exemplary example of this unusual type of building as it not only retains its character-defining design elements but was used by the Army as a balloon hangar for an eight-year period. The period of significance for the Balloon Hangar begins in 1934 to correspond with the initiation of construction activities on the building. The period of significance extends to 1943 when balloon activities at Post Field ceased.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

Henry Post Army Airfield (Post Field) originated in August 1917 as part of the nationwide military preparations for World War I (WWI). On September 5, 1917, Company A of the 1st Balloon Squadron arrived at Post Field from Omaha, Nebraska, and was quartered temporarily in Hangar No. 11. By January 1918, construction was underway on three wooden balloon hangars, among various other buildings. Following the end of WWI, Post Field continued to serve as an army flying field but, as with other military facilities during the period, was minimally maintained with no improvements. The loss of the wooden WWI buildings at Post Field accelerated in the 1920s due to fire. In late September 1927, a fire at Post Field whipped by an east wind destroyed three of the wooden balloon hangars and army equipment valued at \$350,000. Although Congress authorized appropriations for construction of new facilities at Post

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Field in 1928, due to the uncertainty over Fort Sill's continued existence caused by the lack of a designation as the permanent home of the Field Artillery School, no new buildings were constructed at Post Field despite its continued use. However, Post Field continued to be utilized for lighter-than-air activities with reportedly the only balloon company in the Army stationed at Post Field during the summer of 1929. On December 13, 1930, Secretary of War Patrick Hurley designated Fort Sill as the permanent home of the Field Artillery School, thus any doubt about Fort Sill's future during the mid-twentieth century was gone and a major building program to address the deferred development of the post, including at Post Field, was initiated.¹

With lighter-than-air activities continuing at Fort Sill in the early 1930s, there was a need for a modern balloon hangar. In mid-1932, plans were announced for erection of a new balloon hangar at Post Field with a concrete apron in front of the building. This initial plan involved the dismantling and relocation of an existing metal balloon hangar at Ross Field at Arcadia, California. However, for unknown reasons, although probably related to the cost of transporting the mammoth buildings, even dismantled, across more than half the United States, the hangars at Ross Field were not moved. Demolition of the two balloon hangars at Ross Field was underway by November 1933.²

On September 21, 1933, the War Department announced a nearly \$4.5 million building program for Fort Sill under the auspices of the Federal Emergency Administration of Public Works, commonly known as the Public Works Administration (PWA). Just about six months later in March 1934, bids were opened for a balloon hangar project at Post Field. The project was limited, however, to construction of a foundation. The Fort Sill constructing quartermaster set March 12, 1934, as the date the bids were to be opened for the project that had an estimated cost of \$8,000. On March 13, 1934, the local newspaper reported that the Manhattan Construction Company of Oklahoma City was the low bidder on the footings project for the balloon hangar with a bid of \$7,871. The company agreed to start work within fifteen days and be finished within one hundred days. Four other companies bid on the project, including A.J. Rife of Dallas, Texas; March Brothers of St. Louis, Missouri; R.W. McMillen of Enid, Oklahoma; and, F.A. Mote of Dallas, Texas.³

¹ The Daily Oklahoman, (Oklahoma City), 23 September 1917, 18 August 1918, 22 September 1927, 19 April 1929 and 29 September 1929. See also "History of the Field Artillery School," Volume 1, 1911-1942 (available Morris Swett Technical Library, Snow Hall, Fort Sill, Oklahoma), 79, 82-83 and 114-115; "An Act to authorize appropriations for construction at military posts, and for other purposes," H.R. 11134, 70th Congress, No. 518 (Available in the Honorable Elmer Thomas Collection (Series Subject, Box 8, Folder A-8), the Carl Albert Congressional Record and Studies Center Congressional Archives, University of Oklahoma, Monnet Hall, Room 202, 630 Parrington Oval, Norman, Oklahoma). See also Memorandum, 25 February 1929, (Available in the Honorable Elmer Thomas Collection (Series Subject, Box 8, Folder A-9), the Carl Albert Congressional Record and Studies Center Congressional Archives, University of Oklahoma, Monnet Hall, Room 202, 630 Parrington Oval, Norman, Oklahoma) and Colonel Wilbur S. Nye, *Carbine and Lance: The Story of Old Fort Sill*, 3rd ed., (Norman, Oklahoma): University of Oklahoma Press, 1974), 315-323.

² "California Aviation History: The Army Balloon School: Ross Field, Arcadia, California," The California State Military Museum, California State Military Department, <http://www.militarymuseum.org/BalloonSch.html>, retrieved 23 September 2009. See also Los Angeles (California) Times, 22 September 1921, 30 April 1922, 26 November 1930, 9 June 1931, 2 March 1932 and 15 November 1933.

³ The Lawton Constitution, August 1932, 1 March 1934, 13 March 1934 and 6 April 1934.

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By the first week in April 1934, it was estimated that one percent of the foundation for the balloon hangar was complete. Construction work at Fort Sill had been delayed for several weeks due to a labor dispute with the local unions calling for the employment of only union men. The Manhattan Construction Company and Mote Construction Company, at least, had resisted this entreaty and continued to hire both union and non-union labor. On April 6, 1934, it was estimated that nineteen percent of Fort Sill's huge building program was completed. At that time, nearly two thousand men were working on the Installation, an increase of nearly eight hundred from February 1934. In addition to the balloon hangar foundation, work at Post Field included new roads and walks, storm sewers, water lines, gas lines, landscaping and grading.⁴

The balloon hangar foundation was seventy-one percent complete by May 1934. In early June 1934, the Constructing Quartermaster set June 19, 1934, as the date for bids to be opened on the project to complete the construction of the balloon hangar. The Manhattan Construction Company of Oklahoma City was again the low bidder on the project. Work began on the \$67,025 project in the first week of July 1934 and was the only large project initiated in June 1934. By early October 1934, the only two buildings less than seventy percent complete in Fort Sill's \$4.5 million building program were the new administrative building and the Balloon Hangar at Post Field. At the time, the balloon hangar was just over forty percent complete.⁵

By mid-December 1934, the balloon hangar was ninety-five percent finished with an expected completion date of January 15, 1935. The Real Property Record for the Balloon Hangar at Fort Sill has a handwritten notation which states "Completed 22 Jan 1935, Erected By Manhattan Const CO on Contract #W6143-qm-51 & 81." The total cost of the value of the building in 1935 was recorded as \$108,500 which included some unspecified equipment as well. While the local newspaper did not record the actual completion of the balloon hangar, the building was clearly finished and in use by March 1, 1935 as evidenced by photographs of the building in Oklahoma City's statewide paper, *The Daily Oklahoman*. At that time, the hangar housed three captive and three free balloons.⁶

Portions of the balloon hangar were also featured in the July 11, 1936 issue of *The Daily Oklahoman* as part of the story about the fiery crash of an army balloon in northeast Caddo County that resulted in the death of two army sergeants and injuries to a third. The surviving balloonists from this crash, Major Frederick D. Lynch and the injured Staff Sergeant Joseph L. Murray, won the 1936 Cheney Award for heroism for their actions in trying to rescue Master Sergeant Ralph J. Rumpel and Staff Sergeant Douglas M. Tucker. Rumpel and Tucker were posthumously honored with the naming of the street in front of the balloon hangar as Tucker Road and the road around the officer housing at Post Field as Rumpel Road.⁷

⁴ Ibid., 2 April 1934 and 6 April 1934.

⁵ Ibid., 8 May 1934, 8 July 1934 and 7 October 1934. See also *The Lawton (Oklahoma) News-Review*, 16 September 1934.

⁶ *The Lawton Constitution*, 16 December 1934. See also *The Daily Oklahoman*, 1 March 1935, and the "Real Property Records," (Available in File "Building 5037," Cultural Resources Section, Environmental Support Branch, Environmental Quality Division, Directorate of Public Works, Fort Sill, Oklahoma).

⁷ *The Daily Oklahoman*, 11 July 1936 and 22 January 1937.

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While not on the same scale as during the World War I-era, developments in artillery observation using balloons continued at Fort Sill following the completion of the balloon hangar. The balloon hangar provided a fundamental service in these developments as a place to store and maintain the balloons and any accouterments, as well as a gathering place for the balloon squadron for training and working purposes. Eleven months after the balloon hangar was completed, the Army initiated the first experimental tests on the C-6 motorized observation balloon at Fort Sill. The C-6 tests were underway at Fort Sill beginning in late December 1936 and continued through November 1937. At the time, the 1st Balloon Squadron was stationed at Fort Sill. The 1st Balloon Squadron was the oldest balloon squadron in the army and was one of just three still in service in the late 1930s. The other balloon squadrons were located at Gray Field at Fort Lewis and Pope Field, North Carolina.⁸

Fort Sill was chosen as location for the tests because the winds in the area were viewed as “unusual” as they came up suddenly and were “...exceptionally strong and gusty at high altitude.” Major William C. Farnum noted at the outset of the tests that if the C-6 could fly at Fort Sill, it could be flown anywhere. During the testing of the C-6, “...several hundred flights (were) made under a great variety of wind and weather conditions.” The importance of the C-6 tests to the balloon squadrons and the Army is apparent in the statement “...if the present tests with motorized balloons prove successful, Fort Sill officers believe that at least 16 more squadrons equipped with the new type balloons will be organized.” The use of the balloon hangar in the C-6 tests is directly evidenced in a photograph of the C-6 balloon being stored in the balloon hangar. The photograph was published in an August 15, 1937, article in *The Daily Oklahoman* titled “Propeller Hooked to “Rubber Cow” Brightens the Eyes of the U.S. Army Artillery.” While the C-6 was the official designation of the experimental balloon, the soldiers at Fort Sill called it the “Rubber Cow” because the balloon was “...made of two pieces of Sea Island cotton fabric vulcanized with rubber.”⁹

As with previous observation balloons, the C-6 was a captive balloon which in contrast to a “free” balloon meant that it was tethered in place when in official use. A captive balloon, also referred to as a “sausage,” was typically secured in place by a cable to a winch. To move the balloon in support of artillery observation, the balloon had to be “walked” overland which included surmounting power lines, fences, trees and other obstacles or the balloon had to be brought down, deflated, stored and moved by truck, all of which created a time-consuming, cumbersome task. Because moving the balloon was so problematic, it was also common for the opposing forces to “riddle” the last known location of the balloon when it was brought down at night to make it non-operable the next day. The C-6 in contrast to the “old C-3” had a detachable basket that could be replaced by a motorized car that allowed the balloon to be readily flown to either new artillery observation points or behind allied lines at night. As tested at Fort Sill during the

⁸ The Daily Oklahoman, 15 August 1937 and 23 November 1937. See also “Army’s Only Motorized Balloon Flies Over City,” copy of 13 December 1936 newspaper article from unnamed newspaper, (Available in File “Building 5037,” Cultural Resources Section, Environmental Support Branch, Environmental Quality Division, Directorate of Public Works, Fort Sill, Oklahoma); “The Observation Balloon,” The Field Artillery Journal, (November – December 1937), 446-447; and, R. Christopher Goodwin and Associates, Inc., “National Historic Context for Department of Defense Installations, 1790-1940,” Volume II of IV (July 1995), n.p.

⁹ Ibid.

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summer of 1937, the C-6's detachable car was powered by a 90-horse aircraft motor which allowed a cruising speed of reportedly 54 miles per hour in still air. The balloon itself measured 104 feet long and 30 feet in diameter. The motorized balloon had a cubic capacity of 52,000 feet and was filled with non-inflammable helium. According to the newspaper, this was the first time helium was used in an observation balloon. Another significant improvement allowed by the C-6 was that instead of requiring a ground crew of 63 men, the C-6 could be successfully operated with a crew of 20.¹⁰

Other balloon-related happenings at Fort Sill which likely involved use of the balloon hangar was the testing of the D2A model balloon in the spring of 1939. In contrast to captive or free balloons, the D2A balloon was a barrage balloon. Barrage balloons were a product of European experiences during World War I, particularly the threat of aerial bombardment of London, and were essentially captive balloons that were used for passive defensive purposes, rather than observation. Basically, barrage balloons caused incoming airplanes to fly lower which put them in closer range to anti-aircraft guns. The balloon's cables and other mooring equipment, as well as small explosives in some cases, also created a physical risk to the enemies' aircraft. A high altitude balloon, the D2A was tested at Fort Sill by the 1st Balloon Squadron. The "...three-finned, fat-bodied balloon" was the only experimental effort recommended by the Air Corps Board in their pre-World War II study of the applicability of barrage balloons. The balloon was studied "...solely because passive defense measures were cheaper than first line fighter aircraft." Following its study at Fort Sill, the D2A balloon was sent to the Panama Canal Zone where it was allowed to deteriorate.¹¹

The Balloon Hangar continued to serve the needs of Post Field as intended through the early 1940s. In the summer of 1943, the War Department deactivated the Army's balloon squadrons and, thereby, ended the need for the Balloon Hangar as a balloon hangar. After this, the building was used for training purposes with a parachute equipment room and three-story parachute drying rack added to the building. In the 1950s, the building's use changed to vehicle maintenance. By the 1970s, Pershing Missiles were being stored in the Balloon Hangar, a use that continued through the late 1980s. Since the 1980s, the building has been utilized by the Fort Sill museum as storage for their larger artifacts with plans to develop the building into an aviation museum.

The use of balloons in the Fort Sill area was not restricted solely to military purposes. In June 1940, the "motorized balloon units" at Fort Sill were called upon to aid in the search for a lost 8-year-old child. Wilmer L. Gibson of Burburnett, Texas, went missing after being left on a bench as members of his party climbed Elk Mountain in the Wichita Mountains. Unfortunately, the results of the search were not sufficiently newsworthy as to merit publication in the days immediately after Gibson went missing.¹²

¹⁰ Ibid.

¹¹ Captain Scrivner, "The Military Use of Balloons and Dirigibles in the United States 1793-1963," 105-116.

¹² The Daily Oklahoman, 9 June 1940.

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ARCHITECTURE/ENGINEERING SIGNIFICANCE

In addition to its association with military lighter-than-air activities during the 1934 to 1943 period, the Balloon Hangar is historically significant for both its architecture and engineering. Architecturally, the building is an unusual type of property that is also noteworthy for its monumentality. Since construction, the building has been a visual landmark which dominates not only Post Field but the Fort Sill cantonment. From an engineering standpoint, the size of the building and the need to move immense objects in and out effortlessly required specifically engineered spaces and components which contribute to the unique attributes of the building.

Rising more than 100 feet in the air, the hangar is unmistakably different from an airplane hangar. The Balloon Hangar is also distinguished from its predecessors at Fort Sill because it was the only balloon hangar constructed of corrugated iron. The building is a functional construction that displays no ornamental details for the sake of style. The patterns created by the windows, doors and outriggers, however, serve to provide a certain character to the building that is undeniable in its appeal.

Overall, aircraft hangars are functional constructions that have not changed dramatically over the years. From the early days of aviation, hangars have been a necessary creation to protect dormant aircraft from damaging elements, including inclement weather and ultraviolet light. Hangars also provided an essential sheltered place to make repairs and attend to other maintenance issues. Except during years of international conflict, metal hangars were preferred over wood for military construction because of the obvious safety advantages, as well as likely cost and manufacturing considerations. The military, however, continued to build wooden hangars as late as 1942 when nationwide steel shortages necessitated the use of wood in the construction of seventeen lighter-than-air hangars along both coasts for the Navy.¹³

Hangars typically possess a large central open interior with large doors on one or both ends. While the large open interior space is particularly characteristic of hangars, the small rooms used for offices and other facilities are also important in conveying that the building served many uses beyond just the storage of aircraft. From both an interior and exterior perspective, as well as architectural and engineering standpoints, the hangar doors are a character-defining element of the building because they were not only functionally critical but are also one of the most striking features of the building. Due to their unusual size, the hangar doors on the Balloon Hangar required platforms for personnel to stand on and open the doors. These platforms are also a significant element of the building in terms of expressing the special design features necessary to make this functional building operate. While the use of outriggers to support the complete opening of the doors is common to aircraft hangars, the outriggers on the Balloon Hangar are notable for their scale and, therefore, they too become a defining element of the building's ability to convey its significance.

¹³ "The Historic Sisters," Naval Air Station Tillamook, <http://www.nastillamook.org/sisters/index.htm>, retrieved 2 September 2009.

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Hangars may be divided into categories by the type of craft intended for storage. While both airplane and balloon hangars required a large amount of interior open space, a defining difference between the two is the height of the building. In order to store an inflated balloon, the balloon hangar required significant height that was not necessary for the storage of heavier-than-air aircraft. Another difference between balloons and airplanes was the airplane's need for wing space. Because airplanes required more horizontal space, the hangars constructed for their use tended to be comparatively wide, long and low. Balloon hangars, in contrast, are generally narrow, long and high. Additionally, while it was advantageous to build an airplane hangar large enough to store multiple planes, until helium replaced hydrogen as fuel, balloons hangars were typically restricted to storing only a minimum number of balloons because of the risk of chain explosions.

While ballooning has always enjoyed certain popularity with the public, the construction of a hangar to store the balloons was not common. Lighter-than-air hangars, however, were constructed at places other than military installations. For example, in 1917 the Goodyear Tire and Rubber Company constructed a hangar at their Wingfoot Lake Airship Base, in part to facilitate their construction of balloons, largely for the military. Initially measuring 100 foot wide, 200 feet long and 90 feet high, the building was quickly doubled in length as the military increased demands for the manufacture of balloons. Twenty-five years later, the building again doubled in length to 800 feet to accommodate storage of more balloons. Goodyear also constructed an immense airdock at the Akron, Ohio, Airport in 1929. As with the Wingfoot Lake Airship Base Hangar, the Goodyear Airdock was built for the purposes of constructing lighter-than-air ships, rather than for storage and maintenance purposes. The Goodyear Airdock was listed on the National Register in 1973 at the national level of significance for its historic significance in the areas of engineering, industry and transportation. This immense metal airdock measured 1,175 feet in length, 325 feet in width and 211 feet in height. Both of the Goodyear hangars were markedly different from the Balloon Hangar at Post Field in terms of appearance, intent and association.¹⁴

As with other types of construction on Army installations, hangars were often built from standardized plans. As such, nearly identical buildings can be found on posts throughout the United States. The first known balloon hangar constructed of metal and built for military purposes that is similar to the Balloon Hangar at Post Field was constructed at Fort Omaha in 1907. Apparently, lighter-than-air hangars were previously constructed at Fort Logan, Colorado, and another at Fort Myer, Virginia. The Fort Logan hangar was reportedly built in 1897 and the Fort Myer hangar is given a construction date of 1900 which coincides with the Army's consolidation of all balloon "assets" at that location. It is not known what material was used to construct the Fort Logan lighter-than-air hangar but the balloon hangars in use at Fort Myer in 1908 included a large fabric hangar and a multi-story, permanent-type hangar of indeterminate materials, possibly metal but more likely wood. Based on a 1908 photograph of the permanent-

¹⁴ P. Rendall Brown, "A Brief History of the Wingfoot Lake Airship Base," The Goodyear Blimp, <http://www.goodyearblimp.com/history/wingfoot.html>, retrieved 8 September 2009. See also "Goodyear Airdock," Ohio Historic Preservation Office National Register: The Ohio Historical Society, <http://ohsweb.ohiohistory.org/ohpo/nr/details.aspx?renum=73002259>, retrieved 17 September 2009.

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type hangar, the Fort Myer hangar did not utilize outriggers and possibly did not even have hangar doors.¹⁵ By 1908, there was also a shorter, wooden, heavier-than-air hangar at Fort Myer used to house the Wright airplane then undergoing tests for use by the Army.¹⁶

Based on an historic photograph estimated as being taken in the 1907-1915 time period, the Fort Omaha metal balloon hangar differed from the later metal hangars in the design of the walls. The Fort Omaha hangar walls are broken by one-story extensions on both sides while the later identified hangars all have single plane sloping walls. Another notable difference is that the outriggers for the hangar doors did not extend all the way to the ground, instead the Fort Omaha's outriggers appear to rest on the one-story side extensions. The Fort Omaha Balloon House featured a single row of clerestory windows along the upper wall and a row of windows on the first floor. The Signal Corps balloon facilities were closed at Fort Omaha in 1913 but reopened three years later because of the existing metal hangar and hydrogen plant. In 1919, the balloon equipment and troops were withdrawn from Fort Omaha and in 1921 the Fort Omaha Balloon School and all relocatable equipment were moved to Fort Scott, Illinois. While the Fort Omaha endeavors were repeatedly mentioned in the "Aviation Development in Nebraska," the balloon hangar was not identified as part of the fieldwork so presumably it was demolished after the school was relocated.¹⁷

The other identified metal balloon hangars that have a similar design to the Balloon Hangar at Post Field were constructed predominately in the early 1920s. This includes the hangars erected at Ross Field at Arcadia, California; Fort Barry, California; Fort Winfield Scott, California; Fort Casey, Washington (this hangar was later moved to Gray Army Airfield at Fort Lewis, Washington); and Fort Worden in Port Townsend, Washington. The hangar at Scott Airfield, part of Fort Scott, Illinois, was also likely constructed at this same time, although a definitive date of construction for this hangar has not been identified. As recommended in the 1932 military appropriation for Air Corps technical construction, a balloon hangar was also constructed at Pope Field, North Carolina, in about 1934. At this time, these nine balloon hangars are the only identified buildings that are similar, if not identical, in terms of design, scale, fenestration and materials to the Balloon Hangar at Post Field.

The Fort Barry, California, balloon hangar was the subject of an abbreviated Historic Structures Report in about 2004. According to this report, the Army authorized construction of eight permanent balloon hangars at various military installations around the country in the early 1920s.

¹⁵ Page and Turnbull, Inc., "Re-Use Guidelines: Hangar 2 (Building No. 46), NASA Ames Research Center, Moffett Field, California," (August 2006), 22. See also Captain Scrivner, "The Military Use of Balloons and Dirigibles in the United States 1793-1963," 50 and David R. Chenoweth, "Testing the Military Flyer at Fort Myer, 1908-1909," *Air Power History*, (Winter 2002), (available http://findarticles.com/p/articles/mi_hb3101/is_4_49/ai_n28961563/, retrieved 23 September 2009), n.p.

¹⁶ American Institute of Aeronautics and Astronautics, Historic Aerospace Site, "Huffman Prairie Flying Field, Dayton, Ohio," (Available <http://www.aiaa.org/Participate/Uploads/03-0506%20HAS%20HuffmanPrairie.pdf>), page 4

¹⁷ "Balloon House, Gas Tank, and Generating Plant, Fort Omaha," *Nebraska Memories: Making Nebraska's Past Unforgettable*, http://www.memories.ne.gov/cdm4/item_viewer.php?CISOROOT=/opl&CISOPTR=898, retrieved 23 December 2008. See also "Historic Fort Omaha," *Historic Fort Omaha*, http://www.omahahistory.org/fort_omaha.htm, retrieved 23 December 2008 and Barbara M. Looiman, "Aviation Development in Nebraska Final Survey Report," (Mississippi Valley Archaeology Center at University of Wisconsin-LaCrosse, September 2000, available <http://www.nebraskahistory.org/histpres/reports/Aviation-Development-Neb.pdf>).

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While the report does not provide the location of all eight hangars, all eight are identified below based on other available information.

Construction of the balloon hangar at Fort Barry commenced at the end of July 1920 and was completed the following June. This building is still standing and is discussed in more comparative detail below. At the same time the Fort Barry hangar was being erected, an identical hangar was constructed at Fort Winfield Scott, California, but this hangar was demolished after 1939. The balloon hangar at Fort Barry cost a total of \$99,893.50 including the cost of an adjacent hydrogen generating building. Combined, the Fort Barry and Fort Winfield Scott hangars cost \$199,787. A third balloon hangar was constructed at Fort Funston, California, during the same period but, according to the Fort Barry report, it did not utilize the same design as the Forts Barry and Winfield Scott hangars.¹⁸

The hangar built at Fort Casey, Washington, and later moved to Gray Airfield at Fort Lewis was completed in May 1921. In 1938, the hangar was dismantled, loaded on a truck and driven to Fort Lewis "...where the same workers reassembled the structure." Importantly, this re-location of a balloon hangar constituted only an intrastate move, rather than in interstate one so logistically it would have been comparatively easier and less costly than transporting a hangar across the country as was proposed but never implemented for the balloon hangars at Ross Field. The metal balloon hangar is apparently no longer extant at Fort Lewis as the oldest structure identified at the airfield is a hangar completed in 1942.¹⁹

As noted in the Fort Barry report, the Fort Worden, Washington, balloon hangar was completed in December 1921. The building remains extant and, based on a photograph in the report, retains its hangar doors and outriggers; however, according to the report, the interior of the Fort Worden balloon hangar has been "highly modified" in order to utilize the building as a theater. Also according to the Fort Barry report, the Fort Worden balloon hangar was never used by the Army Air Service balloon squadrons; as such, it does not share a direct association with the Army's use of balloons during the years between World War I and World War II as do the hangars at Forts Barry, Winfield Scott, Casey/Lewis and Sill.

Construction of the twin balloon hangars at Ross Field near Arcadia, California, began in late 1921 with the hangars complete in mid-1922. The buildings were located immediately adjacent to each other on the southwest corner of the airfield. The total cost of "...these mammoth aerial garages..." exceeded \$200,000. The hangars were equipped "...with complete machine shops so that every stage of the work of building and assembling lighter-than-air craft (could) be handled."²⁰ By the end of the 1920s, the military was no longer using Ross Field, although the War Department still exercised authority and ownership over the buildings and land. Although proposed to be moved to Post Field and Pope Field as indicated by the July 1932 Congressional

¹⁸ "Fort Barry Balloon Hangar and Motor Vehicle Sheds: Abbreviated Historic Structures Report," (Cultural Resources and Museum Management Division, National Park Service, U.S. Department of Interior, Washington D.C., c. 2004), 8-15.

¹⁹ "Fort Lewis: Gray Army Airfield," [History Link.org—the Free Online Encyclopedia of Washington State History](http://historylink.org/index.cfm?DisplayPage=output.cfm&file_id=8623), http://historylink.org/index.cfm?DisplayPage=output.cfm&file_id=8623, retrieved 23 December 2008.

²⁰ Los Angeles Times, 22 September 1921 and 30 April 1922.

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appropriation previously discussed, both balloon hangars at Ross Field were demolished in 1933 with the materials being sent to Sunnyvale, California, for salvage.²¹

The date of construction for the hangar at Fort Scott, Illinois, is not known but it was previous to March 1927, the date of a photograph included in Captain Scrivner's "The Military Use of Balloons and Dirigibles in the United States 1793-1963." The photograph is an official United States Air Force photograph and records a practice inflation of the balloon used by Captain Hawthorne C. Gray in his 1927 groundbreaking efforts in studying temperature changes at various altitudes and the debilitating effects of the lack of oxygen on pilots that resulted in his death on November 4, 1927. The Fort Scott balloon hangar likely dates to the same period as the hangars in California and Washington because Scott Field became the Army's center for lighter-than-air training the same year, 1921, that the other hangars were constructed. Significantly, as the center of lighter-than-air training, Scott Field had more than one lighter-than-air hangar. A massive airship hangar that was second in size to only the monumental Naval airship hangar at Lakehurst, New Jersey, was completed at Fort Scott in 1923. As with the other lighter-than-air buildings, the airship hangar was demolished after 1938 to make way for improvements in order to use the airfield for heavier-than-air aircraft.²²

The hangar at Scott Field completes the eight balloon hangars constructed in the first two years of the 1920s. Altogether, the Army constructed balloon hangars in 1921-1922 at Forts Barry, Casey, Funston, Scott, Winfield Scott and Worden with two hangars erected at Ross Field. Notably, the hangar at Fort Funston was the only hangar of the eight that had a different design. In the mid-1930s, two additional matching metal balloon hangars were constructed, consisting of the Balloon Hangar at Post Field and a hangar at Pope Field.

Pope Field originated in 1919 as a support installation for the adjacent Camp Bragg. In the mid-1930s, Pope Field's mission changed to the transport of supplies, bombs and equipment for the Army Air Corps. In support of the new mission, new hangars and other buildings were constructed so that by 1939 the field was comprised of twenty-eight permanent and seven temporary buildings. According to Volume III of the "National Historic Context for Department of Defense Installations, 1790-1940," a balloon hangar was constructed at Pope Field in about 1934. The hangar was reportedly "...shipped from California and assembled at the airfield." The validity of that statement could not be confirmed based on readily available information; although this seems likely to be based upon the 1932 Congressional appropriation that called for

²¹ Ibid, 26 November 1930, 9 June 1931, 2 March 1932 and 15 November 1933. See also "Fort Sill Funds Expected Soon," article from unidentified newspaper, (Available in the Honorable Elmer Thomas Collection (Series Projects, Box 5, Folder 60), the Carl Albert Congressional Record and Studies Center Congressional Archives, University of Oklahoma, Monnet Hall, Room 202, 630 Parrington Oval, Norman, Oklahoma), c. July 1932; House Reports, 72d Congress, 1st Session (December 7, 1931-July 16, 1932), Volume 3 (Washington, D.C: United States Government Printing Office, 1932), Report No. 1511; and, "California Aviation History: The Army Balloon School: Ross Field, Arcadia, California," The California State Military Museum, California State Military Department, <http://www.militarymuseum.org/BalloonSch.html>, retrieved 23 September 2009.

²² "Scott Field Historic District," Aviation: From Sand Dunes to Sonic Booms, <http://www.nps.gov/nr/travel/aviation/sco.htm>, retrieved 26 August 2009. See also "Scott AFB Information," Group 1\Scott AFB Info, <http://www.ilgp1.org/scottafbinfo.htm>, retrieved 26 August 2009 and National Register of Historic Places Registration Form for "Scott Field Historic District," prepared by Philip Thomason, Thomason Associates, 8 July 1992, (available National Park Service National Register of Historic Places Database, <http://www.nps.gov/history/nr/research/index.htm>).

Balloon Hangar at Henry Post Army Airfield
Name of Property

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the movement of the matching hangars at Ross Field to Post and Pope fields which did not occur. Regardless, the balloon hangar at Pope Field was noted as demolished in the nationwide historic context prepared in August 1995.²³

Of the total nine identified, matching, metal, balloon hangars constructed in military airfields in the 1920s and 1930s, only three are still extant. This consists of the balloon hangar at Fort Barry, the one at Fort Wooden and the one at Fort Sill. The balloon hangars at Fort Winfield Scott, Fort Casey/Fort Lewis, Ross Field (2), Scott Field and Pope Field have all been demolished. The status of the balloon hangar at Fort Funston is unknown but irrelevant because it did not match the design of the Balloon Hangar at Post Field. While the relevant, standing, metal balloon hangars were constructed apparently using the same design, the buildings are now differentiated by their ability to convey their significance. Overall, the Balloon Hangar at Post Field retains the highest degree of historic integrity and the strongest association with Army lighter-than-air activities in the interwar years.

The Fort Barry hangar has been altered by the removal of the character-defining hangar doors and outriggers. The original hangar opening has been infilled with material salvaged from the doors. The hangar doors were removed in 1943 following the change in function to motor pool which necessitated construction of several vehicle sheds in the immediate area. The vehicle sheds negatively impact the property's historic setting as they are located in close proximity to the building and do not contribute to the understanding of the property as an Army Air Service balloon hangar. The two bands of clerestory windows, which now wraparound the building rather than just along the side elevations, have also been replaced by translucent, colored, corrugated, glass fiber sheets. Importantly, the balloon hangar at Fort Barry was only in use by the Army Air Service through 1921 when the balloon companies were transferred from the Puget Sound area. Thus, its direct association with military balloon activities is limited to less than one year.²⁴

The Fort Barry balloon hangar was listed on the National Register of Historic Places in 1973 as a contributing resource in the Forts Baker, Barry and Cronkhite Historic District. The 2004 Historic Structures Report determined the Fort Barry hangar to be of national significance under Criterion A for its association with the Army's use of balloons for aerial observation after World War I. Under Criterion C, the building was deemed nationally significant as a rare surviving example of an Air Service airship hangar. However, the report only considered the Fort Worden balloon hangar in its comparative analysis of extant Army balloon hangars.²⁵

The Fort Worden balloon hangar retains its character-defining hangar doors and outriggers. Photographs of the building further reveal that the doors are operational. However, in 1991, the building was rehabilitated for use as a large theater. Now called the McCurdy Pavilion, the building can seat 880 in fixed seats and, with seating on the main floor, has a capacity for an

²³ R. Christopher Goodwin and Associates, Inc., "National Historic Context for Department of Defense Installations, 1790-1940," Volume III of IV, (August 1995), 435-439.

²⁴ "Fort Barry Balloon Hangar and Motor Vehicle Sheds: Abbreviated Historic Structures Report," 10-11.

²⁵ Ibid., 13-14.

Balloon Hangar at Henry Post Army Airfield
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audience of 1200 persons. Although it is hard to discern in available photographs, it appears a large two-story addition has been constructed to the side of the Fort Worden balloon hangar. According to the 2004 Historic Structures Report for Fort Barry, the interior of the building at Fort Worden "...has been completely remodeled..." to facilitate the new use. Critically, also according to the 2004 Fort Barry report, the Fort Worden hangar was never used by the Army Air Service. The building was just completed in late 1921 when the balloon squadrons departed the Puget Sound.²⁶

Fort Worden was designated a National Historic Landmark in 1974; however, the period of significance for the property, according to the 1976 National Register nomination (NRIS 74001954), extended from 1898 to 1920. Thus, the balloon hangar, erected in 1921, appears to be a noncontributing resource to the listed historic district.

The Balloon Hangar at Post Field not only retains its character-defining hangar doors, outriggers and one row of clerestory windows, but also was actively used by a balloon squadron for eight years. This is one of the longest associations with Army ballooning experienced by any of the nine identified metal balloon hangars. Further, due to its location at an active Army airfield, the Balloon Hangar at Post Field retains a significant feeling and association with the military that the other standing buildings lack.

There are no other identified extant balloon hangars in the state of Oklahoma. While four balloon hangars were constructed at Post Field in the late teens, none of these buildings survived the 1920s. Nationally, at least nine similar, metal, balloon hangars were constructed by the Army during the interwar years between World War I and World War II. As discussed above, the other identified matching balloon hangars have been demolished or have integrity issues and lack a strong association with Army balloon activities. As noted in "The National Context for Department of Defense Installations, 1790-1940," volume II, "Few examples (of balloon hangars) were identified during the field work conducted for this study" because "Surviving balloon hangars are a rare property type." The only other balloon hangars mentioned in the chapter on lighter-than-air aircraft hangars in this study besides the Balloon Hangar at Post Field were two one-story balloon hangars constructed in 1919 at Fort Benning, Georgia's, airfield.²⁷

Overall, the Balloon Hangar at Post Field is historically significant for its association with the use of balloons in Army aviation activities during the interwar years of the early twentieth century. While overshadowed in general by heavier-than-air aircraft, lighter-than-air aircraft were nonetheless a critical element in the development of Army aviation during the 1920s and 1930s. As a rare example of a highly distinctive property type which possesses unique structural elements and spaces, the Balloon Hangar is further significant in terms of both architecture and engineering. The hangar is significant at the national level as the best extant example of an interwar balloon hangar constructed at an Army installation. The Balloon Hangar at Post Field

²⁶ Ibid., 13.

²⁷ Goodwin and Associates, Inc., "National Historic Context for Department of Defense Installations," Volume II of IV, n.p.

Balloon Hangar at Henry Post Army Airfield
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not only retains an excellent ability to convey its significance, it possesses a direct historic association with the activities of the balloon squadrons that operated the soaring inflatables. Further, located at an active military installation, the building retains a distinctive feeling and association that the other standing balloon hangars no longer have.

Balloon Hangar at Henry Post Army Airfield
Name of Property

Comanche County, OK
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Balloon Hangar at Henry Post Army Airfield
Name of Property

Comanche County, OK
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22 October 1932; 30 May 1933; 1 March 1935; 11 July 1936; 22 January 1937;
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Name of Property

Comanche County, OK
County and State

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Previous documentation on file (NPS):

- 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 # _____
- recorded by Historic American Landscape Survey # _____

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Name of repository: _____

Historic Resources Survey Number (if assigned): N/A

Balloon Hangar at Henry Post Army Airfield
Name of Property

Comanche County, OK
County and State

10. Geographical Data

Acreege of Property 3.5 Acres MOL

Use either the UTM system or latitude/longitude coordinates

Latitude/Longitude Coordinates

Datum if other than WGS84: _____

(enter coordinates to 6 decimal places)

- | | |
|------------------------|-----------------------|
| 1. Latitude: 34.650371 | Longitude: -98.395179 |
| 2. Latitude: | Longitude: |
| 3. Latitude: | Longitude: |
| 4. Latitude: | Longitude: |

Or

UTM References

Datum (indicated on USGS map):

NAD 1927 or NAD 1983

- | | | |
|----------|-----------|-----------|
| 1. Zone: | Easting: | Northing: |
| 2. Zone: | Easting: | Northing: |
| 3. Zone: | Easting: | Northing: |
| 4. Zone: | Easting : | Northing: |

Balloon Hangar at Henry Post Army Airfield
Name of Property

Comanche County, OK
County and State

Verbal Boundary Description (Describe the boundaries of the property.)

Beginning east of the intersection of Tucker and Coune Roads at a point diagonally about 75 feet from the SW corner of the building, proceed along a straight line in a northwesterly direction for 410 feet to a point about 60 feet from the NW corner of the chain link fence, then proceed along a straight line in an easterly direction for 307 feet to a point about 60 feet from the NE corner of the chain link fence, then proceed along a straight line in a southerly direction for 256 feet to the gravel drive that extends from the building to Tucker Road, then proceed along the curvilinear gravel drive in an southeasterly direction for 156 feet to the black-topped alley extending from Tucker Road to behind the adjacent Officer's Quarters, then proceed along the alley in a southerly direction for 130 feet to Tucker Road, then proceed along Tucker Road in a westerly direction for 340 feet to the point of beginning.

Boundary Justification (Explain why the boundaries were selected.)

The boundaries include the property historically associated with the Balloon Hangar that retains its historic integrity. Because the land on which the Balloon Hangar was constructed was part of the original military reservation established in 1871, it was never divided in accordance with the Public Land Survey System so there are no identified Sections, Townships or Ranges for this area. Additionally, the area has never been subdivided into lots, blocks or plats. There is only one road adjacent to the resource, Tucker Road, which was utilized in developing the Verbal Boundary Description. The boundaries for the property were designed to encompass all of the associated extant resources while utilizing straight lines and permanent points of reference as much as possible.

Balloon Hangar at Henry Post Army Airfield
Name of Property

Comanche County, OK
County and State

Form Prepared By

name/title: Cynthia Savage, Architectural Historian, for
organization: Cultural Resources Office, EOD/DPW, Fort Sill
street & number: 2515 Ringgold Road
city or town: Fort Sill state: OK zip code: 73503
e-mail: cynthia.j.savage4.ctr@mail.mil
telephone: 580/442-1040
date: July 2009

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** or equivalent (7.5 or 15 minute series) indicating the property's location.
 - **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
 - **Additional items:** (Check with the SHPO, TPO, or FPO for any additional items.)
-

Photographs

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

Balloon Hangar at Henry Post Army Airfield
Name of Property

Comanche County, OK
County and State

Photo Log

Name of Property: **Balloon Hangar at Henry Post Army Airfield**

City or Vicinity: **Fort Sill** County: **Comanche** State: **OK**

Photographer: **Cynthia Savage**

Date Photographed: **July 2014**

Description of Photograph(s) and number, include description of view indicating direction of camera:

Photo 0001: West and North elevations (right) and fenced area (left), camera facing southeast

Photo 0002: North elevation (background) and fenced area (middle ground), camera facing south.

Photo 0003: Fenced area and North elevation (right), East elevation (left background) and Garage (left middle ground), camera facing southwest.

Photo 0004: East elevation (background) and Garage (right middle ground), camera facing northwest.

Photo 0005: Garage and fenced area (center background), East and South elevations (left), camera facing northwest

Photo 0006: South and West elevations, camera facing northeast

Photo 0007: West elevation, camera facing northeast

Photo 0008: North and east elevations from inside fenced area, camera facing southwest.

Photo 0009: Door platforms on North elevation, camera facing southwest.

Photo 0010: Interior looking towards north hangar door, camera facing northeast.

Photo 0011: Interior looking towards south hangar door, camera facing southwest.

Photo 0012: Interior looking towards southeast side rooms, camera facing southeast

Photo 0013: Interior doors, camera facing southwest

Photo 0014: Interior office space on east side, camera facing southeast.

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 100 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Office of Planning and Performance Management, U.S. Dept. of the Interior, 1849 C. Street, NW, Washington, DC.

Balloon Hangar at Henry Post Army Airfield Fort Sill, Comanche County, Oklahoma



Legend

 34.650371
-98.395179

 Boundary Points
Referenced in
NRHP Nomination

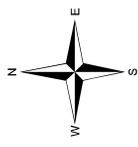
 Boundary Lines



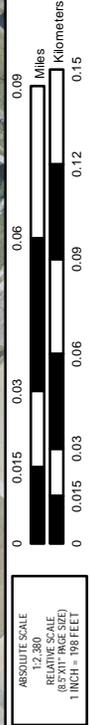
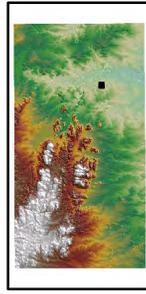
DIRECTORATE OF PUBLIC WORKS (DPW)
ENVIRONMENTAL DIVISION
CULTURAL RESOURCES
FORT SILL, OKLAHOMA
CINDY SAVAGE
REVISED/FRIDAY, APRIL 17, 2015

**THE GEOSPATIAL DATA DEPICTED IN THIS MAP
COMPLIES WITH (GS/SFE) STANDARDS**

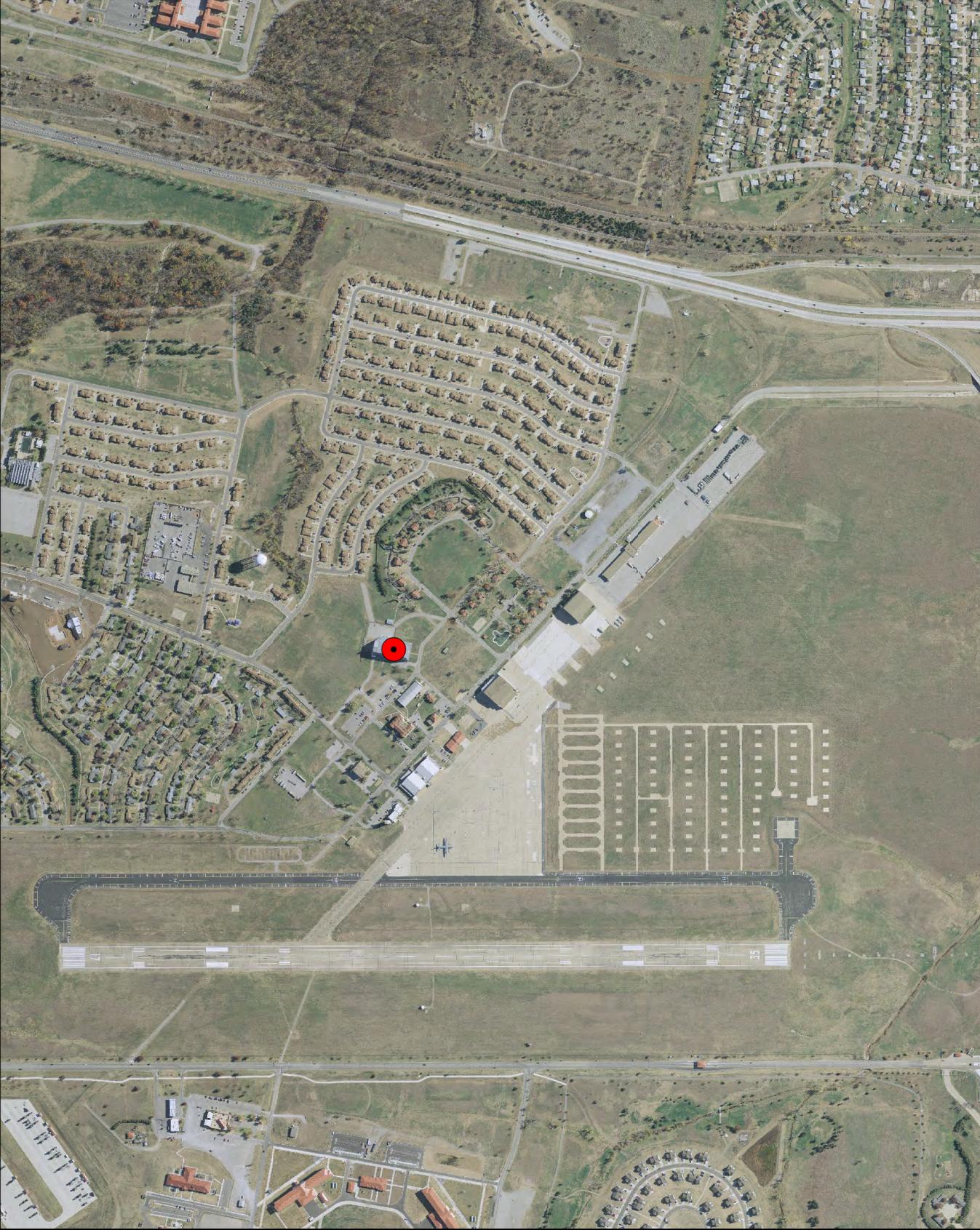
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(WGS84)
Projection: Universal Transverse Mercator
(UTM Zone 14N)
Aerial: 2013



Elevation Guide/Orientation



Balloon Hangar at Henry Post Army Airfield Fort Sill, Comanche County, Oklahoma



Legend

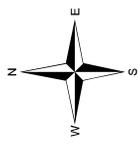
 34.650371
-98.395179



DIRECTORATE OF PUBLIC WORKS (DPW)
ENVIRONMENTAL DIVISION
CULTURAL RESOURCES
FORT SILL, OKLAHOMA
CINDY SAVAGE
REVISED/FRIDAY, APRIL 17, 2015

**THE GEOSPATIAL DATA DEPICTED IN THIS MAP
COMPLIES WITH (GS/SFE) STANDARDS**

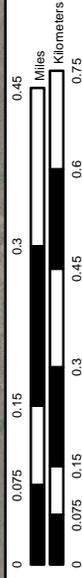
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(WGS84)
Projection: Universal Transverse Mercator
(UTM Zone 14N)
Aerial: 2013



Elevation Guide/Orientation



ABSOLUTE SCALE
1:11,424
RELATIVE SCALE
(80 X 114 FEET)
1 INCH = 852 FEET



Balloon Hangar at Henry Post Army Airfield Fort Sill, Comanche County, Oklahoma

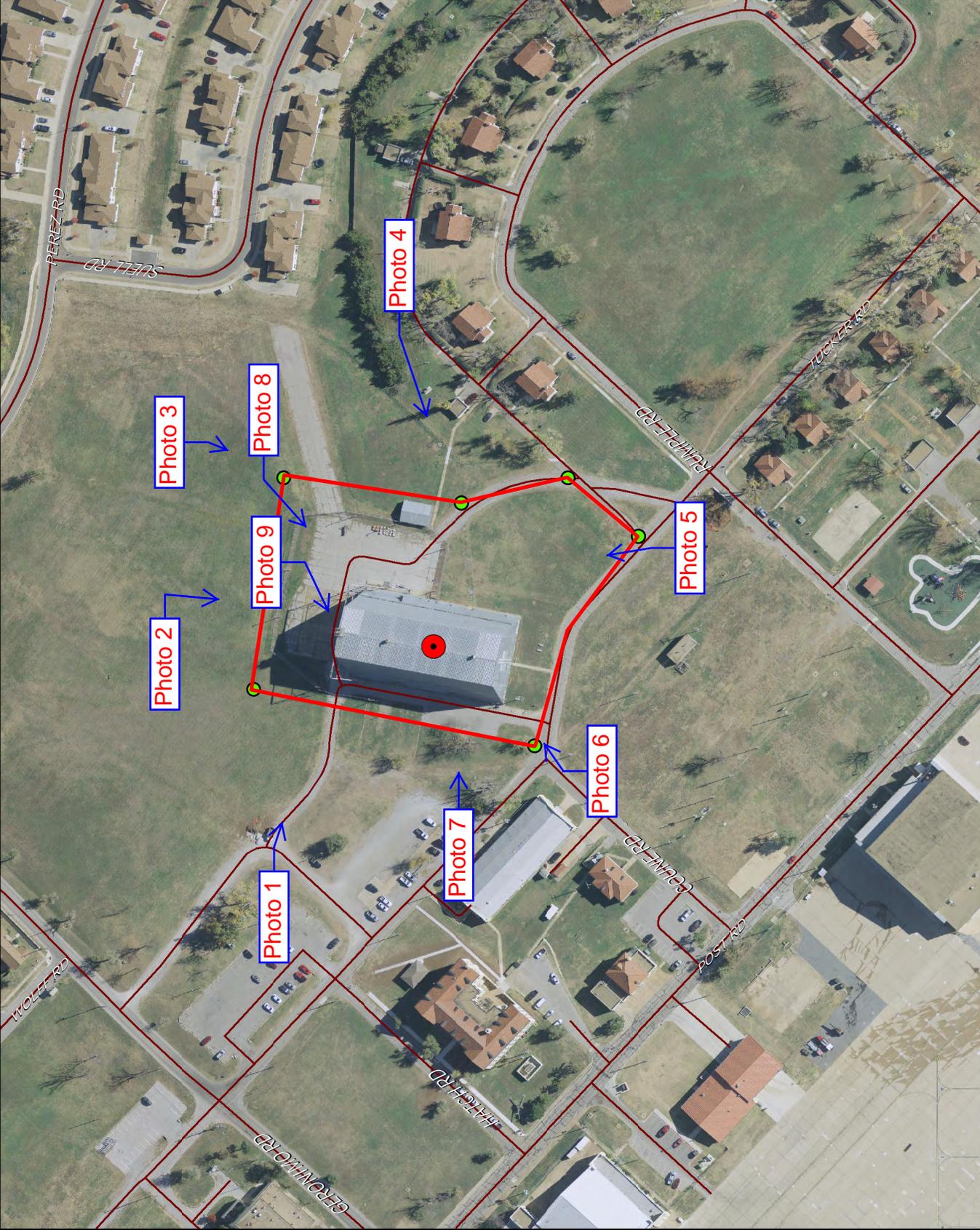


Photo Key: Exterior Photographs



ABSOLUTE SCALE
1:2,380
RELATIVE SCALE
(80' HANGAR SIZE)
1 INCH = 198 FEET

Legend

-  34.650371
-98.395179
-  Boundary Points
Referenced in
NRHP Nomination
-  Boundary Lines



DIRECTORATE OF PUBLIC WORKS (DPW)
ENVIRONMENTAL DIVISION
CULTURAL RESOURCES
FORT SILL, OKLAHOMA
CINDY SAWAGE
REVISED MONDAY, OCTOBER 20, 2014

**THE GEOSPATIAL DATA DEPICTED IN THIS MAP
COMPLIES WITH (GS/SFE) STANDARDS**

Datum: World Geodetic Survey 1984
(WGS84)
Projection: Universal Transverse Mercator
(UTM Zone 14N)
Aerial: 2013



Elevation Guide/Orientation



**Balloon Hangar at Henry Post Army Airfield
Fort Sill, Comanche County, Oklahoma**

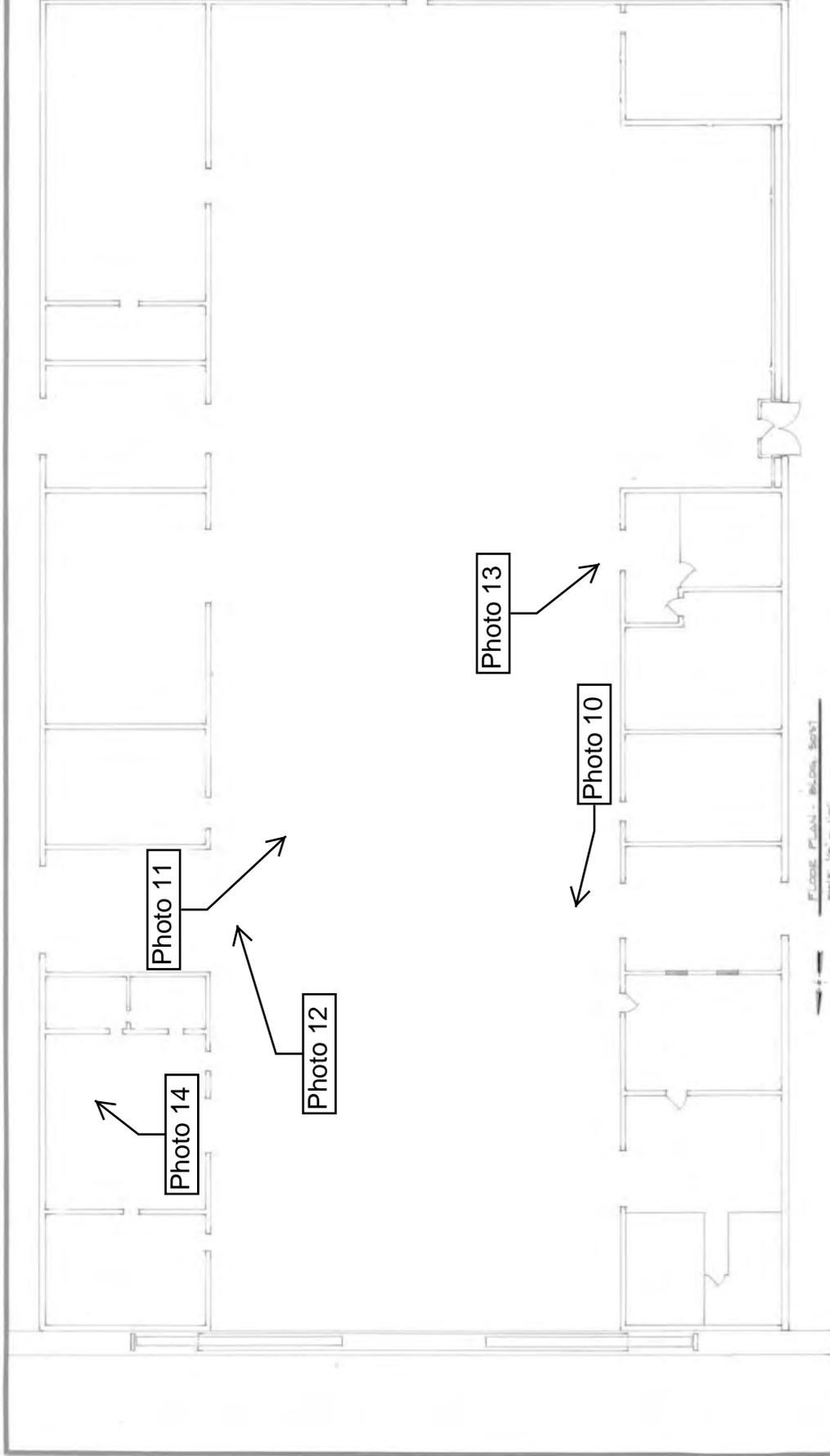


Photo Key: Interior Photographs













5037

5037

BALLOON HANGER
Built 1942
Part of Museum Project
For information or access,
contact the Museum Administration
404-502-1000













STORE ROOM

7





UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

REQUESTED ACTION: NOMINATION

PROPERTY NAME: Balloon Hanger at Henry Post Army Airfield

MULTIPLE NAME:

STATE & COUNTY: OKLAHOMA, Comanche

DATE RECEIVED: 10/09/15 DATE OF PENDING LIST: 11/04/15
DATE OF 16TH DAY: 11/19/15 DATE OF 45TH DAY: 11/24/15
DATE OF WEEKLY LIST:

REFERENCE NUMBER: 15000826

REASONS FOR REVIEW:

APPEAL: N DATA PROBLEM: N LANDSCAPE: N LESS THAN 50 YEARS: N
OTHER: N PDIL: N PERIOD: N PROGRAM UNAPPROVED: N
REQUEST: Y SAMPLE: N SLR DRAFT: N NATIONAL: Y

COMMENT WAIVER: N

ACCEPT RETURN REJECT 11-20-2015 DATE

ABSTRACT/SUMMARY COMMENTS:

This Rare, surviving, structure represents the last gasp of Army Air Service's Lighter than Air program. The balloons were utilized for Artillery observation, and Fort Sill was the Army's Field Artillery school. An impressively engineered structure, with large clear space.

RECOM./CRITERIA Accept ATC

REVIEWER J. Gibson DISCIPLINE _____

TELEPHONE _____ DATE _____

DOCUMENTATION see attached comments Y/N Y see attached SLR Y/N

If a nomination is returned to the nominating authority, the nomination is no longer under consideration by the NPS.



DEPARTMENT OF THE ARMY
ASSISTANT SECRETARY OF THE ARMY
INSTALLATIONS, ENERGY AND ENVIRONMENT
110 ARMY PENTAGON
WASHINGTON DC 20310-0110

02 OCT 2015

RECEIVED 2280

OCT - 9 2015

Nat. Register of Historic Places
National Park Service

Ms. Carol D. Shull
Keeper of the National Register of Historic Places
National Register, History and Education
National Park Service
1849 C Street, NW
Washington, DC 20240

Dear Ms. Shull:

Enclosed is the National Register of Historic Places Registration Form for the nomination of the Balloon Hangar at Henry Post Army Airfield, Fort Sill, Oklahoma. The Balloon Hangar is eligible for the National Register under Criterion A for its association with the evolution of Army Aviation activities, particularly balloons, during the years between World War I and World War II.

As the Federal Preservation Officer for the Department of the Army, I have signed the registration form at the Federal Agency Certification block that this nomination meets the eligibility criteria for listing on the National Register of Historic Places.

Enclosures include Disk 1, the electronic nomination package and Disk 2, photo images. Please notify my office when the property is formally listed. If you have any questions, please contact Ms. Toni Patton-Williams of my staff at (703) 697-3937 or Ms. Kathleen McLaughlin, Army Deputy Federal Preservation Officer (DFPO) at 571-256-9726. A copy of this letter has been furnished to the DFPO.

Sincerely,

Eugene Collins
Deputy Assistant Secretary of the Army for
Environment, Safety and Occupational Health

Enclosures



Oklahoma Historical Society

Founded May 27, 1893

State Historic Preservation Office

Oklahoma History Center • 800 Nazih Zuhdi Drive • Oklahoma City, OK 73105-7917
(405) 521-6249 • Fax (405) 522-0816 • www.okhistory.org/shpo/shpom.htm

APR 3 2015

March 30, 2015

Mr. Kevin Christopher
Environmental Support Branch
DPW-EQD ATTN: IMSI-PWE/K.Christopher
2515 Ringgold Road
Fort Sill, OK 73503

RE: File #1016-97/MOA #177; Fort Sill MOA for Demolition of Building #1015,
National Register of Historic Places Nomination Package for Balloon Hangar at
Henry Post Army Airfield, Fort Sill, Comanche County

Dear Mr. Christopher:

We have received the documentation agreed to under the referenced Memorandum of Agreement.

We have reviewed the National Register of Historic Places nomination for the Balloon Hangar at Henry Post Army Airfield. We find that the property is eligible at the national level of significance and have included the cover page for the nomination with the signature of Dr. Bob Blackburn.

Thank you for the opportunity to review this nomination. Should further correspondence pertaining to this project be necessary, please reference the above underlined file number.

Sincerely,

Melvena Heisch
Deputy State Historic
Preservation Officer

MH:pm

Enclosure

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form*. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property

Historic name: Balloon Hangar at Henry Post Army Airfield

Other names/site number: Building 5037

Name of related multiple property listing:
N/A

(Enter "N/A" if property is not part of a multiple property listing)

2. Location

Street & number: 5037 Tucker Road

City or town: Fort Sill State: OK County: Comanche

Not For Publication: Vicinity:

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.

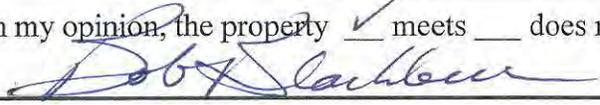
In my opinion, the property X meets does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

X national statewide local

Applicable National Register Criteria:

X A B X C D

_____ Signature of certifying official/Title:	_____ Date
_____ State or Federal agency/bureau or Tribal Government	

In my opinion, the property <input checked="" type="checkbox"/> meets <input type="checkbox"/> does not meet the National Register criteria.	
 Signature of commenting official:	<u>3/30/15</u> Date
_____ Title :	_____ State or Federal agency/bureau or Tribal Government



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT SILL
OFFICE OF THE GARRISON COMMANDER
462 HAMILTON ROAD, SUITE 120
FORT SILL, OKLAHOMA 73503

Environmental Quality Division

MAR 12 2015

Dr. Bob Blackburn
State Historic Preservation Office
Oklahoma History Center
800 Nazih Zuhdi Drive
Oklahoma City, OK 73105-7917

CERTIFIED MAIL: 7012 2210 0002 5066 9197

RE: National Register of Historic Places Nomination Package for the Balloon Hangar at Henry Post Army Airfield, Fort Sill, Comanche County

Dear Dr. Blackburn:

Enclosed for your review and comment in accordance with the National Register's implementing regulations (36 CFR 60) is the National Register of Historic Places Nomination (NRHP) package for the Balloon Hangar at Henry Post Army Airfield, located in the 5000 area of Fort Sill.

The nomination form and photographs have been updated since the previous package provided to your office in 2009 (SHPO file MOA #177). In addition to some technical corrections, the local significance of the property in the area of social history has been removed so the nomination focuses solely on the national level significance of the property in the areas of military, architecture, and engineering. In conformance with the revised NRHP registration form, much of the background information previously provided in the 2009 nomination has also been removed.

As set forth in 36 CFR 60.9(c), Fort Sill has concurrently provided the nomination for 45 day review and comment to the Mayor of Lawton and the Chairman of the Board of County Commissioners. Fort Sill will provide your office with a copy of any comments provided by the Mayor or Chairman of the Board concerning the nomination. After 45 days, Fort Sill will provide the nomination package, including any comments provided by your office and the local authorities, through the Army's chain of command to the Department of Army's Federal Preservation Officer. The Department of Army's Federal Preservation Officer has responsibility for submitting the nomination package to the Keeper of the Register in Washington, D.C.

The enclosed nomination package consists of a hard copy of the nomination form, one set of printed photographs, the photographs as .TIFF files on an archival disk, a location map and photo key maps. The package, including the printed photographs and archival disk, is for your files. Fort Sill has retained a complete set of the original nomination materials for transmission to the Department of Army's Federal Preservation Officer.

Mr. Kevin Christopher, Fort Sill's Acting Cultural Resources Manager, has been designated as Fort Sill's official representative for this matter. Mr. Christopher may be reached via telephone at (580) 442-5671. All written correspondence should be directed to the following address: Directorate of Public Works, Environmental Quality Division, Attn: IMSI-PWE (K. Christopher), 2515 Ringgold Road, Fort Sill, OK 73503.

As always, Fort Sill looks forward to working with your office on continued stewardship of our cultural heritage.

Sincerely,



Glenn A. Waters
Colonel, U.S. Army
Garrison Commander

Enclosure
NRHP Registration Form (Balloon Hangar)



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT SILL
OFFICE OF THE GARRISON COMMANDER
462 HAMILTON ROAD, SUITE 120
FORT SILL, OKLAHOMA 73503

MAR 12 2015

Environmental Quality Division

Mr. Gail Turner, Chairman
Comanche County Commissioners
315 Southwest 5th, Suite 303
Comanche County Courthouse
Lawton, OK 73501

CERTIFIED MAIL: 7012 2210 0002 5066 9173

RE: National Register of Historic Places Nomination Package for the Balloon Hangar at Henry Post Army Airfield, Fort Sill, Comanche County

Dear Mr. Turner:

We are pleased to inform you that the Balloon Hangar at Henry Post Army Airfield, located in the 5000 area of Fort Sill, in Comanche County, Oklahoma, is being considered for nomination to the National Register of Historic Places.

The National Register is the Federal government's official listing of historic properties worthy of preservation. Listing in the National Register provides recognition and assists in preserving our nation's heritage. Enclosed for your information is a copy of the National Register nomination for the Balloon Hangar at Henry Post Army Airfield.

Per the National Register's regulations, Fort Sill is required to notify you that this property is under consideration for listing on the National Register. Additionally, you have 45 days from receipt of this letter to provide written comments on this action.

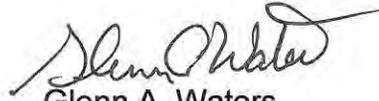
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Mr. Kevin Christopher, Fort Sill's Acting Cultural Resources Manager, has been designated as Fort Sill's official representative for this matter. Mr. Christopher may be reached via telephone at (580) 442-5671. All written correspondence should be

directed to the following address: Directorate of Public Works, Environmental Quality Division, Attn: IMSI-PWE (K. Christopher), 2515 Ringgold Road, Fort Sill, OK 73503.

Thank you for your attention to this matter. Fort Sill looks forward to working with your office concerning the continued stewardship of our cultural heritage.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn A. Waters". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Glenn A. Waters
Colonel, U.S. Army
Garrison Commander

Enclosure
NRHP Registration Form (Balloon Hangar)



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT SILL
OFFICE OF THE GARRISON COMMANDER
462 HAMILTON ROAD, SUITE 120
FORT SILL, OKLAHOMA 73503

MAR 12 2015

Environmental Quality Division

The Honorable Fred L. Fitch
City of Lawton
212 Southwest 9th Street
Lawton, OK 73501

CERTIFIED MAIL: 7012 2210 0002 5066 9180

RE: National Register of Historic Places Nomination Package for the Balloon Hangar at Henry Post Army Airfield, Fort Sill, Comanche County

Dear Mayor Fitch:

We are pleased to inform you that the Balloon Hangar at Henry Post Army Airfield, located in the 5000 area of Fort Sill, in Comanche County, Oklahoma, is being considered for nomination to the National Register of Historic Places.

The National Register is the Federal government's official listing of historic properties worthy of preservation. Listing in the National Register provides recognition and assists in preserving our nation's heritage. Enclosed for your information is a copy of the National Register nomination for the Balloon Hangar at Henry Post Army Airfield.

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Thank you for your attention to this matter. Fort Sill looks forward to working with your office concerning the continued stewardship of our cultural heritage.

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Glenn A. Waters
Colonel, U.S. Army
Garrison Commander

Enclosure
NRHP Registration Form (Balloon Hangar)