

United States Department of the Interior
National Park Service

National Register Listed
September 25, 2012

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. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name Norden Bombsight Storage Vaults

other names/site number 151-67

2. Location

street & number 305 Flint Road not for publication

city or town Pratt vicinity

state Kansas code KS county Pratt code 151 zip code 67124

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:

 national x statewide local

SEE FILE

Signature of certifying official

_____ Date

_____ Title

_____ State or Federal agency/bureau or Tribal Government

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official

_____ Date

_____ Title

_____ State or Federal agency/bureau or Tribal Government

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

_____ 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

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
		buildings
		district
		site
2		structure
		object
2		Total

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

Number of contributing resources previously listed in the National Register

World War II-Era Aviation-Related Resources of KS

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

DEFENSE; AIR FACILITY

Current Functions
(Enter categories from instructions)

Vacant/Not In Use
Work in Progress

7. Description

Architectural Classification
(Enter categories from instructions)

No Style

Materials
(Enter categories from instructions)

foundation: Concrete
walls: Concrete
roof: Concrete
other: N/A

Narrative Description

Summary

The Norden Bombsight Storage Vaults are located on the campus of the former Pratt Army Air Field, which is now used as the Pratt Industrial Airport. It is three miles north of Pratt on US 281 Highway. The nominated property includes less than one acre of land within the current landholdings of the Pratt Airport Authority. The Norden Bombsite Storage Vaults are located southwest of the water tower and just east of the former Base Operations building.

Two small one-story concrete buildings with slightly sloping shed roofs make up the storage structures for a total of seven vaults. The first structure built included two vaults and the second one built had five vaults enclosed in a wood-frame building. Today, all that remains are the concrete vaults each with their own metal door (one is missing) and a concrete slab connecting the two structures.

Elaboration

The Norden Bombsight Storage Vaults¹ at the former Pratt Army Air Field include two one-story rectangular and L-shaped structures made of poured reinforced concrete that is eight inches thick.

The smaller L-shaped structure measures 10 feet tall, has walls that are eight inches thick, and has a very slightly sloping shed roof (tar membrane). It features a raised concrete foundation and houses two vaults, each with their own exterior door on the north elevation. The two doors are slightly inset and each feature a protruding concrete lintel topped by a narrow horizontal vent opening that is the same width of the door opening.

The exterior of the east vault measures 11 feet wide by 13 feet deep. There is an outward-swinging metal door with substantial metal hinges and is fastened shut with an exterior padlock. The south (rear) elevation of the east vault includes two narrow horizontal vent openings with raised concrete sills seemingly identical to those above the door on the north elevation. There are two smaller rectangular vent openings at foundation level. The east and west (side) elevations feature no openings or architectural detail.

The door of the west vault has been removed leaving the interior exposed. This west vault measures 5 feet, 10 inches wide by 6 feet, 8 inches deep. The south (rear) elevation of the west vault includes a square vent opening just above the foundation. The interior is finished entirely of concrete except for the slightly dropped ceiling, which is made of one-eighth-inch-thick composite panels that are nailed to a wood frame. There are several small metal conduit pipes protruding through the dropped ceiling and a large fuse box has been mounted on the west wall. There is no evidence of shelving. The vault was a maintenance room with several electrical service boxes.

The larger rectangular structure measures 50 feet wide and 24 feet, 5 inches deep and includes five vaults made of poured reinforced concrete. The vaults are constructed similarly to those of the smaller L-shaped structure. This larger rectangular structure measures 41 feet, 5 inches wide and 9 feet, 10 inches deep and is 8 feet, 9 inches tall. There are five 32-inch steel doors that measure three inches in thickness on the north elevation, and they're not like the heavy bank vault doors found on the adjacent vault building. There are square (8-inch by 8-inch) vents into the individual vault spaces near the bottom left of each door on the north elevation. There are smaller rectangular (6-inch by 8-inch) vents above the right corner of each door. The east, west, and south elevations feature no openings or architectural detail.

¹ This resource is very similar to the Second-Generation Norden Bombsight Vault at McCook Army Air Field in Nebraska, which was listed in the National Register of Historic Places on June 17, 1993. See: <http://www.nebraskahistory.org/histpres/nebraska/redwilow.htm#mccook>

These vaults have no attic spaces, but the ceilings and some walls are covered with thin fiber panels. The interior of the east and west walls of the vaults had 20-inch wood shelving stretching six feet tall with the wall painted white above the shelving. The shelving is not extant, but marks on the wall still indicate where the shelving was. This larger rectangular vault was built with a wood-frame building enclosing it.

A concrete pad surrounds the larger vault structure on the north and east elevations and abuts the west elevation of the smaller L-shaped vault structure.

8. 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.

Areas of Significance

(Enter categories from instructions)

Military

Period of Significance

1942 - 1945

Significant Dates

1942 - 1945

Significant Person

(Complete only if Criterion B is marked above)

NA

Cultural Affiliation

NA

Architect/Builder

U.S. Army Corps of Engineers

Criteria Considerations

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

Property is:

- 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.

Period of Significance (justification)

The period of significance for the Norden Bombsight Storage Vaults is 1942-1945, which includes the years the buildings were utilized. The period begins with the construction of the L-shaped, two-vault building in 1942 and ends with the end of the war and closure of the base in 1945.

Criteria Considerations (justification)

N/A

Narrative Statement of Significance

Summary

The Norden Bombsight Storage Vaults at the former Pratt Army Air Field are being nominated to the National Register of Historic Places under Criterion A for their association with mid-20th century US defense military strategy during World War II. The buildings provided a secure space to store, maintain, and issue the Norden Bombsights, which were classified as secret during most of World War II. Although the historic integrity of the surrounding air field has diminished with the construction of modern warehouses and aviation-related buildings to adapt to changing uses, these vaults are an important remnant of the broader air defense strategy. They are nominated to the register as part of the “World War II-Era Aviation-Related Resources of Kansas” multiple property nomination, and are an example of the *storage building* property type.

Elaboration²

Following the bombing of Pearl Harbor on December 7, 1941, President Franklin Roosevelt presented his plan to the nation and the world for protecting those affected by the Japanese imperialist government and its military. In a radio address, he shared his concerns and foretold the need of an increase in spending for aggressive wartime production goals.

His proposal called for the production of 60,000 planes, 45,000 tanks, 20,000 anti-aircraft guns, and 6 million deadweight tons of merchant shipping. Of the \$59 billion budget submitted January 7, he asked to have more than \$52 billion earmarked for the war effort.

The Army approved a proposal in June of 1942 to locate new bases in Kansas, Nebraska, South Dakota and Montana. All of the new stations requested were in use by the following spring, including Kansas bases Walker, Pratt, Great Bend, Salina and Topeka.³ In addition to serving an integral role in the national war effort, Kansas airfields and auxiliary bases provided training for pilots of all skill levels and maintenance support staff. These four bases were designated for B-29 preparation and training in 1943 and had a profound effect on the war.⁴

The Pratt Army Air Field (AAF) was located about three miles north of Pratt, a community of about 7000 at the time. Most of the field's buildings were insubstantial, classified by the Army as “theater of operations” type of construction. In early 1943 authorization was given for the expansion of the base. By May 1943, the field contained 60 barracks capable of housing 2460 men. The field was approved for an eventual 72 barracks to house 3060 men and eight officers' quarters for 522 men.

Pratt AAF's original mission was to process crews for overseas service with the 21st Bombardment Wing formed under the Second Air Force. The field was soon re-assigned the mission of providing expedited training to the B-29 combat training program, becoming a base and temporary home for bombardment groups headed overseas. Under this new mission, the base expanded its physical plant and number of personnel. The Salina firm of Busboom and Raugh received contracts in May 1943 to build an additional 16 buildings, including another hangar, barracks, mess halls and recreation centers.⁵

² This context is taken from: Phillip Schulz, “Parachute Building” National Register of Historic Places nomination (Topeka: Kansas Historical Society, 2009); Susan Jezak Ford, “World War II-Era Aviation-Related Resources of Kansas” National Register Multiple Property Documentation Form (Topeka: Kansas Historical Society, 2012).

³ Susan Jezak Ford, “World War II-Era Aviation-Related Resources of Kansas” National Register Multiple Property Documentation Form (Topeka: Kansas Historical Society, 2012), E-6.

⁴ Ibid., E-11.

⁵ “Add To Pratt Airfield” *Kansas City Times*, 17 May 1943 (KSHS Archives Clippings K358), as quoted in Susan Jezak Ford, “World War II-Era Aviation-Related Resources of Kansas” National Register Multiple Property Documentation Form (Topeka: Kansas Historical Society, 2012), E-36.

The Pratt AAF was part of “The Battle of Kansas,” the rapid thrust to prepare numerous B-29s for transfer to the Pacific in early 1944. Amidst a raging blizzard, crews worked around the clock to ready the large aircraft for war by modifying and upgrading the planes.

The Norden Bombsight Storage Vaults were constructed during this build-up of the Pratt Army Air Field in 1942 and 1943. The first two-vault building was built to support a squadron with twelve aircraft, and when the mission was changed to support a bomb group of four squadrons, the second five-vault building with a wood-frame enclosure was erected.

The vaults provided a secure space to store, maintain, and issue the Norden Bombsights, which were classified as secret during most of World War II. Developed in the 1920s by American engineer Carl L. Norden for the US Navy, these instruments were key in conducting precision strategic bombings during the war, as noted by author Charles Bright:

Precision bombing required meticulous control; to accomplish this, the Norden incorporated a gyrostabilized automatic pilot. The mechanism was modified in 1941 by the Minneapolis Honeywell Company and designated the Army C-1 autopilot. This modification enabled a bomber to be flown on a straight, level course, giving the bombardier a steady platform on which to operate the bombsight during the bombing run. Also known as the ‘Blue Ox’ the Norden could quickly calculate and correct directional changes due to wind drift. Flying at a preset altitude, it could rapidly compute the correct bomb release angle for a constant speed of closure to the aiming point. Under optimal conditions on an undisturbed run, the accuracy of the device was excellent. However, any last second changes in the altitude of the bomber, such as those encountered during battle, could markedly influence the accuracy of the sight.⁶

After the war ended, Pratt AAF began closing down in November 1945 and was officially deactivated on December 31. The site today is home to the Pratt Industrial Airport. At a visit in July 2008, extant WWII structures included two hangars, two hangar ruins, six storage or warehouse buildings, bombsight vaults, a parachute building, machine shop, warehouses and a tetrahedron wind cone. The parachute building was listed in the National Register of Historic Places in April 2009. Portions of the original runways are now occupied by a feedlot. The airport is also home to the B-29 All Veterans Memorial.⁷

Summary

The Norden Bombsight Storage Vaults at the Pratt Army Air Field are eligible for nomination under Criterion A as part of the “World War II-Era Aviation-Related Resources of Kansas” multiple property nomination as an example of the *storage building* property type. They serve to show how the US Military secured equipment classified as secret during World War II. The use of Norden Bombsights was an integral part of World War II army airfields, and these buildings are significant under Criterion A as an important remnant of the war.

⁶ Charles D. Bright, *Historical Dictionary of the U.S. Air Force* (New York: Greenwood Press, 1992), as quoted by the National Park Service website “Aviation: From Sand Dunes to Sonic Booms, A National Register of Historic Places Travel Itinerary” accessed 4 January 2012 < <http://www.nps.gov/nr/travel/aviation/sec.htm>>.

⁷ E-36.

9. Major Bibliographical References

Bright, Charles D., ed. *Historical Dictionary of the U.S. Air Force*. New York: Greenwood Press, 1992.

Ford, Susan Jezak. "Survey Report of World War II Air Bases in Kansas" Topeka: Kansas Department of Transportation, 2008. Filed at the Kansas Historical Society, Cultural Resources Division, Topeka, KS.

Ford, Susan Jezak. "World War II-Era Aviation-Related Resources of Kansas" National Register Multiple Property Documentation Form. Topeka: Kansas Historical Society, 2008.

Giannangelo, Dortha. *Pratt Army Air Field: World War II 1943-1945* Publisher Unknown. 2002. Copy is on file at KSHS Cultural Resources Division.

McCaffery, Linda. *The History of the B-29 Superfortress*. Pratt, KS: Pratt County Historical Museum, 2008. Accessed online 4 January 2012 at: <http://paaf.indexks.com/eng/Our-Collections/Documents/The-History-of-the-B-29-Superfortress>

Miller, Greg. "Second-Generation Norden Bombsight Vault" National Register of Historic Places nomination. Lincoln: Nebraska State Historical Society, 1993. Accessed online 4 January 2012 at: <http://www.nebraskahistory.org/histpres/nebraska/redwilow.htm#mccook>

No Author. "The Battle of Kansas." *Kansas Historical Quarterly* 13 (November 1945): 481-485. Also accessed at: <http://www.kshs.org/p/kansas-historical-quarterly-the-battle-of-kansas/13005>

Schultz, Phillip. "Parachute Building" National Register of Historic Places nomination. Topeka: Kansas Historical Society, 2009.

Thole, Lou. *Forgotten Fields of America: World War II Bases and Training Then and Now* Volume II. Missoula, MT: Pictorial Histories Publishing Co., 1996.

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 # _____

Primary location of additional data:

State Historic Preservation Office

Other State agency

Federal agency

Local government

University

Other

Name of repository: **Kansas Historical Society**

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

10. Geographical Data

Acreage of Property Less than one acre
(Do not include previously listed resource acreage)

UTM References

(Place additional UTM references on a continuation sheet)

NAD 27

1	<u> 14 </u>	<u> 522720 </u>	<u> 4172790 </u>	3	<u> </u>	<u> </u>	<u> </u>
	Zone	Easting	Northing		Zone	Easting	Northing

2 _____
Zone Easting Northing

4 _____
Zone Easting Northing

Verbal Boundary Description (describe the boundaries of the property)

The tract is the North 50' by 175' of Lot Twenty-four (24) of the Pratt Airport Industrial Park, City of Pratt, State of Kansas, .20 acres.

Boundary Justification (explain why the boundaries were selected)

The nominated property includes the two concrete buildings that comprise the Norden Bombsight Storage Vaults and the .20 acres noted in the Verbal Boundary Description. This nomination does not include any airport authority property beyond this .20 acres.

11. Form Prepared By

name/title David R. Stitt
organization _____ Date November 15, 2011
street & number 119 S Taylor Telephone 650-678-3506
city or town Pratt state KS zip code 67124
e-mail prattb29armyairfield@gmail.com

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- **Continuation Sheets**
- **Additional items:** (Historic images, maps, etc.)

Photographs:

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

Name of Property: Norden Bombsight Storage Vaults -- PAAF
City or Vicinity: Pratt
County/State: Pratt County, KS
Photographer: Sarah Martin
Date of Photos: December 2, 2008

Description of Photograph(s) and number:

- 1 of 8 Smaller L-shaped vault building, showing north elevation (with doors) and west elevation, facing SE
- 2 of 8 Smaller L-shaped vault building, showing south elevation (rear), facing N
- 3 of 8 Smaller L-shaped vault building, showing south elevation (rear) and west elevation, facing NE

- 4 of 8 Overall view of two vault buildings, facing E
- 5 of 8 Rectangular vault building, showing west (side) elevation and south (rear) elevation, facing E
- 6 of 8 Rectangular vault building, showing north elevation (with doors), facing SW
- 7 of 8 Smaller L-shaped vault building, showing west vault, facing SW
- 8 of 8 Overall view of two vault buildings, facing N

Property Owner:

(complete this item at the request of the SHPO or FPO)

name Pratt Airport Authority. Attn: Reid Bell

street & number PO Box 867 / 40131 Barker Ave telephone 620 672 7571

city or town Pratt state KS zip code 67124

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 18 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.

Images: Norden Bombsight Vaults, Pratt Army Air Field – 2008.

