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tis form is for use in nominating or requesting determinations for individual proper ational Register of Historic Places Registration Form (National Register Bulletin entering the information requested. If an item does not apply to the property bei chitectural classification, materials, and areas of significance, enter only categori tries and narrative items on continuation sheets (NPS Form 10-900a). Use a typ	rties and districts. See instructio 16A). Complete each item by ma ng documented, enter "N/A" for " ies and subcategories from the in cewriter, word processor, or comp	ns in How to Complete the A rking "x" in the appropriate box or not applicable." For functions, structions). Place additional buter, to complete all items.
Name of Property		
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ther names/site number Paul Baer Municipal Airport; 003	3-286-01001	
Location		
reet & number 426 W. Ludwig Road; Please see contin	uation sheet.	I/A 🗍 not for publication
tv or town Fort Wayne	N	I/A Dvicinity
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Smith Field

Name of Property

5. Classification

Ownership of Property

(Check as many boxes as apply) (Check only one box)

- D private
- X public-local
- public-state
- public-Federal
- building(s)
 district
 site
 structure

Category of Property

☐ object

Allen Co., IN County and State

Number of Resou (Do not include previous	Irces within Property by listed resources in the count	.)
Contributing	Noncontributing	
4	8	buildings
2	0	sites
7	1	structures
0	0	_ objects
13	9	Total

Name of related multiple property listing

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

N/A

6. Function or Use

Historic Functions

(Enter categories from instructions)

TRANSPORTATION/air-related	
RECREATION AND CULTURE/sports facility	_
EDUCATION/school	
DEFENSE/air facility	
INDUSTRY/manufacturing facility	
TRANSPORTATION/rail-related	-

Number of contributing resources previously listed in the National Register

0

Current Functions

(Enter categories from instructions)

TRANSPORTATION/air-related

RECREATION AND CULTURE/sports facility EDUCATION/school AGRICULTURE/agricultural field

COMMERCE

7. Description

Architectural Classification (Enter categories from instructions)

OTHER: Aircraft Hangar

OTHER: T-hangar	
OTHER: Carousel Hangar	

Materials

(Enter categories from instructions)

foundation	CONCRETE
walls	Steel
	BRICK
roof	Steel
other	ASPHALT
	EARTH
	CONCRETE

Narrative Description

(Describe the historic and current condition of the property on one or more sheets.)

Name of Property

8. Statement of Significance

Applicable National Register Criteria

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

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 of age or achieved significant within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

(Cite the books articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous doo	umentation	on file (!	NPS):	
preliminar	determinatio	on if indiv	vidual listing	(36

_	hiem	1 111 16	ary u	CICITI	nnau		11.14
	CFR	67)	has	been	requ	leste	d

- 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
 #_____

Allen Co., IN

County and State

Areas of significance

(Enter categories from instructions)

TRANSPORTATION

ARCHITECTURE ENGINEERING MILITARY EDUCATION ENTERTAINMENT/RECREATION

Period of Significance

1919—C.1952

Significant Dates

1919			
1925		 	
1944			

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

A.K. Hofer Walter d'Arcy Ryan

Primary location of additional data:

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

Name of repository:

ARCH, Inc., Allen Co.-Fort Wayne Historical Society

10. Geographical Data

Acreage of Property approx. 220 acres

UTM References

(Place additional UTM references on a continuation sheet.)



Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

3 1 6	6 5 5 6 2 0	4 5 5 5 7 2 0
Zone	Easting	Northing
4 1 6	6 5 4 4 8 0	4 5 5 5 6 6 0

See continuation sheet

11. Form Prepared By	
name/title William J. Decker	
organization N/A	date August 12, 2002
street & number 4306 Drury Lane	telephone260-456-8694
city or town Fort Wayne	stateIN zip code46807
Additional Documentation	

Submit the following items with the completed form:

Continuation Sheets

Maps

A USGS map (7.5 0r 15 minute series) indicating the property's location.

A Sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional items

(Check with the SHPO or FPO for any additional items)

Property Owner

city or town

(Complete this item at the request of SHPO or FPO.)

Fort Wavne

name Fort Wayne-Allen County Airport Authority

street & number 3801 W. Ferguson Rd., Ste. 209 t

telephone ______260-747-4146

zip code 46809-3194

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 listings. Response to this request is required to obtain a benefit in accordance to the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.)

state

IN

Estimated Burden Statement: Public reporting burden for this is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

Allen Co., IN

County and State

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

2 & 5 Section Page 1 Smith Field

Allen Co., IN

Section 2, Location:

Roughly bounded by Cook Road on the north, a fence line approximately 300 feet west of the end of Runway 5/23 on the west, Ludwig Road on the south, and the abandoned railroad right-of-way on the east.

Section 5, Classification:

Number of Resources on Property: 22

Contributing Resources: 13

Buildings (Contributing)

- 1. Hangar 2/A
- 2. Hangar B
- 3. Hangar H
- 4. Hangar I

Noncontributing Resources: 9

Buildings (Non-contributing)

1. Metal Hangar (Ludwig Road)

1. (5) Taxiway #2

- 2. Office/Terminal Building
- 3. Shed
- 4. Hangar C
- 5. Hangar D
- 6. Hangar E
- 7. Hangar F
- 8. Hangar G

Sites (Contributing)

- 1. (9) Freight Platform Ruins
- 2. (10) Tie-Down Area

Structures (Contributing)

- 1. (11) Runway 5/23 2. (12) Runway 18/36
- 3. (13) Runway 13/31
- 4. (14) Taxiway #1
- 5. (15) Access Road
- 6. (16) Parking Apron
- 7. (17) Beacon Tower

Structures (Non-contributing)

Please Note: Contributing and non-contributing structures were counted as individual resources with respect to their distinct functions, even though they may be physically attached/joined.

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

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Smith	Field		

Allen Co., IN

Section 7, Narrative Description

Introduction

Fort Wayne is located in northeast Indiana, approximately 65 miles from the Michigan border and 15 miles from Ohio. Smith Field occupies approximately 220 acres of high ground four miles north of the downtown area.

The airport, largely unchanged since before World War II, gives the observer an impression of a 1920s/1930s airfield. Open vistas, runways, taxiways, aprons, and airfield lighting and drainage structures characterize the airfield portion of the property. The service-oriented sections of the property are located primarily near the east and north property lines. The southeast corner of the property contains parking lots, the 1978 office/terminal building, a storage shed, the 1930 Hangar #2 (labeled Hangar "A"), a service road, the ruins of a railroad freight loading platform, the 1966 Carousel Hangar (Hangar "C"), and a metal T-hangar with three bays (labeled "B"). There is a fueling facility adjacent to the apron near the office/terminal building. A series of four T-hangars ("D," "E," "F," and "G") and the historic tie-down site are located north of the terminal area. Two additional contributing T-hangars are located on the north side of the airport ("H" and "I"), near Cook Road. An additional noncontributing metal hangar is located on the south side of the airport, near Ludwig Road (see sketch map).

A mix of neighborhoods, offices, light industrial facilities, and retail establishments surrounds the airport. Directly south of the field is the "Ludwig Park" neighborhood, which dates to the 1950s through the 1970s. To the east is a stand of trees that shields a neighborhood and high school from the airport. North of the field stand offices and light industrial plants, including a sawmill which has operated for many years in the Cook Road area. The area west of the field is utilized for retail stores and business offices with direct access to a primary road (Lima Road/State Route 3). Despite commercial pressures, one house continues to stand adjacent to the southwest side of the airfield on Ludwig Road. Sporadically since 1950, and consistently since 1974, the traditionally grass areas surrounding the runways have been utilized to grow soybean and other low-height crops. The Fort Wayne—Allen County Airport Authority, which manages Smith Field, also leases similar sections of the Fort Wayne International Airport for agricultural purposes (see photos 1, 2, 4, and 5).

Airfield Structures

Smith Field possesses seven structures (three runways, one taxiway, a beacon tower, parking apron, and an access road) and two sites (railroad freight platform ruins and the tie-down site) which contribute to its historical significance. Listing of runways as historic structures is supported by the 1998 National Register listing of the Albany Municipal Airport in Albany, Oregon. In that application, a section of an abandoned runway (developed in 1929) is listed as a contributing structure.

Airfield—Runways (3 Contributing Structures: Runways 5/23, 13/31, 18/36)

This property, known at the time as Pennell Field, was utilized by barnstormers in 1919 or before. 1 The "Journal of the Common Council," (City of Fort Wayne October 14, 1919) printed a communication referring to this field as, "a four-way' landing field—planes can light from any direction; there are no buildings, telephone wires, or

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

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Smith Field			 Allen	Co.,	IN

other obstructions that will interfere with the start or forced landing of any plane. The field is well tiled and drained and planes can land or start after a rain on account of drainage and character of soil." Other advantages of the field also ensured that the property would become a recognized asset for aviation in the region, including: ease of access to four roads (two of which were major roads of the day), the New York Central railroad running directly to the site, an "interurban" trolley line within a short walk from the field, and the lack of residential development near the site.

The field was purchased by the City of Fort Wayne in 1925. On June 25 of that year, the Paul Baer Municipal Airport was dedicated as Fort Wayne's primary airport. On August 4, the Fort Wayne City Council appropriated \$600 to grade the field so it would be suitable for an air-circus later that month. ² It was a necessary improvement. Airfields of the period needed round areas centered on the property, similar to a large pitching mound on a baseball field. These gentle grades were essential in slowing aircraft for safe landings prior to the inclusion of brake systems in planes of the 1930s and 1940s (see photo 3). Thus, a small hill, which currently exists at the intersection of the two active runways, was likely graded into the middle of the field (in accordance with A. K. Hofer's—the airport's civil engineer—plans) at that time. ³

In 1927-28, the community made a substantial investment in improvements at the facility after passing a \$100,000 bond. 4 The overall airfield design and the layout of the runway and taxiway structures was formally established in this period. Smith Field retains much of this late 1920s design today. The airfield had four runways that allowed aircraft to take off and land in any of eight directions (50°, 90°, 130°, 180°, 230°, 270°, 310°, and 360°). 5 Most important airfields of the 1920s had runways that either crossed or formed a triangular pattern. This type of airfield development provided a critical safety factor for operating aircraft of the era, which typically approached a runway and touched down at up to 50 miles per hour without benefit of nose-wheels or brakes. These relatively slow speeds made landing across the direction of the wind very difficult and unsafe. The Smith Field design allowed aircraft to land with no more than a 25° crosswind, a situation that helped pilots avoid being pushed off the runway by the wind. Even as aircraft designs became more technologically sophisticated, it remains preferable to perform landings and takeoffs into the wind.

<u>Current Runway/Taxiway Configuration:</u> Runway 5/23 (northeast to southwest) is a 100-foot-wide by 3,200foot asphalt-over-concrete structure graded in such a way as to provide a hill that is shared with Runway 13/31 at roughly the middle of each runway. Runway 13/31 (northwest to southeast) has dimensions of 100 feet (width) by 3,200 feet (length). The shared hill is approximately centered along its length at the point where it crosses Runway 5/23. Runway 18/36 (north-south) is located in the eastern portion of the field and measures 100 feet wide by 2,200 feet long. It is also an asphalt-over-concrete structure. Unlike Runways 5/23 and 13/31, Runway 18/36 does not have a "hill" graded into its center; as a matter of fact, 18/36 is relatively level. Runways 5/23 and 13/31 are currently in use, forming an "X" pattern from southeast to northwest and from southwest to northeast. The deactivated north-south runway (18/36) connects the two active runways near their eastern thresholds.

Evolution of Runways: The four original grass runways were widened and paved between 1930 and 1937 by the City of Fort Wayne, the Civil Works Administration (C.W.A.), the Works Progress Administration (W.P.A.),

NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

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Smith Field			Allen Co., IN

and other D'epression-era agencies. ₆ Until the standardized runway marking system was adopted at Smith Field after 1966, runways on the field were also known as Runways "#1," "#2," "#3," and "#4."

The south-central portion of the airfield was originally developed as a large parking lot to enable the public to observe aircraft operations. The parking lot was also used extensively during air shows, and seating was provided for spectators in this area. A 1949 aerial photo does not show any remnants of the parking lot.

As aircraft design improved, there was no longer a need to maintain all four of the runways. Runway 9/27 (eastwest) was 100 feet wide and also shared the hill at the midfield elevation with Runways 5/23 and 13/31. It was deactivated in 1955 and later completely demolished. In addition, Runway 18/36 was closed after 1973 and currently serves as a parking area only during periods of peak airport use.

<u>Airfield—Taxiways and Parking Apron</u> (2 Contributing Structures: Taxiway #1 and Parking Apron) (1 Noncontributing Structure: Taxiway #2) (Photos 1,5 and 12)

The airfield retains paved taxiways adjacent to the east and south hangars and a grass taxiway to the north hangars. "Taxiway #1" is a 50-foot-wide, asphalt-over-concrete structure extending approximately 2,600 feet to connect the east ends of Runways 5/23 and 13/31. Paving of the far south 800 feet of the north-south taxiway, historically referred to as "Taxiway #1," and the parking apron near Hangar #2 ("A") was completed in 1930.

The apron forms a "U" shape on the south, west and north sides of Hangar #2 ("A"). (See Attachment B.2). Located 30 feet northwest of Hangar #2, the apron was built around an underground system of tanks and pumps used for aircraft fueling. This pump system, built by S.F. Bowser & Company of Fort Wayne, is thought to have been the first such installation at an airport in the United States. Bowser was a leader in fuel delivery systems and is credited with the invention of the first self-measuring fuel pumps. A new fueling facility was later built at a location approximately 400 feet south of this site, near the Office/Terminal Building.

Utilizing the first section of paved taxiway and the north edge of the apron, aircraft were provided access to a tie-down site north of Hangar #2 ("A"). Paving of the entire length of the taxiway was complete by 1936.

Shown in the 1930 airport plan, "Taxiway #2" (noncontributing structure) was to have connected the south ends of Runways 5/23 and 13/31 and the center of the field. If this taxiway existed in the early period of airport development, it is likely that it was only as mowed grass and was never paved or specially graded. It does not appear on a 1936 drawing of airport facilities, nor a 1937 aerial photo. In c.1968, a small section of taxiway was paved from south end of Runway 13/31 to a modern hangar located on Ludwig Road. The location of this taxiway may, or may not, be related to the 1930 airport plan. Thus, no structure exists from the historic period of field development and little documentation is available showing the site being used as a taxiway until 1968.

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Airfield—Historic Tie-Down Area (1 Contributing Site) (Photo #9)

In an area bounded on the south by the concrete apron directly north of Hangar "2/A," to the west by Taxiway "#1," to the north by Hangar "D," and to the east by the north extension of the historic access drive, an area was graded, seeded, and maintained for the purpose of parking aircraft and tying them down. This process involved the sinking of stakes (often spiral-shaped) into the ground and attaching aircraft to them by running ropes from fittings on wings and tail to the stakes. This procedure prevented aircraft from being blown into each other or flipping over in the event of high winds. Because the large hangars at airports prior to World War II were usually utilized for maintenance and not storage, large outdoor tie-down sites were a necessity. Even with the construction of numerous T-hangars after World War II, transient aircraft continued to need a tie-down location. The tie-down area was still in use until Runway 18/36 was closed and utilized for aircraft parking after 1976. Once Runway 18/36 was converted for this use, the tie-down area simply survived as a mowed field. The grading and general appearance of this site has not changed markedly since before World War II.

<u>Airfield—Beacon Tower</u> (Contributing Structure) (Photos 23, 10, 11) (Historic Photo 39)

The beacon tower was built in 1928 as part of the lighting improvements designed by Walter d'Arcy Ryan of General Electric.⁷ It is a standard 82-foot-tall, steel airway tower with open construction increasing in dimension from the top of the tower, much like that of an oversized windmill tower. At the base of the tower, four steel brackets are attached to concrete piers, forming a 13-foot square. A 24-inch revolving beacon was mounted at the top to indicate the location of the airport. A braced steel arm extends near the top of the tower. Originally, a windsock was mounted on this arm; today, it supports a security light. This change was likely made due to the difficulty associated with replacing the windsock fabric. 8

The tower was originally located very close to the southeast corner of the property, near Ludwig Road. It was moved directly north to its current location sometime between 1976 and 1989, presumably because its original location was quite close to the flight path of Runway 13/31. In its current location, the tower retains an orientation to the airfield and railroad right-of-way that is similar to its original orientation.

The Smith Field beacon tower is a taller version of both a 1929 beacon tower located at Albany Municipal Airport in Albany, Oregon, and a 1930 beacon tower located at Idaho Falls, Idaho. Like Smith Field's tower, the Albany tower was moved from its original location to a more suitable site on its field. It was listed on the National Register in 1998. The Idaho Falls tower (deactivated in 1995) was listed in 1997 as part of the Idaho Falls Airport Historic District.

Airfield—Access Road and Railroad Freight Platform Structure

(1 Contributing Structure) (1 Contributing Site) (Historic Aerial Photo 43)

The New York Central Railroad line (now abandoned), located along the eastern boundary of the property, was an important element in the design of the facility. The airport's location adjacent to a rail line was a rare feature for an American airport, and allowed convenient transportation of materials and goods to the airport site. A rail

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siding was installed for airport use in 1928 and was still shown in use in a 1955 aerial photograph. 9 In 1959, the side track was removed.

In 1930, Wade Amspaugh Construction built a 16 foot wide by 480 foot long concrete roadway from Ludwig Road (on the southeast corner of the field) to north of Hangar "2/A." Prior to a 1937 aerial photo, a railroad freight platform was connected to this roadway, providing easier freight loading and unloading on the rail siding. While the roadway still exists in its original configuration (with the exception of being covered by a layer of asphalt), the freight platform is in runs. The runs consist of a short wall 25 inches tall by 66 feet long (possibly as long as 90 feet long originally, but a section on the south end has been demolished) attached to the east side of the historic roadway, and a concrete slab measuring 12 feet wide by 90 feet long, running directly east of the short wall. It is likely that the concrete wall supported a wooden deck that allowed level loading and unloading of 40-foot boxcars. The length of the structure would have allowed two boxcars to be loaded or unloaded at the same time (see photos 6, 7, and 8).

Buildings

Contributing Buildings

Four hangars contribute to the field's significance. These structures depict the evolution of the field from its original role as a large commercial and general aviation facility to one intended primarily for general aviation. They provide examples of early large hangar design and private aircraft storage facilities. They also showcase the evolution of the T-hangar from a pre-World War II design to the style commonly in use today. In addition, the Carousel Hangar is a prototype of an innovative 1960s design. Eight additional non-contributing buildings were either built after the historical period at Smith Field, or may not retain historic integrity.

Hangar #2 (Also known as Hangar "A") (1 Contributing Building)

(Photos 12-20) (Historic Photos 41-43, 45, 47, 50, 51, 53-56)

By 1930, there were only six municipal airports in the state of Indiana; thus, the success of commercial aviation was far from assured. 10 Nonetheless, the City of Fort Wayne spent \$55,000 to erect the second, and largest, hangar built at Smith Field. 11 This substantial and impressive structure, dedicated August 22-23, 1930, was built with economic development in mind. The City of Fort Wayne hoped that Hangar #2—complete with pilot quarters, a water system, central heat, and fire protection—would attract both airmail and commercial air services. This project was successful, as an airmail service was inaugurated on December 6, 1930, and was closely followed by TWA passenger service that began May 1, 1931. 12

Hangar #2 ("A") was designed by Macomber Steel Company of Canton, Ohio, and airport engineer A. K. Hofer of Fort Wayne. Local contractor Michael Kinder & Sons built the structure with specialty steel provided by the Massillon Structural Steel Company of Massillon, Ohio. Hangar #2 is a steel and masonry building 110 feet by 140 feet in size, which combines a 110-foot-by-120 foot aircraft storage bay on the west end of the structure with a 110 foot by 20 foot two-story maintenance, housing, office, and training area on the east end.

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The large Truscon Steel Company doors on three sides of the hangar are an unusual feature of the structure. According to the local newspapers of the period, the completely fireproof hangar was the first in the United States to be designed with doors on three sides (north, south, and west). The main doors on the west side were designed to allow an opening 106 feet wide by 20 feet tall. This was large enough to house any aircraft being made in the United States at that time. The side doors admit smaller aircraft, allowing an opening 50 feet wide by 14 feet tall. A rounded roof over the hangar bay is supported by Massillon Steel trusses. On the exterior, the east end of the building is lower, with a flat roof. Massive piers of glazed brick support the west end of the building, while the two-story east end of the building has matching brick walls. The wall area above the doors at the west end of the building is covered with stucco, as are the narrow portions of wall above the doors on the north and south sides. The north, west, and south walls of the hangar area are composed of significant amounts of glass. Rows of windows are placed above huge, glazed sliding doors on the north and south sides. The west end of the building has full-height, accordion-style, glazed doors that were designed to roll completely clear of the door opening.

The east end of Hangar #2 has many large sets of steel casement windows, as well as being equipped with service doors and overhead doors. A set of double doors is located in the center of the second floor in the east wall. A steel fire escape allows for emergency exit from the second floor. On the interior of the structure, the two-story section is capable of being sealed from the hangar space by steel fire doors that slide on overhead tracks. The interior wall also includes sets of steel casement windows. Concrete floors throughout add to the fire resistance of the structure, which was lauded at that time as, "...one of the most modern aircraft shelters in Indiana." 13

T-Hangars-Introduction (7 Total, 3 Contributing)

T-hangars are low, rectangular, utilitarian structures that are much longer than they are wide. These buildings are called T-hangars because the interior plan forms a series of interlocking T-shaped areas that serve as individual private hangars, based on the T-shape of a small airplane (see Attachment "G"). T-hangars generally have gabled roofs. The T-hangars at Smith Field are steel-frame in construction (except Hangar "G," which has a wooden frame), with roofs, interior, and exterior walls of galvanized, corrugated steel. All have now been painted, although they were left unpainted for many years after their construction. The buildings rest on poured concrete foundations, and floors vary from poured concrete to dirt and gravel. The buildings have doors on both sides that roll on overhead tracks—similar to barn doors—or swing upward, much like older automobile garage doors.

While the inventor of the T-hangar concept is not known, historic accounts of "T-shaped" hangars appear in aviation histories dating to the early 1920s. These early structures were often constructed as temporary shelters on small private fields. After World War II, they became common on public fields, which were attempting to encourage owners of smaller general aviation aircraft to base their operations at publicly owned facilities. The T-hangars of Smith Field were constructed between 1946 and 1979; however, these hangars demonstrate only subtle changes in T-hangar design through the period. Taken as a whole, they demonstrate not only refinements

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in hangar design, but also, the increase in size of many general aviation aircraft over that same period. The narrowest (earliest) hangars on the field are only $27\frac{1}{2}$ feet deep, while the widest and newest hangar is 53 feet deep. Doors vary from the early sliding style to the more recent overhead folding doors, with a number of evolutional variants still in use.

T-Hangar "B" (1 Contributing Building) (Photos 21, 22, and 23)

A rectangular metal T-hangar ("B") measuring 27¹/₂ feet by 85 feet is located immediately north of Hangar #2 ("A"), parallel with the railroad right-of-way. This simple structure has a gabled roof of steel, and metal walls that rest on a concrete foundation. The east side of the structure has two large metal boxes protruding from the plane of the wall. These were likely intended to provide additional room for the tails of stored aircraft. The doors swing up and down (as older home garage doors) in order to provide access to bays for aircraft. This building was constructed in 1946 by Consolidated Aircraft Repair Company and is visible on a 1949 aerial photo of the property. The building has not been significantly altered since its construction.

T-Hangars "H" and "I" (2 Contributing Buildings) (Photos 26, 27, and 28)

A set of two identical six-plane T-hangars is located at the north edge of the airfield, with a gate providing to access to these hangars from Cook Road. These 27¹/₂-foot-by-140-foot T-hangars were built in 1946 by Consolidated Aircraft Repair Company and can be seen on a 1949 aerial photo of the property. During World War II, when Hangar #2 ("A") was used for defense purposes, the City of Fort Wayne commissioned an architect to design another large hangar similar to Hangar #2 ("A"). Unfortunately, the War Production Board would not give the City a "priority rating" in order to buy materials and procure labor for the project. Consequently, throughout the war, numerous private corporations and individuals requested permission to build private hangars on Cook Road and north of Hangar #2 ("A"). Hangars "H" and "I" match the aforementioned general description of T-hangars, with the additional feature of steel frames at each end of the building that allow the sliding doors to extend 11 feet beyond the building's corners. Few T-hangars built after the World War II period possess these door support structures. Thus, it is likely that the plans followed were of pre-war design. The three earliest T-hangars ("B," "H" and "I") illustrate private investment in Smith Field just after World War II, made with the goal of promoting general aviation at the facility. Neither hangar has been significantly altered since their construction.

Noncontributing Buildings

T-Hangar "D" (1 Noncontributing Building) (Photo 31)

The southernmost, of the group of four hangars on the east side of the field, ("D") is a noncontributing structure built in 1978 by Charles Seyfert, founder of Seyfert Potato Chip Company. It has all-steel construction, a concrete foundation, and doors that lift overhead rather than sliding on tracks. It measures 53 feet by 180 feet and is capable of housing small twin-engine aircraft. The shape, materials, and mass of this hangar are compatible with the older T-hangars.

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T-Hangars "E," "F," and "G" (3 Noncontributing Buildings) (Photos 24, 25, & 32)

By 1956, Runway 9/27 (east-west runway) was no longer active, and four T-hangars were built between 1960 and 1978 at the far east end of the deactivated strip. The three hangars on the north end of this group ("E," "F," and "G") are of similar construction.

Hangar "E" is an all-metal hangar on a concrete foundation located second from the south end of the set of four T-hangars. It was built in 1960 by Consolidated Aviation Repair Company. Access for aircraft is provided via six (three on each side) rolling doors. It is 190 feet long by 30 feet deep/wide.

Hangar "F" is an all-metal hangar resting on a concrete foundation sitting third from the south end of the set of four T-hangars. It was constructed in 1964 by William Hatfield of Columbia City, Indiana. It has lift-doors as opposed to the six rolling doors on Hangar "E." The hangar measures 180 feet long by 30 feet deep/wide. The primary difference between T-hangars "E" and "F" and the earlier T-hangars ("B," "H," and "I") is that "E" and "F" are somewhat deeper (both 30 feet deep/wide) and allow greater space for the increased size of more modern aircraft.

With its six rolling doors, the northernmost T-hangar on the east side of Smith Field ("G") generally matches "E" and "F," although it was not built until the summer of 1966. Built by William Hatfield, Hangar "G" differs from "E" and "F" in that it has wooden framing as opposed to steel, and it is only 27½ feet wide by 190 feet long. It does not sit on a concrete foundation. Instead, it is supported by wooden pilings connected directly to the wooden frame. Its width is consistent with the dimensions of the 1946 hangars ("B," "H," and "I").

Carousel Hangar (Hangar "C") (1 Noncontributing Building) (Photos 11, 29, 30) (Historic Photo 57)

The Carousel Hangar ("C") is located north of Hangar #2 ("A") and northwest of a metal T-hangar ("B"). Hangars "A," "B," and "C" form a courtyard around a section of the 1930 concrete apron, which was built in conjunction with "Taxiway #1." The Carousel Hangar has a round floor plan with a 35-foot radius and a conical roof. The structure has steel-frame construction that rests on a poured concrete foundation. The roof and walls are corrugated steel. Access to the hangar is provided by a pair of curved doors with metal wheels that ride on a bottom rail; a stationary slot cut into the top of the doors offers stability. On the west door, small block letters reading "ROTO MONO DOR," are centered above a large script logo reading "Carousel." The interior of the hangar has a gravel floor. A steel pole is centered within the structure, supporting a carousel mechanism that holds four suspended platforms on which aircraft are parked. (In appearance, the mechanism is reminiscent of a carnival carousel.) The carousel is simply rotated to align a particular aircraft with the opening of the building, and the aircraft is removed.

Still in use today, the design of the Carousel Hangar was patented in 1965 by Clark W. Smith of Decatur, Indiana. Mr. Smith built this prototype hangar in 1966, and it is the only example of this design ever built. The innovative design did not catch on when introduced, due to a reduced demand for hangar space at the time. Recently, Mr. Smith has been negotiating with an Ohio community to give his idea another chance. He procured a new patent that has two carousel mechanisms turning one inside the other. Aircraft on the inner wheel can be

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easily retrieved when rotated to align with an open space on the outer wheel. Thus, his new system can easily accommodate seven to ten aircraft. A structure built using this new patent is scheduled to be completed later this year. $_{14}$

Metal Hangar (RAN Hangar) (1 Noncontributing Building) (Photo 33)

A modern 58-foot-wide-by-63-foot deep hangar is located in the south-central section of the field, just north of Ludwig Road. It is a well-maintained steel hangar with a concrete foundation and a low gable roof, built for corporate aircraft by the RAN Aviation Company in 1968.

Office/Terminal Building (1 Noncontributing Building) (Photo 34)

A well-maintained steel office structure built in 1978 stands at the far southeast corner of the field. The rectangular 50-foot-by-60-foot building sits on a concrete foundation, has a low gable roof, entry doors on four sides, and windows on the north and west sides. An office, waiting area, restrooms, briefing room, and pilot training areas are housed inside the structure. A fueling equipment and parking area northwest of the office provide fueling services for both permanent and transient aircraft.

Shed (1 Noncontributing Building) (Photo 35)

A vinyl-sided shed, measuring 11-foot-by-25-foot with a concrete foundation, is located approximately 50 feet north and east of the Office/Terminal Building. The west side of the roof is flat and the east side slopes down from the center at approximately 20 degrees. Access is provided by a door on the south side.

Building Demolition

In 1978, the current office structure was constructed and the 1930s **Office/Terminal Building** was torn down. The original Office/Terminal was built during the 1930s, as a series of additions using WPA and other subsidized laborers. Generally "H-shaped," the building was built of wood frame construction with a gable roof. While generally attractive, it most closely resembled an inexpensive minimal traditional, single-story, wood-frame home of the 1930s. It contained a waiting room, offices, weather services, dining areas, restrooms and pilot training facilities. It also served as a community center, hosting airshows, serving commercial traffic needs, and even providing a warm fireplace for the ice skaters who used a small (temporary) pond near the facility in the winter.

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Directly north of the office/terminal, and prior to reaching "Hangar #2," was "**Hangar #1**." (Photos 38 and 50) This steel structure was built by Indiana Engineering Company in 1927-28, at a cost of \$10,950. It measured 140 feet long by 48 feet wide and was built as if it were six individual gable roofed buildings with large folding doors, built in two rows, back to back. On the top of the roof was painted "FORT WAYNE" and on the front was painted "FORT WAYNE MUNICIPAL AIRPORT." (Photo 50) Due to the complex plan and system of roof valleys and drainage, this structure was known for leaking, poor wiring, and almost impossible heating; however, it was in use until the early 1990s, when the airport was "modernized" and "Hangar #1" was demolished.

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Significant Dates

1919: Field Was Likely in Use by Aircraft and Was Considered for a Municipal Airport.

1923: First Aviation School Opens on Field.

1925: Field Purchased By City of Fort Wayne and Established as a Municipal Airport.

1928: First Runway Plans Drawn by A.K. Hofer, Significant Improvements to Field.

1930: Hangar #2 Completed, Airmail Service Begins.

1944: Use of Field in TDR-1 Program.

1966: Carousel Hangar Completed.

Section 8, Statement of Significance

Smith Field is significant under National Register **Criterion** A for its association with the history of air-related **transportation** in the Allen County, Indiana region. Having been northeastern Indiana's primary commercial aviation facility for 16 years (1931-1947), served as a municipal airport for 77 years (1925-2002) and provided a haven for aviators the past 83 years (1919-2002), the facility is an important link to the United States air transportation system. The district is significant for its contribution to aviation-related **education** in the region. Instruction has been offered at the field for the past 79 years, a record unsurpassed by any other airport in the region. The field has been important to the community for its contribution to **entertainment and recreation**. Not only does the sport of flying provide entertainment and recreation for the pilots and passengers; but, the field hosted numerous public airshows, model aircraft competitions, and local events as varied as hangar dances and ice skating. During World War II, the field provided weapons and supplies vital to U.S. **military** interests, including the first U.S. stand-off ("cruise") missiles.

The district is also significant under **Criterion C** for its **architectural** and **engineering** styles and innovation. Smith Field provides examples of hangar development over a period of 50 years. The airport runways and service structures also provide a record copy of American airport construction techniques of the 1920s and 1930s.

Transportation:

Smith Field is the only site in Fort Wayne or Allen County where aviation has occurred consistently from the barnstorming period. Its origins as an airfield can be traced to 1919. The Fort Wayne City Council was considering the establishment of an airfield in August of 1919, when a resolution was passed in order to secure options on possible airfield locations. Rousseau's Garden, also called Pennell Field, was inspected by three military aviators as a potential location. A recommendation for the site, dated October 12, 1919, is summarized in a letter from William Lane, naval aviator, "This land constitutes about 150 acres, high and well drained. It is about two miles from the city limits, easily reached by good roads, interurban and steam lines. The site itself is free from obstruction on all sides, making it a four-way landing field—that is to say, a machine can land safely from any direction." Notice that the aviator refers to the site as, "...a four way landing field." His use of present tense would suggest that aircraft were already using the field at the time of the inspection tour.

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It appears that the City of Fort Wayne had no plans to develop a field immediately, Lane's letter notes: "If Fort Wayne is looking for a site that will be logical five or ten years from now (1919), as it would when the field is first developed, certainly I would recommend the Rousseau Gardens location." ¹⁵ Thus, establishing a municipal airport was not strongly pursued in the early 1920s. It is likely that the Airmail Act of 1925 (called the Kelly Act after its sponsor Rep. Clyde Kelly) spurred city leaders to act. The title of the bill defined its purpose: "An act to encourage commercial aviation and to authorize the Postmaster General to contract for the mail service." ¹⁶ On February 27, 1925, Lt. Parker of Fort Benjamin Harrison (near Indianapolis) recommended that the city purchase Pennell Field. ¹⁷ On March 24, 1925, city approval was given to purchase "Rousseau's Truck Farm" for \$23,000. On June 9, Mayor Hosey signed an ordinance that authorized the first payment on the aviation field. The Fort Wayne Park Board was placed in charge of developing and maintaining the airfield at that time. ¹⁸

Because Arch Alspach had been using the field since 1923 for a flight training and aviation business, it is logical to assume that he (and those aviators before him) had significantly improved the field. 19 In fact, the airfield was immediately put into use following its purchase and on June 25, 1925, the site was dedicated as the Paul Baer Municipal Airport. The airport was named in honor of Fort Wayne native Paul Baer, the first American Ace of World War I. Baer earned this distinction by shooting down 16 German aircraft while flying for the Lafayette Escadrille, a famous French squadron. Since Baer was reluctant to participate in festivities that honored him, and did not attend the dedication of the airport, Captain Charles Nungesser (one of the top French Aces of World War I) attended the dedication and an accompanying parade as the guest of honor. Paul Baer was killed in a crash in 1930 while opening new airmail and passenger routes in southern China. 20

Prompted by the increasing use of the airfield, and perhaps accelerated by the celebrated success of pilot Charles Lindbergh in June 1927, the City of Fort Wayne began an extensive airport improvement program in that same year. In 1927 and 1928, the airfield and its facilities were transformed to create the pattern of development that can still be seen today. In the fall of 1927, the first hangar (torn down in the early 1990s) was built, and Fort Wayne's S.F. Bowser & Company installed an underground fueling system at the airport. Bowser was a leader and innovator in the gas pump manufacturing industry and this installation was the first system of its type at an airport. 21 The original terminal began as an unheated shelter house. Purchase of a stove was approved by the City in October 1927. 22 In February of 1928, a \$100,000 bond issue was approved for additional airport improvements. These funds provided for the establishment of the formal plan of runways and taxiways (still in use today), further grading of the field, installation of drainage, purchase of additional acreage, installation of a telephone, and construction of an extensive lighting system for the airfield by the General Electric Company. 23 This was among the earliest and most comprehensive lighting programs for an airfield in the United States. It was the first system that included a floodlight for the purpose of lighting the entire field. 24 With the facility established and development well underway, the Park Board was relieved of its duties in maintaining and operating the airport. The Fort Wayne Airport Commission was created, and began operating the field on June 1, 1929. (Historic Photos 38, 39, 40)

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It is apparent that the Airport Commission was immediately interested in further improvements to the airport facilities, even as the Great Depression was taking hold. It was soon decided that Hangar #1 was inadequate to attract commercial air services to Fort Wayne. A \$200,000 bond was approved on July 9, 1929, for the purpose of improving the field to a level that would earn it a governmental rating of A-1-A (the top rating available at the time—usually only bestowed on large cities with major airfields). These funds paid for a new office building, concrete pavement near the hangars, a radio room, a new water well, a restaurant, a weather office, limited runway paving (about 800 feet), and a new state-of-the-art aircraft hangar. ₂₅ Hangar #2 ("A") was built in 1930, and dedicated in August of that year, at a cost of approximately \$54,000. The hangar was a modern, substantial design similar to hangars at major airports in the east.

The new structure and ongoing improvements to the airfield provided a facility that attracted a commercial airmail carrier to Fort Wayne in December of 1930. In that era, airmail service was closely linked to commercial passenger service. The establishment of an airmail route led to passenger service provided by several airlines during the 1930s, including Transamerican, Capitol Airways, and Trans Continental and Western (TWA). This provided the first passenger and airline service in the northeast Indiana region. In 1932 alone, nearly 3,000 passengers were served at Paul Baer Municipal Airport. (Photos 41-45, 48-51)

In the 1930s, the airport also continued to serve general aviation needs. It was the home of early corporate aircraft, such as the "Yankee Clipper," a plane owned and operated by the Fort Wayne News-Sentinel for the purpose of promoting both the newspaper and aviation in the community. ₂₆

By 1935, it appeared that Smith Field would permanently lose commercial service. The U.S. government was attempting to wean the airlines away from the hefty subsidies they had paid for airmail routes. (Without subsidies, the routes that utilized Smith Field would have quickly become unprofitable.) The commercial aircraft flying the route was a Ford Tri-Motor, only capable of carrying 17 passengers at a speed of 122 miles-per-hour. Any addition of mail or freight (which was on every flight) would further limit the number of passengers and top speed of the aircraft. With such payload limitations and slow speed, subsidies were an absolute necessity.

Fortunately, the Douglas DC-3 was introduced in 1936. This aircraft could carry 21 passengers, additional freight, mail, and packages, and cruise at speeds exceeding 220 miles per hour. As such, the airlines had the first commercial aircraft capable of profitable operation without a governmental subsidy. In addition, the forward-looking design of the storage and maintenance hangar, Hangar #2 ("A"), easily accommodated the 95-foot wingspan of a DC-3, where many other airports were not ready to handle such a large aircraft. The DC-3 remained the standard commercial aircraft at the field until commercial service was moved in 1946-1947.

Largely due to the inauguration of the DC-3, passenger use of the airport continued to grow and flights were added. Not only were the aircraft used to move businessmen, freight, and mail from coast to coast far faster than rail service; they were also safer than previous aircraft. This increased the public acceptance of air transportation, and well prior to World War II, commercial airlines were replacing rail travel as the preferred mode of transportation for those who could afford a ticket. To this day, corporate DC-3s occasionally use the field for cargo and passenger services.

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Given the construction activities at the airport in the 1930s, the Depression provided a boost for local employment through building projects. Federal New Deal programs were used extensively to continue upgrading the airfield, runways, and taxiways. In 1933, the Commerce Department Aeronautics Branch and the Civil Works Administration (CWA) began a nationwide program of airport development. ₂₇ This allowed the CWA to assist the Airport Commission by providing 13,108 man-hours of labor in 1933 alone. Projects included: drainage, lighting, sodding, tree removal, improving the heating systems, improving parking areas, and creation of flowerbeds. By 1934, the airport had added concrete runways and aprons, and in 1935 and 1936, the Works Progress Administration (WPA) provided funding for more concrete pavement, lighting upgrades, and radio communication equipment. Baer Field was one of the largest WPA projects in Indiana. During this period, the airport received \$311,058.42 in improvements paid for by the CWA, the Federal Emergency Relief Agency, the WPA, and the Allen County Scrip Organization. ₂₈ By the onset of World War II, Paul Baer Municipal Airport was a well-developed facility, fully equipped to serve Fort Wayne's commercial and general aviation needs. (Interestingly, the first U.S. airport with paved runways did not open until 1925, and the first European airport similarly outfitted was not functional until 1936. Again, the planning of the Fort Wayne Municipal Airport appears to be decades ahead of much of the remainder of the aviation community.) (Photos 52, 54, 55, and 56)

World War II brought the United States Army to the airport, looking to modify Baer Field for use by the Army Air Corps. Fearing the loss of commercial access to Baer Field, City leaders declined; however, the City of Fort Wayne offered a large tract of land south of the city for development as an Army airfield. The Army accepted this offer and asked that the community offer suggestions for a name for the new airfield. The citizens of Fort Wayne supplied two names: "General Anthony Wayne Field," in honor of the Revolutionary War hero who built the first United States fort in Fort Wayne, or "Smith Field," celebrating Fort Wayne native Arthur "Art" Smith. Art Smith was an aviation pioneer who built his first airplane in 1910. He became famous in the years before World War I as a barnstormer and exhibition flyer. He traveled extensively throughout the United States, and even performed in Japan. Smith is credited with the invention of both the "loop-the-loop" maneuver and the art of skywriting. He trained pilots destined for combat during World War I. Art Smith was a pioneer of the United States Airmail Service. He was killed in a crash in 1926 while flying airmail in a heavy snowstorm. 29

The Army was accustomed to naming facilities after military aviators. A compromise plan was developed for removing Paul Baer's name from the existing municipal airport. The new airfield would be named Paul Baer Army Airfield, and the original municipal airfield renamed Smith Field. This plan did not, however, exclude Smith Field from a military role during World War II (see military heading).

Even though Hangar #2 ("A") had been taken over for top-secret military purposes, Smith Field continued as Fort Wayne's commercial and general aviation airport through World War II. Owing to the crowded conditions brought on by the "loss" of Hangar #2 ("A"), a newspaper reported that new hangar space would be built in 1944. 30 Unfortunately, the field did not rank high enough on the War Production Board's priority list to receive hangar materials. Thus, the plan for a City-owned hangar was scrapped.

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After the war, the Army airfield was given to the City of Fort Wayne and developed for commercial aviation. By 1947 most commercial carriers had moved their base of operations to Baer Field (the deactivated Army airfield). Thus, the question remained, what was the future of Smith Field? This had already been answered in 1944, when A. M. Strauss (Fort Wayne architect/engineer) began presenting alternative plans and surveying additional hangar lots for lease at Smith Field. This option would allow private investment to build hangars at Smith Field and promote its new role as the general aviation/reliever airport for Fort Wayne. By 1946, new T-hangars were built with private funds, and the population of general aviation aircraft based at the field increased. Smith's flight schools continued to operate and train pilots, promoting aviation within the community. The Smith Field facility continued to be developed and improved with new structures until 1979.

Architecture: (Buildings)

Smith Field is a rare example of an airfield and accompanying structures' that retain historic integrity from the pre-World War II era, while also providing examples of hangar development after the war. Covering a period of significance from 1919 to 1952, and representing a significant and distinguishable entity, the buildings of Smith Field provide record copies of significant innovations in hangar design from 1929 to 1966.

<u>Hangar #2</u> ("A") is an excellent example of a large hut-type hangar that has retained its integrity. Designed by A.K. Hofer and Macomber Steel Corporation, it was built in 1930. It included all the best features of the time for a hangar and was designed to accommodate many aircraft under a single roof. At the time of its dedication, the *News-Sentinel* boasted of it as "the most modern hangar in this part of the country." The structure used steel trusses that allowed a very large roof span. The building was light and airy, and had massive glazed doors that allowed the structure to be opened on three sides, a very unusual design that was touted as the first such hangar in the United States. Most hangars had one, or at most two, aircraft doors; this three-door design made it far easier to bring planes in and out of the hangar without disturbing other aircraft. The two-story section of the hangar included machine shops, pilot's lounge, training areas, offices, and a heating system. The heating system enabled pilots to avoid the hassle of having to drain the coolant out of their planes each night. Since, plane engines of the time were "water cooled," freezing was a concern.

The hangar was originally designed to have a one-story brick structure attached to the east side. This would have been capable of housing only the machine shops, heating system, and an office. After bidding out this plan, numerous individuals asked that the City of Fort Wayne be as forward-thinking with the brick shop area as they had been with the hangar itself. Consequently, the original bids were rejected, and the City of Fort Wayne asked the designers to reconfigure the brick structure so as to add a student training area/club meeting room and a pilot's lounge—similar to a nice hotel room of the period (photo 45). As such, the new plans for the building specified the current two-story structure, which is exceedingly large when compared to other hangars of the period. This building is the most substantial structure that was ever built at Smith Field. 31 Owing to the combination of its size, construction technique, door configuration, and two-story multiple-use brick attachment, the hangar is truly not comparable to any other hangar which has been found. It is similar in size, but not configuration, to hangars that were built at large eastern airports such as Floyd Bennett Field in New York City.

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A.K. Hofer, one of the designers of Hangar #2 and the engineer who designed the runway and taxiway system at Smith Field, was a Fort Wayne native. Graduating from Fort Wayne's Central High School and Indiana's Purdue University (earning honors in his field of Civil Engineering), he became one of the most important engineers in Fort Wayne. Hofer headed his own engineering firm and served as Fort Wayne's City Park Board Engineer from 1915 until the mid-1930s. After the airport was transferred to the Fort Wayne Airport Commission, Hofer also served as the Commission's engineer. During this period, he was responsible for the development plans of the following noteworthy Fort Wayne neighborhoods: Harrison Hill, Southwood Park, Lafayette Place, Forest Park, Kensington Park, and North Highlands. 32 These neighborhoods are known for their park-like beauty, and most are considered eligible for the National Register by the City of Fort Wayne, Division of Community Development.

The Massillon Bridge Company, which supplied the specialty steel for the project, was founded in 1869 by Joseph Davenport, the inventor of the cantilever bridge, railroad "cowcatcher," and locomotive cab. While the company is known as one of the largest iron/steel bridge builders in the Midwest, it is not well known for building aircraft hangars. By the late 1920s and early 1930s, it had merged with another business to become the Massillon Structural Steel Company. During this period, the company apparently provided structural steel hangar systems for several towns, including: Albany, N.Y.; Springfield, Mo.; Boonton, N.J.; Bridgeport, Conn.; Hartford, Conn.; Rochester, N.Y.; Utica, N.Y.; and Pawtucket, R.I. While some of these hangars may still exist, airport authorities in these areas appear to be uninformed as to the age and construction details of their hangars. Thus, the continued existence of any Massillon hangars other than Hangar #2 has not been confirmed. While all impressive structures, none of the hangars located in these cities were as wide as Fort Wayne's 110-foot trusses (Massillon typically produced 80-foot trusses as standard roof supports), nor did any have three doors. 33 One can speculate that as the construction of steel bridges waned after WWI and the Depression struck in 1929, the Massillon Structural Steel Company would have been extremely interested in breaking into new product lines such as aircraft hangars. The company ultimately closed in early 1950.

Truscon Steel Company, the builder of the hangar doors, was incorporated in the early 20th century in Youngstown, Ohio. The company manufactured specialty steel doors and other products, becoming a major consumer of steel manufactured by Republic Steel. The company was purchased in 1931 by Republic and continued to operate under the Truscon name until the early 1960s. 34

Hangar #2 ("A") is among a group of buildings that are increasingly rare. Very few hangars of this age have survived and it is the only surviving example of a large commercial pre-World War II hangar in north-eastern Indiana. In general appearance, it is similar to a smaller 1930 hangar located at Albany Municipal Airport in Albany, Oregon (listed on the National Register in 1998). It is also reminiscent of the 1934 Coast Guard Hangar, currently endangered, in the Winter Island National Register District (1994), near Salem, MA. The European Commission sponsors a cultural project called L'Europe de l'air, focusing on the aviation architecture of Europe and its preservation. A recent book sponsored by the organization states that aviation has created "some of the most innovative and costly architecture of the twentieth century. But this heritage is a fragile one. Its ancient monuments are at most eighty years old, but they are not often seen as part of a common cultural heritage, and are often under threat." Airport buildings that have been targeted for preservation in Europe by L'Europe de l'air date back only as early as the mid-1930s.

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<u>Contributing T-hangars "B," "H," and "I"</u>—while not as rare as Hangar # 2—are important to the development of Smith Field. They illustrate the change in the field's pre-World War II purpose as a commercial field, capable of housing the largest aircraft of the day, to its post-war status as a general aviation/corporate field housing numerous small, private aircraft. All three hangars do have elements that are becoming rare. Hangar "B" has the large box-like structures in the east wall, a design feature uncommon for such a hangar. Hangars "H" and "I" were apparently built to pre-World War II specifications and have exterior steel frame "door tracks" on each end, which were popular on hangars of the 1920s and 1930s. This door design fell out of favor shortly after World War II.

These hangars highlight the transition of the T-hangar concept from that of a relatively temporary structure (commonly found in a farmer's field) to a more permanent building used for long-term general aviation purposes. They are largely unchanged, except for paint, since their original construction.

<u>T-hangars "E," "F," and "G"</u>; appear very similar to the older hangars "B," "H," and "I." Only a trained observer, or a reviewer of the construction records, can determine that these hangars are newer than the 1946 hangars. They do, however, illustrate a more complete image of the evolution of the T-hangar and the field. Hangars "B," "H," and "I" are examples of the World War II-era T-hangars, complete with pre-war design elements. While T-hangars "E" and "F" indicate a further refinement of the T-hangar concept by the elimination of protruding structures and tracks as well as the incorporation of deeper and longer interior spaces to accommodate larger modern single-engine aircraft. Both "E" and "F" contribute to the character of the airport prior to the construction of the Carousel Hangar and represent the ongoing patterns in general aviation aircraft storage.

<u>The Carousel Hangar</u> continues the rich collection of hangar types and styles evident during the period of significance. The Carousel also represents significant innovation in hangar architecture and engineering. Clark W. Smith of Decatur, Indiana, patented the design of the Carousel Hangar in 1965. Mr. Smith built this prototype four-place hangar in 1966, and it is the only example of this design ever built. The innovative circular design was a bold departure from traditional aircraft hangars, with its steel center pole supporting a carousel mechanism that holds four aircraft. The carousel is rotated to align a particular aircraft with the opening, and the aircraft is removed. The carousel mechanism provides for the maximum use of space inside the hangar and prevents "hangar rash" (the damage to aircraft wings and body structures due to collision with the inside of the hangar or other aircraft). This one-of-a- kind hangar is significant in modern aviation architecture. As the only example of this patented design ever built, the Carousel Hangar is in danger of becoming extinct (see photo 57).

Mr. Clark, however, has kept the idea of the Carousel Hangar alive in a new patent. Housed in a less-expensive rectangular structure, he has designed a "Double Carousel." This design allows two carousel wheels (one inside the other) to move independently. By keeping a space on the outside wheel empty, the aircraft stored on the inside of the wheel can still be taken in and out without fear of damage to the aircraft supported on the outside wheel. This will allow the new hangar design to house 7 to 10 aircraft at a reduced cost per aircraft unit (when compared to the Smith Field Carousel Hangar).

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Hangar "G" provides an important contrasting structure to the Carousel Hangar ("C"). It was built during the same summer (1966) as the Carousel Hangar. As a matter of fact, the builders of the two hangars would often visit to discuss their respective projects. Hangar "G" shows an approach that some hangar designers were taking in the 1960s in order to reduce building costs; namely, the use of a wooden frame. With the advent of easily obtainable treated lumber, construction that placed wood in direct contact with well-drained soil became possible. This significantly reduced labor costs and utilized cheaper materials than the earlier T-hangars. On the other hand, the Carousel Hangar represented an approach favoring more expensive construction but long-term savings through efficient use of space. Lease payments on the property would be less per aircraft because more aircraft would fit in the same space. In addition, the risk of expensive repairs to aircraft wings and tail sections (which often bump traditional hangar walls while coming out or going into storage) would be reduced.

Engineering: (Airfield Design and Support)

The airfield plan and design and the beacon tower are products of 1920s aviation technology that have survived and been maintained to the present day. No other airports contemporary to Smith Field have been located which retain such a wealth of original historic features. Many established airports have lost their historic integrity; they have been updated and improved with such regularity that all historic features have been demolished or replaced. Other contemporaries of Smith Field have been demolished and redeveloped for non-aviation use.

Smith Field's runways and taxiways, as well as structures at the facility, embody those distinguishing characteristics of an architectural or engineering type and contain elements of design, detail, materials or craftsmanship which represent significant innovations. The airfield originally had four runways that provided for aircraft operations in any of eight directions. This allowed pilots to land safely with a maximum crosswind component of only 25°. Most important American and European airfields of the 1920s had runways that either crossed or formed a triangular pattern. This type of airfield plan was a critical safety factor for operating aircraft of the era. Because aircraft of the period typically approached a runway and touched down at less than 50 miles per hour, landing across the direction of the wind could be very difficult and unsafe. Formal runway design was not required when aircraft used an open, grassy field because the pilot simply aligned the aircraft with the wind direction. For improved (paved) runways to be practical, it was necessary to first develop airfield plans that provided flexibility for changing wind conditions. The Smith Field design combines the best of improved runway design with a "hill" feature that was common to airports of the 1910s and 1920s. The airfield design that was implemented in 1927 and 1928 is significant as an intact example of an elaborate plan that provided safe runways and taxiways for a variety of aircraft using the facility. Smith Field retains much of this 1928 design today. The plan that is still in evidence at Smith Field is an excellent example of this period in airfield design.

In addition, the historic concrete apron at the southeast corner of the field, the east-side tie-down area, and the southeast access road all represent supporting structures and sites planned to benefit the function of the airfield. As such, they represent some of the historic infrastructure not surviving in other fields of this period.

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A particularly unusual element of the design of Smith Field is that the site was immediately adjacent to a rail line. This line, while predominantly used for freight, was an important asset to the field. The construction of the freight platform allowed for easy transfer of items going both to and from the field. While commonly used for supplies, construction materials, and coal coming to the field; the platform was also used for shipping everything from parachutes to airplanes off the field. Smith Field is one of only a small number of American airports that was located to take advantage of convenient rail transportation. Most airports in the United States and Great Britain were located without regard for such potential assets, although many early airports in Germany did take advantage of rail service. The only American airport that made use of coordinated air-rail passenger service was in Columbus, Ohio. Among the American airports with nearby rail facilities similar to Smith Field are Cleveland, Detroit-Wayne County, and Washington National Airport. 35 In addition, an interurban trolley line operated ¹/₄ of a mile west of the airport and was considered an important consideration in picking the site for Smith Field.

An extensive lighting system was designed by Walter d'Arcy Ryan of General Electric in 1928 along the perimeter of the airfield. Lighting technology of the period did not allow precise lighting of runways; instead, a system of floodlights illuminated the entire airfield. Significantly, the airport was among the first in the United States to be lighted for nighttime use, with the goal of obtaining airmail service for the community.

Walter d'Arcy Ryan, designer of the field lighting, was director of General Electric's Illuminating Engineering Laboratory. In addition to his contributions to airfield lighting techniques, he is primarily remembered as the engineer who lit Niagara Falls with a 1,115,000,000 candlepower display in 1907, and for lighting the 1915 Panama-Pacific Exposition in San Francisco. Among other amazing feats of lighting at the Panama-Pacific, Ryan truly designed the "jewel" in his crown. After painstaking research, he ordered 130,000 Austrian glass jewels. He then mounted these on the "Tower of Jewels," a huge tower where powerful spotlights would make the maximum use of their refractive ability. When the tower was illuminated by the spotlights, with a capacity of 2,600,000,000 candlepower, the entire World's Fair was lit by Ryan's "fireless fireworks." ₃₆

The beacon tower, part of Ryan's design, remains as the oldest standing structure at Smith Field. The beacon tower is significant as an example of a unique engineering design representing an important innovation in airfield lighting technology. When this tower was installed in 1928, it was the latest technology for airfield lighting and identification. Only the most important airfields in the United States were lighted during this period. Most airports in the U.S. were simply closed at night or the runways (if they had runways) would be lit by coal-oil lanterns at the runway edge. At other airports during an emergency, a large fire would be lit in the middle of a field to allow limited field visibility. As such, the beacon and floodlight system at Smith Field were a welcome sight for visiting pilots.

The tower was the most identifiable part of the elaborate lighting system. It was used primarily to aid pilots in finding the airport. The field's lighting and the tower's windsock enabled pilots to see where they were landing and gauge airfield conditions. The importance of this structure is highlighted by letters from military and civilian pilots who were lost in dark or stormy weather. An example of such a letter was sent on February 17, 1930, from George J. Brew, Pilot for Lycoming Manufacturing Company. He was flying three Lycoming officials to Auburn, Indiana, when it became too dark to land at Auburn; thus, he turned to nearby Fort Wayne

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and landed without incident. His letter states, "I wonder if the town of Fort Wayne realizes the good that its lighted field, with flood light, beacon, and boundary lights, does for aviation as a whole. There is no question that our landing at night at Ft. Wayne saved us from either a serious or minor accident." ₃₇ It is likely that this tower is one of very few remnants of 1920s airport lighting systems that remain in the United States. Although the tower equipment has been updated through time and the location of the tower has changed slightly, the beacon still operates and the tower itself has not been significantly altered in appearance. The Smith Field beacon tower is similar to both the 1929 beacon tower located at Albany Municipal Airport in Albany, Oregon—listed on the National Register in 1998—and a 1930 beacon tower located at Idaho Falls, Idaho—listed on the National Register in 1997.

Military

In January of 1944, Hangar #2 ("A") was leased by the Aviation Packaging Company. ₃₈ This company had a contract with the U.S. Navy to assist with the production of the Interstate Aircraft TDR-1 Assault Drone, an unmanned twin-engine aircraft that could be crashed into enemy targets to deliver a 2,000-pound bomb. Smith Field was centrally located between three plants that manufactured the drones in DeKalb, Illinois; Grand Rapids, Michigan; and Jamestown, New York. As an added advantage, Hangar #2 was located adjacent to a rail line with a siding. The TDR-1's were flown by pilots into Smith Field, where the wings were disassembled, pilot controls removed, and the radio-control guidance system installed. The completed drones were then loaded into boxcars for shipment by rail. According to a member of STAG ONE (Special Tasks Air Group-1), the experimental unit who "flew" the TDR-1, these crates were sent to the Russell Islands (north of Guadalcanal) where they were reassembled for combat.

According to the internet site, "Stagone" http://www.stagone.org/tdr.1htm, the aircraft was assembled by Interstate Aircraft and:

carried a 2,000 lb. bomb load or torpedo. Its Control Plane, a TBM (design by Grumman (TBF) and manufactured by General Motors), carried a crew of four which included two pilots, each of whom, by transmitting radio signals could control the flight of the drone (left, right, up, or down) and also its speed and altitude. The latter through a radio altimeter called "ACE" with settings from 50 to 1500 feet above sea level.

One of the two pilots, the one in the front seat of the Control Plane, was the Commander of this "element" (the Drone and its Control Plane). The Control Plane Pilot (CPP) took control of the drone immediately after takeoff and directed the drone to within "television sight" of the target.

The CPP had the additional capability of dropping the wheels of the drone shortly after takeoff, thereby increasing the speed of the drone by about 10 knots.

In the second seat, directly behind the CPP, is the Drone Control Pilot DCP. This is his primary job. He is hunkered down over a small (six inch face) television screen receiver. The picture is transmitted from a TV camera located in the nose of the drone. The TV picture he sees is what he would see if he were in

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the drone looking straight ahead. As soon as he has a picture of the target on his TV screen he notifies the CPP.

At this point, the Control Plane Pilot can leave the area - increase his "open out" or "standoff range" from the target, since the Drone Control Pilot has taken over and guides the drone on its "run-in". He finally crashes the drone against the target or performs other functions such as dropping bombs or laying smoke.

The CPP and the DCP each have a device similar to a rotary phone base with dial and miniature control stick. The stick is used for attitude control and the dial for function control. To turn, the stick is used. By dialing ACE, the radio altimeter will keep the drone at the height he has selected. By taking the drone off ACE he can resume manual control which is required during the last stages of the approach to the target.

The TDR-1 was the first true "standoff" or "cruise" missile ever used in combat. A "standoff" missile allows itself to be controlled by aircraft or ground/naval stations outside the engagement area. Thus, the crews controlling a "standoff" missile are not within range of enemy fire. (Germany had a "guided" missile—the Henschel Hs 293—which is sometimes mistakenly referred to as a "standoff" missile, in operation by 1942. It had similar remote control systems as the TDR-1, except it was not fitted with a camera. Thus, the "parent" aircraft had to stay within visual range of the missile until it reached its target. As such, the controllers of the German missile often stayed within range of enemy fire and were not in a "standoff" position.) Forty-six TDR-1's were deployed in the Pacific theater in September and October of 1944. Of the 46, 29 reached their target areas, with two destroying a lighthouse on Cape St. George, New Ireland, six scoring direct hits on anti-aircraft emplacements, and 11 hitting targets in Shortlands and Rabaul. 39 The TDR-1 is recognized as the first U.S. "standoff" or "cruise" missile and the direct ancestor to the current cruise missile program. In fact, after World War II, the remaining TDR-1's and their technology were utilized, along with captured German V-2 missiles, during the beginning of the Navy Regulus program. In the 1950s, the Regulus became the first submarine based nuclear cruise missile.

Due to its classified status, information regarding the TDR-1 program was not released for some years after the war. It was not officially recognized for its contribution to today's battlefield until July 5th 1990, when Secretary of the Navy, H. Lawrence Garrett, sent a letter to the members of STAG ONE. In this letter he thanked them for their service and added the following: "On 27 September 1944, a TDR-1 Assault Drone launched and staged a combat attack against an enemy target, the success of this first true guided missile marked a new era in modern warfare."

One TDR-1 still exists in fair condition. It is in storage at the U.S. Naval Air Museum in Pensacola, Florida. Other remains may be located in the operational areas of the Pacific and the TDR-1 training bases in Clinton, Oklahoma, Traverse City, Michigan, and Monterey, California.

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Why was Smith Field chosen for such an operation? Certainly, the disassembly work could have been done at far more secure military fields located throughout the Midwest. The logical conclusion is that Smith Field had a greater geographic importance than other airports. Within the city of Fort Wayne, General Electric and Magnavox Company were producing all manner of military electronics. More importantly, within a few miles of the field, Philo T. Farnsworth (the inventor of television) was producing televisions and radios at the Capehart/Farnsworth Corporation. According to Mrs. Philo T. Farnsworth, the plant produced and installed the camera and pilot control system for the TDR-1. 40 This is exactly what made the TDR-1 unique, some 40-years prior to the "smart bomb" technology which has become a mainstay of U.S. national defense. Without this sophisticated guidance equipment, the TDR-1 would have been similar to any number of somewhat underpowered, small, twin-engine aircraft of its day. Smith Field, Hangar #2/A is where aircraft and technology were merged to create the first United States standoff/cruise missile. The hangar (still standing and in use), railroad freight platform (in ruins) and the abandoned railroad right-of-way at Smith Field, all provide a direct connection to this important program

Although extremely significant, the TDR-1 program was not the first military use of the field. In 1935, Paul Hobrock and General Edward White (father of astronaut Edward H. White, III—the first man to "space-walk") opened an aviation sewing business at the field. They started by manufacturing elastic headbands for both military and civilian goggles. ₄₁ In 1936, they took over the classroom on the second floor of Hangar #2 ("A"). By 1937, they had received a military contract to provide 14,000 gunnery tow targets to the War Department. Hobrock took over the entire second floor, employing 33 women to sew targets and manufacture other military items. The targets were towed behind aircraft to allow for live-fire, air-based machine gun practice and live-fire, ground-based anti-aircraft practice. ₄₃ As the contracts became more numerous throughout the war, the firm also began to manufacture "test dummies" (similar to the "crash dummies" used in automobile testing) for parachute research. ₄₃ Not only were these products desperately needed by the War Department; but, their production is a good example of women's involvement in war-related activities on the "homefront."(Photo 53)

Education

The use of the field for educational activities actually began prior to the opening of the municipal airport. In the teens and twenties, the airport had been a favorite stop for barnstormers who would offer rides and some instruction. By 1923, Arch Alspach set up a permanent aviation operation on the field and began giving instruction. His direct involvement continued for decades as he became a partner with Wayne Flying Service, which gave instruction until after World War II. By 1929, the need for space dedicated to aviation instruction had grown to such a level that the plans for Hangar #2 were revised (after they had already been sent out for bids) in order to provide a second floor over the office and maintenance areas. This second floor was specifically designed to provide rooms for flight instruction and meetings. 44 By 1930, the first female pilot had soloed at the site. The airport continued to offer flight training, teaching at least 55 students to solo by January of 1934. In 1939 through 1942, Smith Field served as a location for the Civilian Pilot Training (CPT) Program. Each summer, 35 college students would be trained in a cooperative effort between Indiana Technical College, Pierce Flying Service and Inter City Flying Service. Walker "Bud" Mahurin received his pilot's license in the class of 1939, and went on to become an ace with over 24 victories in the Pacific and European theaters of WWII, and in Korea. He is the only ace to score victories in each of these three theaters. Although women

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were allowed in the class of 1940, the classes or 1941 and 1942 were strictly male. Many of these pilots went into the military during World War II. 45 After the war, instruction actually increased in the post-war boom. By the 1980s, the number of student pilots had decreased; however, instruction continues on the field to this day. Thus, the documentation indicates that the field has been utilized for flight training for at least the past 79 consecutive years.

At the time of the field's dedication in 1925, only one other location in northeast Indiana was offering pilot training. This was "Flight B Field," also known as "Guy Means Field" and "Sweebrock Airport." This field operated until the substantial improvements to Smith Field in the early 1930s made it the best training field in the region. At that point, training at "Flight B" was discontinued and moved to Smith Field. From the mid-1930s until 1946, Smith Field was the only public airport in Allen County offering pilot training. In 1946, some training moved to Baer Field (the ex-Army base); however, Smith Field continued as a favorite training site due to its size and lack of jet-powered aircraft in the airport "pattern."

Many well-known local flyers have learned their craft at Smith Field. Perhaps the most prominent is Indiana's "Living Legend" Margaret Ringenberg. She learned to fly at Smith Field when she was quite young and served as a WASP during World War II, flying fighter, transport, and bomber aircraft. Still flying today, she has had a long aviation career that has included competition in cross-country air races and instructing multiple generations of pilots.

Robert "Bob" Schott was an airport administrator at Smith Field and reported on activities as a frequent writer for local newspapers. He worked for several years as an aviation reporter for the News-Sentinel before he was asked to assume the airport manager position at Smith Field. He accepted the position on June 1, 1942, and managed the airport through the critical war years. Through this outlet, the public was consistently made aware of activities at the field and was invited to participate. Mr. Schott also made significant contributions to aviation at local and national levels. For example, he promoted and organized a national meeting of airport managers, Civil Aeronautics Administration authorities, and airline executives that was held in Fort Wayne in February 1944. The meeting attracted aviation leaders from across the United States, who discussed postwar plans for airport development.

The field has also been the home to aviation/model clubs and has been utilized by the local school systems for aviation and science field trips. (Photos 46 and 47)

Entertainment/Recreation

While flying has always been considered a form of entertainment and recreation for pilots and passengers; immediately upon opening, the municipal airport became Allen County's center of activity for aviation related community entertainment and recreational events. At the dedication in June of 1925, 5,000 people attended the ceremonies and "fly-in." In August of that same year, the American Legion sponsored an air show that attracted 28 planes owned by the U.S. Army and an additional 30 civilian aircraft. Approximately 50,000 people attended the four-day show. Not only did the automobiles visiting the show fill the special events parking lot on

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Ludwig Road; but also, the roadsides within some miles of the airport. $_{46}$ This began a tradition of frequent (often yearly) airshows, which continued well into the 1970s.

A short article appeared in the magazine <u>Aviation</u> in September of 1925, describing the new port as a "good landing field." $_{47}$ In the same publication, the route of the "Ford Reliability Tour" through Fort Wayne is described. According to the author, the 13 landing sites on the tour were chosen because: "These cities and the territory adjacent to them have shown the greatest interest in the rise of commercial aviation during 1925, and the field of greatest opportunity lies before these cities." $_{48}$ (Photos 36, 37). The "Reliability Tour" was a multi-day cross-country "race" sponsored by Henry Ford in order to raise public interest in commercial aviation opportunities. In addition it also rewarded aircraft manufacturers and designers for their work making airplanes faster, safer, and more economical. The 1926 tour also stopped at the field.

In the same manner that a railroad station serves the community, Smith Field was the principal gateway used by travelers arriving in, and departing from, Fort Wayne via air. In this capacity, the airport hosted a parade of significant-aviators from its establishment in 1925 into the 1940s. Significant pilots who have used or visited Smith Field are too numerous to list; but a few of the better known are: Captain Charles Nungesser, airmail pilot George Hill, famed racing and military pilot General Jimmy Doolittle, "Wrong Way" Douglas Corrigan, Captain Eddie Rickenbacker, Walter Hinton, Howard Hughes, and stunt flyer Jimmie Hayslip. Captain Sir George Wilkins flew into the airport in the aircraft he had piloted to the North Pole. Famed pilot and explorer Wiley Post also visited the field in the Lockheed Vega "Winnie Mae" (in which he flew around the world). As every prominent aviator arrived, so did the community. In an era that lacked the sophisticated security concerns of today, adults and children could examine these historic aircraft up-close and literally rub elbows with aviation "greats."

Other aviation related and non-related groups also used the field. Well into the 1970s, model airplane clubs had public competitions at the field. The field also hosted multiple "hangar dances" in Hangar #2 ("A") on a yearly basis. A small pond was even formed in front of the office in order to allow ice skating in the winter months; and meetings were held for numerous clubs and organizations.

With the exception of the parking lot on Ludwig Road and the original Office Building, the airfield continues to retain the facilities that allow it to function in a recreational manner. Furthermore, it continues to operate as a recreational facility.

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- 23. "Fort Wayne Indiana Municipal Airport Dedicated to National Defense." Fort Wayne Parks Board Aviation Committee. 1928.
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- 26. Bartel, Robert R. "1934 Airport Manager's Report."
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- 34. "A Little History on Republic Builders." <<u>http://www.republicdoor.com/aboutus.html</u>>.
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- 45. "Pilot Training Course Starts Civil Pilot Training Program." Fort Wayne News-Sentinel. 11 June 1941.
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- 48. "The Ford Reliability Tour." Aviation. 28 Sept. 1925: 384.

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Verbal Boundary Description: Tract 29 NW ¼ Section 14 and Tract 52 100ft ROW N thru N ¼ Section 14 and Including A Portion of Tract 167 NE ¼ Section 15 East of a Line Extending from the NW Corner of Tract 167 NE 1/4 Section 15 to the SW Corner of Tract 167 NE 1/4 Section 15 and Excluding all of Tract 167 NE 1/4 Section 15 West of Said Line, Washington 31 Range 12.

Boundary Justification: The boundaries of the district were determined to include all of the developed airport property within the period of significance. These boundaries allow the area retains integrity from the period of significance and includes all historic structures and buildings.

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Set of 57 Photographs: (Photos 1-35, Taken 2002) (Photos 36-57, Historic)

Photographer: PBS. WFWA, Fort Wayne
 Date: June 1, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 4.
 Description: Aerial view of airport looking N.W. from the S.E. corner of the field at approximately
 1,250 feet MSL (Mean Sea Level—Altitude).

- Photographer: PBS. WFWA, Fort Wayne Date: June 1, 2002 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 3. Description: Aerial view of airport looking N.E. from the S.W. corner of the field at approximately 1,450 feet MSL.
- Photographer: William Decker
 Date: July 22, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 4, Negative 13A.
 Description: Runway 31 showing the "hill" still visible at mid-field. Camera facing N.W.
- Photographer: William Decker Date: June 18, 2002 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 3A. Description: East side of field with a section of Runway 5/23 in the foreground. Visible structures, in order from left to right, are hangars "G," "F," "E," "D," "C," "2/A,"and the 1978 office building. The houses in the background are south of Ludwig Road. Camera facing S.E.
- Photographer: William Decker Date: July 22, 2002 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 4, Negative 2A. Description: S.E. corner of field with the following visible from left to right, a section of Hangar C, Hangar B, Hangar 2/A, the Shed, and Office. Camera is facing East looking down Taxiway #2.
- Photographer: William Decker
 Date: July 22, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 4, Negative 8A.
 Description: 16-foot wide road behind Hangars B and 2/A. Camera facing South.
- 7. Photographer: William Decker

Date: July 22, 2002

Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 4, Negative 11A. Description: Ruins of railroad freight platform behind Hangar 2/A. The 16-foot wide road is also visible between the platform and Hangar 2/A. Camera is facing N.W.

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 Photographer: William Decker Date: July 22, 2002 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 4, Negative 9A. Description: Ruins of railroad freight loading dock. Camera facing South.

Allen Co., IN

- 9. Photographer: William Decker Date: July 22, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 4, Negative 5A. Description: Historic aircraft tie-down area, between Hangars C and D. Camera is facing N.E.
- Photographer: William Decker Date: June 18, 2002 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 23A Description: North Side of Beacon Tower, Camera Facing S.E.
- Photographer: William Decker Date: June 18, 2002 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative16A Description: West Side of Beacon Tower & Sections of Hangars B and C, Camera Facing N.E.
- Photographer: William Decker Date: June 18, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 15A. Description: West and South sides of Hangar 2/A, the beacon tower, and a section of hangars "B" and "C". Camera is facing N.E.
- Photographer: William Decker
 Date: June 10, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 3, Negative 18A.
 Description: West/Front Side of Hangar 2/A, Camera Facing S.E.
- Photographer: William Decker
 Date: June 18, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 8A.
 Description: Massillon Truss Structure Inside Hangar 2/A, Camera Facing N.E.
- Photographer: William Decker Date: June 18, 2002 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 9A. Description: Interior of Hangar 2/A, Camera Facing East.

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- Photographer: William Decker Date: June 10, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 3, Negative 3A Description: S.E. Corner of Hangar 2/A, Camera Facing NW.
- Photographer: William Decker
 Date: June 18, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 6A
 Description: South Door of Hangar 2/A, Camera Facing North.
- Photographer: William Decker Date: June 10, 2002 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 3, Negative 19A Description: North Side of Hangar 2/A, Camera Facing S.E.
- Photographer: William Decker Date: June 18, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 10A. Description: North Door of Hangar 2/A, Camera Facing South.
- 20. Photographer: William Decker
 Date: June 10, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 3, Negative 1A.
 Description: East/Back Side of Hangar 2/A. Camera Facing N.W.
- Photographer: William Decker
 Date: June 10, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 3, Negative 11A.
 Description: South Side of Hangar B, Camera Facing N.W.
- Photographer: William Decker
 Date: June 10, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 3, Negative 12A.
 Description: East Side of Hangar B, Camera Facing N.W.
- Photographer: William Decker
 Date: June 18, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 13A
 Description: West Side of Hangar B and Beacon Tower, Camera Facing N.E.

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- Photographer: William Decker
 Date: June 18, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 21A.
 Description: North Side of Hangar E, Camera Facing S.E.
- 25. Photographer: William Decker
 Date: June 18, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 20A.
 Description: North Side of Hangar F, Camera Facing S.E.
- Photographer: William Decker
 Date: June 18, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 2A
 Description: South Side of Hangars H and I, Camera Facing North.
- Photographer: William Decker
 Date: June 18, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 0A.
 Description: West and South Sides of Hangar H, Camera Facing N.E.
- 28. Photographer: William Decker
 Date: June 18, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 1A.
 Description: East and South Sides of Hangar I, Camera Facing N.W.
- Photographer: William Decker
 Date: June 18, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 12A.
 Description: South Side of Hangar C (Carousel), Camera Facing N.E.
- Photographer: William Decker
 Date: June 10, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 3, Negative 7A.
 Description: Interior of Hangar C (Carousel) Showing "Turntable," Camera Facing N.E.
- Photographer: William Decker
 Date: July 22, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 4, Negative 6A.
 Description: The South Side of Hangar D. Camera Facing N.W.

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- Photographer: William Decker
 Date: June 18, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 2, Negative 19A.
 Description: North Side of Hangar G, Camera Facing S.E.
- 33. Photographer: William Decker
 Date: July 22, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 4, Negative 0A.
 Description: Non-Contributing Metal Hangar on South Side of Field. Camera is facing N.W.
- Photographer: William Decker
 Date: July 22, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 4, Negative 3A.
 Description: Non-Contributing Metal Office Building. Camera is facing S.E.
- 35. Photographer: William Decker
 Date: July 22, 2002
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 4, Negative 12A.
 Description: Non-Contributing Storage Shed East of Office. Camera is facing N.E.
- Photographer: Staff of <u>Fort Wayne News Sentinel</u> Date: September 28, 1925
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 4A Description: Aerial View of Field During the 1925 Ford Commercial Reliability Tour. Camera is Likely Facing West.
- Photographer: Staff of <u>Fort Wayne News Sentinel</u> Date: September 28, 1925
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 16.
 Description: Group of Flyers and Fort Wayne Businessmen at the Reception for the 1925 Ford Commercial Reliability Tour. Notice the less-than-permanent structures. Camera Orientation is Unknown.
- 38. Photographer: Staff of Fort Wayne News Sentinel Date: 1928
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 20. Description: Hangar #1, Beacon Tower, and Siren in Background of the "Airshow" Line. Camera Facing S.E.

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39. Photographer: Photographic Copy by Perspectives Photography of Drawing by A.K. Hofer Date: 1928

Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 19. Description: A.K. Hofer's Original 1928 Plan for the Development of the Field. Plan shows a cross-section explaining the hill or "hump" at the field's center. Also depicted is the extensive grading performed to drain and shape the field.

- 40. Photographer: Unknown
 - Date: 1928-1930

Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 8 Description: Aircraft and Automobiles at an air "circus" either in 1928 or 1930. Camera is Likely Facing N.W.

41. Photographer: Staff of Fort Wayne News Sentinel Date: 1930

Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 9. Description: Aerial View of the Festivities During the Dedication of Hangar 2/A.

Note: Only grass runways are visible in 1930. In addition, a parking area for public viewing of aviation events and activities is clearly visible. Camera Facing East.

42. Photographer: Staff Fort Wayne News Sentinel. Date: 1930

> Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 7. Description: As Quoted From the Newspaper, "The interior of the new hangar at the Paul Baer Municipal airport with its beauty gives one the impression of an aircraft show. It is the most modern hangar in this part of the country." Camera Facing East.

- 43. Photographer: Staff of <u>Fort Wayne News Sentinel</u> Date: December 8, 1930 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 10. Description: Pilot George Hill Flying First Airmail out of Field. Note Hangar 2/A in Background. Camera Facing East.
- 44. Photographer: Staff of Fort Wayne News Sentinel Date: May 16, 1931 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 14. Description: The U.S. Airmail Flag Being Hoisted Above the Field by George Hill (Airmail Pilot) and Robert Bartel (Airport Manager). Camera is Facing N.E.

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45. Photographer: Staff of Fort Wayne News Sentinel Date: January, 1931 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 11. Description: Pilot's Quarters Furnished By Fort Wayne Lions Club in the First Floor of the Two-Story Brick Section of Hangar 2/A. These quarters allowed "stranded" pilots lodging while waiting for appropriate weather conditions. Camera Facing S.W.

46. Photographer: Staff of Fort Wayne News Sentinel Date: April 4, 1931 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 12. Description: An Educational Tour of the Field Conducted for the Fort Wayne Model Airplane League. Camera Orientation Unknown.

 Photographer: Staff of <u>Fort Wayne News Sentinel</u> Date: c. 1931
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 6A. Description: Educational Tour of Hangar 2/A for Children From Hamilton School.

- 48. Photographer: Staff of Fort Wayne News Sentinel Date: 1931
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 15. Description: The First Express Shipment Over the New Passenger Line Being Received by J. Wesley Dye and Billy Latz of Wolf & Dessauer Department Store From Pilot George Price. Camera Orientation Unknown.
- 49. Photographer: Staff of <u>Fort Wayne News Sentinel</u> Date: May 2, 1931 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 13. Description: First T.W.A. Air Liner Makes Regular Stop In Fort Wayne. Ford Tri-Motor Aircraft. Camera Orientation Unknown.
- 50. Photographer: Staff of <u>Fort Wayne News Sentinel</u>
 Date: c.1935
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 1A
 Description: Aerial View of Hangars 1 and 2/A, Camera Facing N.W.
- 51. Photographer: Original Photographer Unknown
 Date: c.1935-c.1945
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 5
 Description: West and South Sides of Hangar 2/A as Built.

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- 52. Photographer: Photographic Copy of 1936 Field Drawing By City of Fort Wayne.
 Date: November 25, 1936
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 8A.
 Description: Existing Runways, Taxiways, and Buildings on Field in 1936.
- 53.. Photographer: Unknown

Date: October 1938.

Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative #2 Description: Tow Target Sewing Room In Hangar 2/A. Camera on Second Floor of Brick Section of Hangar 2/A Facing North.

54. Photographer: Neuman Studios, Fort Wayne Date: 1937

Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 24. Description: Completed Runways and Buildings at Field in 1937. Remnants of the public parking on the south side of the field are visible. Camera Facing North.

55. Photographer: Staff of <u>Fort Wayne News Sentinel</u> Date: c. 1941 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 21. Description: Numerous Aircraft Stored In Hangar 2/A. This could be during the early days of World War II. Camera is Facing West.

56. Photographer: Staff of Fort Wayne News Sentinel Date: c.1941 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 22. Description: A Piper Cub Being Taken out of Hangar 2/A on Skis. During the late 1930s a lean-to addition was added to Hangar #2, it was demolished after WWII. This structure is visible behind the Piper Cub. Camera Facing S.W.

57. Photographer: Photographic Print of Artist Concept (Artist Unknown)
 Date: c.1965
 Location of Negative: Indiana Division of Historic Preservation and Archaeology, Page 1, Negative 6.

Description: Artist Concept of the Carousel "C" Hangar. Compared to Hangar C, this Drawing Would Be Facing the North Looking At the South Face of the Hangar.

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Attachments:

- A. Sketch Map Of Airport Shows all of the buildings and major structures found on the field. It is not to scale.
- B. 1930 Airport Plan, A. K. Hofer Airport Engineer
 This plan was found in the personal collection of Al Hofer, grandson of civil engineer A.K. Hofer.
 The date of 1930 was determined from the date of a sheet attached to the original and the completed work shown on the field (which would date from late 1930 to 1931).
 Attachment B.1, Shows Entire Field, Scale, 1 inch=200 feet.
 B.1 and B.2 are details of the plan (not to scale).
- C. 1949 Aerial Photograph of Smith Field Copied From City of Fort Wayne, Planning Department
- D. Southeast Section of 1955 Aerial Photograph of Smith Field Copied From City of Fort Wayne, Planning Department
- E. Southeast Section of 1966 Aerial Photograph of Smith Field Copied From City of Fort Wayne, Planning Department
- F. East Section of 1973 Aerial Photograph of Smith Field Copied From City of Fort Wayne, Planning Department
- G. Typical "T-Hangar" Plan, 1946 Civil Air Administration, Drawing
- H. TDR-1 Attack Drone Shown prior to conversion to "missile" configuration





MACHINE NT Exchange P. 7

Attachment "B.2." Smith Field, Allen Co., IN Southeast corner of 1930 field plans.

Sector Sector



Note: The light beacon, side track, Hangar 1, Hangar 2, and concrete taxiway (Taxiway #1) are visible. The taxiway, along with the concrete apron north of Hangar #2 provided access to the tie-down area (middle-upper section of this plan).

Attachment "B.3" Smith Field, Allen Co., IN Midfield Runway Intersection, 1930 Field Plans

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Midfield intersection on 1930, Hofer, plans. Notice the higher elevation in the center of the field than further down the runways.

Note: Hangars 'H" and "I" are clearly visible on the north edge of the field. Hangar "B" is visible directly north of Hangar "2/A" in the southeast corner of the field.

Attachment "D" Smith Field, Allen Co., IN 1955 Aerial Photograph Smith Field

Southeast corner of field 1955. Notice the historic tie-down area directly north of Hangar "B" and east of Taxiway #1. This area was used from at least 1930, when 800 feet of Taxiway#1 was paved, until the closure of Runway 18/36 in the 1980's. After the closure of Runway 18/36, it became a primary parking area and it appears the grass tie-downs were no longer utilized.

Attachment "E" Smith Field, Allen Co., IN Southeast Section of Smith Field 1966. Showing Continued Use of Historic Tie-Down Area

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Note: A large patch of cleared ground in the southeast section of the tie-down area is likely related to the early stages of construction of Hangar "C" (Carousel Hangar). The pavement on the north end of the tie-down area provides access to Hangar "E" (which had been in use for some time prior to 1966).

Attachment "F" Smith Field, Allen Co., IN 1973 Aerial View Smith Field

Note: All three existing runways are still active in 1973. The east-west runway has been totally demolished and is only visible as a shadow at mid-field. Hangars #2/A, B, C, E, F, G, (east side of field) H, and I (north side of field) are clearly visible. The historic tie-down area is also still in use. Hangar "D" will be built directly south of the three T-hangars at mid-field in 1979.

Attachment "G" Smith Field, Allen Co., IN Typical T-Hangar Plan Civil Air Administration, 1946

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FIG. 11-17. Small Plane Hangar, C.A.A. Multiple T Design.

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Attachment "H" Smith Field, Allen Co., IN TDR-1 Attack Drone Fitted With A Single Cockpit As The Craft Would Have Appeared Upon Landing At Smith Field, Indiana 1944 Photo Is <u>NOT</u> From Smith Field

