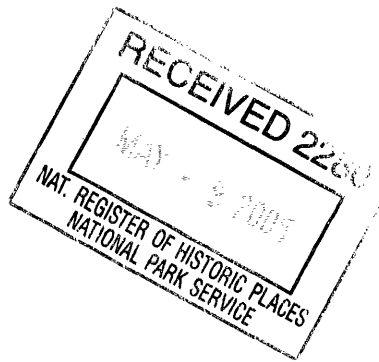


NPS Form 10-900
(Rev. 10-90)

OMB No. 1024-0018



United States Department of the Interior
National Park Service

**NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM**

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and sub-categories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name: Air Service, Inc. Hangar at Bellanca Airfield
other names/site number Cultural Resource Survey # N00402

2. Location

street & number SR 273 and Center Point Boulevard not for publication
city or town New Castle vicinity X
state Delaware code DE county New Castle code 003 zip code 19720

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this X nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property X meets does not meet the National Register Criteria. I recommend that this property be considered significant nationally X statewide locally. (See continuation sheet for additional comments.)

Signature of certifying official  Date 4.27.05

State or Federal agency and bureau DELAWARE STATE HISTORIC PRESERVATION OFFICER

In my opinion, the property meets does not meet the National Register criteria.
(See continuation sheet for additional comments.)

Signature of commenting or other official Date

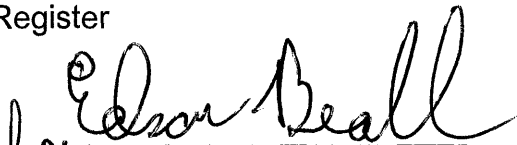
State or Federal agency and bureau

4. National Park Service Certification

I, hereby certify that this property is:

- entered in the National Register
 ___ See continuation sheet.
- ___ determined eligible for the National Register
 ___ See continuation sheet.
- ___ determined not eligible for the National Register
- ___ removed from the National Register

___ other (explain):


Signature of Keeper

6/15/05
Date of Action

5. Classification

Ownership of Property (Check as many boxes as apply)

- private
- ___ public-local
- ___ public-State
- ___ public-Federal

Category of Property (Check only one box)

- building(s)
- ___ district
- ___ site
- ___ structure
- ___ object

Number of Resources within Property

Contributing	Noncontributing	
1	0	buildings
0	0	sites
0	0	structures
0	0	objects
1	0	Total

Number of contributing resources previously listed in the National Register 0

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)

Cat: Transportation Sub: Air-related

Current Functions (Enter categories from instructions)

Cat: Vacant Sub: Not In Use

7. Description

Architectural Classification (Enter categories from instructions)

Other: Aircraft hangar

Materials (Enter categories from instructions)

Foundation	<u>Concrete</u>
Roof	<u>Metal</u>
walls	<u>Concrete Block and Brick</u>
other	<u>Frame trusses and wood doors</u>

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

8. Statement of Significance

Applicable National Register Criteria (Mark "X" in one or more boxes for the criteria qualifying the property for National Register listing)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield information important in prehistory or history.

Criteria Considerations (Mark "X" in all the boxes that apply.)

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or a grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance (Enter categories from instructions)

Transportation _____
Architecture _____

Period of Significance
1936-1953 _____

Significant Dates _____
1936- Date of Construction _____

Significant Person (Complete if Criterion B is marked above)

Cultural Affiliation _____

Architect/Builder
Attributed to: James Mullins, Architect/John E. Healy & Sons Inc., builder _____

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

9. Major Bibliographical References

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

Previous documentation on file (NPS)

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

Primary Location of Additional Data

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

Name of repository:

10. Geographical Data

Acreage of Property 2.77 acres

UTM References (Place additional UTM references on a continuation sheet)

Zone	Easting	Northing
<u>18</u>	<u>449095</u>	<u>4370305</u>

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.)

11. Form Prepared By

name/title Robin Bodo, Historian

organization Delaware State Historic Preservation Office date January 6, 2005

street & number 21 The Green, Suite A telephone 302-739-5685

city or town Dover state DE zip code 19901

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

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

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

Photographs

Representative black and white photographs of the property.

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

Property Owner

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

name Trustees of the New Castle Common

street & number P O Box 453 telephone (302) 322-2809

city or town New Castle state DE zip code 19720

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

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

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county and State

PHYSICAL DESCRIPTION

Located in an industrial park and adjacent to a ball field complex at the southwestern edge of the city of New Castle, Delaware, the Air Service Inc., Hangar at Bellanca Airfield is an approximately 60' x 180' airplane hangar that is the only surviving piece of aviation history left at the former Bellanca Airfield. Built in c. 1936, the Air Service Inc., Hangar is built predominately of concrete block with brick detailing at door openings and at the locations of the piers that support the wood roof trusses. The modified closed arch roof is supported by a series of three wooden fan trusses. A one story frame addition is attached to the west elevation of the building and runs longer than the full width of the arched section and on the east elevation a one story frame addition runs approximately half the width of the building. On the main hangar section, asbestos shingle siding covers the original weatherboard siding. The windows throughout the hangar are covered with a temporary, protective, rigid board siding. The interior has non-structural partitions constructed to accommodate post-airplane hangar uses. Despite these minor changes the building retains its physical integrity.

The façade of the Air Service Inc., Hangar at Bellanca Airfield faces south onto open space that was once the airfield associated with the Bellanca Aviation Corporation. The elevation displays nine sliding metal doors that are all stationary except for the two on the southwest side which do move to allow light into the interior. The metal doors displayed multi-pane light windows in the upper sections which remain under the rigid board covering now in place. This wall is generally unbroken except for two single leaf doors cut through the metal doors and one roll-up garage-type door in the center of the elevation. The tympanum space of the end wall of this elevation displays the ghost sign "Weaver Pole Line Const. Corp," a post-aircraft period use. The sign is painted on to asbestos shingles that cover the original wood shingles that filled this space. A single-bay shed roofed, concrete block addition projects from this elevation. It adjoins the addition on the west elevation but the roofline has a lower profile.

The west elevation is crossed by a one story, frame addition with a concrete block foundation that extends beyond the walls of the hangar on both the north and south ends. It displays irregular fenestration from different periods. The roof structure is hipped. A later period, frame, gable roofed entry vestibule projects from the body of the building at the second bay from the south elevation.

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The rear (north) elevation of the building displays no door openings, but consists of a large expanse of glass including six sets of three grouped multi-paned windows and a single window on each end, forming a virtual wall of light. The roof structure slopes down to the rear wall and does not display the fan truss work that supports the front of the hangar roof. These design features may result from the location of the hangar at the northern edge of the property close to the road, therefore not requiring the flexibility to open the rear for access.

The east elevation displays a single story, shed roofed, frame addition located across the southern half of the elevation. Its foundation includes both brick and concrete block units. The truss locations are indicated on the exterior wall by the use of a corbelled brick pier while the run of the wall between the trusses are filled with concrete block. The building displays the remnant of a boxed cornice at the north end of the elevation.

The interior of the hangar has a poured concrete floor throughout the hangar section. A ceiling was put in below the trusses, and non-structural partition walls were installed to divide the space for uses subsequent to the Air Service use. The interior of the additions also appear to have been modified many times and do not retain any significant interior features.

The top and bottom chords of the trusses are composed of three large milled lumber boards connected with bolts that are placed through the upper and lower panel points. The fans consist of wood beams, square in profile, placed in groups of three across the length of the truss. The diagonals of the fans connect into the top chord next to the members of the adjacent fans.

The property is accessed from Center Point Drive through an unmaintained paved area in front of the hangar. The nominated boundary includes approximately 2.77 acres of land. Alterations to the landscape include large earthen berms lining Center Point Drive, the western boundary and a deteriorated concrete apron in front of the hangar.

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STATEMENT OF SIGNIFICANCE

The Air Service, Inc. Hangar at Bellanca Airfield, located in the vicinity of the city of New Castle, Delaware, is eligible for listing on the National Register of Historic Places under Criterion A for its association with the development of private aviation in Delaware and Criterion C as a rare surviving example of a mid-1930s frame airplane hangar. Built c. 1936 after a fire destroyed the existing Delaware Air Service, Inc. hangar, this building is all that is left that represents the pre-World War II period of aviation in New Castle. Constructed on a formerly 350 acre site composed of the airfield, the Bellanca Aircraft Corporation headquarters, and the Bellanca manufacturing facility, this building and the nominated acreage are the only features that survive to represent this important part of Delaware's history.

BACKGROUND

Born in Italy on the island of Sicily in 1886, Giuseppe Mario Bellanca was a pioneer in aviation design and produced some of the finest aircraft made during the first half of the twentieth century. He was inducted into the National Aviation Hall of Fame in 1993 and into the first class of inductees in the Delaware Aviation Hall of Fame in 2000. His papers are in the collection of the Smithsonian Institution. His first innovation survives as the very foundation of aircraft design. Original airplane designs from the Wright Brothers era placed the tail of the aircraft in front of the wings and placed propeller in the rear, pushing the plane through the air. By contrast, the Bellanca design reversed the location of the principle components of a flying craft, the propeller, wings, and tail in that order, creating the standard relationship of the parts that have survived to the present day. Although a brilliant designer of aircraft, Mr. Bellanca was not able to capitalize on that ability through the marketplace. His emphasis on quality and innovation kept his airplanes at the forefront, creating flying records and winning at air shows, but he constantly had financial troubles.

In 1910 he moved to the United States, building his first aircraft in Brooklyn, NY in 1913. He opened a flying school on Long Island in 1914. In 1921 he moved to Omaha, Nebraska where he developed the first high-winged monoplane called the "CF". The innovations of this design included struts added to give the wings increased strength

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and lift. This first plane is now in the collection of the Smithsonian Institution's Air and Space Museum. Although a design success, the plane was expensive to produce and cost several times the amount of other available aircraft. In 1924, Mr. Bellanca came back to the east coast, as a consultant to the Wright Company, setting up an airplane construction shop on the New York City Borough of Staten Island. It was while working here that he met Charles Lindbergh.

In 1919, New York hotelier and native of France, Mr. Robert Ortieg proposed the Ortieg Prize of \$25,000 for the first person to fly across the Atlantic Ocean. By 1927 the advancement in aircraft design made this crossing possible and Charles A. Lindbergh was interested in pursuing the record and the prize. He wanted to buy the newest Bellanca offering under development from the contract with the Wright Company, the WB2. The Wright Company decided to discontinue the business of building airplanes, instead focusing on engines. The WB2 design, renamed the "Columbia", was sold to Charles Levine who ended up partnering with Mr. Bellanca to form the Columbia Aircraft Company. While Mr. Bellanca was interested in selling the plane to Mr. Lindbergh, Mr. Levine had another buyer for the plane and vetoed the sale. Lindbergh went to the Ryan Aircraft Company to have the "Spirit of St. Louis" built, and he became the first flyer to cross the Atlantic. The "Columbia" was the second plane to cross the Atlantic, landing in Germany, traveling farther than Lindbergh. The plane, piloted by Clarence Chamberlin, was also the first to carry an additional person, as Mr. Levine was on board as a passenger. Subsequently, Mr. Bellanca severed ties with Mr. Levine and had created his own company. He was looking for investors for a needed infusion of capital and accepted the offer of a consortium lead by Henry Belin duPont and his cousin Francis V. duPont to purchase the company and move it to Delaware.

The location chosen for the Bellanca complex was the Spring Garden Farm situated to the southwest of the City of New Castle, which the duPont cousins had purchased for \$35,000. Its 350 acres possessed all the necessary advantages including a large open area sufficient for a 3000'x 2000' flying field, sufficient additional land to develop the Bellanca manufacturing facilities, access to a rail line, and frontage along the Delaware River for seaplanes. Henry B. duPont was already an aviation enthusiast and a licensed pilot, with his own airfield located about six miles north and west of this location. By the end of the 1920s, H.B. duPont was looking for a place to develop

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commercial aviation away from his private field as he outlined his plans in correspondence with Mr. Porter Adams of the National Aeronautic Association in Washington, D.C. dated November 5, 1927, "I am retaining the commercial flying rights of this field and at present my plans are to start a first-class flying service there in the spring."

On October 6, 1928, an air meet was held to dedicate Bellanca Airfield. In the application to the National Aeronautic Association, the purpose of the meet was "to dedicate the opening of the Wilmington Airport, a field that is six miles south of Wilmington Delaware, on which is one of the New York-Atlanta airway beacons. The events will be participated in by Army, Navy, Marine, National Guard, and civilian pilots." There were nine categories of event with cash prizes and trophies awarded. Attendees included William P. MacCracken, Jr. the Assistant Secretary of Commerce for Aeronautics who came to speak at the airport dedication luncheon held by the Wilmington Chamber of Commerce. The Delmarva Star reported the event attracted nearly 100 aircraft with their pilots and 30,000 spectators.

AIR SERVICE, INC. HANGAR AT BELLANCA AIRFIELD

Delaware Flying Service, Inc., the predecessor to Air Service, Inc., was incorporated in 1928 with J. Allison Buck, Delaware's first licensed pilot, as president. The company leased the hangar from Henry B. duPont and Francis V. duPont through an agreement that spelled out the complex arrangement whereby the land upon which the hangar sat was leased to the duPonts by the Bellanca Corporation, who in turn, leased the hangar to Delaware Flying Service, Inc. for \$250 per month. By the end of that year, Mr. Buck reported in a newspaper clipping from the scrap books of Henry duPont, that he had four planes at the field and "had good business in carrying passengers." The Delaware Flying Service had carried over 3,500 passengers on flights lasting from a few minutes to many hours. Besides charter work, airplane maintenance services and a small flying school operated there. Mr. Buck left the Delaware Flying Service business in 1931, opening his own field closer to Wilmington located on the east side of Route 13 near what is now the approach to the Delaware Memorial Bridge. He was killed on June 16, 1933 in an airplane accident trying to land at Bellanca Airfield. His airfield was subsequently developed into Gracelawn Cemetery.

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In 1935, the Bellanca Airfield was the primary improved public access airfield in Wilmington. It was officially designated by the US Department of Commerce in that year and plans were developed to expand the field for use as a principle stop between New York and Washington. By this time, the Delaware Flying Service company had changed its name to Air Service, Inc. and the Bellanca Corporation had ownership of the building which was rented by Air Service. The new president of Air Service, Inc. was Richard Dorsey Morgan, a gentleman aviator who married Elizabeth Frances duPont in 1927.

On October 17, 1935 the hangar was destroyed by fire. The article in the Wilmington Morning News stated the planes inside were safely removed but the wooden hangar was a total loss. It was rebuilt almost immediately. The design for the new hangar included a wooden roof structure but made use of masonry fireproof technology for the base of the hangar. Constructed predominately of concrete block, openings were detailed in brick as were the piers upon which the chords of the arched trusses rested. Originally published in 1928, the pamphlet "Airplane Hangar Construction" was produced by the *National Lumber Manufacturers Association Construction Information* series. Lumber was promoted as a frugal choice for roof trusses. The wooden fan truss design was promoted for longer spans. The publication even addressed the issue of fire hazard, stating the heavy timber framed roof trusses would survive a fire and be able to be reused.

President Morgan's younger brother, John McChesney "Johnnie Mac" Morgan, became America's youngest pilot when in 1931 he obtained his license at age 16. He joined Air Service in 1937. In 1938, he obtained an instrument rating and became a certified flight examiner. During World War II, Air Service, Inc. was shut down while Richard Morgan and Johnnie Mac Morgan enlisted in the Army Air Corps Ferrying Command where they both served with distinction. Following the end of World War II, Johnnie Mac Morgan returned to Air Service as chief pilot, supplementing his income as a private pilot.

The Bellanca Aircraft Corporation continued to be a major employer in the New Castle community through 1954 when the operation was sold and Mr. Bellanca retired. Over 3000 airplanes had been built in New Castle. Bellanca Airfield was eclipsed by the

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growing New Castle Airport west of it. Over time, the buildings related to the aviation industry were taken over by new businesses. The Bellanca manufacturing buildings were demolished in the last ten years as the intensive development of the property continued into the industrial park it is today. The Air Service, Inc. Hangar and 2.77 acre setting is the last remnant of this important part of the history of aviation in Delaware.

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COMPREHENSIVE PLANNING

State Plan Link:

Zone: Coastal/Upper Peninsula
Period: 1880-1940+/-: Urbanization and Early Suburbanization
Theme: Transportation: Aviation
Property Type: Airplane hangar

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Air Service Inc., Hangar at Bellanca Airfield
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Primary Sources

Beers Atlas of Delaware (1868)

duPont, Henry Belin, Papers of Henry Belin duPont. Hagley Museum and Library, Greenville, Delaware.

National Lumber Manufacturers Association, "Airplane Hangar Construction" Pamphlet, Construction Information Series, 4th edition, April 1930. Collection of Hagley Museum and Library.

Newspaper Clipping Files, Wilmington Free Library, Wilmington, Delaware.

Wilmington (DE) Delmarva Star

Wilmington (DE) Morning News

Wilmington (DE) Journal Every Evening

Secondary Sources

Frebert, George. *Delaware Aviation History*. Dover, Delaware: Dover Litho Printing Co. 1997.

Web Resources

www.nationalaviation.org/ National Aviation Hall of Fame

www.dahf.org/default.asp Delaware Aviation Hall of Fame

www.nationalaviation.org/museum_enshrinee.asp?eraid=3&enshrineid=279 National Aviation Museum.

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BOUNDARY DESCRIPTION

The nominated property for the Air Service, Inc. Hangar at Bellanca Airfield, is bounded on the north by SR 273 (Frenchtown Pike), on the west by Center Point Boulevard, on the south and east by adjoining property lines. [New Castle County Tax Parcel 2100900004]

JUSTIFICATION:

This is the tax parcel associated with the Air Service, Inc. Hangar at the former Bellanca Airfield.

H.C. Service, Inc.
 HARRISBURG, PA. RETURN
 ATTENTION
 P.O. BOX AND CENTER
 FORWARD
 407 00"
 (New York)
 10/449 205/
 4370305
 County

600 000 FEET
 (DEL.)
 4399
 4390
 4392

