

Saint Paul Airport Municipal Hangar
(Saint Paul Downtown Airport)(Holman Field)
674 Bayfield Street
Saint Paul
Ramsey County
Minnesota

HAER
~~HABS~~ No. MN-80

HAER
MINN
62-SAIPA,
37-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

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~~ENGINEERING RECORD~~
~~HISTORIC AMERICAN BUILDINGS SURVEY~~
Rocky Mountain Regional Office
National Park Service
P.O. Box 25287
Denver, Colorado 80225-0287

~~HISTORIC AMERICAN BUILDINGS SURVEY~~ **ENGINEERING RECORD**

SAINT PAUL AIRPORT MUNICIPAL HANGAR
(Saint Paul Downtown Airport) (Holman Field)

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Building Name: Saint Paul Airport Municipal Hangar
HABS Number: MN-80

Location: 674 Bayfield Street
Saint Paul Downtown Airport - Holman Field
Saint Paul, Minnesota

Original Owner: City of Saint Paul, Minnesota

Present Owner: Minneapolis - St. Paul Metropolitan Airports Commission

Present Use: Condemned

Date of Construction: 1927

Statement of Significance:

The significance of the Municipal Hangar was identified in a request for National Register eligibility in 1991. At that time the Minnesota Historical Society determined the building to be "eligible for nomination to the National Register of Historic Places as a property associated with the development of the air transportation industry."

Only a few airports were established in Minnesota before Wold-Chamberlain in Minneapolis in 1919 and the Saint Paul Airport in 1926. The hangars built prior to 1927 at Wold-Chamberlain and other airports in the state appear to have been of wood construction, making the Municipal Hangar at the Saint Paul Airport the first steel frame airplane hangar in the state. Also, according to a survey of state airports in the book *Minnesota Aviation History: 1857-1945*, the Municipal Hangar at the Saint Paul Airport appears to be the oldest and most intact airplane hangar in the state.

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Part I. Historical Information

The Municipal Hangar at the Saint Paul Airport (Holman Field) is one of the few structures still in existence from the early period of air transportation in the United States. Built in 1927, it was the first permanent structure built at the airport and signified a transition from the informal days of the self-taught barnstormer to the establishment of the commercial air industry.

Although the Wright brothers first flew in 1903, most of the general public did not witness flight until after 1910. The first air show in the world was held in Rheims, France in 1909 and within a year the first air show in the United States was held in Los Angeles. The first airplane flight in Minnesota occurred at an air show in June of 1910, still less than a year after the air show at Rhiems. This was the first introduction of the airplane to Minnesota's general public.

Those first flights took place at the State Fair Grounds, since there were no established airports in Minnesota between 1910 and 1918. The first established airfield in Minnesota seems to have been Earle Brown Field, located in what is now Brooklyn Center, where the field was used as a training site by the Army and Navy, and the University of Minnesota among others. Also opened in 1918 was Curtiss-Northwest Field near the State Fair Grounds in Saint Paul and Fridley Field in Columbia Heights. All three of these fields were closed by 1930.

In 1918, the Twin City Motor Speedway (located between 60th and 66th Streets and 34th and 46th Avenues at the southern edge of Minneapolis) was sold and soon after air operations began. The first hangar was built in 1919 and the airfield officially commenced operations in 1920 with the establishment of an airmail route between Chicago and the Twin Cities. A required hangar was completed for the airmail route in August of 1920. Several other wood hangars were built for the Minnesota National Guard in 1921. In 1923 the airport, called Speedway Field, was renamed in honor of Ernest Groves Wold and Cyrus Foss Chamberlain, local pilots who died in World War I. Wold-Chamberlain Airport has gone on to become the current Minneapolis-St. Paul International Airport.

The airmail route to Speedway Field was suspended a few months after its inception but was reactivated and served both Minneapolis and Saint Paul until 1926. An effort to establish a Saint

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Paul airport grew from the desire for airmail service closer to its own Post Office, and was led by Colonel Lewis Brittin, who foresaw a promising future for air transportation and commerce. The effort succeeded in establishing an airport within the Saint Paul city limits. The city raised the funds and purchased the land necessary for the development of an airport in June of 1926. The site chosen was known as Riverview Flats, directly across the Mississippi River from Indian Mounds Park. The U.S. Weather Service was the first to utilize the new airport, establishing the first weather station in the Twin Cities. At this time the only structure at the airport was a former voting booth that was utilized as the weather service office.

In 1927 a steel frame hangar was built on the north side of the airport by the City of Saint Paul for a cost of \$16,932.00. Known as the Municipal Hangar, it measured 100 by 100 feet and was constructed with a riveted steel frame and enclosed with brick, stucco and steel frame windows. The entrance to the hangar "featured a 10-ton metal door 16 feet high and 80 feet wide that rolled up overhead. The hangar contained enough space for offices, shops, a stockroom, and a fire cart, besides being big enough to house a Ford Trimotor. Benches were placed along the airfield side from which spectators could watch the comings and goings." (Allard, p.136) A paved apron was added in 1928 at a cost of \$14,338.00.

The Airport Master, Francis Geng, was able to solicit several itinerant pilots to base their aircraft in the new Municipal Hangar. These pilots included Mark Hurd, Thunder Johnson, Fred Whittemore and Deke DeLong. It is believed that *Northwest Airways* was the first commercial airline to use the Municipal Hangar. They used the Municipal Hangar, with several other airlines, until their own hangar was constructed in 1930. The other airlines that are known to have used the Municipal Hangar include: *Jefferson Airways*, which operated a route between Minneapolis, Saint Paul and Rochester, Minnesota from July 1928 until the Spring of 1929; *Chicago Airway Company*, which operated a route between Minneapolis, Saint Paul and Chicago between July and December of 1928; and *Mamer Airline*, which operated a route between Minneapolis, Saint Paul and Spokane, Washington during 1930.

The second hangar built at the Saint Paul Airport was for the 109th Observation Squadron of the Minnesota Air National Guard. Completed in 1929, it was quickly joined by the new Northwest Airways hangar built in 1930. This construction resulted in the relocation of these two groups

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from Wold-Chamberlain in Minneapolis.

The airport experienced several developments that enhanced its standing in the Twin Cities. It was named the only "Customs Airport" in Minnesota, requiring all planes flying from Canada to Minnesota to land in Saint Paul. Also, Northwest Airways joined a consortium of railroads to provide passengers access to coast-to-coast travel from Saint Paul on a combination of airplanes and railroads. The number of passengers embarking or disembarking from Saint Paul in 1928 was nine thousand, with a total of almost two thousand airplane arrivals and an equal number of departures.

The Saint Paul Airport was renamed Holman Field in May of 1931, after Charles W. "Speed" Holman, renowned local pilot and operations manager for Northwest Airways was killed "performing an impromptu aerobatic routine, at the opening of the Omaha Airport." (Allard, p. 139)

A second municipal hangar was built in 1930 on the west side of the airfield, primarily to house Northwest Airways. Larger than the first, it measured 115 by 200 feet and cost \$75,000.00. Among the tenants of the two municipal hangars were flight schools and service companies including the Saint Paul Flying Club, Lexington Air Service, and later, Northwest Air Activities. In 1939, the Works Progress Administration (WPA) began construction of a terminal building west of the Municipal Hangar and east of the Northwest Airways hangar. The new terminal building was completed in 1941, and still serves as the terminal and operations office of the airport.

The Saint Paul Airport lost ground to the Minneapolis Airport when the renamed Northwest Airlines discontinued service at Saint Paul and moved all of their flights to Minneapolis in December of 1937. Northwest briefly resumed flights out of Saint Paul for part of 1941, but again discontinued their operations at Holman Field.

In 1942 the Saint Paul Airport once again became busy with activity when the Army took over control of the entire airport, ceasing all civilian operations there. The airport became a "Modification Center" for B-24 and B-25 bombers built by Ford in Detroit, outfitting the planes

for particular missions or military theaters for the war. These modifications ranged from submarine tracking radar to camouflage paint for the deserts of northern Africa. The Modification Center was operated by Northwest Airlines for the military, and employed 6,000 men and women at its peak. Necessitated by the activity of the Modifications Center, a 600 ft. long hangar was constructed on the northeast side of the airport, southeast of the original municipal hangar. This hangar was completed in December of 1942, and soon afterwards a second 600 ft. long hangar was constructed alongside of the first. These two large hangars are still in use, one housing a National Guard helicopter squadron and an airplane repair service, the other housing 3M's corporate jet fleet.

On April 20, 1943 the Minnesota House of Representatives passed legislation creating the Metropolitan Airports Commission, a public corporation to develop and operate airports in the Minneapolis - Saint Paul metropolitan area. In August of 1944 Saint Paul turned over Holman Field to the Metropolitan Airports Commission, which continues to operate it as part of the regional airport system which centers around the Minneapolis-Saint Paul International Airport (Wold-Chamberlin Field). Currently known as the "Saint Paul Downtown Airport-Holman Field," it is used primarily by private, corporate and National Guard aircraft. Holman Field is again seeing the activity of passengers since Capitol Air, a new regional airline, began daily flights from Saint Paul to Chicago in 1993 and plans to add additional routes in the midwest.

The original 1927 Municipal Hangar remained in use until a few years ago, when it was condemned. The most recent tenant of the building was Wings, Inc., a local flight school.

Part II. Architectural Information

A. General Statement

The City of Saint Paul, after establishing the Saint Paul Airport in 1926, built a 100 by 100 foot hangar known as the Municipal Hangar. The first permanent structure at the airport, the building has been leased by a variety of pilots and airlines and was an early home of Northwest Airways.

The building uses a riveted steel frame and is enclosed with brick, stucco and steel frame

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windows. The main plane storage area has a shallow barrel vault roof with wood decking and a membrane roof. Originally the building had a 20x100 foot office area along the north wall of the building. This held offices, shops and a stockroom. This was demolished in 1991.

The building has remained relatively intact, with the exception of the office area, probably due to its having served the same function through the years.

B. Description of Exterior

The building is currently 80 by 100 feet in plan. The east elevation is the opening of the hangar. Originally the opening was 16 feet high and 80 feet wide and had a 10-ton door that rolled overhead. This was designed to accommodate Ford Trimotor airplanes. The height of the opening was expanded to 18 feet high and the 80 foot wide door has been replaced by three doors. The south half of the opening has a galvanized steel door that folds when it is raised. The north half of the opening divided in two and is serviced by two doors that roll up into an overhead enclosure. The corner piers are brick and the area above the doors is stucco.

The south elevation consists of five symmetrical bays. Four bays have an opening with three steel framed windows, connected by vertical steel mullions. Each window is divided into 25 lights (5 x 5) and has a 6 light (3 x 2) ventilating sash in the center that is hinged at the top and swings outward. The window opening has a stucco covered sill with brick below and a steel lintel sheathed with stucco above. To either side of the window opening is a brick pier that extends up to the roof fascia. These piers correspond with the steel columns inside. The fourth bay (second from the east) includes a door opening and a pair of steel windows similar to the other bays. Each window has 20 lights (4 x 5) with a 4 light (2 x 2) ventilating sash.

The west elevation has four symmetrical bays. Each bay consists of a window opening with brick below and stucco above and separated by a brick pier. Each window opening has three steel frame windows (5 x 5) with the ventilating sash in the center similar to the south elevation. The brick sills and a steel lintel with stucco above are also similar to the other elevations. A small brick structure housing electrical equipment was added at the north end of the west elevation. It has a shed roof and a steel door.

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The north elevation is the most altered. When the 20x100 foot office area was expanded there was a concrete block wall built between the office area and the hangar. This office was demolished leaving the concrete block wall exposed. The door openings in the wall have been infilled with plywood.

C. Description of Interior

The plan is a simple 80 by 100 foot rectangle. The riveted steel columns run along the north and south walls 20 feet on center. Between the columns are cross pieces for added rigidity. Each pair of columns supports an arched or "bowstring" steel truss spanning the 80 foot dimension, oriented north-south along their length. Exposed wood joists span between the steel trusses, with wood roof decking. The concrete floor is divided into triangular sections sloped to metal floor drains. The interior of the walls have been painted but are the same materials as seen on the exterior.

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Project Information

The Saint Paul Airport Municipal Hangar was documented for the Historic American Buildings Survey by Miller-Dunwiddie-Associates of Minneapolis, Minnesota and sponsored by the Minneapolis-Saint Paul Metropolitan Airports Commission. Recording was conducted by Tom Altenhoff and Kenneth Martin during the Summer of 1994. Large-format photography and written history were by Kenneth Martin.