

~~MINNEAPOLIS ST. PAUL INTERNATIONAL AIRPORT~~

WOLD-CHAMBERLAIN FIELD,
ADMINISTRATION BUILDING
6301 34th Avenue South
Minneapolis
Hennepin County
Minnesota

HABS No. MN-158-D

HABS
MINN
27-MINAP,
35D-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
United States Department of the Interior
National Park Service
Great Lakes Systems Office
1709 Jackson Street
Omaha, Nebraska 68102-2571

HISTORIC AMERICAN BUILDINGS SURVEY

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Location: 6301 34th Avenue South
Minneapolis, Hennepin County, Minnesota

UTM: 15:482510:4970430
Quad: St. Paul West, Minn., 1:24,000

Construction Dates: 1930, with additions in 1939, 1949, and 1957

Architects: Harold H. Eads, Minneapolis
Magney, Tusler and Setter (1949 addition)
Thorshov and Cerny, Minneapolis (1957 addition)

Present Owner: Metropolitan Airports Commission
6040 28th Avenue South, Minneapolis, Minnesota

Present Use: Storage

Significance: From its construction in 1930 until 1962, when it was supplanted by new, jet-age facilities, the Administration Building served as Wold-Chamberlain Field's passenger terminal and central office building. An early incarnation of its type in the United States, the Administration Building featured a progressive design that adapted to the constantly changing needs of the aviation industry. The building was planned with expansion in mind, and its Streamline Moderne detailing was maintained after a major addition made nearly a decade after the original construction date. The original building was obscured, however, by later additions, including two 1921 hangars that were placed along the building's west wall in 1949 and converted into offices.

Project Information: The Original Wold-Chamberlain Terminal Historic District was identified by Hess, Roise and Company during an historic/architectural survey of the Minneapolis-St. Paul International Airport. The Federal Aviation Administration and the State Historic Preservation Office concurred that the district was eligible for the National Register of Historic Places. The survey was completed during preparation of the airport's long-term comprehensive plan. The plan found no feasible or prudent alternative to avoid the demolition of some or all of the

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properties in the historic district to accommodate necessary growth at the land-locked airport. To carry out its responsibilities under Section 106 of the National Historic Preservation Act of 1966, the Federal Aviation Administration entered into a Programmatic Agreement with the Advisory Council on Historic Preservation, the Minnesota State Historic Preservation Officer, and the Metropolitan Airports Commission (MAC), with a number of concurring parties. The agreement contained two provisions related to the historic district. MAC agreed to offer the Smithsonian Institution and the Minnesota Historical Society the opportunity to select architectural elements or historical objects from any of the contributing structures in the historic district for curation and display. Both organizations declined the offer. The agreement also stipulated that the historic district be documented to the standards of the Historic American Buildings Survey. MAC retained Hess, Roise and Company to prepare this report to comply with that stipulation. Mark Ryan oversaw the project for MAC. Charlene Roise served as principal investigator for Hess Roise. Cynthia de Miranda was senior historian with primary responsibility for writing and managing the report's production. Denis Gardner was research historian for the project. Ann Gaasch provided clerical assistance.

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PHYSICAL DESCRIPTION

The Administration Building at Wold-Chamberlain Field was erected in 1930 and has been altered many times since. The building was designed to be expanded, and its early additions were seamlessly integrated. Later extensions, however, meant to be temporary solutions to the constant problem of insufficient space, were far less sensitive.¹

The original building and its early additions were rendered in red brick and are easily distinguished from later appendages. Composed of one-, two-, and three-story blocks, the flat-roofed building displays a stepped profile accented by a parapet wall trimmed with a course of angled soldier bricks topped by concrete coping. The parapet increases in height incrementally toward the center of the building, exaggerating the stepped effect of the multi-storied structure. The heart of the building consists of a three-story bay, canted on the airfield side and flanked by three- and two-story sections. The two-story wings today carry wood-frame additions—intended to be temporary—that rise nearly to the height of their neighboring three-story bays. A wider, single-story addition dating from 1939 wraps around the north, east, and south sides of the central portion of the structure. Windows, either single or paired, all have lintels composed of soldier bricks and sills of header bricks. Some windows also display decorative brickwork immediately below the sill.

The building exhibits modest Streamline Moderne elements: chevron brickwork on the street side; rounded metal fascia on a canopy of the airfield side; and the course of angled soldier bricks that wraps around the building beneath the concrete coping. The style was fitting for the industry and for the building type, as it reflected the idea of speed and the mechanical age. The Moderne style was often used at airport terminals during this era.²

In keeping with its original function as a transitional space between land and air travel, the building sports two main facades. One faces the airfield to the east, while the other greets incoming passengers from 34th Avenue on the west side. The airfield facade underwent more changes than did the street side; today, it displays little more ornament than the parapet trim of

¹ The description is based on a site survey conducted by the authors in March 1997 and on the following drawings: Magney, Tusler and Setter, "Alterations and Additions to Administration Building, Minneapolis Municipal Airport, Minneapolis, Minnesota, 1948"; Minneapolis Board of Park Commissioners, "Alterations and Additions to Administration Building, Minneapolis Municipal Airport, September 15, 1939"; and Thorshov and Cerny, "Additions and Alterations to Passenger Terminal Building, Wold-Chamberlain Field, September 16, 1957." All are at the Metropolitan Airports Commission in Minneapolis.

² Diane Maddex, ed., *Built in the U.S.A.: American Buildings from Airports to Zoos* (Washington, D.C.: Preservation Press, 1985), 10.

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brickcourse and concrete coping. The original six-over-six double-hung sash windows have been replaced with one-over-one lights in the same window frames, and all but the main set of doors have been infilled with wood or brick. The remaining operable doors stand at the center of the facade in a one-story square bay that protrudes from the building, forming a vestibule inside. The double set of French doors are flanked by large, single-pane windows that may have replaced additional French doors. A square canopy, hung with cables from the building's facade, shelters the entrance; its edges are finished with a brown metal fascia. Above the canopy, lettering applied directly to the structure's exterior brick spells out "Federal Aviation Building."

At the north end of the building, a large corner of the single-story portion is cut away. A canopy fits into the resulting inverted corner, sheltering approximately half the cutaway area. The canopy is supported on its open north end with metal poles, and a wide metal fascia finishes its exposed north and east edges and rounded corner. The section of the building behind the cutaway space, which extends farther north than any other wing of the Administration Building, originally served as a garage, with access provided from the west side. All five garage doors are infilled with wood and are fitted with windows or doors.

The west facade, while more intact, is almost totally obscured from most vantage points by an arched-roof addition from 1949, meant to be a temporary measure to relieve overcrowding. The brick facade exhibits more detailing than the east side, generally in the form of brickwork chevrons in the spandrels between windows. Two narrow brick towers border either side of the centermost three-story section of the building; each is articulated with paired brick pilasters that further accent the verticality expressed in the west facade. The towers are slightly shorter than the parapet wall between them and slightly taller than the parapet walls on the sections flanking them. A poured concrete cast of aviator's wings adorns the space between the towers, one of the few details visible above the front addition's arched roof.

The 1949 addition, which is connected to the older part of the building by a small, single-story brick section that emerges from the original west entry, was created from two relocated 66'-0" x 243'-0" hangars placed end to end. A wide canopy edges the west side of the addition and extends over the sidewalk. Now partly infilled to provide more office space, the canopy rests on squared columns that flare toward the top. Walls are covered with painted tongue-and-groove siding. The building's new west entrance, consisting of double-leaf glass doors, lines up with the original entry. Windows perforate the south end of the addition's west side; two windows and a single personnel door also pierce the north side of the hangar addition.

A two-story addition was extended south from the south wall of the hangar addition in 1957. The flat-roofed, shingled extension stands on a concrete-block foundation and measures 68'-0"

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x 68'-0". Its irregular fenestration consists of single casement windows and paired, one-over-one double-hung windows in metal sashes. Metal-sash windows are evenly distributed across the second story on all three exposed sides of the addition. The first floor is punctuated with only a few windows along with two doors on the south facade. A flat metal cornice finishes the wall at the top of the second story; the structure is otherwise devoid of ornament.

HISTORY

Need for Passenger Facility at Wold-Chamberlain

Less than ten years after aviation enthusiasts converted the Twin City Motor Speedway into a landing field (HABS No. MN-158), passengers were flying from Minneapolis to Chicago by way of Rochester, Minnesota, on regular service provided by Northwest Airways (now Northwest Airlines). A year later, in 1928, Northwest expanded to serve Wisconsin cities as well. The airline's growth continued as it began coordinating flights with local rail service, allowing passengers to combine the two modes of transportation and reduce travel time on long-distance journeys.³

Still, commercial airlines in the 1920s carried cargo more frequently than passengers. Despite the attempts of Northwest and other airlines to integrate passenger rail and air travel, the country's extensive railroad network offered convenient—and far more comfortable—service to those traveling between major cities. Train stations also had become very sophisticated, offering varied amenities and conveniences to travelers and visitors. Substantial, architect-designed stations implied the elegance of travel by rail. Air passengers, meanwhile, generally bought tickets and waited for their flights in the noise and commotion of a lean-to shed built along one side of an airplane hangar.⁴

In 1929, the year the Minneapolis Park Board took over operations at Wold-Chamberlain Field, Minneapolis had the tenth-largest airport in the country. The park board immediately began improving the airport in hopes of attaining an "A-1-A" rating from the federal Commerce Department, the highest designation awarded. In determining a field's rating, the Commerce Department evaluated the number and quality of runways, facilities for aircraft maintenance and storage, and amenities for personnel and passengers. The park board recognized that it needed to improve services to passengers if Wold-Chamberlain was to receive the department's highest ranking. "The most pressing need of the port is a modern, efficient administration building," the board reported in 1929. "Such a building will not only permit 100% efficient administration and give government officials and transients proper quarters, but it will also cater to the comfort and safety of the public."⁵

³ Jeffrey A. Hess, "Northwest Airways Hangar and Administration Building," HAER No. MN-37, 1989, Historic American Buildings Survey/Historic American Engineering Collection, Washington, D.C., 3.

⁴ Peter Guedes, ed., *Encyclopedia of Architectural Technology* (New York: McGraw-Hill Book Company, 1979), 69-70; Noel E. Allard and Gerald N. Sandvick, *Minnesota Aviation History 1857-1945* (Chaska, Minn.: MAHB Publishing, 1993), 162.

⁵ Minneapolis Board of Park Commissioners, *Forty-seventh Annual Report* (Minneapolis: The Board, 1929), 85. Statistics on airport's size relative to others in the country are based on a list compiled by the Board

Development of a Building Type

The administration building—or airport terminal—was just beginning to emerge as a specific building type in the late 1920s. In 1927, authorities at the Ford Airport in Dearborn, Michigan, erected a structure to house a ticket office and passenger waiting room. It was apparently the first of its kind in this country. Despite active construction efforts at the swelling number of American airports, few fields immediately followed the lead of the Ford Airport. Rather, expansion efforts generally focused on increasing the operation and maintenance facilities—paved runways and hangars, for example—for the constantly changing aircraft at flying fields. By 1929, *Iron Age* reported that “while a few principal airports have passenger depots and comfortable waiting rooms, it is claimed that most of the existing airports are nothing more than open fields. The lack of terminal provision for air travelers, it is pointed out, is in sharp contrast with the safety features and provision for comforts in the newer types of passenger planes.”⁶ *Scientific American* complained that “with few exceptions, all our airports are at present purely freight stations. . . . This lack of terminal provision for air travelers is in striking contrast to the safety features and Pullman luxury of the newer types of passenger planes.”⁷

Plans for such buildings received quite a bit of attention during this period, thanks in great part to an airport design competition sponsored by the Portland Cement Company of Lehigh, Pennsylvania, in 1928. Contest rules stipulated that entries include a number of different aviation-related building types and a minimum of four runways. Particular attention was paid to guidelines for the required passenger terminal, which was to include amenities for travelers and pilots, offices for customs and immigrations, and facilities for traffic management. With the competition, the company hoped to “crystallize public attention upon the need for well-designed and properly planned airports to facilitate the future expansion of commercial and civil aeronautics.”⁸ The company apparently succeeded in that regard: the winning designs, announced late in 1929, sparked a flurry of articles in the engineering, aeronautical, and architectural press. Many focused on the passenger terminal.

and published in this report. See Robert L. Davison, “Airport Design and Construction,” *Architectural Record* 65 (May 1929): 491, 513-514 for information on Commerce Department’s rating system.

⁶ “Airport Passenger Depots Planned,” *Iron Age* 124 (October 17, 1929): 1023-1024.

⁷ William E. Arthur, “How Shall We Design Our Airports?” *Scientific American*, October 1929, 301.

⁸ Lehigh Portland Cement Company, *American Airport Designs* (New York: Taylor, Rogers and Bliss, Inc., 1930; reprint with a foreword by Dominick A. Pisano, Washington, D.C.: American Institute of Architects Press, 1990), 7-9.

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Designers looked most often to the railroad station as model for the new air terminal. This was a natural comparison, since the demands of passengers remain the same despite their mode of travel. Perhaps taking a cue from the monumental rail stations of larger cities, designs for airport terminal buildings tended to pay more attention to architectural detail than did plans for hangars and other buildings. In Newark (New Jersey) and Washington, D.C., administration buildings were rendered in modified classical styles. California terminals displayed Spanish Colonial Revival facades, while spare Moderne styles were popular with the winning entries of the Portland Cement competition. The terminal was often conspicuously sited, generally centered in a grouping of buildings and often surrounded by landscaped walks and drives. The terminal was becoming a symbol of the airport itself, and, by extension, of aviation.⁹

Unlike railroad terminals, however, airports were often built on land outside the center of the city. This was, of course, due to clearance requirements for takeoffs and landings. Buildings at the heart of the city—particularly as skyscrapers were beginning to define the cityscape—often precluded planes from taking off nearby. The siting of an airport on cheaper land somewhat distant from the commercial business district also enabled architects to create sprawling, low-lying structures for the field. “Economy of area is not necessary at airports, and buildings should be planned horizontally,” advocated the *Architectural Digest*. “The forms should be simple and easily discernable to the pilot.”¹⁰

As important as the provision of space for current needs was the expectation of expansion. “Air passenger traffic during the next few years may not be heavy, but every airport should be planned for traffic requirements of the future,” advised the *Architectural Record* in 1929. “Buildings need not be completed at once but extensions should be provided for in advance if costly demolition is to be avoided. It may even be possible to build for the future and put the building or parts of it into other uses until such time as the space is required as part of the transport system.” The Portland Cement Company competition also reflected this concern by stipulating that “provisions be made for future expansion which will at least double the capacity of all . . . units without requiring the removal or abandonment of the original elements.”¹¹

⁹ A brief history of the Newark facility is included in Geoffrey Arend's *Air World's Great Airports* (New York: Air Cargo News, 1978), 5-20. California airports are featured in Roger W. Sherman, “Planning for Airport Buildings,” *Architectural Forum*, December 1930, 713-722. See Lehigh Portland Cement Company for winning designs.

¹⁰ Sherman, 711.

¹¹ Robert L. Davidson, “Airport Design and Construction,” *Architectural Record* 65 (May 1929): 492; Lehigh Portland Cement Company, 10.

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Designs for Wold-Chamberlain

The Administration Building was designed for the park board by Minneapolis architect Harold Eads early in 1930. From 1905 to 1928, Eads had been in partnership with Harry Taylor Downs, also of Minneapolis, and the firm may have done work for the park board in the past.¹² Plans published by the board showed many of the functional spaces discussed in contemporary articles on the subject: the ground floor held a waiting room, dining room, kitchen, customs office, manager's office, and garage, while the second floor housed a pilots' lounge, dormitory, bedrooms, additional offices, and weather and radio room. Storage areas, rest rooms, and service spaces occupied the basement.¹³ Eads's building also conformed with many of the exterior design characteristics that had been described in the engineering and architectural press at the time, particularly its horizontal lines and Moderne detailing.¹⁴

The park board, eager to begin construction, advertised for bids on March 17, 1930. Work began in April and the two-story, 140' x 50' building was complete by the end of the summer at a cost of \$57,000 to the park board. Clearly pleased with the new terminal, Superintendent Wirth reported in 1931 that "the Board acted wisely in erecting our commodious administration building, which is now favorably known all over the country and which is bound to not only attract attention but to bring additional business to our airport. The airport is now truly a port of service." A year later, Wold-Chamberlain Field received the sought-after "A-1-A" rating from the Commerce Department.¹⁵

Although Wold-Chamberlain's Administration Building was an early incarnation of this building type in the United States, it proved to reflect sound design principles for the constantly changing industry it served. Architectural and engineering publications were just beginning to discuss airports and airport design in the late 1920s. Contemporary articles endorsed the concepts that Eads and the park board had implemented in Minneapolis. *Aviation*,

¹² Downs's 1929 obituary indicates that he worked for the Minneapolis Park Board. A clipping is on file at the Northwest Architectural Archives in Minneapolis.

¹³ Minneapolis Board of Park Commissioners, *Forty-seventh Annual Report*, 96-97. Plans for the building published in the report are variously credited to Harold Eads and to Downs and Eads.

¹⁴ See drawings reproduced as HABS No. MN-158-D-22 through D-27.

¹⁵ "Airport Building Bids Due Monday," *Minneapolis Sunday Tribune*, March 16, 1930; Minneapolis Board of Park Commissioners, *Proceedings*, April 2, 1930, 59; Tom Haberkorn, et. al. "Minneapolis-St. Paul Metropolitan Airports Commission History," typescript in possession of Metropolitan Airports Commission, Minneapolis), viii-5; Minneapolis Board of Park Commissioners, *Forty-eighth Annual Report* (Minneapolis: The Board, 1930), 74; Minneapolis Board of Park Commissioners, *Forty-ninth Annual Report* (Minneapolis: The Board, 1931), 56

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for example, reported that “construction in 1930 followed the tendency to build for permanence, with even more appreciation of the importance of provisions for comfort and of the aesthetic aspects than had been displayed in the preceding year.” The article added: “To the air-traveling public the airport is a terminal comparable to those of railroads and steamships. Used to comfort, convenience and pleasing architectural surroundings, they look for similar attributes in the aeronautical set-up. Though they have been disappointed in the past, they are gradually being provided with something at least approximating their demand.”¹⁶

The Administration Building was immediately filled to capacity, and changes were made on a near-constant basis. Early efforts focused on the interior, as the park board looked for inexpensive solutions to the space problem. In 1932, some restaurant and office space was rearranged to make more room for other functions. A complete redecoration of the interior followed in 1934, but changes were made again the following year, when the dining room was eliminated to provide more space for the waiting lounge and lunch counter. Also in 1935, Northwest Airlines altered its office space in the Administration Building in an effort to improve baggage handling. Exterior alterations were made in 1937, when a temporary control tower was erected on the roof of the central two-story section of the building.¹⁷

By 1938, the park board was aware that the building needed to be enlarged to provide adequate operational space and maintain the airport’s high rating. Plans for expansion were prepared, but lack of financing delayed the work until 1939. That fall, construction began on additions to the first and second floors and on the new third story. The first-floor expansion lengthened the building to 248’-5”, enhancing the horizontal line originally created with the low, stepped profile of the structure. On the airfield side, a new entryway projected from the center of the facade in the form of a square bay, with the doors themselves set into a rounded bay that protruded even further. A curved canopy supported on brick columns echoed the line of the rounded entry while providing shelter for the doors. The work was integrated seamlessly with the original construction: parapet trim was removed and replaced where stories were added, and brickwork designs were duplicated in the new sections. Finally, a permanent, glass-enclosed control tower was erected on the roof of the central, third-story section of the revamped building. City-administered grants from the federal Public Works Administration partly funded the expansion.¹⁸

¹⁶ “Airport Construction in 1930,” *Aviation*, January 1931, 32.

¹⁷ *Airport News* 1 (March 1934): 2.

¹⁸ See the Minneapolis Park Board *Annual Reports* for changes during these years. Surviving plans for the additions were produced by the park board; it is not known if Eads had originally planned for this addition when he designed the building in 1930.

CHANGES TO THE ADMINISTRATION BUILDING

Changes to the building had been anticipated, but the era of planned expansions lasted only through the 1930s. By the 1940s and 1950s, the demand for administrative and operational space had grown beyond what the original planners envisioned. Temporary additions became short-term solutions. The third story was expanded with frame additions in 1944. In 1949, architects Magney, Tusler and Setter of St. Paul designed an addition that re-used two arch-roofed hangars that had been built in 1921 for the Minnesota Air National Guard. The hangars were relocated and placed end-to-end just west of the Administration Building. A small enclosed passageway connected the hangars to the building from the east. Another addition—Thorshov and Cerney's two-story block placed adjacent to the south end of the connected hangars—was completed in 1957.

The “temporary” additions were never removed. By 1963, an entirely new terminal had been erected across the airfield from the Administration Building. A new control tower was also built, and Wold-Chamberlain moved into the jet age. The control tower and rounded canopy were removed from the brick Administration Building at an undetermined date, and the building remains in use as office and storage space.¹⁹

¹⁹ Allard and Sandvick, 132.

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Archival Collection

Minneapolis Collection, Minneapolis Public Library.