

MANCHESTER AIRPORT
(Grenier Field)
South of downtown Manchester, east of Route 3A
and Pine Island Pond
Manchester
Hillsborough County
New Hampshire

HAER No. NH-32

HAER
NH
6-MANCH,
13-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
Northeast Region
Philadelphia Support Office
U.S. Custom House
200 Chestnut Street
Philadelphia, P.A. 19106

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NH
6-MANCH,
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Location: South of downtown Manchester, east of Route 3A and Pine Island Pond
Manchester
Hillsborough County, New Hampshire
Universal Transverse Mercator Coordinates:
19.300000.4758000; 19.300000.4755000;
19.302000.4755000; 19.302000.4758000
USGS Manchester South, New Hampshire, Quadrangle

Date(s) of Construction: 1927, circa 1938, circa 1939, 1941

Engineer, etc.: Unknown

Present Owner(s): City of Manchester

Present Occupant(s): Manchester Airport

Present Use: Municipal Airport

Significance: The Manchester Airport includes significant examples of historic air transportation architecture, including the Administration/Terminal Building (HAER No. NH-32-A), New Hampshire's earliest air terminal and an unusual surviving Classical Modern transportation building; the Brick Hangar (HAER No. NH-32-B), the earliest, unaltered aircraft hangar at the airport; and the Large Hangar (HAER No. NH-32-C), a standardized military design associated with the World War II air war over Germany.

Project Information: Manchester Airport, in association with the Federal Aviation Administration (FAA), proposes to remove three buildings associated with the airport's historic development for new construction. A memorandum of agreement outlining stipulations to mitigate adverse effects was drafted by Manchester Airport, FAA, and New Hampshire State Historic Preservation Officer (NHSPO), and was accepted by the Advisory Council on Historic Preservation. Stipulations include recordation of the Manchester Airport Complex, Terminal Building, Brick Hangar, and Large Hangar, to Historic American Engineering Record (HAER) standards. The Public Archaeology Laboratory, Inc. of Pawtucket, Rhode Island, was retained by The Smart Associates, Environmental Consultants, Inc., on behalf of the Airport and FAA, to prepare the HAER documents.

Stephen A. Olausen, Senior Architectural Historian
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PART I. DESCRIPTIVE INFORMATION

The historic Manchester Airport (Grenier Field) Complex is located within a sprawling airport and light industrial area currently known as Manchester Airport/Grenier Industrial Airpark. This facility is located east of the Merrimack River and southeast of Pine Island Pond, on the border between the town of Londonderry in Rockingham County and the City of Manchester in Hillsborough County, New Hampshire. The acreage within its boundaries totals 1,412, of which 561 acres are in Manchester and 851 acres are in Londonderry. The primary access roads to the airport are Brown Avenue (State Route 3A) and Harvey Road, both of which extend south from Interstate 293, a short stretch of road that skirts the southern boundary of downtown Manchester, and connects Interstate 93 on the east with the Everett Turnpike on the west. The airport includes two major runways, one running northwest-southeast, and the other southwest-northeast, joined at the north, and connected to the south by Shepard Drive, a former runway, to form an A-shaped configuration. The airport is ringed by Perimeter Road, divided into North and South sections. The present Manchester Airport Administration/Terminal Building, constructed in 1994 as the third terminal in the airport's history, is located between the runways near the center of the complex, and is the locus for airport activity. The Grenier Industrial Airpark includes several air freight and air transportation-related industries, located primarily within the area first developed as a World War II training base named Grenier Field, east and south of the present Administration/Terminal Building. An abandoned Boston & Maine Railroad branch line, part of the former Manchester and Lawrence Railroad, runs through this area.

The Manchester Airport includes several distinct complexes representing several periods of construction: The original Manchester Municipal Airport complex, which includes the Administration/Terminal Building (HAER No. NH-32-A), Brick Hangar (HAER No. NH-32-B), and a modified hangar, all from the late 1930s, is located at the northwest edge of the airport on North Perimeter Road. Both buildings are representative of their period of aeronautical architecture and engineering, and the Administration/Terminal Building is an excellent example of a transportation-related Stripped Classical Moderne building. A few surviving buildings from the World War II-era Grenier Field Cantonement and Flight Line area remain at the northeast edge of the airport, west of Harvey Road. These buildings include standardized, military construction types including barracks, maintenance buildings, and the Large Hangar (HAER No. NH-32-C), all built between 1940 and 1942. A significant group of Cold War-era buildings is located at the south edge of the airport. Constructed in 1958, these buildings include a large aircraft hangar and other facilities constructed for the New Hampshire Air National Guard in 1958, and are now occupied by the U.S. Army Reserve and a private aviation company. The Ammon Terminal complex, located at the center of the airport, between the two runways, was built in 1961. The Terminal Building is a Contemporary International-style building incorporating brick, aluminum trim, and prominent synthetic paneling. Another notable building from this period is the former Marion Electric Instrument Company, built in 1965 as the first building in the Greater Manchester Industrial Airpark, located northwest of the original 1930s terminal area. Recent developments at the airport include the new Manchester Airport Terminal, built in 1994 at the south end of the east runway, and a Federal Express air terminal located between Shepard Drive and South Perimeter Road at the south edge of the airport.

PART II. HISTORICAL INFORMATION

The 1991 New Hampshire Division of Historical Resources *Area Form for the Manchester Airport* by Lynne Emerson Monroe and T. Kirker Hill recounts the history of the complex as follows:

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The first recorded aircraft flight in New Hampshire was made on June 19, 1911 by Harry Atwood, who flew from Waltham, Massachusetts to Nashua, Manchester and Concord, New Hampshire in a Burgess-Wright biplane. There were no airports in the state then, and no navigational markings or aids on the ground to assist air navigation. Rapid developments in aviation technology resulted from the use of the airplane in World War I. In 1923 Capt. Robert S. Fogg began a sightseeing charter and airmail sea plane service for summer residents on Lake Winnepesaukee. Increasing interest in aviation led the major cities in New Hampshire to explore the possibility of municipal landing fields. The first was established at Concord on a former National Guard campground at Concord Plains.

Recognizing the future need for air bases, the United States Army made a study of locations and encouraged cities throughout the nation to develop defense-compatible commercial airfields. In 1927 the city of Manchester commissioned Carl W. Kenniston, an aviation field construction expert to conduct an airport location survey. Kenniston's report claimed that an 80-acre tract near Pine Island Pond was "the best natural site for an airport of any municipality in New England, bar none". In June 1927 the board voted \$15,000 to purchase this land for the construction of an airport. Just one month earlier Charles Lindbergh had completed his transatlantic flight, becoming an international hero. On July 27, Lindbergh made a promotional flight through New England, stopping at the Concord Airport. After that event Manchester eagerly pursued construction of their own airfield. The New Hampshire legislature passed Chapter 244 of the laws of 1927, to "establish an aviation field [at Manchester] and acquire such property and construct such buildings as might be necessary to accomplish that purpose". A board of trustees was created, and approved the construction of two 1900 by 200 ft runways in October 1927. The airport, originally known as Smith Field (possibly named for the nearby farm of H.C. Smith), opened on December 1, 1927. The first structures at Smith Field were small, primitive, wood-frame buildings for the comfort of the pilots. Two local residents purchased aircraft and offered excursion rides and flying lessons. In July, 1928, Northeast Airways inaugurated commercial charter flights between Manchester, Concord, and Boston, and operated three aircraft by 1930. By October, an 80 by 60-ft aircraft hangar capable of housing six to eight airplanes had been constructed and the name of the airport changed to the Manchester Municipal Airport. A record from February 14, 1929 indicates that the Curtis Flying Service, Inc. of New England had plans for an extensive airway system, using Manchester Airport as one of the operational points.

During the Great Depression the United States Bureau of Air Commerce recognized the opportunity to improve aeronautical facilities through the Civil Works Administration and Emergency Relief Administration programs. Manchester met the requirements to take advantage of these programs, which included grading, drainage, fencing, and construction of new roads, hangars, hard-surface runways, additional landing strips, and installation of standard airport markers and wind directional indicators. The Civil Aeronautics Act of 1938 created a new body known as the Civil Aeronautics Authority (CAA), an independent air safety board. This board made federal funds available for constructing fully-equipped airports with lighting facilities and radio directional beacons. In 1939 New Hampshire passed the state Aeronautics Act, Chapter 224 of the laws of 1939, which created the office of the Director of Aeronautics, with duties including promotion and development of aeronautics, development, construction, maintenance of air navigation facilities, and supervision, control and direction over all matters pertaining to the location, construction and maintenance of airfields.

From 1933 to 1940 the expenditures for the Manchester Airport were the largest for any airport in New Hampshire. Gas and oil service was made available, and boundary, range and obstruction lights, as well

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as a lighted wind cone and rotating beacon were installed. The field was enlarged by 50 acres, with provision for future expansion. New facilities included the Administration/Terminal Building (HAER NH-32-A), an attractive, modern structure built in 1938. Improvements also included an 80 by 84-foot steel hangar with a 14-foot overhead clearance and the Brick Hangar (HAER No. NH-32-B), a 100 by 100-foot brick and steel hangar with an overhead clearance of 20½ feet and room for 15 planes, by far the best facilities of their kind in the state when built. The state plan for 1940 made recommendations for the primary airports, listed as Concord, Laconia, Manchester, Nashua and Portsmouth, to be developed further. This plan anticipated federal participation and financing, however, the onset of World War II the following year changed the course of those plans.

Early wartime involvement at the Manchester Airport began in 1939, when Granite State Airways began a civilian pilot training program. At this time, the U.S. Army Air Corps was looking for a location for a major New England air base. Manchester was passed over in favor of Chicopee Falls, Massachusetts, where Westover Field was constructed. In October, 1940, however, the War Department chose Manchester for an additional facility, and acquired 562 acres in Manchester and 852 acres in Londonderry for expansion of the base. The area chosen for construction of new buildings was north of the original Manchester Airport facilities. The air base included a Cantonement, a garrison for housing and training personnel; a Flight Line Area, including the Large Hangar (HAER No. NH-32-C), where most of the aviation activities took place; and Sub-Depot and Squadron Areas for additional administrative, training, and maintenance functions. Most of these buildings were temporary military structures, few of which survive today. The WPA maintained a large involvement in the development of the base, and constructed 18 miles of asphalt-paved road, and new 6,000 and 7,000 ft long runways. Construction took seven months, and included the Large Hangar, completed in the late Spring of 1941.

The first aircraft arrived in April, and troops followed in May. The first squadron arrived at the field to begin training on December 6, 1941, the day before the Japanese attack on Pearl Harbor. The new base was named Grenier Field in February 1942. It was government policy to name U.S. Air Force air bases after local flyers. Manchester chose native son Lieutenant Jean Donat Grenier, who had been a pilot in the U.S. Army Air Corps. Born in Manchester in November 24, 1909, Grenier had been killed in a plane crash at Webber Canyon, Utah on February 16, 1934, while flying a mail plane on a training mission in a snow storm.

Two units of the Army Air Corps 33rd Air Base Group units—one composed of three bomber squadrons, and the other—of four, were stationed at Manchester Air Base under the command Major Robert A. Colbertson. Grenier Field's role in the war effort was to provide final training and supply for bomber squadrons prior to transfer to the European Theater. Bomber pilots and bombardiers were trained at the bombing range in nearby New Boston, New Hampshire. The first American air crews to drop bombs on German soil were trained at Grenier field. At its height, over 6,000 personnel were stationed at Grenier Field. More than 50,000 airmen received training in a variety of skills there during the course of the war. In 1942 Grenier Field became the final training facility for the U.S. Eighth Air Force. The air base provided Red Cross facilities for wounded men returning from Europe, and was also the home of the anti-submarine squadron responsible for patrolling the Atlantic coast. Later in the war, it became the base for air transport command headquarters for the North Atlantic, transporting 24,000 aircraft to air bases in Europe.

After the Allies' victory over Germany, Grenier Field's importance waned, and by the time the Japanese surrendered in August, 1945, only the 53rd Weather Reconnaissance Squadron and the 15th Air Force

remained, and there was talk of closing the base entirely. In October 1945, the Secretary of War approved policies relating to the post-war organization of the National Guard, including a provision for air units in several states. The 133rd Air National Guard Fighter Squadron was organized in New Hampshire on October 4, 1946. Twenty-seven men were assigned to Grenier Field, and assembled in Manchester on April 14, 1947. They were supplied with surplus P-51 Mustang fighter planes for combat training. The Air Guard fighter unit was called into active duty February 1, 1951, at the height of the Korean War. In 1958 the Air National Guard constructed a new Manchester Airport facility, with only the 232nd Troop Carrier Squadron remaining at the old Grenier Field facilities. In 1966 the U.S. Air Force withdrew all Air Force and Air National Guard units to Pease Air Force Base in Portsmouth, New Hampshire, and the U.S. Army Reserve took over the 1958 National Guard facilities, in which they remain today. Grenier Field also played a role in the Berlin Airlift, when President Kennedy activated the 157th Air Transport Group as part of the military build up for the Berlin crisis.

Commercial operations at the Manchester Airport slowly resumed after World War II, and the bulk of the land and buildings were turned over to Manchester and Londonderry. Northeast Airlines resumed scheduled airline service in 1951, offering three daily flights to New York City, but the base was closed to virtually all other civilian aviation. Manchester civic leaders envisioned a plan for sharing the field with the Air Force for joint civilian and military use, and also developing an industrial air park on a portion of the field, and in 1951 an agreement between the Department of Defense and the City of Manchester permitted industrial plant development at the field. In 1955 Manchester industrialist Roscoe Ammon's company, Marion Instruments, became the first enterprise to build an industrial plant at the field. In 1959 Grenier Field was returned to state control and the Manchester Airport Authority was created. The Air Force leased 425 acres to Manchester for the creation of the Greater Manchester Industrial Airpark. Roscoe Ammon believed that Grenier Field would become an economic asset to the city, and in 1959 he donated \$500,000 for the construction of a new civilian air terminal. The complex, which included the first modern air traffic control tower in New Hampshire, was completed in December 1961, just after Ammon's death, and was named Ammon Terminal in his memory. In 1965 over 100,000 persons passed through this terminal. The Industrial Airpark, also served by convenient rail and interstate highways, thrived, and by 1972 sixty companies providing jobs for nearly 3,000 employees were located at Grenier Field.

In 1976 the New Hampshire Aeronautics Commission prepared a report on the state's airway system that stated that Manchester Airport had become the state's most important commercial passenger airport. The report identified the need for runway expansion and construction of a new access road. In 1994 a new terminal was opened southeast of the Ammon Terminal and a new access road, Shepard Drive, was built on a former runway. Additional installations include a Federal Express air facility on the south edge of the airport. Both runways are currently being lengthened to increase capacity at the airport.

PART III. SOURCES OF INFORMATION

A. Engineering drawings:

None Located.

B. Historic views:

Collection of Manchester Airport, Manchester, New Hampshire. Aerial View of Manchester Airport, circa 1936.

Collection of Manchester Airport, Manchester, New Hampshire. Aerial View of Manchester Airport, circa 1945.

C. Interviews:

Ernest Smith, former Manchester Airport engineer, February 1998.

D. Bibliography:

Anonymous

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Manchester Airport files and plans

Manchester Historical Society archives

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1995 *Area Form for the Early Municipal Aviation Historic District, Manchester, New Hampshire*. New Hampshire Division of Historical Resources, Concord, NH.

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1995⁺ *Area Form for the Grenier Field Historic District*. New Hampshire Division of Historical Resources, Concord, NH.

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1991 *Area Form for the Manchester Airport*. New Hampshire Division of Historical Resources, Concord, NH.

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1940 *Manchester Airport: Lot Plan of Area Required for an Air Base*. WPA Project No. 1344, Drawing No. 2-Y, December 12, 1940. (Photocopy in the possession of the Manchester Airport).

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USGS Location Map



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Site Plan

