Form No. 10-300 (Rev. 10-74)

NATIONAL HISTORIC LANDMARK

Theme: Transportation & Communications

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR NPS USE ONLY
RECEIVED
DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC: Hangar #1, Lakehurst Naval Air Station

AND/OR COMMON: Lakehurst Naval Air Station

2 LOCATION

STREET & NUMBER: County Route 547 — NOT FOR PUBLICATION

CITY, TOWN: North of Lakehurst — VICINITY OF

CONGRESSIONAL DISTRICT: 2

STATE	CODE	COUNTY	CODE
New Jersey	34	Ocean	29

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
X DISTRICT	X PUBLIC	X OCCUPIED	AGRICULTURE	MUSEUM
BUILDING(S)	PRIVATE	UNOCCUPIED	COMMERCIAL	PARK
STRUCTURE	BOTH	WORK IN PROGRESS	EDUCATIONAL	PRIVATE RESIDENCE
SITE	**PUBLIC ACQUISITION**	**ACCESSIBLE**	ENTERTAINMENT	RELIGIOUS
OBJECT	IN PROCESS	X YES: RESTRICTED	GOVERNMENT	SCIENTIFIC
	BEING CONSIDERED	YES: UNRESTRICTED	INDUSTRIAL	TRANSPORTATION
		NO	X MILITARY	OTHER:

4 OWNER OF PROPERTY

United States Government. Administered By

NAME: U.S. Department of the Navy, (Captain G. J. Ketchmark, Commanding Officer), Building 200, Naval Air Station, Lakehurst, New Jersey

STREET & NUMBER: Naval Air Station, Building 200

CITY, TOWN: Lakehurst — X VICINITY OF — STATE: New Jersey

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC.: Ocean County Courthouse

STREET & NUMBER:

CITY, TOWN: Toms River — STATE: New Jersey

6 REPRESENTATION IN EXISTING SURVEYS

TITLE: None

DATE:

— FEDERAL — STATE — COUNTY — LOCAL

DEPOSITORY FOR SURVEY RECORDS:

CITY, TOWN: — STATE:

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
__EXCELLENT	__DETERIORATED	__UNALTERED	X ORIGINAL SITE
X GOOD	__RUINS	X ALTERED	__MOVED DATE_____
__FAIR	__UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Lakehurst Naval Air Station (Naval Air Technical Training Center) presently occupies 7,400 acres of flat lowlands just north of Lakehurst, New Jersey. The portion of the Air Station, where the majority of the light-than-air activities were conducted, is composed of: Hangers #1, 2, and 3 on the eastern side, Maxfield (East) Landing Field to the south of Hangars #1-3, Hangars #5 and 6 to the southwest of Hangers #1-3, and West Landing Field to the northwest of Hangars #5 and 6. The area between the two clusters of hangars was formerly used for mooring the airships and manuevering them into the hangars. The circular railroad tracks which the mooring masts employed, directly to the west of Hangar #1, have been covered over. Hangar #4 is located to the east of Hangar #1 in the northeast corner of the Air Station.

Hanger #1, the first lighter-than-air structure at Lakehurst, was built in 1921. The steel arch structure measures 961' in length, 350' in width, and 200' in height. At its north (westerly) and south (easterly) ends are two pairs of massive steel doors, mounted on railroad tracks. These double doors are structurally separate from the hangar itself. Each door weighs 1350 tons and is powered by two twenty horsepower motors, although provisions were made to open the doors manually which required the assembled manpower of nine men. The south doors have not been in operation since the 1950's, and currently only one of the northern doors is operable. The steel structure of the doors and hangar are painted with a silver-colored asbestos coating, which has steadily deteriorated in recent years.

Within the hangar, the first two levels on either side of the building are occupied with offices. These rooms formerly housed all operations at Lakehurst. There are three rows of windows to a side, at evenly spaced intervals up the sides. At the peak of the roof there is another row of windows on either side. These windows were all tinted to retard deterioration of the airship bags. There are four elevators in Hangar #1, only one of which is in operation; and the moving platforms used for repairing the upper portions of the dirigibles are also extant. The floor of the Hangar is covered with dry set brick, and within the brickwork, are the sets of tracks used by the mooring masts. These masts, none of which remain at Lakehurst, were self-propelled, and straddled two sets of tracks. The interior of Hangar #1 is presently occupied by helicopters, planes and associated maintenance apparatus, as well as a 400'-long simulated aircraft carrier deck which is used for training purposes.

Hanger #1 is the outstanding structure at Lakehurst associated with the development of United States lighter-than-air activity. The additional buildings, Hangars #2-6, although built for the lighter-than-air program, postdate Hangar #1 by more than 20 years and consequently do not possess the national significance of the pioneer Hangar #1.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
__PREHISTORIC	__ARCHEOLOGY-PREHISTORIC	__COMMUNITY PLANNING	__LANDSCAPE ARCHITECTURE	__RELIGION	
__1400-1499	__ARCHEOLOGY-HISTORIC	__CONSERVATION	__LAW	__SCIENCE	
__1500-1599	__AGRICULTURE	__ECONOMICS	__LITERATURE	__SCULPTURE	
__1600-1699	__ARCHITECTURE	__EDUCATION	__MILITARY	__SOCIAL/HUMANITARIAN	
__1700-1799	__ART	__ENGINEERING	__MUSIC	__THEATER	
__1800-1899	__COMMERCE	__EXPLORATION/SETTLEMENT	__PHILOSOPHY	X TRANSPORTATION	
X 1900-	__COMMUNICATIONS	__INDUSTRY	__POLITICS/GOVERNMENT	__OTHER (SPECIFY)	
		__INVENTION			

SPECIFIC DATES 1921-1961 BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

Commissioned in 1921, Lakehurst Naval Air Station, New Jersey, became the hub of naval lighter-than-air activity. Known internationally as the American Airship Center, it was the home port for the Navy's rigid airships: The "Shenandoah," the "Los Angeles," the "Akron," and the "Macon." The only stopping place in this country for commercial airships, it was the scene of the burning of the German Zeppelin "Hindenburg" in 1937. The most significant building remaining from the rigid airship era is Hangar No. 1, a gigantic structure built in 1921 to house the huge helium-filled dirigibles. In addition to Hangar #1 there were five other hangars; Hangars #2 and 3 used to house blimps, Hangars #5 and 6 built to house either rigid air ships or blimps, and the balloon hangar. All five hangars have been converted for training and testing activities at the Naval Air Station.

History

Interest in airships in the United States dates back to the beginning of the 20th century. The first practical craft was the "California Arrow," built by Thomas S. Baldwin in 1903. The United States Army purchased the first Federal airship from Baldwin five years later. European developments took place at about the same time. Germany was the pioneer in the manufacture of rigid airships--that is, airships that had gas containers enclosed within compartments of a fixed fabric-covered framework--and during World War I maintained a fleet of Zeppelins, which it used primarily for patrolling purposes and secondarily for bombing missions. The success of the Germans with rigid airships in World War I prompted the United States to begin the development of a similar capability.

In 1921 the Navy established Lakehurst Naval Air Station to serve as its headquarters for lighter-than-air flight in the United States. Formerly known as Camp Kendrick, the 1500-acre tract had been a testing ground for private munitions manufacturers and the Army Branch of Chemical Warfare. The new base became the center for the experimentation and development of rigid airships for strategic and commercial purposes as well as the control station for all naval lighter-than-air flights.

The first major facility built by the Navy at Lakehurst was a huge hangar, now called Hangar No. 1. Inside it, naval engineers assembled the first American-built rigid airship, the "Shenandoah." On September 4, 1923, the ship made her maiden flight from Lakehurst. A number of noteworthy trips followed, including the first transcontinental flight in October of 1924. A year later the "Shenandoah" went down in a severe storm over Ava, Ohio, with the loss of the captain and some of the crew.

(continued)

9 MAJOR BIBLIOGRAPHICAL REFERENCES

Basil Clark, The History of Airships (New York, 1964).
Clarence Hylander, Cruisers of the Air: The Story of Lighter-than-Air Craft, (New York, 1939).
John D. McDermott, "Hangar No. 1, Lakehurst Naval Air Station, New Jersey," National Survey of Historic Sites and Buildings special study, March 13, 1968.
John H. Serivner, The Military Use of Balloons and Dirigibles in the United States, 1793-1963, (Norman, Oklahoma, 1963).

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 7.7

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	18	558460	4430980
B	18	558400	4430870
C	18	558190	4430980
D	18	558240	4431080

VERBAL BOUNDARY DESCRIPTION (pt. A)

Beginning at the northeast corner of Hangar #1, proceed south 350' to the southeast (B) corner of said hangar in a straight line paralleling the rear wall of the hangar, thence west in a straight line paralleling the southern side of the hangar for 961' thence north in a straight line paralleling the front (west) end of the hangar for 350', (D) thence east in a straight line paralleling the northern side of the hangar for 961' to the point of origin.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
Richard E. Greenwood, Historian, Landmark Review Task Force

ORGANIZATION
Historic Sites Survey, National Park Service

DATE
3/12/75

STREET & NUMBER
1100 L Street NW

TELEPHONE
523-5464

CITY OR TOWN
Washington

STATE
D.C. 20240

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL ___ STATE ___ LOCAL ___

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE DATE

Found eligible for Designation: 10/14/23, 1968 date

Boundary Certified: Aug 3 1968

FOR NPS USE ONLY
I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

8/10/77 DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST: DATE

KEEPER OF THE NATIONAL REGISTER

(NATIONAL HISTORIC LANDMARK)

(NATIONAL HISTORIC LANDMARK)

(NATIONAL HISTORIC LANDMARK)

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Hangar #1, Lakehurst Naval Air Station, New Jersey

The Navy obtained its second rigid airship in 1924. Built in Germany and delivered to the United States as a war reparations payment, the "Los Angeles" shared Hangar No. 1 with the "Shenandoah." The Navy used the dirigible extensively for experimental work on flight and mooring problems. It was the first American-owned airship developed to catch and release airplanes in flight. The "Los Angeles" remained in service until 1932. The Navy dismantled it seven years later.

During the late 1920s, Lakehurst became internationally known as a port for commercial lighter-than-air flight. It was the only stopping place in the United States for German airships, and in 1929 it played host to the "Graf Zeppelin," then in the process of making the first round-the-world trip.

The Navy contracted for its third and fourth rigid airships in 1928. Built by the Goodyear-Zeppelin Corporation, the "Akron: and the "Macon" were nearly identical in design and capable of carrying their own airplanes. Lakehurst was the home port for both. The "Akron" crashed in a storm in 1933, and the "Macon" went down in the sea off the coast of California two years later. The loss of the "Macon" left the Navy without an operational airship.

At this point, of the five rigid airships manufactured for the United States since World War I, all but one--the German-built "Los Angeles"--had crashed, and many Federal officials were skeptical of the desirability of continuing the program. Nevertheless, the Navy and the public in general still supported the venture, largely because of the success of the German Zeppelins. A change in public opinion occurred in 1937, when the German Zeppelin "Hindenburg," the largest airship ever built, burst into flames while landing at Lakehurst. Thirty-six passengers died in the holocaust. The crash of the "Hindenburg" marked the end of commercial airship travel and ended experimentation with hydrogen as a lifting device. In July 1939, the German government ordered the Zeppelin Company to discontinue the production of airships and convert its machinery to more strategic manufactures. Although one more dirigible was authorized for the United States Navy in 1938, the airship was never built. Money appropriated by Congress to begin its construction reverted to the Treasury after delays in selecting the design and size.

With the onset of World War II, lighter-than-air activity increased at Lakehurst. The Navy increased its number of non-rigid airships (blimps) from six to 125. Lakehurst became the headquarters of the Chief of Naval Airship Training and Experimentation and also of the Commander Fleet Airships, Atlantic. The Lakehurst Naval Air Station was particularly important in the early 1940s, before dozens of bases were established throughout the country.

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Hangar #1, Lakehurst Naval Air Station, New Jersey

During World War II, the Navy used blimps for observational purposes, and they played an important role in escorting coastal convoys and in protecting American ships from submarine attack. With the end of the war, naval airship activity decreased, only to be expanded upon at the outbreak of the Korean War and then reduced again. In 1961 the Navy halted all lighter-than-air activity and ordered the blimps deflated and stowed.

Activity at Lakehurst Naval Air Station shifted into the areas of developing and testing aviation innovations, as well as into the training of air cadets. Many of the structures associated with the lighter-than air program have been converted to accommodate the new activities.