

U.S. NAVAL AIR STATION, SEAPLANE HANGAR
(Gymnasium)
(Building No. 74)
521 South Avenue
Pensacola
Escambia County
Florida

HABS FL-513
FL-513

HABS
FL-513

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY
SOUTHEAST REGIONAL OFFICE
National Park Service
U.S. Department of the Interior
100 Alabama St. NW
Atlanta, GA 30303

HISTORIC AMERICAN BUILDINGS SURVEY

U.S. NAVAL AIR STATION, SEAPLANE HANGAR

(U.S. Naval Air Station, Gymnasium)

(U.S. Naval Air Station, Building No. 74)

HABS No. FL-513

Location: 521 South Avenue
Pensacola
Escambia County
Florida

USGS Fort Barrancas Quadrant, Universal Transverse Mercator Coordinates:
Zone 16, 473860E 3357121N

Present Owner: United States of America
Department of the Navy (DON)
Commander, Naval Installations (CNI)
2713 Mitscher Rd. SW
Suite 300 Anacostia Annex (Building No. 168)
Washington, D.C. 20373-5802

Present Occupant: Morale, Welfare, and Recreation (MWR) occupied the facility prior to Hurricane Ivan (September 2004); currently, the building is used in a reduced capacity.

Present Use: Recycling center.

Significance: Building No. 74, a seaplane hangar, was the last of six steel-frame hangars completed between 1916 and 1918 to replace the temporary canvas seaplane hangars that once occupied Naval Air Station (NAS) Pensacola's beach. Located on the western edge of the south waterfront, Building No. 74 was adjacent to two other seaplane hangars (Building Nos. 75 and 76) and four seaplane ramps (Building Nos. 167, 168, 169, and 170), which were used to move aircraft from the hangars to the water. The rapid military build-up and increased aviation needs associated with World War I provided the impetus for Building No. 74's construction. DON's Bureau of Yards and Docks (BuDocks) supplied the plans for Building No. 74, and Henry Monk served as contractor. Construction began January 4, 1918, and was complete by the end of the year. Building No. 74 was larger, taller, and architecturally distinct from the other five hangars due to its single-gable roof as compared to the triple-gable roof form of Building Nos. 71, 72, 73, 75, and 76.

For nearly three decades, Building No. 74 supported the base's primary mission of naval aviation training and served as a seaplane hangar. It also briefly was used to store landplane hangars during the World War II era. In 1947, NAS Pensacola converted Building No. 74 from a hangar to a gymnasium, a role which lasted until ca. 1979, when the building's function was changed to general storage and administrative offices until 1992. During the late 1990s, Building No. 74 served as the base Recycling Center. Despite changes in function, Building No. 74 still reflects early naval aviation training efforts at the station and remains

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a direct, tangible link to the founding and early years of the U.S. Navy's aviation program. Its service in both World Wars and conversion to use for both sea and landplanes is particularly noteworthy. One of two extant seaplane hangars at NAS Pensacola, Building No. 74 is one of only nine remaining World War I-era military hangars in the nation. Furthermore, Building No. 74 is architecturally significant as one of the first hangars of its type constructed in the United States for military training purposes. Hangars of the era were typically constructed of wood, whereas Building No. 74's structural framing and state-of-the-art Pratt Trusses were constructed of steel, a relatively new building system. This is one of the earliest applications of a steel Closed Flat Howe Truss system on a military hangar.

Building No. 74 is located within the Pensacola Naval Air Station Historic District, which was designated a National Historic Landmark (NHL) in 1976. In 2004, Building No. 74 was damaged by Hurricane Ivan and is used in a reduced capacity by MWR.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Date(s) of erection: According to Building No. 74's property record card, the hangar was constructed in 1918.¹
2. Architect(s): The original architect of Building No. 74 is not known. However, original architectural drawings indicate that BuDocks provided the designs for the hangar.
3. Original and subsequent owners, occupants, uses: United States of America, DON; original use as an airplane hangar (1918-47); gymnasium (1947-ca. 1979); storage/warehouse (ca. 1979-ca.1992); recycling center (ca.1992-2005).
4. Builder, contractor, suppliers: Annual Reports of BuDocks, Pensacola dated 1917 and 1918 indicate that Henry Monk served as the building's contractor.²
5. Original plans and construction: A property record card dated September 1957 indicates that the original construction cost for Building No. 74 was \$121,143.87.³ Building No. 74 currently exhibits a rectangular plan and remains similar in form to its original appearance. Over time, however, the building has undergone numerous alterations including the replacement of original exterior materials, doors, and windows. A lean-to wing has been added to its north facade, and its interior space has been extensively modified. Original architectural plans of the building dated April 20, 1917, indicate that Building No. 74, originally known as Hangar "A," was erected as a rectangular-plan seaplane hangar. As built, the resource housed one full story with a two-room mezzanine level. The ground floor consisted of a single unpartitioned space with a single bathroom located in its northeastern corner. A straight-run staircase mounted on the building's east wall led to the mezzanine level, which contained an office and storeroom. Monumental steel horizontal-sliding doors on the building's east, west, and south facades opened into the building's ground-floor space.

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Secondary entries, located on the building's north, west, and east facades were single 2'-6" x 6'-6" doors. Exterior walls were clad with corrugated asbestos panels, and windows were originally multiple-light, steel-sash combination fixed- and projected-panel units. The roof was front-gabled with four metal ventilators, each 3'-0" in diameter, along the roof ridge. As-built drawings, in addition to early renovation plans and historic photos, are held at the National Archives and Records Administration (NARA), Cartographic and Architectural Unit, College Park, Maryland. Additional renovation drawings, dating from 1932 through 2000 are maintained by private contractors Hill-Griffin at NAS Pensacola (Building No. 458), Pensacola, Florida.

6. Alterations and additions: According to architectural drawings dated April 18, 1927, the building's original west facade horizontal-sliding doors were replaced with similar doors. The new entrance consisted of a bank of four 19'-7" x 23'-11-1/2", horizontal-sliding, steel-frame doors. Exterior surfaces of these doors were covered with corrugated panels. Historic photographs from the same year indicate that this renovation also included the removal of a bank of similar horizontal-sliding doors from the building's south facade and the enclosure of the opening with a low 5'-3"-high concrete storm wall and wood-frame wall above. A row of ten, nine-light, steel-sash, fixed windows were also added to this facade.

Architectural plans dated 1932 indicate that all of the original exterior single doors were replaced with new steel doors measuring 2'-5-1/2" x 6'-5" on the north facade and 3'-0" x 7'-0" on the east and west facades. Additionally, all exterior windows on the north and west facades and most windows on the east and south facades were replaced with new steel-sash units. The architectural plans and historic photos dating from 1932 also note the enclosure of the former doorway on the south façade.

Between 1932 and 1942, a wood-frame lean-to wing was added to the building's north facade. Additionally, architectural plans indicate that between 1942 and 1947 three storage rooms, a staircase, and a mezzanine level were added to the building's northwestern corner, directly south of the lean-to.

According to architectural plans from 1947 and 1948, Building No. 74 underwent an extensive renovation to support its conversion into a gymnasium. As part of this effort, the building's lean-to wing was extended to its current length, a new maple floor was laid over the existing concrete floor of the former open hangar space, and new lighting was installed. Wood-frame partition walls were also added to form a locker room, shower, and new bathroom within the building's lean-to. Directly south of the restroom and shower rooms, two hot water heater enclosures were constructed. Wire-mesh partition walls were added to the former ground-floor storage spaces in the building's northwestern corner to house a steam room and two adjacent offices. The mezzanine floors above these rooms were also reinforced during this renovation. Stairs to the mezzanine were relocated north of their original location, and a section of the storage space was removed. Two boxing rings were installed in the northern portion of the building, directly south of the lean-to wing, and two basketball courts and folding wood bleachers were added to the building's southern portion. The drawings also indicate the building's original two-room mezzanine and associated staircase, located on the building's east wall, were removed during this renovation.

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In 1955, the building underwent minor roof repairs that included the replacement of damaged roof covering in three small areas and the addition of new thirty-pound felt throughout. A new parachute swing landing trainer and jump platform were also added to the building's eastern wall, directly south of the lean-to, in 1955.

Architectural drawings from 1956 indicate that the building underwent a second extensive renovation that included the construction of wood-frame partition walls to form a new office space. The new office space, located on the west wall, south of the existing office space, measured 19'-8" x 19'-7". The construction of the space necessitated the removal and reconstruction of the existing staircase that led to the building's mezzanine. In addition, the entire existing wood gym floor and associated subfloor was removed and replaced with a new 1" x 6" wood subfloor and new maple flooring. The existing basketball courts were reconfigured to support two smaller basketball courts, a badminton court, and a volleyball court. The drawings also indicate that the building's foundation was reinforced during this renovation and that a staircase leading to a raised platform/catwalk had been added to the building's east wall by 1956.

In 1967, according to architectural drawings from that year, a new enclosed staircase was added to the east wall of the misery room/sauna. This staircase, which led to the mezzanine above, was constructed of wood treads, risers, and stringers on wood 2" x 4" bracing. In addition to the staircase, wood-frame partition walls were added to the building's mezzanine to enclose a new 19'-7" x 27'-6" locker room.

Architectural drawings from 1970 reveal that ten windows on the building's south facade and six on the north facade were removed. On the south facade, a 4'-0" x 5'-0" steel manual louver vent replaced each window. On the north facade, exhaust fans with associated automatic steel louvered vents were installed. The plans also reveal that two multiple-light, steel-sash windows were added to the building's south facade, directly below the louvers, sometime between 1932 and 1970.

In 1979 or 1980, according to architectural plans, the building's interior space was once again targeted for further changes. The plans note that the former steam room had been converted to an instructor's shower room. Additionally, the mezzanine level is noted as containing a shower/sauna/dressing room, an exercise room, and a third unnamed room. The walls in the student locker room, student shower, and student restroom were refinished with new gypsum board, and the floors in the sauna/shower/dressing were replaced. Drawings also indicate that the east facade's horizontal-sliding doors had been replaced with four, metal, roll-up, overhead doors, and the west facade's horizontal-sliding hangar doors were reclad with asbestos-coated steel corrugated panels. Additionally, six windows on the lean-to's north facade were replaced with new wood-sash units. Portions of the east, west, and south facades were also reclad with corrugated transite (asbestos cement) siding.

Between 1980 and 1992, according to architectural drawings from these dates, the building was converted into a warehouse/storage building. By 1992, the open hangar bay, former locker room, and all rooms along the west wall and on the mezzanine level are noted as storage areas. Additionally, the former maple flooring and associated subfloor had been removed, leaving a concrete floor in the building's open hangar space.

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Architectural plans indicate that the building's function was once again changed in 1992-93 from warehouse/storage to administrative office/workshop space. Interior changes included the removal of the mezzanine, staircase, and rooms below. The partition walls in the lean-to were removed, and 2" x 4" wood-stud partitions were erected to enclose new office spaces, a men's bathroom, a women's bathroom, a mechanical room, and a janitor closet. A corridor led from the offices to the bathrooms. A 16'-0" x 16'-0" boiler room with 8"-thick walls constructed of concrete masonry units (CMU) was added to the building's northeast corner, directly south of the lean-to. A fire protection room, a telephone room, and an electrical room, each enclosed by partition walls of 2" x 4" wood studs, were added along the building's north wall. Two additional rooms, a silkscreen room and a paint shop, each enclosed by 8"-thick CMU walls, were also added to the building's southern portion. Additionally, a new HVAC system was installed, the building was rewired, and new fluorescent lighting was added to all rooms with the exception of the open high-bay space. On the building's exterior, all single metal exterior doors were removed and replaced with new hollow metal doors with four-light vision panels. Additionally, three of the four overhead-sliding metal doors on the building's east facade were removed and their openings infilled with corrugated-metal panels. A corrugated-metal overhead door replaced the overhead door on the east facade. A sloping concrete access ramp, leading to the remaining east facade overhead door, was also added. A metal louvered vent replaced a single hinged door in the northern portion of the east facade, and one of the four overhead metal doors was replaced with a similar overhead door. An entry porch was appended to the lean-to's west facade. The porch consisted of a shed roof supported by 4' x 4' wood columns. The floor was a sloping concrete access ramp. Finally, the main roof and all existing gutters, downspouts, and vents were replaced during this renovation. The new roof was composed of a fully adhered single-ply membrane on insulation board and wood decking. New aluminum ventilators replaced the original roof vents. New asphalt shingles on 30-pound roofing felt and plywood decking replaced the lean-to's roof.

Architectural plans dated 1993 indicate that all existing corrugated asbestos and transite exterior siding were removed, and the building underwent minor structural repairs. Also, the four horizontal-sliding doors on the building's west facade were removed, restored, and reinstalled, and three of the four large overhead-sliding doors on the east facade were removed. Corrugated-metal panels were used to enclose these openings. A single hinged hollow-metal door on the west facade was also removed. Additionally, new multiple-light, steel- or wood-sash units replaced all exterior windows and louvered vents on the north and south facades. The east and west facades received new fixed-frame units. New windows added to the north facade included both fixed-frame units and operable sashes. New combination fixed- and operable-sash units and fixed-frame units were also added to the building's south facade. Finally, new wood-sash, six-over-six, double-hung windows and six-light, wood-frame awning windows were added to the building's lean-to.

Architectural plans indicate that wood-stud partition walls were constructed to enclose a new tool room, transportation office, and a training area/lounge in the southern portion of the building in 1996. An audio/visual storage and work area, photo storage and work area, and workshop/supervisors work area and office were also added in the northern portion of the building, directly south on the lean-to.

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In 1997, the west facade's horizontal-sliding exterior doors and doorway were once again removed, restored, and reinstalled. Additionally, a 14'-0" x 12'-0" pit, to accommodate a large mechanical baler, with metal pipe handrails and associated electrical wiring was installed in the southern portion of the building, directly northeast of the suite of new transportation offices.

In 2000, the building's existing exterior roofing material was removed and replaced with a fully adhered modified bituminous membrane. Also, one damaged roof vent was replaced. It is also likely that during this period all interior rooms within the building's central space were demolished and removed. This left a primarily open space with only a baler in the southern portion and boiler, telephone, and electrical room along the building's northern wall.

B. Historical Context:

INTRODUCTION

The U.S. Navy established NAS Pensacola (then called Naval Aeronautic Station Pensacola) in 1914, choosing as its site the old Pensacola Navy Yard, already steeped in its own long military history dating back to early Spanish occupation in 1698. Although European nations fought for control of the region because of the strategic value of the Pensacola Bay, and the U.S. Naval Yard stood on the site for eighty-six years, the naval station's most profound legacy is associated not with maritime traditions, but with aviation. The naval aeronautic station that eventually became NAS Pensacola was tasked with creating the Navy's first aviation program at a time when manned flight was scarcely a decade old. At first, the fledgling program vied with the Army's early aviators in logging spectacular (and sometimes fatal) flight records, training a select handful of military pilots, and improving on the simple mechanisms of the earliest airplanes. When, during the first months of the new station's existence, pilots demonstrated that they could take off and land from the deck of a ship, a unit was dispatched to the United States' intervention in Mexican Revolutionary activities at Veracruz. After successfully operating reconnaissance missions from the USS *Mississippi* and sustaining the first mark of rifle fire from combat experienced by military aviators, the future of naval aviation was assured. The flight school at Pensacola became the premier training ground for naval pilots in the United States. Additional training courses at NAS Pensacola multiplied rapidly, and the program provided hundreds of pilots and thousands of trained technicians for World War I. The arrival of the first aircraft carriers in the 1920s further enhanced the possibilities for aviation at sea, and training programs at NAS Pensacola evolved rapidly to keep pace with new developments. The station, improved and augmented through increased defense spending and New Deal public works programs in the late 1930s, was able to provide the Navy with a steady stream of pilots and other trained personnel to meet the demands of World War II. Today, NAS Pensacola continues to lead the Navy's flight training program, and it anchors the Pensacola community.

NAS Pensacola's physical plant has changed constantly to reflect its evolving mission. The current station incorporates remnants of the early Spanish forts, as well as the core of the old Pensacola Navy Yard complex, now listed as an NHL. In addition, the station retains structures from every major building period, all reflecting NAS Pensacola's important role in military history. One factor governing development at the station has always been the damaging hurricanes and windstorms that rise from the Gulf of Mexico and periodically strike the base, damaging buildings and infrastructure, and necessitating extensive repairs or rebuilding. The phases of construction related to storm damage are also evident in the

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structures present at the station today. This historic overview provides the background for placing Building No. 74 within a national, regional, and local context.

Building No. 74 was originally constructed sometime between 1916 and 1918 as a seaplane hangar for Naval Aeronautical Station Pensacola. BuDocks supplied the architectural plans, and Henry Monk served as contractor. Building No. 74 was used for aviation training and operations from 1918 to 1947 for both sea and landplanes, and was utilized through World War I and II. Notable renovations to Building No. 74 during its use as a hangar included enclosure of the south facade with a concrete storm wall, replacement of original doors and windows, and construction of a lean-to along the north facade. In 1947, Building No. 74 underwent major renovations to convert the hangar to a gymnasium. NAS Pensacola installed maple hardwood floors for a basketball court, bleachers, a mezzanine level, and expanded the lean-to for use as a locker room. In 1955, NAS Pensacola completed improvements to Building No. 74 that included installation of a parachute swing, landing trainer, and jumping platform. Consequently, the gymnasium had dual functions—recreational use and mission-related training. Building No. 74 served in this capacity until 1979, when its function was changed to general storage. In the late 1990s, NAS Pensacola converted Building No. 74 to a recycling center for use by MWR and minor renovations were undertaken to support this new role, which primarily involved installation of a baler. When Hurricane Ivan struck NAS Pensacola in September 2004, Building No. 74 served primarily as a recycling center, with additional spaces devoted to administrative office, storage, and paint shop. It still functions as a recycling center today, but in a limited capacity.

EUROPEAN SETTLEMENT AND FORTIFICATION IN THE PENSACOLA BAY AREA

NAS Pensacola occupies a peninsular spit of land projecting eastward into the broad Pensacola Bay in Escambia County, Florida. Entry to the bay from the Gulf of Mexico is protected by Santa Rosa Island and Perdido Key, forming an ideal defensive arrangement exploited as early as the seventeenth century by the Spanish, followed by French, British, and American forces. The first permanent settlement and military fortification in the immediate area was Fort San Carlos de Austria, built in 1698 by Spanish troops under the direction of Andrés de Arriola. Arriola maintained that the Gulf of Mexico—a vital link in the trade routes between Europe and Spanish colonies in Peru and Mexico—would be controlled by the nation that held the Bay of Pensacola.⁴ The simple, wood-and-earth fort stood until 1719, when it fell to invading French forces.

Domination of the Pensacola Bay alternated between Spanish and French forces during the following decades, during which the Spanish also built a small fort on Santa Rosa Island. After winning control of Florida following the French and Indian War, the British arrived at Pensacola Bay in 1763 and completed a new palisade fortification in 1771 to protect the growing town of Pensacola, just north of the military site, then called the Royal Navy Redoubt. A decade later, in 1781, the Spanish again regained control of the site, renaming the British palisade Fort San Carlos de Barrancas. This time, they fortified the entrance to the bay more securely, constructing Bateria San Antonio (San Antonio Battery) in 1797—a solid brick water battery of semicircular shape designed as a gun emplacement facing the bay.⁵ The Spanish remained in control of the Pensacola Bay area, despite skirmishes with the British and with American forces led by Andrew Jackson in 1814, until 1821, when Spain finally ceded Florida to the United States via the Adams-Onís Treaty (*Figure 1*). Andrew Jackson presided over ceremonies in the Plaza of Pensacola on July 17, 1821, celebrating the surrender of the territory by the Spaniards. Jackson then dispatched four army infantry companies to Fort San Carlos and the San Antonio Battery, marking the

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first occupation of the site by U.S. military forces.⁶

THE U.S. NAVY YARD AT PENSACOLA

The creation of the Territory of Florida by act of Congress on March 30, 1822, with Pensacola as the seat of government, replaced the interim government created by Jackson.⁷ A Florida Legislative Council, formed to promote the interests of the new territory, quickly moved to petition the U.S. Senate and President James Monroe for new fortifications on the Pensacola Bay, to include a naval station at Pensacola. Both the president and Secretary of the Navy Samuel Southard approved the plan, agreeing with the recommendation of the Senate Committee on Naval Affairs that the coast of Florida was the ideal site for a new naval depot. Southard commented that such an installation was “indispensable for the economical and efficient management of that portion of our navy which is employed in the West Indies and Gulf of Mexico.”⁸ Despite recommendations by the Board of Naval Commissioners to await the results of engineering studies on potential Gulf Coast sites, by March 3, 1825, both the House and Senate approved a bill authorizing construction of a navy yard at Pensacola. Objections to the Pensacola Bay site voiced by some military authorities included the shallowness of its channel, which precluded passage by some larger vessels, and its vulnerability to attack from the mainland. Notwithstanding these arguments, a party of three officers, including Commodore Lewis Warrington, Captain James Biddle, and Captain William Bainbridge, embarked for Pensacola in autumn 1825 to select the best location for the new navy yard. After surveying the bay and surrounding area, the three officers confirmed the depth of the channel at a consistent 21’-0”, and identified a point near Fort Barrancas, already owned by the U.S. government, as the ideal location.⁹

President John Quincy Adams approved the site selected a day after the report was delivered to him on December 2, 1825, and assigned Commodore Warrington as the first commandant of the Pensacola Navy Yard. Warrington arrived back at Pensacola in April 1826, and construction was soon underway. Construction materials, however, were difficult and expensive to acquire, as was skilled labor. Both had to be brought from the east at inflated prices, although southern slaves apparently provided menial labor at a lesser charge. Due to the high cost and delay in acquiring men and materials, as well as the onset of yellow fever epidemics in summer 1826 and 1827, construction proceeded slowly, and most facilities were left in a primitive state for some time.¹⁰

The most urgent need was for a fully equipped hospital. A contractor from Boston charged with building the new wharf, Samuel Keep, complained that yellow fever patients were being cared for in “...a little house called by that inappropriate name, hospital...If the yellow fever comes to the Yard I shall not remain here unless I am absolutely obliged to do so.” Although the old Fort Barrancas hospital had been pressed into service, it was rapidly disintegrating, and the new commandant arriving in September 1826, Melancthon T. Woolsey, was forced to rent a two-story wood house near Fort Barrancas to serve the sick of the depot and of the West India Squadron.¹¹ The yard’s surgeon, Dr. Isaac Hulse, also worked to pressure lawmakers to provide a better facility for the squadron’s increasing number of sick seamen. Although a hospital was under construction by November 1828, lack of funding kept the work from proceeding. In a letter to Florida Congressman Joseph White, Hulse admonished that “...it is impolitic, as well as inhuman in a government to neglect [the needs] of its servants.”¹² By summer 1828, construction had almost ceased at the yard, due primarily to a halt in funding engendered by new hopes of peace with the European forces that had so long beleaguered the Gulf.

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Lacking even the most basic facilities needed for the comfort and health of the squadron, the navy yard was even less equipped to address its shipbuilding and repair needs. By the 1840s, the yard still had no permanent wharf, no dry dock, few workshops and even fewer skilled workers. Construction of the yard's infrastructure continued on a piecemeal basis, without any general plan of development, halting every summer when workmen returned to the east to avoid yellow fever, and whenever the scarce funds allocated by Congress were used up. "The decline in piracy and slave running had largely removed the need for a fleet to suppress such operations and had undoubtedly influenced congressional decisions on appropriations for Pensacola. Moreover, the West India Squadron was renamed the Home Squadron in 1841, and its cruising ground was extended farther into the Caribbean Sea and Atlantic Ocean. Consequently, ships of the Home Squadron could make the larger and more adequate navy yards on the East Coast as easily as Pensacola."¹³

While the Pensacola Navy Yard stagnated, it was at least well defended. Between 1829 and 1859, the Army completed four defensive forts to protect Pensacola Bay. Fort Pickens stood on the extreme western tip of Santa Rosa Island, with Fort McRae on the western shore directly opposite. Fort Barrancas was built to the north, on the site of the old Fort San Carlos de Barrancas and next to the San Antonio Battery. The Advanced Redoubt to the north occupied the highland site that dominated Fort Barrancas. Most of the construction was supervised by Major William Chase, a U.S. Army engineer, who persevered in his task despite suffering the same scarcity of materials, manpower, and funding experienced at the navy yard. It would appear that the defensive forts benefited from a comprehensive design by the U.S. Corps of Engineers.¹⁴

Annual Reports from the BuDocks to the Secretary of the Navy reveal the slow struggle waged by the station's commandants against weather, yellow fever, contractors, and financial deficits. On November 19, 1844, the BuDocks Report took an optimistic tone on the progress of the navy yard:

At Pensacola, the sum of \$166,708 was granted at the last session of Congress for the commencement of works of importance, and for the purpose of gradually enabling that establishment to afford repairs and supplies to the vessels standing in need of them and to place it, as rapidly as circumstances permit, in a situation to become the secure resource of the navy in that quarter....A plan of the yard has been prepared and approved; and, as soon as materials can be procured in a sufficient quantity, the works will be commenced, and the yard have an organization corresponding with that of the others, by the employment of additional master mechanics, with the necessary workmen and laborers.¹⁵

An act of Congress dated July 1, 1844, authorized construction of the permanent wharf, although little action seems to have been taken afterward.¹⁶ Additional requests between 1842 and 1845 included such basic conveniences as officers' quarters, a permanent wharf, and a system of supplying fresh drinking water.

When the Mexican-American War broke out on May 11, 1846, Pensacola was the closest naval establishment to the blockading Home Squadron at Veracruz, 900 miles away. Without a dry dock, the yard was unable to provide more than minor repairs to vessels, and had little food, water, or other goods on hand to supply the ships. A yellow fever epidemic in the squadron sent hundreds of diseased sailors to the Pensacola Naval Hospital, which struggled to support such a burden.¹⁷ The deplorable condition of the only Gulf Coast naval station finally caught the attention of the public and, more importantly, the

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legislators who could act to fund its improvement.

CONSTRUCTION AND DESTRUCTION IN THE LATE NINETEENTH CENTURY AT THE PENSACOLA NAVY YARD

From 1847 through the 1850s, the Pensacola Navy Yard was abuzz with new activity. BuDocks requested funds for vital infrastructure, such as paving of roads, grading and leveling the yard, adding rail tracks to ease the movement of machinery, and finishing the permanent wharf. The station's commandant was also forced to ask for funds to repair the buildings that were already disintegrating because of the humid climate or poor maintenance.¹⁸ By 1853, a dry dock, a basin for loading and unloading ships, and a railway were in place; in 1856, dredging and the construction of a deep basin for larger ships was accomplished, although the permanent granite wharf was still unfinished. In 1858, shipbuilding finally began at the Pensacola Navy Yard, despite the lack of some important resources, such as a wet basin and fully functional foundry. Two sloops of war, the *Pensacola* and *Seminole*, were launched from the yard in 1859, marking the depot's coming of age after twenty-five years of struggle.¹⁹

Just as the Pensacola yard was attaining the status of a truly functioning maritime facility, the Civil War put an end to its progress. When Florida seceded from the Union in January 1861, the seventy-man federal garrison at the naval installation was faced with defending itself using only a few operable guns. Therefore, when more than 600 Alabama and Florida troops arrived at the Pensacola Navy Yard on January 12, 1861, Commandant James Armstrong surrendered the yard to the Confederates. The company garrisoned at Fort Barrancas was able to quickly move all men and supplies across the bay to Fort Pickens, which they defended throughout the war, even bombarding the Confederate forces at the navy yard and causing considerable damage in winter 1862. When the Confederates evacuated the area on May 9, 1862, they burned the navy yard to the ground.²⁰ The BuDocks Report to the Secretary of the Navy on November 4, 1862, states:

The yard at this place has also been repossessed by the government, but, like that of Norfolk, was found a mass of ruins, the buildings having been burnt and every effort made to destroy all the government property....A statement of the bids received and contracts entered into by this bureau, for the fiscal year ending June 30, 1863, will be presented at as early a day as practicable.²¹

In fact, little progress was made in rebuilding the navy yard in the following years. The BuDocks Report to the Secretary of the Navy for 1864 reads in part:

This yard was also almost entirely destroyed by the rebels, and thus far but little has been done to restore it to its former condition. Some small amount of machinery has been erected to meet the most pressing want of the Gulf Squadron, and it is now proposed to repair a few of the buildings for the accommodation of the officers, stores, &c....²²

Accommodation of the officers was in fact one of the most pressing needs at the navy yard in the late war years. When Commandant Ulysses Smith arrived at the destroyed navy yard in spring 1863, he was forced to find lodging in one of the ships docked at the wharf for repairs, for lack of shelter on land. In a letter to the Chief of BuDocks, he makes the first mention of repairing the kitchens, which later developed into the existing officers' quarters:

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I shall endeavor before [ten days'] time to fit up for myself a residence in a kitchen, and for some of the officers a residence in a stable; these being the only two buildings which can at a reasonable cost and in a short time be made available for our use. All the dwelling houses have been destroyed.”²³

A request to BuDocks sixteen months later by Smith's replacement, Commandant James Armstrong, revealed that previous requests for repairs had never been approved by the Navy. He asks for authority to make repairs to several kitchens, which “can be made to answer temporarily by roofing and flooring and closing them against the weather.”²⁴ The terse reply of Chief of BuDocks James Smith indicates the Navy's general attitude towards the yard:

As yet, the Pensacola Yard is temporary, and therefore, the improvements [to officers' quarters] are to be made for temporary work only. You are authorized to make such accommodations as are *absolutely necessary for the officers, on the most economical plan* (emphasis in the original).²⁵

The struggle for funding to upgrade the temporary status of the yard is reflected during the subsequent years by ongoing requests for better officers' housing. In the meantime, officers assigned to the yard dealt with their poor housing by improvising small improvements to the surviving kitchens and stables of the destroyed quarters.

After the termination of the conflict, BuDocks encouraged the Secretary of the Navy to fully repair the station, which was needed by the Gulf Squadron. However, by 1869, the chief of BuDocks advised the Secretary of the Navy that he found the location of the Pensacola Navy Yard “objectionable” due to its exposure to long-range guns from outside the harbor. “The great importance of having a well-equipped yard on the Gulf of Mexico suggests that, before heavy expenditures are made toward reconstructing the yard, it is worth while to institute an examination to ascertain if some more favorable location cannot be found.”²⁶

Although the Pensacola installation was not abandoned, work to repair the damage of the Civil War was again slowed by poor funding and an ambiguous status within the Navy. Appropriations were too small to permit large-scale building, although work on the commandant's quarters did continue. Commandant Woolsey was even permitted a trip to New York accompanied by the architect of BuDocks to choose prefabricated windows, doors, and other accessories for his new home. The other officers' quarters, however, still consisted of the brick kitchens of the old quarters with makeshift porches and sheds added for increased living space. In 1874 and 1875, BuDocks approved funding for permanent improvements to the quarters consisting of second-story additions and galleries, plus re-roofing, repainting and general repairs as needed to make comfortable family residences for the officers. Despite the improvements, one visitor to the yard in 1881 called the lower floors of the improved quarters “uninhabitable.”²⁷

Despite Pensacola's status as the only Gulf Coast naval base, its poor equipment and isolation from East Coast materials and workers, added to its various faults of location, endangered the very existence of the yard. An act of Congress closed it on March 3, 1883, pending further investigation by the Navy. Basic maintenance on the public property was performed during its seventeen-year hiatus from active service.²⁸ Although no new work was performed at the yard in 1898, the Spanish-American War of that year once again focused attention on Pensacola, and by 1900 the navy yard re-opened with new energy.

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The BuDocks Report of October 1, 1901, provides a summary of the Pensacola Navy Yard's status at the time:

Very few works of improvement have been made at this navy-yard since the civil war. At the time of the Spanish war, when it seemed probable that considerable service might be required of this yard, several appropriations by way of repairing and improving the buildings, wharves, dredging, and construction of better coaling facilities were made. The improvement of navigation from the Gulf to the yard has bettered the situation at this yard considerably, and the meager accommodations upon the Gulf coast have appeared to require better facilities for work at this station in case of emergency. Also, the board upon storing torpedo vessels has recommended that the yard be availed of as a site for one of the plants for housing such vessels....This is the only station of this kind recommended by the Board for the Gulf coast, and it is believed that provision should be made for storing a portion of those vessels in these waters.²⁹

In 1902 a new floating dry dock was purchased from Spain and hauled to the navy yard, and in 1905 the base served as a rendezvous point for all U.S. squadrons participating in training in the Gulf of Mexico.³⁰ International developments in the Gulf region kept hope alive for Pensacola. French attempts to finance the construction of the Panama Canal during the 1880s and 1890s finally ended when the United States took over the project in 1904. Progress on the project, which did not end until 1914, elicited much anticipation for increased commercial trade from the Gulf to the Pacific, to be accompanied by more naval activity to protect American interests at sea. At NAS Pensacola, the closest U.S. naval facility to the canal, plans for development included the construction of several buildings. Despite the positive outlook, unforeseen circumstances once again took their toll on the Pensacola Navy Yard. A massive hurricane struck the Florida Panhandle on September 26, 1906, severely damaging the yard's infrastructure and most buildings. The new dry dock was damaged, and the older, smaller dry dock was completely destroyed, incapacitating the yard's repair functions. Worse still, very limited funds were made available for the rebuilding of the yard due to the financial obligations associated with the brand new Navy base at Guantanamo Bay, Cuba. Although some new structures were built in the years following the hurricane, the Pensacola Navy Yard was officially closed on October 20, 1911 (*Figures 2 and 3*).³¹

THE CRADLE OF NAVAL AVIATION: NAVAL AERONAUTIC STATION PENSACOLA, 1914-18

The closure of the Pensacola Navy Yard provoked consternation in the town of Pensacola, whose residents still valued the yard for the jobs it provided and the income gathered from its activities, as well as for the sense of pride they felt at hosting a U.S. naval installation. Furthermore, the impending completion of the new Panama Canal held the promise of increased military and commercial activity in the Gulf of Mexico. In fact, while it was officially closed, the yard continued to host U.S. Marines performing experimental testing with torpedoes in the Pensacola Bay in 1913.³²

But while Pensacola's citizens fretted over the fate of the old navy yard, Navy officials looked toward a growing field of expertise that would soon revitalize the old base—naval aviation. Although wary of the experimental new technology, the Navy made tentative steps toward investigating the military applications of aviation by sending Annapolis graduate Lieutenant T. G. Ellyson to learn to fly with airplane manufacturer Glenn Curtiss at his Aviation Camp in San Diego, California, in December 1910. While at the camp, Ellyson assisted Curtiss in outfitting the first "hydroaeroplane," designed to take off

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and land from the water's surface. The Navy participated in these tests by providing the armored cruiser *Pennsylvania* to hoist the plane aboard after landing. The same month, civilian Eugene Ely was able to successfully take off from the deck of the *Pennsylvania*, proving that airplanes could easily be adapted to serve the Navy in conjunction with maritime vessels. In March 1911, a preliminary appropriation of \$25,000.00 was made for the establishment of the Navy's first aviation installation at Annapolis, Maryland.³³

With just a handful of planes and trained pilots in 1912 and 1913, plus a few enlisted mechanics, the aviation camp bounced between Annapolis and training locations including San Diego, California, and Guantanamo Bay, Cuba. Aviators took advantage of Curtiss' offer to train one pilot for each airplane sold to the Navy, thus increasing the ranks of aviators until an official training program could be started. The experimental and record-breaking flights accomplished by the Annapolis pilots impressed Secretary of the Navy Josephus Daniels enough to appoint a board to create plans for the first Naval Aeronautic Service in 1913. Within weeks the board of officers responded with a recommendation of the old Pensacola Navy Yard as the site for a new naval aeronautic station, and suggested an appropriation of \$1,297,700.00 to implement the program. Once approved by Secretary Daniels, the Annapolis aviation group once more packed up their camp to move to Pensacola, arriving on January 20, 1914. The unit, consisting of

nine officers, twenty-three enlisted men, seven aircraft, and portable hangars and other gear...arrived at Pensacola on board the battleship *Mississippi* and the collier *Orion* to establish a flying school. Lieutenant John Towers was in charge of the unit, and Lieutenant Commander Henry C. Mustin commanded both the *Mississippi* and the aeronautic station.³⁴

Although the Pensacola Navy Yard had officially been closed since 1911, it had not been totally abandoned as previously mentioned. Less than two months before the arrival of the *Mississippi* with her cargo of aviators, 856 Marines had temporarily occupied the yard while performing torpedo exercises in the Pensacola Bay, and "...a considerable amount of work was done adapting buildings and quarters for their use." Several hundred Marines stayed on at the new aviation camp for training until at least 1915.³⁵ Nonetheless, upon his arrival, Lieutenant Commander Mustin reported that the beach was littered with stones, driftwood, and piling, and needed extensive work to clear it for the use of flying boats. In addition, he reported that, "the buildings in general are dilapidated and disreputable in appearance inside and outside."³⁶ Lacking adequate housing on base, the aviation unit made their home aboard the *Mississippi* and turned their attention to the work at hand. After clearing the beach, the men erected ten temporary canvas hangars along the beach, each with an individual wood runway extending down to the water to ease the planes over the thick sand. In less than two weeks, aviators made the first flight at the new aeronautic station.³⁷

The first months at the station were fraught with excitement and novelty, especially for Pensacolians who witnessed the first flights over the Pensacola Bay. Within weeks, they also witnessed the base's first aviation fatality when Lieutenant J. M. Murray crashed into the bay in a Burgess D-1 flying boat on February 15, 1914. The following month, five submarines and two transport ships from the Atlantic Fleet arrived in the bay for extended operations with the aviation unit to determine visibility of the submarines from the air. Later in the spring, nineteen destroyers converged on the former navy yard in response to rising tension with Mexico, which was suffering revolutionary upheaval. On April 21, 1914, a detachment from the Pensacola station, commanded by Lieutenant P. N. L. Bellinger, was sent aboard the *Mississippi* to assist American forces in seizing the Customs House at Veracruz, Mexico. Another detachment was

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dispatched to Tampico. At Veracruz, Pilot Bellinger, with three students and two airplanes, formed a unit that proved useful, flying observation missions daily over the city and attempting to locate the camps of enemy attackers. Bellinger even came under fire while flying low, and his plane bore the first marks of naval aviation combat.³⁸ Soon after the detachment's return to Pensacola, the handful of officers and students settled into their new home, and the base was officially designated as the Pensacola Naval Aeronautic Station (NAS) on July 1, 1914.³⁹

As Pensacola NAS's officers worked to develop a more extensive pilot training program, they also labored to improve the base and its equipment, constructing permanent facilities to replace early temporary ones. In 1915, the Navy began waterfront improvements at NAS Pensacola, consisting of wholesale renovation of existing runways, repairs to the wharf, construction of four new seaplane ramps and six new steel hangars, including Building No. 74. Hangars 71, 72, and 73 began in 1916, and construction on Building Nos. 74, 75, and 76 was completed in 1918. These permanent buildings replaced the original canvas hangars that occupied NAS Pensacola's beach. With a complement of nine officer-pilots and almost fifty enlisted men, the aviation school had a limited number of aircraft for use in training pilots and mechanics. According to a Navy historian in 1930, "The equipment of the Aviation School, at this time, consisted of 3 old Curtiss flying boats, 3 new Curtiss flying boats, 2 Curtiss pontoon-type planes, and 1 Burgess flying boat."⁴⁰ In the Annual Report to BuDocks for 1915, Commandant Mustin reported:

During the year, the establishment and operation of the Station as an Aeronautic School were carried forward. The quarters were occupied by Naval Officers and a start was made at placing the shops in operation....There is no space on the reservation suitable for operation or practice with land aircraft. It is proposed to clear, grade, and surface the area North of the Navy Yard wall, and East of the electric railway; clearing out such residences and buildings [in the nearby town of Woolsey] as may be necessary, and extending on the water front so far as is practicable.⁴¹

Major hurricanes were reported on July 5, 1916, and October 18, 1916, both reaching wind speeds of over 100 miles per hour and causing extensive damage totaling \$420,000.00 for repair or replacement of government property.⁴² America's declaration of war on Germany on April 6, 1917, however, ensured that the station received full funding for damage repair, new construction, and the enhancement of its training programs. At the advent of direct U.S. participation in World War I, the Pensacola station was the only naval aviation facility in the country. In 1921 Navy historian Earle Corliss wrote a detailed inventory of the early station: "Its facilities, though efficient, were limited, consisting of three seaplane hangars of steel construction, a brick structure used as a hangar, an airship shed mounted on a barge (capable of accommodating a small type of nonrigid craft), and a few service buildings."⁴³ In addition to the hangars and shops needed for aviation training, new structures were built for the new "lighter-than-air" dirigible program, and to accommodate maritime supply vessels and other ships visiting the port.⁴⁴ By the end of the war in November 1918, over 100 new buildings had been erected and four temporary camps established outside the bounds of the station to serve the needs of the growing training programs. A major extension to the original navy yard was made to the north, in compliance with Commandant Mustin's recommendation. In addition, Camp Bennett to the west, Camp Mustin to the south, Camp Saufley on Santa Rosa Island, and Camp Bronson north of Pensacola, were all established either to house and process incoming recruits or to serve as training grounds.⁴⁵ A 200'-0" observation tower was erected, and most of the hangars on the beach were painted in camouflage patterns to avoid detection by the enemy. Including

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a completely new 300-bed hospital unit with independent water and sewerage system, expenditures for building and maintenance for Fiscal Year 1918 amounted to the staggering sum of \$2.6 million.⁴⁶

With the war effort came ever increasing demands for more naval pilots and mechanics, necessitating changes in the training programs offered at NAS Pensacola (the aeronautical station was officially designated as Naval Air Station Pensacola in December 1917). Both elementary and advanced flight training were provided to officers until May 1918, when NAS Pensacola switched to providing only advanced flight training. "The mission of the station had changed from teaching beginners how to fly to teaching flyers how to fight in the air."⁴⁷ In fact, most naval aviators serving in Europe spent their missions patrolling coastlines for mines and submarines, and bombing submarine bases.⁴⁸ Training had changed for enlisted men, too. A historian commented in 1930:

In the early era of the Station each enlisted man was expected to be a jack-of-all-trades. He was expected to know something about such diversified things as motors, rigging, blacksmithing, balloons, and beach work. Naturally, with the widening of the scope of the Station's mission, schools were established to teach the men to be specialists in one given occupation.⁴⁹

To meet the demands of war, NAS Pensacola established new schools for carpenter's mates, radio operators, instrument men, machinist's mates, and specialized mechanics. Between April 1917 and November 1918, the station churned out 5,382 air "mechanicians." During the same period, 921 naval aviators trained at the station, plus sixty-three dirigible pilots and fifteen free balloon pilots.⁵⁰ The pace of training accelerated even more rapidly in the final months of the war, when pilots were urgently needed in Europe. In the final frenzied nine months before peace was declared in Europe, NAS Pensacola witnessed eighteen student deaths from crashes and twenty-four serious injuries.⁵¹ Despite the losses, naval aviation had made enormous strides in an incredibly short amount of time, proving itself effective in both combat and observation duties. The station itself reflected the new specialization taking place in naval aviation, with many new shops, hangars, and classrooms to meet the needs of the more varied training programs (*Figure 4*).

DEMOBILIZATION: 1919-35

The population at NAS Pensacola plummeted quickly after the end of World War I. Within months, approximately 5,000 Pensacola servicemen were discharged, leaving much of the station vacant. The Annual Report to BuDocks in June 1920 stated that Camp Bennett had been closed; buildings at Camp Mustin were being used for storage of equipment from other stations; and the buildings at Camp Saufley were deteriorating from disuse. Some structures built especially for the war effort were allowed to disintegrate, since reduced funding limited maintenance capabilities.⁵² Many legislators were reluctant to fund naval activities in the post-war climate of disarmament and demilitarization. Furthermore, factions within the Navy, itself, argued over the role of aviation in naval warfare, which depended upon the success of aircraft carriers over traditional battleships. When the USS *Langley* was converted to an aircraft carrier and sent to Pensacola for testing in 1922, the station's future looked bright. Nonetheless, the 1920s were characterized by a lack of direction within the Navy, perhaps characteristic of the United States' own confusion over its role in the world. Throughout the decade, the aviation school at NAS Pensacola dealt with low reenlistment and few new applicants, and even allowed enlisted men to train as pilots (the term Naval Aviator remained reserved for officers). The Navy tinkered constantly with the program to try to increase the number of aviators graduated annually, with disappointing results.

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Although 100 students completed the course each year by 1925, only half that number actually passed their flight qualification tests.⁵³ Officials were reluctant to simplify the tests, however, for fear that the already excessive accident rate would increase as a result.

In the 1920s, the concept of dedicated aircraft carriers began to revolutionize naval aviation. Instead of taking off and landing in water, aircraft could begin to rely on carriers as a home base, with more extensive runways than earlier battleships had provided for planes. Furthermore, new landplanes with increased flying range enabled pilots to make extended forays over land to carry out a variety of missions. Therefore, landplane training was added to NAS Pensacola's curriculum in 1922. With the landplanes came a new system of outlying fields radiating from the naval air station. These fields provided the extra space for take-off and landing required by conventional landplanes and relieved congestion in the air caused by growing numbers of student pilots in training. Since the dirigible program had been cancelled, the former dirigible and balloon field, Station Field (later called Chevalier Field), was enlarged and re-sodded in 1923 to accommodate landplanes. It was enlarged again in 1926.⁵⁴ Another landing field was carved out of the town of Woolsey to the north of the station and named Corry Field. Problems with the lease on Corry Field, however, caused the Woolsey airfield to be abandoned, and a new 250-acre Corry Field, donated by the residents of Escambia County, was located approximately three and one-half miles northwest of NAS Pensacola.⁵⁵

The geographical problems that had plagued the old navy yard for almost a century did not present a problem for the workings of the air station, but the base once again suffered from the effects of violent weather in the Gulf. The Annual Report for 1927 described the most recent devastation:

On September 20, 1926 a tropical hurricane of great intensity struck this station. This storm involved wind velocities of 110 miles per hour from the northeast with gusts much higher than this and it was accompanied by a rise in tide of 8 feet 4 inches above mean high tide, resulting in complete inundation of practically the entire station, and great damage to Public Works and Public Utilities.⁵⁶

Repair and rebuilding began once again, and in 1929 Assistant Secretary of the Navy for Aeronautics David Ingalls testified before the House Appropriations Committee, recommending a \$5 million "re-organization and re-modernization" of NAS Pensacola.⁵⁷ Although the onset of the Depression prevented the immediate implementation of the planned project, steps were taken to prepare the base for expansion. In 1930, the town of Warrington, established just west of the old navy yard in the nineteenth century, was razed to make room for a planned airfield, and to allow the station to continue growing to meet its training goal.⁵⁸

MOBILIZATION AND WORLD WAR II

After suffering budget cuts that effectively crippled the aviation training program from 1932 to 1933, NAS Pensacola effectively sprang back to life mid-decade. Legislators passed the Vinson-Trammell Act in 1934, authorizing the maximum buildup of naval forces allowed under the Washington and London treaties made following World War I. Although the government still had little funding for military projects, the act helped set the stage for future growth at U.S. naval stations. Then, in 1935, the Aviation Cadet Act of April 15 created the grade of Aviation Cadet in the Navy, opening up recruitment to a wider range of applicants. The Annual Report of 1936 stated:

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The cadets are selected from graduates of various colleges and universities throughout the country. Classes of about 75 were received monthly, the first arriving July 20, 1935. They undertook an intensive twelve months' course in aviation training, including ground school work and rudimentary naval training. The graduates are assigned to fill aviation cadet quotas in the Fleet.⁵⁹

In addition to augmenting the training program, legislators also granted the station \$3,081,500.00 for a new building program in the Authorization Bill approved April 15, 1935.⁶⁰ The principal items included in the program anticipated an expanded role for the station in the coming years and included two 500-man barracks, eleven individual married officers' quarters, two steel-and-brick hangars for Station Field, and new roads. All the major contracts were granted to a single firm, the Virginia Engineering Company of Newport News, Virginia. Commandant G. S. Burrell noted in 1936 that the selection of one firm for the whole program "...has greatly simplified the co-ordination of the work and minimized interferences, questions of junctures of work items, [and] duplication of submission of samples and drawings for approval. The Company's performance has been on the whole very satisfactory."⁶¹ Most of the buildings also featured similar massing and details, typified by Building 604 with its massive brick pylons and inset glass panels, providing a uniformity and sense of cohesiveness to the growing base. The construction program, which eventually included "26 modern brick buildings," was completed in 1937, "making it an outstanding year in the history of the Station."⁶²

A valuable construction program at NAS Pensacola was obtained by BuDocks through the Works Progress Administration (WPA)—a Depression-Era work relief program—in 1936 and 1937. The work, eventually valued at \$243,626.00, included the repair and improvement of buildings and the rail system at the station, in addition to "modernization of plumbing and improvement of sanitation and ventilation [at the] Naval Hospital."⁶³ In addition, the 457 workers employed on the job helped to prepare the new Corry Field on leased property northwest of the station.⁶⁴ Another WPA project completed in 1938 and employing 513 men provided for "a) the construction of an arch type magazine and barricade; b) concrete taxiway...; c) revamping and relocation of railroad tracks; d) slag-asphalt road-paving and parking areas; e) rehabilitation and painting of buildings; and f) miscellaneous items of grading and planting."⁶⁵ In 1938 and 1939, the WPA and the Public Works Administration PWA constructed a new marine barracks, new dispensary, steel and brick hangars at Corry Field and Chevalier Field (formerly called Station Field) (with structural steelwork provided by a non-WPA contractor), and two sets of cadet quarters. Part of the same WPA/PWA project included the construction of "a modern 3-story, 3-wing hospital of concrete, brick hollow tile and stone construction...provided to replace the inadequate war-time structure now serving that important activity."⁶⁶ Thus, the great public works programs initiated to relieve the economic catastrophe of the Depression also played an important role in preparing the nation's largest naval aviation center for the coming conflict in Europe.

In 1938 the Vinson Navy Bill gave an additional boost to naval aviation, and to NAS Pensacola in particular, by increasing the authorized number of planes to be maintained by the Navy to 3,000—up from only 1,000 aircraft. The bill also established a board of officers to report on the current readiness of naval stations to meet the national defense needs, and to advise on development plans where needed. The board, called the Hepburn Board after its senior member, Rear Admiral Arthur J. Hepburn, recommended a fifty percent increase in pilot training facilities at NAS Pensacola to meet defense needs. A new construction program beginning in 1939 and continuing throughout the war eventually left the station with eleven hangars and personnel facilities for 15,000.⁶⁷

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As the United States entered World War II in 1941, NAS Pensacola stepped up training activities to meet the demand for new pilots, while still busily erecting both makeshift and permanent buildings. Although aviation in the First World War was still in a fledgling state, by 1941, technological advances and the development of combat flying techniques created the bombers and fighter planes that soon became familiar sights over European and Pacific skies. Four new training fields were opened between 1940 and 1942, including Saufley Field in 1940, Ellyson Field in 1941, and Bronson and Barin Fields in 1942.⁶⁸ With its six auxiliary training fields now in operation, the station qualified 28,562 fliers between 1941 and 1945. Pilots were trained in one of various schools operating at the base. There was a Naval Photography School, an aerial gunnery school, a flight instructor's school and the Navy's only School of Aviation Medicine to qualify flight surgeons. In addition, patrol maneuvers and scouting and observation from seaplanes were both important areas of instruction. In 1943, NAS Pensacola became the headquarters of Naval Air Training Command. By the end of the war, thousands of metalsmiths, machinists' mates and other technical crew were also trained at NAS Pensacola.

THE COLD WAR: 1946-89

At war's end, rapid demobilization again took its toll at NAS Pensacola. Barin and Ellyson fields were deactivated, while the other training fields were reassigned to new purposes. Naval Air Training Command was reorganized with a number of different subcommands including Naval Air Advanced Training, Naval Air Basic Training, Naval Air Reserve Training, and Naval Air Technical Training Command, which moved to NAS Memphis in 1946. NAS Corpus Christi took charge of basic training duties, while NAS Whiting Field also took on training responsibilities. Within a few years, however, naval organization changed again, and Naval Air Basic Training Command headquarters relocated to NAS Pensacola, where it stayed throughout the Korean War. In 1947, the old Fort Barrancas cantonment, operated by the U.S. Army since the nineteenth century, was officially deactivated and transferred to NAS Pensacola, marking the station's continued westward expansion.

During the following decades, military conflicts in Korea and Vietnam ensured that naval aviators remained in demand. Between 1950 and 1953, NAS Pensacola produced 6,000 aviators at a cost of almost \$70,000.00 each.⁶⁹ NAS Pensacola's auxiliary fields were reopened in 1951, and helicopters made their first appearance at Pensacola the same year. The first class of helicopter pilots was trained at Ellyson Field beginning in January. The most dramatic development in naval aviation training was the introduction of jet aircraft to the advanced training syllabus in 1955. Sherman Field was built in 1954 on over 900 acres near the old Fort Barrancas cantonment west of NAS Pensacola to accommodate the new jet requirements. In 1955, the Blue Angels jet fighter demonstration team, originally formed in 1946 to demonstrate the capability of naval aviators, relocated from NAS Corpus Christi to NAS Pensacola, where their air shows are still a popular attraction.

During the Cold War period, the U.S. military raced to develop new technologies to maintain heightened strategic advantages over the Soviets. Naval aircraft achieved supersonic flight, adopted complex computerized navigational systems and missile systems, and took off from nuclear-powered aircraft carriers. Aerospace medicine became part of the studies undertaken at the Naval Aviation Medical Center, originally commissioned in 1957. In addition to studying the effects of gravity forces and disorientation on pilots in combat, scientists worked to understand the potential effects of space travel on humans. In the early 1960s, astronauts from the Mercury and Gemini programs all underwent physical testing and

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training for water landings at NAS Pensacola.⁷⁰

After the conflict in Vietnam escalated in 1964, pilot training again increased in response. "Pilot production had been as low as 1,413 [annually] in 1962, and as high as 2,552 in 1968, increasing and decreasing with the heat of battle involving carrier deployments in the Far East."⁷¹ Despite financial limitations instituted as the Vietnam War dragged on, NAS Pensacola grew in both size and responsibility as more training and study were needed for highly specialized systems (*Figure 5*). Major damage incurred during Hurricane Camille in August 1969, was quickly repaired and some buildings rebuilt. By 1971, the station covered over 5,500 acres. New training centers were commissioned in the early 1970s, including the Naval Technical Training Center (formerly Naval Communication Center), which was the Navy's locus for electronic warfare and photography training, and the Naval Education and Training Program Development Center, established at Saufley Field in 1974.⁷²

Following the Vietnam conflict, Navy budgets fell victim to a large-scale demilitarization campaign in the U.S. government. Nonetheless, NAS Pensacola persevered in its training mission, instructing 1,697 officers and 2,188 enlisted men in 1982. The station also continued as a major contributor to the local and regional economies, with a military payroll of \$144,352,908.00, a civilian payroll of \$187,635,344.00, and almost \$10 million in supply purchases in the same year.⁷³

In 1988, the Defense Secretary's Commission on Base Realignment and Closure (BRAC) was formed to recommend base closures in order to streamline the military base structure worldwide. BRAC reflected the general trend toward military downsizing in the 1980s, when long-range nuclear missiles and subsequent arms control talks were the focus of many military leaders. In the 1990s, the end of the Cold War caused further financial cutbacks for the U.S. military, resulting in a greater rate of base closures. NAS Pensacola successfully avoided closure due to its vital position in the Navy's aviation program and its important tenant commands.

Today, NAS Pensacola occupies 8,423 acres, including Corry Station, Saufley Field, Bronson Field, and Sherman Field. The station hosts over ninety defense-related tenant commands, including the Chief of Naval Education and Training, Training Air Wing Six, Naval Aviation Schools Command, the Naval Aerospace Medical Research Lab, and the Naval Air Technical Training Center. The military population consists of over 16,000 people, in addition to 6,000 civilian employees. The station continues to provide top qualified naval aviators and other personnel; over 25,000 Navy and Marine students passed through the various training programs housed at NAS Pensacola, in addition to 1,300 officer candidates.⁷⁴

The considerable history of military occupation in the Pensacola Bay remains evident at NAS Pensacola in structures such as the Fort Barrancas cantonment and the NHL Pensacola Naval Air Station Historic District at the heart of the station. The presence of these early buildings has exerted a significant force in shaping the modern base, as have external factors including periodic destructive hurricanes and legislative favor. Most importantly, the change from a traditional naval shipyard to a modern naval aviation installation with associated technological advances and demands produced a gradual metamorphosis that has resulted in the modern NAS Pensacola. The shift from maritime vessels to aircraft likely saved the Pensacola base from abandonment and led to the development of an active installation vital to the regional economy and to the Navy's aviation program.

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DETAILED BUILDING HISTORY

In 1914, the Navy redesignated the former Pensacola Navy Yard as Naval Aeronautical Station Pensacola, the new home for naval aviation training. Early naval aviation efforts explored a variety of technologies; among the strategies developed at that time were the use of lighter-than-air aircraft (dirigibles, balloons, and blimps) and, later, seaplanes (float planes, flying boats, and amphibious aircraft). The Navy initially constructed temporary wooden sea ramps and canvas hangars in the mid-1910s to facilitate training efforts, but later in the decade undertook an extensive building program that supported the primary mission of naval aviation training and World War I mobilization efforts. Included in the building campaign was the construction of six steel-frame hangars (Building Nos. 71, 72, 73, 74, 75, and 76) and associated concrete ramps along the waterfront abutting the converted navy yard (*Figure 6*). The new hangars replaced the temporary canvas hangars located on the beach at NAS Pensacola, and the ramps were used to move the seaplanes from the hangars to the water.

Constructed as a seaplane hangar, Building No. 74 supported NAS Pensacola's primary mission of naval aviation training through both World Wars. It is located along the western edge of the south waterfront, adjacent to two other seaplane hangars (Building Nos. 75 and 76) and four concrete ramps (Building Nos. 167, 168, 169, and 170). BuDocks supplied the architectural plans for Building No. 74.⁷⁵ Unlike many hangars constructed during this period, the structures at NAS Pensacola did not follow the standard seaplane hangar military form; they differed in size, building footprint, truss system, roof type, and were of permanent construction. BuDocks's standardized hangar, referred to as the Coastal Air Station Seaplane Hangar, was considered a portable, temporary building. It "measured 112' x 75' x 24', and also featured steel truss construction in a distinctive gambrel profile."⁷⁶ Another common hangar type of this period was the Foot Timber Seaplane Hangar, which was constructed entirely of wood.⁷⁷ The six seaplane hangars constructed at NAS Pensacola, including Building No. 74, were not like the others of this period (*Figure 7*), making the World War I-era hangars at NAS Pensacola unique.

Henry Monk, contractor, began construction of Building No. 74 on January 4, 1918, and completed the job within the year.⁷⁸ Building No. 74 differed from the other hangars at the base in that it was larger, taller, and the roof was single-gabled as compared to the triple-gabled roofs of the other five hangars (*Figure 8*). The steel structural support system of the approximately 220' x 103' hangar featured closed flat Pratt trusses, which was an early application of this truss system and was not seen at any other hangars constructed by the Navy during the World War I period.⁷⁹ The interior space was large and expansive, with a flight of stairs leading to a storeroom and office space on a mezzanine level. Both hangar and pedestrian doors were located on three of the four sides—south, east, and west. The exterior walls were clad with corrugated asbestos siding. The original building entrance was located along the south facade and fronted onto concrete seaplane ramps spaced along the waterfront.

In the late 1920s and early 1930s, NAS Pensacola undertook extensive repairs and renovations to Building No. 74, which included enclosing the south facade with a low concrete wall, making the west facade the building's new main entrance.⁸⁰ The south facade's concrete, storm wall was probably constructed for hurricane protection and as a flood barrier (*Figure 9*). In 1927, NAS Pensacola developed plans to replace the hangar's original doors, but the work did not actually begin until 1928. Station labor removed Building No. 74's original rolling metal doors on the east and west facades and replaced them with steel leaf rolling doors.⁸¹ Building No. 74's original steel sash windows were replaced between 1932 and 1933.⁸²

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As the United States entered World War II, naval aviation training rapidly increased at NAS Pensacola. Building No. 74 supported the World War II primary mission of aviation training and again served as an aircraft hangar, but it housed landplanes instead of seaplanes.⁸³ The only renovation undertaken for Building No. 74 between 1932 and 1942 was construction of a small lean-to along the hangar's north facade, which housed a locker room and restrooms.

Following the war and a decrease in training activities, Building No. 74's function changed from a hangar to a gymnasium. From 1947 to 1948, extensive renovations were undertaken in support of the new function for Building No. 74. The north lean-to was expanded to its current length and accommodated a shower room as well as an enlarged locker room and restroom. A steam room and storage room were constructed at the northwest corner of the main building with a mezzanine level above. A maple floor was laid and striped to accommodate three basketball courts. Space was also allocated for two boxing rings.

From 1947 to 1955, Building No. 74 served in a support role. In 1955, NAS Pensacola completed improvements to the gymnasium that allowed personnel to utilize its facilities for both naval training and recreational use. NAS Pensacola constructed a parachute swing, landing trainer, and jumping platform, and added interior office spaces. According to architectural plans, Building No. 74 functioned as a gymnasium until ca. 1979, when its function changed to general storage. It continued in such a capacity from 1980 until 1992. While Building No. 74 was used as a storage facility, NAS Pensacola removed the hardwood flooring leaving a bare, concrete floor. In the late 1990s, Building No. 74 became a recycling facility, but it also housed administrative offices, storage, and a paint shop (*Figure 10*). Architectural drawings were developed from 1992 to 1993, and renovation work began the following year. In 1997, NAS Pensacola added a baler for use in recycling. When Hurricane Ivan struck NAS Pensacola in 2004, Building No. 74 served as a recycling center, a function that continues today, but in a limited capacity.

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Date: November 2005

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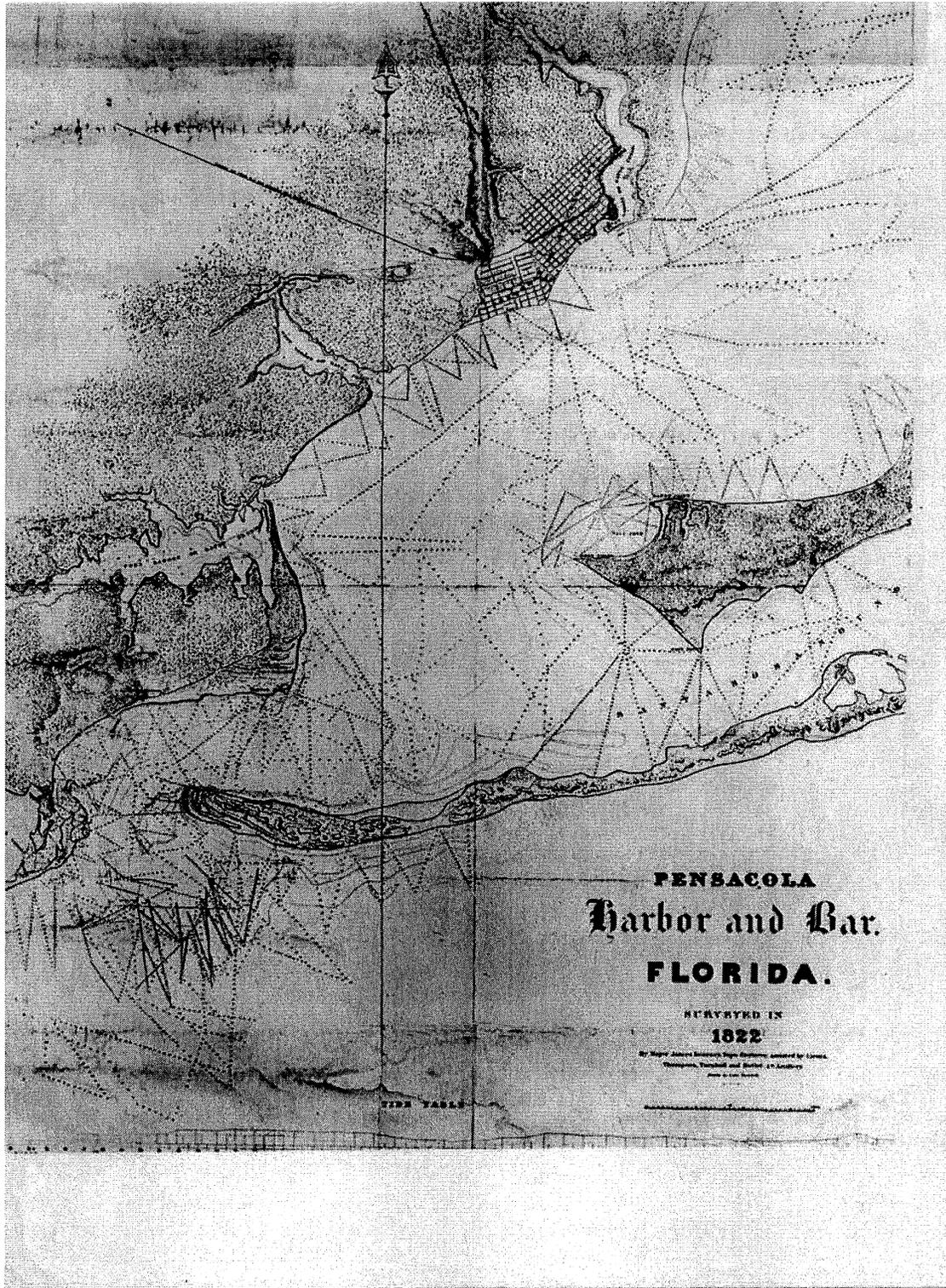
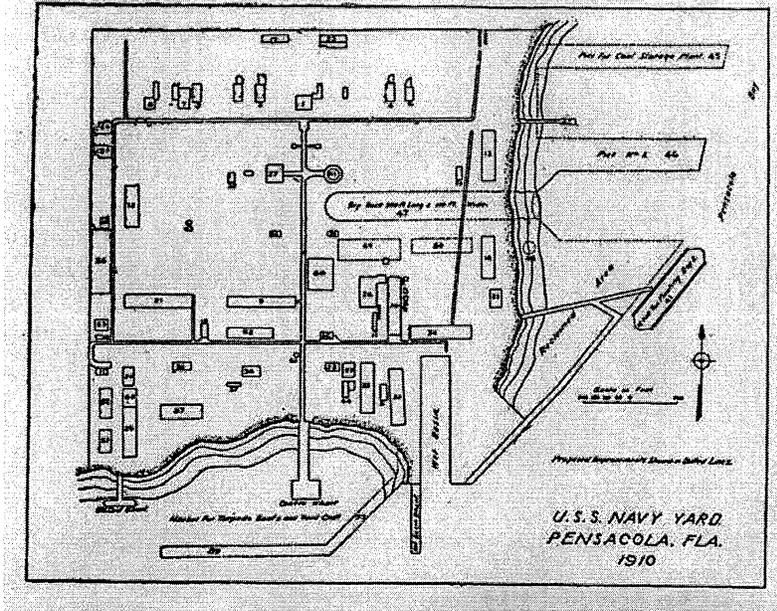


Figure 1. Map and Tide Table of the Pensacola Bay surveyed by the U.S. Army 4th Artillery in 1822, a year after Spain's transfer of Florida to the United States (Map courtesy of the Public Affairs Office, NAS Pensacola, Florida).

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Figures 2 and 3. Hand-drawn plan and index showing the state of the Pensacola Navy Yard in 1910, one year before it was officially closed. (Map and index courtesy of the Public Works Center, NAS Pensacola, Florida).



INDEX TO BUILDINGS

U. S. NAVY YARD, 1910

- | | |
|--|--|
| 1. Commandant's Quarters | 36. Sawmill |
| 2. Captain's of Yard Quarters | 37. Dry Kiln |
| 3. Doctor's Quarters | 38. Locomotive shed |
| 4. Naval Constructor's Quarters | 39. Paint Shop |
| 5. Civil Engineer's Quarters | 40. Pump house for cess pool of sewer system |
| 6. Paymaster's Quarters | 41. Floating steel dry dock, 10,000 tons capacity |
| 7. Engineer Officer's Quarters | 42. Bath House |
| 8. Pay Clerk's Quarters | 43. 100,000-gallon water tank, 150 feet elevation |
| 9. Joiners, Boatshop and Shipwrights | 44. Coal and coke storage |
| 10. Foundry and Bollerashop | 45. Proposed Pier for coal storage plant |
| 11. Prison | 46. Proposed Pier No. 1 |
| 12. Guardhouse | 47. Graving Dry Dock |
| 13. Now used as storage | 48. Proposed Pump Pit for Dry Dock |
| 14. S. & A. Paint and Oil Room | 49. Proposed building, machine shop |
| 15. Fire Engine House | 50. Proposed building, plumbers and allied trades |
| 16. Not used | 51. Proposed building, storage of combustible material |
| 17. Not used | 52. Proposed building, storage cement |
| 18. Marine Barracks | 53. Proposed building, guardhouse |
| 19. Carriage House | 54. Proposed building, Marine Officers' quarters |
| 20. Cement Storage | 55. Proposed building, Marine Officers' quarters |
| 21. Seamen's Barracks and general storekeeper's storehouse | 56. Proposed building, Marine Barracks |
| 22. Foundry, not used | 57. Proposed building, Sailors' Barracks |
| 23. Copper shop | 58. Proposed extension of timber shed |
| 24. S. & A. lumber shed | 59. Proposed extension of Sea Walls. |
| 25. Stables | 60. Central Power House |
| 26. To be used as Foundry | 61. Dispensary |
| 27. Administration Building | 62. Boat Storage Shed |
| 28. Not used | |
| 29. Cisterns Nos. 1 and 2 | |
| 30. Machine shop | |
| 31. Power House | |
| 32. General storekeeper's storehouse and offices | |
| 33. Shipfitter and blacksmith shop | |
| 34. Electrical, plumbers, ordnance stores, rigging loft; offices and sail loft | |
| 35. Wireless Station | |

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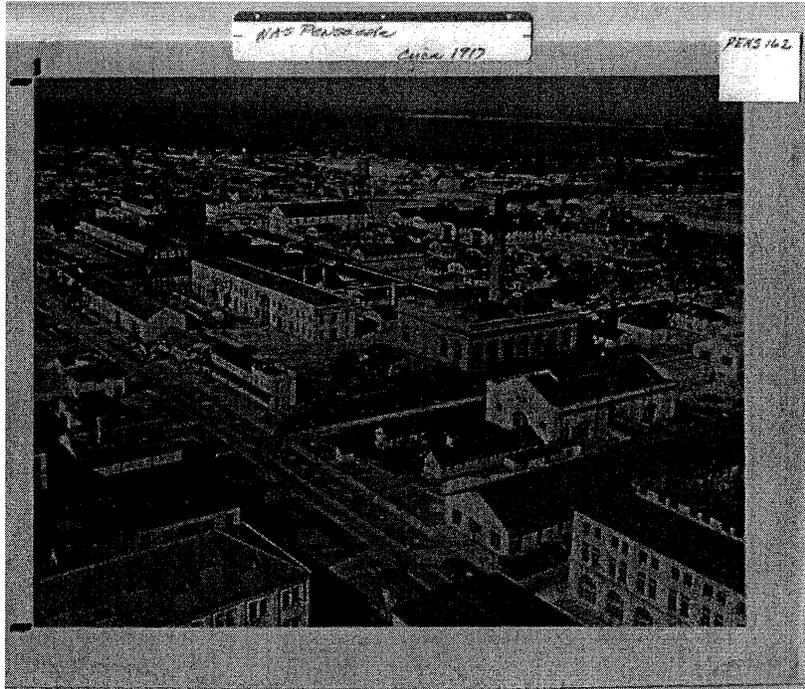


Figure 4. Bird's-eye view of NAS Pensacola ca.1917 (Photo courtesy of the Naval Aviation Museum, NAS Pensacola, Florida).



Figure 5. View of NAS Pensacola ca. 1967 facing east into the National Historic Landmark District. Chevalier Field is to the north (Photo courtesy of the Public Affairs Office, NAS Pensacola).

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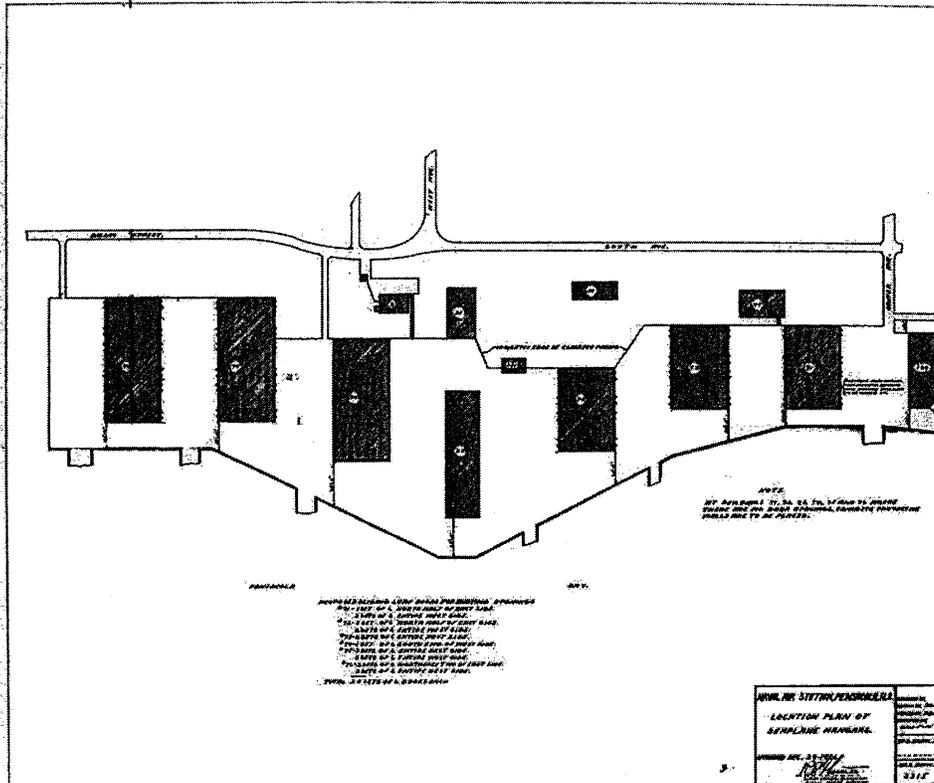
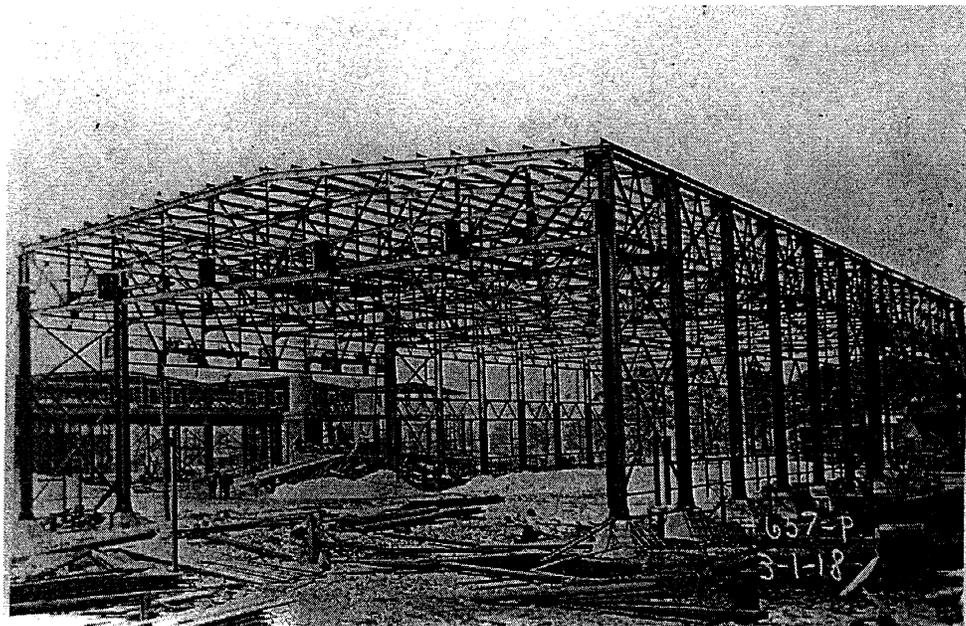


Figure 6. Location plan of seaplane [sic] hangars, dated December 29, 1926. (Original Architectural Plan courtesy of National Archives, NARA, College Park, Maryland).



Hangar No 74. Looking N.W. Contract No 2357.

Figure 7. Photograph of Building No. 74 following completion of the steel frame and state-of-the-art trusses, dated March 1, 1918 (Photo courtesy of Still Pictures Unit, National Archives, College Park, Maryland.)

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Figure 8. Building No. 74 prior to major renovations of the south facade, dated 1922. (Photo courtesy of the Naval Aviation Museum, NAS Pensacola, Florida).

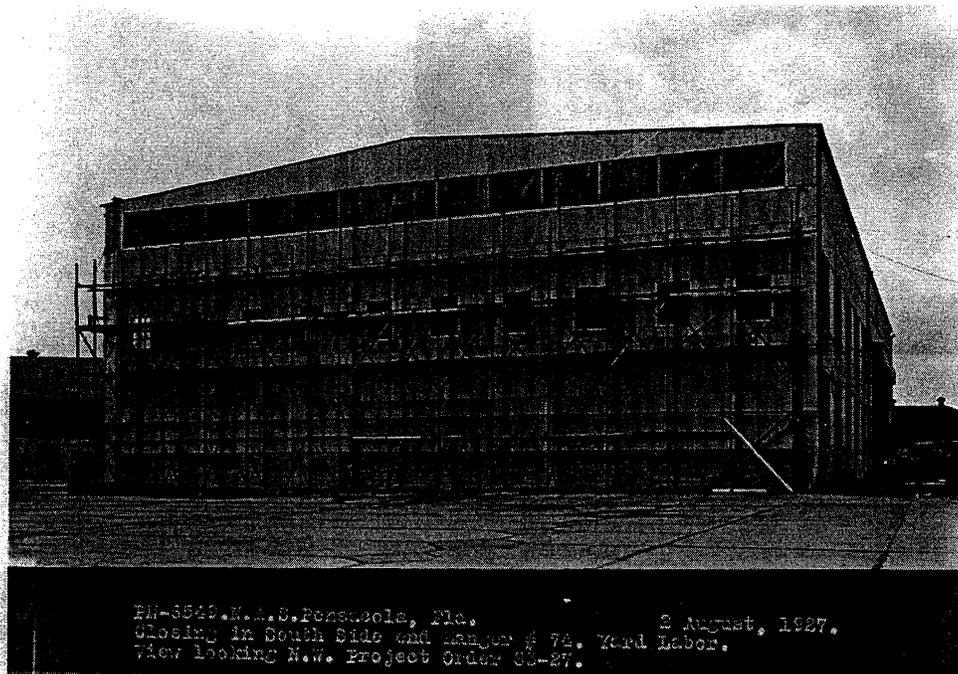


Figure 9. Building No. 74 following major renovations of the south facade in which a concrete protection wall enclosed the main entrance, dated August 2, 1927. (Photo courtesy of Still Pictures Unit, National Archives, College Park, Maryland).

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Figure 10. A recent view of Building No. 74 dated 2002. (Photo courtesy of HHM Inc., Austin, Texas).

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PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: Building No. 74 is a one-story, rectangular-plan, steel-frame building with a large, open, hangar bay and a smaller wood-frame lean-to on the north facade. The building is one of the earliest examples of a steel-frame hangar. The building utilizes twelve Pratt steel trusses on built-up riveted steel columns. The roof trusses and vertical columns divide the building into eleven bays on its east and west facades and five bays on its north and south facades. The bays are further defined by steel-sash window groupings that, while installed in the early 1990s, are generally sympathetic to original window opening sizes and light configurations. The structural framing is clad with corrugated metal siding, also installed in the early 1990s but very similar in appearance to the building's original corrugated asbestos panels. The lean-to was constructed in two phases between 1932 and 1947, but it adds to the overall character of the building and its original function as a hangar and later use as a gymnasium. The substantial steel framing and cross-bracing of the original building mass, combined with the rhythmic window fenestration, create an expansive open hangar bay that provides a fine example of this building type.
2. Condition of fabric: Building No. 74 is generally in good condition. Structurally, the building is intact, with isolated instances of spalling and cracking along the concrete foundation and some column footings and light-to-moderate corrosion of some steel-frame members. Exterior damage from Hurricane Ivan in September 2004 was limited to the loss of some window panels, window glazing, and corrugated-metal siding panels. In addition, the hurricane caused some water damage to interior finishes within the wood-framed lean-to on the building's north facade. A 2005 building survey also noted corrosion and deterioration on some exterior siding panels, as well as damaged roof flashing and gutter/downspout systems.

B. Description of Exterior:

1. Overall dimensions: Building No. 74 is a one-story, rectangular-plan resource. The building measures approximately 234' x 103', based on 1955 and 1993 architectural drawings. The building's primary mass, which measures 216'-4" x 103'-2", is an open-bay area formerly used as an aircraft hangar. A lower-height, one-story lean-to, which measures approximately 16' x 103', extends across the building's north facade. The building's primary mass measures 44'-2" high, from ground level to the roof crest, based on a 1942 architectural drawing. The north facade lean-to measures approximately 15'-6" high at its highest point, according to a 1992 architectural drawing. As originally constructed, the building's south facade served as the primary elevation. Subsequent alterations have closed the south-facing entries, with the west facade now forming the primary elevation. Building No. 74 is divided into eleven bays on the east and west facades, each measuring 19'-8". Window fenestration divides the south and north elevations into five bays, each approximately 20' in width.
2. Foundations: The hangar bay's foundation consists of a concrete, continuous-perimeter foundation curb wall, with structural steel columns supported on below-grade belled concrete piers. The north lean-to has an independent concrete-slab foundation with a continuous concrete perimeter foundation wall supporting the wood-frame walls. At the time of

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construction, the underlying grade was raised and leveled with earthen fill material, placing the piers substantially below grade. There are three sizes of concrete piers to accommodate the various sizes of vertical structural steel columns. Original construction drawings show that nineteen piers along the building's perimeter measured 3'-2" x 2'-3" at top and 6'-6" x 5'-6" at base; four piers, flanking the east and west facade's rolling doors, measured 4'-0" x 3'-0" at top and 9'-6" x 7'-6" at base; and four piers along the building's original north wall measured 2'-6" x 2'-0" at top and 4'-6" x 4'-0" at base. Exact dimensions for column piers on the south wall, installed in the 1927 infill of the south facade's rolling doors, are not available.

3. Walls: The building's exterior walls are clad with cream-colored corrugated metal siding. Some metal siding is missing from the east and south facades, due to damage from Hurricane Ivan. The metal siding was installed in 1993 to replace the building's original corrugated-asbestos siding. Narrow metal trimpieces extend horizontally around the building at the level of the window sills to form stringcourses. Cast-concrete partial-height panels set between steel columns measure approximately 5'-3" in height and extend across the base of the south facade. A small entry porch at the building's northwest corner is partially enclosed by exposed load-bearing concrete block. The building's east and west facades are divided into eleven bays, defined by groups of three-part steel-sash windows that denote the spacing between the building's primary structural columns. The north and south facades are punctuated into five bays by groups of four-part, steel-sash windows. The building's exterior is further defined by the presence of four-panel sliding steel hangar doors, asymmetrically placed on the south portion of the west facade and the north portion of the east facade. Building signage is located on the building's north and west facades, near the top of the exterior walls close to the midpoint of the respective facades. The signage consists of a square metal sign, 3'-0" x 3'-0", with the number "74" stenciled in black on a light-colored background.
4. Structural system: For the building's primary open-bay area, structural framing is provided by built-up riveted steel columns and I-beams, which support twelve riveted flat Pratt steel trusses. Three sizes of vertical steel columns are used as supports. As shown on the 1917 original construction plans, columns on the east and west facades of the building are composed of four 6" x 4" x 5/8" steel angles riveted to a 1'-6" x 3/8" web plate, except at the columns supporting the four-panel, steel, rolling doors. These columns are composed of four 8" x 6" x 3/4" steel angles riveted to a 2'-0" x 5/8" web plate. Vertical columns on the north side of the primary building mass are steel I-beams, listed on the 1917 plans as 16" x 42", referencing the size and weight per linear foot of the I-beams. Steel I-beam columns are also present between the bays of the south facade, apparently erected in 1927 when the original south facade rolling door was removed. Exact dimensions of the south facade columns are not available, but appear to match the north facade I-beams.

Secondary wall framing is composed of a complex arrangement of smaller steel members that provide lateral cross bracing. Horizontal steel I-beams and channels, joined by vertical and diagonal steel angles, form three courses of girt bracing that horizontally extend around the building. The lower course of girt bracing was slightly modified from its original configuration in 1993, to accommodate louver installation below the lower row of windows. Additional wall cross-bracing is located in the corner bays of the east and west facades and

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on the north side of the original building mass. Due to the construction of interior partitions, the lower set of diagonals on the north side of the original building are now covered by gypsum board but are assumed to remain intact at their original location. Additionally, a concrete stormwall, composed of cast concrete, stretches across the base of the south facade.

The Pratt roof trusses are aligned east/west, forming eleven distinct bays on the east and west facades of the building. The trusses conform to three dimensions. For the two southernmost trusses, the top and bottom chord are composed of two 1'-0" riveted steel channels weighing between 20-1/2 and 30 pounds per linear foot, with steel-angle diagonal and vertical members measuring either 4" x 3" x 1/4" or 5" x 3-1/2" x 1/2". The northernmost truss has top and bottom chords of two 10" riveted steel channels weighing 15 pounds per linear foot, with steel-angle diagonals and verticals measuring either 4" x 3" x 1/4" or 5" x 3-1/2" x 5/16". The remaining nine trusses have top and bottom chords of two 10" riveted steel channels weighing between 15 and 20 pounds per linear foot, with steel angle diagonals and verticals measuring either 4" x 3" x 1/4" or 5" x 3-1/2" x 5/16". Gusset plates of 3/8" thickness and 3/4" rivets connect the truss members. Additional trusses are located above the four-panel sliding doors on the building's east and west facades, situated transverse to the main roof truss system. These flat Pratt trusses, which are connected to the main roof trusses by riveted connections, have top and bottom chords each composed of two steel angles, with steel angles also forming the diagonal and vertical web members. Secondary roof framing is provided by horizontal bracing and eave struts. Interior horizontal roof bracing consists of four sets of two 6" steel channels joined by riveted steel lacing bars, aligned north/south in the plane of the top and bottom truss chords. Steel-angle eave struts run along the roof/eave junction on the east and west facades.

The lean-to on the building's north facade is conventionally framed using 2" x 4" wood studs. The entry porch on the building's northwest corner is supported on dimensioned wood posts that tie into a partial-height, load-bearing, concrete-block wall.

5. Porches, stoops: A small porch is located at the building's northwest corner, entering into the north lean-to area. The porch has a wood-frame shed roof with plywood decking and standing-seam metal roof material. The porch is supported by square wood posts and a partial-height concrete masonry wall. The porch floor is an unfinished concrete slab. A concrete ramp leads to this porch. A second concrete access ramp is on the building's east facade, leading to a former roll-up door entrance.
6. Chimneys: None.
7. Openings:
 - a. Doorways and doors: The building's primary entrance consists of four adjacent horizontal-sliding hangar doors on the building's west facade, asymmetrically situated towards the south portion of the main facade. These doors, installed in 1927 to replace the original sliding-panel doors, are of steel-frame construction, with corrugated steel and sheet metal exterior. The doors ride on steel overhead guide tracks and steel bottom guide rails, inset into the concrete perimeter curb and footings. Each door measures 19'-7" x 23-1-1/2", according to the 1927 drawings. According to 1993 architectural drawings, a metal roll-up overhead door was installed on the building's east facade. The east facade overhead door was removed in 2004 due to damage sustained during Hurricane Ivan. The

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former door opening is now infilled with a wood-frame, self-adhering underlayment. Within the lower portion of this infilled panel, there is a set of double-leaf, wood-frame plywood doors. Each door measures 5'-0" x 10'-0", with underlayment on the exterior. Hardware is limited to a single metal pull handle on each door, two metal hinges on each door, and a hinged padlock hasp.

Seven single flush-panel hollow metal hinged doors are on the building's north, west, and east facades. The doors have four metal-frame vision panels with tinted four-light glazing. The door on the north facade has a single-light transom panel above the door. These doors have steel frames with wood trim around the primary framing. Hardware consists of a single metal round knob and three metal hinges. Three examples of this door type are found on the building's east facade, three on the west facade (two at the original building mass and one at the north lean-to), and one on the north facade.

- b. **Windows:** Building No. 74 displays a variety of window types, generally large multiple-light units. Existing windows were installed as part of a 1993 rehabilitation project, with many windows conforming to original light configuration and opening size. The most common window type is a twenty-four-light fixed steel-sash unit, measuring 4'-2" wide by 9'-3" high, arranged in groups of three on the west and east facades and groups of four on the south facade. The window groupings are situated between the building's structural columns, demarcating bay divisions and overall exterior rhythm. Two horizontal courses of windows are present on the east and west facades. A variation of this type is a twenty-four-light, steel-sash window unit, also measuring 4'-2" wide and 9'-3" high, with a middle eight-light operable awning section, upper twelve-light fixed section, and lower four-light fixed section. This partially operable window type is located along the north and south facades, arranged in groups of four. Other window types include eighteen-light fixed steel-sash window units, each measuring 6'-3" wide by 4'-7-1/2" high, arranged in a continuous band near the roof-wall junction on the south facade; four-light fixed aluminum/vinyl-sash units, measuring 2'-3" x 1'-11", set into larger wood surrounds, located on the north and west facades in the north lean-to mass; and paired and single six-over-six-light, single-hung, vinyl-sash window units, 2'-4" wide and 3'-9" high and set into larger wood surrounds, located on the east portion of the north facade in the north lean-to. All windows have tinted glass. Dimensions for the windows are taken from 1993 architectural drawings, with the exception of the four-light aluminum/vinyl-sash window units, whose dimensions are taken from field measurements for a 2005 preservation analysis report of the building. Due to damage from Hurricane Ivan in 2004, several window openings are now covered with underlayment, and some lights are broken or removed.
- c. **Vents and louvers:** An aluminum louvered vent is located on the east facade near the building's northeast corner, corresponding to the interior location of the boiler room. This vent was installed in 1992, requiring removal of a small portion of exterior siding and part of a steel-frame window unit. The vent measures 3'-7" x 7'-4" (per a 2005 field survey) and is enclosed with a steel frame. Outside-air-intake vents are below some window groupings on the east and west facades. They were installed in 1993. These vents are paired under each window grouping and measure 6'-3" x 2'-11-1/2", per a 2005 field survey. The vents have steel framing and trim. Two ventilator exhaust fans with circular aluminum exterior housing are on the building's west facade.

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8. Roof:

- a. Shape, covering: Building No. 74 features a primary gabled roof, with a shallow 1:12 slope. The ridgeline of the gable is oriented north/south. The roof structure consists of 8" steel-channel purlins spaced regularly at 4'-0" on center, running north to south, and topped with a 3" laminated wood deck. The roof decking is covered by modified bituminous membrane sheets applied over a 0-1/2" gypsum roof board over a 1-3/4" rigid insulation board. The north facade lean-to has a shed roof, of lower height than the primary building mass. The roof structure consists of wood rafters with 0-3/4" plywood decking covered by composition shingles. Due to Hurricane Ivan's damage to exterior roof coverings, underlayment now covers portions of the lean-to's roof decking and shinglework. The small porch on the building's northwest corner is topped with a shed roof with a 4:12 slope and is composed of standing-seam metal over plywood decking.
- b. Cornice, eaves: At the roof eaves, an aluminum fascia forms an inverted L shape, bridging the roof-wall junction. A drip edge at the base of the fascia allows roof drainage to clear the building's exterior walls. Rectangular metal gutters extend across the west facade, and quarter-round metal gutters are along the eave line of the north lean-to. The gutter is missing from the entire length of the east facade. Rectangular metal downspouts are present on the west facade and lean-to portion of the north facade. Remnants of rectangular metal downspouts are still present on the east facade.
- c. Roof ventilators, roof penetrations: Four louvered roof ventilator fans are spaced regularly along the gabled roof's ridgeline. The ventilator fans were installed in 1992 during roof renovations. Each fan has spun aluminum exterior housing. A metal cylindrical stack, which serves as a boiler flue, is located near the building's northeast corner. A roof scuttle in the building's northeast corner provides rooftop access from an interior metal ladder.

C. Description of Interior:

1. Floor plans: The central gabled-roof portion of Building No. 74 is primarily a large open-bay area, reflective of its original function as a seaplane hangar. Subsequent alterations from 1947 onward created numerous interior partitioned rooms, generally in the north portion of the hangar bay. Owing to the extremely tall building height, the interior rooms have partial-height ceilings and are visually expressed as relatively small enclosures within the expansive hangar bay. The former hangar area measures approximately 220' x 103', inclusive of the interior rooms. Some of the interior rooms and partitions in the hangar bay were removed during 1992 and subsequent interior renovations; however, four rooms are still present along the north wall of the hangar bay. These interior rooms are accessed by doorways to the main open bay. From east to west, the rooms include a 7'-0" x 6'-0" telephone room and adjoining 11'-4" x 6'-0" electrical/power distribution room, both near the building's west wall; a 14'-6" x 8'-0" sprinkler/fire protection room roughly equidistant between the east and west walls; and a 16'-0" x 16'-0" boiler room along the east wall. A steel-frame suspended platform/walkway, accessed via a steel-frame safety ladder, is attached to the east interior wall of the hangar area, adjacent to the boiler room. The metal platform is secured to the building's vertical columns and the north/south-oriented truss that once supported the east

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facade sliding door panels. In addition, a large mechanical recycling baler and associated equipment are prominently situated in the southeast portion of the hangar area. The baler was installed in 1997 as the building was converted to use in recycling operations. A baler pit is also associated with the recycling operation, consisting of a 12'-0" x 10'-0" area depressed 5'-0" to 6'-0" below floor level and lined with reinforced concrete. The baler pit is surrounded by a metal guardrail at the floor level.

The north lean-to extends along the entire north facade of the building, measuring approximately 16' x 103'. The lean-to area is divided into several partitioned areas. The lean-to has four access points—one outside entry from the small porch on the west facade, one outside entry along the north facade, and two separate interior entries from the main hangar area. The general circulation and interior flow of the lean-to area is as follows, from west to east: an entry area, approximately 10' x 14', is the lean-to's west end; a door leads to a larger office area, measuring about 41' x 14'; a corridor, about 4' wide, leads eastward along the lean-to's south wall from the office area; a 10'-0" x 12'-0" break room and 10'-0" x 12'-8" file room are accessed directly from the corridor; a door is located at the terminus of the east/west corridor, leading to a north/south-oriented corridor with access to restrooms, utility closets, and the exterior. The women's restroom measures approximately 6' x 6', the utility closets measure 5'-0" x 3'-6" and 4'-0" x 3'-6", and the men's restroom, in the east end of the lean-to, has approximate dimensions of 12' x 14'.

2. **Stairways:** A safety ladder with metal treads, handrails, and circular safety enclosure, leads from floor level to a metal-frame platform along the north portion of the east interior wall. A second cylindrical metal-frame safety ladder leads upward from the platform to provide roof access.
3. **Flooring:** The floor within the former hangar, including the primary open area and interior rooms, is smooth-troweled unfinished concrete. The floor consists of a 4" (at minimum) concrete topping with tooled control joints at 15'-0" maximum spacing, laid over a deeper concrete slab. The concrete topping layer was laid as a replacement for wood flooring, which had been installed when the hangar was converted to use as a gymnasium. The deeper concrete slab is original to the building's construction. The floor slab slopes slightly downward from north to south, at a 1:20 maximum slope. The concrete surface is pitted and stained in scattered locations. Several different floor finishes are found in the building's lean-to area, with 2" x 2" glazed ceramic tile (American Olean Tile, Satinglo, #D-14, Sterling, Satin Glazed) in the restroom areas and 1'-0" x 1'-0" vinyl composition tiles (Armstrong, Imperial Texture, #51899, Cool White, 1/8" Gauge) in the corridors and most office areas. Prior to Hurricane Ivan, floors of some lean-to office areas were finished with carpeting, which has been removed due to water damage. The exposed concrete slab with remnants of adhesive mastic is now visible in these areas.
4. **Wall and ceiling finish:** In the primary hangar area, structural steel columns and wall lateral-bracing is generally exposed with fiberglass insulation roll sheathed in plastic covering inserted in the cavities between the structural members and exterior cladding. The lower 15'-6" of the hangar bay's north wall is finished with two layers of 0-5/8" gypsum board over fiberglass insulation in the wall cavity. This height corresponds to the height of the north lean-to. Former sliding door panels on the building's east wall have been infilled with several different interior finishes, including wood framing with plywood cladding, corrugated metal

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associated with a former roll-up door, and fiberglass insulation roll in plastic covering. The boiler room interior partition consists of 8" scored concrete-block walls. The walls are painted an off-white color (Pittsburgh Paint, #2761, Flintstone, Semi-Gloss) on both sides. Bond beams are located above door openings and also at the top course of each wall to serve as bearing plates for the wood-frame boiler room ceiling. Other interior rooms and partitions, with the exception of bathrooms, are of wood-frame construction covered with painted (Pittsburgh Paint, #2761, Flintstone, Semi-Gloss) 0-5/8" gypsum board on each side, with fiberglass insulation in wall cavities. The south wall of the north lean-to, has a double layer of the 0-5/8" gypsum board covering the wood framing. In the men's and women's bathrooms, wall finishes consist of 2" x 2" glazed porcelain ceramic tile wainscoting, extending to 4'-11" above floor level, with painted (Pittsburgh Paint, #2761, Flintstone, Semi-Gloss) 0-5/8" gypsum board from the wainscoting to ceiling level. The tile wainscoting consists of two contrasting colors, with 4'-0" using the primary color (American Olean Tile, Satinglo, #D-14, Sterling, Satin Glazed), with a 6" contrasting band at the top and 5" contrasting band at the base (American Olean Tile, Satinglo, #D-21, Cobalt, Satin Glazed).

Roof trusses, purlins, and decking are exposed in the ceiling of the former hangar area. The small interior rooms within the hangar area do not extend upward to the building's full wall height. The boiler room has a ceiling height of 12'-0" above floor level. The ceiling/roof structure consists of 2" x 12" ceiling joists topped with 0-3/4" cementitious floor topping over 0-1/2" plywood decking. The interior ceiling finish consists of a single layer of painted 0-5/8" gypsum board. The other mechanical rooms in the hangar area have ceiling heights of 10'-0" and have ceiling finishes of painted 0-5/8" gypsum board. Within the lean-to area, bathrooms and mechanical/utility closets have ceiling heights of 9'-6" and ceiling finishes of painted 0-5/8" gypsum board on 1" x 4" wood furring strips. Office/administrative areas and corridors have 2'-0" x 2'-0" acoustical ceiling tiles, laid into a grid at a ceiling height of 8'-6". Water stains are present on some of the gypsum-board and acoustical-tile ceilings.

5. Openings:
 - a. Doorways and doors: Building No. 74 exhibits several types of interior doors, most of which were installed during 1992 interior renovations to the building. The boiler room and the electrical/power distribution rooms are entered via paired flush-panel hollow-metal hinged doors, with a door thickness of 1-3/4". Boiler room doors have dimensions of 3'-6" x 7'-0", and electrical room doors have dimensions of 3'-4" x 7'-0". The telephone room and sprinkler room each have a single flush hollow metal hinged door, measuring 3'-0" x 7'-0" with a 1-3/4" thickness. Doors to the men's and women's bathrooms and the mechanical/utility closets are single flush solid-core wood doors, measuring 3'-0" x 7'-0". They have a thickness of 1-3/4" and are unpainted. All other interior doors within the north lean-to, as well as doors between the hangar area and the lean-to, are single solid-core wood doors with a single vision panel, with dimensions of 3'-0" x 7'-0" and a thickness of 1-3/4". Some of these wood doors are painted, while others remain unfinished. All interior doors have a hollow metal frame, metal hinges, metal closer mechanism, and metal knobs or handles, with the exception of the bathroom doors, which have metal pushplates and pull handles.
6. Decorative features and trim: Field investigations conducted in a 2005 building condition survey did not identify any interior decorative detailing.

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7. Hardware: None.

8. Mechanical equipment:

- a. Heating, air-conditioning, ventilation: The four louvered roof ventilator exhaust fans located along the ridgeline of the gabled roof provide primary ventilation for the open hangar area. The roof ventilators are electrically and mechanically interlocked with outside-air-intake louvers, mounted close to floor level under exterior windows on the building's east and west facades. Additional ventilation louvers are located on the north portion of the east facade to provide ventilation to the boiler room.

Heating for the open hangar area is provided through a system of hot-water unit heaters. A natural-gas-fired, hot-water boiler, with 1,069,000 British thermal units (BTU) per hour output, is located in the building's boiler room. Hot water is then piped to a series of eight vertical-discharge, hot-water unit heaters, each with a capacity of 133,625 BTU/hour. A single wall-mount thermostat controls the eight heater units.

Architectural drawings from 1992 interior renovations indicate that an exterior heat pump located on the north facade near the building's northeast corner provided central air-conditioning and heating for the lean-to area and some adjacent mechanical rooms. An interior air-handling unit (Ruud Air Conditioning Company/Rheem Manufacturing Company Model UHQA-2015K) is located in the mechanical closet in the north lean-to, with ductwork leading to the lean-to area, fire protection room, telephone room, and electrical/power distribution room. Based on a 2005 building condition survey, the exterior heat-pump unit appears to have been removed from its pad but remains near the building.

- b. Lighting: The building's electrical system is powered by a 500-kilovolt ampere transformer, located approximately 70' northwest of the building. Four runs of underground electrical cable enter the building at its northwest corner and lead into the electrical/power distribution room. The building has four electrical panels in the hangar area and also has several single-pole, 120-volt manual motor starters associated with the ventilation louvers and powered roof ventilators. Primary lighting for the hangar area is provided by 250-watt high-pressure sodium lamps, inset within rounded aluminum reflectors. The fixtures are suspended from the bottom chord of the roof truss, approximately 25' above the finished floor. Other lighting fixtures include surface-mounted 0'-10" x 4'-0" two-lamp fluorescent fixtures with metal-frame/acrylic lens housing, found in mechanical rooms and restrooms; lay-in 2'-0" x 4'-0" four-lamp fluorescent fixtures with metal-frame/acrylic lens housing, found in lean-to office areas and corridors; and wall-mounted incandescent fixtures with one 60-watt lamp with aluminum mounting hood and guard, found in some mechanical rooms. Several battery-powered emergency lighting fixtures, with two 12-watt halogen lamps mounted on steel housing, are along the interior walls of the hangar bay. Exit lighting is also provided at exterior doors, with anodized aluminum-frame housing and stenciled "EXIT" lettering illuminated by fluorescent lamps and emergency battery backup.
- c. Plumbing: The main water supply pipe enters under the building's north facade. Most water supply and waste piping is concentrated in the lean-to area and adjacent boiler room. An electric water heater with a 40-gallon tank, located in the boiler room, provides hot water. The men's restroom has two ceramic, wall-hung urinals on the room's west

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wall; two ceramic, floor-mounted water closets enclosed with plastic laminate stall partitions along the east wall; two counter-mounted, enameled, cast-iron lavatories in the room's northeast corner; and a wall-hung, enameled, cast-iron lavatory within the southeast toilet stall. The women's bathroom has a ceramic, floor-mounted water closet and a wall-hung, enameled, cast-iron lavatory, both along the room's east wall. An enameled cast-iron service sink, wall-mounted with floor supports, is situated in the lean-to's utility closet. An electric water cooler with metal housing is in the lean-to corridor.

D. Site:

1. General setting and orientation: Building No. 74 is oriented on a north/south axis. It is located in the southeastern section of NAS Pensacola, near the intersection of South Avenue and Jayne Avenue. The site is bounded by concrete pavement to the east, south, and west sides, reflecting the building's original use as a seaplane hangar. South of the building, the concrete pavement terminates as a concrete bulkhead along the waterfront. Several concrete ramps, formerly used for launching and recovering seaplanes, are along the bulkhead in the vicinity of Building No. 74. A small grassy area adjoins the building's north facade. Building No. 74 sits immediately south of Building No. 8 (the Brig, HABS No. FL-243) and west of Building No. 27 (the Coal House, HABS No. FL-247).
2. Historic landscape design: Reflecting its original use as a seaplane hangar, the building is adjoined by concrete pavement on its south, east, and west sides, with a small grassy area on the north facade. Based on architectural drawings, historic photographs, and current photographs, the only landscape design historically or currently associated with Building No. 74 is the aforementioned concrete pavement.
3. Outbuildings: None.

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Date: November 2005

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NOTES

- ¹ Property Record Card for Building No. 74, September 1957. NAVFAC Archive, Port Hueneme.
- ² Annual Reports of the Bureau of Yards and Docks from the U.S. Naval Air Station Pensacola, Florida, June 30, 1917. NAVFAC Archive, Port Hueneme.
- ³ Property Record Card for Building No. 74, September 1957. NAVFAC Archive, Port Hueneme.
- ⁴ Coleman, James C. and Irene S. *Guardians on the Gulf: Pensacola Fortifications, 1698-1980* (Pensacola: Pensacola Historical Society, 1982), 7; Pearce, George F. *The U.S. Navy in Pensacola: From Sailing Ships to Naval Aviation (1825-1930)* (Pensacola: University of West Florida Press, 1980), 1.
- ⁵ Coleman, *Guardians on the Gulf*, 26-28.
- ⁶ *Ibid.*, 31.
- ⁷ Pearce, *U.S. Navy in Pensacola*, 3.
- ⁸ Coleman, *Guardians on the Gulf*, 5.
- ⁹ Pearce, *U.S. Navy in Pensacola*, 5-10.
- ¹⁰ *Ibid.*, 11-13.
- ¹¹ *Ibid.*, 13, 18.
- ¹² *Ibid.*, 19.
- ¹³ Pearce, George F. "NAS Pensacola, Florida," in *U.S. Naval and Marine Corps Bases*, 465-466, ed. Paolo Coletta, 466 (Westport: Greenwood Press, 1985).
- ¹⁴ Coleman, *Guardians on the Gulf*, 33-37.
- ¹⁵ Annual Report of Chief of the Bureau of Yards and Docks to the Secretary of the Navy, Pensacola Navy Yard, November 19, 1844. NAVFAC Archive, Port Hueneme.
- ¹⁶ Annual Report of Chief of the Bureau of Yards and Docks to the Secretary of the Navy, Pensacola Navy Yard, October 17, 1849. NAVFAC Archive, Port Hueneme.
- ¹⁷ Pearce, George F. "NAS Pensacola, Florida," in *U.S. Naval and Marine Corps Bases*, 466.
- ¹⁸ Annual Report of Chief of the Bureau of Yards and Docks to the Secretary of the Navy, Pensacola Navy Yard, October 25, 1847. NAVFAC Archive, Port Hueneme.
- ¹⁹ Pearce, George F. "NAS Pensacola, Florida," in *U.S. Naval and Marine Corps Bases*, 466.
- ²⁰ *Ibid.*, 466-467.
- ²¹ Annual Report of Chief of the Bureau of Yards and Docks to the Secretary of the Navy, Pensacola Navy Yard, November 4, 1862, NAVFAC Archive, Port Hueneme.
- ²² Annual Report of Chief of the Bureau of Yards and Docks to the Secretary of the Navy, Pensacola Navy Yard, October 15, 1864, NAVFAC Archive, Port Hueneme.
- ²³ Commandant Smith to Chief of the Bureau of Yards and Docks, May 15, 1863, Record Group 71, Entry 5, Records of the Bureau of Yards and Docks, Correspondence with Commandants of Pensacola Navy Yard. NARA, Washington, D.C.
- ²⁴ Commandant Armstrong to Chief of BuDocks, November 23, 1864, Record Group 71, Entry 5. NARA, Washington, D.C.
- ²⁵ Chief of BuDocks Smith to Commandant Armstrong, December 10, 1864, Record Group 45, Collection of the Office of Naval Records, Subject File U.S. Navy 1775-1910, Navy Yards, NARA, Washington, D.C.
- ²⁶ Annual Report of Chief of the Bureau of Yards and Docks to the Secretary of the Navy, Pensacola Navy Yard, October 1, 1869. NAVFAC Archive, Port Hueneme.
- ²⁷ Pearce, *U.S. Navy in Pensacola*, 95; 98.
- ²⁸ Annual Report of Chief of the Bureau of Yards and Docks to the Secretary of the Navy, Pensacola Navy Yard, October 26, 1883. NAVFAC Archive, Port Hueneme.
- ²⁹ Annual Report of Chief of the Bureau of Yards and Docks to the Secretary of the Navy, Pensacola Navy Yard,

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October 1, 1901. NAVFAC Archive, Port Hueneme.

³⁰ Pearce, George F. "NAS Pensacola, Florida," in *U.S. Naval and Marine Corps Bases*, 468.

³¹ *Ibid.*, 468-469.

³² Pearce, *U.S. Navy in Pensacola*, 123-125.

³³ *Ibid.*, 128-129.

³⁴ *Ibid.*, 132.

³⁵ Annual Report to the Bureau of Yards and Docks from U.S. Naval Air Station Pensacola, Florida, June 30, 1914. NAVFAC Archive, Port Hueneme.

³⁶ Pearce, *U.S. Navy in Pensacola*, 134.

³⁷ *Ibid.*

³⁸ *Ibid.*, 135.

³⁹ *Ibid.*, 136.

⁴⁰ *Air Station News, Pensacola, Florida*. 1930. "An Historical Note," November 20, 4.

⁴¹ Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1915, 40, 18. NAVFAC Archive, Port Hueneme.

⁴² Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1917, NAVFAC Archive, Port Hueneme.

⁴³ Corliss, Earle. *Activities of the Bureau of Yards and Docks, Navy Department, World War: 1917-1918* (Washington: U.S. Government Printing Office, 1921), 395.

⁴⁴ *Ibid.*, 153.

⁴⁵ Pearce, George F. "NAS Pensacola, Florida," in *U.S. Naval and Marine Corps Bases*, 470.

⁴⁶ Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1918, NAVFAC Archive, Port Hueneme.

⁴⁷ *Air Station News, Pensacola, Florida*. 1930. "An Historical Note," November 20, 4.

⁴⁸ Pearce, *U.S. Navy in Pensacola*, 159.

⁴⁹ *Air Station News, Pensacola, Florida*. 1930. "An Historical Note," November 20, 4.

⁵⁰ Pearce, *U.S. Navy in Pensacola*, 158.

⁵¹ *Ibid.*, 157.

⁵² Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1920. NAVFAC Archive, Port Hueneme.

⁵³ Pearce, *U.S. Navy in Pensacola*, 165.

⁵⁴ Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1923. NAVFAC Archive, Port Hueneme; Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1927. NAVFAC Archive, Port Hueneme.

⁵⁵ Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1927. NAVFAC Archive, Port Hueneme.

⁵⁶ *Ibid.*

⁵⁷ Pearce, *U.S. Navy in Pensacola*, 177-178.

⁵⁸ *Ibid.*, 178-179.

⁵⁹ Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1936, 32. NAVFAC Archive, Port Hueneme.

⁶⁰ Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1936. NAVFAC Archive, Port Hueneme. In the report, NAS Pensacola's commandant attributes funding of the new building program to the "Authorization Bill approved April 15, 1935." He also notes that "Two million dollars of funds were carried in the Deficiency Act, approved August 12, 1935, while \$1,081,500 was made available from the continuing appropriation 'Public Works, Bureau of Yards and Docks.'" The Annual Report contradicts the authoritative U.S. Government Printing Office publication *Building the Navy's Bases in World War II of 1947*, which states that in 1935 "the Congress made no appropriation for naval public works, and such work as could be done was financed out of the ends of appropriations made in earlier years and by allocation from the funds provided by the 1935

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Emergency Relief Appropriation Act" (p. 25).

⁶¹ Ibid, 33.

⁶² Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1937. NAVFAC Archive, Port Hueneme.

⁶³ Ibid., 48.

⁶⁴ Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1936. NAVFAC Archive, Port Hueneme.

⁶⁵ Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1938, 54. NAVFAC Archive, Port Hueneme.

⁶⁶ Annual Report to the Bureau of Yards and Docks from NAS Pensacola, Florida, June 30, 1939, 19. NAVFAC Archive, Port Hueneme.

⁶⁷ U.S. Government Printing Office, *Building the Navy's Bases in World War II: History of the Bureau of Yards and Docks and the Civil Engineer Corps, 1940-1946, Volume I* (Washington: U.S. Government Printing Office, 1947), 229.

⁶⁸ Shettle, 177.

⁶⁹ Delaney, Michelle M., ed. *The Cradle: Naval Air Station, Pensacola*, (Pensacola: Pensacola Engraving Company, 1989), 127.

⁷⁰ Ibid., 136.

⁷¹ Ibid., 149.

⁷² Pearce, George F. "NAS Pensacola, Florida," in *U.S. Naval and Marine Corps Bases*, ed. Paolo Coletta, 474 (Westport: Greenwood Press, 1985).

⁷³ Ibid.

⁷⁴ Pensacola Bay Area Chamber of Commerce, "NAS Pensacola: The Cradle of Naval Aviation," electronic document, www.pensacolachamber.com. Accessed February 18, 2005.

⁷⁵ Property Record Card for Building No. 74, September 1957. NAVFAC Archive, Port Hueneme.

⁷⁶ United States Air Force Air Combat Command. "Historical and Architectural Overview of Military Aircraft Hangars: A General History, Thematic Typology, and Inventory of Aircraft Hangars Constructed on Department of Defense Installations." (Champaign, Illinois: United States Air Force Air Combat Command, September 1999), 2-15.

⁷⁷ Ibid, 2-17.

⁷⁸ Annual Reports of the Bureau of Yards and Docks from the U.S. Naval Air Station Pensacola, Florida, June 30, 1917. NAVFAC Archive, Port Hueneme; Annual Reports of the Bureau of Yards and Docks from the U.S. Naval Air Station Pensacola, Florida, June 30, 1918. NAVFAC Archive, Port Hueneme.

⁷⁹ United States Air Force Air Combat Command. "Historical and Architectural Overview of Military Aircraft Hangars: A General History, Thematic Typology, and Inventory of Aircraft Hangars Constructed on Department of Defense Installations." (Champaign, Illinois: United States Air Force Air Combat Command, September 1999), 2-15 to 2-17.

⁸⁰ "South end of hangar #74. Showing steel columns and inner [sic] form wall in place, preparatory [sic] to installing concrete protection wall, 18 June 1927," NAS Pensacola Photographs, Records of the Bureau of Yards and Docks, Record Group 71-CA/363J. Still Pictures Unit, National Archives, College Park, Maryland.

⁸¹ Annual Reports of the Bureau of Yards and Docks from the U.S. Naval Air Station Pensacola, Florida, June 30, 1928. NAVFAC Archive, Port Hueneme; "Showing new steel doors in place on west side of Hangar #74. Looking north west, 2 March 1928," NAS Pensacola Photographs, Records of the Bureau of Yards and Docks, Record Group 71-CA/363J. Still Pictures Unit, National Archives, College Park, Maryland.

⁸² Annual Reports of the Bureau of Yards and Docks from the U.S. Naval Air Station Pensacola, Florida, June 30, 1933. NAVFAC Archive, Port Hueneme; "Repair steel sash and doors. View showing new steel sash complete. North end and West side bldg. [sic] #74, 3 November 1932," NAS Pensacola Photographs, Records of the Bureau of Yards and Docks, Record Group 71-CA/363J. Still Pictures Unit, National Archives, College Park, Maryland.

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⁸³ During this period of naval aviation history, there was a movement away from seaplanes and towards landplanes as the primary aircraft used in combat. NAS Pensacola followed this national trend and began training its aviators on landplanes.

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PART III. SOURCES OF INFORMATION

A. Architectural Drawings: Original architectural drawings for Building No. 74 and other early plans are held at the National Archives and Records Administration Cartographic and Architectural Unit, College Park, Maryland. They are found within Record Group 71, Records of the Bureau of Yards and Docks. Plans used for this documentation effort include the following:

1. Drawing Nos. 800-45-18 through 800-45-29, "Aeroplane Hangars," dated April 20, 1917.
2. Drawing No. 800-45-38, "Aeroplane Hangar A," dated May 25, 1917.

Alteration and renovation drawings for Building No. 74 are on file in the Engineering Building, (Building No. 458) at NAS Pensacola, Pensacola, Florida. Plans for major alterations include the following:

1. NAS Drawing No. 25705, "Conversion of Hangar #74 to Gymnasium," dated November 18, 1947.
2. NAVFAC Drawing Nos. 5233605 through 5233635, "Interior Repair/Renovation of Building 74," dated March 20, 1992.
3. NAVFAC Drawing Nos. 5246419 through 5246435, "Repair and restoration of Building No. 74," dated July 27, 1993.

B. Historic Views: Photographs are archived at the NAS Pensacola Public Affairs Office, Building No. 624; NAS Pensacola Public Works Center, Building No. 3560; the National Museum of Naval Aviation at NAS Pensacola; the University of West Florida Library, Special Collections; the NAS Pensacola Photograph Collection and the Navy Yard at Pensacola Photograph Collection, Pensacola, Florida; and Record Group 71, Records of the Bureau of Yards and Docks, at the Still Pictures Unit, National Archives and Records Administration, College Park, Maryland.

C. Interviews: None conducted.

D. Bibliography:

1. Primary and unpublished sources:

National Archives and Records Administration, Washington, D.C.

Record Group 45, Naval Records Collection of the Office of Naval Records and Library. Series 464, Subject Files 1775-1910: Bases, Pensacola, Construction, etc., 1860-1910. National Archives and Records Administration, Washington, D.C.

Record Group 71, Records of the Bureau of Yards and Docks. Entry 5, Letters Received 1842-1885. National Archives and Records Administration, Washington, D.C.

Record Group 71, Records of the Bureau of Yards and Docks. Entry 42, Contracts 1842-1896. National Archives and Records Administration, Washington, D.C.

Record Group 71, Records of the Bureau of Yards and Docks. Records relating to the design and construction of shore establishment facilities, 1824-1963: Drawings 800-3-15 to 800-45-18. Cartographic and Architectural Unit, National Archives and

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Records Administration, College Park, Maryland.

Record Group 71, Records of the Bureau of Yards and Docks. Still Pictures (General) 1876-1955. Still Pictures Unit, National Archives and Records Administration, College Park, Maryland.

Naval Facilities Engineering Command Archive, Port Hueneme, California. Annual Reports of the Bureau of Yards and Docks, NAS Pensacola, Florida, 1842-1939.

Construction Contracts, NAS Pensacola, Florida, various dates, Record Group 2.

Detailed Inventory of Naval Shore Facilities, NAS Pensacola, Florida, various dates, Record Group 2.

Property Record Cards, NAS Pensacola, Florida, various dates, Record Group 2.

NAS Pensacola Public Works Center, Pensacola, Florida.

Facilities Files, General.

Facilities Files, Photographs.

Installation Maps, NAS Pensacola, Florida, various dates.

NAS Pensacola Public Affairs Office, Pensacola, Florida.

Photograph Collection.

National Museum of Naval Aviation, Pensacola, Florida.

Photograph Collection.

University of West Florida Special Collections Department, Pensacola, Florida. Manuscript and Archival Collections. Rare Books and West Florida Regional Publications.

Map Collection.

Photograph Collections.

Young, Rear Admiral Lucien. *A Brief History of the United States Navy Yard and Station, Pensacola, Florida and its Possibilities*. Pensacola, Florida: privately printed, no date, copy available at the Rare Books Collection, University of West Florida.

2. Secondary and published sources:

Air Station News, Pensacola, Florida, "An Historical Note," November 20, 1930.

Coleman, James C. and Irene S. *Guardians on the Gulf: Pensacola Fortifications, 1698-1980*. Pensacola: Pensacola Historical Society, 1982.

U.S. NAVAL AIR STATION, SEAPLANE HANGAR
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HABS No. FL-513 (Page 43)

Corliss, Earle. *Activities of the Bureau of Yards and Docks, Navy Department, World War:1917-1918*. Washington: U.S. Government Printing Office, 1921.

Delaney, Michelle M., ed. *The Cradle: Naval Air Station, Pensacola*. Pensacola: Pensacola Engraving Company, Inc., 1989.

Manuel, Dale. *Pensacola Bay: A Military History*. Charleston, South Carolina: Arcadia Publishing, 2004.

Pearce, George F. *The U.S. Navy in Pensacola: From Sailing Ships to Naval Aviation (1825-1930)*. Pensacola: University of West Florida Press, 1980.

Pearce, George F. "NAS Pensacola, Florida," in *U.S. Naval and Marine Corps Bases*, ed. Paolo Coletta, 464-471. Westport: Greenwood Press, 1985.

Pensacola Bay Area Chamber of Commerce, "NAS Pensacola: The Cradle of Naval Aviation," electronic document, www.pensacolachamber.com. Accessed February 18, 2005.

Shettle, M.L., Jr. *United States Naval Air Stations of World War II, Volume One*. Bowersville, Georgia: Schaertel Publishing Company, 1995.

United States Air Force Air Combat Command, *Historical and Architectural Overview of Military Aircraft Hangars: A General History, Thematic Typology, and Inventory of Aircraft Hangars Constructed on Department of Defense Installations*. Champaign, Illinois: United States Air Force Air Combat Command, September 1999.

E. Likely sources not yet investigated:

Additional records for the history of the Pensacola Navy Yard and NAS Pensacola may yet be found in other series and subgroups within Record Group 71, in Record Group 72, "Records of the Bureau of Aeronautics" (1911-46), and for later periods, Record Group 181, "Records of Naval Districts and Shore Establishments."

F. Supplemental material:

None provided.

PART IV. PROJECT INFORMATION

The mitigative documentation of Building No. 74 at NAS Pensacola, Florida, was undertaken from July to October 2005 by HHM Inc, of Austin, Texas, in accordance with a Memorandum of Agreement among DON, NAS Pensacola, and the Florida State Historic Preservation Officer. The project was sponsored by DON, Naval Facilities Engineering Command, Engineering Field Division South (NAVFAC EFD SOUTH), Charleston, South Carolina, and managed by Ron N. Johnson, Registered Preservation

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Architect, Head of Cultural Resources Branch, and Historic Preservation Officer for NAVFAC EFD SOUTH. The principals involved in managing the documentation included Rick Mitchell (HHM), Project Director; Laurie A. Gotcher (HHM), Project Manager; and David Moore (HHM), Quality Assurance Manager. The fieldwork was conducted by Jennifer Ross (HHM), Architectural Historian. Mrs. Gotcher, Mr. Mitchell, and Ms. Ross prepared the significance, architectural and building history documentation sections. Olivia Chacón (HHM), Architectural Historian, prepared the general historical context. Ms. Chacón, Ms. Ross, S. Elizabeth Valenzuela (HHM), Intern Architect, and Anna Madrona (HHM), Senior Historian conducted technical reviews. Editing, report layout, and graphics were managed by Lori Smith (HHM), Copy Editor and Production Manager and Julio Chacón (HHM), Graphic Artist. Karen Hughes (HHM), Senior Architectural Historian, Justin Edgington (HHM), Historian, undertook large-format photography, and Leah Roberson (HHM), Field Technician, assisted.