U.S. Naval Air Station,
Aircraft Repair Shop (Building 104)
Pensacola
Escambia County
Florida

HABS No. FL-250

HABS
FLA,
17-PENSA,
62-

PHOTOGRAPHS

Historic American Buildings Survey
National Architectural and Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20243

ADDENDUM TO:
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PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY
National Park Service
U.S. Department of the Interior
1849 C Street NW
Washington, DC 20240-0001

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62-

HISTORIC AMERICAN BUILDINGS SURVEY

Alternate: Aircraft Repair Shop

U. S. NAVAL AIR STATION, BUILDING NO. 104

HABS No. FL-250

Location:	National Historic Landmark District U.S. Naval Air Station, Pensacola Complex Escambia County, Pensacola, Florida USGS Fort Barrancas Quadrangle, Universal Transverse Mercator Coordinates: 474,185 E 3,356,875 N
Present Owner:	U.S. Navy, Department of Defense The Pentagon Washington, D. C.
Present Occupant:	Navy Resale Activity Office
Present Use:	Commissary Regional Warehouse
Statement of Significance:	Building 104, Seaplane Erecting Shop, a tall open building with ventilating "butterfly" monitor roof, was built in 1918, and located on the old Navy Yard attached to Building 44, previously converted to a seaplane erecting shop. Although of no architectural significance, it was the first building constructed for use as a seaplane erecting shop. uilding 104 was originally used as an airplane erectin shop, and in 1921 was changed to a "flying boat shop."

PART I. HISTORICAL INFORMATION

A. Physical History

1. Date of erection: Building 104 was built in 1918; in 1927 was modified inside, adding an office and parts storage across the east end; c. 1941 a toilet and locker lean-to addition was constructed on the north wall.

2. Architect/Builder: Not known.

3. Original and subsequent owners: The original drawings consist of six sheets titled "Seaplane Erecting Shop," Y&D No.'s 68375 through 68380, dated April 20, 1917. HABS Field Survey and Measurements indicated that the building was constructed according to the original plans.

4. Builder, contractor, suppliers: Lacawanna was the steel fabricator.

5. Original plans and construction: The original hangar was rectangular, clear span, steel building, with eight bays of nine trusses in single span between columns. It has a low-sloping roof featuring a centered ventilating monitor with a "butterfly" roof parallel to long sides running east-west. The exterior wall is corrugated asbestos siding with steel rolling hanger doors on the east and west sides.

6. Alterations and additions:

1927	The mezzanine at the east end was added (August 29, 1927, Dwg #3408)
1932	All steel sash on the exterior were replaced, except the sash in the doors on the south facade were "reconditioned and retained." Replacement sash were not identical with the original, but changes were not major. No drawings, from Preliminary Case Report by Historic Properties Assoc.
1947	Toilets were added in a lean-to on the north side. No drawings, from Preliminary Case Report by Historic Properties Assoc.

1951 A catwalk and platform were added (August 17, 1951, Dwg #27324)

1968 The building was re-roofed and probably repainted. One rolling door on the west facade was removed "to a height of 15′ -6" above the existing floor. New doors and wall panels were installed. The remaining doors on this facade were repaired, fixed in closed position and flashed at sill. Some modifications were made to the roof trusses; no drawings, from Preliminary Case Report by Historic Properties, Assoc. Apparently, the four large doors on the south facade had been fixed in the closed position at some time between 1932 and 1967.

1977 A ramp and loading platform was built to the west from the doors added in 1968 (August 2, 1977, Dwg #5013658)

1985 Exterior fabric was painted June 17, 1985 (Dwg #5134534)

1986 Loading dock cover constructed over 1977 loading platform and connected to building, February 6, 1986 (Dwgs #5135371 and 5135372)

B. Historical Context:

Building 104 is located in the National Historic Landmark District along the waterfront area at the southeast corner within the Pensacola Naval Air Station, which is situated at the western entrance to Pensacola Bay, on the Gulf of Mexico, in the Florida Panhandle. The waterfront area faces south, toward the western end of Santa Rosa Island and the Gulf; it sits on a peninsula which juts into the southernmost portion of the bay. Fort Pickens, a National Historic Landmark, stands across Pensacola Bay, at the western end of Santa Rosa Island, and another National Historic Landmark District, Fort San Carlos de Barrancas, is located at the western edge of the Air Station.

Building 104 is one of several hangar buildings and other structures comprising the eighty-two acres in the District; there are forty-nine designated historic buildings and structures and seventeen additional non-designated buildings and structures within the District.

Owing to the location's strategic importance, French, British,

and Spanish governments each established a military presence in the vicinity. The U. S. Navy maintained the Pensacola Navy Yard there from 1825 to 1911, although the military role of the base was relatively insignificant throughout the nineteenth century. A small installation before World War I, the Navy Yard was enclosed by a high brick wall, constructed in 1837, and surrounded on its inland sides by the villages of Woolsey and Warrington. The Navy Yard closed in 1911, but reopened in 1914 as the Pensacola Naval Aeronautic Station. Renamed the Naval Air Station in 1917, it served as a training center for naval aviators and earned a reputation as the "Cradle of Naval Aviation." The station leaped beyond the walls of the original Navy Yard after the war to incorporate its neighboring villages, which were removed in 1922 and 1931. Amid international tensions in the late 1930s, the station experienced dramatic physical expansion. Graduates of its aviation training program participated in all of the nation's major naval engagements during World War II. The Naval Air Station Pensacola continues to emphasize naval aviation training and currently serves as the headquarters for the Naval Education Training Command.

Building 104 was the first building designed and constructed to be used as a Seaplane Erecting Shop. Built during World War I, it was attached to Building 44, previously converted to a seaplane erecting shop. The Navy developed and erected their own naval aeroplanes because American manufacturers were primarily builders of land machines. The design of motors, of propellers, and of landing floats were unique to naval aeroplanes. During the war years April 6, 1917 to November 11, 1918 construction was feverish, over 100 structures were added, 80,000 linear feet underground electric conduit 10,500 feet of cast iron water mains, 48,800 square yards of concrete pavement about hangars and along waterfront. Building 104 was used for aeroplane erection and repair until the mid 1930's when preparation for an involvement in World War II resulted in enormous expansion and use changes. Subsequent uses cannot be determined from available documentation excepting present occupancy.

PART II. ARCHTECTURAL INFORMATION

A. General Statement:

1. Architectural Character: Building 104 is a tall open rectan-

gular building with low sloping roof and ventilating "butterfly" monitor, having an industrial metal building appearance. The building is one of the original government designed and built steel structures erected to accommodate the manufacturer of naval airplanes. The structure spans the full building width, with no interior columns. Clear-story windows extend up between the roof trusses on all sides to allow plenty of light and ventilation.

2. Condition of fabric: While the structural systems are in good condition, the exterior siding and roofing is in fair to poor condition and the doors are in fair condition.

B. Description of Exterior:

1. Overall dimensions: Building 104 has a rectangular configuration, and is one-story with the following dimensions: Width: 132′ -0 (N-S); Length: 202′ -0 (E-W); Eave height: 44′; height of monitor: 8′ - 0″; Width of monitor: covers middle half of roof; Monitor roof: Slopes down from eaves to building centerline at 1:4.

   The building fronts west historically either west or south sides opened completely for entry. There is one 132′ bay on the front and four 50′-6″ bays in the side. Centered on the west half of the north side is a 22′-7″ x 59′-9 1/2″ lean-to addition.

   Foundations: The steel columns are supported by pyramidal piers connected by foundation walls at the north and south sides of the building (April 20, 1917 DWG 68376). Piers of large columns "A"; base 9′x 8′, top 2′-8″ x 2′-11″, depth not less than 5′ with top 1′ below finish floor. Piers of smaller columns "B"; base 6′-6″ x 5′ , top 2′-8″ x 2′-0″, depth same as column "A". Columns "C" at east walls have piers: base 3′x 3′, top 2′x 2′, 3′-9″ deep, 1′ below floor. The foundation wall - bond beam is 1′-8″ wide x 4′ deep with face 5″ out from column center and top level with floor. The steel columns are set on top of these piers and fasten down with four 1-1/4″ diameter x 4′ long anchor bolts with 6 x 1/2 x 6 plates at ends embedded in pier. Endwall column "C" has 1″ diameter x 2′ long anchor bolts. The floor slab turns down 1′ thick over column bases and butts foundation wall. This design causes column to be rigid on base and transfer

(E-W) overturning loads to the foundation. The finish floor slab is 6′-3″ above sea level. Mezzanine column footings added in 1927 Dwg #3408, were 32″ x 24″ x 18″ high. Floor slab was cut and columns set 6″ below finish floor.

3. Walls: The exterior walls are 1/4″ thick corrugated asbestos siding, attached to stick wall framing between columns and top and bottom windows 2 angles 5 x 3-1/2 x 5/16″ horizontal continuous and one angle vertical 3 x 2-1/2 x 1/4″ The lower portion of the east wall was open into Building 44.

4. Structural systems, framing: The building has quadrangular Warren-type rivetted steel roof trusses; nominal depth is 12′-0″ at bearing with top chord sloped up to the base of monitor, nominal 132′ clear span, spaced 25′ -3″ o.c.. There are eight bays with nine trusses forming rigid frames between columns. Main framing trusses have two 12″ C x 20.5# top and bottom chords with double angle interior web members 6 x 4 x 3/8 and smaller. Where trusses connect to columns, knee braces at 45 degrees fasten below truss: two 6 x 4 x 3/8 angles. Roof purlins are 9″ channels 13.25# at 5-1/2′ o.c., 4 x 3 x 3/8 angle clips to trusses and supporting continuous 4 x 4 roof nailers. At the south wall alternate roof trusses are carried by trusses in the wall spanning 50′-6″ above the rolling doors. At the east wall the roof truss is supported by columns at 33′ o.c. Hinged columns at 22′ o.c. are hung under the truss at the west wall forming jambs of rollup doors. Columns swing up allowing entire west wall to be open.

5. Porches, stoops, balconies, bulkheads: A 16′ wide x 36′ long metal canopy covered loading dock with 45′ x 12′ ramp connects to the west side of the building. It is 4′ high and has 3 dock leveler platforms used by semi-tractor trailer trucks.

6. Chimneys: None.

7. Openings:

   a. Doorways and doors: The south wall was designed to have any two 50′-6″ bays open at one time. Along this wall are four 30′-0″ high x 51′-0″ wide bi-passing sliding - rolling - steel framed doors covered on exterior with 1/4″ flat asbestos board. These doors have 6 rollers

which travel over a 30# rail level with the floor. The bottom 1/3 of the doors are solid with one 3'-0" x 6'-0" personnel door at the center. The doors are divided into 5 vertical panels, each has 4 fixed sash windows in upper 2/3, glazed area 7'x 18'-6". The doors are framed with 9" I 13.25# vertical perimeter and, 7" I 15# interior, and 3 x 2-1/2 x 1/4 angle wall framing 3'o.c. and bottom panel "X" bracing. These doors are now fixed in place. The west wall was designed to have 6 motor operated roll up doors 22' wide x 30' high to roll up above their openings, and the columns which formed their jambs - hinged at top - swing up leaving a clear opening across the west wall. These doors are now fixed with a 12'w x 14'h roll up door plus a 3'x 7' personnel door set in to the bottom half of one roll up door adjacent to the ramp and loading dock.

b. Windows and shutters: Windows on the north wall and windows on the south wall above the doors are 4 panels wide. Those on the east and west walls are 2 panels wide. Each 2'w x 4'-8"h panel is divided into thirds with the center 1/3 a center pivot window sash, upper and lower sash fixed, each having two rows of 4 liters. The original drawings call for 12"x18" lights Factory Ribbed Glass. There was no record discovered, but all of the glazing and sash has been replaced - same number of lights. Historically the devastation of several hurricanes would account for this alteration. On the original drawings the top space for the roll up door equipment is marked "Distance as required for rolling door detail" - the windows above this area are constructed 2 panels high in lieu of the 3 panels high designed, and the space for the roll up door is larger.

8. Roof:

a. Shape, covering: Butterfly shape for glass clear-story. Center 1/2 slopes to center where a cricket diverts water to large headers and downspouts centered on east and west walls. Roofing is granular surfaced asphalt roll roofing, which is fastened to a wood roof deck of 2 layers 7/8" T&G wood laid diagonally.

b. Cornice, eaves: North & South eave are approximately 8" &

east and west eaves are 4".

c. Dormers, cupolas, towers: Several large vents 6'-6" high and 5' square are abandoned mechanical equipment exhaust. Various size gravity and turbine ventilators are on the roof.

C. Description of Interior:

1. Floor plans: Complete ground floor is unobstructed space up to the columns of mezzanine - mezzanine has no obstructing walls, and occupies 30' x 132' of the east end of the building. Presently, the building is used for grocery and dry goods storage and has large shelves (racks) for pallets and boxes of goods in long E-W rows. The lean-to addition on the north weall now used for miscellaneous storage appears to have been constructed as locker, dressing and toilets for male and female workers, probably during Second World War.

2. Stairways: None (Only access to mezz is by ladder @ south wall)

3. Flooring: Concrete slab, smooth finish.

4. Wall and ceiling finish: No wall or ceiling finishes.

5. Openings:

a. Doorways and doors: At east wall below mezzanine are seven residential type wood paneled garage overhead doors (now sealed) for access to & from building 44. - Historically this connection to Building 44 - also for seaplane erection - was open.

b. Windows: No interior windows.

6. Decorative features and trim: None

7. Hardware: Manufacturer's standard steel hinges and brass locksets - not original.

8. Mechanical equipment:

a. Heating, air conditioning, ventilation: Original equipment removed, non existing - drawings not discovered - Gas

fired heaters probable considering roof vents existing.

b. Lighting: Florescent fixtures suspended from trusses, 6'-0" o.c. (N-S). Original lighting was 6 500 watt lamps bracketed outside of each truss.

c. Plumbing: Manufacturer's standard floor-mounted toilets, wall mounted urinal and lavatories.

9. Original furnishings: None.

D. Site:

1. General setting and orientation: Large doors are orientated south and west, building sets at an angle to the seawall 20' west end and 40' east end. Site all sides of building are paved with concrete.

2. Historic landscape design: none

3. Outbuildings: None

PART III SOURCES OF INFORMATION

A. HABS 1988-89 measured drawings, photos, field notebook prepared by Victor W. Glazner, Architect for Navy.

B. Original and/subsequent drawings held at the Public Works Building number 3560 Naval Air Station Pensacola, Florida:

April 20, 1917, DWG #68375, Seaplane Erecting Shop Location Plan, Proposed Building to be Located Near West Wall of Bldg #44 and East of Bldg #71

April 20, 1917, DWG #68376, Seaplane Erecting Shop, Foundation Plan, Three Different Types of Column Piers, With Bond Beams, Base & Girt Connections.

April 20, 1917, DWG #68377, Seaplane Erection shop Elevations and Sections Lighting Plan. Building Elevations/Sections with WM Dow Locations, Truss Framing, Roof Plan, Electrical Plan with Notes.

April 20, 1917, DWG #68378, Seaplane Erecting Shop Details of Trusses A&B. Truss Elevations, Cloumn Sections, West Elevation/Section & Roof Details.

April 20, 1917, DWG #68379, Seaplane Erecting Shop Bracing, Lower Chord Bracing, Top Chord Bracing, Purlin Plan, Monitor Framing, East Elevation & Deatils.

April 20, 1917, DWG #68380, Seaplane Erecting Shop Door Details, Elevations Sections & Details.

August 29, 1927, DWG #3408 Mezzanine Floor, 31'-0" x 130'-6" for Least End Building 104, Cloumn Footings, Floor Plan, Section, Cloumn Details.

August 17, 1951, DWG #27324, Bldg 104 Catwalk & Platform Plan & Details, Floor Plan, Sections, and Details.

August 2, 1977, Dwg #5013658, Construct Concrete Loading Dock Bldg 104 Plan-Elevation-Details, Site Plan Showing Loading Doct to West Between Bldg 104 & Bldg 71, Foundation Plan, Plan, Elevations.

June 17, 1985, Dwg #5134534, Exterior repairs and painting hangars 71, 72, 73, 74, 75, 76, 44 and 104, Elevations.

February 6,1986, DWG #5135371, Construct Loading Dock Cover, Building 104, Canopy Plan; Elevations; Sections; Details; Location Maps.

February 6,1986, DWG #5135372, Construct Loading Dock Cover Bldg 104, Sections, Framing Plan, Lighting Plan, Light Fixture Detail & Notes.

C. Historic views: None.

D. Interviews:

E. Bibliography:

1. Primary and unpublished sources:

Preliminary Case Report, for proposed Demolition and Rehabilitation of Buildings in the National Historic Landmark District, Naval Air Station Pensacola Complex, Pensacola, Florida, Historic Property Associates, St. Augustine, Florida, June 16, 1986, available at Public Works Building, 3560, Naval Air Station, Pensacola, Florida.

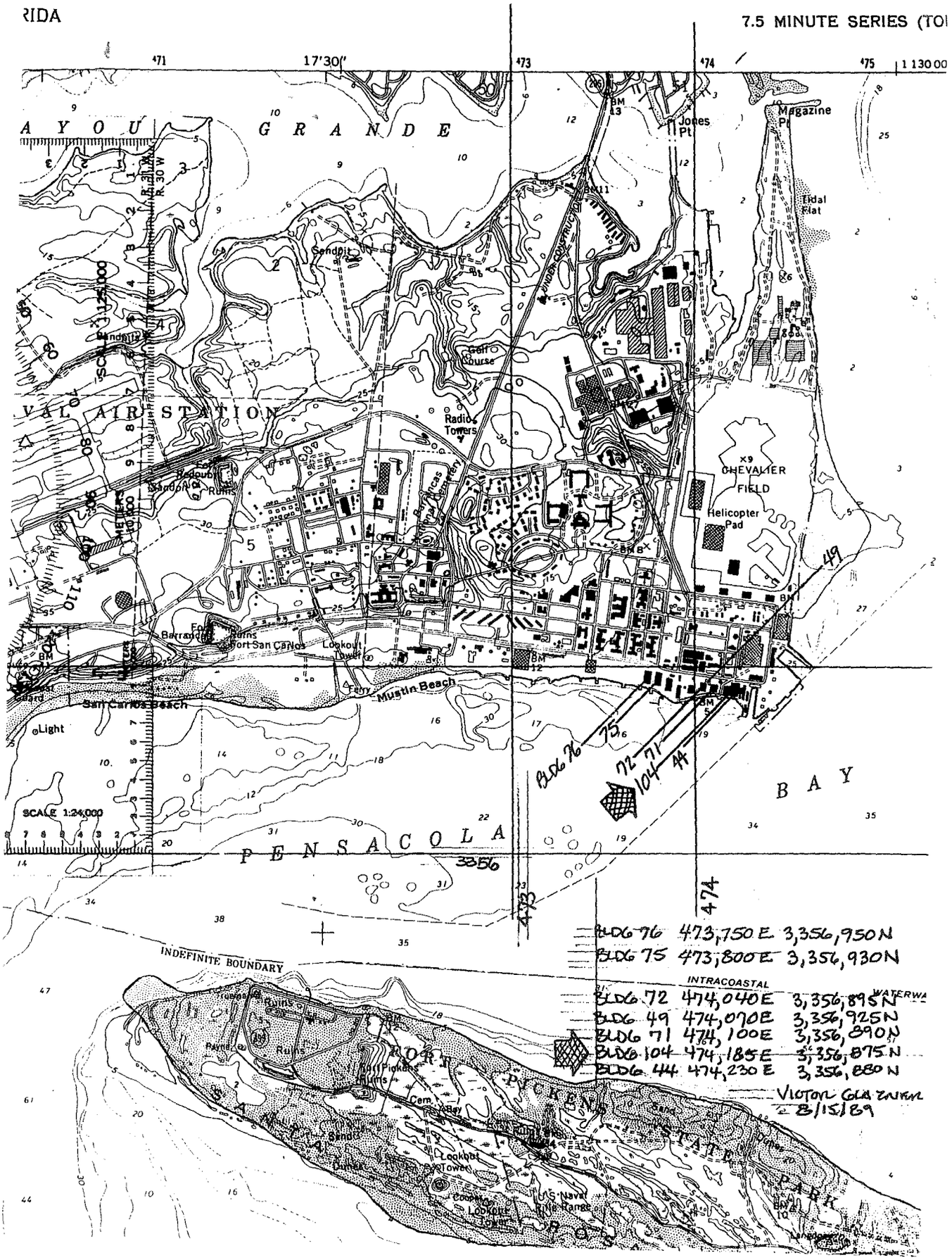
2. Secondary and published sources:

The U.S. Navy in Pensacola, From Sailing Ships to Naval Aviation (1825-1930), George F. Pierce, a University of West Florida Book, Pensacola 1980, Library of Congress.

F. Likely sources not yet investigated: None.

PART IV. PROJECT INFORMATION

Documentation prepared by Victor W. Glazner, Architect, Glazner Associates, Inc., for Department of the Navy, Southern Division, Naval Facilities Engineering Command, prior to demolition of the building so that there would be a permanent record of its existence. Recorded under the direction of the National Park Service, Regional Office, Atlanta, Georgia, the project was completed during the Summer of 1989 at the offices of Glazner Associates, Inc., Pensacola, Florida. The project supervisor was Victor Glazner (architect); intern architect was Wayne M. Allen (Auburn University); project historian was Sandra S. Glazner (principal Glazner Associates, Inc.).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7.5 MINUTE SERIES (TO
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A Y O U
G R A N D E
Jones Pt
Magazine Pt
Tidal Flat
Sandpit
Golf Course
Radio Towers
CHEVALIER FIELD
Helicopter Pad
Fort Barrancas
Fort San Carlos
Lookout Tower
Ferry
Mustin Beach
San Carlos Beach
Light
SCALE 1:24,000
P E N S A C O L A
B A Y
INDEFINITE BOUNDARY
INTRACOASTAL WATERWA
FORT PICKENS STATE PARK
Ruins
Lookout Tower
U.S. Naval Rifle Range
BLDG 76 473,750 E 3,356,950 N
BLDG 75 473,800 E 3,356,930 N
BLDG 72 474,040 E 3,356,895 N
BLDG 49 474,070 E 3,356,925 N
BLDG 71 474,100 E 3,356,890 N
BLDG 104 474,185 E 3,356,875 N
BLDG 44 474,230 E 3,356,880 N
VICTOR GLAZENER
8/15/89