

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES  
INVENTORY -- NOMINATION FORM**

FOR NPS USE ONLY

RECEIVED

JUN 7 1977

DATE ENTERED

DEC 2 1977

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

**1 NAME**

HISTORIC

Fort DeSoto Batteries

AND/OR COMMON

Battery Laidley &amp; Battery Bigelow

**2 LOCATION**

STREET &amp; NUMBER

Fort DeSoto Park

CITY, TOWN

Mullet Key St. Petersburg vic.

STATE

Florida

CODE

12

VICINITY OF

NOT FOR PUBLICATION

CONGRESSIONAL DISTRICT

8th 6th

COUNTY

Pinellas

CODE

103

**3 CLASSIFICATION****CATEGORY**☐ DISTRICT☐ BUILDING(S)☒ STRUCTURE☐ SITE☐ OBJECT**OWNERSHIP**☒ PUBLIC☐ PRIVATE☐ BOTH**PUBLIC ACQUISITION**☐ IN PROCESS☐ BEING CONSIDERED**STATUS**☒ OCCUPIED☐ UNOCCUPIED☐ WORK IN PROGRESS**ACCESSIBLE**☒ YES: RESTRICTED☐ YES: UNRESTRICTED☐ NO**PRESENT USE**☐ AGRICULTURE☐ COMMERCIAL☐ EDUCATIONAL☐ ENTERTAINMENT☐ GOVERNMENT☐ INDUSTRIAL☐ MILITARY☐ MUSEUM☒ PARK☐ PRIVATE RESIDENCE☐ RELIGIOUS☐ SCIENTIFIC☐ TRANSPORTATION☐ OTHER:**4 OWNER OF PROPERTY**

NAME

Pinellas County Parks Department

STREET &amp; NUMBER

407 South Garden Avenue

CITY, TOWN

Clearwater

STATE

Florida 33516

VICINITY OF

**5 LOCATION OF LEGAL DESCRIPTION**

COURTHOUSE,

REGISTRY OF DEEDS, ETC.

Pinellas County Courthouse

STREET &amp; NUMBER

CITY, TOWN

Clearwater

STATE

Florida

**6 REPRESENTATION IN EXISTING SURVEYS**

TITLE

National Survey of Historic Sites and Buildings

DATE

1960

☒ FEDERAL ☐ STATE ☐ COUNTY ☐ LOCAL

DEPOSITORY FOR

SURVEY RECORDS Pinellas County Parks Department

CITY, TOWN

Clearwater

STATE

Florida

## 7 DESCRIPTION

### CONDITION

\_\_\_EXCELLENT  
☒GOOD  
\_\_\_FAIR

\_\_\_DETERIORATED  
\_\_\_RUINS  
\_\_\_UNEXPOSED

### CHECK ONE

\_\_\_UNALTERED  
☒ALTERED

### CHECK ONE

☒ORIGINAL SITE  
\_\_\_MOVED      DATE \_\_\_\_\_

### DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

Battery Laidley and Battery Bigelow were located in an area of approximately ten acres of the original site of the Fort DeSoto Military reservation, on the west shore of Mullet Key. Today, they are the only structures remaining of the Fort DeSoto installation, which, with Fort Dade on Egmont Key, comprised a major coast artillery fortification for the defense of Tampa Bay in the early 20th century.

The major feature of the site is the massive earth covered concrete structure of Battery Laidley. This structure consists of two mortar emplacement pits separated and flanked by magazines, machinery spaces, and fire control rooms, in linear arrangement on a roughly north-south axis. A paved walkway along the rear or east side gives access to the various spaces. Beyond this, in back of each of the mortar pits, is a small brick booth from which fire control data boards were displayed.

The mortar pits are entirely open above and in the rear (see photograph). The magazines, machinery spaces, and fire control plotting rooms are windowless. The original steel doors have been removed, and only the rooms now currently being used for storage have been supplied with doors. All equipment, accessories, and fixtures for ammunition handling and fire control have been removed. However, new lighting fixtures and wiring similar to the original have recently been installed, and a general clean-up and repair program has put the basic structure in good condition.

Four of the original eight twelve-inch mortars are still in place in the pits. The breech mechanisms, parts of the aiming mechanisms, and other accessories have been removed. In each pit, one gun is displayed in the elevated or firing position, and one in the depressed or loading position. The guns and carriages are painted and well maintained.

The earth fill above the magazines and working spaces, and covering the seaward or west face of Battery Laidley, is covered with dense vegetation. For visitor access, concrete stairways at each end of the earth fill lead to a paved walkway and observation area at the top. From this vantage point the visitor can view the entrance channel to Tampa Bay, and Egmont Key, site of the main coast defense installation of which Fort DeSoto was an adjunct.

The ruins of Battery Bigelow are located approximately seven hundred feet in front, and just to the south of Battery Laidley. They consist of the tumbled remnants of concrete emplacements for two three-inch guns protecting the inshore approaches to Mullet Key and Egmont Key. Originally, the shoreline was some two hundred feet from Battery Bigelow. Beach erosion has resulted in the undermining and collapse of the structure, and the ruins are now awash at high tide.



## 8 SIGNIFICANCE

| PERIOD                                        | AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW |                                                 |                                                 |                                              |
|-----------------------------------------------|--------------------------------------------------|-------------------------------------------------|-------------------------------------------------|----------------------------------------------|
| <input type="checkbox"/> PREHISTORIC          | <input type="checkbox"/> ARCHEOLOGY-PREHISTORIC  | <input type="checkbox"/> COMMUNITY PLANNING     | <input type="checkbox"/> LANDSCAPE ARCHITECTURE | <input type="checkbox"/> RELIGION            |
| <input type="checkbox"/> 1400-1499            | <input type="checkbox"/> ARCHEOLOGY-HISTORIC     | <input type="checkbox"/> CONSERVATION           | <input type="checkbox"/> LAW                    | <input type="checkbox"/> SCIENCE             |
| <input type="checkbox"/> 1500-1599            | <input type="checkbox"/> AGRICULTURE             | <input type="checkbox"/> ECONOMICS              | <input type="checkbox"/> LITERATURE             | <input type="checkbox"/> SCULPTURE           |
| <input type="checkbox"/> 1600-1699            | <input type="checkbox"/> ARCHITECTURE            | <input type="checkbox"/> EDUCATION              | <input checked="" type="checkbox"/> MILITARY    | <input type="checkbox"/> SOCIAL/HUMANITARIAN |
| <input type="checkbox"/> 1700-1799            | <input type="checkbox"/> ART                     | <input type="checkbox"/> ENGINEERING            | <input type="checkbox"/> MUSIC                  | <input type="checkbox"/> THEATER             |
| <input checked="" type="checkbox"/> 1800-1899 | <input type="checkbox"/> COMMERCE                | <input type="checkbox"/> EXPLORATION/SETTLEMENT | <input type="checkbox"/> PHILOSOPHY             | <input type="checkbox"/> TRANSPORTATION      |
| <input checked="" type="checkbox"/> 1900-     | <input type="checkbox"/> COMMUNICATIONS          | <input type="checkbox"/> INDUSTRY               | <input type="checkbox"/> POLITICS/GOVERNMENT    | <input type="checkbox"/> OTHER (SPECIFY)     |
|                                               |                                                  | <input type="checkbox"/> INVENTION              |                                                 |                                              |

SPECIFIC DATES +1898-1945

BUILDER/ARCHITECT

### STATEMENT OF SIGNIFICANCE

The Fort DeSoto Batteries are significant as examples of military coast defense construction of the late 19th and early 20th centuries. Battery Laidley is of unusual significance as it is one of very few such installations in which a portion of the original armament has been retained in place.

Mullet Key is the largest and southernmost of a chain of offshore islands extending southward from the Pinellas peninsula. It is a low, narrow, vee-shaped sand spit, one arm of which extends northward approximately two miles from the apex, and the other a slightly greater distance toward the east-northeast. It forms the northern limit of the entrance to Tampa Bay. The main channel from the Gulf of Mexico enters Tampa Bay between Mullet Key and Egmont Key, two miles to the southwest. A secondary channel lies between Egmont and Passage Key further south.

The potential military value of Mullet and Egmont Keys for the defense of Tampa Bay was recognized by Army Engineers in a survey of the Florida coast in 1849. As a result of their recommendations, these and several other islands in Tampa Bay were reserved for military use. The interest of the War Department in the Mullet and Egmont sites was reaffirmed in the post-Civil War period (Sarles pp. 9-11).

No immediate efforts were made to establish defensive fortifications, probably because the limited commerce of the Tampa Bay area did not warrant the expenditures required. By the 1890s, however, after rail-road connections with the interior had been established, Tampa became a major outlet for the booming phosphate industry. Products of the surrounding forest and agricultural areas, and of its own growing industries added to Tampa's commerce (Long, passim). This general economic development, and the events of the Spanish-American War in 1898, resulted in the decision to establish a major coast defense facility to protect the Tampa Bay area.

The plan adopted was to utilize both Mullet and Egmont Keys in the development of a complete coast defense artillery complex, with the main battery of long range heavy coastal guns on Egmont Key, supported by the battery of mortars on Mullet Key. In addition, a battery of light artillery at each location would cover the entrance channels between the islands (Lewis pp. 75-79 for coast defense technology and tactics).

Continued

## 9 MAJOR BIBLIOGRAPHICAL REFERENCES

Lewis, Emanuel Raymond. Seacoast Fortifications of the United States: An Introductory History. (Washington: Smithsonian Institution Press, 1970).

Continued

## 10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 10 acres

UTM REFERENCES

|   | ZONE | EASTING | NORTHING |
|---|------|---------|----------|
| A | 17   | 328700  | 3055670  |
| B | 17   | 328715  | 3055530  |
| C | 17   | 328450  | 3055440  |
| D | 17   | 328560  | 3055650  |

VERBAL BOUNDARY DESCRIPTION

Beginning at point A, proceed approximately 180 meters in a SSE direction to point B, thence approximately 280 meters in a WSW direction to point C, thence approximately 240 meters in a NNE direction to point D, thence approximately 160 meters in an ENE direction to beginning.

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

| STATE | CODE | COUNTY | CODE |
|-------|------|--------|------|
| STATE | CODE | COUNTY | CODE |

## 11 FORM PREPARED BY

NAME / TITLE

William N. Thurston, Chief Preservation Planner

ORGANIZATION

Division of Archives, History & Records Management

STREET & NUMBER

Department of State, The Capitol

CITY OR TOWN

Tallahassee

DATE

1/10/77

TELEPHONE

(904) 487-2333

STATE

Florida

## 12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL X

STATE \_\_\_\_\_

LOCAL \_\_\_\_\_

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

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

TITLE Director, Division of Archives, History and Records Management

DATE 5-26-77

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

ATTEST:

DATE

12/2/77

DATE

11-30-77

KEEPER OF THE NATIONAL REGISTER

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

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Fort DeSoto Batteries

CONTINUATION SHEET

ITEM NUMBER 8 PAGE 1

Construction of the mortar battery at Mullet Key began in November, 1898, with the clearing of the site and the establishment of a construction plant. This included a 275 foot wharf, a narrow gauge railway and an overhead cableway for landing and handling materials, a concrete mixing plant, quarters and messhall for the workmen, stables, storage spaces, and a construction office. Stone and cement were brought from New York and New Jersey by sailing vessels. Sand and shell were available on the site. Construction proceeded rapidly, and the basic structure was completed by the end of 1899. Installation of the electrical equipment, gun carriages, and miscellaneous hardware, and completion of the earth fill required another five months. In May of 1900, the battery was reported complete and ready for installation of the armament (Sarles pp. 13-15).

Construction of the secondary battery was carried out during 1901 and completed early in 1902. Installation of the armament, eight twelve-inch mortars in the primary battery and two fifteen pounder rapid fire guns in the secondary battery, was completed in 1903, and firing tests were conducted in November of that year. By General Order No. 78 of May 25, 1903, the main battery was named in honor of Colonel Theodore T.S. Laidley for his "conspicuous service in the war with Mexico and the Civil War," and the secondary battery for First Lieutenant Aaron Bigelow, killed at the battle of Lundy's Lane, Ontario, on July 25, 1814 (Sarles pp. 16-17).

In the meantime, construction of the post buildings had begun. By 1906, when this work was complete, a total of 29 buildings had been erected. These included officers' and noncommissioned officers' quarters, barracks, kitchen, bakehouse, messhall, hospital, and administration buildings, workshops, stables, and storage sheds. Water and sewerage systems, brick roads, and outlying fire control installations completed the facilities of the base, which occupied an area of 613 acres (Sarles pp. 17-20).

Fort DeSoto was garrisoned by a company of regular Army artillerymen from 1904-1910. Isolation, lack of recreational facilities, and the incessant assaults of swarms of mosquitos made the post all but unendurable. The monotony of garrison duty was broken on three occasions when joint maneuvers were held with the militia units designated to man the post in event of mobilization. In June, 1910, the garrison company was withdrawn. A caretaker detachment was left in charge, but it was never large enough to cope with the maintenance requirements. With the outbreak of World War I, the detachment was increased--not to activate the fort, but to dismount four of the mortars and prepare them for

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Fort DeSoto Batteries  
CONTINUATION SHEET

ITEM NUMBER 8 PAGE 2

shipment to France. Despite subsequent efforts to maintain the facility after the war, deterioration continued. Beach erosion was a serious problem, threatening to undermine several buildings, and approaching the foundations of Battery Bigelow. Finally, in October, 1921, a major hurricane swept the area, causing extensive damage (Sarles pp. 20-28).

The post was officially abandoned in 1923. Within ten years, destruction of the facility by the elements was nearly complete. Only three of the original 29 buildings were still standing, and Battery Bigelow had collapsed, a victim of beach erosion. Battery Laidley was still structurally sound, but its mortar carriages and other metalwork were badly deteriorated, and its further usefulness was considered "extremely doubtful" (Sarles pp. 29-39).

Attempts by the War Department to dispose of the property were not successful, and with the mobilization planning begun in 1940 it was decided to utilize the area as a bombing range (Sarles p. 34). Fortunately, this use throughout the World War II period did not result in further damage to either Battery Laidley or the ruins of Battery Bigelow.

In 1948, Mullet Key was sold to Pinellas County as surplus government property, for subsequent development as a recreation area. By 1964, partial restoration of Battery Laidley and its remaining mortar armament was completed, and action had been taken to arrest the beach erosion threatening the ruins of Battery Bigelow. A system of bridges and causeways provides easy access to the site, and Fort DeSoto Park has become a major recreational attraction in the Pinellas County area.

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Fort DeSoto Batteries

CONTINUATION SHEET

ITEM NUMBER 9 PAGE 1

Long, Durward. "Making of Modern Tampa: A City of the New South, 1851-1911," Florida Historical Quarterly XLIX (April, 1971), pp. 333-345.

Sarles, Frank B., Jr. "Fort DeSoto, Florida." Historic Site Report prepared in 1960 for U.S. Department of the Interior, National Park Service. Copy on file in Pinellas County Parks Department, Clearwater, Florida.





1977



Property Fort DeSoto Batteries

State Florida Working Number 6.7.77.926

Proj. # 77000407

PINELLAS

**TECHNICAL**

Photos 3  
Maps 2

**CONTROL**

OK pl  
6.8.77

**ARCHITECTURAL HISTORIAN 2**

~~WATER AND LAND USE STUDY~~

ACCEPT  
Brink 11/28/77

**ARCHITECTURAL HISTORIAN**

Accept -  
Brasham 9/28/77

**ARCHEOLOGIST**

**OTHER**

**HAER**

Inventory \_\_\_\_\_  
Review \_\_\_\_\_

**REVIEW UNIT CHIEF**

Accept  
Lebovich  
11/28/77

**BRANCH CHIEF**

Hunt  
11.30.77

**KEEPER**

Wm  
12/2/77

National Register Write-up \_\_\_\_\_

Send-back \_\_\_\_\_

Entered DEC 2 1977

Federal Register Entry \_\_\_\_\_

Re-submit \_\_\_\_\_

INT:2106-74



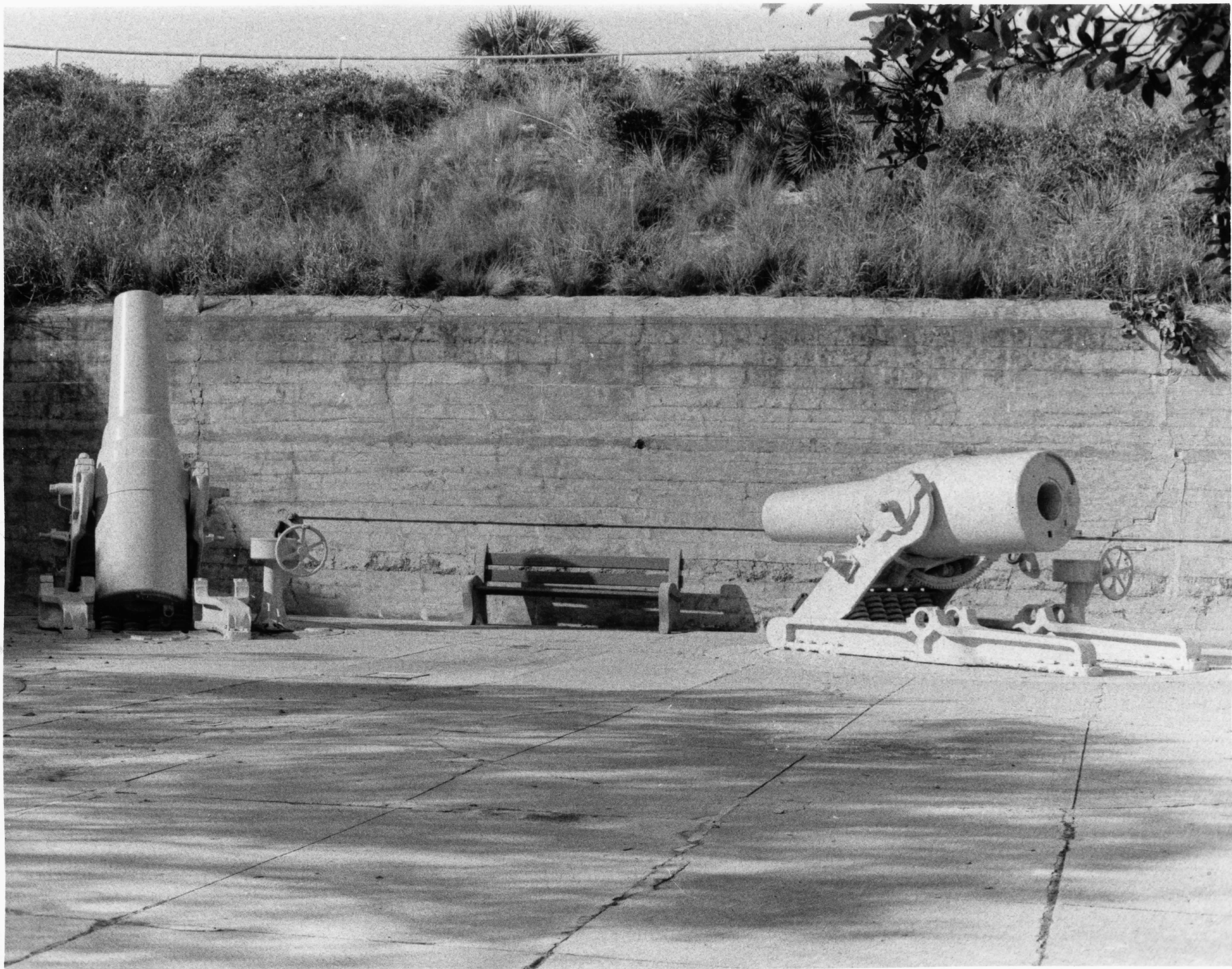
- 1) Fort DeSoto Batteries
- 2) Mullet Key, Pinellas County, Florida
- 3) William N. Thurston
- 4) January, 1976
- 5) Division of Archives, History and Records  
Management, Tallahassee, Florida
- 6) Seaward face of Battery Laidley as seen from  
the ruins of Battery Bigelow
- 7) Photo #143

JUN 7 1977

DOE  
DEC 2 1977

PROPERTY OF THE NATIONAL REGISTER



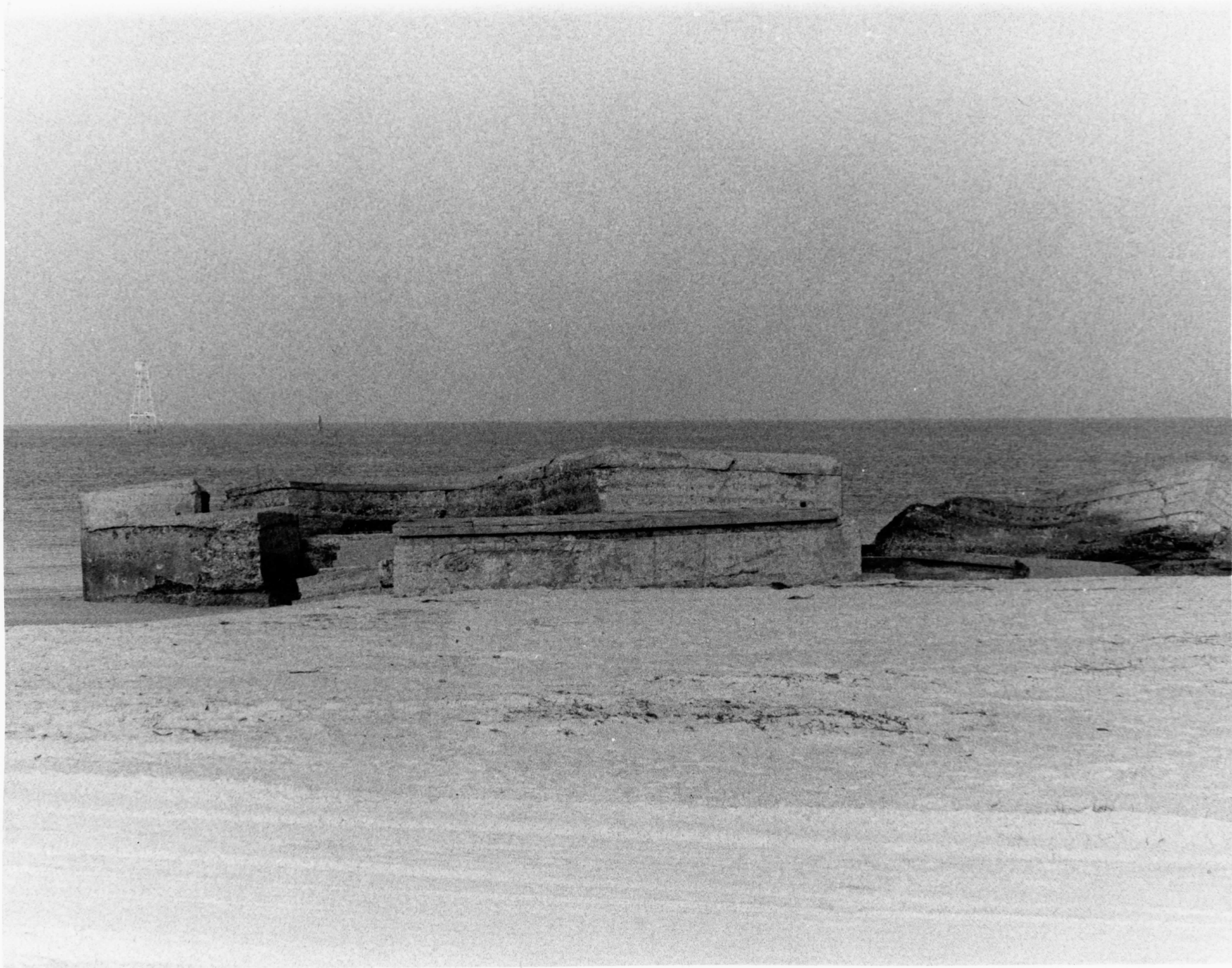


- 1) Fort DeSoto Batteries
- 2) Mullet Key, Pinellas County, Florida
- 3) William N. Thurston
- 4) January, 1976
- 5) Division of Archives, History and Records  
Management, Tallahassee, Florida
- 6) Mortar Pit #2, Battery Laidley, with two  
of the four original mortars in place
- 7) Photo #2

JUN 7 1977

DEC 2 1977

**PROPERTY OF THE NATIONAL REGISTER**





- 1) Fort DeSoto Batteries
- 2) Mullet Key, Pinellas County, Florida
- 3) William N. Thurston
- 4) January, 1976
- 5) Division of Archives, History and Records  
Management, Tallahassee, Florida
- 6) Ruins of Battery Bigelow
- 7) Photo #3063

JUN 7 1977

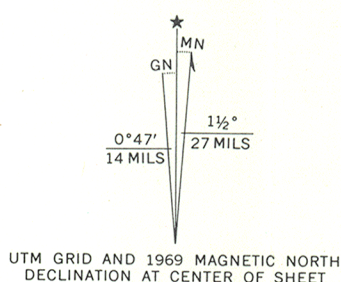
POE  
DEC 2 1977

PROPERTY OF THE NATIONAL REGISTER





Mapped, edited, and published by the Geological Survey  
Control by USGS and USC&GS  
Topography by photogrammetric methods from aerial photographs  
taken 1962 and 1963 and planimetric surveys 1964  
Selected hydrographic data compiled from USC&GS Chart 586 (1964)  
This information is not intended for navigational purposes  
Polyconic projection. 1927 North American datum  
10,000-foot grid based on Florida coordinate system, west zone  
1000-meter Universal Transverse Mercator grid ticks,  
zone 17, shown in blue  
Fine red dashed lines indicate selected fence and field lines where  
generally visible on aerial photographs. This information is unchecked  
Revisions shown in purple compiled in cooperation with  
State of Florida agencies from aerial photographs taken 1969  
This information not field checked



SCALE 1:24,000

CONTOUR INTERVAL 5 FEET  
DATUM IS MEAN SEA LEVEL  
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER  
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER  
THE MEAN RANGE OF TIDE IS APPROXIMATELY 2.5 FEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, WASHINGTON, D.C. 20242  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST





YP

**BOARD OF COUNTY COMMISSIONERS**  
**PINELLAS COUNTY, FLORIDA**  
315 HAVEN STREET  
CLEARWATER, FLORIDA 33516

**COMMISSIONERS**

JEANNE MALCHON, CHAIR  
DON JONES, VICE-CHAIRMAN  
JOHN CHESNUT, JR.  
CHARLES E. RAINEY  
JOSEPH "JOE" WORNICKI

June 24, 1977

Mr. William J. Murtagh  
Keeper of the National Register  
National Park Service  
U. S. Department of the Interior  
Washington, D.C. 20240

Dear Mr. Murtagh:

I was very pleased to find Pinellas County, Florida's  
Ft. DeSoto Batteries listed among the National Register's  
pending nominations in the Federal Register on June 22, 1977.

Enclosed please find information requested in the notification  
in support of the old Fort's admission to the National Register.

Please keep me advised of the status of this nomination. If  
at any time I can be of further assistance to you, please  
do not hesitate to contact me.

Sincerely,

David Morgan  
Grants Development Specialist  
DEPARTMENT OF GRANTS DEVELOPMENT

DM:bls

Enclosure

cc James B. Work  
Park Dr.



THE NATIONAL REGISTER OF HISTORY

DATE RECD JUN 27 1977

BY 6-26

FILED 51



ENTRIES IN THE NATIONAL REGISTER

STATE      **FLORIDA**

Date Entered      **DEC 2 1977**

Name

**Fort DeSoto Batteries**

Location

**St. Petersburg vicinity  
Pinellas County**

Also Notified

**Hon. Richard (Dick) Stone**

**Hon. Lawton Chiles, Jr.**

**Hon. C. W. Bill Young**

**Regional Director, Southeast Region**

**880**

**Mott/js**

**12/12/77**

**State Historic Preservation Officer  
Mr. W. Robert Williams  
Director, Division of Archives  
History and Records Management  
Department of State  
401 East Gaines Street  
Tallahassee, Florida 32304**



UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
WASHINGTON OFFICE

To: MARGUERITE MOTT

FOLLOW-UP SLIP

Date 12/12/77

MRS. BEAN WITH THE ST. PETERSBURG TIMES WILL BE CALLING  
AGAIN TOMORROW TO CHECK ON THE STATUS OF THE FORT DESOTO  
BATTERIES, PINELLAS COUNTY, FLORIDA. THE CARD INDICATES IT GOT  
AS FAR AS CHARLES.

SHE WILL BE ASKING FOR YOU BY NAME.

*She did call*

NOT TO BE FILED

Signature Brue.



## OLD FORT HISTORY

### Significance of the Area

United States harbors were among the most extensively fortified in the world at the outbreak of the Civil War, but experience in that conflict showed that the existing masonry forts were unable to resist the fire of rifled artillery. During the next quarter-century, while artillery and warships became even more powerful, little was done to modernize our coastal defenses. Not until 1890 was a new program of fortification undertaken, and it was far from complete at the beginning of the Spanish-American War in 1898.

Of all the lessons taught by that short war, none was more forcefully presented than that involving the value of adequate coastal defenses. When war began, a large part of our Atlantic fleet was immobilized by the public clamor for protection against the Spanish naval expedition of Admiral Cervera. Subsequently, the demonstrated inability of our warships to reduce the Spanish coast defenses in the Caribbean proved that "no navy, operating alone far distant from home bases, could successfully attack the United States if protected by coast defense guns of caliber equal to those of a hostile fleet."

For several years the construction of coastal defenses had a high priority, and in 1901 the Coast Artillery was



created with the primary mission of manning those defenses. By 1914 our harbors were protected by 75 well-armed forts.

The coastal fortifications of the period after 1890 had several common characteristics evolving from the changed conditions of naval warfare. They consisted of dispersed and carefully hidden batteries. Besides mines and other submarine explosives, armaments included both flat-trajectory and high-trajectory weapons of heavy caliber. Guns were mounted on disappearing carriages, and mortars emplaced in deep pits which made them completely invisible from the sea. Their elaborate fire control systems were much more accurate than those of warships of the period. No overhead cover was provided for the batteries, on the theory that their heavy and accurate fire would prevent enemy vessels from approaching near enough to damage them.

By 1918, the accelerated development of artillery and warships consequent upon the outbreak of World War I had again rendered our coastal defenses obsolete. Developments tending to this effect included improved shipboard fire control devices; redesigned turrets, which allowed warships a higher angle of fire; and improved artillery fuses which greatly increased the accuracy of overhead bursts.

Before the existing fortifications could be adapted to meet these new threats, the rapid development of military aviation shifted the entire focus of defense. By the time of



the Second World War, surface attack against harbor defenses was only a secondary possibility. Most of the outmoded coastal defenses were abandoned between the wars, the last of the big guns were taken out of service shortly after 1945, and the Coast Artillery Corps itself was soon afterward abolished. Though the principle of harbor defense remained the same, the methods of attack and defense had undergone a revolutionary change.

Fort DeSoto is one of the coastal defenses built during the quarter-century after 1890. Its story is representative, symbolizing the life cycle of one particular concept of our national defense.



## ARMAMENT OF FORT DeSOTO

The seacoast armament of the United States was a product of the last quarter of the 19th century. The construction of the first 8 inch breech-loading rifle for coast defense purposes was undertaken in 1883 and completed at the West Point Foundry three years later. In 1888 Congress began making appropriations for seacoast armament, thus actual design, manufacturing and mounting did not begin before that date, and it was not until 1895 that this type of material was turned over to the coast artillery, and the majority was installed after 1897.

The 12" mortar, model 1890-MI, as found at Fort DeSoto, represented the ultimate in this type of armament, for that era, and was evolved through a series of model changes.

This mortar is similar in construction to the model of 1886, except that it has a tube, jacket, breech bushing and other refinements, and is of forged steel construction rather than cast iron.

The bore has 72 grooves; twist of rifling one turn in 40 calibers, increasing to one turn in 20 calibers toward the muzzle.

The total length is 141.25 inches; weight 13 tons. Length of bore 10 calibers. (120 inches) The powder charges, nitrocellulose (smokeless) powder, weighed from 54 to 62 pounds; the igniter charge 1.25 pounds. The powder charges were issued, made up for various zones, to give various velocities. These velocities ranged from 550 ft. seconds, in zone one to 1,050 ft. seconds in zone seven.

Muzzle energy was between 9,647 and 10,077 foot tons. Maximum pressure was 33,000 pounds per square inch. The maximum range, with 45 degree elevation was 12,019 yards. Minimum range, with 65 degree elevation was 2,210 yards.



The average powder charge or cartridge of smokeless powder normally weighed 62 pounds, was twelve inches in diameter and twenty inches in length. The igniting charges were composed of black rifle powder, which were placed in each end of the powder charge, their function being to properly ignite the less inflammable charge of smokeless powder.

Projectiles for these guns weighed 824 and 1046 pounds, and at 10,000 yards were capable of penetrating over six inches of deck steel.

The guns were loaded from the breech while in a horizontal position. The projectile was inserted first, followed by the powder charge in a silk bag. After the breech was closed and secured the gun was elevated and traversed right or left by use of the elevating handwheel and traversing crank, which were manually operated. The gun was fired by a lanyard, which set off a detonator inserted in the breech block, shooting a flame into the igniting charge. Recoil, which was limited to about nineteen inches, was taken up by two hydraulic recoil cylinders.

The rate of fire of these guns was quite slow, since all operations were manual, and after each firing it was necessary that the gun be thoroughly cleaned with a wet sponge on a long rod to remove all traces of sparks. Projectiles and powder were brought from nearby magazines on a hand cart. Firing instructions were received from blackboards attached to a data booth located to the rear of the gun pits.

Battery Biglow was intended for close in defense and was armed with two - 3" - fifteen pound rapid fire guns - Driggs-Seabury Model of 1898. These rifles followed the general method of built-up



forged steel construction. They were manufactured by the Driggs-Seabury Company, and consisted of a tube, jacket and breech bushing.

Total length was 154.5 inches; weight 1,782 pounds; length of bore 50 calibers (150 inches). The bore had 24 grooves. Weight of the projectile was 15 pounds, weight of the propelling charge, nitro-cellulose powder, 5 pounds.

Muzzle velocity 2,600 foot seconds. Maximum elevation permitted by carriage was 12 degrees, permitting a range of 7,849 yards.

**NOTE:**     **Caliber:** A name given to the minimum diameter of the bore of a firearm. Also was used to express the length of a cannon; e.g. a twelve inch gun 42 calibers long would be 42 feet long; a six inch gun 52 calibers long would be 26 feet long.

**Material selected from:**

**The Service of Coast Artillery**

**By: Frank T. Hines, Capt. Coast Artillery Corps**  
**Franklin W. Ward, Major, Coast Artillery Corps**

**Published by: Goodinough & Woglom Company**  
**122 Nassau Street**  
**New York City**

**The Scientific Press**

**Robert Drummond and Company**  
**New York**

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# NATIONAL REGISTER DATA SHEET

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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------------------------------------------------------------------------|------------------------------|
| <b>1 NAME as it appears on federal register:</b><br>Fort DeSoto Batteries                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  | <b>2 OTHER NAMES:</b><br>Battery Laidley and Battery Bigelow                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                      | <b>3 date of entry:</b><br>DEC 2 1977                                        | <b>4 county code:</b><br>103 |
| <b>5 LOCATION street &amp; number</b><br>8 mi. S of St. Petersburg on Mullet Key                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | <b>city / town</b><br>St. Petersburg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>vicinity of</b><br>St. Petersburg | <b>state</b><br>FL                                                           | <b>county</b><br>Pinellas    |
| <b>7 OWNER</b> <input type="checkbox"/> PRIVATE <input type="checkbox"/> STATE <input type="checkbox"/> MUNICIPAL <input checked="" type="checkbox"/> COUNTY <input type="checkbox"/> MULTIPLE <input type="checkbox"/> FEDERAL (agency name)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  | <b>8 ADMINISTRATOR:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                      |                                                                              |                              |
| <b>9 EXISTING SURVEYS</b> <input type="checkbox"/> HABS <input type="checkbox"/> HAER <input type="checkbox"/> NHL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | <b>10 FUNDED?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                      | <b>11 CONGRESS. DISTRICT</b> 6 <sup>th</sup> 8 <sup>th</sup>                 |                              |
| <b>12 SOURCE of NOMINATION</b> <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEDERAL<br>if state who prepared form?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  | <b>13 ACREAGE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                      |                                                                              |                              |
| <b>14 WITHIN NATIONAL REGISTER HISTORIC DISTRICT?</b><br><input type="checkbox"/> YES, NAME <input type="checkbox"/> NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | <b>15 WITHIN NATIONAL HISTORIC LANDMARK?</b><br><input type="checkbox"/> YES, NAME <input type="checkbox"/> NO                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                      | <input type="checkbox"/> LOCAL <input type="checkbox"/> PRIVATE ORGANIZATION |                              |
| <b>16 CONDITION</b><br><input type="checkbox"/> excellent <input type="checkbox"/> good <input type="checkbox"/> fair<br><input type="checkbox"/> deteriorated <input type="checkbox"/> ruins <input type="checkbox"/> unexposed <input type="checkbox"/> unexcavated<br><input type="checkbox"/> altered <input type="checkbox"/> unaltered <input type="checkbox"/> reconstructed <input type="checkbox"/> excavated<br><input type="checkbox"/> original site <input type="checkbox"/> moved <input type="checkbox"/> unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | <b>17 features:</b><br>INTERIOR: <input type="checkbox"/> SUBSTANTIALLY INTACT-1 <input type="checkbox"/> NOT INTACT-0 <input type="checkbox"/> UNKNOWN-4 <input type="checkbox"/> NOT APPLICABLE-7<br>EXTERIOR: <input type="checkbox"/> SUBSTANTIALLY INTACT-2 <input type="checkbox"/> NOT INTACT-0 <input type="checkbox"/> UNKNOWN-5 <input type="checkbox"/> NOT APPLICABLE-8<br>ENVIRONS: <input type="checkbox"/> SUBSTANTIALLY INTACT-3 <input type="checkbox"/> NOT INTACT-0 <input type="checkbox"/> UNKNOWN-6 <input type="checkbox"/> NOT APPLICABLE-9 |                                      |                                                                              |                              |
| <b>18 ACCESS</b> <input type="checkbox"/> YES-Restricted <input type="checkbox"/> YES-Unrestricted <input type="checkbox"/> No Access <input type="checkbox"/> Unknown                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | <b>19 ADAPTIVE USE</b> <input type="checkbox"/> YES <input type="checkbox"/> NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                      | <b>20 SAVED?</b> <input type="checkbox"/> YES <input type="checkbox"/> NO    |                              |
| <b>21 AREAS OF SIGNIFICANCE:</b><br><input type="checkbox"/> ARCHEOLOGY-prehistoric-2 <input type="checkbox"/> COMMERCE-6 <input type="checkbox"/> ENTERTAINMENT-26 <input type="checkbox"/> LANDSCAPE ARCH.-15 <input type="checkbox"/> LAW-16 <input type="checkbox"/> POLITICS/GOVT.-21 <input type="checkbox"/> RECREATION-28<br><input type="checkbox"/> ARCHEOLOGY-historic-1 <input type="checkbox"/> COMMUNICATIONS-7 <input type="checkbox"/> EXPLORATION-12 <input type="checkbox"/> LITERATURE-17 <input type="checkbox"/> RELIGION-22 <input type="checkbox"/> SETTLEMENT-29<br><input type="checkbox"/> AGRICULTURE-3 <input type="checkbox"/> CONSERVATION-8 <input type="checkbox"/> HEALTH-27 <input type="checkbox"/> MILITARY-18 <input type="checkbox"/> SCIENCE-23 <input type="checkbox"/> URBAN PLANNING-31<br><input type="checkbox"/> ARCHITECTURE-4 <input type="checkbox"/> ECONOMICS-9 <input type="checkbox"/> INDUSTRY-13 <input type="checkbox"/> MUSIC-19 <input type="checkbox"/> SOCIAL/HUMANITARIAN-24 <input type="checkbox"/> SOCIAL/CULTURAL-30 <input type="checkbox"/> OTHER (SPECIFY)<br><input type="checkbox"/> ART-5 <input type="checkbox"/> EDUCATION-10 <input type="checkbox"/> INVENTION-14 <input type="checkbox"/> PHILOSOPHY-20 <input type="checkbox"/> TRANSPORTATION-25 |  | <b>22 CLAIMS: explain</b><br>'first' <input type="checkbox"/><br>'oldest' <input type="checkbox"/><br>'only' <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                               |                                      |                                                                              |                              |
| <b>23 functions</b><br>WHEN HISTORICALLY SIGNIFICANT:<br>CURRENTLY:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | <b>24 dates</b> of initial construction:<br>major alterations:<br>historic events:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                      | <b>25 ETHNIC GROUP ASSOCIATION</b>                                           |                              |
| <b>26 architectural style(s):</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | <b>27 architect:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                      | <b>28 master builder:</b>                                                    |                              |
| <b>29 landscape architect / garden designer:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  | <b>30 interior decorator:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      | <b>31 artist:</b>                                                            |                              |
| <b>32 artisan:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  | <b>33 builder/contractor:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                      |                                                                              |                              |
| <b>34 NAMES give role &amp; date</b><br>PERSONAL:<br><br>EVENTS:<br><br>INSTITUTIONAL:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                      |                                                                              |                              |
| <b>35 NATIONAL REGISTER WRITE-UP</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                      |                                                                              |                              |