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**United States Department of the Interior
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES
REGISTRATION FORM**

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name USS Massachusetts (BB-2)

other names/site number USS Massachusetts State Underwater Archaeological preserve/ES1898

2. Location

street & number 1.5 miles south-southwest of Pensacola Pass n/a not for publication

city or town Pensacola vicinity

state FLORIDA code FL county Escambia code 033 zip code n/a

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

Janet Snyder Matthews 4/10/2001
 Signature of certifying official/Title Date

Florida State Historic Preservation Officer, Division of Historical Resources
 State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

 Signature of certifying official/Title Date

 State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

- entered in the National Register See continuation sheet
- determined eligible for the National Register See continuation sheet.
- determined not eligible for the National Register See continuation sheet.
- removed from the National Register.
- other, (explain) _____

 Signature of the Keeper Date of Action 5/31/01

Erka Martin Seibert

5. Classification

Ownership of Property

(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property

(Check only one box)

- buildings
- district
- site
- structure
- object

Number of Resources within Property

(Do not include any previously listed resources in the count)

Contributing	Noncontributing	
0	0	buildings
1	0	sites
0	0	structures
0	1	objects
1	1	total

Name of related multiple property listings

(Enter "N/A" if property is not part of a multiple property listing.)

n/a

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions)

Transportation: Water-related (ship)

Military: Battleship

Current Functions

(Enter categories from instructions)

Transportation: Water-related (shipwreck)

Landscape: Underwater (underwater site)

7. Description

Architectural Classification

(Enter categories from instructions)

19th-century Battleship

Materials

(Enter categories from instructions)

foundation Metal: Steel (hull)

walls

roof

other Metal: Steel

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- Criteria A, B, C, D with checkboxes and descriptions.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- Criteria A through G with checkboxes and descriptions.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- Documentation checkboxes: preliminary determination, previously listed, National Historic Landmark, Historic American Buildings Survey, Historic American Engineering Record.

Areas of Significance

(Enter categories from instructions)

- Military, Maritime History, Architecture, Engineering, Archaeology: Historic-Non-Aboriginal.

Period of Significance

1893-1921

Significant Dates

1893, 1921

Significant Person

n/a

Cultural Affiliation

American Period (1821-)

Architect/Builder

William Cramp & Sons of Philadelphia

Primary location of additional data:

- State Historic Preservation Office, Other State Agency, Federal agency, Local government, University, Other.

Name of Repository

#

10. Geographical Data

Acreege of Property Less than 1 acre

UTM References

(Place additional references on a continuation sheet.)

1	1 8	4 6 9 9 4 9	3 3 5 1 4 2 6
	Zone	Easting	Northing
2			

3			
	Zone	Easting	Northing
4			

See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Della Scott-Ireton/Archaeologist II & Barbara E. Mattick/Deputy SHPO for Survey & Registration

organization Bureau of Historic Preservation date March 2001

street & number R.A. Gray Building, 500 S. Bronough Street telephone (850) 487-2333

city or town Tallahassee state Florida zip code 32399-0250

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A USGS map (7.5 or 15 minute series) indicating the property's location.

A Sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional items

(check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name State of Florida

street & number _____ telephone (850) 487-2333

city or town _____ state _____ zip code _____

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and amend listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

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**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Section number 7 Page 1 USS MASSACHUSETTS
Escambia County, Florida

SUMMARY

The USS *Massachusetts* (BB-2) (8ES01898) is the site of a steel-hulled pre-Dreadnaught battleship, launched in 1893, that was scuttled for target practice off Pensacola in 1921. The wrecksite is in the Gulf of Mexico 1½ miles south-southwest of Pensacola Pass, Escambia County, in 26 to 30 feet of water within the Fort Pickens Aquatic Preserve (administered by the Florida Department of Environmental Protection) on submerged lands belonging to the State of Florida. The site includes the wreckage of the 350 foot-long ship, parts of which have become disarticulated and lie alongside the hull. The only non-contributing resource within the site boundary is a cement monument with inset bronze plaque that designates the wreck as an Underwater Archaeological Preserve.

SETTING

The site of the USS *Massachusetts* (BB-2) is a dynamic marine environment just outside and to the west of Pensacola Pass. The ship was intentionally scuttled in this location to provide a target for the shore-based guns of Fort Pickens on near by Santa Rosa Island. Water depth is 26 to 30 feet to the bottom, although the battleship's two 13-inch gun turrets protrude above water. Water clarity varies with current and, in particular, tidal action; high tide brings clear Gulf water over the wreck while low tide brings dark and often murky water from Pensacola Bay to the wrecksite. Bottom sediment is composed of white quartz sand in which the hull is buried to the waterline and which shifts with prevailing currents, periodically covering and uncovering sections of the wreckage. *Massachusetts* is home to a variety of marine life, including mollusks and crustaceans, numerous species of fish, sponges, soft corals, and sea turtles.

DESCRIPTION

The wreck of USS *Massachusetts* (BB-2) is 340 feet long and 70 feet wide; the bow is pointing toward the east. The hull is positioned on a relatively even keel and is buried to the waterline in white sand. A large bronze plaque designating the shipwreck an Underwater Archaeological Preserve is set into a cement monument placed forward of the bow 13-inch gun turret. The plaque, a non-contributing resource, does not adversely affect the site's historical or archaeological integrity as it is placed on a sand layer which covers that section of wreckage in the bow and may easily be removed if necessary.

The ship has undergone several changes since being scuttled in 1921. Many of the ship's useful elements were stripped in preparation for its use as a target, and the hull was heavily shelled during the practice. Early Navy pilots, based at near-by Pensacola Naval Air Station, used the partially-submerged ship for dive-bombing practice. Nearly all of the surviving hull superstructure was stripped in the 1940s when scrap metal became vital for World War II. Local reports indicate the hull was dynamited by divers in the 1950s in order to remove lead ballast in the gun turrets. These destructive activities resulted in the displacement of the two 13-inch turrets, which now tilt inward, and in the collapse of the upper decks which caused the four 8-inch gun turrets to become dislodged from their mountings. Nevertheless, the once majestic battleship still is recognizable and provides an exciting dive opportunity.

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Despite these changes over the years, elements of *Massachusetts*' hull survive relatively intact. The 13-inch and 8-inch gun emplacements, although displaced, remain on the wreck and include turrets, turret covers, ammunition tubes, turning mechanisms, and sighting cupolas. Forward of the bow 13-inch gun is the vessel's anchor windlass and anchor chain locker, still containing stud-link chain. The bow torpedo tube is visible, as are hawse holes and a boat crane. In the midships section between the 13-inch guns, coal trunks, boilers, and hatch covers are evident. Lying just off the starboard side is the ship's fighting top. A damaged area on the port side allows the 14-inch armor belt at the waterline to be seen and, just aft, the port rear 8-inch gun turret is collapsed to show all its features. At the stern, the great ship's rudder turning mechanism and the top of the rudder protrude above the sand.

The chrome-nickel steel from which USS *Massachusetts* was constructed today is covered with a thick layer of marine encrustation resulting from the chemical reaction of ferrous metal in salt water. The battleship is very sturdy and is not susceptible to further damage from either natural or human sources. In fact, the hurricanes of 1995, Erin (Category 2) and Opal (Category 3), did not damage the ship in the least. If left undisturbed, the shipwreck has reached a state of equilibrium with its environment and has stabilized.

SITE INVESTIGATIONS

In 1990 the Florida Bureau of Archaeological Research distributed solicitations for candidates to become Underwater Archaeological Preserves. This strategy resulted in the nomination of USS *Massachusetts* (BB-2) sunk off Pensacola. In response to this nomination, Bureau staff conducted an inspection of the battleship and determined it to be an excellent candidate for Preserve status based on its location in relatively shallow, clear water, extensive and impressive remains, and abundant marine life.

In preparation for establishing the new Preserve, the history of USS *Massachusetts* was researched and verified. The battleship was mapped by placing three baselines along the longitudinal axis of the wreck, one baseline from the bow to the front of the bow 13-inch gun turret, one baseline from the rear of the bow turret to the front of the stern 13-inch gun turret, and one baseline from the rear of the stern turret to the rudder. Triangulations and 90° offsets were taken to accurately record the position of features and machinery. An elevation recording of the port side also was completed by taking measurements from the sand bottom to the vertical extent of wreckage. These two site maps produced plan and port-side views of the shipwreck as it appears on the sea floor. When compared to official survey blueprints, made in 1910 when the battleship was drydocked for a major refit, one can readily see the changes the old ship has undergone in her life underwater.

A brochure that describes *Massachusetts*' history and its role as an Underwater Archaeological Preserve was prepared, and an underwater site guide was created to orient divers on a self-guided tour of the shipwreck (see attached). On June 10, 1993, the 100th anniversary of its launching, USS *Massachusetts* (BB-2) was dedicated as Florida's fourth Underwater Archaeological Preserve and the bronze plaque, featuring a replica of the Winged Victory figure that once graced the forward 13-inch turret, was placed on site. Bureau staff inspects the Preserve at least annually and a local dive shop has "adopted" the Preserve, hosting clean-up dives on the wrecksite several times a year to remove debris and stray fishing line. A shore-based exhibit was opened in the local Pensacola Historical Museum for visitors who do not wish to dive on the battleship. Although no artifacts

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were encountered during mapping exercises, several items pertaining to the battleship were donated by citizens of Pensacola for the display, including a porthole and newspaper accounts of the target practice.

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Escambia County, Florida

SUMMARY

USS *Massachusetts* (BB-2) is significant at the national level under **Criterion A** in the areas of **Maritime History** and **Military**, under **Criterion C** in the areas of **Architecture** and **Engineering**, and under **Criterion D** in the area of **Archaeology: Historic-Non-Aboriginal**. Under **Criterion A** this shipwreck is significant as the nation's oldest battleship and the only surviving example of pre-Dreadnaught warships authorized by Congress in 1890 for the United States' new "Steel Navy." Furthermore, USS *Massachusetts* (BB-2) is the only existing member of the *Indiana* class of battleships. *Massachusetts* provides an opportunity to learn more about these early battleships that helped to make the United States a global naval power in the early 20th century.

USS *Massachusetts* (BB-2) is significant under **Criterion C** as it is the only existing example of the sea-going coast line battleships of the *Indiana* class which were the first heavy-caliber, heavy-armor ships built by the United States, and the first to be given hull numbers. Additionally, *Massachusetts* was one of the first warships that relied entirely on coal to fuel its boilers and propel the vessel; sailing was not an option for propulsion. Architectural study of the major refits of the vessel can help to trace implementation of design improvements in U.S. Navy steel warships.

USS *Massachusetts* (BB-2) also is significant under **Criterion D** as it has stabilized in the marine environment and can, through future archaeological investigation, provide additional information about 19th-century warship design, construction of early battleships utilizing chrome-nickel steel, the *Indiana* class of sea-going coast line battleships, the implementation of heavy-caliber guns in warships, and life aboard coal-fired warships in the late 19th and early 20th centuries.

HISTORICAL/ARCHAEOLOGICAL CONTEXT: The New Steel Navy

After the Civil War the United States virtually disregarded its army and, particularly, its naval forces. The nation had spent its reserves of funds, resources, and people on the long and costly war and had nothing to spare, and little impetus, for rebuilding a military when the country needed rebuilding. The few existing navy ships were sailing vessels equipped with steam propellers, although officers disdained the use of steam and regarded the machinery as a nuisance. New metal-working technology and available resources were focused on the expansion of railroads. By 1880 the United States Navy ranked 12th in the world, behind China and Chile. Not until 1883 were federal funds allocated to build four new steel naval vessels; these ships, three cruisers and one dispatch, were termed the "ABCD" fleet based on the initial letters of their names. By 1886 the nation's private steel foundries were capable of supplying the necessary amount of material for major shipbuilding and two larger, ocean-going steel warships were constructed, *Texas* and *Maine*. In 1890 the U.S. Congress, realizing the importance of naval power to national security, ordered the construction of three steel, steam-powered battleships, termed *Indiana* class for the first ship built.

The nation's oldest existing battleship, USS *Massachusetts* was one of three *Indiana* class sea-going coastline battleships authorized in 1890 by the United States Congress to be built for the new "Steel Navy." Among the most powerful ships of their time, USS *Indiana* (BB-1), USS *Massachusetts* (BB-2), and USS *Oregon* (BB-3) were the first heavy-caliber, heavy-armor battleships to be built by the United States, and the

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first to be given hull numbers. *USS Massachusetts* was built by William Cramp and Sons of Philadelphia at a cost of \$ 3.4 million; her keel was laid on June 25, 1891 and she was launched on June 10, 1893. Officially commissioned by the Navy on June 10, 1896, she was just over 350 feet long, with a beam of 69 feet, and a draft of 24 feet. Designed to cruise at a maximum of 15 knots, the battleship was armed with two heavy 13-inch gun batteries and four 8-inch secondary batteries, as well as smaller ordnance. The larger guns were housed in two turrets, one mounted forward and the other mounted aft, along the ship's centerline as opposed to an offset design. This new feature limited the ship's field of fire but gave added stability to the craft. Eight 8-inch guns were housed in four raised turrets mounted in the midships section to form a citadel. Together with four torpedo tubes and a host of small arms, the ship's combined firepower was a force to be reckoned with.

To protect the ship, an armored belt, in some places 18 inches thick, ran along the water line, in addition to side and deck armor plates. Below decks, armored columns extended down from each gun turret to protect machinery, crew, and ammunition supplies. *Massachusetts'* armor was of a new nickel case-hardened steel, introduced in 1890 by H. A. Harvey. The outer surface of the armor was heated with charcoal over several weeks, then cooled rapidly by water, a process that resulted in a resistance to penetration fifty percent better than other steel plate. The firepower and armor were propelled through the water by vertical triple expansion steam engines driving two shafts at almost 10,000 horsepower. The crew of *Massachusetts* consisted of 32 officers and 441 enlisted men; her first commander was Captain Frederick Rodgers.

Although *Massachusetts* was obsolete within ten years of her launching, she represented a transitional stage in battleship technology. The three ships that were built as *Indiana* class ships were the largest and strongest of their time. They were designed to be coastal defenders, to stop incoming enemy ships, and to protect the harbors of the United States from invading forces. The *Indiana* class of battleships taught the U.S. Navy extremely valuable lessons that could not have been learned any other way. The most important information learned from the *Indiana* class was in design features.

One design flaw, which was corrected after the battleships were built, was the lack of bilge keels. Without the keels the ships rolled heavily in nearly any type of sea. These small battleships were not very stable due to the large amount of armament that was placed on them. The enormous 13-inch gun tubes had to be placed at the very front of the turrets to allow for the recoil of the huge gun, resulting in an unbalancing effect. If both guns were trained abeam at the same time, the ship heeled over, forcing one side of the ship underwater and exposing the unprotected lower hull of the other side. Limitations placed on the design of these types of ships also forced them to have very low freeboards, causing the decks to be awash in all but moderate seas.

HISTORICAL SIGNIFICANCE

After launching and a brief stay in Philadelphia for fitting out, the new battleship made way for Newport News, Virginia. At Newport News, she was assigned to the North Atlantic Fleet, where she participated in target practice before heading to Tompkinsville, New York. Her next stop was at Newport, Rhode Island, where she arrived on September 4, 1896 for more maneuvers. Throughout the rest of the year *Massachusetts* spent most of her time performing check-out drills and visiting various Atlantic ports.

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On the 28th of May, 1897, USS *Massachusetts* arrived in Boston Harbor and on the 31st, five companies assigned to *Massachusetts* went ashore to participate in a parade in her honor. The Coat of Arms for the State of Massachusetts was given to the ship on the 16th of June that year. On June 17th, the Secretary of the Navy and the Governor of Massachusetts came aboard with 200 guests to present the ship with a life-size bronze sculpture called Winged Victory which was placed in the forward 13-inch gun turret between the gun tubes. This sculpture can now be seen at the U.S. Naval Academy.

At the outbreak of the Spanish-American War, USS *Massachusetts* was called into battle. She made a mad dash with The Flying Squadron for Cuba to help blockade Cienfuegos and Santiago. On May 31st, 1898, America's second battleship saw her first combat. Along with *Iowa* and *New Orleans*, she fired at the Spanish warship *Cristóbal Colón*. Although *Massachusetts* missed the battle of Santiago Bay a few days later while refueling in Guantanamo Bay, she did not stay out of the action for long; on July 4, 1898, she helped to sink the Spanish cruiser *Reina Mercedes*. Following this heroic duty *Massachusetts* steamed to Guamica, Puerto Rico to help with troop transportation during occupation of the island.

The following years saw *Massachusetts* performing a variety of duties, mainly battle practice in several ports including Pensacola, where she accidentally ran aground in 25 feet of water, prompting adjustments to the Navy's navigational charts. During a winter cruise in 1905, which included target practice off Culebra, a premature detonation in one of the 8-inch turrets caused the deaths of ten sailors. In 1906 she was decommissioned at the New York Navy Yard and her officers and crew were reassigned to USS *Indiana* (BB-1). Refitted in 1910 with a caged mainmast and other modern hardware (*Massachusetts* was one of the first naval ships to have a permanent wireless telegraph, installed under the supervision of Marconi), the battleship was placed in reduced commission to serve as a summer practice ship for Naval Academy midshipmen (including Midshipman Chester W. Nimitz). After a European tour that included a 21-gun salute to honor the coronation of King George V and Queen Mary of England, *Massachusetts* entered the First Reserve of the Atlantic Fleet and participated in the Presidential Fleet Review at New York, where she fired a 21-gun salute to President William H. Taft. In 1914, she was decommissioned a second time at Philadelphia.

After declaration of war with Germany, *Massachusetts* was recommissioned in 1917 to serve as a gunnery practice ship for naval reserve crews in the Atlantic Fleet. She returned to Philadelphia in 1919, was redesignated Coastal Battleship No. 2, and decommissioned for the final time. Struck from the Navy List, the obsolete battleship was loaned to the War Department for use in the testing of coastal defenses. The U.S. Army proposed that the ship serve as a target for a variety of ordnance and ammunition, and chose Pensacola as the site for the experiments due to its coastal fortifications, railroad access, and relatively low population. With a plan laid, the worn-out ship was sent to Norfolk, Virginia to be stripped of her guns and furnishings. In January 1921, she was towed to Pensacola and anchored just outside the entrance to the bay east of Pensacola Pass.

On her arrival in Pensacola, Lieutenant Arthur Forster, Master Mechanic of the Navy's Structural and Hull Division, was assigned to scuttle *Massachusetts* offshore for the artillery tests. Shortly after opening her sea valves and allowing hull compartments to flood, he discovered that the ship had not sunk to the required depth but had settled to the sand with her decks high and dry. The ship had to be moved to deeper water. Lt. Forster found himself responsible for refloating the ship, which took week of tedious and dangerous work, since

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the sea valves had become clogged with sand. Once afloat, *Massachusetts* was towed into deeper water on the west side of the pass and scuttled again. She remains there to this day.

Meanwhile, the Army readied coastal artillery at Fort Pickens on Santa Rosa Island and at Fort Barancas on the mainland. Other guns were transported by rail from as far away as Fort Eustis, Virginia. One 12-inch cannon had to be dismantled and brought to Pensacola in pieces; another was so heavy that railroad trestles had to be reinforced en route. The larger guns were stationed well inland, north of Bayou Grande and above the city. One cannon on rails was positioned to fire some 19,000 yards over city and sea to hit the target battleship.

The guns began to fire on January 6, 1921. A total of 108 rounds were expended out of a planned 150. The test continued for the next several days with brief periods for damage inspection. The guns fell silent on January 18 and the men who had performed the test were on their way back home. The scarred and torn ship was left to the whims of the sea.

In 1925, the hulk of *Massachusetts* was transferred back to the Department of the Navy. After repeated attempts to sell the battleship for scrap failed, the Navy all but forgot that she existed. Local stories tell of young people from Pensacola rowing out to the ship on calm days and holding informal dances on her deck. Student aviators and dive bomber trainees from Pensacola Naval Air Station used the old battleship for airborne target practice, dropping TNT bombs. Superstructure remaining above the waterline was salvaged during World War II when scrap metal was urgently needed for the war effort. The ship then sat peacefully in the Gulf attracting fish and fisherman alike until 1956 when several scrap companies joined forces to salvage the wreck. With the support of the people of Pensacola, the state filed an injunction to prevent the salvage and the case was brought before the State Supreme Court which declared that, since *Massachusetts* had been abandoned by the United States, title to her remains was vested with the State of Florida. This ruling gave the oldest existing American battleship to the people of Florida.

Nationally, USS *Massachusetts* (BB-2) is significant under **Criterion A** in the areas of **Maritime History** and **Military** because it is the oldest existing U.S. battleship and is the only remaining example of the first class of steel battleships ever produced by the United States. Entirely steam-driven and incorporating new ideas of naval technology, *Massachusetts* also is important in the history of warship design and evolution. It is significant as a foundation of the new Steel Navy built in the late 1890s, representing the effort of the United States to gain its place as a primary world power through control of the seas. The ship played an important role in the Spanish-American War, and is the only surviving American vessel from that conflict that was associated with the Caribbean campaign. Additionally, the old ship finished her floating life in the service of her county as a target to test coastal defenses.

ARCHAEOLOGICAL SIGNIFICANCE

USS *Massachusetts* (BB-2) is significant under **Criterion D** because of the high potential for new information the site can yield. Although parts of the ship have been damaged or removed over the years, much remains of this important transitional example of early steel naval technology. Few, if any, portable artifacts are likely to remain on the shipwreck because the hull was thoroughly stripped in preparation for its use as a target. Much architectural information, however, can be learned from the remaining hull structure. *Massachusetts* is

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the only ship available from which new information regarding the use of case-hardened steel, the innovation of centerline gun turret placement, and early warship steam technology can be obtained. Most of the battleship remains relatively intact below the waterline, covered and protected by sand, and provides an unequalled and truly unique opportunity, through future archaeological research, to learn more about the first United States battleships.

An additional consideration is that USS *Massachusetts* (BB-2) is one of a family of shipwreck sites that have been determined to be historically and archaeologically significant by the State of Florida. *Massachusetts* was designated a State Underwater Archaeological Preserve based on its integrity and its potential for public education. *Massachusetts* also is featured as part of Florida's Maritime Heritage Trail, a series of coastal and maritime sites including Historic Shipwrecks, Coastal Environments, Lighthouses, Coastal Communities, Coastal Forts, and Historic Ports, that are interpreted for public education, recreation, and tourism.

ARCHITECTURAL CONTEXT

The *Indiana* class of warships, of which USS *Massachusetts* was the second, were the first battleships of the new Steel Navy ordered by Congress. Vital to the efforts of the United States to regain its primacy on the high seas, both for national safety and for international prestige, these vessels relied on new metalworking and production technology that had not previously been used on such a large and ambitious scale. Additionally, design and application of coal-powered steam technology was not yet perfected. Overall, the enormous ships suffered from a lack of experience in large steel ship design and construction. For example, initial construction of the ships did not include bilge keels to prevent excessive rolling from side to side; the keels later were installed, the rolling stopped, and a valuable lesson in large ship design was learned and utilized in later vessels. The 13-inch gun turrets were set on the vessel's centerline in an effort to increase stability. When the four guns were trained broadside on the same side, the battleships listed dangerously and exposed the unprotected area below the waterline on the opposite side. This design flaw was corrected by installing hundreds of tons of lead in the rear of the turrets, and later designs accounted for the weight of large guns on a ship.

ARCHITECTURAL SIGNIFICANCE

Significance under **Criterion C** in the areas of **Architecture** and **Engineering** is represented by the unique structure and design elements incorporated into the construction of USS *Massachusetts* (BB-2). As a transition between the old technology of sail with auxiliary steam power to purely steam power for all propulsion, the battleship's architecture involved radical changes in traditional design of naval vessels. Additionally, the use of case-hardened steel and the application of belts of armor was a new innovation to steel warships. That the design of *Indiana* class battleships was not entirely satisfactory is evidenced by the ship's major refit in 1910 that retro-fitted the hull with bilge keels. Lessons in warship design learned through the *Indiana* class experiment make *Massachusetts* an important example of naval architecture evolution.

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**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Section number 9 Page 2 USS MASSACHUSETTS
Escambia County, Florida

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**United States Department of the Interior
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Section number 10 Page 1 USS MASSACHUSETTS
Escambia County, Florida

BOUNDARY DESCRIPTION

The site boundary of the USS *Massachusetts* (BB-2) is defined as a circle of 300 yards radius around the geographic coordinates Latitude 30°17.75' N, Longitude 87°18.75' W, lying offshore and below the mean low water mark of the Gulf of Mexico and encompassing the area of vessel wreckage.

BOUNDARY JUSTIFICATION

The USS *Massachusetts* (BB-2) site boundary is based on the Management Agreement for Sovereignty Submerged Lands between the Board of Trustees of the Internal Improvement Trust Fund of the State of Florida and the Division of Historical Resources. This Management Agreement was entered into upon the designation of USS *Massachusetts* as a State Underwater Archaeological Preserve in 1993. The purpose of the 300 yard radius around the site is to encompass the scatter of material culture relating to the shipwreck that may have dispersed with wave and current action away from the primary area of wreckage.

**United States Department of the Interior
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

Section number photos Page 1 USS MASSACHUSETTS
Escambia County, Florida

PHOTOGRAPHS

- 1.1) USS *Massachusetts* (BB-2)
 - 2) Escambia County, Florida
 - 3) Unknown
 - 4) Circa 1904
 - 5) Florida Bureau of Archaeological Research
 - 6) Broadside view of USS *Massachusetts* (BB-2)
 - 7) 1 of 8

- 2.1) USS *Massachusetts* (BB-2)
 - 2) Escambia County, Florida
 - 3) Unknown
 - 4) Circa 1897
 - 5) Florida Bureau of Archaeological Research
 - 6) Forward 13-inch gun turret showing Winged Victory
 - 7) 2 of 8

- 3.1) USS *Massachusetts* (BB-2)
 - 2) Escambia County, Florida
 - 3) Unknown
 - 4) Circa 1910
 - 5) Florida Bureau of Archaeological Research
 - 6) Bow and port side view
 - 7) 3 of 8

- 4.1) USS *Massachusetts* (BB-2)
 - 2) Escambia County, Florida
 - 3) unknown
 - 4) 1921
 - 5) Florida Bureau of Archaeological Research
 - 6) USS *Massachusetts* (BB-2) sunk off Pensacola in preparation for target practice
 - 7) 4 of 8

**United States Department of the Interior
National Park Service**

**NATIONAL REGISTER OF HISTORIC PLACES
CONTINUATION SHEET**

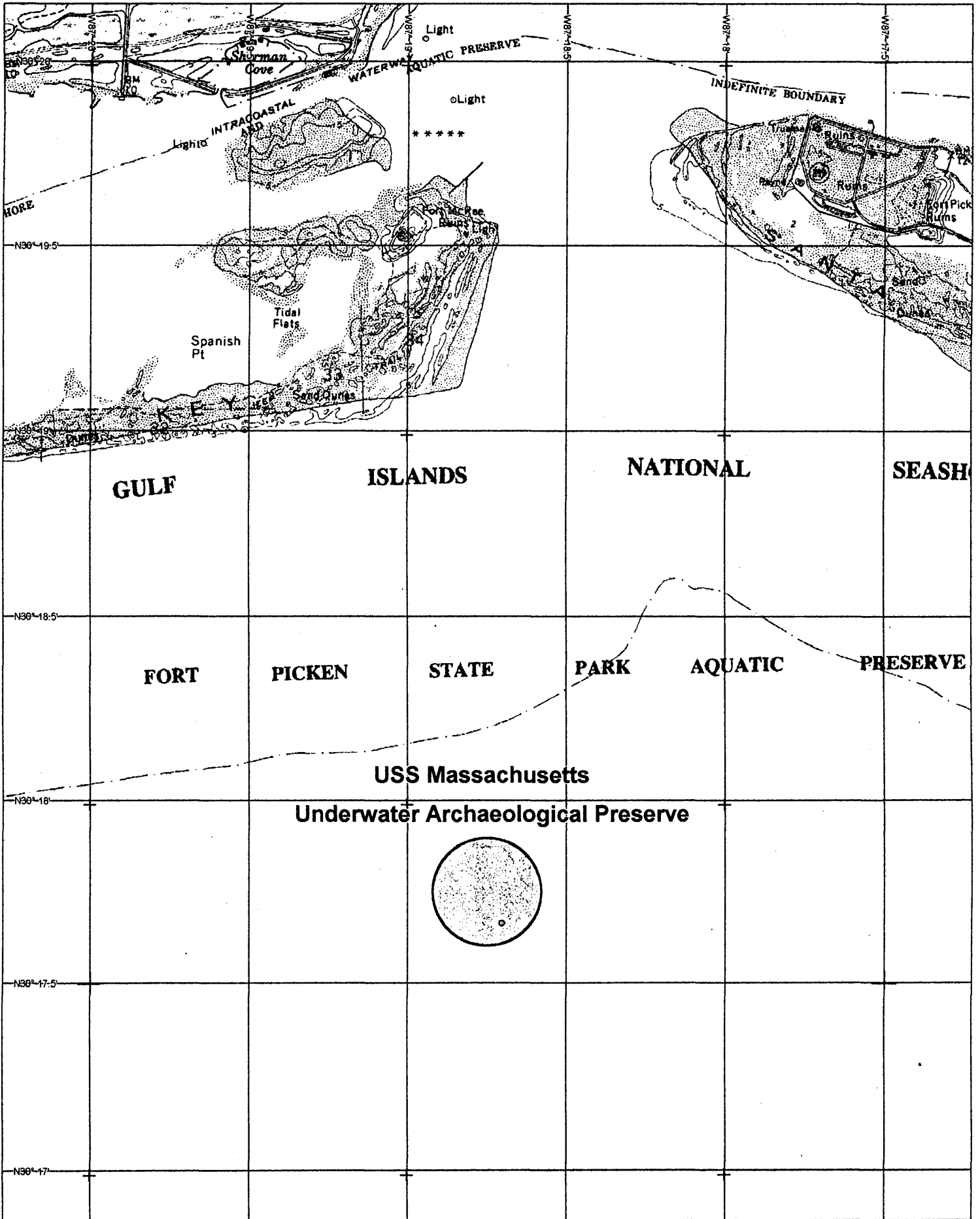
Section number photos Page 2 USS MASSACHUSETTS
Escambia County, Florida

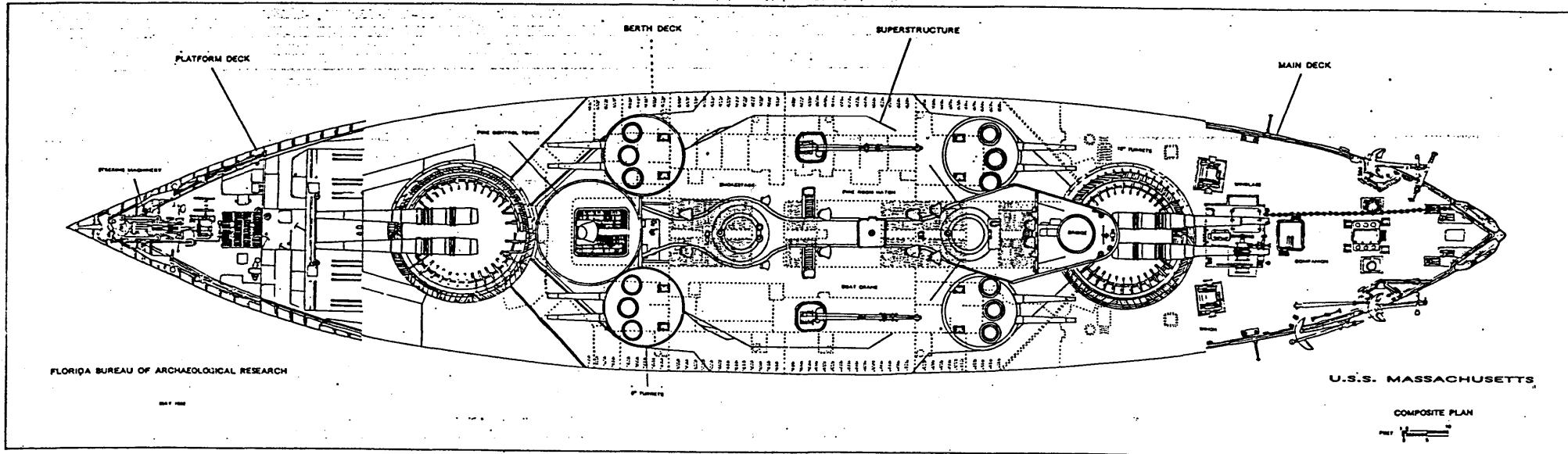
- 5.1) USS *Massachusetts* (BB-2)
- 2) Escambia County, Florida
- 3) unknown
- 4) 1950s
- 5) Florida Bureau of Archaeological Research
- 6) Hulk of USS *Massachusetts* (BB-2) stripped of upper works
- 7) 5 of 8

- 6.1) USS *Massachusetts* (BB-2)
- 2) Escambia County, Florida
- 3) Florida Bureau of Archaeological Research
- 4) 1993
- 5) Florida Bureau of Archaeological Research
- 6) Bronze plaque placed on the USS *Massachusetts* (BB-2)
- 7) 6 of 8

- 7.1) USS *Massachusetts* (BB-2)
- 2) Escambia County, Florida
- 3) Florida Bureau of Archaeological Research
- 4) 1992
- 5) Florida Bureau of Archaeological Research
- 6) Underwater photo showing wreckage in stern
- 7) 7 of 8

- 8.1) USS *Massachusetts* (BB-2)
- 2) Escambia County, Florida
- 3) Florida Bureau of Archaeological Research
- 4) 1992
- 5) Florida Bureau of Archaeological Research
- 6) Underwater photo showing armor belt on port side amidships
- 7) 8 of 8





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MAY 1988

U.S.S. MASSACHUSETTS

COMPOSITE PLAN

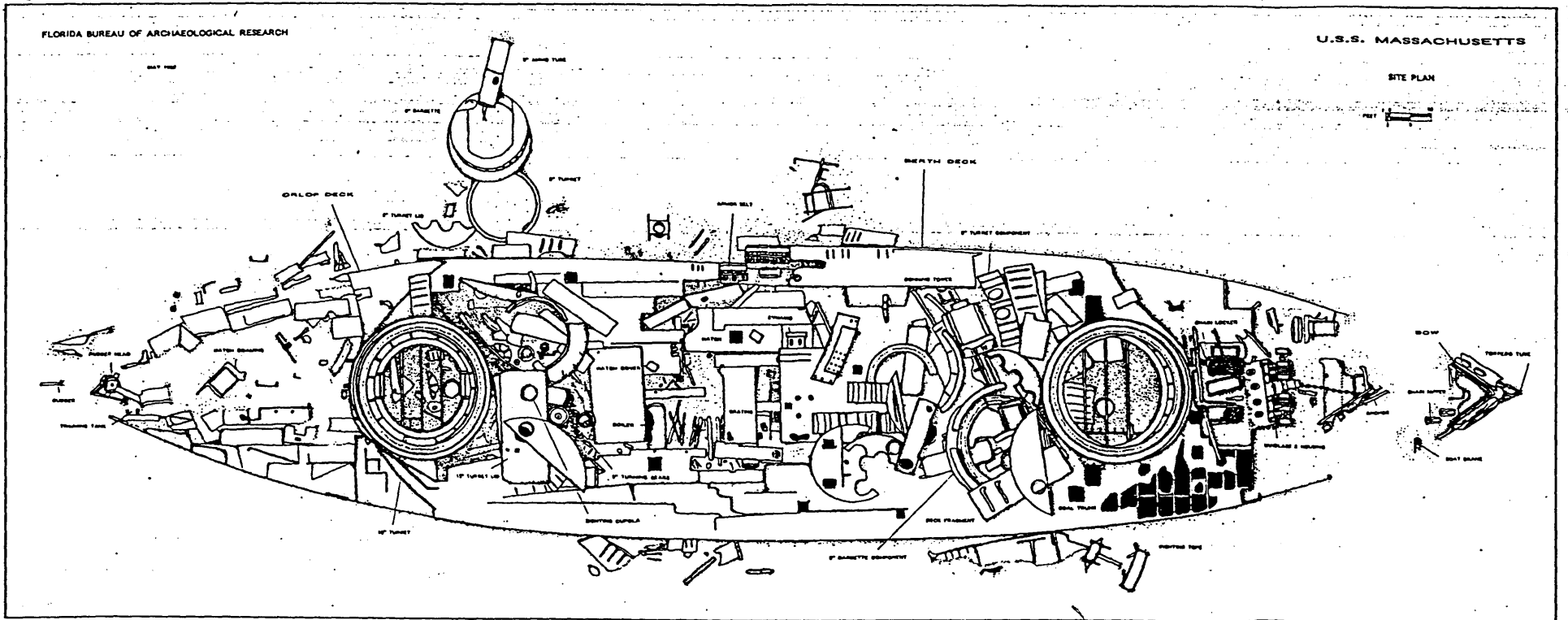
FEET

FLORIDA BUREAU OF ARCHAEOLOGICAL RESEARCH

U.S.S. MASSACHUSETTS

SITE PLAN

FOOT

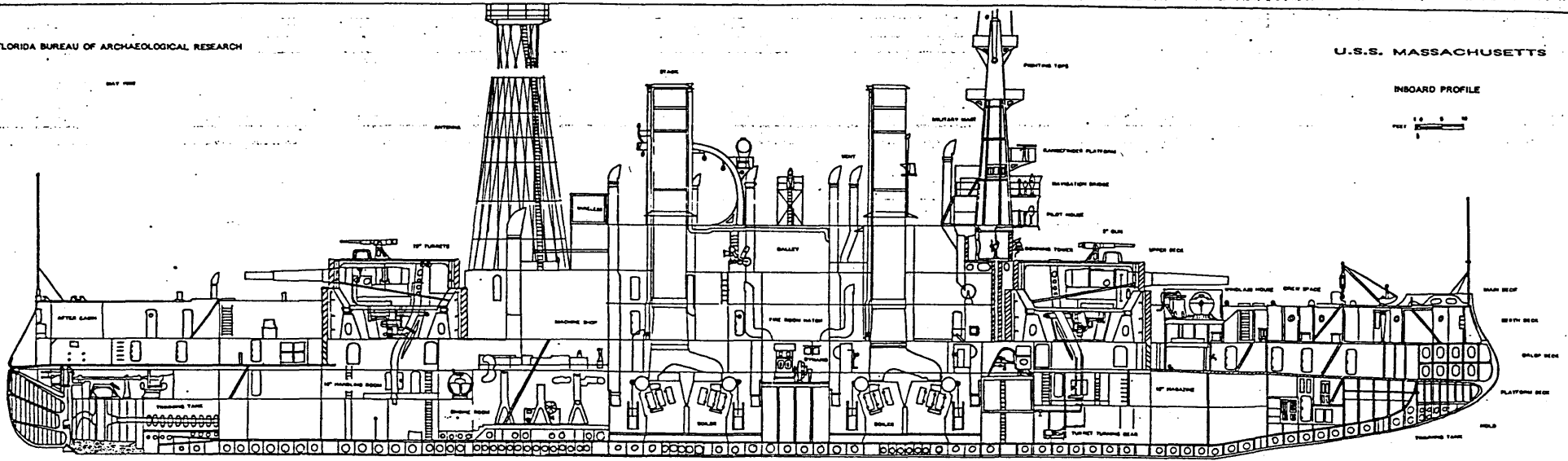


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U.S.S. MASSACHUSETTS

INBOARD PROFILE

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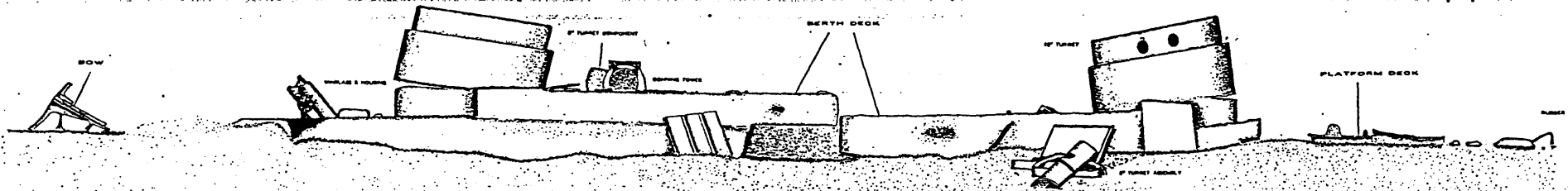


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MAY 1958

U.S.S. MASSACHUSETTS

PORT ELEVATION



Exploring THE USS MASSACHUSETTS

IT'S YOUR RESPONSIBILITY

The boat operator is legally responsible for the safety of those on board the boat, for any damage the boat or its wake causes to other boats or property, and for others injured by any such damage. An operator can be at fault for an accident which no action was taken to avoid, even when completely in the "right."

Vessels shall give way to other vessels ahead to pass on the starboard (right) side of the boat. Powerboats must yield to sailboats. Vessels less than 65.5 feet (20 meters) or sailing vessels shall not impede the passage of a vessel that can safely navigate only within a narrow channel.

Federal law prohibits throwing, discharging, or depositing refuse matter of any kind in U. S. navigable waters (including fishing line).

A Florida Saltwater Fishing License is required for anyone who takes, attempts to take or possesses marine fish and invertebrates for non-commercial purposes. Call the Florida Marine Patrol (444-8978) for details.

All persons diving or snorkeling in Florida waters must display the red with white diagonal divers-down flag. Vessels which are restricted in their ability to maneuver because of diving activity shall exhibit International Code Flag "A."

FISHING

The most exciting fishing on the *Massachusetts* is during the spring and summer when king mackerel, Spanish mackerel, and cobia can be caught at anchor and while trolling. Bottom fishing for snapper and grouper is great any time of the year. The cooler months slow down mackerel and cobia action, but sheepshead and flounder move in and are commonly caught.

DIVING

Divers should use accepted safe diving practices, including the buddy system, the divers-down flag, and standard open water diving equipment (which includes a sharp dive knife because of monofilament line on the site), and gloves.

The best time to dive on this dynamic site is one hour before high or low tide in order to avoid the strong currents and also to coincide with the best visibility. Consult local dive shops for tide tables.

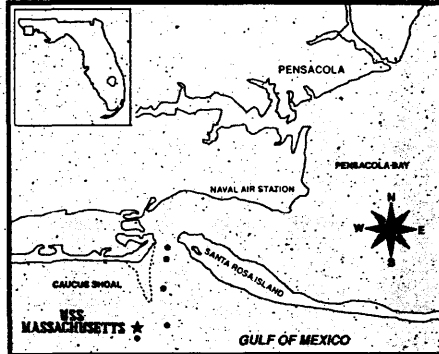
The *Massachusetts* Underwater Archaeological Preserve is within the Ft. Pickens Aquatic Preserve. While fishing and spear fishing are not limited the taking of artifacts is strictly prohibited. Please take only photographs and leave only bubbles.

A Window to the Past...

Make history come alive; experience the majesty of the oldest existing battleship in the United States. Originally she was equipped with two heavy 13-inch gun batteries as well as four 8-inch gun batteries and four torpedo tubes. The ship was propelled by steam engines at nearly 10,000 horsepower and was manned by 473 crewmen.

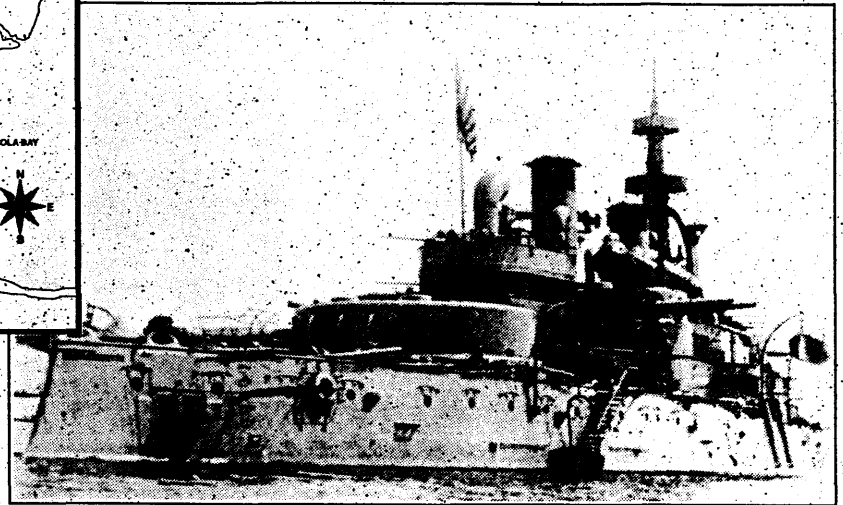
Scuttled near the entrance to Pensacola in January of 1921, the battleship has become the home to many species of fish and coral.

UNDERWATER ARCHAEOLOGICAL PRESERVE



MAP & LOCATION

The grave of the *MASSACHUSETTS* lies on the south end of Caucus Shoal, west of Pensacola Pass. The wreck is visible but is difficult to see in large waves or from a distance. It is marked by a red lighted bell buoy "WR2" 250 yards to the south. To find the *Massachusetts* proceed approximately 2 miles south of Pensacola Pass to the green channel marker buoy # 5, then approximately 1/2 mile southwest to the wreck. The site coordinates are 30°17' 45" N, 87°18' 45" W (13215.0 - 47108.9).



TIDE AND CURRENTS

When visiting the site, be aware of currents that can make navigating, anchoring and diving difficult. The current is weakest at high or low tide, and is strongest just after tidal change. The high tide in the entrance to Pensacola Bay occurs approximately 1 hour and 23 minutes before the predicted high for Pensacola, and the low tide occurs approximately 34 minutes before the predicted time.

ANCHORING

If you intend to anchor at the site you will need a suitable anchor and at least 150 feet of anchor line. The *Massachusetts* rests on a sandy bottom in approximately 25 feet of water. Approach the wreck slowly and select a spot well clear of other anchored boats and divers. Placing an anchor into the *Massachusetts* can easily cause it to foul and become impossible to retrieve. Anchor in the sand on the periphery of the wreck to avoid fouling or losing your anchor.

WARNING

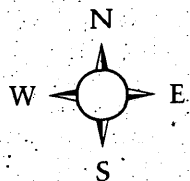
- Pensacola Pass can become very rough when the current is moving opposite the wind.
- Take care to monitor changing water conditions, visibility, and tides.
- Divers beware of becoming entangled in monofilament line.
- Divers should not penetrate the hull due to structural instability and the presence of entanglements.
- Boaters beware of shifting winds or currents which can ground your vessel on the wreck.
- Do not leave your boat unattended.



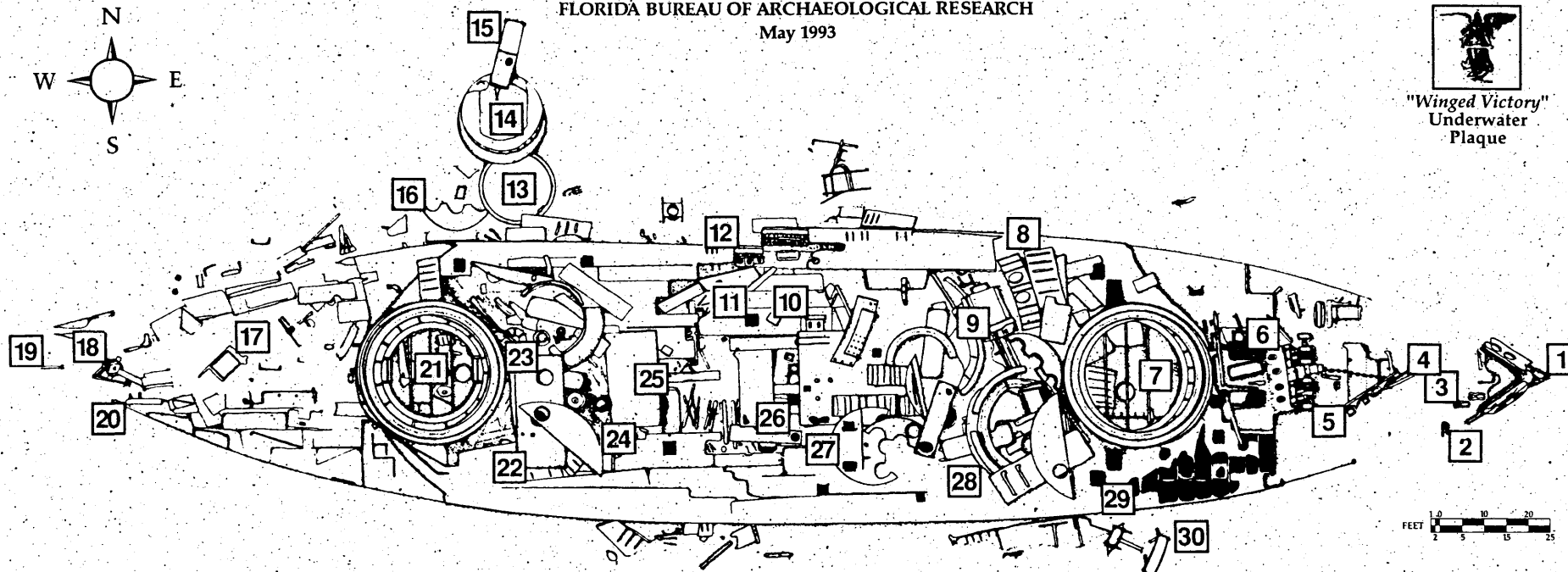
This publication is produced as a cooperative effort by the
FLORIDA DEPARTMENT OF STATE
Division of Historical Resources
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of State Lands
THE FRIENDS OF THE USS MASSACHUSETTS (BB-2), Inc.

USS MASSACHUSETTS (BB-2)

FLORIDA BUREAU OF ARCHAEOLOGICAL RESEARCH
May 1993



"Winged Victory"
Underwater
Plaque



AQUATIC AND ARCHAEOLOGICAL PRESERVE

WARNING - This site can become a congested with divers and fishermen. All parties should respect the rights of others. Anchors and fish hooks can be dangerous to divers.

- | | | | |
|----------------------|-------------------|-------------------------|---------------------|
| 1. Torpedo Tube | 9. Conning Tower | 17. Hatch Coaming | 25. Boiler |
| 2. Boat Crane | 10. Dynamo | 18. Rudder Head | 26. Grating |
| 3. Chain Nipper | 11. Hatch | 19. Rudder | 27. Dynamo |
| 4. Anchor | 12. Armor Belt | 20. Trimming Tank | 28. 8-inch Barbette |
| 5. Windlass | 13. 8-inch Turret | 21. Turret # 2 | 29. Coal Trunk |
| 6. Chain Locker | 14. Barbette | 22. Turret Lid | 30. Fighting Top |
| 7. Turret # 1 | 15. Ammo Tube | 23. Sighting Cupola | |
| 8. 8-inch Gun Turret | 16. Turret Lid | 24. 8-inch Turret Gears | |

THE VIEW FROM DOWN UNDER

The USS *Massachusetts* rests on an even keel in 25 feet of emerald green water on a white sand bottom, with her bow pointing almost due east. Although the superstructure has been removed, the massive 13-inch gun turrets still protrude slightly above water. A diver can completely circumnavigate the hull, observing such interesting features as the displaced windlass house, chain lockers still containing chain, and the enormous rudder-turning gear. Almost every type of Gulf marine life inhabits the wreckage. Look closely and you may observe sea turtles, large rays, octopus, tropical fish, invertebrates, and eels. Game fish such as mackerel, ling, flounder, snapper and grouper attract fishermen and divers alike.



Amberjack



Barracuda



Cobia



Grouper



Mackerel



Snapper