Form No 10-306 (Rev 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR FEDERAL PROPERTIES

FOR NPS USE ONLY
RECEIVED
DATE ENTERED

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

1 NAME

HISTORIC U.S.S. Monitor

FEE W

AND/OR COMMON Shipwreck Site and Remains, U.S.S. Monitor

2 LOCATION

STREET & NUMBER South of Cape Hatteras in the Atlantic Ocean

—NOT FOR PUBLICATION

CITY, TOWN Hatteras

X VICINITY OF

CONGRESSIONAL DISTRICT

STATE North Carolina

CODE 037

COUNTY N/A

CODE

3 CLASSIFICATION

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

4 AGENCY

REGIONAL HEADQUARTERS *(If applicable)* National Oceanic and Atmospheric Administration

STREET & NUMBER 33 Whitehaven NW

CITY, TOWN Washington

—— VICINITY OF

STATE D.C.

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE REGISTRY OF DEEDS, ETC Same as above

STREET & NUMBER

CITY, TOWN

STATE

6 REPRESENTATION IN EXISTING SURVEYS

TITLE National Register of Historic Places

DATE October 11, 1974

X FEDERAL —STATE —COUNTY —LOCAL

DEPOSITORY FOR SURVEY RECORDS National Park Service

CITY, TOWN Washington

STATE D.C.

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	X_DETERIORATED	_UNALTERED	X_ORIGINAL SITE
_GOOD	X_RUINS	X_ALTERED	_MOVED DATE_____
X_FAIR	X_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The wreck of USS Monitor lies off the North Carolina coast on the eastern Continental Shelf 16.1 miles south-southwest of Buxton, North Carolina, in 220 feet of water at the center [Latitude and Longitude] of the one-mile diameter Monitor National Marine Sanctuary. The wreck lies on a sandy plain and is surrounded by an associated wreckage field. While marine growth is attached to the hull, the immediate bottom area is devoid of vegetation.

U.S.S. Monitor as Built, 1862

U.S.S. Monitor, prototype of a new type of ironclad, turreted warship, was launched at Greenpoint, Long Island, New York, on January 30, 1862. As launched, Monitor was 173 feet in length, with an extreme beam of 41 feet, 4 inches, an 11 foot, 2 inch depth of hold, a 10 foot, 4 inch draft, and displaced 987 gross tons. Monitor's freeboard was only 18 inches, offering a low profile with only the turret, pilothouse, smoke and blower stack above deck. The 164 foot long, 36 foot wide wrought iron hull was protected from shellfire by a 32-inch-wide iron beam armored shelf supporting 27 inches of oak and pine backing covered by five layers of 1-inch iron plates. Two courses 1/2-inch iron plate was laid over 7 inches of pine deck planking and 10-inch deck beams. Decklights admitted light below to the wardroom and were protected by iron covers which could be hooked in place. The deck was pierced by hatches for blowers, smoke stacks, and access to the engine room, berth deck and the turret. Iron stanchions set into the deck supported rope lifelines.

The principal feature of the vessel was the 20-foot (internal) diameter, 9 foot high iron turret, which housed two XI-inch Dahlgren smoothbore shell guns, the ship's armament. The turret's 21 1/2-foot diameter bulkhead was composed of eight courses of one-inch iron plates protected the guns and their crews. The turret set on a bronze ring on the deck and was raised by a wedge under the central column when going into action. The turret revolved under the power of two steam engines operating through a gear train and controlled by the gunnery officer in the turret.

Monitor was propelled by an Ericsson vibrating lever engine of 320 indicated horsepower which drove a single, 9-foot diameter four bladed screw. The engines were powered by two forced-draft fed Horizontal fire-tube boilers. Monitor's bunker capacity was

100 tons of coal. Monitor was designed to operate at 9 knots; her service speed was 6 knots. The interior of the vessel was divided amidships by a single iron bulkhead which supported the weight of the turret and provided a pressure barrier for the fire room. Cabins, storerooms, berth deck, wardroom, and lockers were located inside the hull below the waterline. Heads designed for operations below the waterline were installed, and the interior spaces were ventilated by forced draft. The anchor, of four-fluked design, was set into a well at the bow and was raised and lowered by a manually operated windlass inside the vessel (1).

Modifications to Monitor

Following her engagement with C.S.S. Virginia at Hampton Roads, Virginia on March 9, 1862, and subsequent operations on Virginia's James River, Monitor was modified, repaired, and overhauled. Much of the work was acomplished at the Washington Navy Yard. Repairs included replacing battle damaged armor plate. Modifications to the interior of the vessel included raising the berth deck, shifting storeroom bulkheads, and adding storerooms and an additional shell room. On deck the pilothouse, which had been hit during the engagement with Virginia, wounding Monitor's commander, was armored with a oak and iron glacis. The square smoke stacks were replaced with a breeching which led to a single telescoping 24-foot tall stack. Boats were rigged from davits on the deck. A breast-high sheet iron "rifle screen" was added to the top of the turret. Additions were made to the machinery; An Andrews centrifugal pump driven by two-cylinder steam engine was added in May 1862 and a blower and engine for additional forced ventilation were added in October of the same year. Monitor's main engines were overhauled in October of 1862. These were the only major alterations, repairs, and replacements to the vessel prior to her sinking on December 31, 1862 (2).

Wreck of U.S.S. Monitor

Monitor evidently capsized when sinking. She lies upside down and rests with her port side partly atop her displaced turret. The wreck retains much of Monitor's original form. Archeologists documenting the wreck in 1979 reported that:

> Bottom plating on the lower hull aft of the amidships bulkhead survives almost intact where

supported by boilers, machinery, and machinery foundations in the engineering spaces. Along both sides of the aft lower hull plating has deteriorated and only the supporting frames remain. In the extreme stern the armor belt has been extensively damaged along the portions of the overhang. Damage to the deck extends from the stern as far forward as the present location of the turret and an extensive amount of armor plate has been dislodged. The propellor shaft and propellor...have been displaced...but remain near their original positions...Inside the hull the steam propulsion plant, boilers, blowers, pumps, and associated machinery remain relatively intact. Forward of the midship bulkhead damage has been more extensive. The hull has collapsed. With the exception of the vicinity of the pilot house and limited areas inboard of the port armor belt, plating, associated frames and floor timbers, and other structural iron fragments have collapsed into the interior of the ship...In those areas not obscured by remains of the hull, exposed material has been identified as portions of the interior of the vessel, i.e., equipment and fittings that were stowed away below the crew's quarters and wardroom, and associated artifacts. Exposed portions of the turret appear structurally sound and exhibit little evidence of deterioration. The gun ports, visible beneath the hull, are blocked by the port stoppers (3).

Limited archeological testing and recovery at the site in 1979 and 1983 recovered more than one hundred artifacts from an area of the vessel which originally contained the captain's cabin and pantry. "The broad spectrum of the material represented in the limited number of artifacts recovered during the [1979] project included wood, leather, rubber-impregnated fabric, glass, ceramics, iron, brass and provisions....The presence of a substantial accumulation of light sediment...indicated that excellent possibilities for the preservation of organic material exist...[this is] perhaps characterized by recovered samples of relish, pepper, leather, and wood...(4)." Monitor's anchor, attached to the wreck by its chain, was located and recovered in

1983 to test methods of large artifact preservation and conservation at the site (5).

The wreck site of U.S.S. Monitor retains a high level of integrity. Major construction features and details are intact. Minor construction features, while deteriorated, damaged, or no longer intact in some areas, are archeologically recoverable through documentation and comparison with the historical record. Removal of artifacts from the vessel has been limited to date and has been mitigated by archeological practices of documentation, conservation, and analysis. Preservation of associated material culture and the potential for meaningful historical archeological investigations based on anthropologically derived research questions is apparently high.

1
Richard H. Webber, Monitors of the U.S. Navy, 1861-1937. (Washington, D.C.: Naval History Division, Navy Department, 1969) p. 10; Gordon Watts, "National Register of Historic Places Inventory/Nomination Form, U.S.S. Monitor," unpublished manuscript on file at the office of the National Register, National Park Service, Washington, D.C., 1974; Ernest Peterkin, "Building a Behemoth," Civil War Times Illustrated XX (July 1981) pp. 12-21, pass.; Edward M. Miller, U.S.S. Monitor: The Ship That Launched A Modern Navy. (Annapolis, Maryland: Leeward Publications, Inc., 1978) pp. 21-35, pass; William H. Cracknell, "United States Navy Monitors of the Civil War," Profile, September 1973, pp. 275-282.

2
Peterkin, "Building a Behemoth," p. 19.

3
Gordon P. Watts, Jr., Investigating the Remains of the U.S.S. Monitor: A Final Report on 1979 Site Testing in the Monitor National Marine Sanctuary. (Fort Pierce, Florida: Harbor Branch Foundation, Inc., 1981) p. 13.

4
Watts, Investigating the Remains of the U.S.S. Monitor.... p. 94.

5

Gordon P. Watts, Jr., "Monitor '83," and Curtiss E. Peterson, "Conservation of the Anchor and Chain (Recovered from the Wreck of the USS Monitor, August, '83," Cheesebox II (2) pp. 1-4, 6 pass.; Curtiss E. Peterson, "Conservation of the Monitor Anchor: Progress Report," Cheesebox III (1), pp. 1-2, pass.

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
_PREHISTORIC	_ARCHEOLOGY-PREHISTORIC	_COMMUNITY PLANNING	_LANDSCAPE ARCHITECTURE	_RELIGION	
_1400-1499	_ARCHEOLOGY-HISTORIC	_CONSERVATION	_LAW	_SCIENCE	
_1500-1599	_AGRICULTURE	_ECONOMICS	_LITERATURE	_SCULPTURE	
_1600-1699	X ARCHITECTURE	_EDUCATION	X MILITARY	X SOCIAL/HUMANITARIAN	
_1700-1799	_ART	_ENGINEERING	_MUSIC	_THEATER	
X 1800-1899	_COMMERCE	_EXPLORATION/SETTLEMENT	_PHILOSOPHY	_TRANSPORTATION	
_1900-	_COMMUNICATIONS	X INDUSTRY	_POLITICS/GOVERNMENT	_OTHER (SPECIFY)	
		X INVENTION			

SPECIFIC DATES 1862 BUILDER/ARCHITECT John Ericsson

STATEMENT OF SIGNIFICANCE

The story and the significance of U.S.S. Monitor in the American Civil War is interwoven with perceptions and hence the vessel has become another "one of the myths out of which Americans' conception of their history has been constructed, along with others as The Liberty Bell, George Washington, and the Frontier (1)." Much has been said in the popular media and in scholarly forums about the importance of Monitor to American history. Monitor, it has been said, like other "famous" vessels such as Mayflower, U.S.S. Constitution ("Old Ironsides"), and U.S.S. Maine, "became and remains a part of the American mind, its bare mention conjuring up images of what we are as a people, of our experience as a people, and of some of the major events and motifs in our history (2)." Monitor has been termed "one of the most meaningful objects in American history...so heavily laden with values that transcend the mundane and the common...(3)." One more sweeping comment on Monitor's significance stated the vessel was important "not just as a ship that changed the course of naval warfare, but as a symbol of a people, their ingenuity, their capabilities, and most importantly, their recognition of those Americans who contributed to the technological success we enjoy today (4)." While much pontification over the importance of Monitor to the American people and their past has ensued, quantification and qualification of significance has not: "the question of the Monitor's intrinsic value either as a symbol or as an artifact has largely been dismissed as so obvious that it was not in need of further discussion (5)."

The significance of Monitor has been debated at a national conference on Monitor's meaning and significance; Dr. Larry Tise, then Director of the State of North Carolina's Department of Archives and History noted at a 1978 Monitor conference that the importance of the vessel needed to be further discussed since questions concerning her value had "become more common and often the subject of sharp disagreement (6)." Dr. Tise also correctly noted that "much of the value of the Monitor is based on legend, an incredible history, and very good public relations on the part of people associated with the Monitor, from [John] Ericsson right down to the present (7).

However, the significance of U.S.S. Monitor can be qualified and quantified utilizing the criteria of the National Register of Historic Places. Monitor meets all four criteria for National Register listing; a) she was associated with broad patterns and events in American history, namely the development of the United States Navy in the 19th century, the rise of industrial facilities in the United States, and the American Civil War as well as public perceptions and reactions to these factors; b) she was associated with an individual significant in American history, Swedish-American inventor and engineer John Ericsson; c) she embodies the distinctive characteristics of a type as a prototype for a class of American warship used by the United States Navy as well as other powers well into the 20th century; and finally d) because her remains are likely to yield information important to American history through a more detailed understanding of the vessel but more importantly as a means for assessing the American "mind-set" through anthropologically generated research questions which probe human interaction with new technology and how "modern" industrial societies prepare for war.

Naval historian Dr. Philip K. Lundeberg has noted that in "appraising the historical significance of...Monitor, the modern observer is confronted with a wide range of technological comparisons--partly with other mid-19th century ironclads--that makes such an undertaking a deliberate search for adequate perspective (8)." Assessing Monitor's significance to broad patterns of American history requires contextual setting and perspective as Monitor's role in the development of the ironclad warship, the Civil War, and public reaction to the war and the new technology embodied in Monitor's design and construction are investigated.

Monitor and the Development of the Ironclad Warship

Many of the features incorporated into Monitor's design--steam powered screw propulsion, iron hull, large caliber guns, and iron armor---had been developed prior to the construction of Monitor. Designs and proposals for ironclad warships date to as early as the 1840s. The outbreak of war on Russia's Crimean peninsula brought about the first use of ironclads in naval warfare when French- and British-built floating armored batteries bombarded

shore-based fortifications in 1855. In response to the success of the French batteries, France and Britain constructed sea-going ironclad warships, the French applying iron armor to the wooden steam frigate La Gloire in 1858 and the British laying the keel, in the same year, of the ironclad Warrior. By 1860, a number of ironclad warships had been laid down and constructed, including "more than forty seagoing ironclads, thirty armored coastal-defense vessels, and eighteen partially protected gunboats already built, building or authorized in Europe (9)."

The development of the heavy shell gun in the 1820s and a scarcity of timber reserves had "made clear the necessity for the subsequent adaptation of iron armor on naval warships (10)." Armor, as well as iron sea-going hulls, and steam screw propulsion, while conceived and "to some degree tested" prior to the American Civil War of 1861-1865, were not fully combined until Ericsson's intuitive leap in the design and construction of Monitor. Naval historian Philip Lundeberg has noted that the most significant aspect of Monitor's design was that she was "the world's first turreted ironclad...[which]...more than Monitor's low-freeboard draft and tapered lower hull, was the most distinctive element of this novel weapons system...(11)."

The design and construction of Monitor, then, summed up precisely thoughts and improvements of iron hulls, armor, steam screw propulsion, shell guns, and turrets (12). Monitor's combat with C.S.S. Virginia at Hampton Roads, however, was the first between ironclad warships and "revealed the limited effectiveness of the Virginia's casemated broadside battery against a mobile, low-freeboard opponent, while conversely demonstrating the practical impregnability and all-round fire capability" of Monitor (13). This demonstration, and the fact that "Ericcson's turret conception was the first to take form in an actual man-of-war...weighed heavily in the international acclaim which he was subsequently awarded...(14)."

Monitor received international attention as well as acclaim. The turret concept, ably demonstrated for the first time on Monitor, was adopted by the navies of the world while the hull form and design of the coast-bound, largely unseaworthy vessel was not except by Russia's Swedes. English naval architect J. Scott Russell, writing in 1865, noted that Monitor and the class of

"monitors" that followed her offered conditions "such as we, at least for sea-going ships, would reluctantly accept. The low ship's side will, in a sea-way, allow the sea to sweep over the ship, and the waves, not the sailors, will have possession of the deck...." Russell stated "that we should copy them [American monitors], I no longer recommend, than they should copy us. But we may each do well to study and admire the merit of the other's work (15)." Ultimately, the adaptation of multiple turrets to sea-going ironclad hulls, or the synthesis of concepts tested and proven in Monitor and her progeny and Gloire and Warrior and their successors, culminated in the development of iron and steel-hulled dreadnoughts and later ocean-going capital ships.

Monitor and most of her successor monitors were not effective sea-going warships, as the foundering of Monitor and the near-loss of Passaic demonstrated. They were, however, designed effective coastal operation vessels; "ideally suited to the task of coastal defense, monitors represented the most appropriate warship for a nation which, in the 19th century, relied almost exclusively on its oceanic buffers for security...the monitors offered maximum security for the smallest possible expense (16)." While Monitor had limited effect on the ultimate development of the European ironclads and the "modern warship", she did have a profound effect on warship construction in the United States during the Civil War. The tremendous positive public response to Monitor and her combat with C.S.S. Virginia in the United States "prompted a "Monitor craze, with political and to a lesser degree military support to construct a large number of this type of craft, which gained the generic name of "monitors"...throughout the Civil War, the construction of new, larger, more sophisticated versions of Monitor occupied a substantial portion of warship production in the United States (17)."

In all, fifty-nine monitors were ordered after the perceived "success" of the original Monitor---of these, approximately thirty-five were commissioned, twenty-seven during the Civil War, and the last to be built was laid down in 1889 (18). Gradually some monitors were given multiple turrets and more seaworthy hulls, but the "modern" American battleship owes much of its form to the steel-hulled "A,B,C,D" ships of the 1880s patterned after European warships typical of Warrior and her progeny (19).

Monitor's Role in the American Civil War

Monitor was widely perceived as the "ship that saved the Union" during the Civil War. The presence of C.S.S. Virginia in waters close to Washington, D.C. and the potential destruction of the Federal fleet at Hampton Roads by Virginia inspired hysteria and some panic. The arrival of Monitor at Hampton Roads and her battle with Virginia, ending the Confederate ironclad's destructive foray among the Union's wooden fleet, provoked a flurry of pro-Monitor sentiment that persisted long after Monitor's career ended and the last shots of the Civil War had been fired. Popular conception of Monitor's role "as the ship that saved the Union" and won the Civil War has been overstated. The role of Monitor's offspring, the Union's "monitors," in the Civil War has also been over-emphasized.

As largely coast-bound vessels, monitors were strategically linked to two aspects of Union naval strategy, protect the advance bases for the blockade and bombard forts for the blockade of the Confederate coast and the capture and closure of Confederate ports. The use of monitors in the blockade enhanced the superiority of the blockaders' fleets and would have enabled these fleets to stand off and possibly destroy attacking Confederate ironclads. The monitor-class warships had a demonstrated role in the blockade, which was a major naval aspect of the Civil War. The monitors alone were not successful in taking Confederate ports. A fleet of nine vessels (including seven monitors) attempted to crush the harbor defenses of Charleston, South Carolina on April 7, 1863 and was repelled. "Throughout the entire 1-hour and 40-minute engagement, the guns of the Union ironclads were able to deliver only 139 rounds. In turn, the cannon of the [Confederate] forts rained more than 2,000 shots on the invading ships, hitting them no less than 439 times. One non-monitor, the Keokuk, was lost and several suffered serious damage (20)." The myth of monitor invulnerability was shattered at Charleston and again at Mobile, Alabama, when the monitor Tecumseh was lost after hitting a Confederate mine. The monitors were not able to capture and hold Confederate ports; those ports that were taken fell to combined land and sea forces and the last Confederate port to fall, Wilmington, North Carolina, remained open until January of 1865 near the war's end. Monitor-class warships, therefore, while

composing an important part of the Union fleet and a major Union commitment to naval construction, did not effect a lasting influence on the collapse of the Confederacy and Union victory in the Civil War. The Civil War years did see the development of Ericsson's monitors, the first large-scale use of ironclad warships in combat, and a substantial favorable public and political response to the ironclads; the latter may be the most significant aspect of the monitors.

Public Response to Monitor and the Monitors

Public response to the news of Monitor's battle with C.S.S. Virginia, ending the Confederate ironclad's destructive rampage, was enthusiastic and outspoken; "poets, government authorities, soldiers, sailors, and the civilian public...considered the ironclad a tool for achieving victory...." and "mythicized the weapon (21)." Monitor officer Frederick Keeler noted in a letter to his wife: "You cannot conceive of the feeling...the Monitor is on every one's tongue....It was told from one to another as I passed along---he's an officer from the Monitor---& they looked at me as if I was some strange being (22)." Keeler also noted that a young female visitor to the vessel, when asked if she had seen the ship's armament, had said "Oh yes...& kissed them too. I feel as if I could kiss the deck we stand on (23)."

Monitor was viewed as an impregnable super-weapon. One contemporary newspaper correspondent wrote that "Americanlike, we went mad over the Monitor. Naval warfare was revolutionized, we thought, in an hour. The supremacy of England on the ocean was ended. Monitors were henceforth to sway the destinies of commerce, and Monitors had been patented for the exclusive use of the universal Yankee nation (24)." Newspapers around the nation reported the Monitor-Virginia battle and discoursed on the power and invulnerability of ironclads; the editors of the San Francisco Daily Alta California, a continent away from the battle, noted in 1863 that

> Our Monitors can hammer away with a steady hand, and in a manner which will defy all the modern improvements in naval warfare. It is certainly a subject upon which we have just reason to congratulate ourselves, that the intelligence of the naval authorities of this country, and the

> superiority in engineering and mechanical skill and naval warfare, which it must be admitted they possess, has caused this gigantic element in naval warfare, and preeminently the American Monitor, to be called into existence (25).

Monitor reinforced the popular concept among Americans that they were technologically superior and ingenious; Herman Melville, writing on Monitor's battle with Virginia, penned

> Hail to victory without the gaud
> Of glory; zeal that needs no fans
> Of banners; plain mechanic power
> Plied cogently in War now placed--
> Where War belongs--
> Among the trades and artisans (26).

Published response to Monitor and her progeny resulted in a plethora of books and articles--during the Civil War several dozen were produced. A 1979 bibliography enumerated 426 separate entries for Monitor alone (27).

The Monitor craze permeated the public consciousness during the Civil War. Harper's New Monthly Magazine of July, 1863, published an illustrated, humorous essay entitled, "The Age of Iron," which included an "ironclad coat," an iron-plated stovepipe hat designated a "turret," "a steel-pointed brickbat," and "a little mill between Iron Clad plugs," in which two armored gentlemen slugged it out. The Harper's essay also featured "Bangs Experiment in Iron Armor!!" in which Mr. Bangs received a suit of iron armor, allowing him to meet "the attack of an mad bull with indifference! (28)" The iron-clad fervor continued well after the war; an 1879 advertisement in a railroad magazine depicted a monitor steaming along for "Iron Clad Paint," which was used by railroads and had been adopted by the "U.S. Government for Iron Ships' bottoms...(29)."

The enthusiastic public response to Monitor and the later monitors during the Civil War lasted throughout the 19th century and well into the 20th century as participants in her design, construction, and career publically reminisced and ruminated on the vessel and her place in history. Historians added to the mythology of the vessel; Monitor assumed greater importance

through the decades, becoming the ship that saved the Union in a dark hour of the war when Virginia rampaged unchecked and threatened to destroy the Federal Navy. Monitor also became a symbol of American ingenuity and know-how, the progenitor of the modern battleship, representing "a completely new concept of design (30)."

The context of Monitor's role in the development of the ironclad warship and the United States Navy and the conduct of the American Civil War is different than the exaggerated role the vessel played. Enthusiastic public response and mythology, the reasons for the difference, are significant. The comprehensive national response to Monitor and the creation of the Monitor myth point to the profound impact Monitor had and has on the American consciousness.

Monitor as a Representative Work of John Ericsson

U.S.S. Monitor is perhaps the best known product of John Ericsson (1803-1889), Swedish-American inventor and engineer. Ericsson's work included progress toward the development of the steam fire-engine, screw propulsion, heavy ordnance, the use of iron in ship-building, ironclad warships, and the use of hot air as a motive force (31). Ericcson's work in the United States (he immigrated to America in 1839) included the development of the first screw-propelled vessel in the U.S. Navy, Princeton, the construction of an experimental vessel, Ericcson, to test his theories of hot air or "caloric" power, and the design and construction of Monitor and her offspring. A colorful figure with a forceful personality, Ericsson's genius is best demonstrated in the intuitive leap he made in combining pre-existing theory, concepts, and design to create the Caloric Ship Ericsson, U.S.S. Princeton, and Monitor. Ericsson "gradually became the prototype of those immigrant engineers who did so much for American technology (32)." Ericsson became mythicized and was to an extent apotheosized with his most famous invention, Monitor.

Monitor as a Prototype

Monitor's perceived success and invulnerability and the substantial public and political response to the vessel sparked a program of monitor construction during the Civil War by the

United States Navy. As previously noted, 59 monitors were ordered, some 35 of which were commissioned. These included ten Passaic class monitors, "Ericsson's design of what the Monitor herself would have been if her construction time had not been so critical...with several significant improvements," the Miantonomah class of double turreted monitors, nine Canonicus class monitors, the "first to incorporate the lessons of combat experience gained during the Monitor-Virginia clash and the attacks on Charleston as well as the practical ones gained from day-to-day experience," twenty light-draft Casco class monitors, Dictator, a sea-going monitor, and a number of river monitors (33).

After the Civil War a number of "new Navy" monitors were built with double turrets and steel hulls including the Arkansas class, the last group of monitors to be constructed by the U.S. Navy, at the end of the 19th century. The monitor design of 1900 bore little resemblance to the original Monitor. "Detailed analysis of the available historical sources confirm Monitor remained unique even among the later classes of turreted, heavily-armored, low freeboard vessels which were built in the United States. Although many of the characteristics which combined to make the Monitor unique were utilized in later vessels, their design was unquestionably altered from its original form (34)." Monitor therefore not only embodies many of the distinctive characteristics of a type but also represents a significant, unique entity as a prototypical vessel.

Monitor's Potential to Yield Information Important to American History

The wreck of U.S.S. Monitor is one of two known wreck sites of Civil War monitors; the other is U.S.S. Tecumseh, an intact Canonicus-class monitor sunk in Mobile Bay, Alabama. Tecumseh lies upside down and is buried beneath sediment; her engine room was entered by divers and some artifacts were recovered in 1966 along with her anchor. Some of the artifacts are curated at the National Museum of American History at the Smithsonian Institution, Washington, D.C. Other artifacts, including the anchor, could not be located in 1985 (35).

Archeological research at the Monitor site has the potential to yield information concerning particulars of the vessel; Monitor

is the only monitor whose drawings do not divulge the functions of most of her compartments, and many minor details of construction are undocumented and interpretations to date have been based on conjecture. A variety of particularistic research questions concerning the unique, prototypical character of Monitor could be answered through careful archeological research. It should be noted that a considerable body of documentary evidence exists; it has been estimated by some Monitor scholars that a 90% accurate reproduction of the vessel could be built from existing data (36).

Archeological research to produce credible inferences and information beyond Monitor's individual characteristics and history utilizing anthropologically-generated research questions can provide information important to American history as well as a better understanding of human behavior. Dr. Richard A. Gould, chair of the Department of Anthropology, Brown University, Providence, Rhode Island, is currently formulating an anthropological research design for Monitor which will pose questions relating to the vessel as a key to an understanding of how modern industrial societies (such as the Union during the Civil War) prepare for war, Monitor's role in the emergence of the modern arms race, an assessment of rates of technological change as evidenced by Monitor's percentages of innovative and standardized elements, Monitor's effect on the technique of mass-produced warships in America in an age of a American traditional wooden ship industry, and the influences on Monitor's construction by the exigencies of a war situation and the requirement for haste to meet the threat of Confederate ironclads (37).

Another series of research questions might focus on the shipboard stress of officers and crew in an experimental, "untried" vessel which possibly could be answered through documentary research coupled with archeological evidence of the inclusion of more familiar items related to the conventional Navy or family life elsewhere. Archeological research on Monitor, compared with the other monitor site and other Civil War ironclad and warship wrecks, could generate a corpus of knowledge important to a better understanding of monitor characteristics and life on board as well as another perspective on the human response to the ironclad.

Archeological recovery of Monitor is ultimately linked to the public response to the vessel, which has yet to die after more than a century. Archeology may provide a mitigative tool for the recovery of relics which would fufill the need for a tactile response to this famous, mythologized vessel, which currently rests, unattainable to the public, at the bottom of the Atlantic Ocean.

FOOTNOTES

1 Other "mythic" aspects of American history include Davy Crockett, Daniel Boone, the landing at Plymouth Rock, and the New England town as the wellspring of American democracy. Kenneth A. Lockridge, A New England Town: The First Hundred Years. (New York: W.W. Norton & Company, 1970) p. xi.

2 Larry E. Tise, "The Monitor: Its Meaning," in The Monitor, Its Meaning and Future: Papers from a National Conference, Raleigh, North Carolina, April 2-4, 1978 (Washington, D.C.: The Preservation Press, 1978) p. 13.

3 Tise, p. 14.

4 Charles M. McKinney, "Comments," in The Monitor, Its Meaning and Future.... p. 99.

5 Larry E. Tise, "The Monitor: An American Artifact," in The Monitor, Its Meaning and Future.... p. 63.

6 Tise, p. 63.

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See Continuation Sheet

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY less than 10

UTM REFERENCES

	ZONE	EASTING	NORTHING
A	1 8	4 6 2 7 0 0	3 8 7 3 6 0 0
B			
C			
D			

VERBAL BOUNDARY DESCRIPTION

All that area encompassed within a circle radiating out ¼ mile from a point in the center of wreck, encompassing known and suspected wreck scatter with the National Marine Sanctuary boundary.

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: James P. Delgado, Historian

ORGANIZATION: National Park Service

DATE: February 4, 1986

STREET & NUMBER: Building 201, Fort Mason

TELEPHONE: (415) 556-9504

CITY OR TOWN: San Francisco

STATE: California 94123

12 CERTIFICATION OF NOMINATION

STATE HISTORIC PRESERVATION OFFICER RECOMMENDATION

YES____ NO____ NONE____

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

In compliance with Executive Order 11593, I hereby nominate this property to the National Register, certifying that the State Historic Preservation Officer has been allowed 90 days in which to present the nomination to the State Review Board and to evaluate its significance. The evaluated level of significance is ____National ____State ____Local.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE DATE

FOR NPS USE ONLY

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

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST: DATE

KEEPER OF THE NATIONAL REGISTER

GPO 899-214

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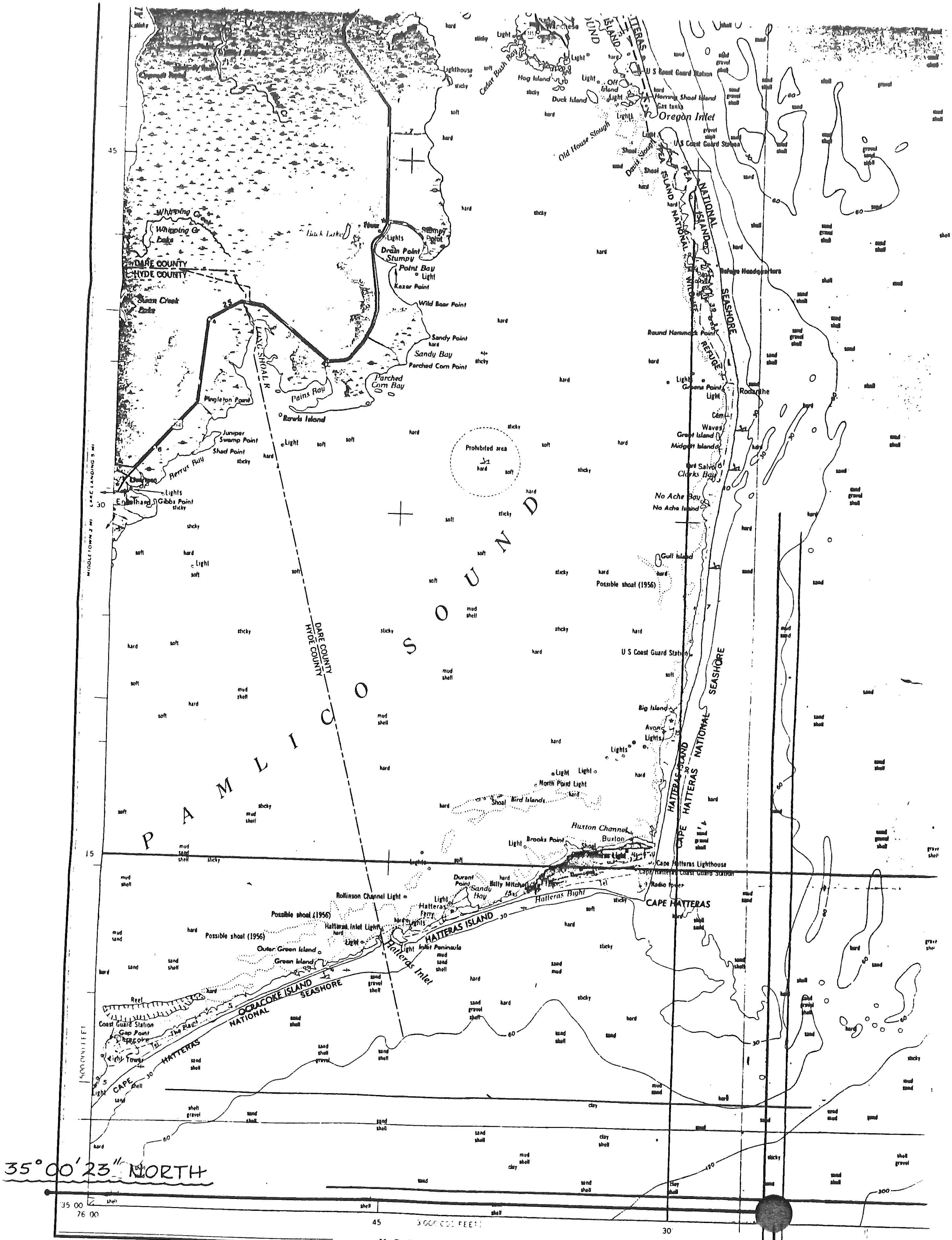

Prepared by the Army Map Service (KCSX), Corps of Engineers, U.S. Army, Washington, D.C. Compiled in 1957 from United States quadrangles, 1:24,000 and 1:25,000, 1946-54; USC&GS Charts 1109, 1110, 1229, 1231 and 1232, 1937-55. Planimetric detail revised by photo-planimetric methods. Control by USGS, USC&GS, USED, NPS, USCE, and North Carolina Geodetic Survey. Map field checked 1957. Limited revision by U.S. Geological Survey 1967.

100,000 foot grid based on North Carolina coordinate system

U.S.S. Monitor
USGS Map for Manteo, NC
UTM References
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D DATA 1957 PARTIALLY REVISED 196

LEGEND

ROADS

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EVANSTON
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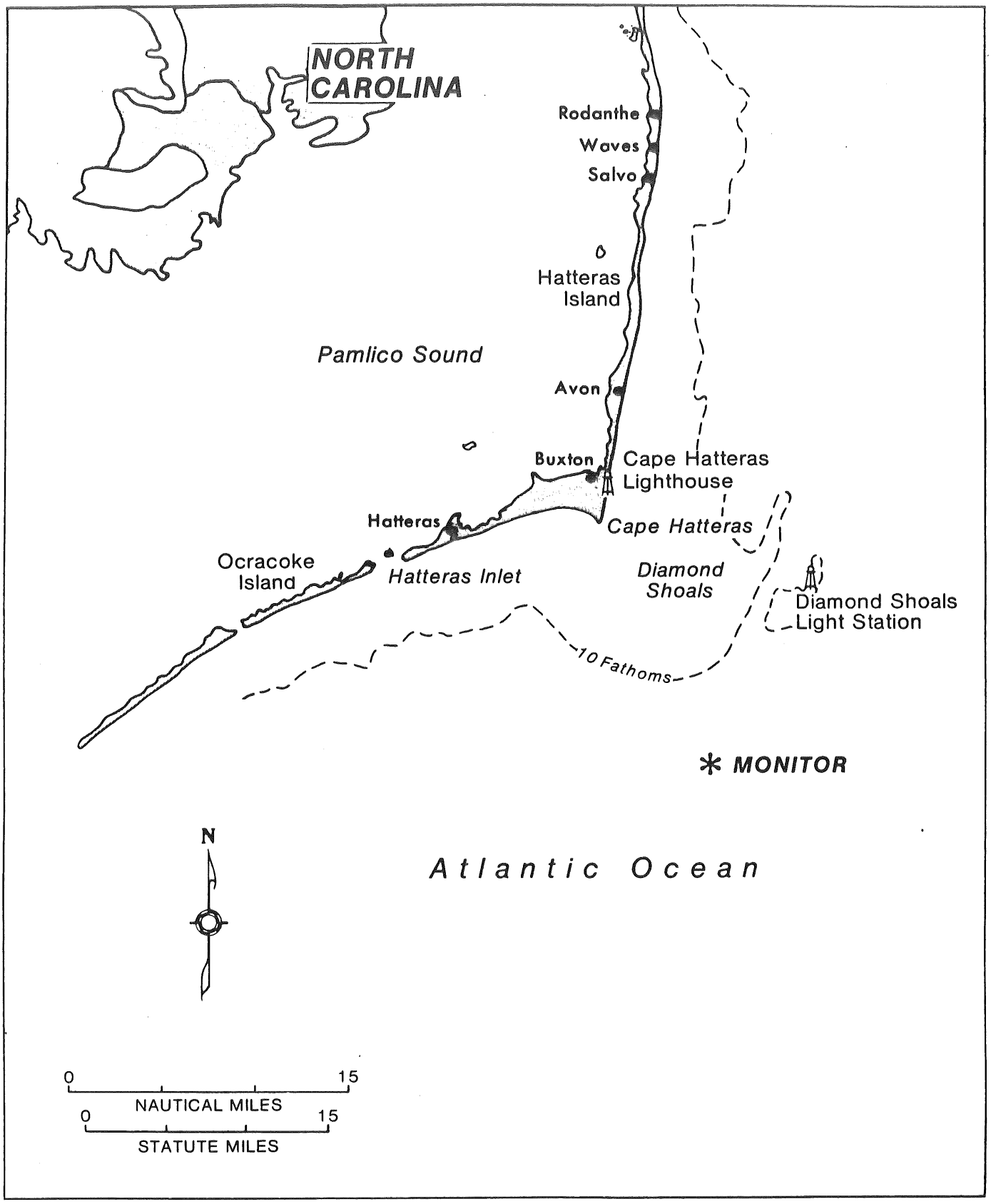
NORTH CAROLINA
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Pamlico Sound
Avon
Buxton
Cape Hatteras Lighthouse
Hatteras
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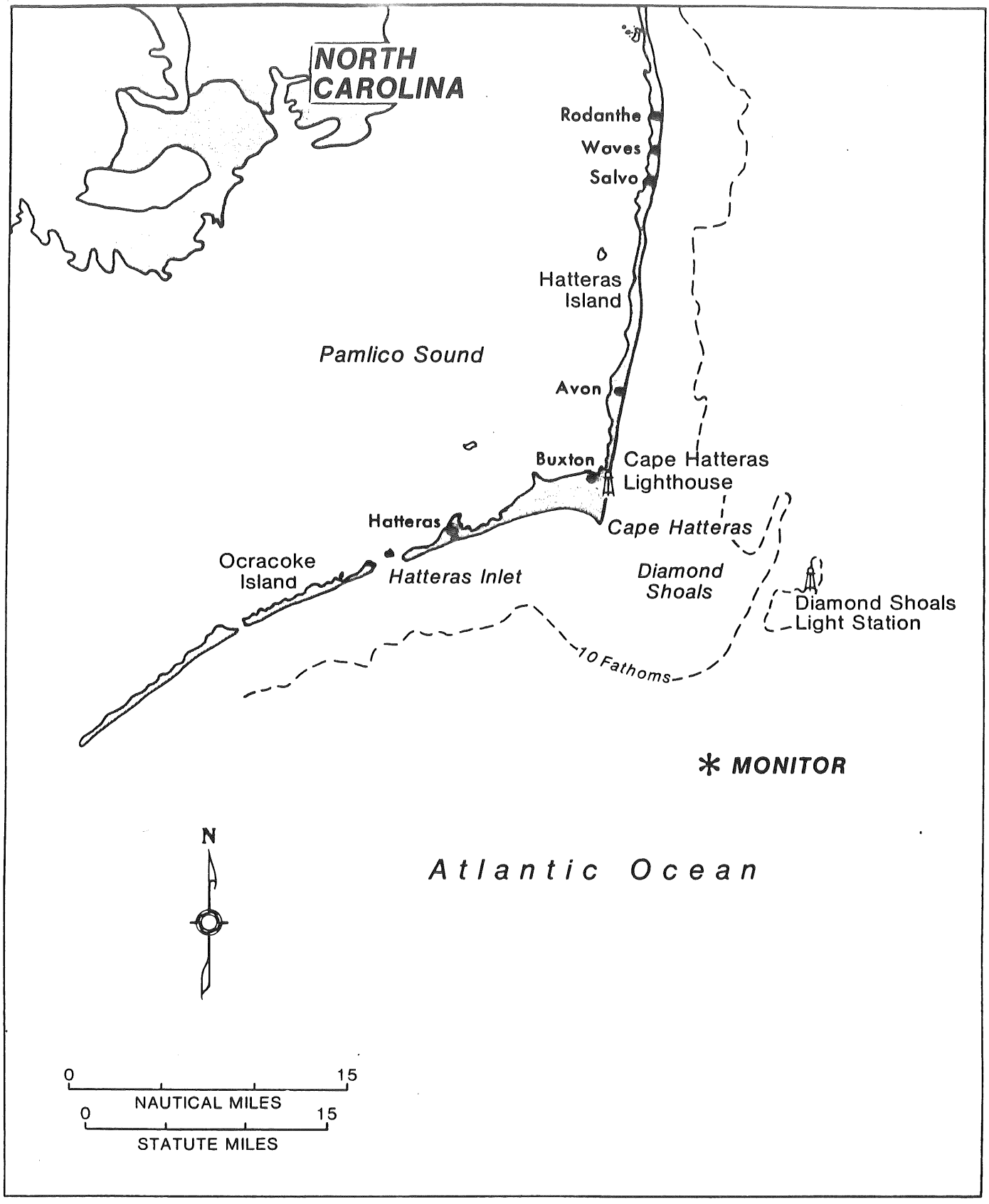
NORTH CAROLINA
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Diamond Shoals
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The following two pages are site maps of the USS Monitor wreck, based on information gathered during explorations of the wreck site conducted by the National Oceanic and Atmospheric Administration over the years 1977-1979. These maps appear here courtesy of the NOAA Sanctuary Programs staff.