



## Manager's Corner

As you read this *Cheesebox*, you will see that lots of exciting things have happened to the *Monitor* since the last issue, including NOAA and private-sector research, assistance from the U.S. Navy, a revised management plan, a link-up with the Internet, and some excellent new education products. There has also been bad news: Congress may reduce our budget, the *Monitor's* hull has shown additional signs of rapid disintegration, and we lost a good friend.

As this issue goes to press, we are awaiting news on final budget figures and the fate of the Department of Commerce, of which we are a part. We will make the best possible use of our budget and will continue to forge alliances with other governmental and private organizations who are willing to help us meet our goals. We are nearly ready to publish our revised management plan, outlining goals for increased efforts to stabilize the *Monitor's* hull.

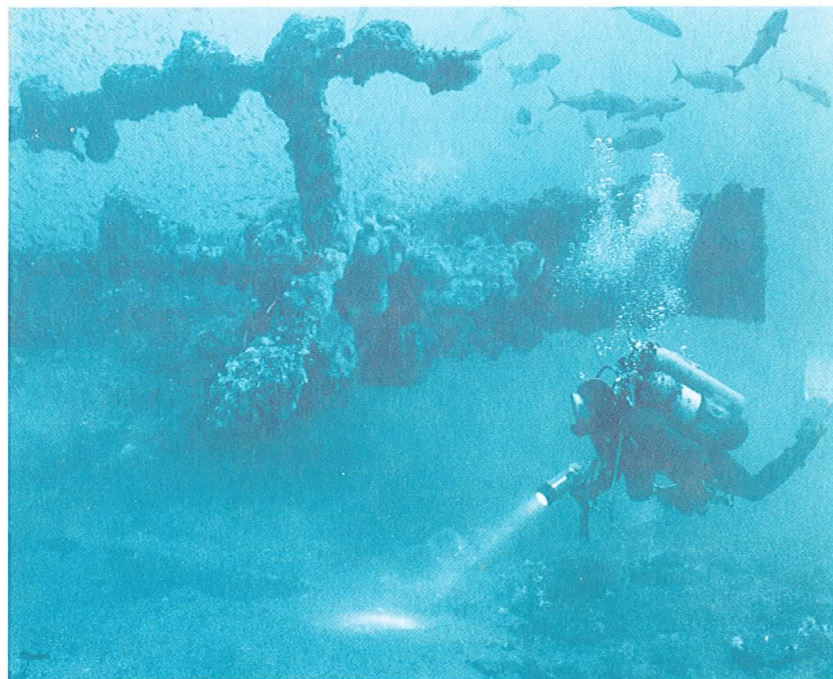
Sadly, we also lost a good friend, Captain Ernest W. Peterkin. He passed away in January 1995, while doing what he loved best: attending an international archaeology conference, where he was advising scholars and

students alike on a wide range of topics. Capt. Peterkin was our principal consultant on the *Monitor*, he was also mentor and friend, and we miss him in many ways. However, Pete is still with us, through our fond memories and through his wonderful collection of research materials, which his

wife, Betty, placed in the *Monitor* Collection, as discussed elsewhere in this issue.

We appreciate the support and encouragement we have received from our many friends and we hope you will continue to play an active role in sanctuary programs.

— John Broadwater



### Now available....

*Monitor* National Marine Sanctuary poster (see page 6 for ordering information.)  
Photo by Gary Gentile.

*Please help us keep you better informed by keeping us notified of any change in your current address.*

**Monitor National Marine Sanctuary**  
**The Mariners' Museum**  
100 Museum Drive  
Newport News, Virginia 23606-3759

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# Monitor National Marine Sanctuary Activities Report



## CHEESEBOX

Volume VII, No. 1

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## NOAA Conducts Major Research in 1993 and 1995

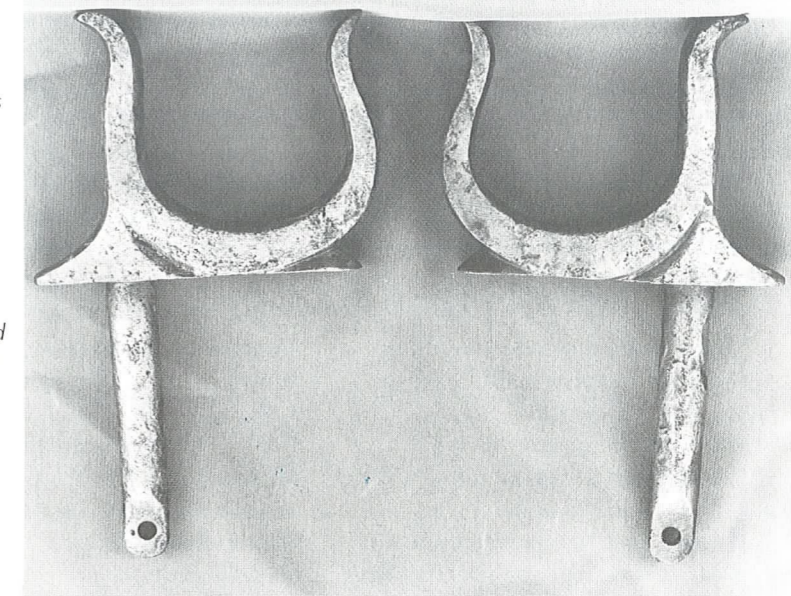
### NOAA 1993 MARSS Expedition

Plans for the *Monitor* Archaeological Research and Structural Survey (MARSS) expedition were reported in the July 1993 issue of *Cheesebox* and research objectives were discussed in detail. Unfortunately, good weather cannot be written into an operations plan, and the MARSS project participants witnessed some of the worst weather ever encountered during a NOAA research expedition in the sanctuary.

Despite rough seas, frequent squalls, water spouts, and poor conditions on the bottom, nine submersible dives and three dives with the diving bell were carried out. Several of the major objectives were met. Included was the placement of a 1,000-pound concrete mooring block in the sanctuary for use on future expeditions. The exact placement of the mooring block required the precise navigation and heavy lifting capability of the research vessel as well as observation reports from the submersible. The mooring was designed to provide a fixed location for divers to descend and a stationary ascent line for in-water decompression. In August, following the MARSS Expedition, two private research expeditions working under NOAA permits used the mooring and found it to be extremely helpful.

Another major objective was to conduct a test excavation within the turret to determine whether the wooden turret floor is intact or if the turret is filled with silt. The test excavation was successfully com-

*A pair of brass oarlocks recovered by the Gentile-Hess Expedition in 1993. The oarlocks have been conserved and are part of the permanent Monitor exhibit at The Mariners' Museum. (Mariners' Museum photo.)*



pleted under the supervision of manager John Broadwater in the submersible's pilot sphere. As planned, the excavation was carried out using a thruster on the front of the submersible to "fan" silt from the turret. No evidence of the turret floor was found suggesting that the wooden floor has been destroyed by ship worms. The submersible's thruster was used to carry out a second excavation to examine the exterior wall of the turret. The excavation did not uncover the rim of the turret, but did verify that the buried portion of the turret appears to be in good condition.

A portion of the submersible dive time was devoted to a search for exposed artifacts, both within the hull and in the sand around the perimeter of the wreck which might be damaged or swept away by currents if left in

place. A group of bottles was observed in the bow, in the same position as reported in 1992. Nothing of significance was noted outside the hull.

In addition to placing the mooring and excavating in and outside the turret, MARSS participants assessed recent hull deterioration and recorded approximately 16 hours of high-resolution video tape. Because MARSS and other recent research has revealed an increased rate of deterioration of the *Monitor's* hull, NOAA is re-examining all management options, including the possible need for eventual recovery of major hull components such as the machinery, propeller and turret. The results of this study were incorporated into the revised management plan and the 1995 research plan (see page 4).



## "Technical Divers" Conduct Private Research at the Sanctuary

In 1976 NOAA issued a permit to The Cousteau Society allowing the first divers to visit the *Monitor*. Because of the *Monitor's* depth (230 feet), NOAA had generally limited dives at the site to those utilizing sophisticated mixed-gas technology and surface support. However, in 1990 NOAA permitted two private groups, headed by Rod Farb and Gary Gentile, to conduct research dives on the *Monitor* using scuba equipment. These divers have adapted conventional scuba equipment and techniques to the unique requirements of deep diving, creating a specialty known as "technical diving." Since those first efforts, private divers have contributed an impressive amount of time and equipment to *Monitor* research.

Recently, private diving expeditions also conducted research in direct support of NOAA goals. In August

1993 two teams of divers volunteered to complete tasks that were not accomplished during NOAA's MARSS'93 Expedition (see separate article). The Farb Expedition team conducted their own video mapping tasks, then, in cooperation with the on-site NOAA Observer, mapped and recovered six octagonal glass condiment bottles, installed and measured three reference stakes and made additional hull measurements. Sanctuary manager John Broadwater, an experienced nautical archaeologist, served as NOAA observer and archaeological advisor during the recovery of artifacts. A second private group, under the direction of Gary Gentile and Peter Hess also volunteered to add NOAA tasks to their own photography and corrosion studies. This group mapped and recovered an additional mustard bottle, an intact

ironstone dinner plate, and a pair of brass oarlocks.

Since artifacts recovered from the sanctuary remain the property of NOAA, the artifacts were turned over to the NOAA Observer for transport to The Mariners' Museum for conservation and eventual display. The glass bottles, light green in color and approximately 6 1/2 inches high, are embossed "US NAVY" on one side; on the opposite side, six of the bottles are embossed "MUSTARD" while the seventh reads "PEPPER." The ironstone plate has no pattern or markings.

Research by private-sector divers has contributed to the body of knowledge on the *Monitor*. NOAA hopes to work more closely with experienced private divers on *Monitor* research and will pursue avenues to accomplish this goal while still complying with appropriate regulations.

## NOAA Permits first Non-Research Dives on the *Monitor*

"Awesome!" was how one diver described his first visit to the *Monitor*. In 1994, for the first time, NOAA permitted advanced sport divers to visit the *Monitor* without a requirement for conducting research.

The *Monitor* National Marine Sanctuary was designated specifically to protect and preserve the remains of the famous Civil War ship. For that reason, access to the wreck has been restricted to research. Research permits have been issued to private diving groups since 1976 and, since 1990, annual dives have been conducted by private expeditions (see separate article). In the late 1980s NOAA began receiving requests from a small group of sport divers often referred to as "technical divers" for permission to dive on the *Monitor* without having to meet NOAA requirements for research. Although scuba dives to the *Monitor's* depth of 230 feet are still almost universally considered high-risk dives, advances in the technology and training for technical diving have reduced the risk and increased the number of divers venturing into these depths.

In response to pressure from this small segment of the sport diving

community, NOAA elected to permit non-research diving on the *Monitor* on a one-time, non-research basis during 1994. The mechanism that allowed NOAA to conduct this pilot project was the special use permit, which was used to determine if non-research dives could be conducted with minimal expense to NOAA and with no adverse impact on sanctuary resources.

It was decided that the most practical mechanism for the pilot project was to select a concessionaire who would be responsible for planning and conducting non-research dives on the *Monitor*. The concessionaire would establish dive safety standards and diver qualifications, then be responsible for screening divers to see that they met all requirements.

NOAA's request for proposals, published in the *Federal Register* in March 1994, resulted in only one application. This applicant, Captain Arthur Kirchner, met all NOAA requirements and the special use permit was issued to him. Captain Kirchner found it somewhat difficult to

book qualified groups for the dives; however, four separate dive charters were scheduled. Unfortunately, the charters were adversely affected by weather at the site. The first group made three trips to the site but was not

able to dive at all. The second group made four trips to the site and dove on three of those days. The third group canceled in advance due to an approaching storm, and the fourth group made one trip to the site during

which dives were made. A NOAA observer accompanied the dive charters on each trip to the site.

NOAA assessed the recommendations of the concessionaire and the sanctuary manager, who served as the NOAA Observer, to determine how some of the problems encountered in the pilot project could be overcome. Another special use permit will probably be issued for non-research dives during 1996-1998. As long as these dives do not negatively impact the sanctuary, they provide unique opportunities for non-research divers to experience the "awesome" spectacle of the *Monitor*.

*"Awesome!" was how one diver described his first visit to the Monitor.*

## Weldon B. Hester: The Researcher of Researchers

Weldon B. Hester has a unique hobby. He enjoys researching a subject to its fullest by locating all of the related articles in magazines and journals. Then he photocopies the articles, composes a table of contents, and binds the compilation. A keen interest in history as well as experiences and travels of an eventful life have prompted him to take on these projects.

A native of Cooksville, Illinois, in 1929 Hester graduated from Augustana College in Sioux Falls, South Dakota. He followed this with additional studies at George Williams College in Downers Grove, Illinois. During the Great Depression he worked as an American Red Cross Field Representative for first aid and water safety, covering seven Midwest states. After the outbreak of the Second World War, he served as the Red Cross Field Representative for the U.S. Army's 24th and 106th divisions. Hester remained with the 24th Division for eighteen months through actions in the Philippine Islands at Bataan, Leyte, Luzon, Corregidor, and Mindanao. For his courage in those trying times he earned the Medal of Freedom and the Bronze Star. In March 1946 he received the latter decoration in a ceremony held in Bridgeport, Connecticut. Only the President of the United States can award the Medal of Freedom.

After the conflict, Hester became a camp director in upstate New York. It was here that he began to gather literature on the history of the Adirondack region. Books, articles, postcards, and maps all caught his eye. Upon his retirement in 1972, he sold this collection to North Country Community College in Saranac Lake, New York, and moved to Florida.

Still his interest in history did not wane, and his other hobbies of leather working and stone and coin jewelry did not fill his day. Recalling his



Weldon Hester and Mary Getchell of The Mariners' Museum Library examine a model of the wreck of the USS *Monitor* from the *Monitor* Collection, NOAA. The *Monitor* Collection is located in the Museum library.

experiences during the war, Hester began to accumulate material on the engagements in the southwest Pacific. He amassed about forty-five volumes on the war in the Pacific and donated them to the National Infantry Library at Fort Benning, Georgia. A natural offshoot of his line of research was to seek information on General Douglas

MacArthur. After meeting with staff members of the MacArthur Memorial Foundation in Norfolk, Virginia, he concluded that he could gather articles that would be helpful to the foundation. He contributed about fourteen volumes

of articles on the general to that institution.

During visits with his daughter and son-in-law in Norfolk, Hester began to develop an interest in the USS *Monitor* and the CSS *Virginia*. He also wished to gather material on General George Armstrong Custer, a subject that had interested him since his days in Sioux Falls. He undertook both projects at about the same time, searching for

articles on the battles of Hampton Roads and Little Big Horn. So far, he has passed along sixty volumes on Custer to the Center for Western Studies at Augustana College. To accumulate this data Hester has written hundreds of letters and traveled to fifteen states to research in about thirty-five libraries.

The articles on the *Monitor* and *Virginia* have been donated to The Mariners' Museum Research Library and Archives in Newport News, Virginia. Currently, there are twenty-seven neatly-bound volumes representing countless hours of searching and hunting. Along with articles on the famous vessels, Hester has included writings on other ironclads and on John Ericsson and officers associated with the two warships. There are approximately 750 articles copied in the collection. Hester's labors have been a blessing to numerous researchers, including students of all levels, Civil War buffs, and associates of the *Monitor* National Marine Sanctuary. This rich collection is sure to serve as a critical source for information in the years to come.

*Benn Trask, Librarian  
The Mariners' Museum*

*Hester's labors have been a blessing to numerous researchers... This rich collection is sure to serve as a critical source for information in the years to come.*



## Monitor's Propeller to be Raised as Part of MARRS'95

In an unprecedented effort to stabilize the deteriorating remains of the *Monitor*, divers descended 230 feet beneath Atlantic waters in an attempt to remove and relocate the ship's skeg and to recover its 3,600-pound propeller. This joint effort by NOAA, the U.S. Navy, and The Mariners' Museum was part of the 1995 *Monitor* Archaeological Research, Recovery and Stabilization Mission (MARRS'95).

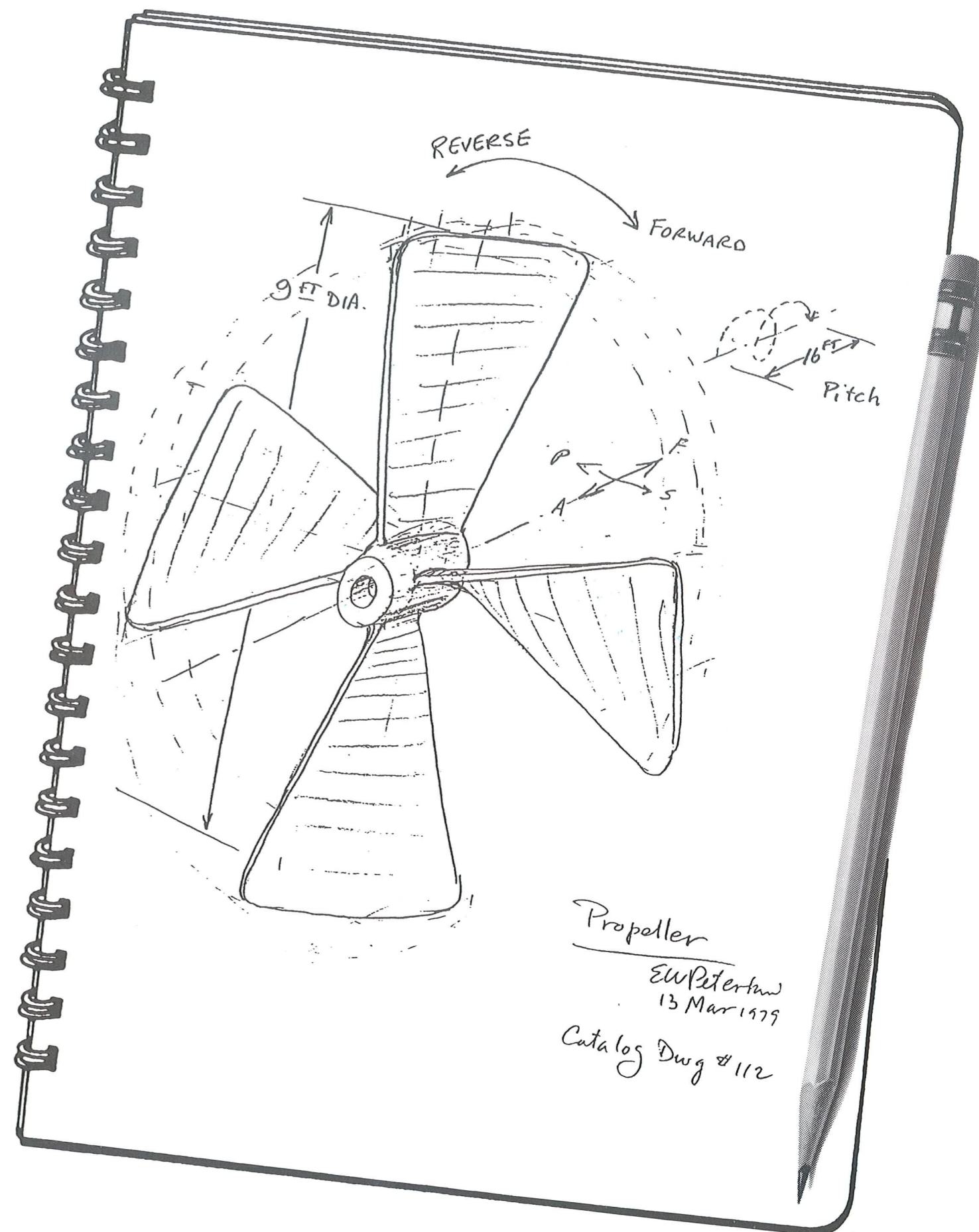
For the past 20 years, the *Monitor* has received protection as a national marine sanctuary. In recent years, however, NOAA and private expeditions have observed accelerated deterioration of the hull due to natural and human causes. Sanctuary Manager John Broadwater reported, "During our 1993 mission to the *Monitor*, it became clear that we needed to take action to prevent the 133-year-old shipwreck from deteriorating before our eyes. The 1993 mission also provided the necessary data for formulating our present plan, one which has received considerable review from the archaeological community." NOAA has fully endorsed MARRS'95. "Stabilizing the USS *Monitor* is one of the more important marine archaeological expeditions of this decade. It is critical that we work to preserve the integrity of this national historic landmark," said NOAA Administrator D. James Baker.

For the Navy, MARRS'95 offers an opportunity to contribute to the preservation of a former Navy ship and, at the same time, sharpen the skills of its salvage team. "This is an excellent opportunity for the 100-man crew of the USS *Edenton* to use their special training in deep diving and salvage to help protect and preserve such an historic warship," said Commander John Paul Johnston, commanding officer of the USS *Edenton*.

Upon recovery, the propeller is to be transported to The Mariners' Museum in Newport News, VA. Museum CEO John B. Hightower calls the *Monitor's* propeller "another extraordinary window of information from this time capsule in the sea." As the principal museum for the *Monitor* National Marine Sanctuary, The Mariners' Museum will supervise the lengthy conservation process and eventual public exhibit of the propeller.

Beginning August 14, *Edenton* divers began efforts to cut the *Monitor's* nine-inch-diameter propeller shaft and recover the propeller. NOAA research divers also participated in the initial phase, utilizing the Research Vessel *Elusive*, from the University of North Carolina at Wilmington. Unfortunately, unfavorable weather conditions, including two hurricanes and a tropical storm, prevented recovery of the propeller. Divers were able to complete several twenty-five minute dives to the *Monitor* but other dives had to be aborted because of strong subsurface currents or heavy seas.

As this report was going to press, the USS *Edenton* was scheduled to return to Hatteras on October 2 in a second attempt to recover the propeller. The final results of MARRS'95 will be reported in the next issue of *Cheesebox*.





## Peterkin Papers Become Part of the *Monitor* Collection

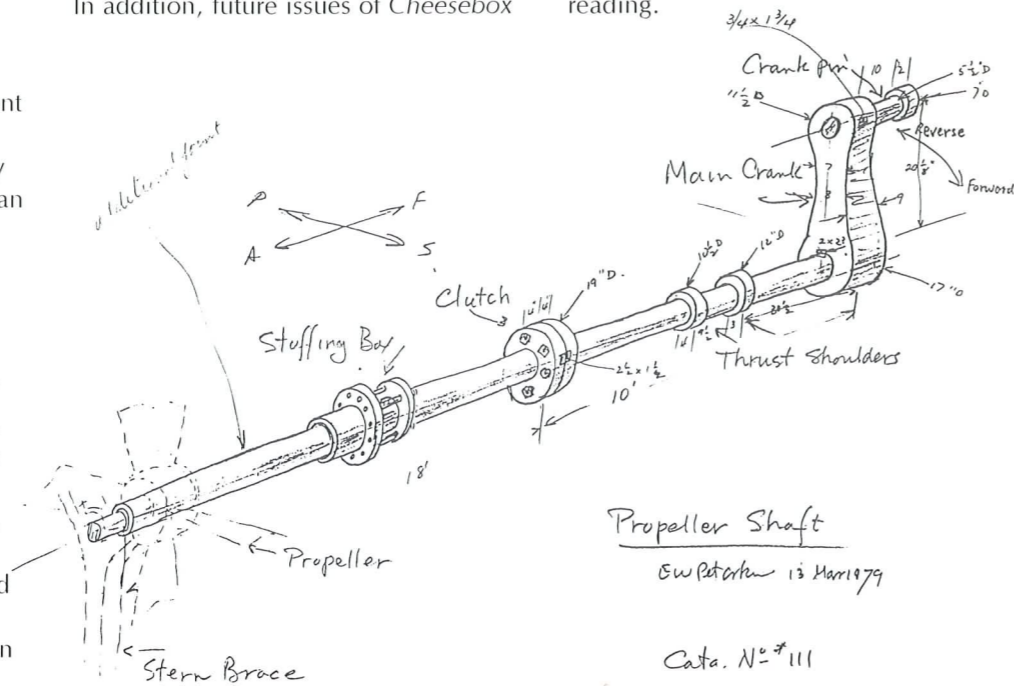
[Editor's note: Please see the related article on Ernest Peterkin elsewhere in this issue.]

In May of this year, Betty B. Peterkin placed Capt. Ernest W. Peterkin's extensive collection of *Monitor*-related material on permanent loan to NOAA's *Monitor* Collection. The papers represent more than thirty years' research on the *Monitor*, with an emphasis on the construction of the famous ironclad. Capt. Peterkin's papers include hundreds of original photographs and illustrations, plans, historical accounts, correspondence, and published works. While most of the material is related to the *Monitor*, major portions of the papers relate to other *Monitor*-type vessels and their classes as well as to the *CSS Virginia*. There are also plans of the *Monitor* and the monitor *Tecumseh* completed by Capt. Peterkin.

It is anticipated that the collection will be cataloged and available for

research by September 1996. Future issues of *Cheesebox* will keep readers posted on the progress of cataloging. In addition, future issues of *Cheesebox*

will include a historical column based on material from the Peterkin Papers. We guarantee some interesting reading.



Propeller Shaft

EW Peterkin 13 Mar 1879

Cata. No. 111

## FYI:

### New Education Materials

There are several new items available from Dina B. Hill, Sanctuary Education Coordinator at The Mariners' Museum, 100 Museum Drive, Newport News, VA 23606-3759. These include:

"A Look at the *Monitor* National Marine Sanctuary: Past, Present, and Future," a 26-page information booklet that includes the history of the *Monitor*, an overview of twenty years of NOAA research in the sanctuary, and information on education and management activities. Available upon request.

*Monitor* National Marine Sanctuary brochure, a full-color fold-out brochure with basic information on the sanctuary, and *Monitor* National Marine Sanctuary poster (see image page 8). Both available upon request.

Anyone interested in publications and other material is encouraged to

contact the Sanctuary education coordinator for a current list. Teachers interested in resources for use in the classroom may contact the education coordinator for "The *Monitor* National Marine Sanctuary Resources List," which contains a complete listing of available materials. We look forward to hearing from you.

### Exhibits and Special Events

#### The Mariners' Museum

The permanent *Monitor* exhibit at The Mariners' Museum has been updated to include artifacts recovered during the 1993 and 1994 field seasons. The Museum is open from 10:00 A.M. to 5:00 P.M. seven days a week. It is closed only on Christmas Day.

#### Cape Hatteras National Seashore Visitors Center, Hatteras, North Carolina

*Monitor* artifacts on exhibit with material from other shipwreck sites.

## The Sanctuary Celebrates Its 20th Birthday

This year the *Monitor* National Marine Sanctuary—the nation's first marine sanctuary—celebrated its 20th anniversary. The remains of the USS *Monitor* were designated the first National Marine Sanctuary on January 30, 1975, 113 years after the launching of this famous warship.

National marine sanctuaries are administered by the National Oceanic and Atmospheric Administration (NOAA), a Commerce Department agency. Sanctuaries are marine and coastal areas of special national significance that may support unique ecosystems, commercial fishing, or habitats of endangered species, or are valued for their recreational, historical, or aesthetic resources.

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## Editor's Corner

This column is usually a pleasure to write, since it means that another issue of *Cheesebox* soon will be making its way to our faithful readers. But this particular column is difficult, because in January the staff of the *Monitor* Sanctuary lost a very dear and valued friend. Ernest Peterkin—Pete to just about everyone who knew him—was one of a kind. His fascination with the *Monitor* led him to refer to himself as "the oldest living expert on the *Monitor*." (In deference to his age and dignity, I dubbed him "Grampa *Monitor*," a title that he tolerated with good humor.) In fact, the only person past or present who may have known more about the *Monitor* was John Ericsson himself.

I first met Pete in the mid-1970s at one of many gatherings to discuss how to protect the recently discovered wreck of the *Monitor*. He was a commanding presence: silver-haired, very distinguished and well-spoken, a no-nonsense man with an almost tangible air of integrity who could talk for hours about how the *Monitor* was built, how the engine worked, what below-decks looked like. He was horrified to discover that National Archives staff had inaccurately cataloged photographs of other monitors as the *Monitor*, and he waged a long campaign to get the errors corrected. The corrections were eventually made; Pete was a hard man to ignore.

He volunteered to assist NOAA and the state of North Carolina in a month-long expedition to the *Monitor* Sanctuary in 1979. We were planning an excavation into an area thought to be the captain's cabin, and Pete's storehouse of knowledge about the layout of the ship below decks was invaluable. We set up a base of operations at the Sea Gull Motel in Hatteras; Pete would join the shore-based personnel a few days after the expedition began.

He arrived at the motel in a classic MG convertible—with the top down, of course. He was wearing a French fisherman's cap, khaki pants, and a matching shirt unbuttoned almost to the waist. On any other man his age—he was nearly sixty—that outfit would have looked ridiculous. On Pete it looked just right.

Pete had other interests and he pursued them as vigorously as he did the *Monitor*. Whether it was re-enactments of seventeenth- and eighteenth-century military events or his study of footwear of those periods, Pete became an expert and then a teacher. He shared his knowledge with us and, for me at least, made it apparent how much there was yet to learn.

One of his frustrations with the *Monitor* was that he did not know how the plates that formed the extreme bow and stern of the ship's lower hull were joined. The bow section of the *Monitor*'s lower hull was destroyed sometime before the ship was located. The stern section was covered with a thick layer of concretion, making it impossible to see if the plates were lapped or butted. I would like to think that one of Pete's first activities in the hereafter was to seek out John Ericsson and ask him about that plating pattern. It is interesting to picture these two men, both intensely interested in this odd little warship, discussing the pros and cons of the design.

Pete contributed vastly to our knowledge, most of all with his annotated compilation of existing engineering drawings of the *Monitor*. This was the culmination of many years of research by Pete, and the results were overwhelming. The volume contained the kind of detail we all came to expect from Pete and from which we all benefited.

Pete and I had our differences over the years, particularly on how to manage and investigate the *Monitor*, and what information was important to the management efforts. But I never ceased to respect him or to admire his tenacity in researching the construction details of this ship.

At Pete's funeral a friend and colleague of his delivered a beautiful eulogy in which he acknowledged Pete's many and varied interests and spoke of how Pete's wife Betty had shared him with all of us. He thanked Betty for "letting Pete come out and play." I would like to second that. I would also like to say, "Thank you, Pete, for letting us join in the games."

Good-bye, Pete. I will miss you. And for the rest of my life, I will wonder if you have finally found the answer to your question about the plating pattern.

— Dina Hill