

A photograph of the USS Requin submarine docked at a pier during a dramatic sunset. The sky is filled with dark, heavy clouds, with a bright orange and yellow glow from the setting sun breaking through near the horizon. The submarine is dark against the lighter sky and water. The water reflects the colors of the sunset. The overall mood is somber and historical.

# THE GALLOPING GHOST

OF THE EAST COAST

As Carnegie Science Center readies one of the North Shore's most famous landmarks, *USS Requin*, for the future, a look back at the people and places of her storied past.

BY CHRISTINE H. O'TOOLE



### “Permission to come aboard?”

It’s the beginning of nearly every submarine movie ever made, setting the stage for an inherently dramatic story: cat-and-mouse espionage with high stakes and deep tensions at 40 fathoms. And though it hasn’t been made into a movie—at least, not yet—that’s the saga of Pittsburgh’s own *USS Requin* (pronounced RAY-kwin, French for sand shark), the U.S. Navy’s first radar picket sub, whose Cold War adventures make it one of Carnegie Museums’ most unusual attractions. In 2011, *Requin* notched more than 154,000 visitors at Carnegie Science Center—the sub’s second highest annual attendance since docking on Pittsburgh’s North Shore in 1990.

Commissioned in 1945 and decommissioned in 1968, the Tench-class submarine’s active service spanned a critical era of U.S. history. As the United States applied military research to new goals, like nuclear power and space exploration, its 80-man crew completed missions—some still top-secret—that contributed to national security and international relations, all without firing a shot.

“She was called the galloping ghost of the East Coast,” recalls John Stewart fondly, referring to *Requin*’s frequent patrols of the North Atlantic. An Altoona resident who served aboard

*Requin* from 1958 to 1963, from the Caribbean to the Mediterranean, Stewart is part of an extended family of submarine veterans, Navy League supporters, active-duty Navy personnel, and Science Center staff who are guiding the vessel into its third decade of fresh-water residence on the Ohio River.

“She provides a unique opportunity to learn science and technology, within the context of an important historical era,” says Patty Rogers, the Science Center’s curator of historic exhibits. “People come from all over the world to see the *Requin*. Subs and ships in the heartland and interior really touch people and provide unexpected learning experiences.”

Since *Requin*’s dedication, the Science Center has focused its efforts on continuously refining the visitor experience aboard the submarine, adding in-depth technology tours, sleek digital interpretation, and a meaningful collaboration with the *USS Pittsburgh*, an active-duty, Los Angeles-class nuclear submarine (and the fourth Navy vessel to be named after the city).

This spring, the Science Center will begin planning for restoration and preservation efforts that will extend *Requin*’s life as a significant Pittsburgh icon and interactive exhibit—the latest chapter of a history first written in the waning days of World War II.

(continued)



PHOTO COURTESY OF CARLO MARTINELLI/WWW.NAVY.SOURCE.ORG

*Requin* dockside in Genoa, Italy, July 1967.

**“I call it a live monument—it’s here, instead of reading a book about it or looking at pictures.”**

- HUEY DIETRICH, LOCAL COMMANDER OF THE UNITED STATES SUBMARINE VETERANS, INC.



Dan Timko, who earned his sea legs locally as a *Requin* program presenter, with John Stewart, a Navy veteran who served on *Requin* 50-plus years ago.

## A HERO AT THE HELM

*Requin's* first commander came straight out of central casting. When assigned to the newly built sub early in 1945, Slade Deville Cutter was a handsome 6-foot-4-inch captain with four Navy Crosses and a record of sinking 19 Japanese ships—the second-highest total in the service. After graduating from the Naval Academy as an All-American football player and boxer, he served on both battleships and submarines. And in commanding the latter, he beat the odds.

Heavily attacked by kamikaze pilots during World War II, the submarine service lost more than 3,500 men; its record of 22 percent casualties was the highest in the armed services. Wearing a pair of silver or gold dolphins on a uniform proclaimed membership in a brotherhood comprised solely of volunteers, requiring rigorous training and astonishing courage.

Cutter's orders to *Requin* were an acknowledgement of his top-gun reputation. The brand new sub boasted the latest technology. "It was the latest and greatest, with a great captain," recounts Dan Timko, program presenter at the Science Center.

**With its checkerboard tabletops and jukebox, the mess is a favorite with visitors. "Most of all, visitors want to know how they lived."**

— MARIA RENZELLI, THE SCIENCE CENTER'S  
LEAD REQUIN EDUCATOR

Prior to the nuclear age, subs employed some of the first hybrid engines: diesel engines worked in conjunction with massive lead-acid batteries to propel the boat. Though space was at a premium on board, *Requin's* engineers extended the captain's bunk and quarters to accommodate Cutter's height. Maria Renzelli, the Science Center's lead *Requin* educator, points out Cutter's extra-long bunk to visitors—a few inches of officer privilege in compartments where 80 men worked, ate, slept and only occasionally showered.

With a full crew, Cutter sailed for Guam in August 1945, with orders to support the

planned invasion of Japan. "Three days later, the war was over," says Renzelli. *Requin* returned to New York for what Cutter dismissed as "a dull and boring assignment" training with sonar ships. But after being refitted, *Requin* took on a new assignment as the Navy's first "radar picket" sub—a look-out vessel that greatly extended the effective range of protection for fleets at sea.

As the Navy prepared to launch *Nautilus*, the world's first atomic-powered sub, in 1955, *Requin* shifted to Cold War service. "While nuclear subs were the Navy's newest super stars," notes Rogers, "the diesel-electric submarines like *Requin* were the work horses."

## HOT BUNKING AND PEANUT BUTTER WARS

John Stewart, who missed his graduation ceremony from Altoona High School to enlist in the Navy, says testing new equipment was a routine task for *Requin's* young crew. "For experimental stuff, like sound gear, they'd want to test it out. At that time, nuclear subs were gone two or three months—if a new radio didn't work, they'd have to turn around," he explains. "Same



**“She provides a unique opportunity to learn science and technology, within the context of an important historical era.”**

- PATTY ROGERS, THE SCIENCE CENTER'S CURATOR OF HISTORIC EXHIBITS

with the hull paint—we were finding paint to stand up to the beating of waves in the North Atlantic and the salinity of the south.”

The Navy shared the results of atmospheric pressure experiments with NASA, then still in the planning stages of the Mercury and Apollo space programs. After the loss of U.S. nuclear sub *Scorpion* in 1968, *Requin* sped to the site for classified search missions. (Seventeen years later, Navy Commander Bob Ballard would verify the sub's location en route to discovering the location of the *RMS Titanic*).

Stewart recalls daily life among 80 crewmen in a 312-foot-long tube as congenial, if crowded. “Hot bunking”—taking a shift in one of about 30 shared berths—and around-the-clock meals were the norm. He compares the 24-hour meal service to “living next to a busy highway—after awhile, you don't realize it.” *Requin's* mess, now restored with canned foods, cooking gear, and even a vintage movie projector, was the heart of the vessel.

With its checkerboard tabletops and jukebox, the mess is a favorite with visitors. “Most of all, visitors want to know how they lived,” says Renzelli. Interactive touch screens—the first technology of its kind to be used aboard an historic ship when they were installed in 2006—bring its once daily routine to life.

With a touch of the screen, visitors can watch videos of periscope views and listen to former sailors like Stewart provide an in-depth analysis of everything from torpedo firing mechanisms to the sub's “peanut butter wars” (Peter Pan lovers versus Skippy eaters).

When Rogers, who serves as the vice president of the international Historic Naval Ships Association, first briefed her colleagues on the interactive project at a 2006 conference in London, she was surprised by the intensity of their interest. “At that time, those kinds of interpretive features had been left to shoreside museums,” she explains. “Now, digital technology and interactives are being employed by other historic ships. *Requin* is at the forefront worldwide, discovering and improving visitor experience and interacting with the public to bring its history alive.”

In Huey Dietrich's opinion, *Requin's* show-don't-tell approach enhances its appeal.

(continued)





WHAT IT TAKES TO  
*stay healthy...*

**Medico**

*Personalized Medical Care*

*Round-the-clock access and housecalls*

CONCIERGE MEDICINE

Michelina Fato MD

Primary Care Physician

412.721.8325

medicoconsulting.com

“I call it a live monument—it’s here, instead of reading a book about it or looking at pictures,” says the former submariner, now local commander of the United States Submarine Veterans, Inc. (USSVI). Indeed, thousands of area school kids visit each year as part of field trips and a special summer camp to discover all about the adventurous life of living and working on a submarine.

#### A LASTING LEGACY

Another former submariner was responsible for propelling *Requin* to Pittsburgh. Jim Winokur, a long-time Carnegie Museums’ trustee who passed away in 2009, volunteered for sub service as a 21-year-old during World War II. He continued his interest in subs and military strategy throughout his career as a Pittsburgh executive.

As the Science Center was being constructed in 1990, the Navy was considering scuttling *Requin*. The watercraft had been berthed in Tampa as a tourist attraction since 1972, but had deteriorated over several years of neglect. An avid art collector and Carnegie Museums’ supporter, as well as an active member of the Navy League, Winokur realized that the sub could complement the new attraction’s offerings. Together with fellow trustee Joshua C. Whetzel, Jr., also now deceased, Winokur had the connections and desire to make it happen.

“He had connections that allowed him to push at many different levels, on the Navy side and business side and Carnegie side,” recalls Winokur’s son, Jeff.

Senator John Heinz introduced the bill to transfer *Requin*’s title to the Science Center, and after a three-week journey up the Mississippi, with the sub gently cradled in slings towed by barges, the Science Center’s waterfront attraction was dedicated on October 20, 1990.

As a science educator in Massachusetts, Jeff Winokur believes now more than ever that the *Requin* jives perfectly with the Science Center’s mission. “Here’s a machine that can both sink and float. It shows what one needed to know to make that happen, and creates an ecosystem that can survive underwater.”

Michael Savageaux commands a much larger version of that ecosystem. He’s the commander of *USS Pittsburgh*, a nuclear submarine commissioned in 1985, and another member of *Requin*’s fan club.

“I’ve visited it on all three of my visits to Pittsburgh,” says Savageaux. “Whenever we’re in town we bring our sailors there as well, so they can get a feel for the heritage of the Submarine Force, and for the support that the Navy has in the city.”

*Requin* is much larger than most modern diesel submarines, he notes, though still a third of the size of its nuclear sibling. “The design is most radically different in the sail, which is significantly larger than the sail onboard the SSN 720 (*Pittsburgh*),” he notes. Modifications to remove *Requin*’s deck guns improved both noise characteristics and



Asperger’s Disorder  
**Autism**  
Brain injuries  
Neurological impairment  
Serious emotional challenges  
Special needs

**“I can’t.”**

We can help turn “I can’t” into “I can.” The Watson Institute is an educational organization, specializing in educating children with special needs, as well as those professionals and pre-professionals who serve children with special needs. [theWatsonInstitute.org](http://theWatsonInstitute.org)





submerged performance. Savageaux notes the change carried over to the first nuclear-powered submarines and morphed into the “teardrop design” of today’s vessels.

Last spring, Savageaux and his crew invited local VIPs including Rogers and Renzelli aboard their modern sub in Port Canaveral, Florida. The visit included a nine-hour cruise and dive more than 400 feet deep, and visitors were allowed to fire “water slugs.” Rogers and Renzelli felt right at home. “It’s shockingly similar to *Requin*,” says Renzelli, “with some of the same equipment, including switch panels and motors.”

The duo hope to use the experience for future education programs, to help area students tie the history of the *Requin* to today’s modern submarine technology. One of their earliest converts: Dan Timko, who worked part-time as a *Requin* program presenter before graduating from the University of Pittsburgh last spring.

Now 23, Timko was born in Groton, Connecticut, while his father Shawn served aboard *USS Pittsburgh*. He still remembers the thrill—and the diesel smell—of visiting *Requin* with his Pittsburgh grandparents. Over his three years as a guide, he gained enough expertise to answer questions during *Requin*’s popular in-depth Tech Tours, held on select summer Sundays. His preferred post: the periscope in the conning tower. A couple summers ago, he recalls proudly, “We got to fire a cannon to welcome LST-325 to Pittsburgh. That’s just one of the many reasons that working at *Requin* is the coolest job out there!”

Though the sub’s present fresh-water environment is less corrosive than salt water, *Requin* still faces the costly maintenance challenges of all historic ships. Her outside hull has developed deterioration that must be repaired. The first step in prioritizing repairs and restoration is to do a hull survey, to be completed this spring with the help of a \$125,000 grant from the Allegheny County Community Infrastructure and Tourism Fund. Performed by a professional marine engineer and a team of divers, the survey will involve ultrasonic thickness gauging and a thorough inspection of all of *Requin*’s ballasts and fuel tanks. The up to two-week-long inspection will result in a comprehensive report of repairs. The eventual repair price tag could very well reach seven figures.

The sub will almost certainly undergo its needed renovations close to home. Aside from the Dravo facility on Neville Island, the closest dry dock that could tackle the complexities of such repairs is on the Gulf Coast.

Rogers sees another unique opportunity in a local makeover. Using new technologies like the high-tech underwater welding now repairing the *USS Midway* in San Diego, says Rogers, “Some of the work could possibly be done with the sub in place at Carnegie Science Center, and turned into a learning experience for the general public.” ■



**A GROOVY CHAIR  
EVEN 35 YEARS BEFORE DISCO.**

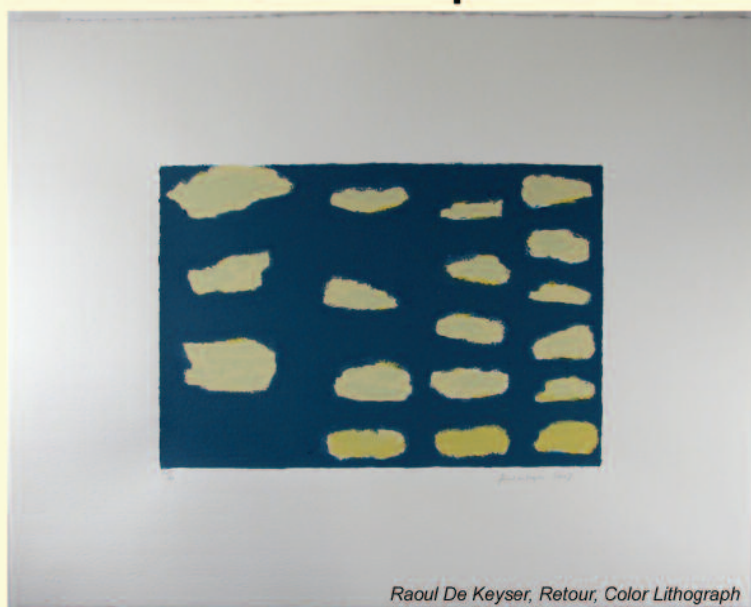
“The Art of Seating: 200 Years of American Design” presents the history, innovation and construction of American chair design from the 1800s to the present, curated from a private collection.

[wmuseumaa.org](http://wmuseumaa.org) | 724-837-1500 | Greensburg, PA

**THROUGH APRIL 8** |  **THE WESTMORELAND**  
The Place for American Art


Designed by Warren McArthur | Manufactured by Warren McArthur Corporation | Sling Seat Lounge Chair, c. 1935 | Photo by Michael Koryta. The Art of Seating is organized by the Museum of Contemporary Art, Jacksonville in collaboration with the Jacobsen Collection of American Art, and is toured by International Arts & Artists, Washington, D.C. Funding for the exhibition is provided by The Westmoreland Women’s Committee.

**Multiple States: Original Prints 2012  
March 10 - April 22**



*Raoul De Keyser, Retour, Color Lithograph*

The first in a series of exhibitions commemorating  
Concept Gallery’s 40th Birthday  
featuring original printed art by Contemporary Artists.

 1031 S. Braddock Avenue | Pittsburgh, PA 15218 | 412.242.9200 | [www.conceptgallery.com](http://www.conceptgallery.com)