

**2024 SECRETARY OF THE NAVY ENVIRONMENTAL AWARD NOMINATION
NAVY ENVIRONMENTAL EXHIBIT AT BATTLESHIP USS IOWA MUSEUM
ENVIRONMENTAL QUALITY – TEAM
FY 2022–2023**

Introduction

The United States (U.S.) Pacific Fleet is pleased to submit this nomination for the 2024 Environmental Quality – Team award for the development and installation of an innovative, engaging, and interactive permanent Navy environmental outreach exhibit at the Battleship USS Iowa Museum (Battleship) in Long Beach, Calif.

The concept of developing a permanent Navy environmental outreach exhibit was initiated in 2021 based on the strong relationship between the Battleship and the U.S. Navy, including the joint planning and execution of the annual Fleet Week in Los Angeles. The partnership between the Navy and the Battleship for the exhibit was formalized in a Memorandum of Agreement (MOA) in 2022. The agreement states that this unique exhibit will be in place for a minimum of nine years; however, the expectation is that the exhibit will be in the museum permanently. The museum is entirely within the decommissioned Battleship, which served in World War II, the Korean War, and the Cold War.

The exhibit will be viewed by more than half a million people each year, but these numbers will soon be increasing as the Pacific Battleship Center has secured the rights to build the “National Museum of the Surface Navy” on the Battleship. The Battleship is visited by thousands of members of the public each year, to include school-aged children, who will now become educated about the Navy’s environmental programs via this hands-on exhibit. As the exhibit is in an established, well-frequented public venue, it is a cost-effective way to reach the public and stakeholders about Navy environmental innovations, investments, and activities. The exhibit has a high benefit to cost ratio as the Navy does not have to staff it, and the Battleship has agreed to host and clean the exhibit at no cost. It is the Navy’s first permanent environmental program exhibit on the West Coast.



***Battleship USS Iowa Museum in
Long Beach, Calif.***

The exhibit showcases the Navy’s environmental programs and accomplishments in Southern California and at sea to help the Pacific Fleet meet its outreach mission of engaging and informing the public of the Navy’s training mission and environmental stewardship programs. It is not well-known publicly that the Navy is at the forefront of marine species research and monitoring and that the Navy has incorporated into its mission the protection of the environment in which it trains, tests, and operates. This exhibit will aid in elevating public awareness about the Navy’s investments and efforts to protect marine species and habitat, and mitigate ships’ impacts on the environment, demonstrating the Navy’s commitment to be “Stewards of the Sea.”



The U.S. Navy Environmental Outreach Exhibit at the Battleship USS Iowa Museum

Environmental Outreach Program

In 2014, U.S. Pacific Fleet initiated an Environmental Public Outreach Program. The impetus for establishing the program was due primarily from the feedback of key stakeholders that they – and the public in general – were not aware of the Navy’s successful environmental stewardship programs. The Navy has made significant strides to protect threatened and endangered species and habitat through the implementation of a large-scale marine species research and monitoring program, and the public should know about it.

Pacific Fleet therefore embarked on an ambitious Environmental Public Outreach Program, with the purpose of improving communication and engagement about environmental issues with stakeholders and the public in the Fleet’s area of responsibility. The program’s challenges were evident, given the Fleet’s expansive area of responsibility, covering four major geographic areas – the Southwest, Northwest (including Alaska), Hawaii, and the Mariana Islands.

Environmental Outreach Team and Program Management

In past years, the Navy Southwest Environmental Outreach Team (Outreach Team) has provided exceptional program management services for conducting environmental outreach at events, such as local community and school activities, Navy Fleet Weeks, and Navy/Marine Corps air shows. The Outreach Team envisioned that partnering with local venues and businesses could create opportunities to educate far more people about the Navy’s environmental programs in cost-effective ways. The Outreach Team reached out to the Battleship to gauge their interest in a permanent Navy environmental exhibit. Space was available and staff were interested in the Navy’s proposal of a permanent display onboard the Battleship. An expanded team was formed for the environmental exhibit, comprised of Navy and contractor personnel with a range of skills and expertise, including environmental planning, marine biology, environmental education and communication, public affairs, and project management. Led by Connie Moen and Christiana Salles from Naval Facilities Engineering Systems Command (NAVFAC) Southwest and Helen Haase from Navy Region Southwest, and with leadership from the Pacific Fleet providing the necessary support and funding, the exhibit has proven to be a significant milestone and

accomplishment for the outreach program and could lead the way for additional exhibits in California and other areas of the Pacific Fleet’s area of responsibility. Allison Turner, ManTech International Corp., led the contractor team as project manager for all aspects of the exhibit. Battleship staff were fully involved in the design aspects and installation of the exhibit.

Table 1: Team Organization and Staffing

Core Team
<p>U.S. Pacific Fleet: Daniel McNair, Fleet Environmental Readiness Director; John Burke and Brian Ward, Environmental Outreach Program Managers</p> <p>NAVFAC Southwest: Connie Moen, Environmental Planner; Christiana Salles, Marine Biologist</p> <p>Navy Region Southwest: Hellen Haase, Public Affairs Officer; Sergio Hernandez, Environmental Public Affairs Specialist</p> <p>NAVFAC Pacific: Nora Macariola-See, Environmental Outreach Task Order Contracting Officer’s Representative</p> <p>ManTech International Corp.: Allison Turner, Public Outreach Director; Karen Waller, Vice President; Breanna Flanagan, Public Outreach Project Manager; Claudia Tan, Public Outreach Specialist; Ken Woo, Developer</p> <p>Battleship USS Iowa Museum: Jonathan Williams, President and Chief Executive Officer; Michael Getscher, Executive Vice President and Chief Operating Officer; Tiffany Ellerbeck, Director of Public Programming</p> <p>Nannini Design: Angela Nannini, Graphic Designer</p> <p>Bowman Design Group: Lee Herrington, President</p>

Project Description and Orientation to Mission

The Outreach Team set forth with developing the purpose and communication goals for the environmental outreach exhibit. Chiefly, the Outreach Team wanted to inform the community and raise awareness of the Navy’s environmental stewardship programs in Southern California and on-board Navy ships. ***Another critical component was to demonstrate how these programs contribute both to protecting the environment while also accomplishing the Navy training mission.*** Additionally, the Outreach Team wanted the exhibit to be an innovative, interactive display that engaged museum’s visitors. In this endeavor, the Outreach Team developed a set of communication goals for the Battleship exhibit, which were to:

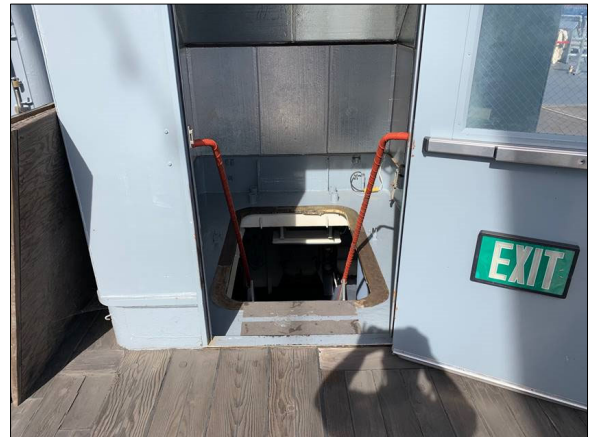
- Raise awareness of Navy marine species research, monitoring, and protection programs in Southern California.
- Showcase Navy partnership successes and environmental accomplishments at the Seal Beach National Wildlife Refuge, located within Naval Weapons Station Seal Beach.
- Promote how the Navy’s environmental programs improve and enhance marine habitats and protect marine species.
- Demonstrate Navy actions and protocols before, during, and after at-sea training activities to protect marine species and the marine environment.

- Promote the Navy’s reputation as Stewards of the Sea and its dedication to reducing ships’ environmental impacts and footprints while at sea and in port.
- Educate target audiences about Navy environmental practices aboard Navy ships, which function as “cities at sea.”
- Highlight investments, technologies, machinery, and practices the Navy employs on its ships to recycle, prevent pollution, produce clean water, reduce waste, comply with environmental regulations, and create a habitable on-ship environment for Sailors at sea.

Summary of Accomplishments

Technical Merit and Project Management Challenges

To get started, the Outreach Team developed an interpretive plan and concept design for the exhibit. There were several challenges for the team to address, primarily to consider the aspects of the exhibit in relation to the space constraints of the ship. The team sought to utilize the space aboard the ship as effectively as possible, while also considering installation challenges. The exhibit, with three wall panels, new flooring, and multiple components, had to be brought onto the ship through a hatch measuring only 54" x 36" and down a steep ladder.



Battleship USS Iowa Hatch and Ladder

The Outreach Team faced yet another challenge during development of the detailed plans for the exhibit, as some early design components proved to be too costly and technologically infeasible. The Outreach Team demonstrated agility, flexibility, and innovation by developing the concept of the simulated Ship Control Center where visitors could look out over the ocean as if they were at the helm of a ship. The interactive games and learning opportunities at the Ship Control Center have proven to be one of the more popular aspects of the exhibit.

The exhibit also needed to be visually appealing and interesting to catch the immediate attention of visitors. The intent was for the exhibit to entice visitors to stop, look, and learn and engage in hands-on activities through tactile elements. The Outreach Team also had to consider the following factors necessary for a long-term permanent exhibit that would be viewed by millions of adults and children.

Content. The exhibit was developed for long-term use and therefore avoid content that could become quickly dated, such as specific information and data. The museum frequently has

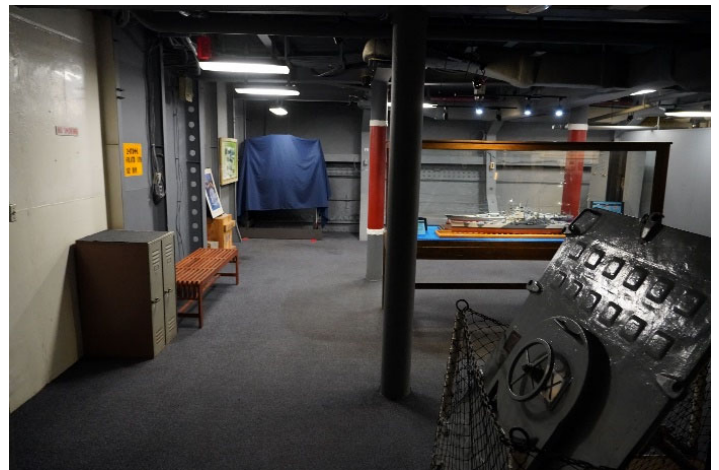


Exhibit Space Before Installation

school-aged children visiting with their schools and families, so components of the exhibit needed to be of interest to elementary-aged children as well as adults. ***The Outreach Team also wanted to provide simulated experiences and fun, hands-on interactions that made for meaningful and lasting impressions and promoted message retention.*** Overall, the team wanted visitors to leave with positive views of the Navy’s commitment and efforts to protect the ocean and marine species.

Design. The exhibit needed to draw the attention of visitors, so the informational panels needed to be multi-dimensional. While still being mindful of cost, space, and installation considerations, the team wanted the display to have varying panel heights and depths.

Cost. In designing the exhibit, cost was a critical factor to ensure the Pacific Fleet was able to provide adequate funding to produce and install the exhibit. Cost overruns could not happen. Exhibit manufacturing, installation, and maintenance costs had to be considered during the concept design phase to assure the feasibility and completion of the project. Future costs to the Navy will be low given the agreement by the Battleship to not charge for the exhibit space and regularly clean the exhibit at no additional cost.

Safety. The exhibit was developed in a manner that minimizes safety concerns.

Innovative Techniques and Transferability

Upon going below deck, visitors are met with an attractive, highly visual display with three main walls focusing on different aspects of the Navy’s environmental stewardship efforts on land and at sea, and pollution prevention programs aboard ships.

U.S. Navy Stewards of the Sea – Protecting the Marine Environment.

This wall panel of the exhibit showcases the Navy’s large marine species research program, an investment of \$20 million annually, and employs marine biologists and scientists who work diligently in the field to monitor marine species populations to ensure they are healthy. This portion of the exhibit also provides information about the Seal Beach National Wildlife Refuge and how the Navy partners with the U.S. Fish and Wildlife Service to have a national wildlife refuge entirely within the boundaries of a Navy base, Naval Weapons Station Seal Beach. The refuge and its protected wetlands are home to endangered Pacific green sea turtles, migratory birds, stingrays, and even sharks. Younger visitors are thrilled to watch a cartoon video of the Navy’s environmental mascot, *Stewie* the green sea turtle, as well as other video clips of Navy marine research work. There are also portholes with videos of animals one might see in the Pacific Ocean.



***U.S. Navy Stewards of the Sea:
Protecting the Marine Environment Wall Panel***

Ship Control Center. At this station, visitors can see what it is like to be at the helm of a Navy ship and be on the lookout for marine species. The Outreach Team developed fun and innovative games that integrate both the Navy and the environmental spirit.

- At the Navy Lookout Game, visitors act as lookouts on a Navy ship and are tasked with quickly spotting and identifying whales, large marine animals, or objects in the ocean. Aboard a Navy ship, when the lookout spots a whale or large animal, the ship will slow down and steer away so the animal is not disturbed.
- On a large screen, the Whale Wheel provides visitors with photos and detailed information about whales present off the coast of Southern California. Navy Sailors learn to recognize and identify different species of whales by their fins, blow, size, or behavior.
- At the Planning At-Sea Training activity station, visitors experience how Navy exercise planners have to consider the time of year or locations where certain marine animal behaviors occur, such as where and when marine mammals breed, feed, or migrate.
- At the Hydrophone Game, visitors serve as Navy scientists and locate and monitor a whale off San Clemente Island using a hydrophone array.



A Portion of the Planning for Environmental Protection Ship Control Center Wall Panel

Cities at Sea. This wall explains how a ship functions like a city while it is at sea for months at a time with thousands of Sailors aboard. Visitors learn about the equipment and the steps Sailors follow to minimize the environmental impacts from Navy ships while they are at sea. The Navy has innovative technologies on board all its ships. The technologies aboard ships not only ensure healthy living conditions for Sailors, but also create a more sustainable environment by conserving resources and preventing pollution. A particular area of visitors' interest is the big disk of melted plastic and photos of plastic waste processors, therefore seeing how the Navy maintains a policy of zero plastic overboard.



Cities at Sea: Technologies for the Environment Wall Panel

Stakeholder Interaction

The production and installation of the exhibit culminated in the exhibit opening to visitors in September 2023, followed by a grand opening and ribbon cutting. Rear Admiral Brad Rosen, Commander, Navy Region Southwest, welcomed the community and thanked the Outreach Team for their hard work during the three-year effort to bring the exhibit to the Battleship. The exhibit opening ceremony was attended by more than 200 members of the community, including elected officials, agency representatives, local school district administrators and teachers, chambers of commerce, Battleship volunteers and tour guides, and other stakeholders. Members of the media also attended the opening ceremony, which resulted in television and newspaper coverage in the greater Los Angeles area, expanding the reach of the Navy's environmental outreach messages.



Ribbon Cutting for the Environmental Outreach Exhibit at the Battleship USS Iowa Museum

Impact and Outcomes

The outcome of the partnership between the Battleship and multiple Navy commands is an innovative, engaging, and interactive permanent exhibit in the Los Angeles area that will educate millions of adults and children about how the Navy protects the environment while ensuring military readiness. It is a cost-effective way for the Navy to conduct environmental outreach and is transferable as the Navy owns the computer programs for the games and hands-on activities. ***These games and digital activities, as well as the exhibit designs and graphics, can be used in Navy environmental outreach projects in other locations in the Pacific Fleet's area of responsibility, including the Pacific Northwest, Alaska, Hawaii, and Mariana Islands.*** Navy environmental staff have already expressed interest in creating similar exhibits in their areas. With this exhibit as a successful example, the Pacific Fleet's Environmental Outreach Teams are pursuing venues in their areas with the goal of unveiling another permanent exhibit by 2025.