

Life on a Submarine

GRADES 3-8



Overview

This activity is geared toward participants in grades 3-8. The estimated amount of time to deliver this lesson is 60 minutes.

Submarine life is distinctly different from life on surface craft. Space is tight, and sailors must learn to live in close quarters. In this lesson, participants will use the perspectives of three submariners who served during the early 1960s to explore what life is like on a submarine.

They will understand the differences between serving on a surface craft versus a submarine, and how the experience affects crew members. Participants will also explore the nuanced experiences of people of color on submarines, and how the removal of structures present on surface craft affected life underwater for these submariners.

Content Warning: In the oral history compilation accompanying this lesson, Samuel Higa recalls the use of an ethnic slur to describe Japanese Americans. It is censored. At the time, this term was offensive and continues to be inappropriate.



Objective

Participants will be able to compare life on surface craft and on submarines, particularly for submariners of color.



Materials

- Photo collection of spaces on USS *Growler*
- USS *Growler* flag
- Design A Submariners' Flag Worksheet
- Oral history compilation of Cornelius Brown, Edward Bell and Samuel Higa



Inquiry

Display for participants images of life on a submarine: the bedrooms, dining room/common space, bathroom and workspace. Some photographs are provided, but you can use images from the museum's collection or conduct this activity in a submarine space. Ask them to compare these images with the spaces they use in their own lives. Discuss the following questions:

Suggested questions for grades 3-5:

- Why is space so limited on a submarine?
- How do submariners make their small spaces work for them? What is done to fit all that they need in the spaces?
- Use one adjective to describe what it might be like to live on a submarine for six months at a time.

Suggested questions for grades 6-8:

- How might life on a submarine differ from life on a large ship?
- How do submariners make their small spaces work for them? How might this compare to spaces in your school or community?
- What might be the job of a submarine in the U.S. Navy?



Investigation

Listen to or read selected [oral histories](#) of Cornelius Brown, Edward Bell and Samuel Higa. All three men served in the U.S. Navy in the mid-20th century, and all served on USS *Crowler*, a guided missile submarine in service from 1958 to 1964. After listening to or reading the oral histories, provide background information on the sub service. Discuss the following questions:

Suggested questions for grades 3-5:

- What kinds of jobs did the three submariners do?
- What does it mean to be a non-qual? What was the significance of being qualified on a submarine?
- What was daily life like on board the submarine? What did they do for entertainment?

Suggested questions for grades 6-8:

- How was being on a submarine different from being on surface craft?
- How might the submarine service's policy of being all-volunteer shape who serves in it?

- Crew members on surface craft do not have to “qualify.” How might this change their experience in the Navy?
- Many surface craft have an enormous amount of space. An aircraft carrier, for example, might have multiple gyms, ice cream parlors and libraries. What effect do you think the lack of space on submarines has on submariners?



Activity

Artifact Investigation

Review content on the submarine service. Display the USS *Growler* flag for participants. You may also display a similar artifact from your museum’s collection. Ask participants what the images on the flag may represent, and discuss their significance.

- **Hula Dancer:** *Growler’s* home port was Pearl Harbor, Hawaii
- **Power Plant & Torpedo:** During an exercise, a *Growler* officer fired a torpedo that was set to the wrong speed. The torpedo went up on the beach and stopped near fuel storage tanks. The words “Standard Oil” are written in Japanese.
- **Yen & Dollars:** Crew members exchanged their American dollars for Japanese yen.
- **Arch & Buddha:** Crew members explored Japan.
- **Submarine Silhouette:** The Japanese text says “Well-Prepared Submarine” under a silhouette of *Growler*.
- **Insignia:** *Growler’s* insignia shows a fist raising a Regulus I nuclear missile out of the ocean.
- **No Reliefs:** Polaris missile submarines, which would replace *Growler*, had two full crews designated blue and gold. When one crew was on patrol, the other was in port. *Growler* had just one crew, nicknamed “black-and-blue” because they had no relief crew.
- **Totem Pole:** A Navy-themed totem pole was a landmark at the Adak Naval Operating Base in Alaska and the focus of practical jokes. *Growler* crew members reportedly stole the totem pole and hid it in a torpedo tube.
- **Regulus Missile:** *Growler* carried four Regulus I nuclear missiles on patrol.
- **Stripes:** Each yellow stripe represents one of *Growler’s* patrols.
- **Gooney Birds:** *Growler* refueled at Midway Island. Sailors passed the time watching the resident albatrosses, nicknamed “gooney birds.”

Participants will design their own flags for their families. They can choose to use the “Design a Submariners’ Flag” worksheet to help them plan. These flags can represent a specific trip, like *Growler’s*, or for their family as a whole, more like a family crest. Ask participants to explain the symbolism on their flag.



Lesson Connection

Investigate more oral histories of Navy veterans who served on submarines and surface craft with our lesson: **Exploring Benefits of Naval Service.**



Background

The Sub Service

When a person joins the Navy, they may be assigned to any type of surface craft that needs personnel. However, the U.S. submarine service has always been for volunteers only. Given the challenges of living and working on board a submarine, the Navy wants to be sure that each crew member wants to be there. For this reason, there is a sense of pride among submariners that they all chose to be there and have a common goal in mind.

Since the crew of a submarine is relatively small, everyone on board depends on each other to work as a team. New submariners need to “qualify” in order to be considered a capable part of the crew. To qualify, crew members must have a basic knowledge of all systems on board, their uses, operations and interrelationships with other systems. They also need to show that they can operate effectively under pressure. Once a submariner becomes qualified, they are given more responsibility and treated with more respect. Qualification also contributes to the feeling of being an essential part of a team. Submariners know that qualified peers can be depended on and have an interest in getting along with one another. Some people of color have reported that there is less racial friction on board submarines than on surface craft, partially due to the respect built through the qualification process.

A submarine in the U.S. Navy during Cornelius, Samuel and Edward’s service held about 90 submariners. Today, they can hold up to 130. However, crew members rotate their time so that they are eating, sleeping and working in shifts. While it is daytime for one group, it is nighttime for another. Nevertheless, space is extremely limited on board a submarine. Wardrooms, where officers dine, can double as operating rooms in an emergency. Some “non-quals” share beds when they have opposite rotating shifts.

Hallways are cramped and submariners must learn to duck and dodge each other. The dining area is also used as a common space for relaxation, such as watching movies and playing games.

In the *Growler* era, submariners played games like pinochle, poker and cribbage. When a submarine surfaced for oxygen in warm waters, crew members sometimes had opportunities to take advantage of being outdoors and swim in the ocean or lay out on top of the submarine.

USS Growler

USS *Growler* was a guided missile submarine. Its mission was to patrol near the Soviet Union armed with nuclear missiles in order to deter the Soviet Union from launching an attack against the United States. It was in commission from 1958 to 1964. In 1962, *Growler* made a trip to Japan. The crew wanted to commemorate their trip, as well as the rest of their cruise, so they created a flag with images representing the experiences they had had and inside jokes developed on board.



Additional Resources/References

For more on the Submarine service:

<https://www.cnn.com/2016/05/06/politics/life-on-uss-missouri-nuclear-submarine/index.html>

<https://www.history.navy.mil/browse-by-topic/communities/submarines.html>



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Documents and Images



Credit: Collection of the Intrepid Museum. Gift of Ronald E. Rousseau EM2 (SS). P2014.61.03



Credit: Collection of the Intrepid Museum. P00.2015.44



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Credit: Collection of the Intrepid Museum. Gift of Bill Daack, crew member 1960-1963. P2016.45.06



Credit: Collection of the Intrepid Museum. Gift of Ronald E. Rousseau EM2 (SS). P2014.61.19



Growler Flag

Credit: Collection of the Intrepid Museum. Gift of Duane Heatwole. 00.2011.286

ACTIVITY: DESIGN A SUBMARINERS' FLAG

Answer the following questions about your family and use your responses as the symbols on your flag!

Does your family have a special holiday tradition or dish?

Is there a certain movie, song or TV show that makes you think of your family?

Has your family gone on any amazing vacations?

Is there a restaurant, park or other place in your hometown that is important to your family?

Are there any colors, phrases or sayings that make you think of your family?
