Business Executives for National Security

BENS Visit Aboard USS Nebraska (SSBN 739)

November 17, 2008

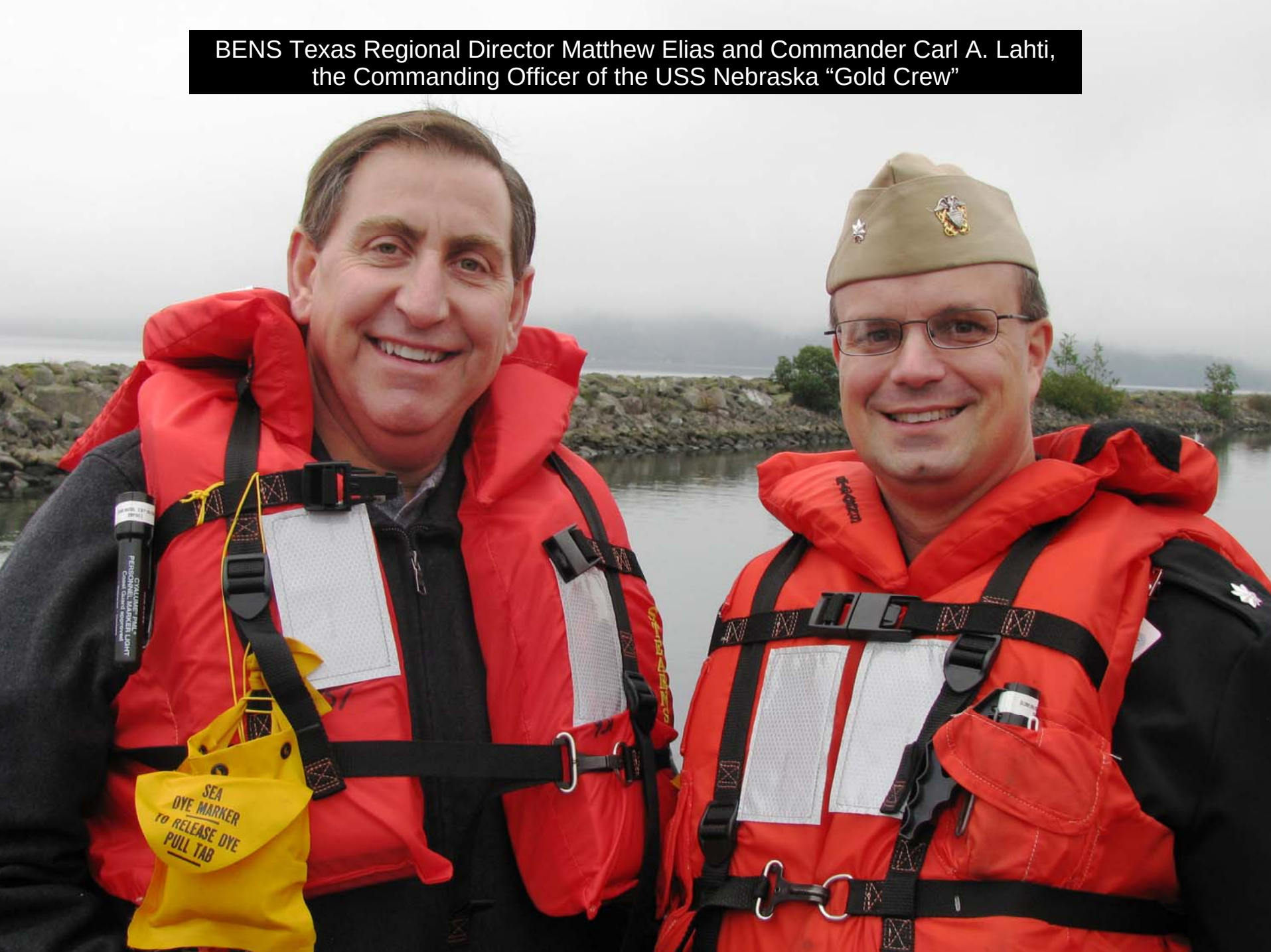
Business Executives for National Security

The Commander, United States Submarine Group Nine invited a small, high-level delegation of BENS members to embark aboard one of their nuclear submarines. This was a rare opportunity to get a first-hand look at life aboard one of our nation's elite fighting vessels. While on board we had the opportunity to tour the various operational departments, eat in the submarine's dining facilities with the sailors, and experience life aboard a nuclear submarine while out at sea. Most importantly, we witnessed the pride and professionalism of the outstanding young men and women who serve our country.

It was a memorable and enjoyable experience.

We are picked up by a Naval converted Coast Guard cutter from a marina at Port Angeles in the northwest of Washington State

BENS Texas Regional Director Matthew Elias and Commander Carl A. Lahti, the Commanding Officer of the USS Nebraska “Gold Crew”



It is extremely rare for civilians to embark on a nuclear submarine at sea. This voyage is only the second time during 2008 access was allowed from this base.

On this day, there is extremely thick fog. We cruise through the cold, windy morning fog for an hour.

Out of nowhere, we see behind us a US Coast Guard Cutter making sure we are the authorized personnel transport vessel approaching the Ohio Class Nuclear Trident Submarine USS Nebraska

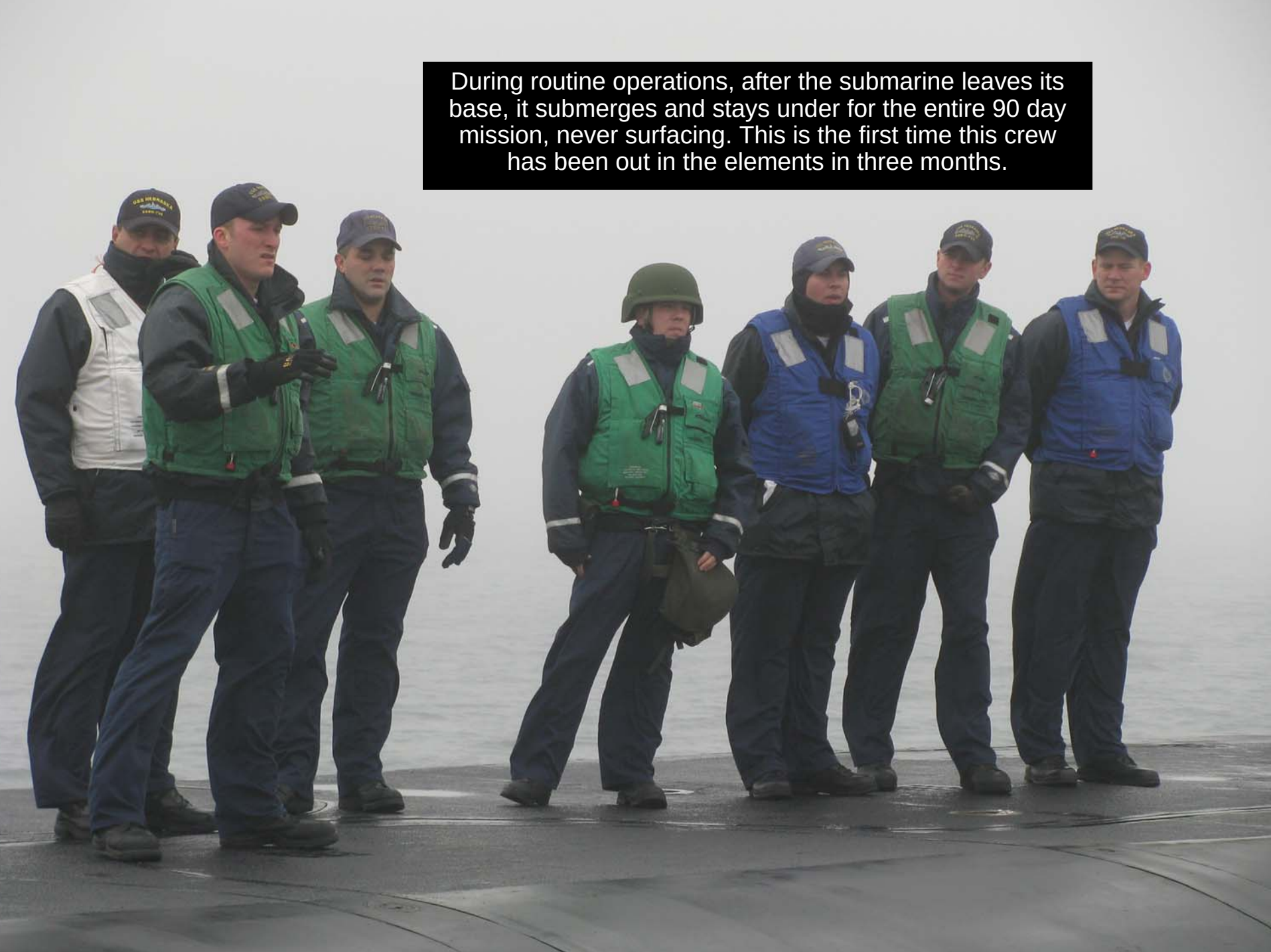

And there she is, this fuzzy silhouette sailing stealthy on the surface waiting for us at sea


We carefully and slowly maneuver
closer to her starboard side


As we approach, we see a contingent of the ship’s officers waiting to welcome us onboard

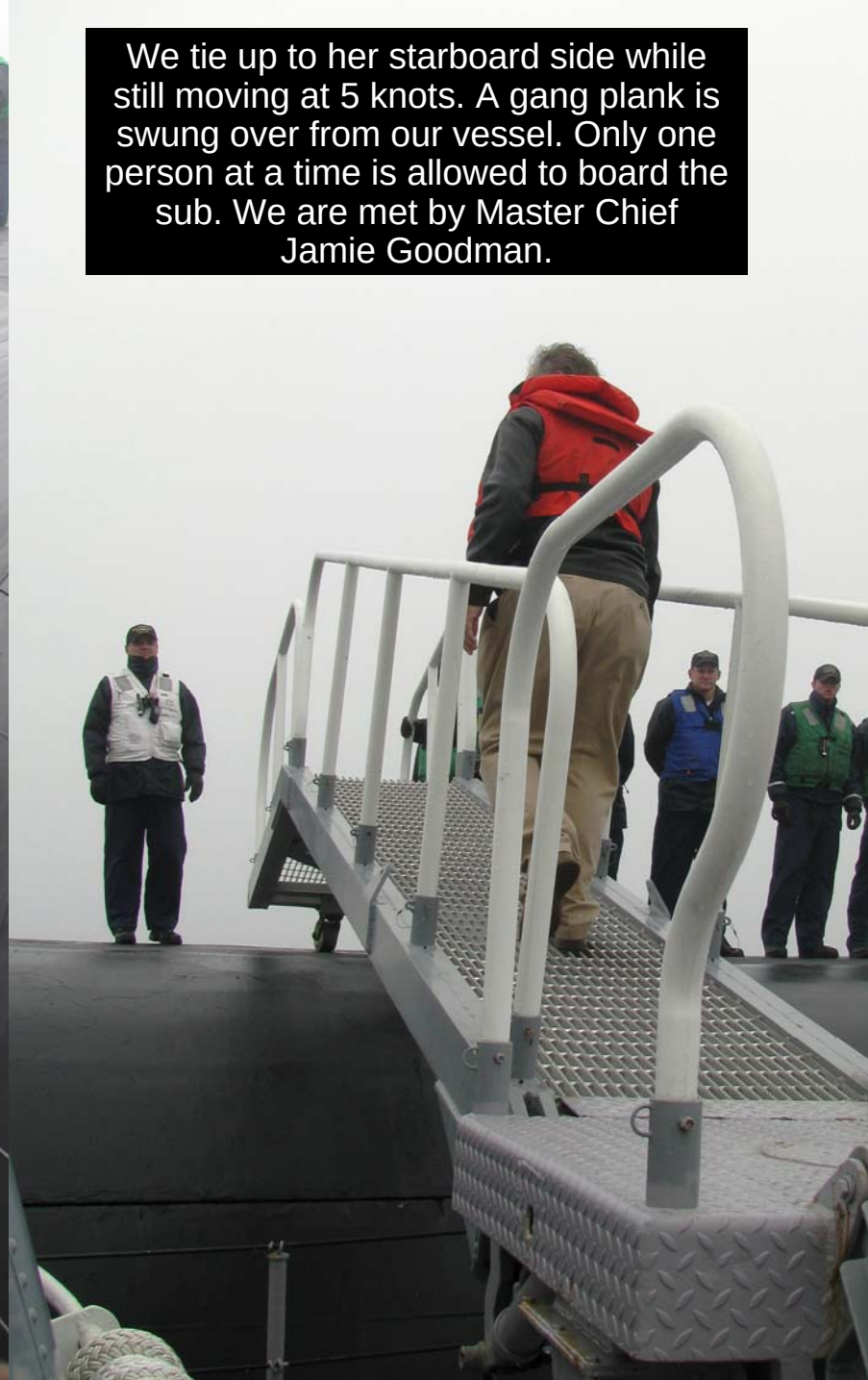
And then to the right of us is another vessel guarding the sub that has slowed down to complete the transfer boarding process


These sailors have been at sea for 90 days. We are the first new faces they have seen. Notice the intensity of their expressions.


During routine operations, after the submarine leaves its base, it submerges and stays under for the entire 90 day mission, never surfacing. This is the first time this crew has been out in the elements in three months.

We are all exhilarated by this rare opportunity. Glenn Helton is eager to get aboard the USS Nebraska.

We tie up to her starboard side while still moving at 5 knots. A gang plank is swung over from our vessel. Only one person at a time is allowed to board the sub. We are met by Master Chief Jamie Goodman.




Snowball Express Chairman Roy White boards the USS Nebraska


It is genuinely thrilling to step onboard and meet these committed sailors.

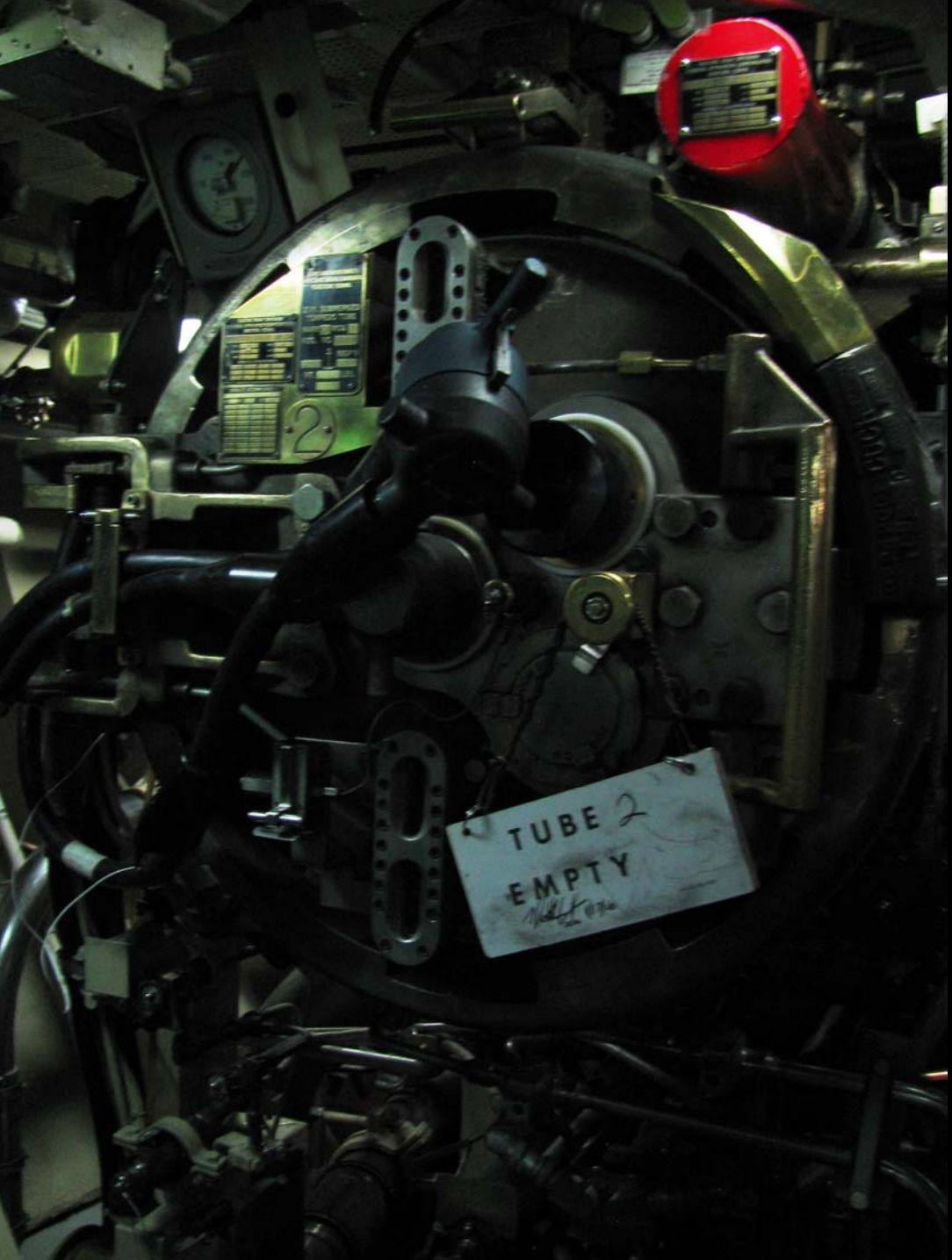
Reggie Gibbs, BENS Director for National and International Programs Arrives Onboard

A safety diver is dressed in full dry suit gear just in case anyone steps too close to the side of the sub and falls in the ocean


We descend down a set of ladders through a water-tight hatch

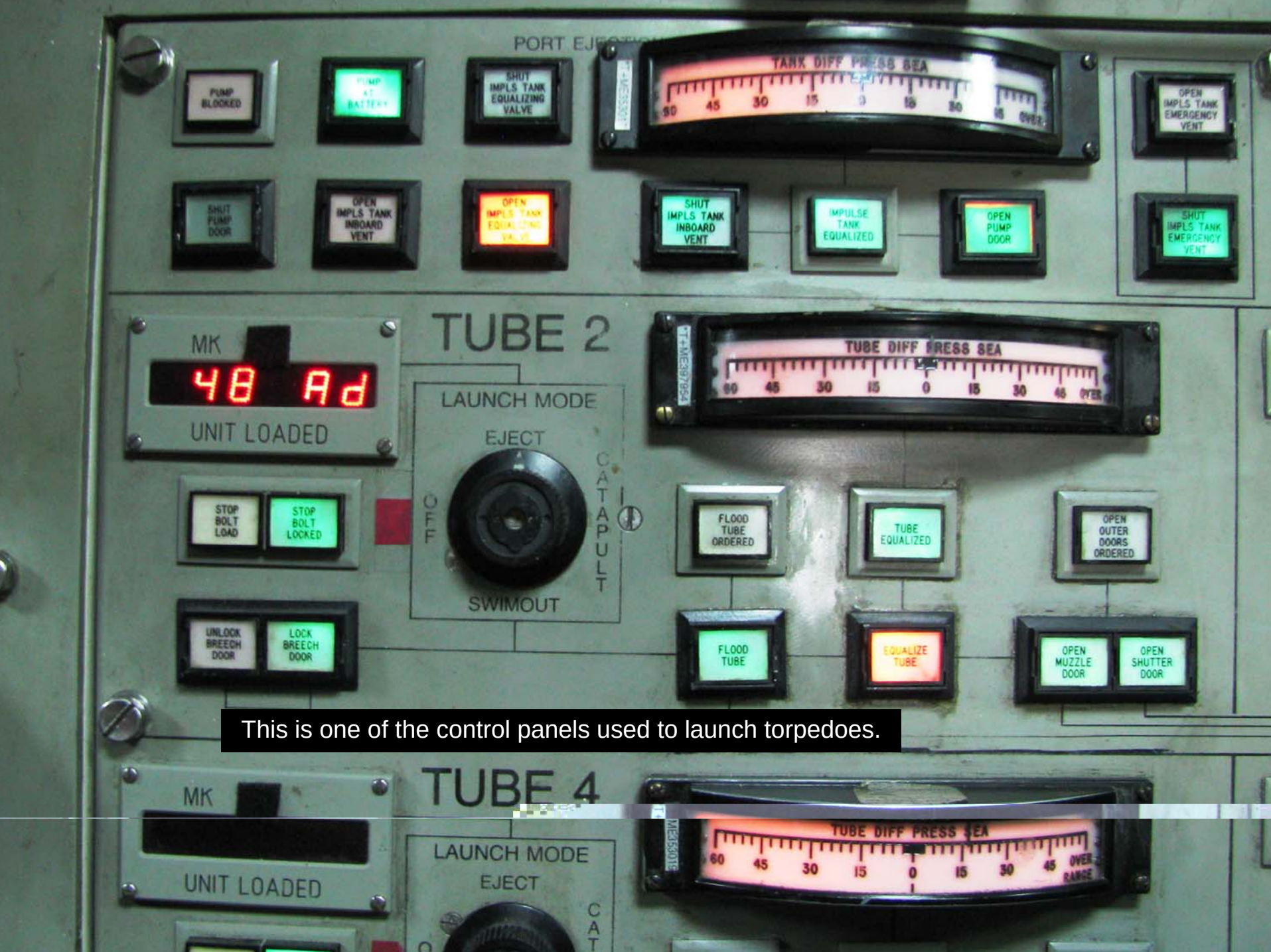
BENS member,
Bob Nakamoto
begins his descent
down the hatch to
one of the four decks
of the USS Nebraska

Once we are all onboard, Master Chief Jamie Goodman briefs us on the day's activities in the crew mess. We have lunch with the sailors and then are split into smaller groups for our ship's tour

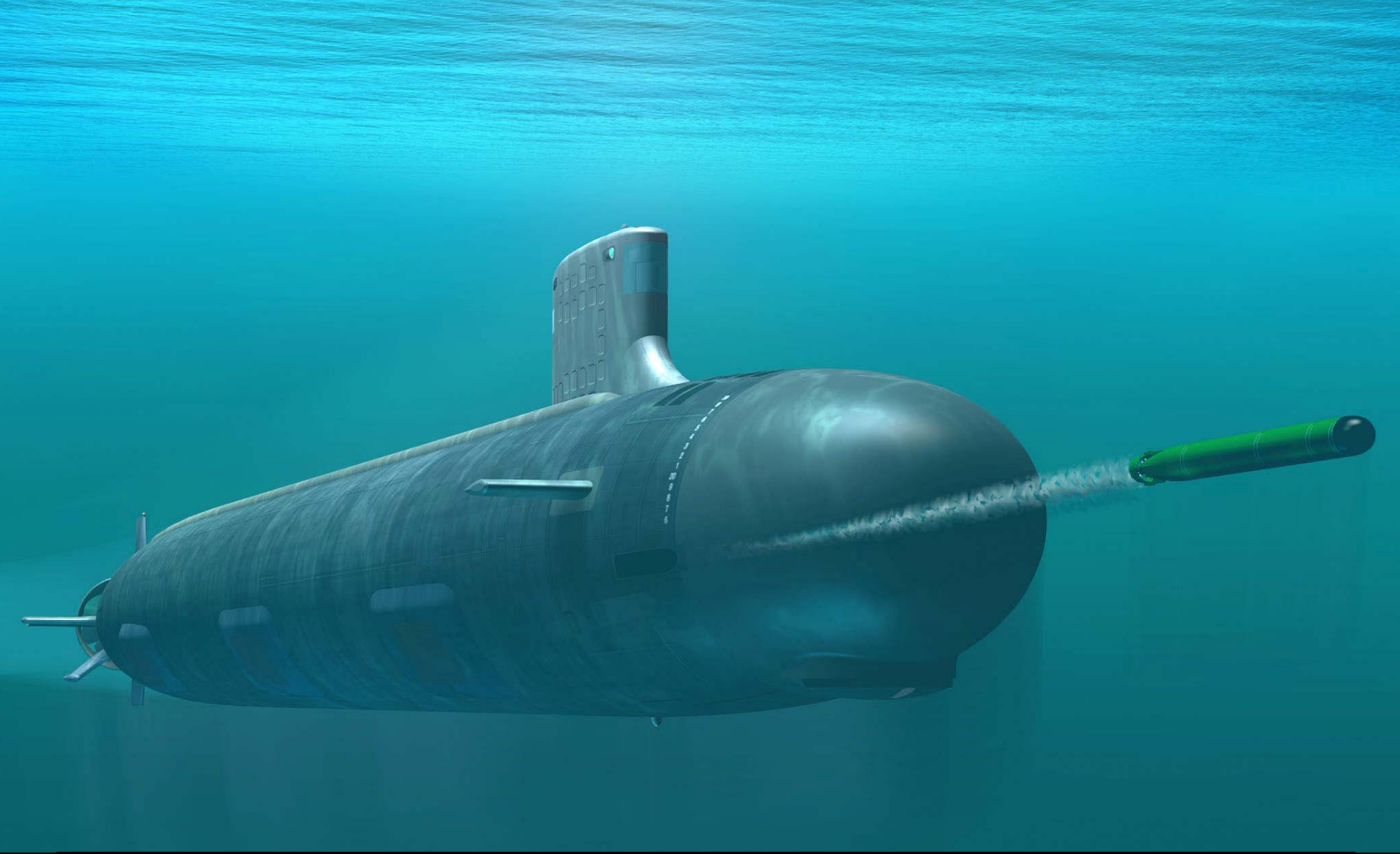


We are taken to the torpedo control section of the boat. There are four torpedo tubes, each with a complex set of controls. We participate in test firings with no torpedoes in the tubes.

There are a variety of torpedoes ready for action as required by the mission. Some torpedoes are guided by the submarine's control room by trailing a thin cable for miles that unwind from the rear of the torpedo's tail as it propels through the water.



This is one of the control panels used to launch torpedoes.

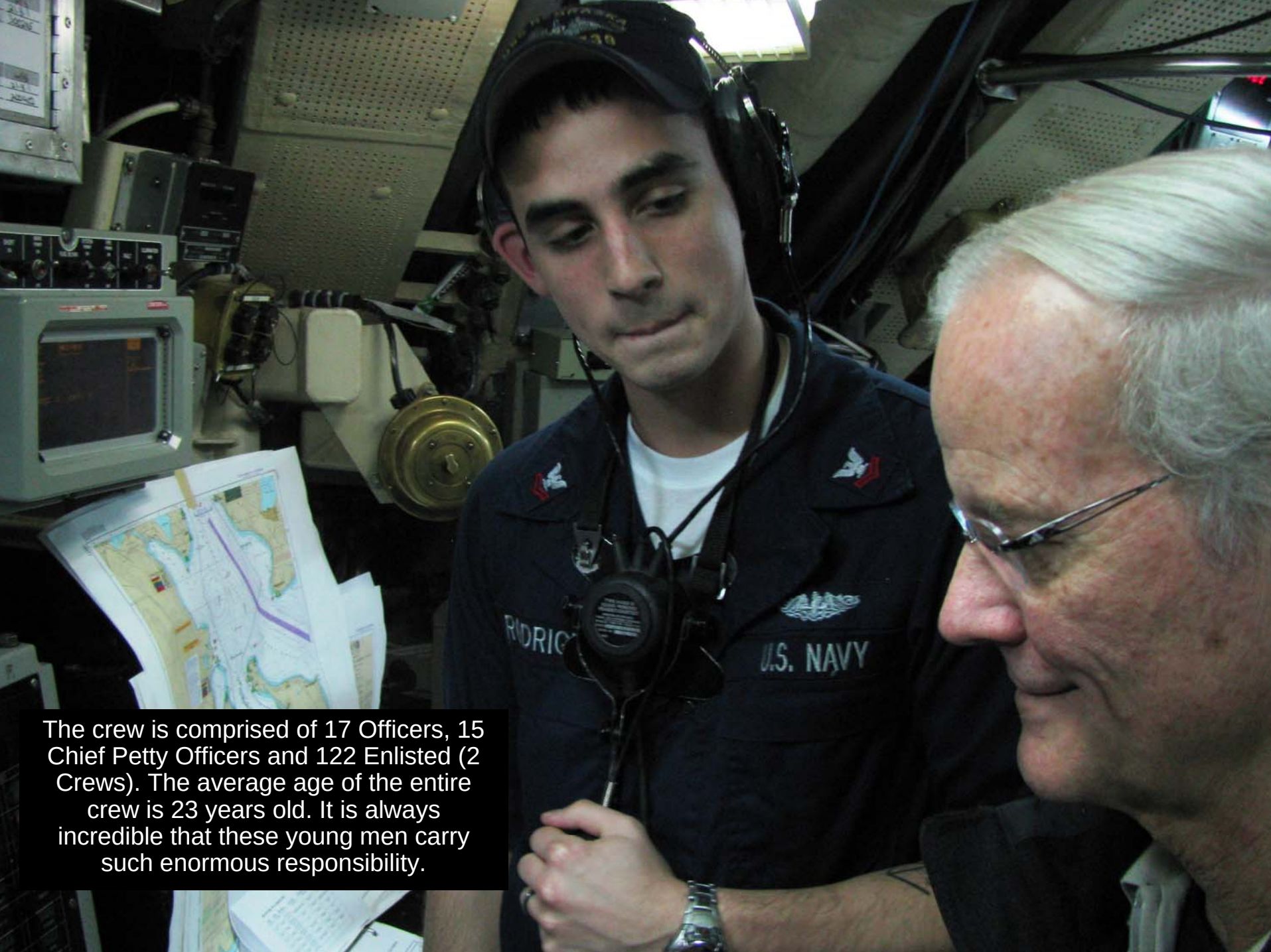


The USS Nebraska was commissioned July 10, 1993.

These most sophisticated of weapon systems cost $4 Billion each when they were built. Propulsion is provided by a nuclear reactor.
She is 560 feet long, 42 feet wide and travels at 20+ knots.


The submarine cannot be steered from the bridge.
One sailor listens to orders and steers the boat.
COSOE:
038


The controls to operate the boat are very complex. Every system is monitored for safe operations.

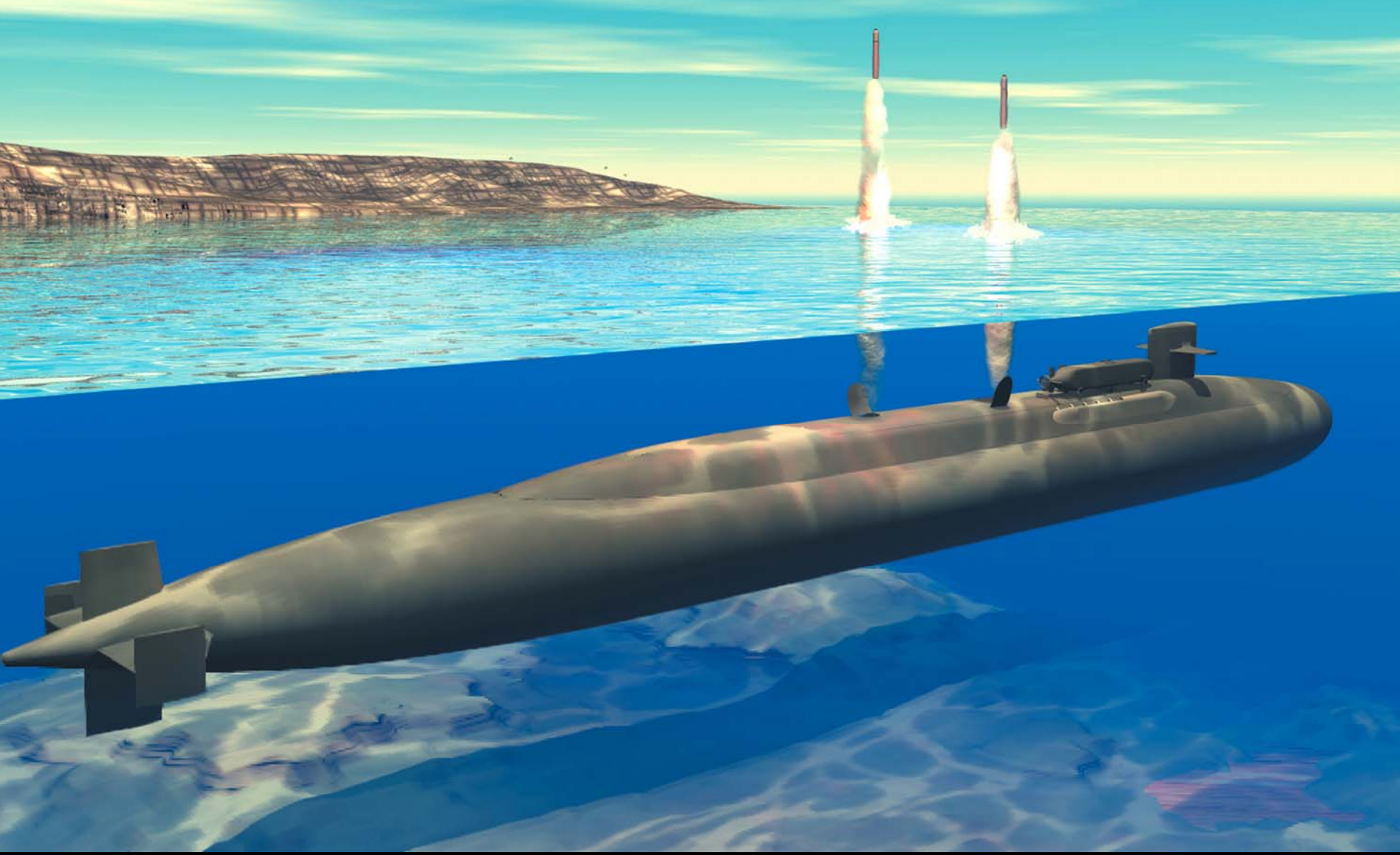


The crew is comprised of 17 Officers, 15 Chief Petty Officers and 122 Enlisted (2 Crews). The average age of the entire crew is 23 years old. It is always incredible that these young men carry such enormous responsibility.

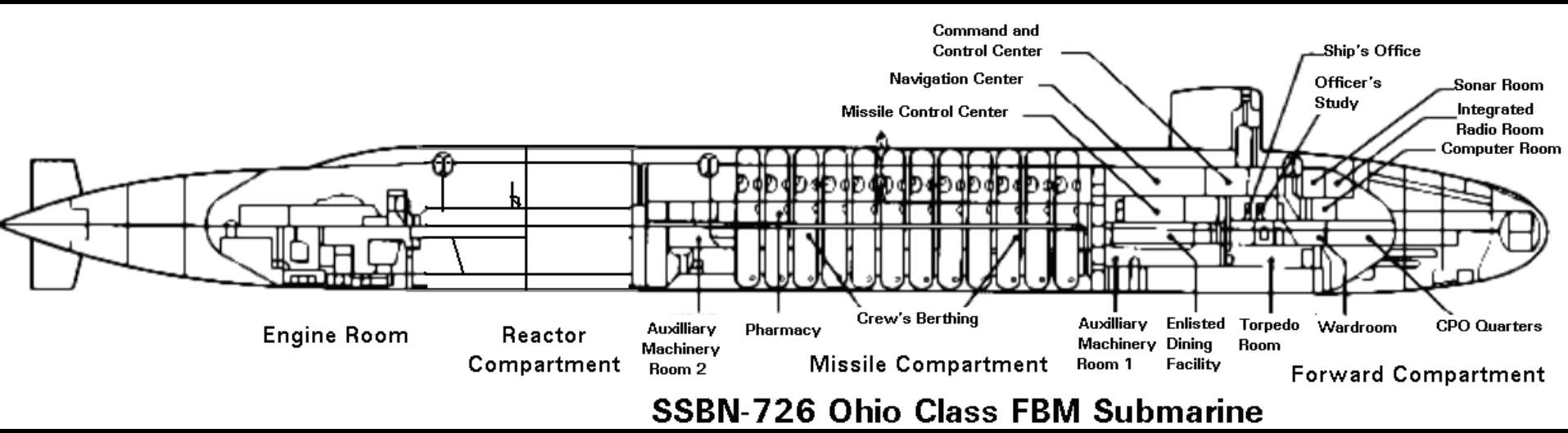

Every space on the boat is used for some purpose. Equipment is everywhere with crew monitoring all operations.

Notice the yellow sign in the upper right. The crew is given criteria for notifying superiors if routine operations exceed acceptable values.


It is always a thrill
to peer through
the periscope.

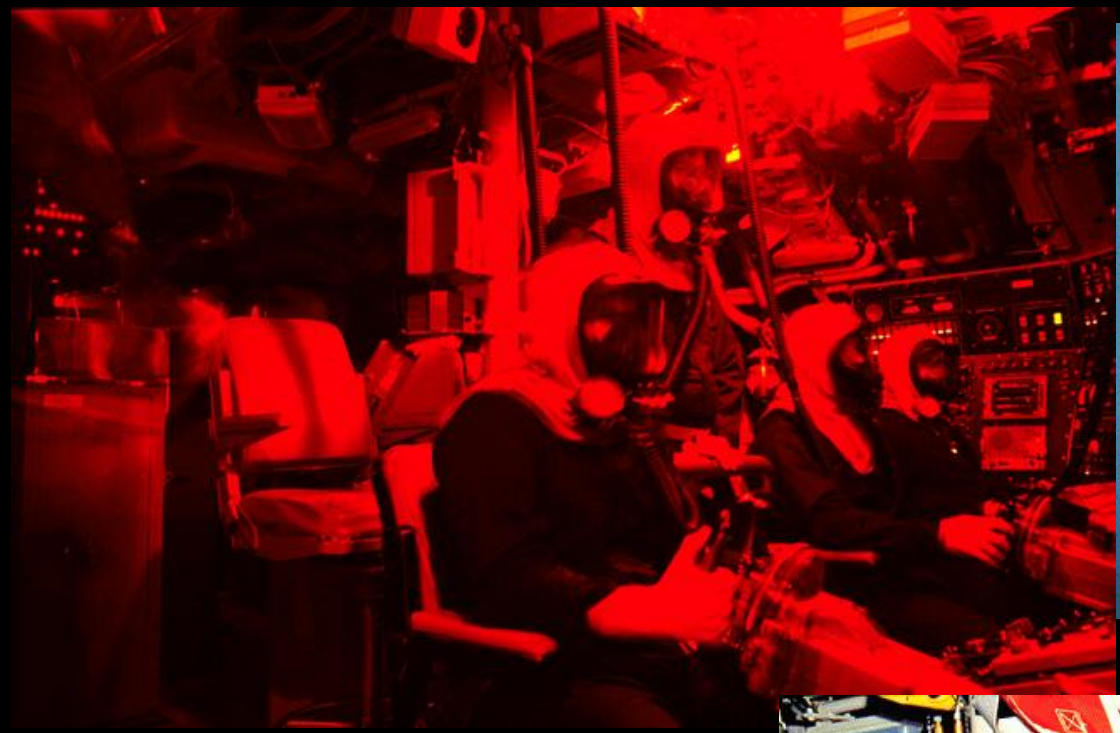


The primary purpose of our 14 Ohio Class Submarines is to carry a complement of Trident Nuclear Ballistic Missiles as a deterrent to first strike attacks.



SSBN-726 Ohio Class FBM Submarine

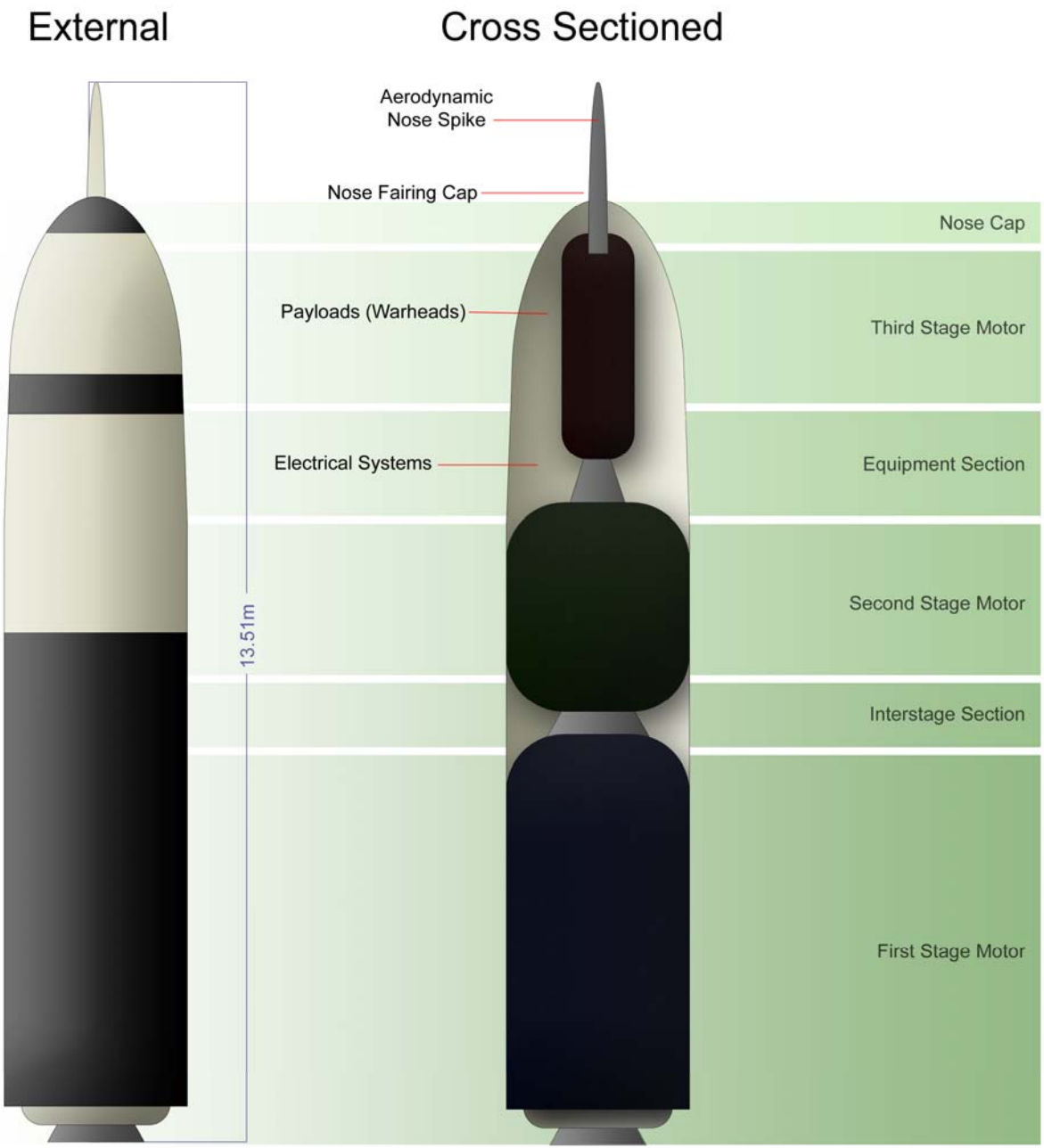
Trident submarines under construction




SIMPSON

Ohio Class Nuclear Submarine

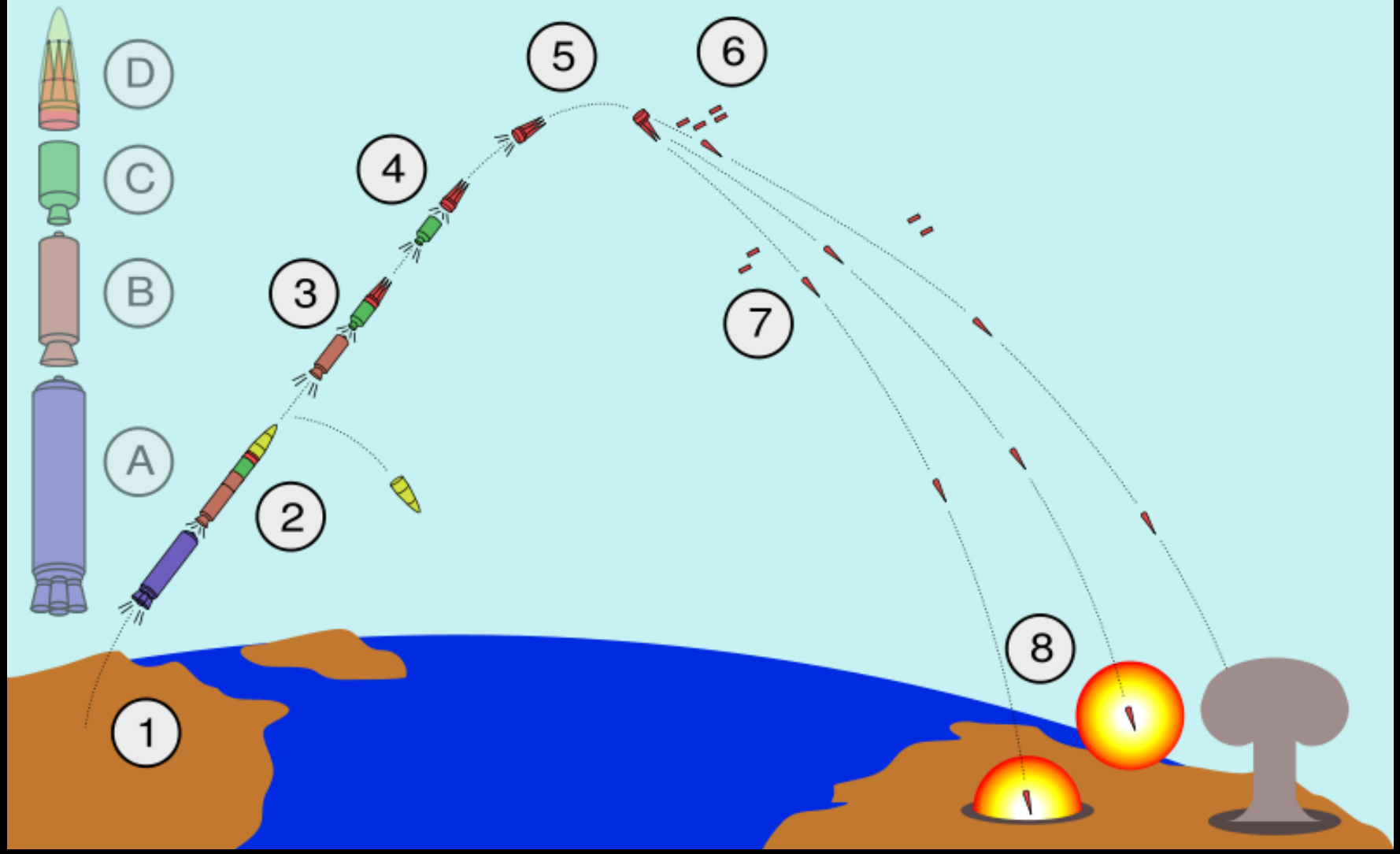
- The Ohio class is a class of nuclear-powered submarines used by the United States Navy. The United States has 18 Ohio-class submarines:
- 14 nuclear-powered SSBNs, each armed with 24 Trident II SLBMs; they are also known as "Trident" submarines, and provide the sea-based leg of the nuclear triad of the United States strategic nuclear weapons arsenal
- 4 nuclear-powered SSGNs, each capable of carrying 154 Tomahawk cruise missiles with conventional warheads
- The 14 Trident II SSBNs together carry around fifty percent of the total U.S. strategic warhead inventory. The exact number varies in an unpredictable and highly classified manner, at or below a maximum set by various strategic arms limitation treaties. Although the missiles have no pre-set targets when the submarine goes on patrol, the platform, when required, is capable of rapid targeting using secure and constant at-sea communications links. The Ohio class is the largest type of submarine ever constructed for the U.S. Navy.



Diagrammatic view of a Trident II D5 Missile

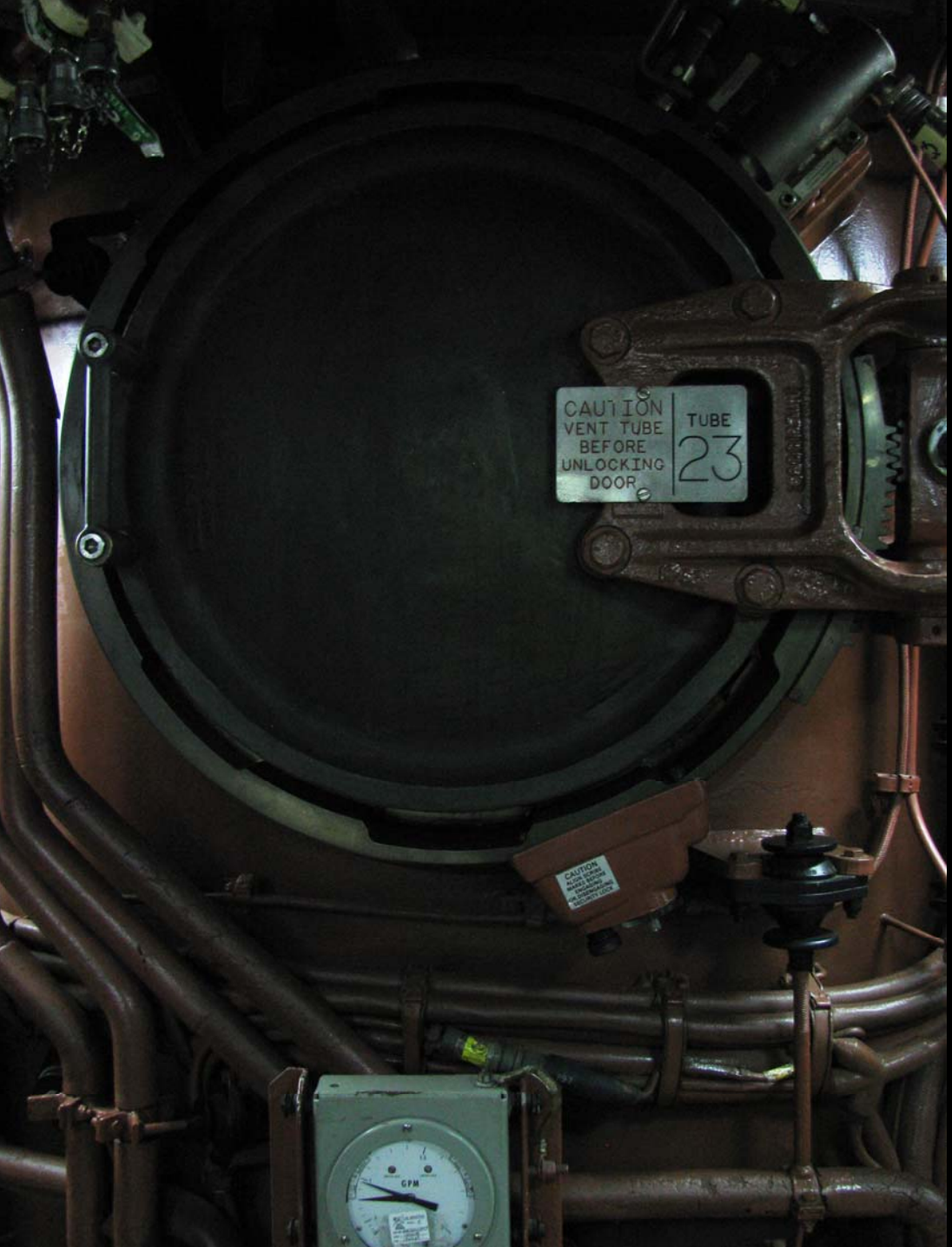
Trident II D5 Missile

Unit cost: $30.9 million
Specifications Weight: 58,500 kg (130,000 lb)
Length: 44 ft (13.41 m)
Diameter: 83 in (2.11 m)
Warhead: Up to Eight Nuclear Weapons
Blast yield: Up to 3.8 megatons each
Engine: Three stage solid propellant
Operational range: Greater than 4,000 nautical miles
(4,600 statute miles, or 7,360 km)
Speed: 29,050 km/h (18,000 mph)
Guidance system: Inertial guidance system
with Star-Sighting

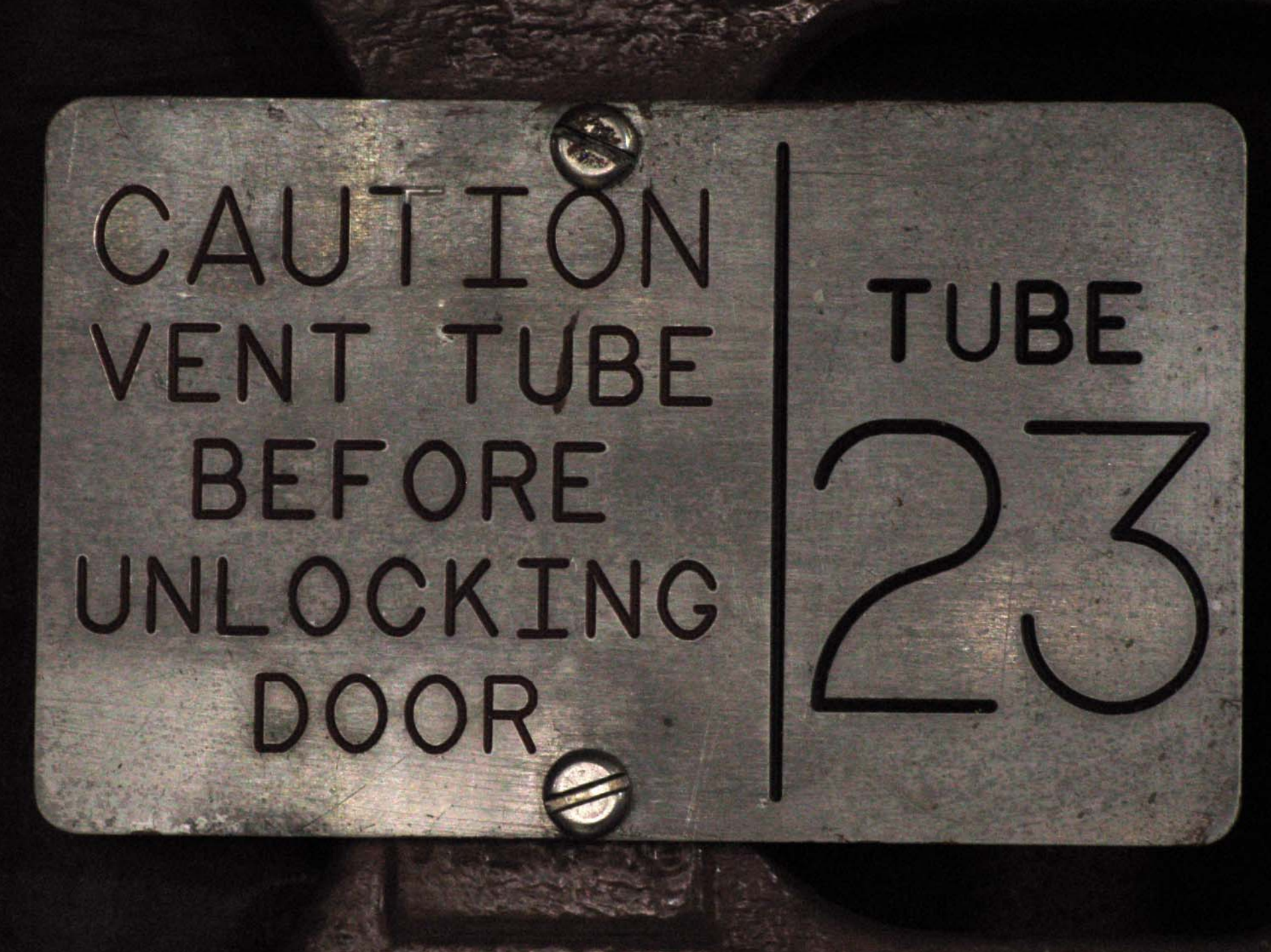


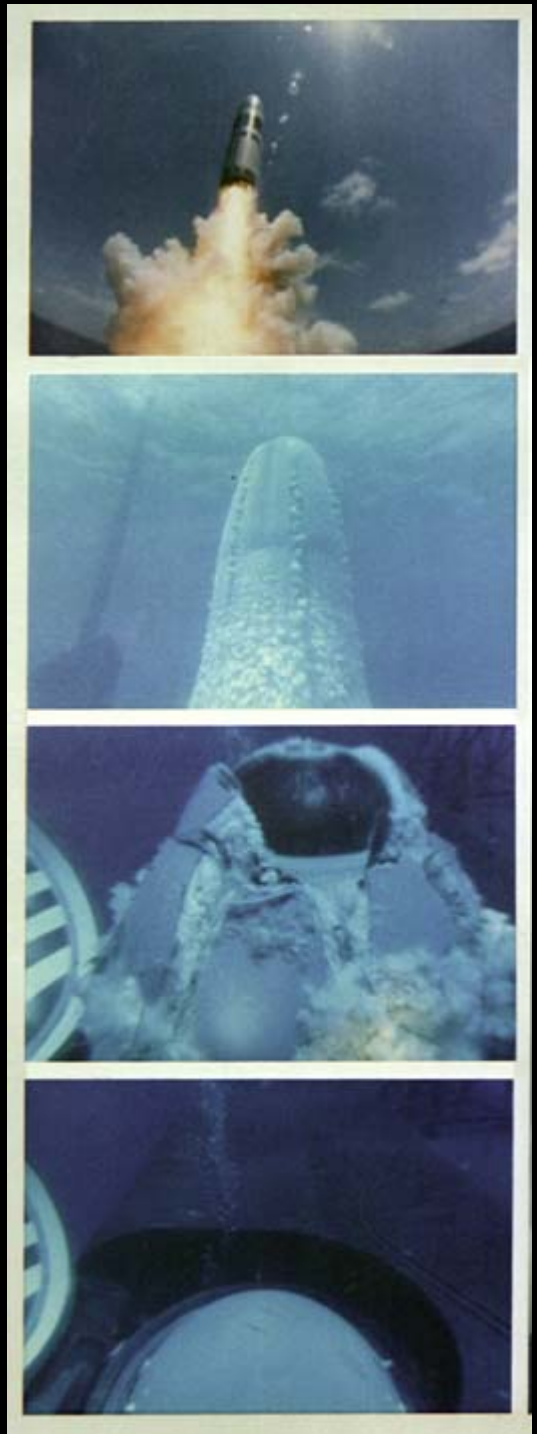
1. The missile launches out of its silo by firing its 1st stage boost motor (*A*).
2. About 60 seconds after launch, the 1st stage drops off and the 2nd stage motor (*B*) ignites. The missile shroud is ejected.
3. About 120 seconds after launch, the 3rd stage motor (*C*) ignites and separates from the 2nd stage.
4. About 180 seconds after launch, 3rd stage thrust terminates and the Post-Boost Vehicle (*D*) separates from the rocket.
5. The Post-Boost Vehicle maneuvers itself and prepares for re-entry vehicle (RV) deployment.
6. The RVs, as well as decoys and chaff, are deployed during backaway.
7. The RVs and chaff re-enter the atmosphere at high speeds and are armed in flight.
8. The nuclear warheads detonate, either as air bursts or ground bursts.


These are the 24 missile
silos on the USS Nebraska



There is a hatch provided in case a sailor must enter the individual missile silos


CAUTION
VENT TUBE
BEFORE
UNLOCKING
DOOR
TUBE
23



4) After breaking the surface of the waves, the missile continues being propelled vertically by the plume of steam another 50 feet above the ocean's surface where the first stage rocket fires

3) The steam surrounds each missile rapidly shooting it towards the surface of the ocean which is approximately 100 feet above the top of the sub

2) A separate rocket motor at the base of each silo fires instantaneously boiling the water in the bottom of the launch tube, creating huge volumes of steam

1) During the firing sequence, the hatch door on top of the submarine is opened exposing the domed shape of the Trident Missile nose section

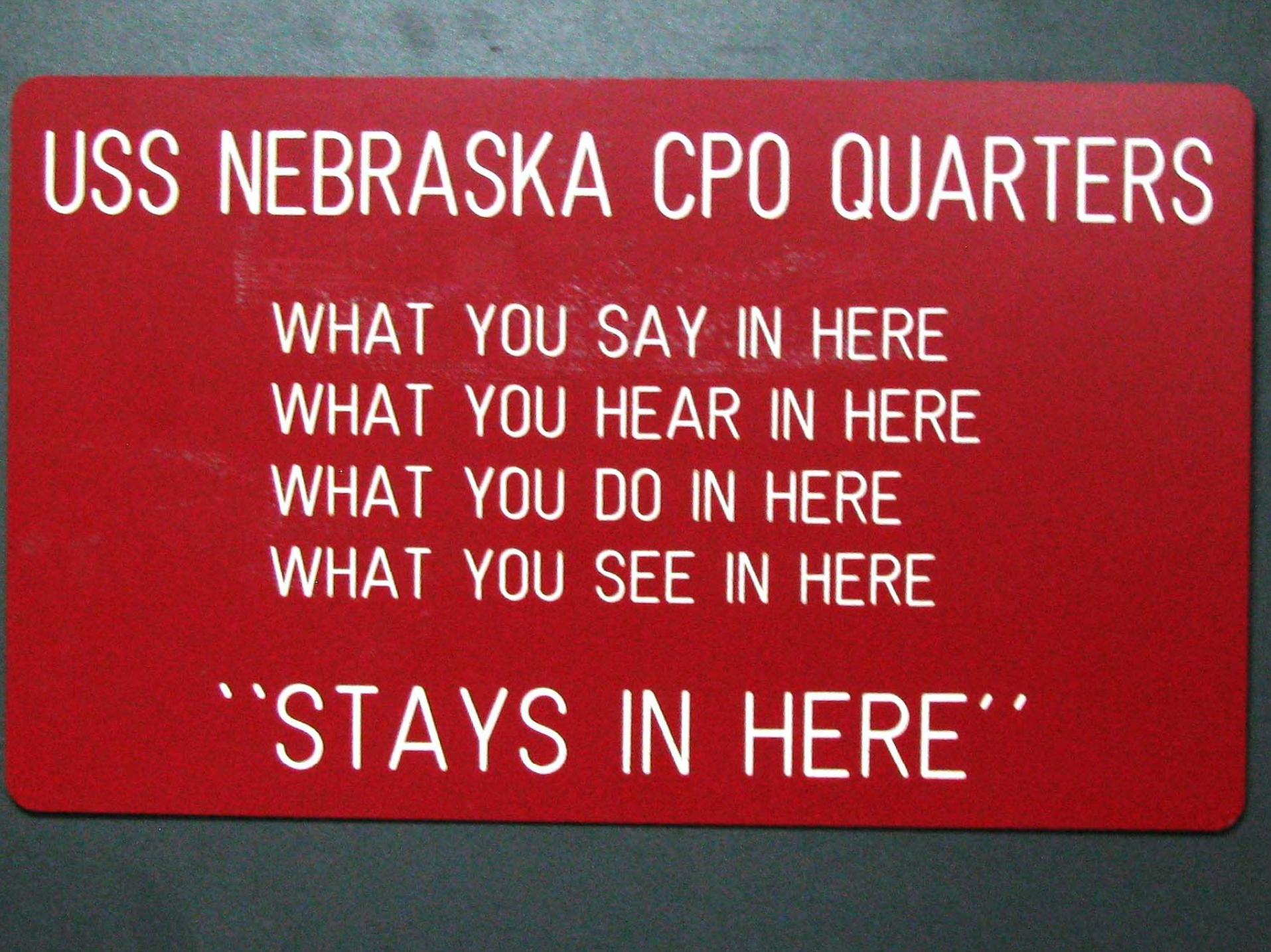
The Trident Missile with its Multiple Reentry Warheads will travel into space nearly 200 miles above the earth’s surface

Inside the Missile Control Center, two armed guards standby 24 hours a day throughout the entire mission

Overcoming boredom is fundamental to submariner morale.

The secret is keeping busy all the time. When not sleeping, eating or working, sailors are studying or playing the occasional card game.

Mike Whalen discussing operational issues with Gold Crew Commander Lahti who boarded the USS Nebraska with us. The boat is returning from its current mission. The Gold Crew Commander is fully briefed by the Blue Crew Commander about all Maintenance that must be undertaken before the sub returns to sea on its next mission.


USS NEBRASKA CPO QUARTERS
WHAT YOU SAY IN HERE
WHAT YOU HEAR IN HERE
WHAT YOU DO IN HERE
WHAT YOU SEE IN HERE
``STAYS IN HERE''

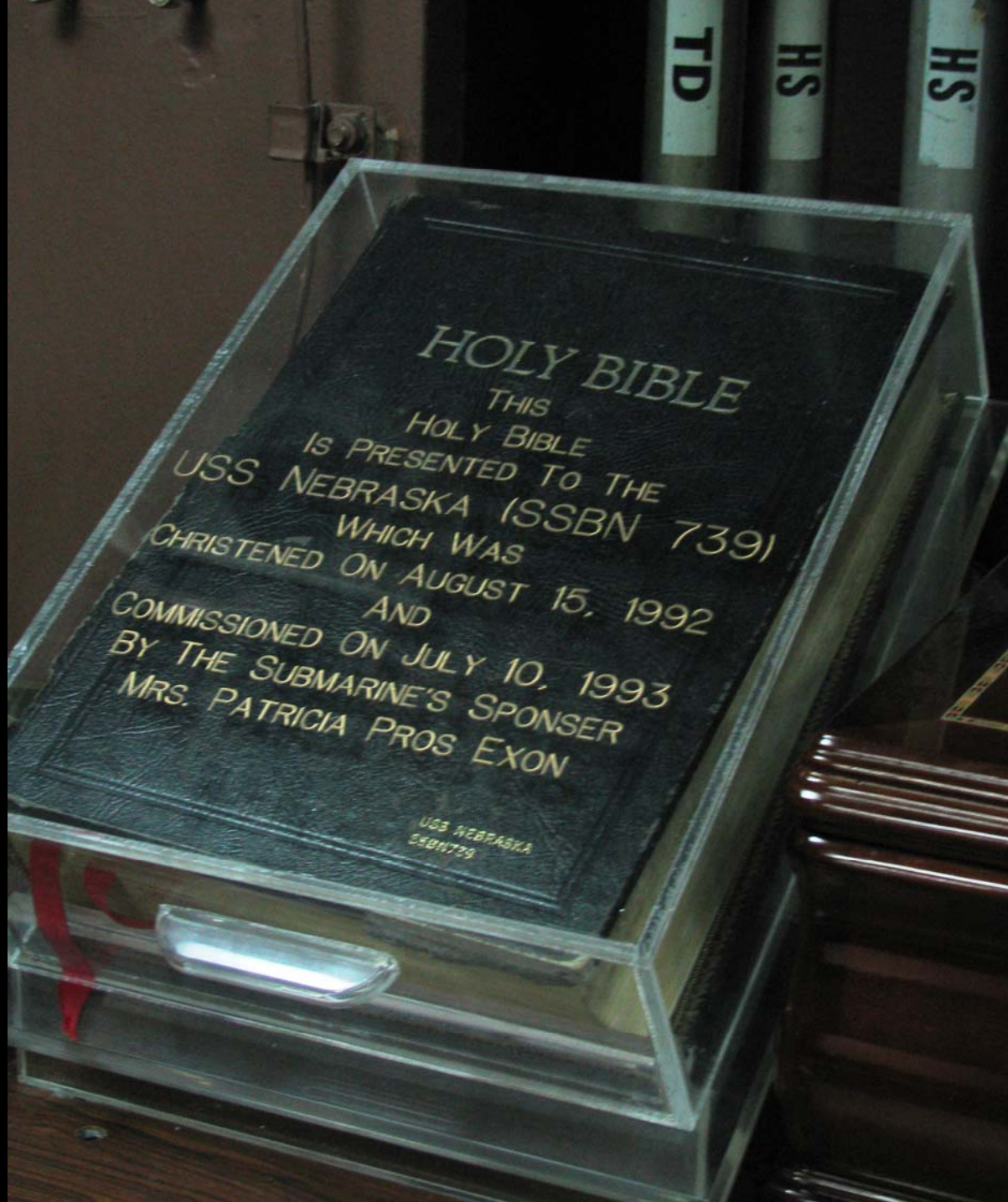
Qualifications of the Naval Officer

It is by no means enough that an officer of the Navy should be a capable mariner. He must be that, of course, but also a great deal more. He should be as well a gentleman of liberal education, refined manners, punctilious courtesy, and the nicest sense of personal honor.

He should be the soul of tact, patience, justice, firmness and charity. No meritorious act of a subordinate should escape his attention or be left to pass without its reward, even if the reward is only a word of approval. Conversely, he should not be blind to a single fault of a subordinate, though, at the same time, he should be quick and unfailing to distinguish error from malice, thoughtlessness from in competency, and well meant shortcoming from heedless or stupid blunder.

- Based upon the letters of John Paul Jones

A gift for the ship's crew presented by the Submarine's sponsor



At the end of our journey, we pull into Bangor Naval Base and Disembark from an extraordinary day's experience