

The Silent Warriors

revamped polaris subs pack devastating nuclear punch

By RUDY ABRAMSON

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ABOARD USS CASIMIR PULASKI—Near the massive steel missile tubes, lined up in a compartment amid-ship which someone long ago nicknamed "Sherwood Forest," a muscular sailor stands guard with a night stick at his hip.

In a corner, a pudgy lieutenant commander sweats at a rowing machine.

In the darkened control center, illuminated dials and gauges outline two helmsmen steering the submarine like some giant airliner in a windless sky.

The navigation officer engages in electronic communion with a navigation satellite passing overhead and pinpoints the ship's position as she glides beneath the Atlantic.

Behind the locked door of the communications center, a petty officer shreds discarded secret messages and carefully sacks the waste in a plastic bag.

Across the passageway, sonar-men measure the Pulaski's own pulse, listening for a subtle squeak, a thump that could betray her passage.

Peyton Place is showing on the movie screen in the paneled wardroom and a Ping Pong match is under way in the crew's mess.

This night, the USS Pulaski is just beyond the continental shelf, headed northwest toward Charleston, S.C. She is nearing the end of test operations that have been going on since spring.

Soon she will go on operational patrol, carrying 16 2,900-mile-range Poseidon missiles within striking range of the Soviet Union.

Then, the pea-green missile tubes in Sherwood Forest will carry more destructive power than the United States used in World War I and World War II combined.

The red and black trigger is locked in a safe in the missile control room. Only Lt. Wilbur E. Chestnut, the weapons officer, has the combination.

It would take much more than the innocuous-looking trigger to launch a missile from the Pulaski. Should a firing order come from the President several officers would have to work in concert in order to launch. Some vital safe combinations are divided, so no one person has a complete one.

Beside the missile tubes, there are doors that look like manhole covers in the deck. Each has to be opened and a lock turned inside to release mechanical locks holding the missiles in their tubes.

Since the USS George Washington left Charleston on Nov. 15, 1960, U.S. ballistic missile submarines have logged more than 900 patrols. Their missiles have been ready to fire more than 98 per cent of the time.

Ranking Navy officials say flatly that not one of these subs has ever been detected on patrol by anti-submarine forces of the Soviet Union.

Now a whole new generation of missile subs like the Pulaski

is going to sea. The Polaris missile is being replaced by its more deadly cousin, a multi-warhead called Poseidon.

The new missiles are more accurate; the modified submarines are quieter.

Four ships have already gone to sea with Poseidon, and when the conversion program is completed, the new weapon will be aboard 31 of the United States' 41 ballistic missile submarines.

The Pulaski was launched in 1964 and went to sea as a Polaris submarine. It was converted to Poseidon last spring and is now completing its preparations as a new weapon.

The Poseidon missile is reported to be armed with 10 independently targetable nuclear warheads, and witnesses from outside the Defense Department have told Congress the U.S. missile submarine fleet has the potential to put as many as 5,000 warheads within target range.

Cmdr. John H. Kinert, Naval Academy graduate, son of an admiral, native of San Diego, is in command of the Pulaski as she nears the end of her preparations for patrol.

He is a quiet, meticulous man, not given to idle philosophizing on nuclear warfare, the sufficiency of the U.S. deterrent force, nor his responsibility as commander of the world's most destructive weapon.

He is a technical man. He is more comfortable at engineer talk.

"My feeling is that this is an effective deterrent to nuclear war," he said. "I believe in it or else I wouldn't be here."

That is why he goes on the two-month patrols beneath the sea, as removed from his family as he would be if he were on the moon.

The submarine's crew are all volunteers. Some because they like the idea of being in the Navy's elite force. Some come in for the extra incentive pay they get. Some for the technical schooling that qualifies them for submarine duty.

Kinert's "Gold Crew" on the Pulaski is more or less typical. The "average" enlisted man aboard is 22 years old, married, a father, with three and a half years Navy duty behind him, nearly two years of that in school.

One of the big problems of the Submarine Service is keeping people. In the case of the young, nuclear-trained officers, the Navy offers a \$15,000 bonus for extending for another tour in the Submarine Service. Its goal is to get 62 per cent of these to extend, but the rate now is running only about 33 per cent.

Kinert and his "Gold Crew"

will not be aboard the Pulaski when she loads her missiles at the Charleston Naval Base and edges down the Cooper River past the Fort Sumpter National Monument and out to sea.

They will stay at their home port of Groton, Conn. They will take leave, conduct shore training, and set their personal affairs in order.

Then as the alternate "Blue Crew" nears the end of its two-month patrol, Kinert's men will fly to Holy Loch, Scotland to meet the ship and take over.

When the Pulaski is submerged, the crew's nights and days fade into an endless succession of six-hour watches and 12 hours off. The control center observes local night and day, using bright lights during the daytime and returning to darkness at sundown. That is so their eyes will be adapted should they have to surface rapidly or use the periscope.

They take along 75 movies, an impressive library, and food enough for 100 days.

The four-meal-a-day menu includes chicken Isabella, baked Alaska, shrimp Newburg, and beef Stroganoff. That is why the equipment in the missile compartment includes the rowing machine and a fixed bicycle.

By the time they surface, they will use more than half a ton of coffee.

Some men will work on special college extension courses and others will study technical materials to qualify for Navy promotions. They've been known to knit sweaters, make hook rugs, and dye their beards for diversion.

They get mail from home — five 25-word family grams per patrol, sent to them by the same radio transmitters that send the submarine its coded top secret official communications.

Some crewmen tell their families not to send them bad news.

"If I've lost somebody, I don't want to know about it because there is nothing I can do," said Thomas French of Clay, Ky., the ship's clerk. "When something like that happens, they just meet you with a chaplain."

News from the rest of the world is only a little more exten-

sive than the reports from home. But fleet headquarters sends along major news items and ball scores at the end of operational messages. The news is circulated by a somewhat stale ship's newspaper.

The navigators provide a map showing them where they are each day, as though it matters.

They are a world unto themselves, finding their own way, generating their own oxygen, desalting the sea water they use. They are prepared to handle anything from a shutdown of their nuclear power plant to abdominal surgery.

When the patrol begins, the ship goes silent. She makes no radio transmissions, sends out no sonar waves that could be intercepted to mark her position.

The doors and heavy tools are padded. Crewmen even soundproof the garbage that they pack in metal containers and sink to the bottom of the sea.

Expanded fluorescent light tubes are stored and carried into port. Empty bottles are broken before they are put into the garbage. A light bulb or bottle would crush under sea pressure making a pop that could be detected miles away.

Engineering techniques used to quiet submarines are among the Navy's most closely guarded secrets. The research and testing never ends in the search for ways to suppress noise in the propulsion and maneuvering systems.

Though the boats can exceed 20 knots underwater, they move slowly on patrol because that is quieter. Maneuvering devices like the rudders and diving planes are handled gingerly so course changes are made silently.

The Navy is as secretive about its ability to detect Soviet submarines as it is on the subject of quieting its own. To reveal how, and how successfully Soviet missile subs are found would tell too much about what has been done to suppress the noise of U.S. ships.

"We have had a lead in this area for decades, and I had just as soon leave it at that," said Rear Adm. S. D. Cramer Jr., commander of the Atlantic Fleet's Submarine Flotilla Six.

The proof of a successful patrol comes home in heavy metal suitcases filled with recordings and computer tapes.

This is the record that makes it possible for scientists and engineers to re-live an entire mission, checking the ship's maneuvers, to orders from fleet headquarters.

The efficiency of the missile ships over the last decade is, ironically, making them controversial now, at a time when the Pentagon contends new strategic weapons should be built.

Opponents of the plan to build the new B-1 strategic bomber argue that the invulnerable Polaris-Poseidon fleet, coupled with 1,054 land-based intercontinental ballistic missiles are an adequate deterrent to a nuclear attack on the United States for years to come.

But while it is beyond the realm of any known technology, the Navy insists that it is not impossible for a breakthrough to occur that would make it possible to find submarines on patrol.

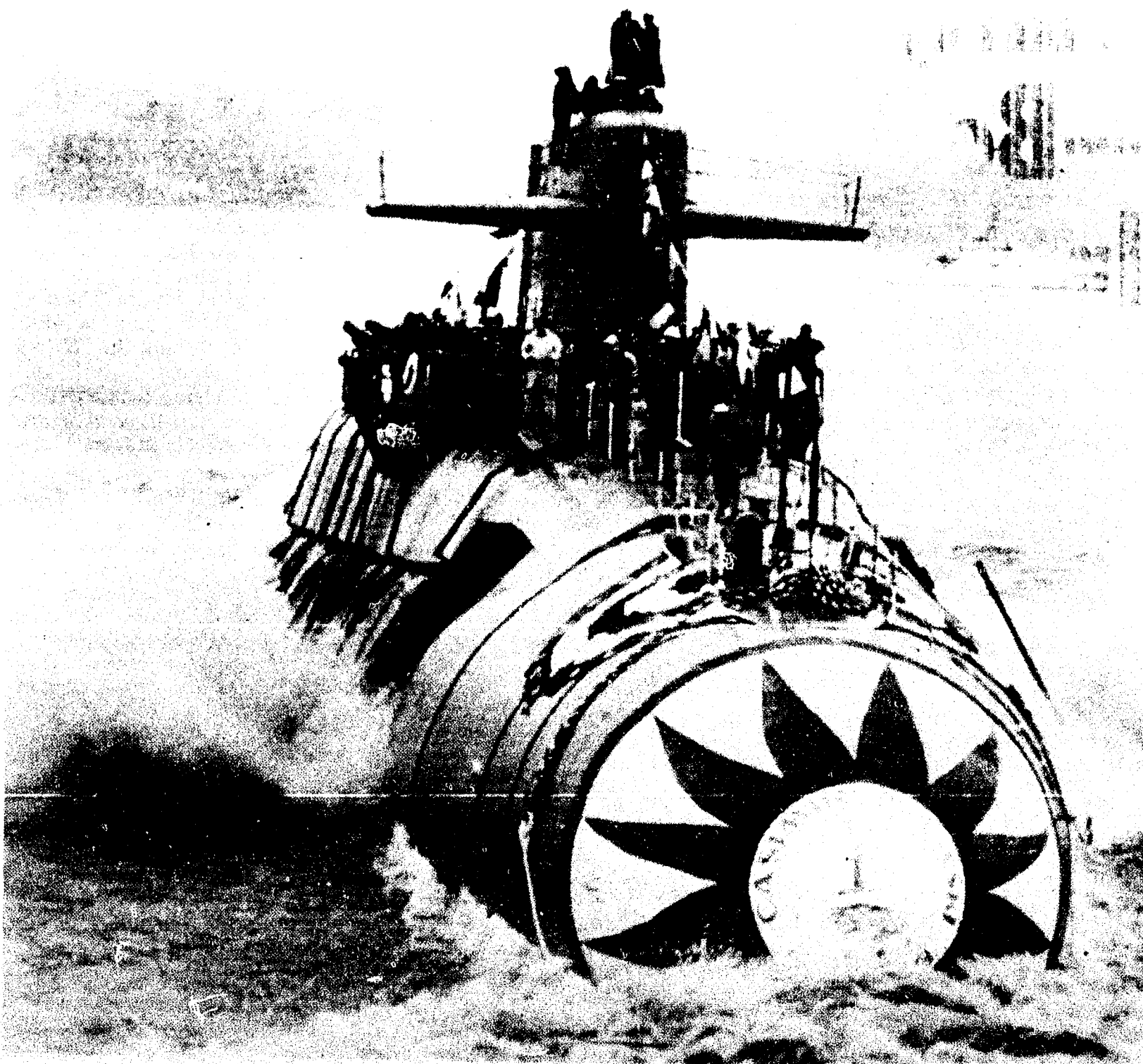
So the Navy wants to do two things. First, it is plugging for another modification in the present system — extending the range of some of the Poseidon missiles.

Any increase in range vastly complicates the problem of finding the submarines because they are able to patrol more of the sea farther from their targets.

That is one reason—aside from the increased payload—that the Poseidon missiles now being put to sea in submarines like the Pulaski are far more effective than the first Polaris subs. The first Polaris missiles had a range of only 1,200 miles, meaning the subs had to patrol close to their targets.

The Navy also wants to build an entirely new submarine to carry a new missile with intercontinental range. Such a system would mean ships on patrol could be virtually anywhere in the world's oceans. They would be within range of their targets almost from the moment they left port.

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THE CASIMIR PULASKI IS SHOWN AT HER LAUNCHING IN 1964.

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