

## Secrets haunt the still-classified Operation Ivy Bells, a daring Cold War wiretapping operation conducted 400 feet underwater.

It's the summer of 1972 and the U.S. is in the middle of pulling off the most daring, covert, and dangerous operation of the Cold War. Only a few months before, the signing of [SALT I](#) (Strategic Arms Limitations Treaty) limited the number of nuclear missiles of the world's two largest superpowers. Yet even with this [well-publicized US/Soviet détente](#) in place, a submerged American submarine rests mere miles from the Russian coastline.

At the bottom of the Sea of Okhotsk, the U.S. [nuclear submarine \*Halibut\*](#) silently listens to the secret conversations of the Soviet Union. With the Kremlin completely unaware, Navy divers emerge from a hidden compartment (referred to as the "Bat Cave") and walk along the bottom of the sea in complete darkness, wiretapping the Soviet's underwater communications line.

America wiretapped this particular Soviet communications cable for maybe a decade or more—and many details remain classified. It was the U.S.'s most ambitious wiretapping operation, until this point, in its entire history. This was Operation Ivy

### Battle Plans and Mistresses

Down below the sea surface, the intel is flooding in. With the divers' taps in place, American communication techs onboard the *Halibut* gather a wide range of intelligence, from operational tactics to Soviet commanders' conversations with their mistresses. But up on the sea surface, a storm is brewing.

As the angry sea rocks the sub, the still-working divers are trapped outside the vessel in the murky cold water. Then, with a loud snap, the steel anchor lines break free. The *Halibut* drifts upwards, in danger of exposing itself to the enemy.

"If (they) had gotten caught, [they] had every reason to believe that [the Soviets] would have blown [them] away," says Sherry Sontag, who co-wrote the 1998 book [Blind Man's Bluff](#).

Quickly, Captain John McNish makes a rather unconventional decision: to flood the sub. In a matter of seconds, the *Halibut* plops back down into the sea bottom's sandy muck. The divers scramble back into their decompression chamber (used to [prevent the "bends"](#)) and an international crisis is averted—at least temporarily.

Days later and after the storm subsides, the *Halibut* finally emerges from its watery depths. The mission is a resounding success, and the sub is returning home with tapes of recorded Soviet Union voices discussing the secrets of a superpower. As W. Craig Reed wrote in his book [Red November](#), it was like the U.S. placing "a glass against the Soviet Union's wall to hear their every word."

## What Lies Beneath

This sub mission was one of several that made up the still-classified Operation Ivy Bells. It's not exactly a secret that the U.S. and USSR launched a silent intelligence war, one that lasted for decades and likely [continues to this day](#), even after the fall of the Soviet Union. What made Operation Ivy Bells so unprecedented is the literal depths to which the U.S. government would go to spy on its Cold War rival.

According to Sontag's book, it was [Captain James Bradley](#) who first considered the possibility of an underwater wiretapping operation. A World War II and Vietnam War vet who had commanded ships in the heat of the battle, Bradley knew how to operate in close proximity to the enemy. In 1966, he became the undersea warfare director in the Office of Naval Intelligence, where he came up with the idea that forever shifted the Cold War in America's favor.



In 1968, Bradley devised and led a mission that sent the *Halibut* into the Pacific in search of the Soviet sub K-129, lost due to an internal explosion during a routine patrol. The Soviets' searched for months with little success, but they were missing an invaluable ally that aided the American quest: "the fish."

Built by Westinghouse Electric at an estimated cost of \$5 million each, this was a two-ton underwater camera mounted inside a mini-sub, deployed while remaining tethered to the *Halibut*. The fish hovered just above the ocean floor taking pictures. "It was kinda like a sophisticated vacuum cleaner for your pool,"

Reed told *Popular Mechanics*.

While the covert mission to dredge up K-129 called [Project Azorian was only a partial success](#), it proved the fish could capture images even in the dark waters of the ocean floor. But the *Halibut* and the fish's next mission would be much more complicated—and dangerous.

Bradley believed an unencrypted telephone line connected [Petropavlovsk's submarine base](#) (near the tip of Kamchatka peninsula) to Russia's mainland, likely running under the Sea of Okhotsk. Soviet cryptographers were notoriously backlogged and military officers needed fast communication between the Kremlin and Russia's most important naval base. So, Bradley theorized, the Soviet's solution was to deposit a communications line so deep underwater and close to Russia's shoreline that no one could access it.

Or so they thought.

### **The Challenges Ahead—and Below**

Three obstacles stood in Bradley's way. First, the search area needed to be significantly narrowed to have any chance of finding the cables in 611,200 square miles of water. According [to legend](#), the solution came to Bradley one morning in his Pentagon office. Daydreaming about his boyhood spent on the Mississippi River, Bradley remembered that there were signs near the shorelines warning boaters not to anchor due to utility lines at the bottom of the river. He realized that if there were location signs like this in America, there surely would be in Russia as well.

He was absolutely right. When the *Halibut* moved into the Sea of Okhotsk, they scanned the Siberian coast and found warning signs dotting its northernmost half, telling fisherman to avoid particular areas.

"The Soviets weren't trying to hide (the cables)," says Sontag, "They had no idea we could get that close...that we could send divers walking on the bottom that deep...or that we had the technology to tap it. No one had conceived anything like this before."

Within days, the Navy had found what they'd been looking for. Next, they needed to figure out how divers were going to go and *stay* that deep underwater for the several hours needed to complete the wiretapping. The answer was helium. Since the late 1950s, [Navy Captain George F. Bond](#) had been developing new methods, techniques, and gases that would allow divers to go deeper and stay submerged for longer. While his [infamous Sealab project](#) was shut down after the death of a diver, Bond proved that certain gas mixes could work.



This U.S. Navy diver chiseling free deck plating from the sunken USS Monitor is an example of saturation diving, 2001.

U.S. Navy/Eric Lippmann

We land mammals breathe in a cocktail of gases every day that is around 80 percent nitrogen and 20 percent oxygen, with a few other garnishes thrown in. When these gasses are compressed by water pressure, it causes nitrogen to build up in the blood. This can be an extremely dangerous condition for humans that can result in [nitrogen narcosis](#) or decompression sickness, a fatal embolism if the diver does not decompress properly while ascending. So instead, Ivy Bells substituted nitrogen for helium. Helium has a lower molecular weight than nitrogen and [leaves human tissue more rapidly](#), making it perfect for a diving technique known as saturation diving.

With the search completed and the human element solved, the last complication involved the mechanics of the tap itself. To avoid shorting out the cable (and alarming the Soviets), the divers couldn't just open it up. Instead, the wiretap had to work through induction. The divers would need to place the tap by wrapping a connector around the comm line and then feed it into a three-foot-long reel-to-reel tape recorder.

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The big technological problem wasn't pulling the signal out from the cable but separating the channels so someone could understand it. Running through that one cable was perhaps up to a dozen different lines, all with Soviet voices chattering away. As Reeds puts it, it was a "gargled cacophony" and nearly impossible to gather any real intelligence. For this reason, the first mission failed. "It was trial and error," says Reed, "When they first got the signals in, it was a mess."

But as the mission moved forward, the communication technicians jerry-rigged equipment that separated signals and drew out particular voices. Exactly what and how they did it remains a mystery as parts of Ivy Bells remains classified.

"These guys were the original makers... they were making it up as they went along," says Sontag regarding the operation's communication technicians. "No one else was doing underwater cable tapping. This was all brand new."



President Jimmy Carter and Soviet General Secretary Leonid Brezhnev sign SALT II treaty, June 18, 1979.

#### **40 Years a Secret**

Now retired, David LeJeune was a Navy saturation diver who participated in several later missions. Although he was unable to answer many questions, he says that the information that he and his fellow divers uncovered led to the [successful completion of the SALT II talks](#), which was eventually signed in 1979 and restricted each country's nuclear delivery systems.

LeJeune also says the tech and gear they were using was cutting edge. "We were using technology that is so far advanced from the civilian community that the public doesn't know that capability even exists."

For a decade, the U.S. wiretapped this comm line at the bottom of the Sea of Okhotsk. The *Halibut* and other subs would venture into the Sea of Okhotsk a couple of times a year, picking up the tap and replacing it with a new and often more advanced one. It was an intelligence gold mine, consistently providing the U.S. with invaluable information.

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"We didn't know... how much we were frightening (the Soviets)... until we listened to these tapes," says Sontag, "Very quickly, we pulled back from the brink. And this had a lot to do with it.... I think finding this information turned out to be the thing that let the Cold War end."

But in 1980, a [former NSA employee named Ronald Pelton](#) walked into the Soviet Embassy in Washington D.C., and for \$35,000, divulged the inner workings of Ivy Bells. With that, the operation abruptly ended—or so it was claimed.

Over three decades later, this type of wiretapping is [thought to be largely obsolete](#). Thanks to the digital age, there are far more [efficient](#), [easier](#), and [less risky ways to spy on someone's comms](#). However, these types of underwater cables still exist and are of great importance. As the [New York Times reported in 2015](#), there are continued fears that these cables could be cut, effectively halting communications across the globe.

But, even though this type of surveillance may be old fashioned, Reed thinks it's possibly still happening today. "Submarines absolutely still have the capability to do these kind of missions and there are personnel that are still trained on how to do these missions," says Reed. "Whether or not those missions are still underway, that would be considered classified."



Colors lowered for the last time on the USS Halibut, its mission now complete, June 30, 1976.

Vallejo Naval and Historical Museum / Darryl L. Baker

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