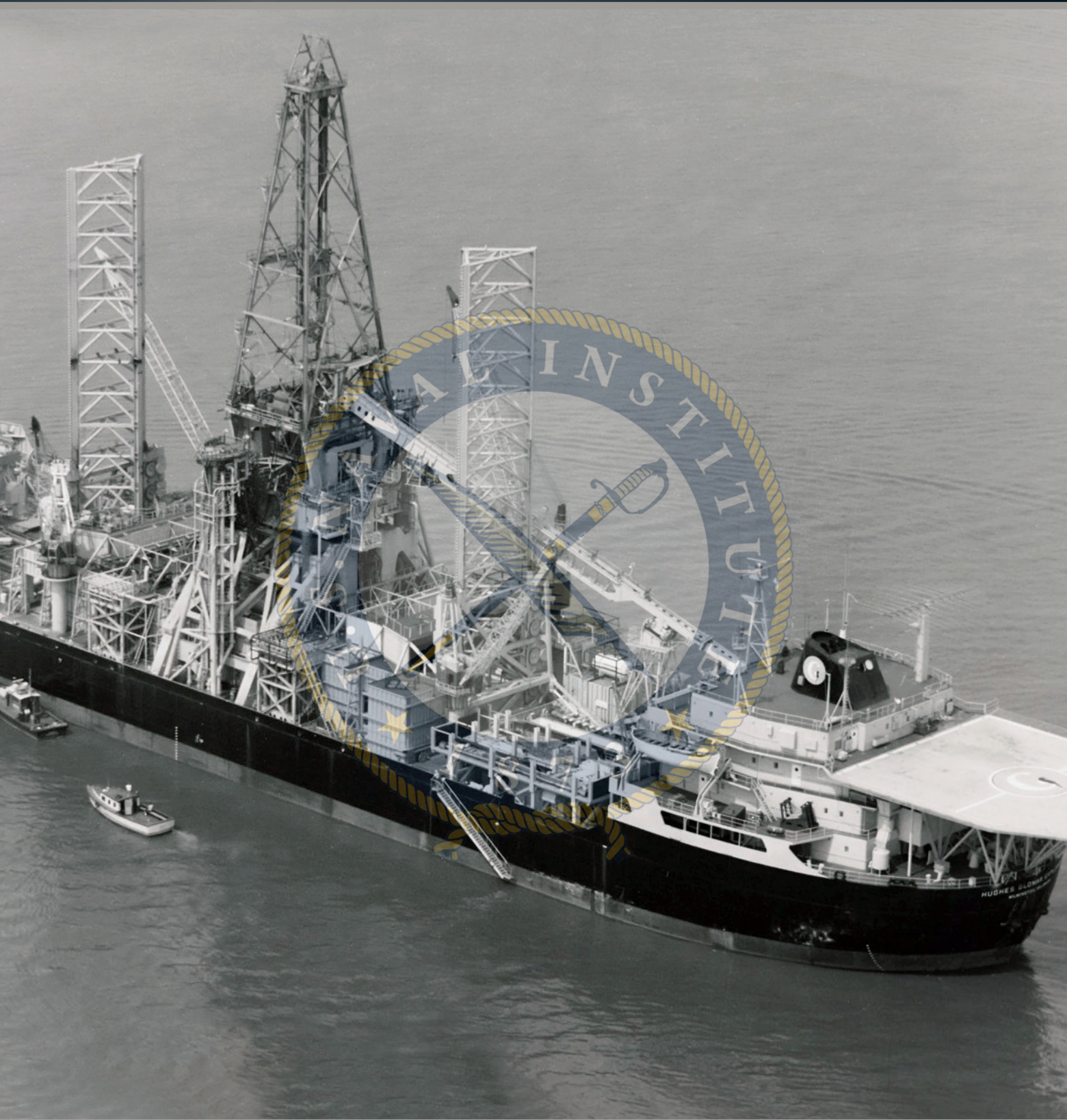


The LOSS— and the MYSTERIES— of the K-129

BY CAPTAIN JACK G. NEWMAN, U.S. NAVY
RESERVE (RETIRED)

The disappearance of a Soviet submarine in the Pacific—and the CIA's clandestine effort to retrieve the wreck—remains one of the most intriguing chapters in the story of the Cold War. Here is an inside account from a former submarine officer who was there.





The *Hughes Glomar Explorer*, built by Howard Hughes for the ostensible purpose of manganese extraction from the ocean floor, served as the platform for one of the most elaborate and ambitious covert-intelligence undertakings of the Cold War—retrieval of the K-129.

It was a surreal scene, nothing that could be easily imagined: eight men gathered together seven stories above the steel deck of the *Hughes Glomar Explorer*'s cavernous Moon Pool, all suited up in anticontamination suits, booties, backpacks, and positive-pressure face masks. Their attention was focused on a 40-foot black cylindrical form: the forward section of the Soviet submarine *K-129*, retrieved from a depth of 16,500 feet off the floor of the Pacific Ocean, some 1,560 nautical miles northwest of Hawaii.

The outer surface of the raised wreckage was rippled and twisted, giving the appearance of a reptile shedding its skin. Severe trauma had wracked the *K-129*. Water and ocean-floor slurry drained out onto the *Glomar Explorer*'s deck, puddling its surface, reflecting the glare of powerful well lights.

The pungent smell of a low-tide reef permeated the atmosphere. What would we find—what levels of radiation, if any, to impede our work? Would there be human remains? These questions would be answered soon enough. Many 12-hour shifts lay ahead, with physical and mental exhaustion at the end.

This scene unfolded 50 years ago, on 8 August 1974. I was a member of the Central Intelligence Agency's Project Azorian team and was the only qualified former submarine officer on board (with an intelligence background and ten "combat duty" patrols, as the Russians call them, behind me).

How did the *K-129* die? What was the root cause? Did the crew suffer, or was death instantaneous? What incomprehensible forces destroyed her? These questions were front and center in my mind, and they would stay with me forever.

Now, with the 50th anniversary of the *K-129*'s recovery upon us, it is time to discuss her fate from a submariner's perspective and, hopefully, to help bring closure for the remaining families of the crew.

'We Are Then All Brothers'

At the time of the *K-129*'s death, I was assigned to the Defense Intelligence Agency as the sole submariner, responsible for all things related to Soviet and foreign submarines. By the end of March 1968, we were sure the Russians had lost one of theirs. At this point, I began a lifelong interest in the mysteries of the lost Soviet Golf II-class ballistic missile submarine, pennant number 722, hull number *K-129*.

Later I was offered a position in the CIA's Azorian program. And now, here I was on board the *Hughes Glomar*

Explorer. I was one of the initial well entry party, along with the mission director and his deputies. While suiting up, the mission director informed me I would be the first one to board and crawl around the target object (TO) to determine final shoring requirements and overall condition of the TO. When the disassembly process was completed, I would be the last to leave.

Submarine sailors, regardless of flag or nationality, are a breed unto themselves, all sharing a silent commitment that "we all surface together or none do." When the diving alarm sounds and the hatches are shut and dogged, vents opened, the boat slips beneath the waves, and we are then all brothers.

And as we began our forensic deep-dive into the tangled remains of the salvaged hull, we on board the *Hughes Glomar Explorer* recognized that those on board the *K-129* had given their all for their country.

Conversion and a Covert Mission

The submarine's commanding officer had been Captain First Rank Vladimir Ivanovich Kobzar, a Ukrainian graduate of the Sevastopol Higher Naval Engineering School and Soviet submarine school at Leningrad. A tall man, with black, bushy, authoritative eyebrows and smiling eyes over a face seasoned at sea, he enjoyed a mid-career reputation that was outstanding and secure. I doubt that he suffered fools kindly.

He had been with the *K-129* since 1964, just four years after her initial commissioning, when he was ordered to take her into the massive Dalzavod Shipyard at Vladivostok for a three-year conversion/overhaul. As sailors belong at sea and not in a shipyard, he probably viewed this with some trepidation and uncertainty; however, he would be with his wife and two children for a lengthy period. Also, when he took the *K-129* to sea again, she would have undergone the transformation from a surface strategic missile launch platform to a totally submerged launch system—a truly strategic missile system, one to be reckoned with by her adversaries.

The converted and overhauled *K-129* completed a combat duty patrol in October–November 1967. In-port maintenance followed that December and would last until February 1968.

This late-1967/early-1968 time period was also bearing witness to some portentous developments in the shadowy realm of intelligence and counterintelligence. In September 1967, U.S. Navy Chief Warrant Officer John Anthony Walker began spying for the Soviet Union; he would con-

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tinue to do so until 1985. And on 23 January 1968, the spy ship USS *Pueblo* (AGER-2) was captured by the North Koreans and taken to Wonsan. Shortly thereafter, a Soviet cargo aircraft landed at Wonsan, and Russians were given access to the *Pueblo*.

Against that backdrop, on 9 February 1968, the Soviet Navy Central Command issued the directive to redeploy the *K-129* by the 24th. She was transferred back to the crew on 13 February, with only 11 days to prepare for her new deployment.

The Russian word *maskirovka*—meaning “to mask” or, more broadly, “military deception”—encapsulated a favorite pastime of Soviet officials: clouding their real intentions. The “masking story” for the early deployment of the *K-129* was that a Vladivostok area Echo II-class submarine had been assigned the Hawaiian Station; however, engineering issues precluded her getting underway, thus the *K-129* would have to go.

My personal belief is that critical U.S. Navy communications intelligence had recently come into Russian hands from either John Anthony Walker, the *Pueblo*, Vietnam sources, or all of the above. The intel could be verified by the *K-129* collecting Hawaiian-area U.S. Navy shore-to-ship communications.

Since paranoia and the irrational distrust of people bearing gifts was in keeping with the Soviet mindset, the *K-129*'s patrol, among other things, could have been used to verify the bona fides of John Walker's information. This is one of the mysteries of the *K-129*.

The Last Combat Duty

On 24 February 1968, sometime shortly after midnight, the *K-129*'s diesel engines roared to life and she cast off from the weapons loadout facilities in the southwest corner of Tar'ya Bay and headed toward the twinkling lights of Petropavlovsk to the northeast. Known to all Russians as “the loneliest city in the world,” Petropavlovsk is on the sea-isolated far eastern peninsula of Kamchatka—the most volcanically active piece of earth on the planet, with 26 volcanoes regularly spewing ash and steam.

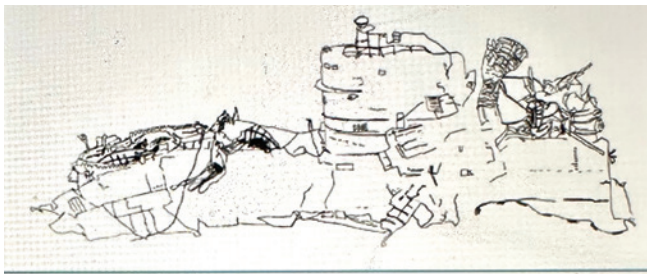
Passing Three Brothers Rocks on the port hand about 0130 with shore and sea ice well dispersed by Mother Nature, the submarine entered the Pacific Ocean and submerged. After heading south, the *K-129* made a short-burst transmission, checking in with Navy Central Command (PKP) Moscow . . . and then her sealed orders were opened.

From this combat duty's outset, the captain, executive officer, and wardroom had to work to form a competent watch bill to safely operate the boat under all conditions and emergencies. Getting the *K-129* into an established sea routine was paramount. In the confined space, hot bunking and “people in the way” would be serious issues: At the last minute, the normal complement of 13 officers and 70 enlisted had been increased to 14 officers and 84 enlisted, including ten sailors with special training—but no sea duty. Additional non-crew sailors normally would have been prohibitive to a successful ballistic-missile submarine deployment—unless the secret orders had established a new mission?



The lost sailors of the doomed Soviet submarine; they “had given their all for their country.”

COURTESY MICHAEL WHITE



COURTESY MICHAEL WHITE

A video montage-generated image produces this chilling view of the wreck of the *K-129* three miles below the surface of the ocean. The illustration above provides an outline of the submarine.

Heading south put the *K-129* about 300 nautical miles west of the Emperor's Seamount Chain, which would help block any low-frequency tonals from the submarine passing into the Eastern Pacific.

Arriving at 40 degrees north latitude, the *K-129* swung east toward her assigned patrol area. She was to reach the midpoint of the outbound deployment by midnight on 8 March 1968, and she was to burst-transmit to PKP Moscow the news of her arrival.

No transmission was received.

Admiral Viktor A. Dygalo, the *K-129*'s division commander, recommended that a search and rescue (SAR) be established. Moscow directed that the SAR be made ready but not be executed until further orders. Those further orders were soon forthcoming: When the *K-129* failed to communicate again at the next preplanned transmission on 10 March, Moscow greenlighted the SAR. It was unsuccessful, and the rest is history.

Swordfish: Tastes Like Red Herring

For years, Admiral Dygalo asserted that the USS *Swordfish* (SSN-579) had rammed the Russian boat and sunk her. He went to his grave believing it. Dygalo stated that a Soviet intelligence-gathering ship had deciphered a *Swordfish* message to Yokosuka that indicated she was heading home "after an accident at sea." The Soviets viewed it as a clue that the submarines had collided. But the U.S. Navy would

never that a Sea of Japan ice pack caused the damaged periscope and that the *Swordfish* had been 200 nautical miles away from the *K-129* at the time of her disappearance.

Also working against the *Swordfish* theory is the fact that, when the location of the lost *K-129* was discovered by the USS *Halibut* (SSGN-587) in August 1968 and the wreck was then photographed extensively, it became evident that the *K-129* lay in two major pieces, fairly close to each other, three miles down.

Now, if the sail of the *Swordfish* had struck the *K-129* perpendicular to her longitudinal axis while the U.S. boat attempted to pass underneath the *K-129*'s hull, with force sufficient to breach or crack the pressure hull, the Russian submarine would have immediately flooded and sunk to the bottom in one piece. This would occur so rapidly that the crew would be overwhelmed, only knowing that their boat was flooding.

Furthermore, U.S. submarine trailing operational procedures were being established in the early 1960s. These directed that our boats, in the process of establishing a trail, should stay as far behind the Soviet submarine as possible, maintaining contact through passive sonar only. If the trailed boat suddenly changed course in clearing the baffles or on reversing course, our boat was to keep the bow pointed toward the target to keep our acoustic signature to a minimum.

At no time would speeding up to close the target be advised. Keep in mind that a submarine on the battery is the quietest of all, and counterdetection is probable in a boat with reactor pumps running.

The *Swordfish* did not sink the *K-129*.

The Death of the K-129

She died on 11 March 1968, near the International Date Line, at 40 degrees north latitude. Her final minute was at 22:10 Petropavlosk local time, or 0010 Greenwich Mean Time, the moment marked by the clock in her forward torpedo room—smashed amid the cataclysmic forces of implosion, of warhead detonations, missile-fuel and battery-cell explosions, and the bursting of high-pressure air flasks. If you were there, none of it would have been easily comprehended, much of it happening so fast that the human eye would not see it occur as the hull section sank to the sea floor.

The torpedo room destruction followed the flooding of the after half of the *K-129*, which occurred due to a mishap that allowed seawater to enter the pressure hull through the snorkel intake system with such velocity that it took only seconds to dump tons of water into each compartment through the ventilation lines, with immediate loss of propulsion, resulting in the boat's demise.

Total blackness added to the finality, along with the arching and sparking of high-voltage buses with currents pos-

sibly approaching 7,000 amps. Zero grounds would have been everywhere, instantaneously.

Both of the ship's batteries surely were shorted and in self-destruct mode. Toxic gases would have spewed from the after battery as saltwater found its way rapidly through the ventilation lines into the compartment. The engine room ship's ventilation supply blower was only about 12 feet aft of the battery compartment, ensuring immediate shorts and fire.

Crew members in Compartments 5 through 8 would have had a quick, painless, and sudden death by the crushing sea pressure. The boat was sinking by the stern. Suddenly, in the after battery, when the bending stresses exceeded the tensile strength of the now-heated pressure hull steel, the buoyant forward submarine hull tore cleanly away from the after half, at a point 12 feet from the median of the pressure hull longitudinal length, which was at the missile compartment after battery bulkhead.

The after half then quickly sank through collapse depth of about 900 feet under 400.5 pounds per square inch of pressure. Collapsing along the way were compartment bulkheads, high-pressure air bottles (which collapse at 9,600 feet), oxygen bottles, hard tanks, hydraulic system accumulators, fuel and lube oil tanks, plus emergency air breathing bottles and torpedo tubes with their torpedoes, all slamming into the ocean floor, followed by freezing, black silence.

The Final Hour

The cause of the *K-129's* loss remains a mystery, one attested to by the numerous theories that have been put forth to explain it. My involvement with the retrieval of her remains, combined with my experience serving in submarines and as a DIA submarine analyst, leads to a surmise as well. My assessment is that mechanical failure of the snorkel headvalve or system piping, plus human error,



AUTHOR PHOTO

The engine room of the Soviet Foxtrot-class submarine *B-39*, formerly on view at the Maritime Museum of San Diego, is a virtual match with how the later Golf II-class *K-129's* would have looked. Note the incoming air blower on the port side and the ship's air supply blower on the starboard; tons of seawater would have gushed through the ventilation lines, flooding the boat and quickly sealing her fate.

THE LAST 50 MINUTES OF THE K-129

Times underlined are known. The remainder are estimates based on time to complete submarine evolutions.

- 2120: The clock starts with the first 90-degree baffle clearing. Keel depth probably 164 feet or less.
- 2125: The rudder is shifted, the other baffle is searched. On completion, the boat immediately proceeds to periscope depth.
- 2130: At periscope depth. Establishes trim or, to use Russian term, “determines differential balance.”
- 2135: “Combat alert! Duty stations! Assume the RDP (prepare to snorkel) position!” Commences snorkeling. The *K-129* may have surfaced in rough seas, snorkel raised—the optimum safe position.
- 2150: Seawater enters snorkel or piping system, salts the after battery; hydrogen (gas plasma generation) and chlorine gas produced. The battery is dumping energy directly to ground; terminals are “red hot” and the pressure hull is heating.
- 2158: First of the three precursor events; battery cells explode—the likely culprit. The *K-129* begins to break into two pieces; after half of boat is flooding heavily.
- 2200: After battery explodes, the hull separates. Forward half positively buoyant, floats positive. Sea water floods missile compartment, pressure loading the missile tubes.
- 2206: Missiles 2 and 3 explode; sea pressure increase distorts the tubes and missiles; hypergolic fuels combine.
- 2210: Clock in forward torpedo room smashed.
- Estimated terminal velocity: 44 feet per second (30 mph).
Times shown are local Petropavlovsk; add two hours for GMT.

allowed seawater to enter the engine room, dooming the boat. What we do not know is the operational status of the boat’s systems.

It is possible that, despite the fact the *K-129* had failed to blast-transmit her positions to PKP Moscow at the predesignated times and locations, she had managed to communicate her status via satellite. (We in the USS *Daniel Boone* [SSBN-629] had begun experimenting with the NAVSAT satellite system for communication tests in 1965–66.) She was probably cruising at about 160 feet toward her final location, having been submerged for at least a few hours. Overall, her transit at the 40th parallel had been stressful, with rough seas and steady, strong winds. Cold fronts roaring off the Arctic steppes, mixing with warmer tropical air masses up from south of the Philippines created counterclockwise typhoon systems.

It would have been time to clear the *K-129*’s baffles, with Captain Kobzar ordering a 90-degree course change at 2120 on 10 March, then at 2125 shifting his rudder to cover the opposite baffle. These baffle clearings were noted in the last line of the sonarman’s notes.

With no known contacts, the boat must have immediately headed up to periscope depth followed by complete surfacing, then by the order “Combat alert! Duty stations! Assume the RDP [snorkeling] position!” With the battery charge underway, trash would be dumped and any required antenna maintenance conducted, along with cleaning the optical lenses of the periscopes and the vertical lenses of the new LIRA azimuth system. After a few days underwater,

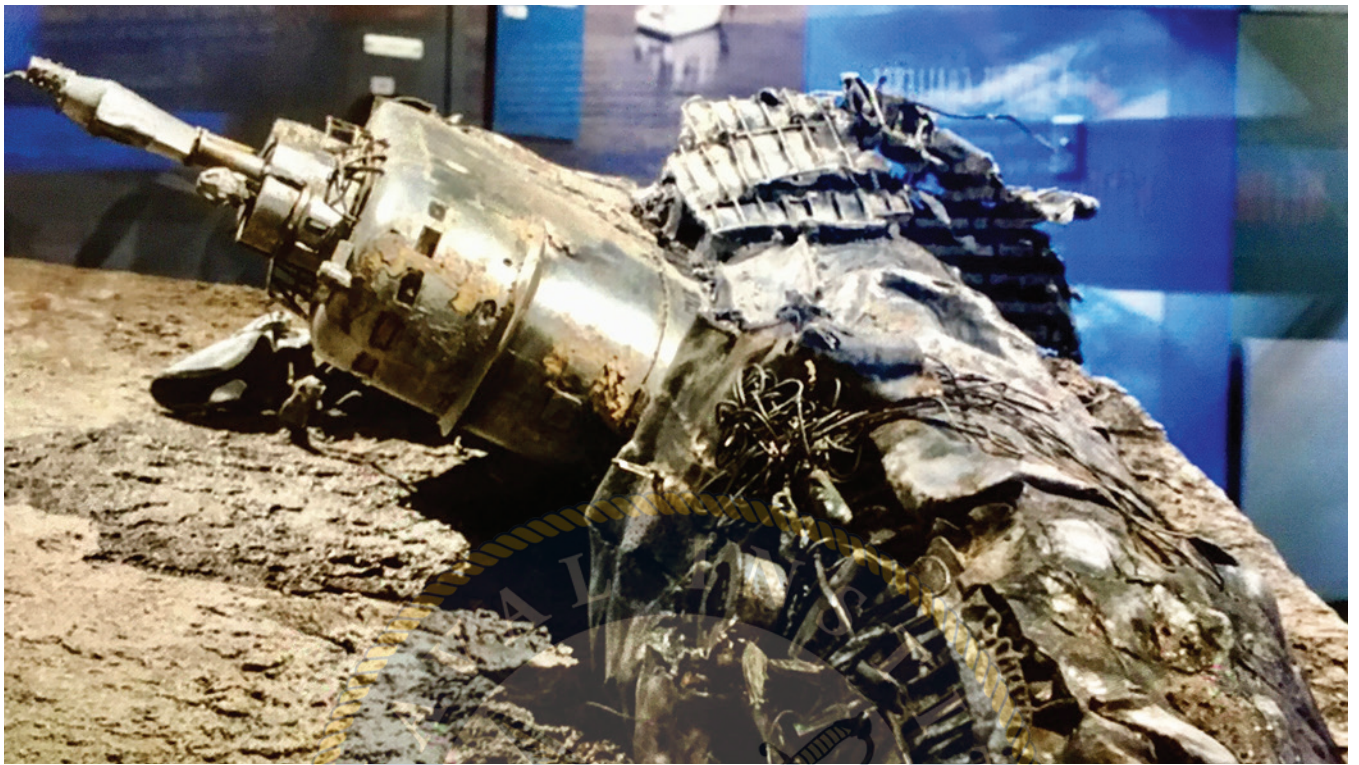
these glass surfaces “fogged” over from micro-marine matter, making them almost opaque and useless.

The *K-129* was snorkeling about 20 hours each day, although I believe she stayed at a shallower depth to reduce head valve cycling. Her engines and snorkel system were getting a world-class workout.

Captain Kobzar probably stayed on the surface snorkeling, battery charging, and topping off the high-pressure air bottles, all the while listening for electronic-countermeasure contacts. If threatened, the crew could cycle the vents and slowly submerge to the proper snorkel depth or submerge altogether. Submarines in this situation would be trimmed heavy overall; if propulsion were lost, she would sink.

The swells may have been big enough to force a course change to preclude running the boat in the troughs, avoiding broaching seas that could slam into the sail and produce vertical waterfalls over the top of the sail, possibly dumping saltwater into the snorkel system, thence into the boat’s ventilation and after battery well, producing shorts, battery fire, toxic smoke (gas plasma), and ultimately loss of propulsion.

The clock had started its terminal countdown at that first baffle clearing at 2120. On completion of the baffle search, the boat would immediately proceed to periscope depth, determine weather and wave conditions, and with no contacts within the area, surface, commence snorkeling, and perform the housekeeping chores (not necessarily in that order).



CIA

I estimate that seawater entered the snorkel and submarine about ten minutes prior to the three acoustic precursor events when the after battery had been shorted, dumping its 7,500 amp hours to ground as fast as possible, producing vast quantities of gas plasma, plus red-hot battery terminals. The tragedy ended when the clock stopped in the forward torpedo room at 2210.

The crew in the forward half of the boat just had time to make amends with their Maker before painlessly passing. It was so quick.

Needs of the State vs. Crew Readiness

Ultimately, the needs of the state superseded the true technical status and actual crew readiness of the submarine. She was not, I believe, materially ready, nor was the “crew,” with just 11 days to meld as a unit—an impossible task. The old hands would not be very happy about the early redeployment. They would be tired emotionally and physically. Also, the significant impact the additional bodies would have had on the efficient, safe operation of the submarine, plus the morale of the main crew, cannot be overstressed. “Step aside! Ship’s company coming through!” gets old very fast. Then, when there’s a ship’s emergency, “quick the word, fast the action” becomes very problematic.

When the last emergency occurred and the word passed, the crewmen knew they were doomed. Thankfully, they died without ever feeling pain due to the swiftness of it all.


After these 50 years of studying the *K-129*’s loss, it is still tough to get my head around the forces involved and

A remarkably detailed model of the *K-129* wreck, built by the CIA during Project Azorian. Seeing it, one perceives how, for the crew, it would have been “a quick, painless, and sudden death.”

the sequence of events. What has been presented here is derived from my firsthand involvement and my experience as a submariner; it is not conjecture based on hearsay.

I would leave the reader with one final example of the very human element underlying the story. Near the end of Project Azorian’s disassembly of the *K-129*’s retrieved remains, there was one large air flask on the *Hughes Glomar Explorer*’s well deck that evidenced a faint crack about four feet long out of its ten-foot length. Cutting the cylinder open, to our utter amazement, we found a hardbound book, completely intact, undamaged.

The title of this book that had miraculously survived—a book that had belonged to a sailor who had perished in the service of our Cold War enemy—was *Short Stories of the American West: Cowboys and Indians*.

Go figure. 

CAPT Newman, a member of the U.S. Naval Academy Class of 1960, served in five submarines both as enlisted and officer, including as commissioning crew communications officer and second ship’s navigator in the USS *Daniel Boone*, the first U.S. ballistic-missile submarine assigned to the Pacific Fleet. He also served as a submarine analyst for the Defense Intelligence Agency and as the Strategic Systems Support Program Manager and a nuclear device engineer at the Lawrence Livermore National Laboratory. He is the last living member of the CIA’s Project Azorian *Hughes Glomar Explorer* team.