

REMEMBERING DON WALSH 1931 - 2023

Dr. Joe MacInnis November 12, 2023



IMAGINE you're the 28-year-old principal pilot and commander of the US Navy bathyscaphe *Trieste* and you're inside its steel sphere dropping through the ocean to her greatest depth. You've been descending for more than four and a half hours jammed inside a space no bigger than the front seat of a compact car surrounded by dials, gauges, switches and circuit breakers. The air is heavy with processed oxygen and working sweat. The temperature is seven degrees above freezing.

Outside the small, circular viewport is a darkness that lasts forever. There's no oxygen to breathe and the water is as cold as death. The sphere is being squeezed by almost four hundred million pounds of pressure.

Your eyes are glued to the echo sounder, an acoustic device sending electronic pulses to the sea floor, revealing the rate of your approach. The only sounds are the hiss of oxygen flowing into the sphere, the hum of instruments and the racing of your heart.

You see faint black outlines on the echo sounder. "There it is Jacques," you say to the tall, slender man crouching beside you. "Thirty-two fathoms. Twenty-five. Yes, this is it. 20 . . . 15 . . . 10 . . . 6."

Jacques Piccard, the 38-year-old Swiss engineer, co-designer of the bathyscaphe, and your copilot on this mission, stares silently out the viewport

Tucked away in a corner of your brain is the muted explosion you heard passing through 31,000 feet. You winced and then studied the instruments and fast-mapped the problem. Was it a failure somewhere in the structure holding the sphere? The size of a greyhound bus, it held a complex assembly of propellers, pipes, water ballast tanks, steel shot hoppers, release magnets, pressure relief valves and thirty-five thousand gallons of lighter-than-water gasoline. You waited and listened. Descent and equilibrium seemed normal, so you looked into your partner's eyes and agreed to continue.

"Three fathoms. You see the bottom? Good, we've made it."

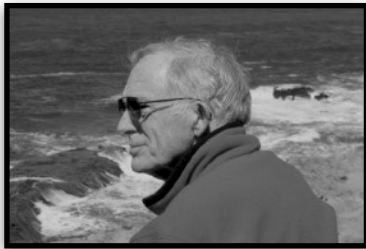
The floor of the ocean—a flat, tan-coloured realm of diatomaceous ooze—appears in the light beneath the flood lamp. A few seconds later, the ooze responds to the water being displaced and billows into dense clouds that envelop the sphere.

It's 1300 hours on January 23, 1960. You, Jacques, and your fourteen-man US Navy team have been working on this record-breaking descent for more than a year. You shake hands with Jacques. You're seven miles below the heaving swells of the western Pacific inside a submerged slice of the earth called the Mariana Trench. You'll stay for twenty minutes. Then you'll begin the hardest part of the journey—getting your 150-ton bathyscaphe back to the surface.

I MET DON WALSH in 1968, when I was working for the US Navy *Sealab III* project and he was the Dean of Marine Programs and Professor of Ocean Engineering at the University of Southern California. He had taken the gift of his pioneering dive and love of learning to become an ocean scholar and educator. After serving in the Korean and Vietnam wars, he earned a Ph.D. in physical oceanography. His profound knowledge of ocean science and policy led to his appointment by Presidents Carter and Reagan to the U.S. Advisory Committee for the Oceans and Atmosphere.

As the years passed, he became my mentor — eager to share his hard-won knowledge about the technologies needed to work safely at great depths. He was a modest man, flushed with enthusiasm for the global ocean and delighted with the success of his fellow ocean explorers.

Not long ago, I spent two days with him at his home near the Oregon coast. As we walked through his two thousand-book-lined office he pointed out some of the volumes that inspired him. There was a spirit of generosity in the room.



“Learning is the secret,” he said with a smile. “Learning about everything. From books. From experience.” He spoke with a naval cadence, soft but solid emphasis on every word.

We talked about a book he wanted to write. “It will be a personal odyssey of deep ocean exploration,” he said. “A kind of conversation with myself.” There was an undeniable gleam of impishness in his voice.

He looked at me with great, honest eyes. They portrayed something beyond fascination, the kind of unquenchable compulsion that inspires someone to read hundreds of books and travel thousands of sea miles every year, for decades.

“The ocean taught me to see beyond surface appearances,” he said quietly. “And always be true to yourself.”

Sunlight was streaming through the windows. The first ambassador of the deep ocean was fully embracing his luck, still marvelling at how far he had come since the day the steel hatch closed and he began his long free fall toward the centre of the earth.
