

# Leonard Wass

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**Cohen:** [00:00:00] Good afternoon. Today is June 23, 2021. My name is Leah Cohen, I'm the Oral History and Reference Manager at the Pritzker Military Museum and Library. I'm excited and honored to interview Captain Leonard Wass, who served twenty-five years in the U.S. Navy Submarine Force, five years on active duty, sixteen years in the Naval Reserves, and four years the inactive reserves. He served on three submarines and for the last of them, he was the lieutenant of the nuclear submarine USS Kamehameha [(SSBN-642)], which I'm sure I pronounce correctly. And we look forward to hearing your story. So welcome. Thanks for coming in and we'll begin at the beginning.

**Wass:** [00:00:49] Thank you. Pleasure to be here with you today.

**Cohen:** [00:00:51] Thank you. When did where were you born?

**Wass:** [00:00:55] I was born on the southwest side of Chicago in a district called Brighton Park, which is right the next neighborhood down from Mayor Daley's Bridgeport, which I think most people are aware of if you're a little older [Cohen laughs]

**Wass:** [00:01:10] And my I was actually born around 39th and Holeman or Kedzie, but my father had a big repair garage on Archer in California. And so that was my neighborhood that I grew up in and that's where I hailed from. And I got an appointment to the Naval Academy from a fellow named John Kluczynski who rebuilt the big building here in Chicago, the Kluczynski Federal Building. And he's the guy that appointed me to the Naval Academy. So. Oh, and so I left in 1960, seventeen years old, and went off to Annapolis. The rest is history. [Laughter]

**Cohen:** [00:01:53] What was it like growing up those seventeen years?

**Wass:** [00:01:58] It was great. You know, I had to fill out a form recently that said, you know, were you born wealthy or poor? And I thought about it, and I put down wealthy even though my parents didn't have much money. And because we had plenty of love, we lived in the second floor. My immigrant grandmother lived below with all my aunts and uncles, and we had a wonderful family. So Dad worked two jobs. Mother worked during the war. My dad was in the Navy as the what's called machinist mate now, but they call it motor mac in the World War II. And he was in the Pacific doing repairs on the battle fleet after every battle. Mom worked at Crane Company and at the end of the war, she has a certificate. She didn't realize that, but she was making valves that were used in the two bombs that were dropped on Hiroshima and Nagasaki. And so, my immigrant grandma watched me during the day and my first language was Polish. So when I went to the Naval Academy, I needed the only course I could take as an elective was language. And they said, "Oh, you need to be interviewed if you're going to take Russian." And so, I went for an interview. The head of the department said, "Do you know a language?" And I told them Polish. He spoke in Russian. I spoke in Polish. We had a nice conversation. And I think I stood first in the class in Russian. So, you know...

**Wass:** [00:03:29] It a great neighborhood. You know, I was raised in parochial schools. I tell people that's why I'm so weird. You know, the nuns teaching me and not only grade school, but high school. And, you know, off I went to the Naval Academy, but it was a good neighborhood where people helped one another. We knew everybody in the block. Somebody needed assistance. And I came from a family that needed great assistance because my mother was thirteen years old when my grandfather was run over by a drunken driver as he was crossing the street to go to church on Good Friday in 1931, the peak of the Depression, and Mom was thirteen years old. There were ten children. Grandma was pregnant and there was nothing like relief or, you know, subsidies or that. So, you know, people had to pitch in and, you know, you had a community where the savings and loan kept rolling the mortgage over till the kids got a little older to go to work and pay off. And I certainly grew up learning about the Depression.

**Cohen:** [00:04:42] What were the names of the of the schools that you went to?

**Wass:** [00:04:47] I went to Saint Pancratius Grade School and Saint Joseph High School in the back of the yards and 48th and Hermitage. You know, back in those days, Chicago was the big

slaughter house. Even some famous books written about a Chicago slaughterhouse and and it wasn't a very good high school education, and I was a little behind in math. When I graduated from the Naval Academy, I got a letter in my service record to come back and teach math. But when I got there, I was behind, and they paid us five dollars a month cash. But that was only after you got a whole bunch of vaccinations every month. You know, they shot you full of different kind of things for every disease known to man and then give you five dollars cash. And I would go to the Midshipman's store, and I bought a flashlight and all the batteries that five bucks would buy. And then every month I'd buy more batteries and we had to go to bed at 10:15. There was caps, and it was an honor offense if you weren't turned in in your room. And so we'd say all turned in, you know, lights go out and flashlights go on under the covers. So but I caught up.

**Cohen:** [00:06:03] So you would study in your bed?

**Wass:** [00:06:04] Yeah--

**Cohen:** [00:06:05] With a flashlight--

**Wass:** [00:06:07] Now you can just stay up all night if you want. You know, things have changed. So.

**Cohen:** [00:06:10] Did did you have an inclination toward math?

**Wass:** [00:06:18] Well, I was good at math and good in engineering. I just didn't have a good grounding in it. You know, in high school it was just, you know, education. And it was interesting how I got to the Naval Academy, though my parents weren't well-educated, neither of them, mom had to drop out after she couldn't go to high school after her dad died. And my dad grew up in northern Wisconsin, went to the eighth grade in a one room schoolhouse. But both of them, you know, we knew that I am the oldest and my younger sister and brother were all going to college. It was, you know, a rule and we weren't going to violate that rule. But I thought, you know, how are my sister and brother going to get to college with, you know, the financial wherewithal of my parents? So the television came out. A lot of people don't realize

that it hadn't been here forever. You know, came in with these big, big boxes with a little screen, you know, this big. And there were two shows that I watched as a child that I liked.

**Wass:** [00:07:23] One was *Men of Annapolis*. It was a thirty-minute weekly series where the midshipmen are getting some problem and they'd solve it and they'd live happily ever after in the thirty minutes. And the other was *The Silent Service*. It was war patrols out of Pearl Harbor by the submarine force. A lot of people don't know this, but the the branch of the military in World War Two that had the highest killed in action percentage of any branch of any service was the submarine force. It lost 22 % of all their officers and sailors. So your first war patrol, you had a 20 % chance of dying. And I know guys that did seven war patrols. Can you imagine statistically the percentage of, you know, they were facing? But I said to myself, I said, "There's a good way for me to proceed. I'll go to the Naval Academy, and I'll be a submariner out of Pearl Harbor." And that happened. So two of my three submarines were out of Pearl Harbor and I'm still involved in the Pearl Harbor and the submarine force.

**Cohen:** [00:08:31] So you made the decision early in life when you followed through

**Speaker3:** [00:08:35] And got lucky. You remember that prayer; Lord, give him the choice between luck and brains. Give me luck. [Both laugh]

**Cohen:** [00:08:48] Was it important to your family that you serve in the military, particularly that your father served during World War II and your mother, in effect, was part of the war effort?

**Wass:** [00:08:57] Everybody served in the military in World War II. You know, even if you weren't in the service, you were collecting fat and cans so that you could make gunpowder out of that. And there were war bonds and and every corner in my community had postings of a of a sailor or a soldier that got killed in the war. And it was just expected that you would serve your country... You know, too bad it's not that way nowadays. We got one percent of the population that goes in the military. And quite frankly, I've been a big proponent of mandatory national service in allowing a person to choose what they'd want to do if they want to work in a hospital or do social work. But, you know, giving back, I think, is very important in life.

**Cohen:** [00:09:56] Like, it's true, like to train people to give, make a contribution.

**Wass:** [00:10:00] It's easy to take, but you ought to give something back too, you know,

**Cohen:** [00:10:07] Did you have any hobbies, or did you enjoy sports when you were a kid?

**Wass:** [00:10:12] Well, you know, there were no sports facilities, so I was very good at baseball. Everybody played baseball but in Chicago, we had these huge balls that I think are unique. They're softballs, but they're unique to Chicago because we had no playgrounds, we had no athletic facilities. So we'd play in the street and you'd use, usually if you were on a corner, you could use all the sewer covers as plates, home, you know, first, second, third. And if there was an empty lot, you had an outfield. And what else did you need? In the big balls or the, try to make sure you didn't go through many windows. [Both laugh] And and I was a good baseball player. So every so often we'd play with a in Chicago, we called them league balls, but they're baseballs, you know. But we used rubber ones because, again, you know, it has less impact on the glass than a regular hard baseball. And every so often the balls that run down the curb and they go down in a sewer, but they float. So being the smallest, youngest kid, the oldest, strongest kids would lower me down, headfirst and I'd grab it. And I think now I'd say, you know, if you ever had your kid doing that, you'd probably really discipline him. Good thing I never told my parents, you know So those are the good old days.

**Cohen:** [00:11:52] Yeah, yeah, yeah.

**Wass:** [00:11:53] So that's where we played.

**Cohen:** [00:11:57] That's wild.

**Wass:** [00:11:58] We had no gym in high school. You know, we went to a public park and for, you know, some workouts. So there weren't organized facilities. You say that nowadays and people say, "Oh my God, you know, because my grandkids all have wonderful facilities," and, you know, my children had great facilities, but it was a different time and age. So the forties, growing up fifties, you know,

**Cohen:** [00:12:23] True, true and even in the '70s, I remember people like kids just getting together to play hockey on the streets, even though there were facilities. Yeah, yeah, yeah, yeah. That's true. Um, so do you want to go back and give a little more detail how you got accepted to the Naval Academy and whether exams were required of you for entrance and so on?

**Wass:** [00:12:47] Well, I was the principal appointee. And back then, that meant that I was at the top of that congressman's list. So if I qualified with the academic and other physical qualifications that were required, I was in. But, you know, I had to go to Great Lakes and pass the physical. I had to take examinations. And something very, very interesting happened. I have always been nearsighted in my right eye, and I've needed glasses to see. And that was not it was like twenty-one hundredths, which is not very good. And you need a twenty-twenty to get in the Naval Academy. And I said I, you know, I'm still going to try, try for it. And I went to Great Lakes and seventeen years old, I got off the train over in Great Lakes and the snow was about an inch and a half deep, a foot and a half deep, walk to the naval hospital. And, and they kept me an extra day because my grandmother had diabetes. So they gave me a glucose tolerance test and all that. But when it came time to see and cover my eyes, you know, I covered that left eye. I was very honest, but I saw that chart twenty-twenty. And I got in. I had a little trouble with the nuns in high school because I was a little, my story is they couldn't take a submarine joke, see. But their story was that I was a behavior problem, and I worked all the time at my dad's garage, and I needed an outlet. And, you know, high school was the outlet, and it wasn't much of a challenge. And so, the nuns told me that they were not giving me a letter of recommendation. And suddenly I saw my naval career go up in smoke before it ever started. And so I was done. They said I was a conduct risk, and I would get a court martial and reflect unfavorably on them and. I thought, 'You know, that's it's, you know, but a week later, a nun slipped me a letter of recommendation and she slipped out of the convent and got married. So the Lord also works in very strange ways. But I never got court martialed.

**Cohen:** [00:15:16] So they were wrong on...

**Wass:** [00:15:17] They just couldn't take a submarine joke.

**Cohen:** [00:15:22] Oh. Did they cultivate faith in you like a certain amount of faith or belief or--?

**Wass:** [00:15:30] Oh absolutely. I still have that. You know, I was the Catholic lay leader on the submarines. And what that is, we don't have any, you know, in a submarine, you don't have any extra room. So you're not going to carry a minister, rabbi, priest. So my roommate who made admiral later on the Kamehameha and I, as I jokingly call him, he was the Black Protestant lay leader and I was the Catholic and he was my business partner later in my life. But I turned to him, and I said, "You know, we've got nobody showing up for your service or mine." I said, "You know, let's join together." That was the '60s before anybody knew the word ecumenical, you know, the [Second Vatican] Council. And so during the next off crew, I went and got a whole bunch of these reel to reel days, tapes of Billy Graham's sermons and hymns, and candles. And we really did it up and we had joint services. And we filled the crew's mess with the sailors. And I remember once having the officer on the deck watch, which is where I generally stood the watch by the periscope stand, you know, your charge of the boat. And we had an underwater what we call the telephone, but it was a transducer to hear what was going on. You can hear aquatic life snapping shrimp, you know, whales and porpoises. And and I could also hear our Southern Baptist executive officer from Arkansas singing these hymns. I had to send a sailor down to the cruise's mess. I said, "Tell the XO to be quiet. The Russians might hear us." [Both laugh]

**Cohen:** [00:17:19] You know, a little too much.

**Wass:** [00:17:21] Sing softer. So it worked, you know, but to this day. And I have a strong, strong religious conviction and God and try to practice it.

**Cohen:** [00:17:36] Yeah. Okay, so you're accepted to the Naval Academy and when did you go there? Like, was it right at the end of the summer or--

**Wass:** [00:17:49] It was July 5th, 1960. And I went to the world's busiest airport in my neighborhood, Midway Airport, and I got on Capital Airways. They now call it United Airlines. And I get on this two-engine prop plane. [Cohen: Oh, no], I flew into Washington National Airport, which is now called Reagan, and got off. And I saw this bus that said U.S. Naval Academy. And I said, "Are you going there?" "Oh yeah." I got on board. Next thing I know, my hair is shaven and I'm taking the oath of office and I'm in line to gather my uniforms because

they put everything back, send it back home. And I thought I died and went to heaven because they were handing out, you know, T-shirts and all made expressly for the midshipmen stored that, you know, I made it. I made the big [word unclear]

**Cohen:** [00:18:47] You had arrived. What was what was the typical day like as a midshipman? I imagine courses but also was there also physical training?

**Wass:** [00:18:58] It varied by year. But, you know, your first year you had a back then there was physical hazing was authorized. And quite frankly, it got out of hand with a lot of the upperclassmen who really, you know, should have been pulled back. But a lot of them weren't. And they they would just run midshipmen mercilessly into the ground. And so so, you know, I was in that atmosphere, and you would have come around in the morning and before the morning meal and evening meal, you had to sit braced up at the tables and so forth. But you had, you know, very rigorous academics. It was very, very good educational program. I compared it to some of my [friends]. for example, a friend majored in electrical engineering at I.I.T. and I had more electrical engineering at the Naval Academy than he did. You know,

**Cohen:** [00:19:58] Wow, the academics were really rigorous.

**Wass:** [00:20:00] Very rigorous. It was also well balanced because we just didn't study engineering, we studied history, English, language, and so it was a very well-rounded education and then you had summers when you became a sophomore, you didn't have the hazing. So now you could, you know, concentrate more on academics. But there was always graded physical education. So when you went to swim, it was a graded course. We had this one -- he's passed away since we used to call him Squeeze because, you know, he'd be teaching you how to do the backstroke or elementary backstroke and he'd say, "Up out together, sqvee-ueeze." And if you go to the side, he'd push you back in the pool and you know. And so there were a lot of athletics, mandatory workouts, mandatory intermural, if you weren't on a varsity sport. And and we had great varsity football teams. My freshman year, we had a guy named Joe Bellino who won the Heisman Trophy. Served his time and then went back to Boston and served and played pro ball for a number of years. And I remember my junior year, our quarterback got hurt and some new quarterback went in with number twelve and we said, "Who's that, you know, substituting?" His name was Roger Staubach. And at the end of that game, we knew who he

was, and he won. The next year, he won the Heisman Trophy again. So we had two Heisman Trophy winners, went to two bowl games...Our senior year, we lost the national championship to Texas. So, you know, and then the Vietnam War heated up and the NFL, heated up. And, you know, we lost the ability to attract talent like that.

**Cohen:** [00:22:09] So, yeah, my colleague Paul Grasmehr told me about...Roger.

**Wass:** [00:22:15] What's that?

**Cohen:** [00:22:16] But my colleague had had told me about the athlete, Roger--.

**Wass:** [00:22:20] Roger Staubach. Yeah, he was a very good guy. He was he was probably a better baseball player. He played and he could have played varsity or pro baseball; he was a great football player, too. And, you know, Dallas Cowboy legend and but he served four years. He was color blind. And you couldn't get in the Naval Academy if you're color blind. So that was another 'the Lord working in strange ways', but he sure could tell the difference in the dark jersey and the light jersey So and he served his time in Vietnam. He was in the Supply Corps. And, you know, they got mortared and shelled and everything. And then he after that, he came out and went to the Dallas Cowboys. And the other thing about Roger is a very religious guy. And he used to go to -- and we would get up at 6:15 every morning-- and, you know, ten, fifteen taps and they'd be filled, but he'd get up extra early and go to church to mass, every day. He's quite a fine guy. So, you know, real, real good role model. I wish they all were that way nowadays. They're not.

**Cohen:** [00:23:34] So what were the people like kind after the initial hazing? Was there a sense of camaraderie?

**Wass:** [00:23:43] Once you if you were a Plebe and you sort of showed that you could take it-- And I've got to tell you, I if you remember the Hanoi Hilton, it's where the North Vietnamese imprisoned our prisoners of war. Five of my friends and classmates were guests from five to seven years at the Hanoi Hilton. And you talk to any of them, and they'll tell you that that Plebe year, we had helped them an awful lot to make it through the tortures and everything else like that. So, you know, it taught them some... In fact, one of my friends came out after seven years

to find out his wife had divorced him, which was, you know, how do you do 'Welcome back to society'? But, you know, they did well with their lives after that. No PTSD. You know, they just went on and did some good things. So if you sort of showed the first semester that you were pretty good, it started after the second semester, it got a little easier. And I had one guy who was a senior and he was giving me come around all the time and he liked me, and I liked him. He wound up being a submarine captain. Later. We're still good friends, and he made me the brigade shower handball champion, I show up for a [00:25:06,unclear]come around [00:25:07] and rain gear and gettin' into the shower with another classmate. The shower, get turned on. We play handball and, you know, and I was the victor. And so I told him recently, "Too bad, it wasn't an NCAA sport." But He sort of kept me out of the line of fire, if you will, so.

**Cohen:** [00:25:27] Right. To keep you occupied.

**Wass:** [00:25:30] And we had fun...

**Wass:** [00:25:35] The summers were good, too, because we had training. My first summer was on a big cruiser, the USS Boston [(SSN-703)] and we went up and down. We went up to Maine. I had my first lobster. We didn't have many lobster houses on the southwest side of Chicago. Never ate with a bib being put on us, you know. So that was my treat. And then we went down the Caribbean and shot up an island off Puerto Rico that, you know, is no longer used. But and in then the the next year it was aviation summer. And we flew airplanes and I got to make carrier landings and I got to make my instructor sick during aerobatics, which I was proud of.

**Cohen:** [00:26:20] And so when did you get your wings?

**Wass:** [00:26:24] No, no. It was just a couple of flights. You know, you don't get wings, it was introduction. We also made an amphibious assault on the Virginia Beach shore, you know, and playin' Marine, get exposed to that. And then to our senior year, I had a Mediterranean cruise on a destroyer, and we raced from port to port, the port. And I loved it because I went into Beirut, Lebanon. It was before all, it was still a French colony, if you will. The streets are all just like they are in Paris, you know, and beautiful buildings and streets and avenues. And, you know, it's been destroyed, obviously, by all the war they've had there. Went into Rome. The ship didn't. But we I took a weekend. They let us and the pope was changing. There was a new

pope coming in. And so, we went to Vatican Square and, you know, with the crowd, it was good. So, you know, we learned a lot, the French Riviera, the Italian Riviera. And it was, but I didn't like the surface force because I thought it was too formal. They're there in the middle of the ocean and they all got to dress up in some uniform. I mean, the submariners don't do that.

**Cohen:** [00:27:43] So that's a little bit too formal, too officious,

**Wass:** [00:27:46] Right.

**Cohen:** [00:27:46] Yeah. And it's very interesting, it was a chance to see the world at a young age?

**Wass:** [00:27:51] Yeah. You know, for a young guy who, you know, had been to Washington, D.C. on a train twice and then went up to Wisconsin, to the grandparents' dairy farm when he was a kid, that was a pretty good experience.

**Cohen:** [00:28:03] So, yeah. What was your favorite part of the Naval Academy?

**Wass:** [00:28:10] Well, you know, I'll tell you that I learned a great deal. I learned a lot about integrity in high school. And I we sort of joke if, you know, we could get away with anything. You know, we were bad kids, but nobody ever, you know, taught us about integrity and ethics. And the honor system at the Naval Academy taught me a lot. I mean, to this day, if you lie to me once, you're done forever with me. And, you know, it's so unfortunate that I see, you know, lies coming out of our politicians all the time. And what an awful example for young American kids. And the other thing was, we had a World War II submarine skipper as the superintendent my last couple of years, the last three years. And he had made a lot of war patrols and he would get up before us. We'd call him Uncle Charlie. His name was Rear Admiral Charles Kirkpatrick. And the highly decorated submarine officer, you know, whose chances of living were pretty slim, you know, with all the patrols he made. But he would always get up there with his wife standing with him, and he would always tell us one thing. "See, I want you all to remember you can do anything you set your mind to do and don't you forget it." And it really sunk into all of us in our class. So it was nothing. You know, we couldn't do that that we really wanted to do, set our mind to do. Wonderful, wonderful mentor, you know, you know, and I meet a lot of friends,

I mean, to this day, you know, driving in here for this interview, I called up a couple of classmates, had a chat, one in Washington, one in Maine, you know, so they're all over all over the world.

**Cohen:** [00:30:18] Wow. Very impressive. So something I'm not clear about --had you met Admiral Rickover, like at the academy itself, or had you heard about him like was he a looming large presence?

**Wass:** [00:30:31] Yeah. In order to get in the [Naval] Submarine Force, you had to be interviewed by him personally.

**Cohen:** [00:30:38] Was that...somewhat later?

**Wass:** [00:30:40] Yeah. So so when I was a senior at the Naval Academy, it was just before Christmas in 1963. Got on a bus and we went to Washington, D.C. and in the Mall, which is pretty clear now between the Washington Monument and the Capitol, back then there was a whole bunch of wooden buildings from World War II called Old Navy, and Admiral Rick had his office and Old Navy. And I went in there and the procedure was you'd be interviewed by three of his staff. And those are pretty docile interviews. They were mainly to check, if you could think on your feet, if you learned anything in math and physics, you know, they give you a little problem and see if you understood, you know, how gravity works and so forth. You know, they were pretty difficult problems. But, you know, but when you got in with him, it was a whole different story. Now, he grew up in Chicago, two miles from where I grew up. And one of his replacements, Admiral Bruce DeMars his second replacement grew up two miles from where I grew up as well. So I think the water was pretty good in that part of Chicago. [Cohen laughs]

**Wass:** [00:31:59] And so I got into the room and my mentor that day was the prospective commanding officer, the first nuclear powered aircraft carrier that eight reactors on it, the USS Enterprise [(CVN-65)], and brought me in a room. And the candidates would sit on a little chair way down and the front legs were cut off a couple inches, so it went down. Rickover was a short guy, but he's behind the desk. And you're looking up at him now, you know? [Cohen laughs] And so, you know, I sat down in his--just as I sat down, his secretary, who was a Navy yeoman female, came in and said, "Admiral, I think you ought to take this phone call". So he

picks up the phone, and he never lost his guttural Chicago Jewish accent..."Rickover" [pronounced in this accent] and he's listening and listening [to the person on the phone], it seemed like forever. I'm twenty years old and I'm looking at him. And finally, he says, the first words out of his mouth [were], "For being president of General Electric Company, you're sure a stupid SOB." And he said, you know, bang, hangs up. And he turns to me-- [laughter]

**Wass:** [00:33:21] He says, "Why did you drop nine places out of, like, eleven hundred guys from your second or third year at the Naval Academy?" And I gave them some B.S. like, you know, "Hey, the courses got harder", you know. And [Rickover replies] "Were you discriminated against, [by] you taking different courses?!" You know, "Don't get the ba ba ba ba." And that's where I learned to cuss because he was incredible. Threw me out twice until the third time I had the right answer. The right answer was I didn't work hard enough. I would give that answer first nowadays. I could have worked a little harder. So at the end, he says, "Are you taking any extra courses?" I was so proud. I was taking two extra difficult graduate mathematics courses on top of the regular size. "Yes, Sir." You know, and his response was, "You lazy SOB, take another one, get out of here." And I said, "But, Admiral, they've closed the, you know, the registration." "You tell them, Admiral Rickover [wants] to open it up, and now get out of here." So, you know, that meant you were in. [Laughter] Now, he didn't tell me what courses to take extra. And so, I took a freshman drafting course that was like, you know, guaranteed A but still was, you know, three hours a week. So it was like twenty seven semester hours, but got me in the Submarine Force and, you know.

**Cohen:** [00:34:55] Yeah!

**Wass:** [00:34:56] It was done so.

**Cohen:** [00:34:57] So did you go back three times within the same day?

**Wass:** [00:35:00] Day, same day, they put you in a little closet to reflect, you know, on why you gave the wrong answer and, you know, give you a little coaching. But he was right. [emphatically] You know, I you know, I wasn't discriminated [against]. I was taking this, you know, same as my classmates. They did better. You know, it was nine out of eleven hundred. But, you know, I could have done better if I worked harder, I guess, but I worked pretty hard.

**Cohen:** [00:35:29] So that's like, as you're saying before, the insistence on achieving excellence.

**Wass:** [00:35:34] But he was one of my four great mentors. I did a I did grad, my graduate work, an MBA at the University of Chicago. And I just did a podcast for a group over there. And it was on mentorship. And I talked about my four great mentors in my life. One was my father, two, were submarine skippers I had, and Admiral Rickover was the fourth. And, you know, I learned from him that the minimum standard of performance is excellence. And that's the standard that I demand out of myself and everybody else. And, you know, and if you don't have excellence when you're examined in a submarine, you're fired. You know, some say it's pretty harsh and I'd say, "It would be even harsher if we had a reactor problem". [Chuckles]

**Cohen:** [00:36:36] Right. Like it's necessary in this is field.

**Wass:** [00:36:38] Necessary in life. Yeah, but, you know, so get get this crusty old guy from Chicago, Illinois, named Hyman Rickover to teach you that stuff. And so it's very interesting. The current guy who has Rickover, his job, four-star admiral, one of the top in the Navy, is the son of one of my best friends who's passed away, who was working for me at the time he passed on. He was Naval Academy '58. He was a submarine skipper. And every time I see his son now, I tell him how old he makes me feel that, you know, my buddy's son is now Rickover's replacement. [Laughter]. So, you know, the life, life moves on.

**Cohen:** [00:37:21] And maybe the values were perpetuated.

**Wass:** [00:37:24] Oh, yeah, absolutely. Oh, absolutely. Frank runs a submarine force that way. He's not as harsh as Rickover but he's kept a little chair in his office. So he's got the -- he didn't have anybody sit on it but it's a memorial. You know, I know his mother and his wife real well and, you know, I'm close to the family. So these good, good, good fellow working. You know, his standard is excellent.

**Cohen:** [00:37:50] Excellent. While you're at the academy, there's like two important incidents and I wonder, were they discussed at the time? So one of them was the the sinking of the USS Thresher [9SSN-593] in 1963. And was that discussed or where there...

**Wass:** [00:38:12] I will never forget that day because I, you know, had applied for submarine, you know, that was my goal and then the [USS] Threshers sank. And so we were all stunned by it. We didn't know what to make of it because there, if you remember the circumstances, they went out for a test dive after being in the Portsmouth Naval Shipyard in Portsmouth, New Hampshire. And during one of those test dives, the boat sank. Everybody was killed. And they had not only the crew, but they had a lot of people from the Portsmouth Naval Shipyard on board, you know, looking. So there were a lot of people died in that. And we'll never know exactly what happened. But a lot of things, a lot of good later came out of it through the investigations. And what we found was construction problems that we later fixed, design problems that we later fixed. And we were in it introduced a whole new methodology called Sub Safe. And if you didn't pass your sub safe criteria, you were restricted in depth and so forth. You know, make sure that we wouldn't have another Thresher. But one of the things that came out from it is a series of studies by General Dynamics Electric Boat Division in Groton, Connecticut, that took the two worst casualties you could have on a submarine. One is going slow at test depth and having a big flood, double ended pipe rupture.

**Wass:** [00:40:13] And the reason it's bad is you need speed and momentum to help you get up, not just blowing the tanks. And so if you're going slow, you far you've foregone that other opportunity of being able to drive yourself up. The other is going real fast. And you have a stern plane failure on full dive. And the stern is what planes are, what controls your angle. And so, you know, suddenly you're, you know, diving down and you're going down fast. And when you looked at the two curves that were in computer simulation studies, I think it was you had either three seconds or five seconds from the time the casualty initiated till the time you implemented all corrective action. Otherwise, you're going to sink. So, you know, every time we would really go fast and all, we would have precautions, like everybody sound powered phones. And we had a command. I forgot what the word was, Geronimo or whatever, you know, it it meant-- Everybody knew what they had to do, blow the tanks, full rise on the planes and so forth, so we could get all that done within three seconds. So there were good things that came out of it. But, you know, it's unfortunate we lost. But then we lost the [USS] Scorpion [(SSN-589)] , if you remember, in 1968. And one of my Naval Academy classmates, John Sweet, a Submarine School classmate, went down with the Scorpion. And there were a lot of speculation. But we now know exactly what happened based on two things. One is sound analysis of hydrophones we

had picking up sound. And there was a fellow named Bruce Raoul, who was the top expert in sound analysis, and he looked at those tapes and and it confirmed, there was also the underwater deep diving research [00:42:27] vessel that found the Titanic also went and found the [USS] Scorpion first.<sup>1</sup>

**Cohen:** [00:42:34] Oh!

**Wass:** [00:42:35] And it was a top-secret mission to do that because we didn't want anybody to know where the Scorpion was. It was off the Azores, and they photographed the field and what they found was a scorched battery cover. Now, the battery had 126 cells. Each cell weighed two thousand pounds. So this is not like your car battery. And for that cell to be scorched, meant it had to be blown up. And so what happened is when you're charging a battery, it emits hydrogen. Hydrogen is very explosive. And somehow that caught and exploded, and everybody was [00:43:17] – as Bruce Raoul's analysis [00:43:18] showed they all died in milliseconds, which was the only good thing, but they all went down, too. So that was the two submarine casualties we've had since World War II.

**Cohen:** [00:43:31] Okay, those are the only two things.

**Wass:** [00:43:33] And two, nuclear. So, you know, one of them that a friend of mine so was.

**Cohen:** [00:43:39] [Mumbles] Sorry for your loss.

**Wass:** [00:43:39] But, you know, we we learn, you know. Who knows why, you know, why they had somebody may have shut a ventilation valve and, you know, caused the explosion occurred. So who knows?

**Cohen:** [00:43:55] You know, I was thinking a little bit about the Cuban missile crisis and the Russian submarine that surfaced, you know under the insistence of Arkhipov [Soviet Navy officer who prevented a nuclear launch] and I think I understand correctly said the batteries

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<sup>1</sup> Vice Admiral Nils. R[Ron] Thunman relates this on YouTube clip: <https://www.youtube.com/watch?v=gaa3O1bfl64> For complete oral history, please see [https://www.pritzkermilitary.org/whats\\_on/holt-oral-history-program/nils-r-ron-thunman-vice-admiral](https://www.pritzkermilitary.org/whats_on/holt-oral-history-program/nils-r-ron-thunman-vice-admiral)

had run low, the air conditioning failed. So people were suffering from extreme heat and high levels of carbon dioxide. Was this an issue that was particular to Russian submarines?

**Wass:** [00:44:21] No, no submarine, all diesel submarines could...Because I remember during the Vietnam War, we were in a special operation that kept getting extended and we were submerged for eighty-five days. But we'd have to charge our batteries every night because it's not like a nuclear, where the reactors independent of air and, you know, generate water and you have hotel showers that you think you died, went to heaven on a nuclear boat. But then we had no water for showers for eighty-five days. When I met my wife, she asked me if I like camping and I told her my idea of camping was the Holiday Inn, you know, based on not being able to shower for eighty-five days. And we took our baths with alcohol, and we made just enough water to fill the battery in to cook and then about a pint a day to brush our teeth. But in the afternoon every day and everybody smoked back then you couldn't, you couldn't light a lighter match anymore because there wasn't enough oxygen. Everybody is getting headaches and the carbon dioxide and carbon monoxide until, you know, we then would put our snorkel pipe up and start charging the batteries and bring in fresh air. So but, you know, but there were two submarine captains that we all owe our lives to, the Russian submarine skippers in the Cuban Missile Crisis. And I just read about them. I don't know them, but every Soviet or Communist submarine, you know, the [00:45:59] trichoms [00:46:00] the Communist Chinese Party has them, too. They put a Politburo type person on, to make sure the captain, you know, follows their orders of the Politburo. And when the Cuban missile, we came so close to destroying the world and these submarine skippers were told that if they faced a blockade, they had authority to release their nuclear weapons and they refused to do it. When they did face our blockade, the Politburo guys urged them and ordered them to do it and they said, "No, we're not doing it. I'm the commanding officer." And, you know, had they released those nuclear weapons, I think it would have been Armageddon. I was part of the four-man release team, and we would get them. We call them WSRTs weapon system readiness tests. And you didn't know whether you were getting a message to shoot, or it was a test and all you would get over the radio transmission was stand by for flash traffic flashes, the highest wartime level of precedence. So you'd sit there and you'd come to the depth, you'd hover and stop the submarine and you're ready to shoot. And fifteen-minute delivery, you know, three thousand nautical miles. And if you want to hit this side of the room, you hit this side of the room at that range. But it's the end of the world. And there were four of us that had to authenticate those

messages. And I was one of them. They were two safes, there was an inner safe in an outer safe. And the captain, the XO had one combination. And my my roommate and I had the other, my Black Protestant lay leader that we had the ecumenical and we'd open the inner safe and we'd all look at, you know, and authenticate. And in times, you know, it take like a half an hour sometimes when that flash standby for flash traffic. And I've got to tell you, I would pray to God that it was a test. So because it would be the end of the world, but it was mutually assured destruction and, you know, got us out of the Cold War. And I think if we didn't have that and if we still didn't have it, we'd have had a lot of wars. We've had proxy wars because of that, Vietnam, Syria, Afghanistan. But we've not had the all out, you know, shoot it out with the Soviet Union or the Russia or China. No. So and we still have our missile submarines out there and they're ready, ready to go. Just hope, you know, if they ever have to shoot, we failed.

**Cohen:** [00:48:58] So, yeah, like it seems like it's like a--

**Wass:** [00:49:02] --end of the world

**Cohen:** [00:49:02] -- To be a deterrent, but not to be used.

**Wass:** [00:49:06] Yeah, exactly but it's a good deterrent to tell people, you know, there they're going to be turned into a ceramic pile and, you know, case, you know, attack the United States, so---

**Cohen:** [00:49:17] That it works. Yeah. Um, so.

**Wass:** [00:49:23] But our submarines have never had, engaged in the Cold War. They've always been in a hot war. And even today, I mean, you know, when they go and deploy there, they're not and, you know, you're not visiting Paris and Rome and they're there in some of the places they shouldn't, doing things they shouldn't be doing, and gathering all sorts of intelligence and special operations and, you know, stuff that's way, way beyond top secret.

**Cohen:** [00:49:50] So so I see what you're saying, although it may be, quote unquote, the "Cold War", the actual operations are that of a "Hot War".

**Wass:** [00:49:58] They're not too cold,

**Cohen:** [00:49:59] Not too cold [laughter]

**Wass:** [00:50:01] To get warm. Yeah. Still do.

**Cohen:** [00:50:07] Still do. Still going on now. Do you want to talk about what happens when you graduate, like which degree you have and and how you landed up being aboard the USS USS Runner II [(SS-476)]?

**Wass:** [00:50:25] Aboard the what – the Runner?

**Cohen:** [00:50:26] The Runner.

**Wass:** [00:50:27] Yeah, well, when I graduated from the Naval Academy and I was accepted by Rickover, you had to go eighteen months of schooling, six months to a classroom study for nuclear power. And then you had to go six months to a land-based reactor and qualify as the engineering officer of the watch. And then you had to go six months to Submarine School and then you went to your first permanently assigned submarine. But before-- So I was assigned to an October start of that very first in the series. So what to do with Len Wass from June till October? And I got assigned temporary duty to a submarine out of Norfolk, Virginia, named the USS Runner.

**Cohen:** [00:51:24] I see.

**Wass:** [00:51:25] So I went there and drove, you know, [00:51:28] ??? [00:51:29] Pontiac down to Norfolk, Virginia, and they said, "Pack your bags because we are going into the St. Lawrence Seaway on a public relations and reserve training trip. And we're going to visit the Quebec City and Montreal and Detroit and Chicago and Green Bay". And, you know, and what a great summer! You know, we'd take the mayor, Mayor Daley, out and dive thirty times in Lake Michigan or Lake Erie or, you know, and it was great. And I thought, 'This is my Navy. I could do this all the time'. We'd come into Chicago, get the keys to the then Playboy Club and free cars,

you know. And so it was a really good summer, you know. Little did I know, a year and a half later, I'm doing spec ops [special operations] of it [both laugh]

**Wass:** [00:52:24] But it was great. Then I went into the nuclear training starting October. But the Runner, I learned a great deal. And, you know, it really helped advance me through the Submarine School because, you know, almost got qualified that summer. You know, we dove so much and did all sorts of, you know, surfacing without blowing the tanks, just airless surface and so forth, because we'd make thirty dives a day, you know, taking the fire commissioner [00:52:57] Quinn out [00:52:58] with, you know, the old days of Chicago.

**Cohen:** [00:53:02] And so so although it was like a lot of it was--

**Wass:** [00:53:05] Some guy named Vince Lombardi up in Green Bay invited us to sit on a bench during an August pre-season type game, you know, that was all right. Except we didn't like those. You know, that was -- we were Bears fans. I grew up on the South Side, but Vince Lombardi was a good guy. So.

**Cohen:** [00:53:28] But nonetheless, you learned a lot of the fact that there were so many dives and surfacing... Like, like although a lot of it were stunts for PR or for personalities, it seems like you learned a lot of the operational part is. Is that right?

**Wass:** [00:53:46] Yeah. Oh, yeah. I learned the operational part, you know, because we did a lot of things on that submarine maneuvering in the St. Lawrence Seaway was pretty interesting. In fact, a few years ago, my wife and I took a paddle. It wasn't like a paddle boat, but it went from Montreal to Toronto. And because I wanted to see the Thousand Islands again, because I didn't get to see, you know, we're down below unless you're on watch up at the top. But I remember once we were going in like fifteen knots and the pilot, which are licensed pilots, and we had to make a left turn in the river, and he put five degrees right rudder on and, you know, and suddenly the boat starts beautifully turning to the left. And he turned to us, and he says, "I'll bet you most people would have, you know, put a left rudder there, you know". In which case, we'd probably been up on the shore. So you learned a lot about ship handling, too. I learned a great deal on the [USS] Sterlet [(SS-392)] when it was my first submarine. If you stood high enough out of Sub School, you could pick your boat and all the diesels went off the top because

they weren't allowing any nukes into ports. And so we were all young. We want to see a little of the world and. So if you stood high enough, you picked the diesel and I got the Sterlet out of Pearl Harbor and I really learned how to handle and fight a submarine, I had a wonderful skipper and we did a lot of interesting, exciting stuff on special operations. And he got us so good that instead of bringing the battle stations alarm, and, you know, having the whole boat go to battle stations, we could actually within a watch section do everything the whole boat could do, you know, which is pretty interesting. And so when I got the nukes, I was like the duty driver because I knew how to fight a submarine and maneuver it and drive it around. And it was a great [experience].

**Cohen:** [00:55:58] From the previous experience on the Runner and the Sterlet...

**Wass:** Yeah. I didn't want to go back in the reactor - it's not exciting. I told them I might get radiated, radiation, joking...that I always stand a watch back there once a month to keep my qualification up.

**Cohen:** [00:56:14] Oh, okay. Okay, well something else that's wondering, just jumping back a little bit like I know when I personally visited the U-505 at the Museum of Science and Industry, it felt for me a little claustrophobic. So I guess I wonder, aside from Admiral Rickover's like insisting on excellence, did you have to go through any physical or psychological tests to see whether you could handle the potential stress of submarine duty?

**Wass:** [00:56:43] During Submarine School, part of the program is -- and that's out of Groton, Connecticut -- The submarine base part of the program is you go out and it's changed now. But back in one hundred years ago when I was going through it, you went out a few times on submarines for a few days. And a lot of the people that might have been claustrophobic or something sort of flushed out during those periods, I don't know any officers that did. But, you know, it was a filtering. So by the time you got, you know, into the submarine, you weren't claustrophobic.

**Cohen:** [00:57:21] Yeah, yeah. You either got accustomed to it or not.

**Wass:** [00:57:24] That submarine at the museum is only about a sixteen-foot hull diameter. You know, ours were like twice as big as that one, the diesel submarines. But they give you an idea... Our World War II diesels displace twenty-two hundred tons. Well, the missile submarine I was on displaced over eight thousand tons last year in our new missile boats. Fifteen thousand. So which are so much bigger than a World War II cruiser. You know, they're enormous ships - there are three levels. And you know, in our new Virginia class, you know, three levels and I've been out and those submerged. And when I'm in the control room [as a recent visitor], I ask and I asked the CEO if he'd let me take over for an hour. My argument is that's like riding a bicycle. And they smile at me, humor me, but they don't let me take over anymore. So I give up. It's that I enjoy the ride. [Laughter]

**Cohen:** [00:58:26] You'll have to go back to the Submarine School.

**Wass:** [00:58:30] Right.

**Cohen:** [00:58:31] So as you mentioned before, the series of three different schools that you went to before being trained for the nuclear one. And how is one like a progression on the other?

**Wass:** [00:58:43] Well, the first one, we essentially what Rickover did is he took the two Master's degree courses at MIT and nuclear physics and reactor engineering and compressed them to two different masters taken two years into six months. So in six months, we absorbed, you know, obviously not in great depth, but, you know, we covered all of that. So we had good theoretical background in reactor physics, you know, and so forth. And then we went to a land-based reactor prototype. Nowadays, they have several old, decommissioned submarines in Charleston, South Carolina, and they're tied next to the pier. Their missiles are gone and all but the the reactors, you know, operating. And so they use those land based, if you will. And it's good training because it's a real reactor. I and I went to one and it's gone now. But it was the reactor used for the USS Tullibee [(SS-284)]. That's 1C - it was combustion engineering company designed it and they were in Windsor Locks, Connecticut, near the airport and in Connecticut in and, you know, in six months you then if you were in. officer, the qualification was you qualified as engineering officer of the watch so you could stand the watch and

everybody, you know, in that engine room was subordinate to you in keeping the heat, light and power going, you know, for everybody.

**Cohen:** [01:00:28] Okay.

**Wass:** [01:00:29] And keeping them safe.

**Cohen:** [01:00:31] Yes. Yeah.

**Wass:** [01:00:33] So that was the year and then the other six months. And it's changed now. But it was Submarine School that was, you know, torpedoes and submarine tactics and, you know, how to drive a submarine around and rules of the road and, you know, everything.

**Cohen:** [01:00:48] Okay, I realized I forgot to ask you more about your time at this at the Sterlet?

**Wass:** [01:00:57] At the Sterlet [SS] 392.

**Cohen:** [01:00:58] Three ninety-two, because I believe that was the top of--

**Wass:** [01:01:02] --it sits off the bottom of the ocean north of Hawaii. It was torpedoed by a buddy of mine on a nuclear submarine in what's called a torpex, a torpedo exercise that verified that our torpedoes work because they didn't work at the start of World War II. And and they wired up the Sterlet and it all sorts of sensors so that even as it was sinking, it took them three days to sink it, then do it in the first two days. But even as it was sinking, the sensors are sending out information that has been very valuable to design submarines. But, you know, it's like it's like, you know, shooting your mother. You know, it's yeah, it's you know, it hurts to see it at the bottom of the ocean. So but it would have been razorblade.

**Cohen:** [01:01:55] So it was necessary. Yeah. Yeah. So were you with the Sterlet when you had the orders to go to--?

**Wass:** [01:02:05] --Vietnam.

**Cohen:** [01:02:06] Vietnam, yeah.

**Wass:** [01:02:07] Yeah, yeah. In fact, the boat had just left for Westpac, and it was there. So I reported in the Pearl Harbor and they said, you know, "Get on an airplane and fly to the Philippines." I guess I picked it up in the Philippines. I got my first lesson was about humidity in Southeast Asia. [both laugh] I got there on the Saturday and I reported aboard and I was going to go to church on Sunday. And I dressed up in a long sleeve shirt with a tie and a top. It was khakis. They don't have that uniform anymore. And I weighed about one hundred pounds less, I was in great shape. And I walked about a half a block and I was ringing what that would walk back to the boat. I understand humidity now. That was, "Welcome to Southeast Asia." Subic Bay in the Philippines.

**Cohen:** [01:03:04] And when you were there, I think this goes back to '66, '67, what was the political view of the country at the time and how did your family feel about you being sent there.

**Wass:** [01:03:20] At that time, there was great support for the Vietnam War and and we actually had won that war. By the time I finished in 19--, you know, finished meaning we finished our role and went back to Pearl Harbor in '67, I was absolutely convinced that we had the war, won. All we needed to do was blockade Hanoi and Haiphong, the harbor is up north, and it was it, it was going to be done. And if you look in the diary of General Giap G-I-A-P, who was the top Army soldier in North Vietnam, he agreed. And just in the Tet Offensive, which Walter Cronkite said, "We lost" and, you know, we were, you know, decimated, Giap acknowledged that we decimated their army in the Tet Offensive. They were done, they were ready to surrender to us. And suddenly they saw in the media in America that, you know, Cronkite and the others said that we had our butts kicked. And so, if you remember back then, they then said, "Why don't we talk about peace and meet in Paris?" And they said, "Okay". So you know, Lyndon Johnson and McNamara and they met in Paris for one year, discussed what the shape of the meeting table would be. Would it be round or oblong or, you know, rectangular, whatever [for] one year. It allowed them to build up their forces again.

**Wass:** [01:05:06] And during this whole time, McNamara and Johnson would not allow the military to fight the war, and they actually, on one day a week would meet in the White House and they would determine the targeting for the airstrikes for the following week. And they're given and I saw one, it was a pretty highly classified back then, but they were shown a target, one was a paper mâché bridge right next to a concrete causeway that was about six inches below the surface of the water where everybody drove their trucks over the concrete causeway, and they decided to sink the paper mâché bridge in their attack. Why? Because they were afraid that China would enter the war. And I think we all at that point lost not only hope, but my view is that both those men are dead now and the just judge has given them their reward. And, you know, and they killed a lot of my friends and maimed a lot of my friends because of their policies out of the White House. So, it was sad. But, you know, and then we said we lost the war. Well, you know why? Because of political, you know, rules of engagement... And and, you know, our military's been on--it hadn't been good for the military ever since.

**Cohen:** [01:06:55] No. It was like a turning point,

**Wass:** [01:07:01] You know, if you don't want to be in a war, but if you're going to be in one, you may as well win it and get the hell out, you know?

**Cohen:** [01:07:07] Right.

**Wass:** [01:07:07] It's pretty simple, I think. But, you know, but, you know, if you're going to worry about, you know, somebody else, you know, interfering and all, you may as well, you know, fold your tent and get out of the--.

**Cohen:** [01:07:19] --surrender.

**Wass:** [01:07:19] Yeah.

**Cohen:** [01:07:20] Yeah. I believe that you were on three top secret missions. Has enough time passed that you could talk about them, like in general terms, like did involve surveillance or engagements--

**Wass:** [01:07:36] They're still classified what we did. But I think like the missions, the special operations and direct support of the Vietnam War, we're really not against the North Vietnamese. We were against China and Russia who were sticking their nose into the war. And we were trying to stick our fingers and their eyeballs because, you know, that's what we did. So.

**Cohen:** [01:08:05] So when you were on the Sterlet, did you know that you were, like, grappling with Chinese or--

**Wass:** [01:08:15] Oh, absolutely. [Chuckles] When we got back to Pearl Harbor--you see, you can't run with a diesel submarine. If you ring up flank bell [i.e. the bell that signals to the engineer to adjust speed of submarines] you can go twelve knots not I mean, it's like fourteen miles an hour for thirty minutes and then your battery's dead. So, you know,

**Cohen:** [01:08:39] That's it.

**Wass:** [01:08:39] You're done. Nuclear, I mean you ring it. You know, you get out of there going thirty knots forever, you know? And so nuclear is really good because you could get out of there and escape. But the diesel submarine, you're basically headed, you know, duke it out or, you know, hope they didn't detect you. So when we got back to Pearl and the way you shoot a torpedo, by the way, is the torpedoes loaded in a tube and then you got to flood the tube with saltwater.

**Cohen:** [01:09:14] Oh.

**Wass:** [01:09:14] --Which is very corrosive. You know, it's forty-four thousand parts per million chloride. And, you know, you can't drink so much, and it gets in, encroaches on everything. And then you equalize the pressure between the outside and then you open the outer door. Well, we did that so many times during those special operations. Fortunately, we never had to release it. But, you know, close. And when we got back to Pearl Harbor, all of our torpedoes that we in a torpedo tubes were surveyed by the weapons they surveyed made junk, garbage can, their garbage can because the saltwater encroachment, we just couldn't clean them up.

So, you know, you learned a lot about, you know, close-in... but they were fun. You know, you learned a lot.

**Cohen:** [01:10:10] When you were on the Sterlet, were you working in tandem with the aircraft or surface boats?

**Wass:** [01:10:16] No, we were independently, you know, and most submarines nowadays are [independent] -you're off on your own

**Cohen:** [01:10:24] Were there systems like -- I don't know what the word is -- like like I understand there was SOSUS as a way of identifying enemy submarines--

**Wass:** [01:10:32] Yeah, it was more SOSUS in the Atlantic. We didn't have a big SOSUS array in the Pacific. Pacific's big, you know, but back then in the Cold War, we're generally dealing with the Soviet Union, and they had one submarine base, Petropavlovsk, in the Pacific. But most of the submarines came out of, you know, the North Sea and the Baltic. And we just pick them up on SOSUS. And that's how we tracked the [USS] Scorpion when it went down. On SOSUS, so it was -- there were hydrophones that were hidden on the bottom of the ocean, and they'd pick up and they go into a central listening place. And then we'd have these experts that were listening, and they could interpret because of the sound frequency what was going on and where they were. So we would track them from the time they left port and all the way across the Atlantic. But a lot of our submarines would, you know, get behind them to their nuclear submarines and follow them for a long time,

**Cohen:** [01:11:39] So they could attack if necessary?

**Wass:** [01:11:40] The Russians did something called Crazy Ivans. And they were they-- In the back of your submarine, you've got your propulsion and engineering. And so you're usually deaf in the back of the submarine. Nowadays, we have floating wires with hydrophones that go behind you...and behind the noise. Now you can hear what's going on behind you and it's built into the submarine. You know, let them out and haul it in. But, you know, back then that was just coming in. The Russians didn't have it. And they they would do a Crazy Ivan. What they would do is, you know, they'd be going fast, you'd follow, and they'd make a turn around and--

**Cohen:** [01:12:27] --Is to throw you off to throw off?

**Wass:** [01:12:30] Well, to see who was behind them. But if you were at the same depth, you know, and you're too --

**Cohen:** [01:12:36] Not too good.

**Wass:** [01:12:37] You have a collision, you know, so it was pretty dangerous. And but, you know, we tracked them all the time. [Cohen interjects: Wow] they're very good now, they're very quiet, unfortunately, stole everything from us,

**Cohen:** [01:12:51] That is...But so that's something that I was wondering about too, like like I think I was reading that the diesel ones were noisier because of the propeller or the battery. Would you like to talk about that or--?

**Wass:** [01:13:03] Because nothing was sound isolated. Everything was just bolted to metal. If you and we started getting pretty good at this in the '60s, like the Kamehameha was very, very quiet. But the like the entire engine room was on rubber sound isolation mounts and then every piece of equipment was on sound isolation. So, you know, you really cut down on the noise and you could barely I mean, almost undetectable. And we've progressed with that. So our current submarines are so quiet that they're almost below the ambient noise up to, you know, high speeds. So they're incredible. But the Russians have stolen a lot of that technology and the Chinese are stealing everything and they're getting better at it. And they're building six a year, each of them, and we're building minus one to minus two a year.

**Cohen:** [01:14:02] We would not -we're no longer building?

**Wass:** [01:14:04] Yeah, we built two a year and we retired three to four. So if you do the math, you know, you're minus one to minus two, right. [Both laugh] So and what we're making that up with is drones and other force multipliers. There's a command in Groton, Connecticut, Connecticut called the Underwater War Fighting Development Center, and they do artificial intelligence and drones. And a lot of people see drones as flying in the air. Let me tell you:

There's drones underwater on the surface, in the air, in all three. You know, there's lots of different kind of drones.

**Cohen:** [01:14:45] So, okay so some of the work that was done by nuclear submarines are now being picked up by underwater drones?

**Wass:** [01:14:53] Yeah, you know, they're a force multiplier. So, you know, instead of building another \$2.8 billion dollar submarine, you're get a bunch of these cheaper drones to help. One of them, there's a surface ship that goes unmanned, big, long, you know, a couple hundred feet long and it goes out for several weeks and it looks for enemy submarines and then comes back into port, you know, from big drones to little drones and--

**Cohen:** [01:15:22] The whole range.

**Wass:** [01:15:23] So, yeah, so and it's a good way to increase your effectiveness, you know, rather than having a whole bunch of submarines. But numbers still count because, you know, if we get in a big war, you know, what are you going to do, ask a submarine to fight twenty-five Chinese submarines, you know?

**Cohen:** [aapprox 1:15] So I think you had written that you were eighty-five days submerged on the Sterlet.

**Wass:** [01:15:51] Yeah.

**Cohen:** [01:15:52] It was. Was that typical? And what was it like for you being underwater for so long? I'm sorry, what time was it?

**Wass:** [01:15:59] No were good. Yeah, yeah, in about fifteen minutes. It was a long time, and you know, without sanity...You know there's no laundry, so you learn to fold your laundry, you use it, you brush your teeth with a pint of water every day, you know, and then you have a like a mustard bottle filled with alcohol and you put that on a washrag and you take your bath.

**Cohen:** [01:16:31] Yeah. Yeah.

**Wass:** [01:16:32] And so, you know, in your smoking, like most people did and you know, you can't in the afternoon, the CO [carbon monoxide] and CO2 [carbon dioxide] are so high, people are getting headaches. And, you know, it was thin on you after a while. So we got into Hong Kong after that and I checked into the Hong Kong Hilton and they've knocked it down since. And I went into the shower for, I think, two hours. [Both laugh]

**Wass:** [01:17:02] It was wonderful. That was my reward.

**Cohen:** [01:17:14] So it's kind of an odd question, but was -- how did you well, I'll put it this way, was there any way to communicate personally with your family when you were under water?

**Wass:** [01:17:22] Not in the diesel submarines, but in the missile submarines? We had what was called family 'grams [i.e. telegrams] in your it was only incoming communications, so you could not communicate out, but you were allowed three, I think if I remember three family 'grams [i.e., telegrams] of twenty five words or something like that, you know...I was the operations officer side, you know, communications, they'd come in and we'd have to look them over because, you know, find one, "Since you left, I've divorced you," ... I'm going to screen that one now. But, you know, that was the only context. Nowadays, it's different. They have, you know, very directional satellite communications and they actually can get incoming emails occasionally when they're allowed to, you know, to, if you will, communicate. Submarines still don't transmit, but they're allowed to receive. So, you know, and they have methods to transmit now that are very directional because in the old days, if you transmitted, they could direction find you and see where you were, you know, so it's a silent service. You don't make a noise. So the first thing you want the enemy to hear is the torpedo going off under their keel.

**Cohen:** [01:18:55] Wow.

**Cohen:** [01:18:58] So when you were the Sterlet, what was your main role like? It seems to give a lot of responsibilities. What was the major one?

**Wass:** [01:19:06] Yeah, it was a couple of divisions. The main one was communications and electronics material, but I was assistant engineer, as well. But the communications and sonar was really interesting because our CEO was... got a master's degree in Electronic Engineering and he really wanted to get the most out of the son[ar]. And we had an advanced sonar for that age. Big, big, huge bow was, you know, filled with hydrophones. And so, we were always taking apart our sonar equipment and soldering new connections and all to enhance the ability to hear. And it was, you know, working under that CEOs, he was a great mentor, he is a good guy, died of cancer at an early age, as did another CEO of mine. And, you know, they're no longer here. But I learned a lot from both those guys.

**Cohen:** [01:20:09] Were they, were they among the four whom you could share mentors?

**Wass:** [01:20:16] Yes. You know, the Sterlet CEO and the Kamehameha CEO and Rickover and my father were the four or so.

**Cohen:** [01:20:23] How were these two on the Sterlet [and the Kamehameha] like? What did they impart to you that you really valued?

**Wass:** [01:20:31] You know, they both of them taught you leadership and you know how to how to really get the most out of people. And you don't get the...Submarines that are really a great place to be for an officer, because like last year in Pearl Harbor, I made the introduction to five hundred sailors from the admiral down and we threw a big party for them, a dinner dance. And I introduced it all. And I said, you know, "You guys" -- I was talking to the enlisted guys-- "make it real easy for an officer because you guys are so smart. You take care of everything. You make our job easier."

**Cohen:** [01:21:12] Yeah.

**Wass:** [01:21:12] And I really meant it because the cream, they skim the cream of the crop over at boot camp, you know, they're all tested and then offer the guys who are in the top one percent or so submarine duty. If they volunteer, they must volunteer. And so you got this group of really smart guys that regulate themselves. You know, somebody steps out of line, the chief takes care of it. You almost never hear of it. And, you know, every so often you got a problem

but so they're all working harmoniously. And the idea is to get them to, you know, be very synergistic and make that whole ship into a, you know, fighting ship, a fighting submarine to go, to win and survive.

**Cohen:** [01:21:58] Yeah, like, everybody has to be really on the ball and innovative and...

**Wass:** [01:22:02] But, you know, you're with a great group of people and I look at that, Sterlet, and, you know, I look at the enlisted guys and the later in their life, they went to graduate school, they ran businesses. They made a lot of money. They had good [lives], you know, I mean, interesting group of people.

**Cohen:** [01:22:20] Very talented and very energetic.

**Wass:** [01:22:24] Yeah. You know, a lot of them just you know, they didn't have a chance to go to school. Well, a lot different nowadays. You look back when I was an officer, the chief petty officers, none of them had college. You go aboard a submarine. Now, they've got master's degrees. The Chief Petty you know, I mean so--

**Cohen:** [01:22:42] Continues...

**Wass:** [01:22:43] The continuing education and so forth, which is wonderful. I mean, you know.

**Cohen:** [01:22:48] That was something else you'd written that I was curious about. You'd mention that while you're on the submarine, you were often, and others were also often qualifying or requalifying. What were the kinds of let's call it courses that you were qualifying while you were on the submarine?

**Wass:** [01:23:04] Yeah, see, that's why you never get much sleep, because you're either qualifying yourself or you're qualifying others. [Both laugh] So, you know, you don't get much sleep. And I think it would kill me now, at my age. I need my beauty rest at night. But every sailor and every officer's got to qualify in submarines. And their first qualification is they literally have to know, you know, every system, every, you know, in the diesel submarines, literally everything. Now, in nuclear, you don't have to be an expert in it, but you have to be conversant

in it... Because if you're walking through the boat and there's a big casualty that occurs, and that's not your area that you work in, you better know what to do to, you know, solve whatever the problem is. So by the time you go through system by system, there's a qualification card and and you've got to sketch out systems, you do a lot of written work and then you've got an oral quiz on that system. And then, you know, at the end it's in the officers. I had to -- it's different now -- but I actually had to write to two other submarines, one in port, and I was evaluated by that. CEO and officers and one underway where I shot, torpedoes and all, but and only then were you awarded your gold dolphin. So we can't do that nowadays. So it's different...

**Cohen:** [01:24:46] You still have every, like you say, learn all the systems extremely well.

**Wass:** [01:24:51] And when you go aboard a new submarine, even if you're qualified, you've got to you know, if it's a different model, there's a lot of differences. You've got to learn those differences so so that you're safe. You know what to do. You know, you can't be officer of the deck unless you know what's going on, you know, and how to, you know, fight fires or flooding or, you know, attack using the boat to attack or defend yourself and so forth. So but once you're qualified, you pick that stuff up pretty quickly. So then you're you know, you're you're re-qualifying other people so it never ends. Training never ends in a submarine force, which is good.

**Cohen:** [01:25:33] Yeah. I think you said earlier that you often were officer of the deck. Was that something different?

**Wass:** [01:25:41] O.D. Yeah, I like the O.D. job because that was, you know, you ran the whole submarine. You didn't just provide heat, light and power in the back. You know. So, yeah, you know, you had more responsibility, and it was a lot more fun.

**Cohen:** [01:26:01] Yeah.

**Wass:** [01:26:02] But yet, you know, you had responsibility for the whole boat then.

**Cohen:** [01:26:05] So I was wondering about is -in that both the, well, the Runner, you were there briefly but then the Sterlet were World War II submarines, what were they like by the time you got to them and had they been. I don't what the word is retrofitted? And and I noticed that in the case of the Sterlet, it was decommissioned about a year after year after you were off it. Did it did seem to be in poor condition? What were your impressions?

**Wass:** [01:26:30] They were near the end of life, you know, twenty years at that time was the expected life. So, you know, let's say was built during the war, let's say at the end of the war, '45. Now, '65 was twenty years [later]. Well, you know, now at '65, '67, so you're stretching it.

**Cohen:** [01:26:48] Yeah.

**Wass:** [01:26:49] And, you know, here's what happens. Saltwater really encroaches on things. But how compression on the nuclear submarine like the Kamehameha I was after we took over and did our refit and before we'd go out on patrol, we take it out for a day or two to make sure and we do a test dive gradually one hundred feet at a time. And I would take, I was usually the OD, I'd take a piece of string and I'd go thirty-six feet across the submarine, and I'd have it tight, chest high. And then as we went down to test step, that string would come down to the deck and lay on the deck. Give me a chance to look at the young sailors that were new to see whether their eyeballs are bulging or not. [Laughter] And you know is... But you do that hull compression and metallurgy and after, you know, thirty, forty years now, you know, how many more cycles will that submarine take without brittle fracture, you know? That's why you retire because you don't know. And, you know, metallurgy is not an exact science, and we build them really good. But, you know, there's a life and with that kind of compression, you've got to get rid of them. So.

**Cohen:** [01:28:19] Okay, cool. Okay so that was the issue.

**Wass:** [01:28:23] But it hurt when the Sterlet got [decommissioned] and the Runner was decommissioned and brought here to Chicago as the submarine training boat here in Chicago.

**Cohen:** [01:28:31] And oh, it was used for training after it retired?

**Wass:** [01:28:33] When we used to, you know, sit on the Runner there at the old armory before the "S" curve was straightened out on Lake Shore Drive.

**Cohen:** [01:28:43] So it was right near here, I think you said!

**Cohen:** [01:28:45] It was near Monroe.

**Wass:** [01:28:46] Monroe and the lake.

**Cohen:** [01:28:47] Yeah. Wow. Wow. So how are we doing for time?

**Wass:** [01:28:53] And so I think we're out another five minutes.

**Cohen:** [01:28:56] Okay, so I guess wondering is, should we kind of try to finish talking about the Sterlet and then continue on after that?

**Wass:** [01:29:05] So, you know, I went to graduate school at the University of Chicago, but I joined the submarine reserves right away and I had a great sixteen years in the active reserves. Most of that was in the submarine reserves. And I do my active duty in a variety of places on submarine tenders, which are big repair ships like mother ships, if you will, and you can, you know, get all fixed up from the tender and then they have them in Guam and deployed, but, you know, there's one in Groton, Connecticut, or New London, Connecticut and Charleston, I went to submarine staffs, one active duty. I was on commander in chief Pacific staff, and I eat with breakfast with all the admirals. And that was when Ferdinand Marcos was left in 1983 or '84 somewhere. And it was February. And I offered to go to Hickam Air Force Base if I could carry his bags of gold that he was getting off the plane with. They were really despicable. That group they gave them, they moved Air Force people out of their housing and gave it to Ferdinand and his party. And they told them they could go to the Exchange and, you know, just get stuff. They went to the Exchange and took, you know, expensive jewelry and all their you know, they I didn't like this...but I was still willing to carry his bag of gold, but they--[Laugh]

**Wass:** [01:30:38] Didn't let me. So that was interesting. I taught for three years that the Naval War College extended active duty each summer, two summers, I taught the naval operations course with one of the faculty members. And the third year I rewrote the what's called operational deception game plan. It was a war plan, war game on, you know, how to defeat the enemy with disinformation and so forth and using technology back in the '80s. Now, you know, all different technology or satellites are different. But, you know, it's good, good, you know, wonderful training. Now, CEO of a unit, we supported a squadron of submarine in New London, Connecticut. And I had the guys all trained up so that when they went to New London, they actually assumed the positions of the sailors and officers who could then do other things that they needed to do. So it was a valuable you know, I enjoyed it. And I've stayed close to the submarine force since I was the chairman of the commissioning committee of the USS Illinois, a new Virginia class submarine. And when we commissioned it in October of 2016, I immediately morphed it into the seven, eight, six club, which is the whole number.

**Wass:** [01:31:59] And we're headquartered out of the Union League Club of Chicago. And I have quarterly luncheons there where I bring in the admirals to speak and we go out to Pearl Harbor after every deployment, do very nice things and events for the kids, the crew and when they're deployed and when we're here in Chicago, we always tuned in to them if they're on deployment and a family member has a medical emergency or something and they come up, believe me, regularly, you know, we will assist in any way possible from sending money through prayers, you know, and it helps. And they know we've got their back. So it's a nice thing to do and a good thing in my retirement. And I think I'm working harder than I ever did. But it's all tax free because I don't get paid any money for it. I don't have to pay any taxes. So I'm still still associated with the submarine force. It's a great, great part of the United States military. So.

**Cohen:** [01:33:03] Okay. So would you like to continue on next time you're back in Chicago?

**Wass:** [01:33:08] Well, I think we've pretty well covered everything, so. unless you get things on there. Do you have any--?

**Cohen:** [01:33:15] I do. I do. First of all, at what point in time did you take the did you go to the Periscope Photography School?

**Wass:** [01:33:24] Oh, that was two weeks. I was on the Sterlet and back then and nowadays you don't have a periscope on the new submarines. Okay, there's a mast you raise in. It's 360 degrees and you got tremendous visibility. Three sixty back then, you know we would have to strap a camera on a periscope, take a bunch of pictures as we were going underneath the guy and take his keel and all that. And so, I sort of jokingly put that in. That was my favorite school because, you know, it taught me how to take good pictures with a camera [both laugh]

**Wass:** [01:34:04] It was not much of a school, you know, but our pictures were part of our intelligence gathering.

**Cohen:** [01:34:10] So it was had purpose.

**Wass:** [01:34:11] Yeah, yeah, yeah.

**Cohen:** [01:34:13] And I know you had quite a very developed civilian career and just before you made reference grandchildren. So I guess the question is, how did you juggle your, you know, your civilian career with your, you know, a Navy career and family life? How did you?

**Wass:** [01:34:29] It was tough, you know, I traveled about 200,000 miles a year in my civilian career, I was a, it became ultimately a senior partner in a huge consulting firm. And I ran what's called the energy services practice, which was consulting the boards and CEOs of energy companies, mainly utilities, a lot of work, about half the work with nuclear power because of my Navy background. And, you know, it was very rewarding because, for example, I think my practice that I built from scratch turned the entire civilian nuclear reactor community, the electrical generation, and they really weren't managed very well in the old days. And they are like a Swiss watch right now. I mean, they're safe. They're effective. And it was a lot of the stuff that my group put in all over the United States, and we're very proud of that. So, in fact, you sort of work your way out of a job because you don't need a consultant now. [both laugh] But that's fine, you know. I've retired and it was a very rewarding career. The company always gave me a couple of weeks off and, you know, whenever--

**Cohen:** [01:35:43] --On vacation?

**Wass:** [01:35:45] Well, for my Navy Reserve, you know, active-duty time. And, you know, it's just, you worked all the time, you know, long days, long weeks. You'd come in. And I retired after twenty-two years with the big firm because it was just sort of too much. And then for thirteen years, I set up my own little, small firm doing the same thing with a lot less pressure; 2008 my wife came to me and she had retired from Honeywell. She says, "When are you going to retire?" I didn't have a good answer. And I said, "Okay, I'm going to retire, now." So we basically gave the office space away and folded the business because you don't sell a consulting firm unless you sell yourself for three years. And I was ready to retire and going on all this non-pay status or work in the Navy and local politics and so forth. So, yeah, I have had a good life, you know, and, uh, I'm enjoying it. Keep busy. And, you know, it's, uh, it's been very rewarding.

**Cohen:** [01:36:57] That's great. Just jumping back a little bit to the USS Kamema [stumbles over name]

**Wass:** [01:37:06] Kamehameha.

**Cohen:** [01:37:08] I found this one hard [to pronounce].

**Wass:** [01:37:08] Or as they used to say, Kam-ee-haha but it's Kamehameha.

**Cohen:** [01:37:11] Kamehameha. I think you mentioned you're part of the blue crew. There's also gold crew. But with the advantage of having two crews?

**Wass:** [01:37:19] Could keep the submarine out longer. So the submarine would be out at sea almost all the time, except for eighteen, twenty days. When you change, crews fix it up and then get back, get it back out again. And so the submarine itself was out with two crews and and it was, and you could then build fewer of these very, very expensive missile submarines with fewer warheads, fewer missiles, you know.

**Cohen:** [01:37:47] Yeah, yeah. So which kind of missiles were there? Was it the Polaris?

**Wass:** [01:37:54] It was Polaris E-3. It was the third modification. They were very good. They had multiple warheads. All of them were independently targeted. And as operations officer, I

used to have control over this top-secret document called the SIOP, the Strategic Integrated Operating Plan. Every so often I'd look at it to see, you know, where we're going to send some of these warheads. And it's, uh, it's you hope you just never have to do that, you know...It wasn't just a Russia, you know, it's to whatever the enemy might hit us, so.

**Cohen:** [01:38:28] So does that make it harder, like in that way being, working in the nuclear submarines versus the earlier ones?

**Wass:** [01:38:36] Oh, no, no. Nukes are easier because they're bigger, and you had a shower. [Laughter] Submariners are weird lot. You know, after every watch, I'd have to walk through the boat and I'd go in the Kamehameha, the control room, you know, on the front of the door, it says, you know, "To Russia with love", [signed] Polaris, for those who care to send only the very best." That was the Vietnam War still going on and I'd open the door and here's these computers on each side. You know, it's like a *Star Wars* movie and in quadraphonic sound, there were these anti-war songs that the missile control techs are playing, you know, with all of the anti-war things. [Laughter]. You know, so it's, we have a different sense of humor.

**Cohen:** [01:39:24] That's pretty funny!

**Wass:** [01:39:24] I'd go, "How's it going, guys?" "Great, Mr. Wass," you know.

**Cohen:** [01:39:29] So it's kind of funny. I think you you also said that you were [unclear] qualified to be responsible over two different nuclear reactors?

**Wass:** [01:39:38] Yeah, well, it was the training reactor. You qualified to become engineering officer of the watch. And then, you know, on the Kamehameha, they had a different reactor. You got to qualify in that one. But it wasn't as rigorous because you went through most of it. You just had to learn the differences. They were both pressurized water reactors and there were a few subtle differences. Once you learned them, you had to go through a qualification board and, you know, and then you passed the [test], you could stand watch back there. So.

**Cohen:** [01:40:09] And did you ever feel in danger at any point in any of the submarines?

**Wass:** [01:40:13] Only when we had special operations. And Sterlet used to -- it was getting old, and we'd have fires and flood. I mean we'd flooded at test depth all the time. And, you know, and you never, submariners don't panic... I one of the things I cannot tolerate is when people panic. I just can't handle it personally. Because you just handle the problem. And then afterwards you say, "Oh, my God, you know, that was pretty bad!"

**Cohen:** [01:40:46] Yeah. Focus on the--.

**Wass:** [01:40:48] --Gun, you know. When people panic, ugh! I had one guy almost panic in the-- "Mr. Wass. They got us! They got us!" And, you know...like I said, "Get rid of that guy." So I'm going to have to go.

**Cohen:** [01:41:04] Okay. So thank you. So I just ask you one last question. So you know, the mission of the Pritzker Military Museum & Library is to is to collect and share stories of the citizen soldier. So what does the term citizen soldier mean to you?

**Wass:** [01:41:21] I you know, I think we are all should be citizen soldiers. I don't care whether you're in the military or not, but I think people have to appreciate their freedoms and their liberties. And unfortunately, in 2021 America, too few Americans appreciate their liberties. They take them for granted. Reagan, I think, says that every generation has to win its freedoms. And he's absolutely right. And so, we all need to be citizen soldiers and be patriots and, you know, and fight the enemy. And who's the enemy? The enemy is communism and communism is evil. Satan runs communism. Who are communists? Communists are oligarchies. There are a few people that control it all. So whatever you want to call them, whether they're in China or Argentina or or, you know, Russia if or the United States of America. If there's a few people they want to control at all, they're communists. And we must fight that because our Constitution [of United States of America] is we, the people and people need to appreciate, understand and support the Constitution and they'll have a much better life. I mean who has better life than America? And, you know, it's so easy to throw it away because when you're given free stuff, you know, and I learned from Milton Friedman at the University of Chicago, there is no free lunch. No, no, no. People have to understand there is no free lunch. You got to fight for your freedom and keep free. So that's a citizen soldier, I think.

**Cohen:** [01:43:10] Yeah. Yeah.

**Wass:** [01:43:12] Thank you very much.

**Cohen:** [01:43:13] Well, thank you so very much for your service and for your interview.