

12 March 2005

**SMITH: Today is Saturday, March 12, 2005. It's about three minutes before two o'clock in the afternoon. My name is Joseph Smith. I'm an oral historian with the Naval Historical Foundation. I'm here today in the home of Robert D. Rawlins for him to do an oral history interview of his career. Go ahead, Captain Rawlins.**

**RAWLINS:** Thank you. The reason that I ended up in the Navy, as opposed to a metallurgist or some other profession at Bethlehem Steel, is that my father, when he was about seventeen years of age, left his home in the Hoboken, New Jersey, area, and joined the Navy. Actually, he ran away from home and joined the Navy, is the truth of it. He ended up serving in USS Minneapolis, a light cruiser. I think his entire career was as a seaman. He proudest accomplishment was that he was gun pointer at battle stations on one of the ship's guns.

After his enlistment was over he left the Navy and went home. He never did say why he left. But as I was growing up he always told me that he regretted greatly having left the Navy. He said—I can recall hearing this many, many times—“Bob, I never should have left the Navy. I could have retired as a chief petty officer and I could have been drawing \$115 (or some sum) a month for the rest of my life.” That was in the 1930s. Well, \$115 wouldn't do very much for anybody for the rest of their life, but that was his gauge at the particular time. He talked Navy to me all my life.

I recall one time, when the fleet was in New York City, in the Hudson River, we journeyed to my relatives' house. All his relatives lived in the Northern New Jersey area; one of his brothers lived in Hackensack, New Jersey and we always stopped in Hackensack to see brother Bob. I was named after brother Bob. I remember driving along the Hudson River looking at all these mighty ships anchored in the river. Very impressive.

When I graduated from high school in 1943 the war was on. I started in college at Lehigh University in Bethlehem. I lived in Allentown all my life, Allentown, Pennsylvania. I went to Lehigh simply because my parents really wanted me to go to college and Lehigh was an excellent engineering school.

I applied for an appointment to the Naval Academy with my local congressman. Our congressman insisted that anybody he nominated take the civil service exam and prove that they were intelligent enough. In fact he was rather down on graduates of Allentown High because he had appointed some other high school graduates who didn't do too well at the Naval Academy.

I took the exam and came in second place. One of my classmates bettered me, but fortunately he wanted to go to West Point, and I ended up with an appointment to Annapolis. That classmate, it turns out, was later killed in the Korean War, so it was really a sad choice for him.

I was very happy to go to the Naval Academy. I was only seventeen years of age having just turned seventeen shortly before I entered. Our class entered over a period of months, and it was a confusing time for me, at least the early months until I was able to acclimate to the life there. We were in a three-year course. My class was due to graduate in 1947. As you know, all the wartime classes were accelerated. But at the end of our plebe year the war was winding down, and our class was split into two, with the bottom half, about 500 people, scheduled to graduate in four years, and the top half in three. Fortunately, happily for me, I was in the top half of the class.

I finished academically somewhere in the top twenty or twenty-five percent. But service selection at that time was done by drawing names out of a hat and I ended up something like 475 on the selection list. I know I wanted to go into flight school, so I know I applied for aircraft carriers. But I was so far down on the cut that all that was available were ships of the amphibious Navy, and that's where I ended up.

I was sent to USS Adirondack, AGC 15, a communications ship. But the ship at the time was moored alongside a pier in Norfolk Naval Base being used basically as a building by the staff of an operational development commander. There was no reason for that particular staff to go to sea, and we didn't. I recall in my six months aboard we went to sea once, for about two days.

That was a nice time for me, though. I at least got to stand the deck watches. I was the only junior Naval Academy graduate, and the captain was a Naval Academy graduate, as was the executive officer. The captain's name was George Purmort. He was a real gentleman, and I greatly admired him.

As soon as I came aboard I was given a notebook to complete, and I worked really hard to do that. I think because I was working so hard one day Captain Purmort invited me to lunch in his cabin. I arrived in my best dress canvas, we had a nice lunch, and I was very impressed with the whole setup.

I recall when I first got on board I made sort of a mistake. One of the commanders on the staff had been my company officer at the Naval Academy. I knew him and went to say hello, introduce myself. He suggested that, as a new officer on board, one of the things that I should do right away was to call upon the captain. So the next day or two I put on my best uniform, got on a bus, went to call upon the captain, knocked on the door. His wife opened the door, and I said, "Good afternoon, Mrs. Purmort. I'm Ensign Rawlins and I'm here to call upon you and the captain." Well it turned out that he was off playing golf. What I should have done, of course, is check with the exec in advance and find out whether there were calling days, or calling hours. But I hadn't known to do that. Nobody had ever given me a volume on the niceties of calling hours.

But the lady was very gracious. She welcomed me in and gave me something to drink. And then a short time later Captain Purmort came home from his golf game. He was surprised to see me, but he was very glad, I think, that I had done this. We had a nice conversation, and, at the end of the call he actually drove me to the bus stop. So I feel that the adventure was a success on my part.

After about six months I was given Christmas leave but before I went on leave I asked the exec if I could get a transfer because I really wanted to go to sea. The exec said, "Certainly. Stop at the Bureau on your way home and see what they'll do." So I did that. Talked to the desk officer, told him I wanted to go to sea. When I got back to the Adirondack from leave, or shortly after I got back, I received "Proceed Immediate" orders which, as I recall, required me to report to my new duty station in something like twelve hours, or perhaps twenty-four hours.

I packed my gear and checked out. I was mess treasurer at the time, so I had to turn the mess accounts over to somebody. Fortunately my newly assigned ship, USS Bexar, APA 237, was close by at a pier next to Adirondack. So all I had to do was lug my suitcases over to Bexar.

I reported aboard, and within twenty-four hours we were underway for Morehead City, North Carolina. We picked up a load of Marines, took them over to the Mediterranean and dropped them off at the flagship in Naples. We then proceeded to Turkey, to a small town called Iskendrun, on the underside of the Turkish peninsula, where we picked up two or three dozen Turkish naval officers to bring them back to the States for various types of training.

We weren't there very long, but I had the opportunity to go ashore in Iskendrun. It was a tiny town. Dirt streets. People rode donkeys. I don't think I saw an automobile. There was really nothing to do in that town. Nothing to buy. I probably had a beer or whatever drinks the Turkish had, and got back on board.

We sailed back to the States and dropped off our passengers in Norfolk. I recall I stayed out of the wardroom pretty much during that trip back, though, because these officers sat in the wardroom smoking their Turkish cigarettes, which were really strong and powerful.

Most of the time on board Bexar we participated in amphibious operations. I recall one was a CAMID, cadet-midshipman operations. One of the cadets turned out to be a boyhood friend of mine, who was then a senior at West Point.

Shortly after I reported I was assigned to the deck division, and I was sent to boat school to learn how to operate small boats and make amphibious landings. Whenever we had an amphibious landing I was in the water from early morning on. We put the boats in the water at five, six o'clock, and the operation generally took all day. So we got back in the late afternoon to be picked up.

The ship was manned at about seventy-five or eighty percent of the normal complement, so when we did have a landing operation all the seamen, all the firemen, and even the wardroom stewards were in the boats as boat crews.

Probably the worst part of that tour involved the poor condition of the ship. She had been hard used during the war and, constructed of mild steel, rusted very easily. The one chore that the people in the deck division had was chipping and repainting the decks, chipping and repainting the boats. It was an ongoing evolution and never ended. I was in charge of the boat division right in the middle of the ship, so the skipper up on the bridge could look down and see if we were working hard enough. That's one of the things I recall vividly.

I finally left Bexar. The ship had a quota for an officer to send to electronics school at Treasure Island, California. I was the only junior Naval Academy graduate on board, so I was selected to go to school, which was fine with me.

At that time I was engaged to a young lady whose father was a Naval officer on the base, Captain Harold H. Connelley. We wanted to get married before I left for school. My skipper, whose name was Captain Kowalczyk—I don't remember his first name—Kowalczyk was sort of a tyrant and didn't want to release me so that I could drive across. He wanted to hold me long enough so that I had to fly from Norfolk to San Francisco to report to the school. But Captain Connelley, my soon-to-be father-in-law, made a call on Captain Kowalczyk and negotiated my release. I was able to be detached soon enough to be married, and then drive across the country on our honeymoon.

I spent six months at Treasure Island and thought it was an excellent school. I received excellent training in a relatively new area. Radar, of course, had just come into use during World War II and the need for electronics-trained officers and technicians was quite apparent after the end of the war. There was a big push to have officers trained with this skill and I was glad that I had the opportunity. That's stood me in good stead throughout my entire career. After electronics school I had two months in damage-control school before I returned to the fleet.

When I got to Treasure Island I didn't want to return to Bexar. I wanted what I hoped for would be better duty. My bride didn't want me to fly. She knew too many widows of aviators who had crashed during their time in flight service. So I sent a letter to the Bureau and applied for destroyers, Atlantic.

At the end of my damage-control school time I received orders to the James C. Owens, (DD 776), based out of Norfolk. And as it turned out I was really pleased to have that assignment. In those days destroyers were manned pretty minimally. On that ship we had the captain, the exec, the engineer, who did not stand deck duties—he was engineering duty only—and a supply officer, and we had four deck officers. So we stood one in four on the bridge underway and one-in-four duties in port.

This particular ship was assigned to a hunter-killer group, and that's what we did. We had a light carrier-an escort carrier- a squadron of destroyers, and we exercised with diesel submarines, both U.S. and foreign.

I thought that was wonderful seamanship training. I don't believe I've ever had—I know I've never had a tour of duty that was so instructive as far as basic seamanship, navigation, officer-of-the-deck type of duties. All the junior officers quickly became very qualified, and the skippers, at least my skipper, had enough confidence in us so that we operated pretty much on our own. For example, if the ship needed to refuel from the carrier or a tanker the officer of the deck would take it alongside and do the refueling. If we moored or anchored

somewhere, the officer of the deck did it. Great training for junior officers.

In those days our hunter-killer group often operated at night without navigational or running lights. Whenever the carrier would change base course or change to launch aircraft or recover aircraft, the entire screen, which normally operated in a bent-line screen out in front of the carrier, would have to reorient about the new course. And my skipper said, “When you get the order to reorient I want to hear either right or left full rudder, and all ahead full. And then you quickly figure out what your new course should be.” That’s the way we operated. For me it was the most thrilling time of my Naval career as far as driving a ship, no question about it.

After about nine months, the Navy decided to put our particular division out of commission, perhaps the entire squadron, and we ended up in Charleston, South Carolina for a couple of months wrapping the ship up, putting her out of commission. As an aside, less than a year later she was back in commission with the start of the Korean War.

In the meantime I was transferred to USS Bristol, which was part of a reserve training group based in New Orleans, Louisiana, at the Algiers Naval Station. The ship was manned at about sixty percent of normal manning. We were augmented by Reserve personnel who would come aboard and then spend a two-week cruise on the ship. Normally we just operated in the Caribbean. We would get underway as a division and go out and do basic exercises initially—turns and corpens and simple maneuvering exercises. As the two weeks went on we got into more complex operations.

We always had a mid-cruise port visit somewhere. I remember going to Port-au-Prince, Haiti, and Kingston, Jamaica. The best stop we ever made was in Havana, Cuba. The nice thing for the Reserves was that they did not have to stand duty in port. I recall in Havana, we arrived on a Friday and the Reserves all left the ship on liberty, and we didn’t see them until Monday morning about seven o’clock, just before we were due to get underway. I was able to get ashore in Havana. This was, of course, pre-Castro, pre-all the problems that we’ve had with Cuba, and it really was a wonderful city to visit at the time.

Oh, let me tell you about the...yes. I was always officer of the deck on the special sea and anchor detail, the group that mans the bridge and the forecandle coming into or leaving port. The trip up the Mississippi River from the very mouth of the river to Algiers took probably about six hours. It was a long haul, and you couldn’t speed in the channel, of course. The channel was winding and the current against you when you were going north into the city. There was a lot of merchant traffic coming down river. And the Navy was required to have at least one ship with a pilot aboard. So usually the division commander was the first ship in line and his ship took the pilot—the rest either took a pilot or just followed the ship ahead.

There were some parts of the river where the merchant ships would not drive on the right, but they would actually steer on the left, to take the current on the inside of a turn. That was always tricky, a little bit hazardous. We really had to keep the leader in sight, because if he

moved over to the other side of the channel we had to move over to the side of the channel in order not to collide with a merchant ship coming down. As I said, it was a long passage up, and I recall trying to navigate up a winding channel. How do you do that? You're taking sights on anything you can see, but you're always behind the effort in your plotting. Fortunately the pilot knew where he was going. And the whistle signals that he and the other ships exchanged kept everybody apprised, so it worked out.

After only three or four months the division sailed for a three month overhaul at Boston Naval Shipyard after which we returned to New Orleans stopping at Guantanamo Bay for refresher training. One evening, I met two of my Naval Academy classmates at the officers' club who were assigned to submarines, to USS Sea Cat. They said, "Why don't you come aboard and spend the day with us?" I asked my skipper if I could ride the submarine for a day. At that time the submarines were acting as target for ASW training for the destroyers. I was ASW Officer on Bristol and the skipper said sure, spend a day on submarines, so you see what the enemy is like.

I was so impressed with my day in Sea Cat that I applied shortly for submarine school. After six or nine months, the squadron was transferred to Newport Rhode Island as its new home port.

Newport at that time had no shore facilities of any kind, so we always moored to a harbor buoy in a nest of several ships. Newport was a nice place from which to operate. It has a deep channel going in and out of the harbor. But in the wintertime the wind would just whistle down that channel. It was cold as all get-out, particularly heading back in.

There again, seamanship was something that we all enjoyed. The officers of the deck were the ones who did the mooring and the un-mooring, or anchoring if we needed to do that. It was great experience from that standpoint. I learned a great deal in my time in destroyers.

After some months, the division was sent over to the Mediterranean. It was a short tour, I think four months portal to portal. We anchored off Nice in the French Riviera, then visited Naples, we went to Greece and we stopped in several ports in North Africa—Tunis was one. We stopped in Gibraltar coming and going. It was just basically a show-the-flag tour.

On the way over my wife gave birth to our first child, a son. I didn't know about the birth until we got to Nice and I received a letter from her.

Not long after we returned from the Mediterranean I received orders to submarine school. I wasn't accepted the first time, but I had applied again. It was just a couple hours drive down the coast from Newport to New London.

At submarine school I was one of the senior officers - a lieutenant (junior grade) - and most of the officers in the class were ensigns. There were quarters on the base for students, but not enough for the entire class. The housing office drew names out of a hat and I ended up

having to life off base. So much for seniority. Sub School was a good experience. I'm a good student, so I did well and stood high in my class.

We were given a choice of assignment. We could pick our ships according to our class standing. My wife had grown up in San Diego and loved the area. And by that time, her father had retired and her parents were living in San Diego. So I applied for USS Blenny, which was based in San Diego.

That was a good choice for me. Blenny was a diesel submarine, a Guppy IIA with some streamlining of the hull. The skipper was Jim Bryant, a commander, and just a wonderful officer to serve for. He set a relaxed tone in the wardroom. The executive officer was Leo Chaffin, from the Seattle area. He was also a Reserve officer, and a wonderful gentleman to work for.

As a brand new officer my job was to qualify as quickly as possible. We were given a year, and if people couldn't qualify within the year they were often gone from the submarines. The engineer officer, Lt. Don Whitmire, was my immediate boss. He was a fine officer, and he was a task master. He said: Start your qualification notebook right now, and I want to see your first chapter in a month. Or three weeks, or something like that. I worked diligently on my notebook and finished it well in advance of the time that I had to.

Since I had had plenty of experience on destroyers I qualified as a watch officer quickly on board Blenny. Not long after I reported aboard the ship received orders to deploy to Japan. So three or four months after I reported aboard we were underway for Japan, snorkeling most of the way. Again, I spent all my free time, as much free time as I had, to complete my notebook and finished it in seven or eight months.

The tour in Japan was excellent. We provided services for destroyers and conducted a special operation, a simulated war patrol to the north of Japan. We had an interesting experience there. A crew member became quite ill and we had to bring him into port to get him to a hospital. We entered a tiny Japanese port named Hokodate on the island of Hokkaido. We were the first Navy ship in that port in, forever, I guess. We anchored in order to get our sick crewman ashore, and the people in the town, every boat in the area circled around us to see the U.S. submarine anchored in the port. We got to go ashore for a little bit. There was basically nothing in the town. It was a tiny fishing town. But it was good at least to see a different part of Japan, that was not yet developed.

Most of our time was spent in Yokosuka. We did make a trip to Kobe, though, on one of our operations, which is a really great port. I got to see a good bit of Tokyo, and I was able to get down to Kyoto to visit that beautiful, lovely city.

During that time—when I reported aboard there were two other officers who were not qualified. They were in the sub school class before me. And they completed their underway qualification while they were in Japan, on another submarine. As soon as we got back to San



Diego, I had completed all the on board requirements, and the captain recommended me for qualification. I completed that in short order and was very happy to pin on my dolphins.

**SMITH: Maybe we could hold it there because I can change the tape.**

**(End of Side A, Tape 1. Side B is blank)**

**(Start of Side A, Tape 2)**

**RAWLINS:** You asked about the difference in serving in a submarine as opposed to serving in a surface ship. For me there was a great deal of difference. The surface ships in which I served had a lot of crew members, who were, I don't want to say criminals, but were difficult young people to control. The destroyer crews were of a better quality than those in the amphibious ships, I think, but neither were of the quality of submarine crews.

In submarines both officers and enlisted personnel were volunteers. And, in a submarine if you didn't qualify you were gone. Everybody realized that the way they did their job was important to the safety of the ship. So the entire attitude of the wardroom and of the crew in a submarine was far different from that on a surface ship. Submarines were a lot more relaxed, it seems to me. And it was just easier and more pleasant type of duty.

You worked as hard in a submarine as you ever did on a surface ship, but nobody seemed to mind the hard work, or the long hours, or just being at sea for extended periods of time without really any amenities. On a diesel boat you distilled your own water, but most of the water that you made had to go in the batteries, so you didn't have a lot of water for personal use. What didn't go in the batteries the cooks needed. So your personal hygiene suffered a bit. You would take a sponge bath out of a basin, for example. But that was okay because the entire atmosphere of operating a submarine was a lot better.

Two years after I had reported to Blenny the ship was ordered to go to the East Coast to balance the forces on the coasts, or something like that. My wife was pregnant with our second child, and I requested to stay in San Diego. I was transferred to Baya, (SS 318). In fact she was called Building 318 because she normally moored alongside the pier at the Navy Electronics Laboratory (NEL). She was really the seagoing laboratory for the scientists at NEL.

I spent a year on board that ship, and we even had a smaller crew than a fully operational boat, because we would just go to sea for at the most—five or six days at a time. We were manned about sixty percent of a normal submarine crew. There were only three watch officers; the captain, exec, and three of us. So we did everything. Stood one in three underway, one in three duties in port. And if one of the officers wanted to go on leave, as occasionally happened, we stood watch and watch in port. At one point for about ten weeks, the XO was at PCO (Prospective Commanding Officer) school in Pearl Harbor and I ended up as Acting XO in addition to my job as Engineer. We had lost our yeoman, so I also was the ship's yeoman for about a month.

But even so, we were moored alongside the pier. The rest of the submarines were moored alongside one of two tenders, either Orion or Nereus, in the stream. The crews had to take boats back and forth in the morning or in the evening if they were in port. So Baya was good duty as far as submarining goes.

NEL was working on a number of different sonar concepts. They were looking at the skip distance for low-frequency sonar. A lot of the work that they did was instrumental in, I think, development of the types of submarine sonars that came along later, with the Thresher class, for example. The people at NEL did a lot of the preliminary investigation.

During my time on board I decided to apply for the Navy Postgraduate School. My skipper had been through the Navy Postgraduate School and when I listed my preference for mechanical engineering he asked, "Why'd you pick that?"

I said, "Well, I really would like to get into the electronics course but I'm not sure I'm smart enough."

He said, "Nonsense. Change this. Put in an application for electronics." Which I did, and I ended up being accepted and I got into a curriculum for electronics. Which was a great choice for me.

The thing I really liked about postgraduate education was that students were encouraged to think on our own and question. That may sound like heresy, but it's not. At the Naval Academy the learning, at the time that I was there, during the 1940s, was pretty much rote learning, no question about it. I remember a class one time on the meanings of signal flags. We had to memorize what Alpha at the yardarm meant, and Baker, and Charlie. And that type of learning just, to me, didn't make a lot of sense. Or in ordnance class you had to know that the seer latch had to engage with the seer before the firing pin could engage with the whatever-it-was. As I say, it was a great deal of rote learning. And a lot of things in the Navy were like that too.

But at Naval Postgraduate School we were really challenged to think about how things worked and work out solutions for ourselves. And for me that was simply a great course. After that my horizons just expanded tremendously.

At the end of postgraduate school I was sent to Key West with orders to USS Picuda (SS 382) as Exec.

The skipper was Alex Rentschler. I liked Alex. He was a good man to work for. I'd grown up in Pennsylvania, where there were a lot of Pennsylvania Dutch, and Alex was a Pennsylvania Dutchman. A genuinely fine person to have as my boss.

I reported just as we had a crisis with Cuba, and I was to relieve a classmate of mine named Red Miko. Almost immediately after I reported aboard every submarine in Key West was

alerted to load out with a full load of war shots, provisions for ninety days, and be ready to sail on twenty-four hours notice. Here I am, brand new on board. The skipper looked at me and he said, "I'm sorry. I can't let my experienced exec go, with this type of situation. You'll just have to wait a little bit for things to settle down." Well, not long afterward the situation tamped down and I told Miko: I relieve you. And off he went. And I was exec of Picuda.

We were in Key West for only three months when the ship was ordered to the shipyard in Charleston. So my family moved to Charleston, had our overhaul, and then came back.

Not long after we returned I got a call from the Bureau asking if I wanted to apply for nuclear-powered submarines. I hadn't thought about nuclear-powered submarines. At the time, of course, Nautilus and Seawolf were in commission, and the Skate class was building.

**SMITH: So this was when? When did you get the call about this?**

**RAWLINS:** Well, we were back in Key West. And the Bureau, I guess, needed more applicants for the nuclear power program. And they looked down their list and said, okay, here's Rawlins, he's completed the postgraduate school so he's smart, or he's got some intelligence.

**SMITH: This was in 1960?**

**RAWLINS:** I believe it was 1959.

So I flew up and had my interview with Admiral Rickover. The interview with the staff went very well, I thought. The interview with the Admiral was routine. He asked me a question or two and I sort of stumbled on the answer and I was thrown out of the office, and that was the end of that. So I assumed that I was finished, no nuclear power training for me. But about three months after I got back aboard I got a request from the type desk: Have you been studying this nuclear textbook the way that the Admiral had said you should be? And as a matter of fact I had been going through the textbook, just for my own information. I replied in the affirmative, and then a few weeks later I got orders to nuclear power school. That was, let's see, at the end of 1959. January of 1960 I'm in nuclear power school.

The course was not too difficult. There were three of us in that same course who had been through postgraduate school at the same time, and we ended up doing some teaching for the school. One of my classmates, Charles (Chick) Rau, was on the staff. In fact I had several classmates on the staff, but Chick is the one who set it up that the two other officers and I would teach a course in electronics.

From nuclear power school I went to Ballston Spa for the Nuclear Power Training Unit there, for practical experience. During that time we received orders to our next—our nuclear-powered ship assignment. I received orders to Thresher, as exec. I had never met the skipper, Commander Dean Axene. Now, Dean had been XO of Nautilus when she first went to sea, so he was a quite experienced officer at the time. He wrote and suggested that I have several of the

well-qualified officers from the NPTU training period also apply for Thresher, which we did. So I got to pick the wardroom, at least the nuclear-trained officers in the wardroom, for Thresher.

We had a quick six-week course at Bettis in Pittsburgh to bring us up to date on the specific power plant that the Thresher class would have. We were training on an older-model training nuclear power plant in West Milton. In fact, the one that was used in USS Triton. So we were familiarized on the S5W plant at Bettis, and then we ended up back at Portsmouth Naval Shipyard, in New Hampshire where the ship was under construction.

We got there in time for the launching. The crew was just assembling then. The first officer to report to the pre-construction detail was Ray Engle, who was assigned as the engineer. He had served in Skipjack previously as a junior officer. Ray was a really smart, sharp officer.

The launching was a fascinating experience. The ship was being launched bow first, which is pretty unusual. The reason was that the Piscataqua River was not very deep. The ship was built on a ways, a sliding ways, of course. And the rudder hung two or three feet below the keel. Had she been launched stern first, as was normal, the rudder would have hit the bottom, and maybe the ship would have stuck in the mud as it was going down the ways, hard to say. But we were launched bow first, and the skipper and I were up on the sail planes. The crew was on the deck aft.

As we headed down the ways, the cigar-shaped bow dug right into the water. And I wasn't sure that we weren't going to submerge in the Piscataqua River. It turned out, though, once the stern dropped off the ways, the bow came up, of course. That was my first experience in being on board a ship during launching. It was really thrilling. Really thrilling.

We had a small reception at the shipyard, but afterward everyone came out to my house in Portsmouth. I was renting a house with a big back yard. The wardroom had bought champagne for ourselves, and the ladies had made hors d'oeuvres. We had really a great afternoon after the launching, drinking champagne and eating hors d'oeuvres in my back yard. The next day my son and daughter searched all around to find the champagne corks. Sort of like an Easter egg hunt for them.

The ship—it was really difficult to put the crew together. We had very few experienced nuclear power operators. Most of us had just completed school training. We had only maybe two or three percent of sea-experienced nuclear power operators. But everybody worked hard. Everybody learned.

We would assemble at six in the morning on a normal day. The crew would muster at six in the morning. We'd go down to the ship, and trace systems and learn the ship while it was being built. And then at seven-thirty or a quarter of eight we'd leave the ship, because that's when the shipyard workers arrived aboard. We did that for about six months straight, before we had enough experience, enough detailed knowledge of the ship so that we didn't have to spend two hours every morning on board the ship trying to learn it.

Most of the time was given to just lectures and instruction. Each person, as he became expert in a system would stand up before the entire group and give a lecture on the system in which he was expert. Everybody was assigned something in which to become an expert. It was really a bootstrap effort for each person in the crew to learn his job, and then to pass his knowledge, his accumulated knowledge, to everyone else. Because the fact is that everybody, everybody on board, except the captain, had to re-qualify himself in this brand new submarine.

Thresher was first of a class. She had a great deal of new features, which everybody knows about. New sonar, new integrated fire control system. The propulsion system was set on basically a raft inside the hull. The main engine components were mounted on the raft, which was then sound-mounted from the hull, to provide a minimum of noise transmitted outside the hull.

After we accepted the systems and the ship was ready to go to sea, we made a fast cruise alongside the pier, in which over a period of two or three days we operated all the systems. The ship was completely sealed, and we tested everything just as though we had been out at sea. We discovered some problems, of course, which were fixed immediately.

When we sailed on our first sea trials, Admiral Rickover was aboard. Rickover, of course, sailed on initial sea trials for every nuclear-powered submarine, every one. The only ones that he missed were when he had his heart attack, was in the hospital and couldn't go. But somebody else went in his stead.

The first sea trial was for the propulsion system. After making a very controlled dive in shallow water, we headed for deeper water. On the way out we tested the engineering system to its fullest. Everything seemed to work quite well.

We had one casualty on the way to deep water. A plug in the high-pressure air system blew out. The noise in the engineering spaces was horrendous. The engineers didn't know what was going on, and closed the watertight doors aft. It took a little while before we knew what the casualty was and were able to isolate the problem by shutting the after air stop valves.

Rickover, when he found out what the cause was—it was an aircraft-type fitting that had blown out of the high-pressure air system, a strainer I believe, was absolutely furious that this had happened. And I was given to understand that after we got back to port he called up the president of the company that manufactured these things and really read him off. That was only serious problem we had.

The ship was scheduled to do an instrumented dive to our test depth. At the time the depth was classified—the test depth was 1300 feet for that class of ship, and I can say that now because none of those ships are still around, and I don't know what the test depths of the modern ships are, but it doesn't really matter. But Thresher was the first ship able to dive that deeply and we made an instrumented dive. We would descend a hundred feet and then check everything,

then go down another hundred feet. And we're about halfway down when the strain gages which had been put outside the hull in the ballast tanks to measure the strain of the hull reached their maximum allowable deflection. The dive was stopped because there was a possibility if the strain gages were correct and we went any further, the hull would collapse.

We came back into port and went into drydock. The strain gages were checked and found to be defective. So there was really nothing wrong with the ship. And we were glad to hear that. All the strain gages were changed and the next time we went to sea we made our instrumented test dive down to 1300 feet without any problem at all. Rickover was pleased with the operation of the ship. Everything worked very well.

We were commissioned 3 August 1961 in an impressive commissioning ceremony. We made our shakedown cruise to San Juan, Puerto Rico and did a lot of testing along the way. Oh, before we did that we had to go into Newport and conduct torpedo trials, all the standard things.

The cruise down to San Juan was very interesting. I remember we were in the Gulf Stream running at about a thousand feet. We had a very early version of the inertial navigator aboard, the SINS, submarine inertial navigator system. And as we submerged in the Gulf Stream we could see on our SINS, we could see the effect of the velocity of the Gulf Stream heading north, as we headed south. Down about a thousand feet we were only bucking maybe a one-knot current which at the surface had run up to two or three knots. We were at half power, going about twenty knots with not a care in the world. The ship just worked beautifully during that particular time.

Thresher, because it was first of a class, was going to go through a great deal of testing before she went back into the shipyard for a post-shakedown availability. Normally the ships would have, oh, a two-month shakedown period, and then go back in the yard, fix whatever problems there were, and then join the fleet. But Thresher was scheduled to have a year's shakedown before she went back in Portsmouth Naval Shipyard. In San Juan we did our sound trials in the Tongue of the Ocean, an area surrounded by several islands which is quiet. There's no ship noise, nothing to interfere with really an excellent evaluation of how quiet the ship could be.

We had one of the new periscopes which had a sextant in it, a sextant navigator. And I remember trying to get a sight with that sextant. I spent hours trying to taking sights with that thing. But I never could do get a decent fix on our position. Somehow the system just didn't seem to work. And for me that was all the more amazing considering that, when Triton went around the world that was their primary means of navigating. They never surfaced, so they couldn't take star sights, and in the part of the ocean where they were operating there was no Loran. I'm not even sure that Triton had a SINS when she did her circum-navigation (she did). So I'm all the more amazed that the exec was able to navigate with that periscope. Maybe he had a different model than me, I don't know.

After we got back to port, after our shakedown, we conducted normal operations out of New London, the sub base at Groton, which is where we were based. And during that time I got orders to USS Alexander Hamilton, which was building at Electric Boat Company. I had been aboard, well, for six months prior to commissioning, and then six or eight months afterwards. I was really annoyed to get orders again as executive officer. That would have been my third tour as exec. So I talked to the skipper and I said: Isn't there any way that I could just stay aboard Thresher for eight or nine months and then go to command somewhere?

Well, he said, I'm afraid not, because President Kennedy had accelerated the ballistic missile submarine program to the extent that the Bureau of Personnel was looking for every possible body to man the ballistic submarines as they were being commissioned. They were commissioning the boomers at the rate of one a month. One a month, yes. And with two crews they had to have a lot of people to man them. Experienced people were few and far between, so I ended up going to Hamilton for my third tour as exec. Which was actually pretty easy, because I knew what to do by then.

**SMITH: Maybe we can stop it there, because I can change the tape.**

**(End of Side A, Tape 2. Side B is blank)**

**(Start of Side A, Tape 3)**

**RAWLINS:** Before I leave Thresher I want to talk about Dean Axene. He was such a wonderful person to work for. He let me run the ship, which is the exec's job. If I needed any kind of guidance he's just mention something. He was calm. Nothing seemed to rattle him. He was, as I just say, a great person to work for under any kind of condition at all.

I learned a great deal from him, too. The way you grow in the Navy, I think, is to pattern yourself after people that you admire. You try to emulate these people. Which is what I did when I got into the submarines, particularly. But I was sorry to leave Thresher. I thought it was a good ship. We really had a good crew and a very close crew.

When I reported to Hamilton, we had a large living barge in which to house and train the crew. We basically did the same thing as we did in Thresher. We mustered the crew early in the morning, marched everybody down to the ship to learn systems, and then back to the barge for lectures and prepare all the necessary administration.

One of the officers from Thresher followed me —Ken Highfill. Ken was the engineer of the Blue Crew. Ken was a very bright young man, and I was glad to have him come on board.

The ship had not been launched when I got there, so we had the same experience of riding the ship down the ways. Except that the shipyard went on strike about two or three weeks before the ship was ready to be launched, and we had to wait until the strike was settled, and then the ship was launched. In this case she was launched stern first, so we rode the ship down the ways in the normal fashion with the crew on the deck and the skipper and me up on the bridge.

Norman Bessac was my skipper. He had had command of Scorpion, operating out of Norfolk. And he had also had diesel command in the Pacific, USS Gudgeon. A very experienced person and, again, another no-strain guy to work for. In fact, when we first met he said, “Bob, I’ve had my chance. You run things and keep us all out of trouble.”

I said, “Yes, sir. That’s what we’ll do.” Another great guy to work for.

We went on sea trials, again with Admiral Rickover. We almost didn’t go. The ship was all ready, we backed away from the pier at Electric Boat, and the reactor screamed. We’re just out into the stream when the reactor scrams. Fortunately we had a tugboat alongside so we weren’t in any danger. The diesel was started to provide auxiliary power and the engineers brought the reactor back on line and got steam back up. But Rickover was so angry that he almost called off the sea trial. His people really had to sweet-talk him into continuing the sea trial.

We went ahead on the sea trial and everything worked very well. No problems with that which I think was fortunate for the skipper. We returned to port and found that the nuclear representative had taken a photograph of Hamilton sitting in the channel with the diesel going and a big plume of white smoke coming out of the diesel exhaust. He had put a label across the bottom that said, “Are you smoking more now and enjoying it less?” What a wonderful picture. Even Commander Bessac laughed when he saw it.

To this day I’m not really sure why the reactor scrambled. Someone really made a mistake in the maneuvering room that took the reactor down.

We went on our missile trials, and that was fine. We went down to Port Canaveral and had our missile shoot without any problems at all. By that time we knew that the ship would be assigned to Charleston as our operating base after the first patrol. We left New London, loaded out in Charleston and sailed for the Mediterranean on our first patrol. We traveled the length of the Mediterranean all the way to the east, turned around and came back.

That was an interesting time, because the Mediterranean is just filled, absolutely filled, with merchant traffic. In those days the ballistic missile submarines trailed a wire around 1500 or 2000 feet behind the ship. We really had to stay clear of the merchant ships for, if the merchant ships ran across your wire and cut it, you might lose communication. Your sole duty is to remain alert all the time and always have communications with your home base.

I don’t think we lost any wires on that first cruise. The whole thing was a piece of cake, as a matter of fact. Sort of boring. You’re just out there floating along at three knots, doing not much of anything except staying out of trouble, staying out of traffic.

We finished the patrol in Spain at the Rota naval base and came alongside the submarine tender Holland. We were the first submarine alongside. She had finished building and her



shakedown and arrived in Rota at the Spanish naval base just a week or so before we had finished our patrol.

I remember at the end of the cruise we assembled in the tender wardroom. The squadron commander was there, and the place was just filled with officers, high-ranking officers. One of the captains had flown over from the United States to get our debrief. We'd had very few material problems along the way, and the captain had really not much to say. So it was a pretty brief debrief.

We put in our work requests and had a change of command in three days, as normal. In those days the SSBN crews were split in half to return from overseas—either from Holy Loch or from Rota. Two planes flew the crews, the theory being that if one of the planes went down you'd only lose half of one crew. I was in one plane, the skipper in another. Half the officers and crew are with me, half with him. We both took off, and about an hour out of Rota the pilot of our plane said, "We have..." whatever the problem was, "and we have to return to Rota."

So we flew back to Rota but we couldn't land at Rota for some reason. Probably had too much fuel. So we headed to Torrejon Air Base in Madrid and landed there. We had taken off early in the morning. By this time it was maybe two or three in the afternoon. And we all sat around the terminal waiting for something to happen. And finally we got word, maybe around four or five o'clock, that whatever repair part they needed was not available. Wouldn't be available till the next day. So we'd have to stay at the air base in whatever way we could. A lot of the people just stayed and slept in the terminal.

I said, "I've never been in Madrid." So I mustered my three or four officers who were with me and I said, "Let's go into Madrid." Actually I didn't realize it, but in those days the status of forces agreement with the Spanish government said that naval officers had to wear civilian clothing in town, not naval uniforms. We didn't have any civilian clothes. We were in our uniforms. I didn't know that, but it really didn't seem to matter. We piled in a taxi and we headed into Madrid.

I saw a sign that said "Bullfight," so we actually diverted to the bullfight. And then we got in a cab wanting to have a good Spanish meal. We told the cab driver to take us to a restaurant that has really good food. I remember I had paella, probably the first time I'd ever had paella. Delicious.

After our meal we said, well, let's do something else. So we told the taxi driver, "Take us someplace where there's some entertainment," and he took us to a nightclub. And then in the wee hours of the morning I said, hey, guys, we'd better get back to the air base. So we piled in a taxi and got back to the air base. Fortunately, the plane was repaired early in the morning, and we got on board and took off.

I'm pleased to say that I did not create an international incident by going into Madrid with my officers in our uniforms. As soon as we landed in Madrid I called the squadron in Rota

and said, please get the word back to our families that we won't be arriving in New London as had been planned. The way the flights had been set up was that we would fly to Charleston, and then a separate flight would take us to New London, because a lot of the families had not had a chance to move to Charleston.

It turned out that the word never did get up to the families in New London. When I got off the plane my wife was all over me like a wet blanket. She was really furious that I hadn't sent word that we would be delayed. I said, "I'm sorry. I sent word, but somewhere along the way it didn't get passed along."

At the end of our R&R period, rest and recreation period, I was in the ship's office in Charleston. My family had not yet moved to Charleston from New London. And I had a call from the Bureau saying that I was being ordered to command of the USS Triton.

I had to go to Washington, D.C., and take a course at the Naval Reactors Branch. That was standard in those days. All officers who were ordered to nuclear command had to spend about a two-month time frame, six to eight weeks, at Rickover's headquarters. We called it Charm School. And during that time we had discussions, courses, with Rickover's heads of department. Lectures, discussions, a lot of reading, and in order to prove that you really knew what you were doing, some very heavy quizzes. These were not multiple choice or anything like that. We were given situations that we had to write and discuss, to prove our overall knowledge of the engineering plant from every possible aspect. At the end of that time, I was ordered to Triton, which was based in Norfolk and my family moved to Norfolk.

Triton was a good tour. It was a great tour, as a matter of fact. I thought the ship was an exceptional nuclear-powered submarine. At the time she was the longest in the world. She displaced more than most of the other ships. She displaced more than even the very early ballistic missile submarines. But her advantage was that she was a twin-reactor. She had two reactors—the only one—and twin screws—again the only one. So we had tremendous flexibility.

I remember the first summer we were ordered down to Springboard. Basically the fleet operated out of Roosevelt Roads or San Juan to do whatever exercises they needed to do—training, basically—in the good weather of the winter of the Caribbean. One time we had to shut down one plant for maintenance, so we just ran along on one screw. We also had the ability to cross-connect the plants. We could run both screws off of one plant if we wanted to. Tremendous flexibility. Good ship. Good ship.

The only problem was that Triton had a number of steam-powered auxiliaries. The circ water pump was steam powered and the fuel pumps were steam powered. And steam-powered utilities are not as reliable as electric-powered pumps. So the engineers on Triton worked a lot harder than most engineers on other nuclear-powered submarines. But it was a well-trained crew and I think we did very well in all of our operations.

We made three special operations while I was aboard. These are all classified, so I really can't get into that part of my tour. But the ship was awarded a Navy Unit Commendation for two of those operations. Whatever we did we did very well. And I think one of the reasons was, we had so much flexibility of our engineering plant. The ship had also been designed for a radar picket ship, so we had a huge room which had been a CIC, and that room could be fitted out with all kinds of special electronic equipment for whatever we did. It was really a good tour and I was very happy to be on board.

At the end of Triton time, I was ordered to Daniel Boone, which was another SSBN, operating in the Pacific. The ship operated out of Guam, the crews lived in Hawaii and we flew back and forth. At that time, though, they weren't worried about planes going down so the entire crew flew in one aircraft.

Our most interesting experience in Daniel Boone was a missile test launch. The Polaris project offices, of course, tested the submarines missile systems to determine overall system reliability. As soon as they were commissioned the crews had a test missile shoot, a DASO, a demonstration missile launch at Cape Canaveral. That was all under very controlled conditions. In order to really check the reliability of the entire operational system, from time to time they would have launches both in the Atlantic and the Pacific that were unprogrammed. A ship would be told: Come into port, change out your warheads with instrumented test heads, and go out and shoot them at a target. The overall reliability of the system was tested in that way.

One day we were operating out of Guam on patrol and received a message directing the ship to return to port. We immediately come into port, moored alongside Proteus, our tender, and were told to select five missiles at random which we did. For these missiles, the warheads were removed and replaced with instrumented heads. We were then directed to sail for a particular location in the Pacific and conduct a simulated patrol. Very simple.

The nice thing about that was that we had to cross the equator in order to get from our location to the launch site. And I was not a shellback. I had never crossed the equator in my twenty-some years in the Navy. Just had never done so. So of course we had a little ceremony on board. The crew was very kind to me, though. Normally the royal barber exercises his jurisdiction and shaves heads or cuts designs in heads. The crew knew that I would be briefing the admiral at the end of the cruise, so they didn't shave my head, they just shaved off half my beard. Which was okay, because then I shaved off the other half and that worked out pretty well.

We arrived at our patrol location. The next day we had a sonar contact, and a destroyer showed up and made contact on the underwater telephone. He told us he was the range safety vessel for our missile shoot. So he was standing off out of the way and we just patrolling in our assigned area. Suddenly we received a firing message, a launch message, and come to our launch depth.

At that time that class of submarine would launch from a hundred feet keel depth. We were at a hundred feet and came to all stop. We spun the missiles up, and launched them. The

interval for that type of missile at that time was fifteen seconds, and we shot five birds in a minute and fifteen seconds. It was a perfect launch from the design standpoint, for that particular missile at that time. Perfect launch.

The missiles all flew and all but one hit within the CEP, the circular error probable, the required hit distance. The fifth one was a little bit out, but that wasn't our fault. That was the guidance package.

At the end of the launch we were given orders to head back to port. That launch was so successful—I was told later on that problems had been experienced in several prior launches, and the fact that Daniel Boone was able to get these launches off in the prescribed time period and everything flew well was really a feather in the cap of the Polaris missile office. The ship received a Navy Unit Commendation for that particular operation. And I was awarded a Legion of Merit, another gold star to go with prior awards.

At the end of the cruise we flew back to Hawaii, had a big ceremony and I had a medal pinned on me, all very exciting.

The ship was then scheduled to return to the States for overhaul. I was in the Gold Crew which was disbanded with some members transferring to the Blue Crew after its patrol. The ship made one last patrol and then sailed through the Canal back to Electric Boat Company for overhaul.

I was detached, with orders to go to USS Holland, which was en route to Rota, Spain. My wife and I were able to take a vacation trip. We flew space-a to Guam and then another space-a to Tokyo, to an air base in Japan not far from Tokyo. We had a week or ten days in Japan, then we flew back to Honolulu. Then I boarded on an airplane and flew over to Amsterdam, to pick up USS Holland. Holland had just completed her overhaul at Pascagoula. I joined the ship in Amsterdam and the next day we were underway for Rota, Spain.

We had a change of command as soon as we get to Rota, Spain, and I was in command of a bright new submarine SSBN tender. I had a wonderful squadron commander, Walter Dedrick, Walt Dedrick, who was, I think he was out of the Class of '45, which would make him three years senior to me. He later made admiral, and unfortunately he died of cancer. Didn't live a whole lot longer afterward his tour in Spain. But he was another great guy to work for.

The assignment for Holland was to provide intermediate level maintenance to six SSBNs assigned to that particular squadron. Which we did with great care and expertise. I made it my policy to visit every submarine alongside every week and talk with the CO and Engineer about the refit. I had never had a tender CO come aboard my submarine other than when invited to lunch, and I determined to be actively involved in every refit.

And I also decided that Holland would offer services to any Navy ship that came into port. So we did that. One day a cruiser pulled into Rota; I walked over to meet the ship as she

moored. I walked aboard, said hello to the captain, and offered: If your engineer has any work orders he'd like filled, send them over. They were stunned, really. Nowadays, that's what submarine tenders do. They take care of anyone that they can. But I think that was pretty much a new idea when I was in Holland. It worked out fine. We always had spare capacity, and there was no reason not to do that.

One time a destroyer came in with a bad gash in her side. Had run into something, I don't know what. But our shipfitters got some spare metal plates and welded a patch across that so that she could get to a regular shipyard for permanent repair.

The tour at Rota was just a great tour. I got to know the Spanish naval officers there, the admiral in charge in Spain. We got to travel a little bit in Spain. My wife did a lot more than I. But we were able to fly over to Italy for the change of command of the submarine command there. It was just a super tour.

And I think we did a lot of good work with the boomers. We had a floating drydock in which the ships would go for hull work. One of the things that we accomplished was the first resin discharge in a floating drydock, in our little drydock there. The nuclear plant has a substance, resin, through which the primary water flows, and the resin catches the products of corrosion that float free from the walls. Every so often the resin bed needs to be discharged, and replaced with fresh resin. The resin bed also helps keep the pH constant. In fact that's the primary purpose, to keep the pH constant in the power plant.

Up till that time all the discharges had been done at sea ejecting the resin with air pressure, then entering port to install a bed of fresh resin. In the desire to minimize injection of radioactivity into the ocean, Naval Reactors suggested that the resin discharge be done in port in a drydock.

The first attempt to discharge that didn't work. My people analyzed why it had failed and decided that the piping system that had been sent to us to implement had a design flaw. My people figured out a better arrangement for the piping system, which was changed, and then we were able to make the first successful resin discharge in port in a drydock. You didn't get any Navy Unit Commendations for that, but it was just one of the many things that the ship was able to implement.

We had one exciting time in port. About five o'clock in the morning the first lieutenant called. I had quarters on the base five minutes from the ship. He said, "Captain, we had a little bit of a problem." The ship was moored in what is known as a Mediterranean moor. The stern is up against the pier and both anchors are out in front at about a thirty-degree angle from the centerline of the ship. The first lieutenant told me that the starboard anchor moor had pulled clear in a pretty heavy wind that was blowing. Actually, it wasn't the anchor. The anchor chains were shackled to steel pilings that were driven into the harbor floor. He said, "The starboard moor had let go. But," he said, "Don't worry about it. I've got a tug pushing us, and the submarine alongside is getting ready to get underway and moor astern of us at the pier."

I said, “Okay. Thanks, Ed.” I got out of bed, dressed, and was onboard to the ship in record time. I found the situation exactly as the first lieutenant had described it. The piling had pulled clear of the sea floor and the anchor chain attached to the piling ran slack.

During the day we were able to walk the anchor out with a small boat, drop it down, reattach the starboard chain and set the anchor in the harbor bottom. We eventually had to have the starboard mooring replaced, but that took a year to get the money and the time and everything ready.

My first lieutenant did a very fine job in, I think, saving the ship and the submarine alongside. If the port mooring had given way the ship would have just swung around, and God only knows what would have happened to the submarine that was alongside. The stern or screw would have been damaged without doubt.

But other than that it was really a pretty routine tour.

I was ordered to the Pentagon next, and I spent three years in the political-military organization, which was very interesting of itself. We were the liaison between the Joint Staff, Department of Defense, and the State Department for nuclear-powered matters. That was my job. If a nuclear ship wanted to visit a foreign port I had to arrange suitable clearance for the visit. I would talk to the staff at Naval Reactors, get their approval, and then submit requests to the State Department through Defense. The State Department would then query the embassy and they would get permission from the foreign government. It was a big deal to get a nuclear-powered ship into a port that had not already been cleared along the way.

The basic problem was that the Navy would not release any technical information to the foreign government. Technical information was classified, and generally the foreign government wanted to know technical information, because they wanted to be able to assess the hazards of this nuclear-powered ship coming into their waters. Would the ship contaminate things? Anyway, it was a very interesting tour for me from that particular standpoint, and I had a lot of interaction with various parts of government.

Probably the highlight of that whole tour, though, was the Incidents at Sea Agreement. My particular shop held the files for incidents which occurred between Soviet naval vessels, Soviet aircraft, and United States Navy ships and aircraft. If, for example, Soviet aircraft overflew one of our carriers at a hundred feet above deck level, we would get a report of the incident. Or if a Soviet trawler—they had trawlers off all of our ports—if the Soviet trawlers interfered with our operations, which they did routinely as a matter of fact. If we had a task group at sea the Soviets would position themselves such that they were heading toward the task group, and the task group would have to give way, according to the Rules of the Road, rather than the Soviet ship give way. The Soviets harassed us at sea a great deal. And, in return we harassed their ships and aircraft.

There were a number of fairly serious incidents at sea, as a matter of fact. In the Sea of Japan, destroyers colliding. And, of course, the Soviets would always blame the incident on us and we would always blame the Soviets. In the State Department, whenever one side protested the other, our standard answer was: Well, why don't we sit down and talk about this? And all of a sudden one day out of the blue the Soviets, after we had registered a complaint, the Soviets said: why don't we sit down and talk about this? So the word filtered back through State and Defense and Navy, and into my shop.

That had happened just before I got to Washington. When I got to OPNAV I found out that my shop was responsible for creating a position paper on incidents at sea and ideas that we could exchange with the Soviets. I reported into the shop and was hit with this big project. What we had to do was quiz the fleet commanders on their ideas. And about two or three weeks before I reported in, a message had been sent to the fleet commanders asking for their various ideas on meeting with the Soviets and what we could discuss. The officer that I relieved didn't tell me about this. I was in my office sitting at my desk fat, dumb, and happy, and the admiral called me over and said, "What are you doing about this message concerning incidents at sea?"

I gave him a blank look. I didn't know what he was talking about. He said, didn't so-and-so tell you about this? I said, "I'm afraid not." He said, well, go find out. I had a lawyer, a Navy JAG, in my shop, and I talked to him and he said, yes, we're waiting for the answers from the fleet. So we then sent out a follow-up saying we really need the information.

Then the messages, information, started to arrive. So for the next couple of months—a task force was formed - I was the representative of the Navy - to create position papers to deal with the Soviets. I dealt with the Joint Staff and people from DoD. State Department was represented. And, of course, Navy. And within Navy I had to clear positions with the surface people, the air people, everybody.

Secretary of the Navy, John Warner, was selected to head the U.S. delegation at negotiations in Moscow. I was on the delegation along with another naval officer from the DoD side. There was somebody from the Joint Staff. John Warner's lawyer was on the staff. We had an aviation officer with the group. Everybody was briefed, and we knew our position cold. We spent several days briefing Secretary of the Navy Warner so that he understood how much flexibility he had, which was not very much. As a matter of fact, the Joint Staff position was that we knew the Soviets would want units to stay so many thousand yards from each other to avoid any kind of incident, but the Joint Staff and the Navy did not want to have a fixed-distance type of approach.

It turned out that—we got to Moscow and sat down, and sure enough at our very first meeting the Soviets wanted to have a thousand yards, or a thousand meters, fixed distance, separation between units. And we simply could not abide by that. So actually we had some very interesting talks. We found the Soviet naval officers to be officers just as we are. They have the same desires as we. They're family men, and they don't want to go to war any more than we do. They want to be reasonable, but of course they have their position and we have our position. But

we finally, after three sessions with the Soviets, came up with an Incidents at Sea Agreement, which was signed by the Soviet Naval Commander in Chief and by Secretary Warner.

It was a fascinating experience overall. Historian Dave Winkler has written his thesis, his doctorate on the Agreement. Overall the process was fascinating, and I think the agreement eventually did some good, because once the agreement was implemented everybody on the Soviet side and on the American side was a lot more cautious than they had been in the past. In the past there was a lot of confrontation. But after the agreement was signed people just seemed to back off a lot more. So from that stand it was quite effective.

For me it was a wonderful experience. I got to go to Moscow and Leningrad. Because whenever we traveled the Soviets would take us different places on weekends. We'd work during the week, and on weekends we'd visit some place. One time we flew to Odessa, boarded a Soviet destroyer and had lunch aboard the destroyer. Just absolutely fascinating experience.

I had a great respect for our Soviet counterparts. And they were, of course, very envious. When they came to Washington they were very envious of the way we lived. I brought two of the Soviet admirals out to my house one day when they had a little bit of free time. They were amazed. I had a \$35,000 house in the suburbs of Virginia. And the Soviets couldn't believe that I lived in this house, that it was mine, I owned it. Couldn't believe that.

One of the things that we did is arrange to entertain the Soviet delegation at our homes, at dinner. We split everybody up, had them in our homes. We never got to see the inside of a Soviet home while we were there. The entertainments that they provided for us were at the hotel or restaurant or something like that.

**SMITH: Interesting difference.**

**RAWLINS:** So just a great experience, and I'm glad that I was able to be part of that, part of the delegation.

After three years in the Pentagon I was ready to move on, and I was sent to the Naval base at Groton for my twilight tour. There I got to meet all the civilians around town. Again, the Navy had an excellent relationship with the local populace.

We had one tussle during my time. The 688 class was just coming on line. The Los Angeles class of submarines were building in Groton, and also in Newport News shipyard. 688s drew more water than the previous class, the 637 class, and it was necessary, in order for the Los Angeles class submarines to use the submarine base, that the channel be deepened. So the Navy proposed....

**(End of Side A, Tape 3. Side B is blank)**  
**(Start of Side A, Tape 4)**



**RAWLINS:** The 688s drew about five feet more than the 637 class, and to be able to use the submarine base they had to dredge the channel from the mouth up to the submarine base. The Corps of Engineers did a study and made up an environmental impact report. There was a lot of opposition to dredging the channel. The Corps of Engineers planned to dump the spoil (the dredged material) in Long Island Sound. The local fishermen said, oh, if you do that it will kill all the fish. And the fact is that we knew that the mud in the river was contaminated with heavy metals and things like that from the base and the shipbuilding, and just environmental reasons, because people dumped everything they wanted in the river. So it settles out in the mud.

That turned out to be a really interesting exercise. We had a number of public meetings on this. And, as I say, there was some serious opposition, so we weren't sure what was going to happen.

We had a weekly newspaper at the submarine base. It was not a base newspaper but an insert with all the base news published by the Norwich Bulletin as part of its every-Friday newspaper. The base didn't have enough money to do its own publishing, so it joined with a commercial enterprise. Many bases did that. I used to write a column in the newsletter. I believed in being very open and transparent with everybody in the area, so in my articles, I would discuss problems and I would say what we were going to do about the problem. If there was a solution I would say what it was.

One of the days, when this all came up—I just found this the other day—I wrote a piece called “Chief Thunder Mug’s Fables.” You know what a thunder mug is?

**SMITH: Go ahead for the record.**

**RAWLINS:** Well, a thunder mug is a pottery piece used to use in the days before they had indoor plumbing. People would use the thunder mug at night, and then empty the contents into the privy the next day. Anyhow, that was the title.

I came up with a fable in which there was an Indian tribe called the Au Grotons, you know from Groton. And they had this wonderful area in which they lived, and the river ran through it and the river became clogged. Some of the tribe didn't want to unclog the river. And eventually they didn't, and the people had to move somewhere else. That was basically the story behind not dredging. I was telling in the fable story what would happen if the river did not get dredged. Ultimately the base could not be used, and the submarines of the new class would simply have to be based somewhere else. That was the theme, the thought.

As a matter of fact, that story made national news. People quoted it, thinking that I was threatening. Hey, I was not threatening anyone. I was just saying this is what's going to happen. If A, then B.

Eventually the river was dredged. The opposition eventually went away and the river was dredged. 688s are now operating out of SubBase Groton, and doing great work, as a matter of fact.

The base, when I got there, was in really a tough time. In the 70s, in the early 70s, the Vietnam War had sucked up all the money from the military that it could find, and the infrastructure really took a beating. President Johnson wasn't about to fund infrastructure when he had to fund the war. So we had buildings that needed repair. We had piers that needed repair. We had everything that needed repair. The Vietnam War was over by that time and the Navy was just starting to recover. Didn't have a lot of money, but the fleet commanders were then willing to give some money to the bases for structure repair. So we created a priority list which I cleared with the submarine command, ComSubLant. I remember going to sessions in Norfolk to present our thoughts to CinCLantFleet, to try to get our priorities mixed in with their priorities so that we could get some money for the base.

Over the years additional funds were allocated. And we were able to get some new piers, we were able to get some new buildings. Submarine School, that was interesting. I had something like twenty, twenty-five tenant commands on the base. I didn't command very much. I commanded all this land, but there were all these individual component commands on the base. Even the repair facility was split off as a component command. That was okay. But each of these component commands had their own priority listing, and I had to pretty much integrate everything so that we could lift everything together.

One of the problems that we had was, the commissary and the exchange were small buildings and they were just not competent to handle the local military population. We had a hundred thousand, either retired or active duty people and dependents, in that particular area. So we needed a lot of services. And one of the things that we worked very hard for was to get money for a new commissary and exchange.

We looked all over, outside the base, to see if we could find properties that could be converted or built as a commissary and exchange. We found a couple, but eventually we were told, well, we really don't want a Navy commissary and exchange out in civilian land; it would make the civilian storekeepers angry. Well, here we are competing with all the local mom-and-pop stores.

Eventually we did get a new commissary and exchange, or we got money for it, to be built on the base. And in fact I've been in it since then. The commissary is on the lower portion and the exchange is on the upper portion. A very nice building, much needed for that particular area.

One of the things that I was glad I was able to do for the base itself was to establish a viable plan to upgrade the base. Build new piers where we needed them for the nuclear-powered submarines. And also help with infrastructure on the base. Sub School was able to get a lot of money. A couple of years ago I was back at the base for some reason and toured around, and saw

a lot of new buildings. So the progress has continued to this day. I was really pleased to see how good the base looks at this particular point in time.

We had a lot of open barracks. In fact all our barracks were just wide open, World War II style. The beds were all laid out, and the heads were all community heads, and things like that. We were able to put some money aside and convert the barracks, deck by deck, into individual two-man room things.

We had a Seabee contingent on the base. About every three months the Seabees could convert one deck of old-style barracks into rooms. And that was really great. The submarine crews, on their off-duty time, could have their sailors live in a better environment than wide-open World War II-style barracks. Nowadays I think all the new barracks are built that way, with one- or two-man rooms. That's great for them.

I think that's probably all I can tell you at this point.

**SMITH: Okay. I did have a question for you. You mentioned that, in your interview with Rickover, that he asked you a couple of questions and threw you out of the office. Do you remember the questions, and the answers?**

**RAWLINS:** Yes. The first question was: Why didn't you do better at the Naval Academy. Of course, I'm sure he asked anybody who didn't stand number one that question, or a similar one. I replied that I was immature and didn't work as hard as I could have. Then he looked at me and he says, "Well, why should I believe that you'll work hard now?" I stuttered some answer, and then he said, "Get out."

There are a lot of Rickover stories. Some of them are true; some of them are exaggerated. There's a story that one of the chairs had a short leg on it. That's not true. That's one of those made-up stories.

During your time as a prospective commanding officer at his headquarters, whenever there were interviews, two of the PCOs were assigned to assist. One was the inside man, one was the outside man. The inside man was in the office with the interviewee and Rickover, probably as protection for Rickover, so that people couldn't exaggerate, or claim that he did something that he hadn't. The inside man would bring the interviewee in, sit him down, and when the interview was over take him out. Then the outside man would direct the interviewee to the nearest exit, and that was it.

Once the interviews started, the candidates would never see each other again, so they could compare notes. We started out—when I was there, there were with eight or ten of us in a big room. There was nothing to do in the room. There was a long table and chairs. There was nothing to read. Certainly no television. So we could talk, and that was it. But once people started out—you're called out to go see this person—then you were separated. That was done purposely so that you weren't able to compare notes, or tell other people what was going on.

Generally you were interviewed by two of Rickover's staff, two of his top staff people, department heads. And then you waited in a room, and, when Rickover was ready you were brought in, and then thrown out. Everybody was thrown out. That was my experience. When I was there as a PCO I sat in on a couple or three of these different interview sessions, and as I say, everybody was thrown out. But the process was very instructive.

I was told that if both of the staff people gave you up-checks, thought you were okay, then you probably were going to be okay in the program unless you did something or said something to Rickover that really aggravated him, in which case you were done. But I think the real interviewing came with the staff people. Because they talked to you in detail about a number of different things, to try to get some feel for how intelligent you were, or how you reacted to different questions. And his was the wham bam, thank you ma'am, type of interview. Although I've read some—when he interviewed Admiral Zumwalt, for example, that went on for a long time, according to the interviews that I've read.

But a lot of the stories about Rickover are simply untrue. When he came up to Thresher, for example, to... When the nuclear-powered submarines first went critical, when they brought the reactor critical, they had to go through a very detailed interview process. Rickover's staff came and interviewed the engineering community on board, the engineering group. Ran them through drills. And either gave them an up-check or a down-check. So that if they had an up-check they could actually bring the reactor critical for the very first time. When the staff was through with this interview and testing, then Rickover would arrive, they would brief him and then Rickover would talk to the captain or the officers, or to whomever he wanted to talk.

And of course he was with us on sea trials. I was on two different sea trials with him, Hamilton and Thresher. In a setting like that he was a fantastic individual to listen to. He was so well read, just tremendously well read. Intelligent. He could speak on any number of subjects. And he was actually funny. I remember sitting in the wardroom and Rickover's cracking jokes.

**SMITH: Really?**

**RAWLINS:** Yeah. At lunch. Cracking jokes. I was always very impressed with him. And I know for a fact that he held the feet of important companies who supplied material to the nuclear program, he held their feet to the fire. He demanded that they do right. Quality assurance was one of his keys. So I take my hat off to Admiral Rickover.

He was a tough man to work for. When I was a PCO we sort of steered clear of him. Because you just never knew what would happen. But I have great respect for him. I don't think any other person could have led the nuclear Navy to the success that it has had with Rickover, very frankly. I don't think there's anybody could have done that but him.

**SMITH: Interesting. Well, the other thing I wanted to ask, that might go hand in hand with this, is that, although you mentioned this before Rickover, was the quality of the men and**

**officers on the submarines, and the relaxed attitude but the extreme professionalism that you found on submarines. What do you attribute that to?**

**RAWLINS:** Well, I think it goes back to the very beginning of submarines. You take your life in your hands when you go aboard. We've had enough accidents in submarines so that people understood how dangerous it is. Without any question you have to be well qualified to serve on board a submarine. You have to know your job. You have to know other people's jobs. And you have to respect their ability. So it's just a mutual respect that people have that keeps the submarines to the level they are.

And the fact that you're a volunteer. To get into submarines back in the post-World War II days, you had to go through school, you had to prove your intelligence. You had to take escape training. That alone, I think the escape training washed out people who couldn't survive under certain types of tense situations.

I remember one time in my escape training, we were packed in a tiny simulated escape chamber like sardines. You can barely raise your hand above your head. The instructor said, "If this is too uncomfortable, if you can't handle the stress of making this escape, raise your hand." Well, you're standing there with your hands down to your sides. You're so packed it's really difficult to even raise your hand above your head. But I was in one group where a gentleman could not equalize his ears—pressure was bleeding into the chamber so we could equalize, open the door, and then make our escape. Eventually he washed out simply because he couldn't handle the physical aspect of an escape.

Submarine school was tough. There were a certain amount of failures along the way. The same thing with nuclear school. I think it was even tougher. At the prototype people washed out. So the training is pretty intense all along the line. If you can pass your training and get on board you're okay.

I remember one young man in Alexander Hamilton. A seaman who he had some kind of condition with his feet. He had something which caused his feet to perspire and smell. He lasted about a week. Because the crew just ragged him to the point where he said: Please release me from duty. It's that type of thing. If you can't fit in, you're gone. But once you can fit in, then it's okay.

The crews are very close. And I think the World War II experience was something that very few people can appreciate. Of course, we lost twenty percent of our submariners during World War II. So people became very close undergoing that experience. And that experience carried well into the 1950s because we had young guys on the boats in World War II, and they continued for maybe twenty or twenty five, thirty years service. Certainly officers did.

Many of the officers that I served under had war experience. Successful war experience. They were commanding officers of submarines. And they brought that entire attitude, that

experience, that whole way of thinking and living with them. So the young guys learned it and carried it along.

**SMITH: Okay. So you think that it was something that started in the war and then the people afterward just carried it forward.**

**RAWLINS:** It started back in 1900 with the first submarines. But certainly the World War II period had to have expanded that whole feeling of camaraderie and respect and dedication that you find in the submarine force today.

**SMITH: Interesting. The other question that I wanted to ask you about is: You mentioned your father was a seaman on Minneapolis and that he had stayed for his tour and then left. That influenced you to stay in for thirty? What was the influence for you to stay in for so long?**

**RAWLINS:** Well, getting in the submarine force is what caused me to stay for thirty. The experience I had in Bexar was not very good. The captain was harsh and really unreasonable. And I'm not just talking about me. None of the officers could please this particular captain. He was just totally disagreeable. That's one reason I didn't want to go back to Bexar after I finished electronics and damage control schools. It was just uncomfortable to be on that ship.

In my first destroyer, the skipper was also a difficult person to work for. He thought nothing of insulting his officers or visitors. We were operating out of Norfolk, and his family did not live in Norfolk. They lived somewhere else. And so he lived aboard, and you could never get out from under his gaze. And being an unpleasant person to begin with, you had to suffer with him all the time. The second skipper I had was okay, but I didn't really think much of him as a leader.

When I got to submarines, my very first submarine skipper, exec, clearly they were topnotch people. They were leaders. They were real leaders. You could respect them and you could work for them. You could work under the atmosphere that they controlled on the submarine. And it was always thus. Once I got in the submarine force I said, this is a lot of fun. And I never had a job that I didn't like after that. And I really never ran into someone that I couldn't work for, as long as I did my job. Even if they weren't the greatest person in the world, as long as I did my job I was okay.

Generally, the work we did in submarines was exciting. If it was just training, just ASW training, it was exciting. And I got to see a lot. Got to travel quite bit. I didn't travel as much as I'd like to, but I got to Europe, I got in the Pacific, I got to Moscow. So once the fun started it was just nice to continue.

**SMITH: Just kept going.**

**RAWLINS:** Yes, I never had a job that I didn't like after, from Blenny on.

**SMITH: Who would you say was your biggest influence? You mentioned about how a lot of the COs that you served under were people that you could emulate and things. Who would you say was your biggest influence on you during your career in the Navy, and why would they be that?**

**RAWLINS:** Well, certainly Dean Axene and Buz Bessac. Dean Axene was skipper of Thresher and Bessac was skipper of the Alexander Hamilton. Both those people were just topnotch professionals. They were the type of person that just very much impressed me as the type of person that I should try to be.

**SMITH: Is there anything else that you want to add to all of this? It's your chance to speak up.**

**RAWLINS:** My chance to speak up. No, this has been very interesting. I appreciate your contacting me and interviewing me. I think that a Naval career is a great career on which to embark. And I envy the people now serving in our present submarine Navy, because the equipment they have now, the machines they have now are so much superior to anything that we ever saw or thought about.

Oh, let me add one thing. Recently, USS San Francisco ran into a submerged mountain.

**SMITH: Right, I read about that.**

**RAWLINS:** Beat the bejesus out of its hull. I saw pictures of the ship in drydock. I know how badly it was damaged. Reportedly they were doing thirty knots or full speed when they rammed into the submerged mountain.

I know exactly what happened in that instance. One day in Daniel Boone we were on patrol and the quartermaster calls me and says, "The bottom's coming up." On the ballistic missile submarines we had a secure fathometer which ran all the time. It was a narrow beam and it was low power so that you could keep your fathometer going and not make a lot of noise outside the hull so that others could track you. So I was in the control room watching the scan of the bottom fathometer, and sure enough the bottom is coming up.

At five hundred feet I sheared away. I said, there's something out there. I don't know what it is, but I wasn't quite willing to keep on going past five hundred feet. I knew it was a submerged mountain, or pinnacle. So I circled around. I made two or three passes just to see how big this thing might be, but each time at five hundred feet I sheared off. I turned ninety degrees or reversed course. We plotted that on the map. According to the chart that we had there was nothing there. But clearly there was a submerged mountain there. I never did figure out how big it was, but I knew that there was at least a pinnacle of some size. So we charted that, and when we got back to port, of course I reported it.

So I understand. Now, I'm not saying that was the same mountain that San Francisco hit. It probably was not, because we were not operating in that part of the ocean. But those things do exist in the South Pacific Ocean. So I can understand what happened to San Francisco. They just were unfortunate enough to run by something that had never been charted.

Of course, we've read in the papers since then that satellites had located that particular mountain and it was plotted. They could see it. They knew it was below the surface, but didn't know how far below. The charts were never updated to show that, but they knew it was there. So I only hope that the submerged pinnacle that I found in Daniel Boone was put on the charts. At that time we were patrolling. You know, we were going three knots, five knots, something like that. No hazard to us. Even we'd have hit it, we wouldn't have hurt anything much. But it just struck me when I—the very first time, first reports that I heard about San Francisco hitting this mountain, I said I know exactly what happened. Because we found one in the South Pacific too.

**SMITH: Well, the South Pacific, isn't there a lot of volcanic activity? And so the bottom is changing.**

**RAWLINS:** Yes. That's exactly right. In fact, the Mid-Atlantic Ridge has the same thing. The plates are coming together and there is a mountain right down the middle of the Atlantic. The same thing, you have underwater volcanoes. And in the Pacific you have even more because there are more plates smashing against each other.

In fact, that's just what happened in Indonesia with that tsunami. One plate is subducting under another. And I've read since then that there are other plates, other areas of the Pacific, with subduction. Just the other day I read something about a brand new underwater volcano that was found and some brand new un-heretofore flora and fauna and sea life were found in this particular thing. So yeah, that's right.

That's the last thing I really think I have to say. But it just struck me that it's pretty dangerous to be under the ocean in various parts of the world.

**SMITH: Yes, definitely. All right, great. Well, thank you very much.**