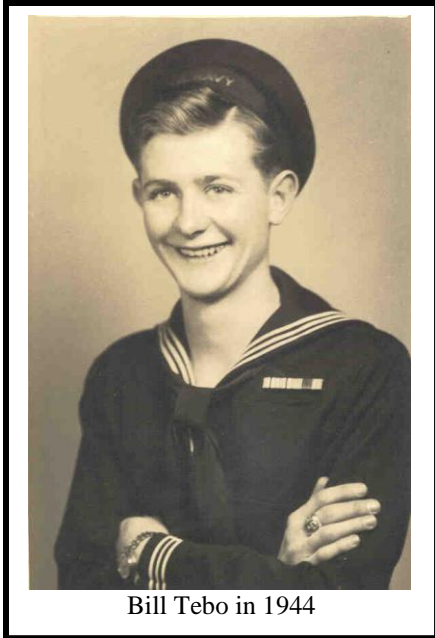


INTERVIEW WITH FORMER USS Ex-U-2513 CREW MEMBER BILL TEBO

Interviewed by Arnold A. Putnam
At the Portsmouth Naval Shipyard Museum, July-
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Bill Tebo in 1944

Bill Tebo is currently State Commander for the States of Maine and New Hampshire Of The United States Submarine Veterans of World War II and is a volunteer and Docent at the Portsmouth Naval Shipyard Museum.

Question: *Where do you live, where and when were you born?*

Bill Tebo: I live in Newfields, New Hampshire. I was born in North Bridge, Massachusetts in August 1927.

Q: *When did you enter the United States Navy?*

A: August 1944 from Stratham, N.H.

Q: *Were you working at the Navy Yard here at Portsmouth (N.H.) prior to your entry into the Navy and what did you do for work?*

A: Yes, I was. I was a machine operator for pay purposes, but I was actually an Electrician's Helper, on New Construction boats, while in High School,



Q: *When you went into the Navy, what ships did you serve on?*

A: I volunteered for submarine school right out of Boot Camp. After submarine school I went to Torpedo School, Tube School and Special Weapons Maintenance School then I reported to the SEA OWL, the 405, which was built here at Portsmouth. In fact, I had worked on it.

I was an Electric Torpedoman Striker (Seaman 1st Class).

At the conclusion of the war we were at Pearl Harbor getting ready for War Patrol

Number 4. The ship was sent to Panama and we were protecting the entrance from the Pacific side to the Panama Canal. We were blowing up floating mines and things like that.

Q: When and where did you become attached to the U-2513?

A: While we were in Panama I was selected to go to Special Weapons and Secret Devices School back in New London. That was in December of 1945. I reported for school and was there until April of 1946. At that point I was graduated and transferred to the U.S.S. CLAMAGORE (SS-343) an EB (Electric Boat) boat at Key West, Florida.

The CLAMAGORE had two crews: one assigned to the CLAMAGORE and one assigned to the U-2513. The reason for that was that the U-2513 was not a commissioned American Warship and for us to draw submarine and sea pay we had to be assigned to a United States Commissioned ship.

In July of 1946 we were then commissioned and we became the U.S.S. Ex-U-2513. We were all transferred en-mass to the U-2513. I served on it until late 1948.

Q: How did the U-Boat get to the United States Navy?

A: Captain Erik Topp was the German squadron commander at the end of the war. He took five Type XXI submarines to Norway. He didn't want to surrender them.

In route British aircraft sank three of them. Two made it to Norway, the U-2513 and I think the 3008, but I'm not positive. The U-2511, I think it was, was already there. Those three boats were surrendered by the Germans to the British.

The Allies had established two locations. One in Great Britain at Lisahally in Northern Ireland and the other at Portsmouth, New Hampshire. Any boats in the Atlantic could go to the closest of these two ports. That's where the U-Boats in Norway were sent.

In, I think, June of 1945 they established two American crews and flew them over to Ireland. They went aboard the U-2513 with the German crews and 3008 and learned enough about them to bring the two boats back.

The English gave those two boats to the Americans. The third one they loaned to France.

In '95 I was down in Norfolk at a convention and I met two French officers who had been on the U-2511. They were both engineering officers and it was kind of humorous because I couldn't speak French and only one of them spoke some English. But, we did manage to communicate quite well and it was very interesting.

Q: Where did the American insignia for the U-Boat come from?

A: I'm not sure which one came up with it, but the two crews that went over there were called the "Rainbow Division."¹

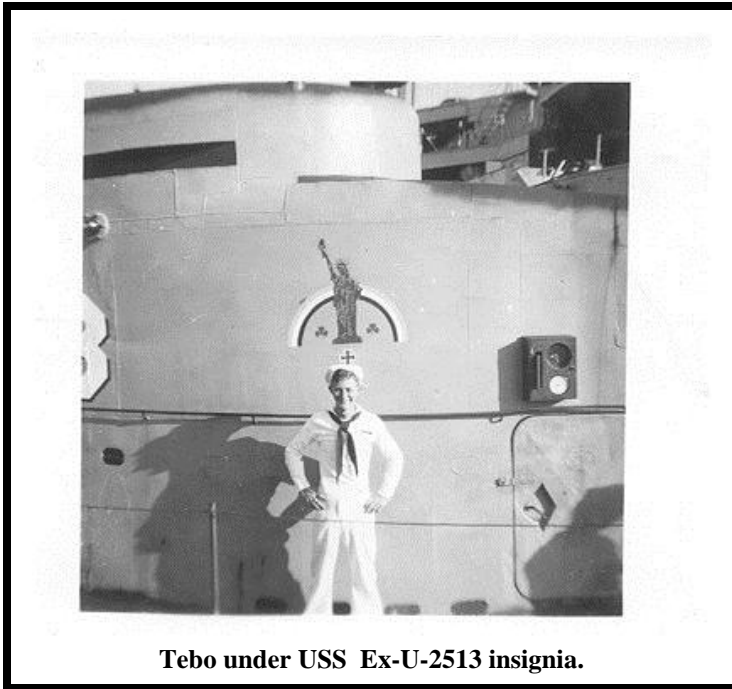
Lieutenant Commander Ira Dye was the senior commander and was in command of both ships when they came back across the ocean. He was the first commander. He's still alive (2004) out in California and I communicate with him frequently.

The second commanding officer was Captain James Casler, who was a mustang. He had been a Chief Quartermaster and was decorated during the war and promoted. He had worked his way up.

The third commander was Steve Mann. I never met him, but I've talked with him on the phone. He passed away about a year ago.

These three commanders served on the submarine (*U-2513*).

¹ The American "Rainbow Division" was also the name of the American 42nd division that served in France during World War I.



Tebo under USS Ex-U-2513 insignia.

Q: I notice from the photograph of you standing in front of the insignia that there is a rainbow, Statue of Liberty, two shamrocks and an Iron Cross.

A: That's right. That was to represent the "Rainbow Division," the United States with the Statue of Liberty, the shamrocks represent where they picked it up in Ireland and the Iron Cross the German submarine. That was the insignia.

They also had a cute saying that those fellows who went to Ireland had.

They sat around all that summer wanting to get back to

the Pacific, because the war was still on. Some of them were pretty upset that they had to sit over there, eating strange food in a strange place. So, they came up with the idea that they would name themselves "FSBI." It stood for: "Forgotten Son-of-a-Bitches of Ireland." They had it tattooed on their left rear cheek (*laughter*). So, you always knew, when you were in the shower, which one was one of them (*Laughter*). Some of 'em were kinda crazy (*Chuckles*).

Q: Where did you go with the 2513?

A: Our, the U-Boat's, homeport was Key West. The reason for that was that the Sound School was down there and we were operating with them.

Our sonar was so much superior to the American's that they were trying to determine how to improve on the American. We could pick up a ship at a hundred miles. The best that American sonar could pick up a ship was probably ten miles. It was quite a difference.

We operated with Destroyers, Destroyer Escorts, Blimps and aircraft.

When I first went aboard they had so much trouble finding us, that at noontime we would sneak back into Key West and be drinking beer on the beach while the surfaces ships were out there and the Blimps were out there, flying around, looking for us.

So, what they did was make us tow a buoy so that they knew where we were all the time (*laughter*). But, we had a solution for that, too. The buoy cable ran through a shear valve and all we had to do was cut it by closing the valve and head for the beach (*more laughter*).

Q: What was the complement of the boat?

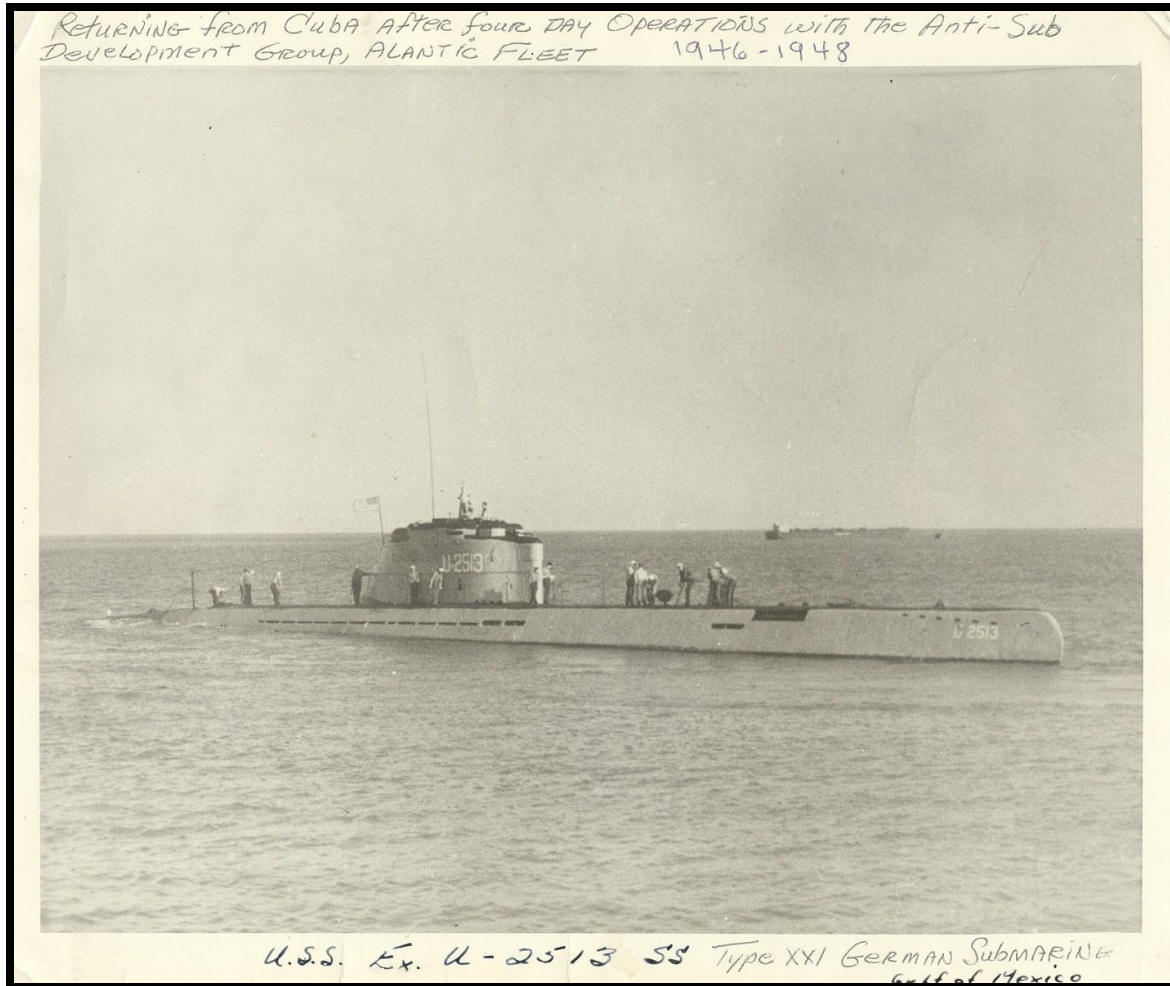
A: Between fifty and sixty.

Q: How many officers?

A: Ah, I think there were five or six.

Q: How long did you stay out at a time?

A: We normally went out for three or four days. But, sometimes it was just daily trips. Let's see, in 1946, in August, we went to Charleston and went into our first overhaul. We were the first submarine ever overhauled by Charleston Naval Shipyard. It was not a good experience for a submarine.



Q. Why was that?

A. They were used to working on Destroyers and watertight integrity didn't mean much to them. It was a training thing. We had to ensure that they did everything right. We missed some things. The first time we submerged on sea trials our forward battery soft patch nuts had not been tightened, it leaked and we took in quite a lot of water into the forward battery-very bad, makes chlorine gas mixing salt water and battery acid. This patch is for loading and off loading battery cells. We had to tighten the nuts, under the superstructure, under water half the time. At least the water was warm.

Q: What were some of your duties on the U-Boat?

A: I was an Electric Torpedoman, but also was a lookout on the surface and stern plane operator submerged.

In the torpedo Room the Germans had a very unique torpedo loading system. The storage racks were built on an angle, they lined up with each torpedo tube. They had electric motors to move the torpedoes from the stowed position into the load position and into the tube.

The Germans – we – could reload six torpedoes in about twelve minutes. The same compatible thing on an American submarine, with chain-falls, it took us over an hour of heavy labor.

Q: Did the submarine ever come to Portsmouth while you were aboard?

A: Yes, it did, twice. In the summer of 1947 we came in for a regular overhaul and were here, I think, four or five months. While the U-2513 was in Portsmouth, the 3008, which was stationed in New London, went to Key West and took our place with the operations down there.

We had a successful overhaul and left here, I think it was in September of '47, and headed south again, via New London, Connecticut.

In March of '48 we blew a main engine. We flooded an engine with salt water through the snorkel. It didn't operate properly. It didn't close and it destroyed the engine. So, we had to come to Portsmouth on one engine.

Portsmouth was the only place that had a spare German diesel engine. We came in here and were here about three months again, maybe a little less.

Q: What were living conditions like on the boat compared to, say, an American submarine?

A: When I first went aboard they were very poor as far as enlisted men were concerned. The officers and chiefs had bunks, but the enlisted men had to sling a hammock wherever they could or sleep on the deck. Some of the men put mattresses on the deck.

After we had that first overhaul in Charleston they put bunks in the torpedo room. That was because we didn't carry many torpedoes, we only carried a couple of dummies. We had to utilize that extra space.

The Torpedo Room was much larger on the German boat than it was in the American boats. They only had one. They didn't have one in the stern like the Americans had. So, we utilized that area for berthing. You could get thirty guys up in there. After that it was comparable with the American boats.

Q: Did the vessel have a galley?

A: Yes

Q: Was there a crews' mess area?

A: After battery and in the galley.

Q: How was food prepared and utensils cleaned?

A: In the Scullery and Galley the same as our fleet boats

Q: What were the sanitary conditions compared to American boats?

A: They were very similar. We had two heads, three heads actually. The officers had one. We had one forward and one aft.

We didn't have very good facilities to wash our cloths. So when we were in port most of us lived in a barracks. We had washing machines in them, where we could wash our clothes and dry them.

One of the biggest disadvantages was lack of fresh water – drinking water. The stills on the German boat weren't capable of making enough water. We couldn't shower at sea, except in salt water.

Q: What about some of the operating characteristics or new technologies that the German boat had that the American boats didn't?

A: They had several new technologies. One, of course, was the snorkel. It was crude compared with the American snorkel of today. It operated on a ball valve-type closure - that's why we flooded the engine- and it was just like the toilet valve. It was a big ball and when the water hit it, it shut, or supposedly shut, the valve. It didn't always work quickly enough. When we made a snorkel we put electrodes up there and had it close electrically and hydraulically. That was much faster.

A lot of the equipment in the boat was shock mounted. It was the first time I'd ever seen shock mounted equipment. The light fixtures and things of that nature were shock mounted on springs. They weren't rubber-mounted like we now have improved them. But in those days a spring served the purpose as the same thing. The big main machinery wasn't shock mounted at that time. It was a new technology.

Another technology was a rubber-covered snorkel and some of the masts. It had indentations in it so that when radar hit it, it didn't bounce directly back to the receiver to indicate where we were. It deflected it.

Q: You mean indentations like a golf ball?

A: Ya, similar, only much bigger. They were probably, oh, about a quarter inch in diameter with little indentations so that when the signal hit it, it would deflect off to one side rather than directly back.

Another technology was silent-running motors. These two motors were connected to the drive shafts through V-belts. I think there were twelve belts, if I remember correctly, on each shaft to the motor. We could go between zero and six knots submerged and sneak away from our antagonist. That's what they were for and it worked very well.

Q: It was like a chain-drive?

A: No, a V Belt Drive, otherwise you had to go through a reduction gear, typical of a diesel-electric drive. This was is noisy and that's what we were getting away from.

Q: You mentioned the sonar, what about the radar. How was that in comparison to the American submarines?

A: I'm not sure that we had a German radar on there. I can't recall. I know that we *did* put an American radar on it. But, at that time I don't think we had German radar, if we did it was very crude.

Q: Was the generator for the ship's battery and the battery-powered ship's motor separate units or did they have the equivalent of our current Ships Service Motor Generator (SSMG)?

A: Diesel generator attached to engine. Separate units, not like SSMG, invented with nuclear propulsion.

Q: Were the ship's anti-aircraft armament still installed?

A: Yes, two turrets on sail, fore and aft.

Q: What type were they, how many and how did they work?

A: Twin 20mm auto-hydraulic operated with auto feed from below.

Q: Did you operate them and with what result?

A: Yes, as the leading seaman, I had charge of everything topside, so during firing I took one and the gunner's mate fired the other at a towed target, they were so fast and accurate, we almost shot down the target tow plane. The navy pilot was mad as hell, demanded that we be sent to captain's mast, Capt. Casler our C.O. was on the bridge and couldn't stop laughing. Needless to say we didn't go to the Captain's mast. The guns were removed at the next overhaul refit in Charleston, S. C. months later, may have a connection!!
(Laughter)

Q: How were the hatches both out of the U-boat and between compartments compared to American boats?

A: We had modified the escape hatches to accept the McCann Rescue Chamber.

The inside hatches were round, rather than oval, like ours. They had a grab bar on top, so you could swing through the hatch between the compartments. If you slipped and fell, you could hurt yourself pretty bad.

Q: Ballast control. Was it set up the same as the American submarines or did they have something unique for their trim and dive control?

A: I think it was quite similar, as I recall. They had hammer valves, just like we did, to open those valves and so forth.

One unique thing was control of the bow and stern planes. On an American boat you had a three-and-a-half foot wheel. They were hydraulic, but you had to turn that big wheel, when you were in standard position, several times to make the plane move.

The Germans used a unique system that was hydraulically controlled from a lever that you put one hand on each side. If you wanted to go up, you moved the lever one way, and down the other. It was instantaneous almost to work. So, it was much faster.

We were also seated, so you weren't standing for hours at that wheel, turning that wheel. It used to wear you out and you had to swap. You could stay on the bow or stern planes for hours because it was much easier. We learned a lot from it.

Q: I notice that the U-2513 had forward diving planes. How did they operate?

A: The bow planes retracted into the superstructure, were hydraulic and worked very well, few problems as long as you kept them greased topside.

Q: Why was the German boat faster?

A: Under water?

Q: Yes.

A: Because it was streamlined and it was a smaller boat in length by about sixty feet.

It only had two main engines whereas the American submarine always had four. That's quite a difference in speed on the surface.

The reason for the speed submerged was because of the larger batteries. That's what we incorporated into our American submarines and that's when they started making the Guppies. Part of the Guppy conversion was to add another battery compartment and take out one of the main engines.

Q: In comparison to operating an American submarine, how was it learning how to operate a German submarine? Was it easier, more difficult or the same?

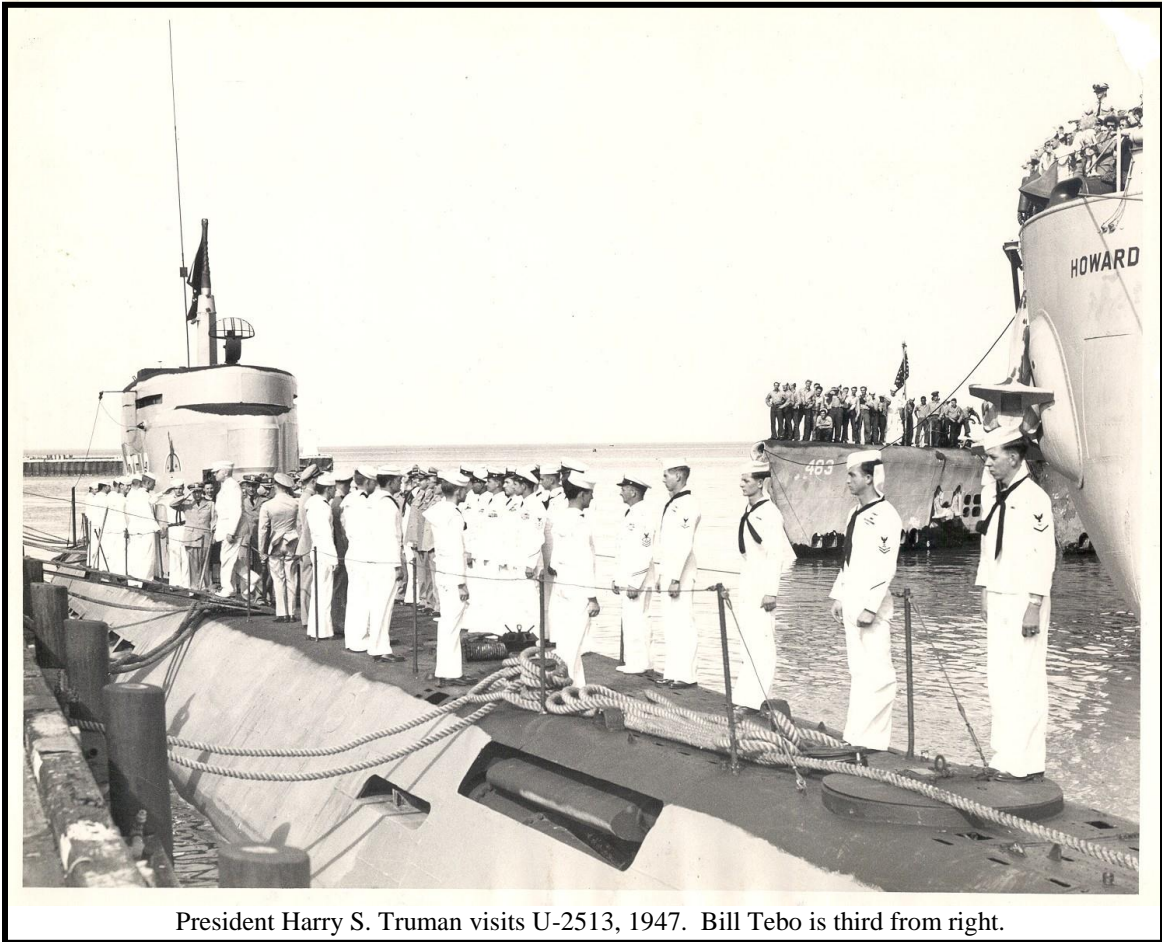
A: It was very similar. All the nameplates on valves, switches, gauges, etc. were in German with the metric system, so we had to convert. Once you got used to reading the German and we learned 'em to earn the rating, it was easy. Eventually the shipyard changed them all, the nameplates to English of course.

The systems were almost identical: the hydraulic system, the electrical. So, once you qualified on an American boat and wore Dolphins you could go to a German submarine and not requalify. We didn't *have* to qualify, but I felt that if I'm going to be on that submarine I wanted to know everything about it I could learn. So, I qualified on the German submarine and I wear two Dolphins. I have an American set and a German set.

The German set was given to me by the German government fifty years after I earned them. (*Chuckles*)

Q: How did they manage to do that? How did they find out?

A: Through a friend of mine, Commander Oscar Schmidt USN (Ret), who was on the U-2513 with me as an enlisted man. He knew somebody at the German Embassy in Boston and told them that he had been on the U-2513. They said: "We would like to give you a pair of Dolphins." He said: "Well, I want two." (*Chuckles*) He wanted one for himself and one for me. So that's how we got 'em. We got 'em in 1996, just fifty years later, exactly.



President Harry S. Truman visits U-2513, 1947. Bill Tebo is third from right.

Q: Have you thought of anything else concerning the U-2513?

A: One of the interesting things about it was that the Germans claimed that submarine was capable of going down a thousand feet. It was way beyond anything that we attempted.

They probably could have been able to do it; only because of the lack of carbon they could not mix their steel properly. So, the hull was too brittle. The hull was much thicker than our boats. In some places it was over an inch-and-a-half thick.

We kept going down and at around seven hundred, seven hundred-and-fifty-feet, we cracked the hull in the Torpedo Room.

We did it twice, that's when they determined to decommission the submarine because it was considered unsafe.

They repaired it the first time. The second time they felt that it would be dangerous to go down a thousand feet. But, I have no doubt, that with the proper steel, that hull would have gone down a thousand feet.

Our American submarines could go down to six hundred and some, in an emergency, had to get down to eight hundred. But that was really pushing the envelope.

I guess that's it.

Q: What was your scariest moment on the U-boat?

A: One probably, was when we cracked the pressure hull on a deep dive. It made me wonder if I had made the right choice of service branch.

Another was when a pipe cap came loose in the Torpedo Room on a deep dive. The pressure that was created made it look like we were flooding. Everyone left the compartment. I had the watch, so I had to stay behind and locate the leak and stop it. To do so, I had to force the cap back on and pump out the bilges. By that time we had surfaced and I then got plenty of help that I didn't need.

Q: What was your most humorous moment on the U-boat?

A: When we were approaching the pier in Key West I was assigned the number 1 line, up on the bow, on the narrowest part of the deck. We approached the pier too fast and we hit, throwing me into the water. I swam under the bow and continued under the pier where I sat for about ten minutes.

Meantime, the boat had a "Man Overboard!" drill.

The captain had dunked me in Portsmouth and New London, so the third time was too much. After the "Man overboard!" scare he never dunked me again. (Chuckles)

Q: When did you get out of the Navy?

A: 1948. When my hitch was up I got out of the Regular Navy I went into the reserves.

Q: Did you come directly to the Yard from the Navy?

A: No, the Shipyard wasn't hiring. I did try to get back, but they weren't hiring so I had to work outside.

I came on when they started hiring before the Korean War.

Q: What were you hired to do on the Shipyard?

A: I was hired as an Electrician's Helper. I only needed about three months to qualify for an Electrician because of my service, both in the Shipyard and in the Navy.

Q: What was the first boat that you worked on at the Yard?

A: The U.S.S. TANG, 563, which was the Portsmouth design of that U-Boat. There were many characteristics we used in it.

Q: What some of the similar characteristics of the TANG?

A: The hull shape, for one thing, was probably the most noticeable thing.

It incorporated the concept that all things on the deck would not protrude above the deck. Even stanchions and everything folded down into the deck. That was to streamline it.

The engines in the TANG were different because they tried the General Motors Pancake diesel engines. They were a failure and had to be replaced eventually. That was not copied from the Germans.

Q: Portsmouth went from the TANG to the ALBACORE. Did you work on ALBACORE??

A: Oh, yes. I had been primarily in new construction as a shop planner when they started the ALBACORE. I didn't physically work on it until; I think it was, the second conversion. I think that it went through three phases. This was the instrumentation part.

I went back to work as an Electrician. I hooked up four thousand strain gages, both inside and outside the hull, into a central location. These were used to record the deflection of the hull as it went deeper. That was to determine how much deflection there was and how safe we were in going to these depths.

We got a lot of information from them and that enabled us to incorporate HY-80 steel into the nuclear submarines that followed using the same hull shape.

Q: You were in Shop Planning. Did you go back to Planning after this?

A: No, I went on to be a Leading Man Electrician and, let's see, in 1959 I went to the Supply Department as a Production Specialist. We were expediting material to get it in on time in order to build the submarines.

I stayed with that job for a couple of years and then transferred to the technical Branch in Supply.

Q: Did you retire from Technical?

A: Yes, I did in 1982.

Q: Thank you for this interview.