

## Ditty Bag

**“Enemy submarines are to be called U-boats. The term ‘submarine’ is to be reserved for Allied underwater vessels. U-boats are those dastardly villains who sink our ships, while submarines are those gallant and noble craft which sink theirs.”**

Winston S. Churchill PM

*I wrote a book, along with two of my brothers called SPINDRIFT – Stories from the U.S. Sea Services. My portion, naturally, was about diesel submarines with chapters named Watches, Heavy Seas, The Loop’s Too Big! (about movies at sea), First Do No Harm (about medicine on a diesel boat) and several others. My problem was that I had things to say about life on a diesel boat which fit none of the chapter themes and which were too short to warrant a chapter. These interviews also have anecdotes, interesting comments and facts which are hard to pigeonhole, and which fit none of the chapter themes in this book directly. My solution with SPINDRIFT was to create a chapter called Ditty Bag. Every Navy man reading this needs no further explanation, but for those who never heard the name, a ditty bag was where you kept your ‘stuff’ aboard ship. Every sailor for 500 years had one. I am confident the Navy still issues one to every recruit today. The Webster’s dictionary on my desk defines it as, “a small bag used esp. by sailors to hold sewing implements, toiletries etc.” Well, that’s what they think. The far more authoritative 1950 edition of my Blue Jackets’ Manual says, “A small bag or box used by sailors to stow personal articles.”*

*Originally I had planned to print the entire interviews in the back of this book but concluded it would be redundant since much of the interviews have been used in the preceding chapters. Instead they can be found in their entirety on my web site “subpowershift.com”. This chapter is the repository of the worthwhile parts of the interviews I have not included so far.*

### **Nuclear Power School**

DG: What was the point in doing all that moving around of the Nuclear Power School location?

MB : (Mike Barr) Well, as I understood it, it was *not* Admiral Rickover’s idea. Admiral Rickover was happy to have a Nuclear Power School any place there was a chalkboard and a piece of chalk. When existing facilities got too crowded, when bases hosting a Nuclear Power School were shut down, or when financial efficiencies were needed, the Navy would propose new locations. Admiral Rickover would, of course, have to agree with the new location. When the schools were finally combined in Orlando, there were about four or five hundred faculty and staff and about twenty-two to twenty-three hundred students. We were running four enlisted and four officer classes essentially all the time. The enlisted classes could be 500 or so and the officer classes 100. There was also a preschool to help enlisted students get ready for the six month course. It wasn’t that they weren’t intelligent, most were very smart, but they needed to brush up on some fundamental math and physics concepts. The preschool was six or twelve weeks, so you actually had another 600 there.

DG: I know a lot of people who had never taken physics. I went to a Catholic boys' school, and you had to take Latin, you had to take physics, a lot of math. The best physics I ever had in my life, the best school I ever went to was Submarine School. It was fascinating, and I remember -- and I'm going to be 64 next month -- and I remember all of that stuff. I remember hydraulics -- why is it that I remember all that stuff after all these years? And I don't remember anything. But submarine school was really something. It's all about how the Navy taught. I think that people in academia could learn a lot about how to teach kids from the Navy.

### **Suicides of Submariners**

*Dave Oliver brought up a subject he associated with the great pressure the Navy put on submariners particularly during the intense Polaris building program. Officers and enlisted alike worked staggering schedules to meet dead lines for the new construction. He recalls three instances in this excerpt which he attributes to the pressure.*

DO: George Washington Carver. We're building this strategic missile submarine. The Country only has five submarines trying to maintain the Moscow Missile package, to maintain the deterrent threat against Moscow. So the President of the United States says, I want that ship on time. The shipyard got a great bonus for every day it was early. We were seven days early. To do that, three guys committed suicide, including my best friend. Now, was it worth it? I don't know, except you've got to look at it from the perspective of the President. The United States is locked in the Cold War with the Soviet Union. There were many men and women who lost their lives during Vietnam. It just turned out that submariners tend to lose their lives from committing suicide. I had --not exaggerating -- I think I had seven shipmates in my first two ships commit suicide. And you know how small the crews are.

DG: That's unbelievable.

DO: Right. The tension was extraordinary. I'm really serious, I'm working 4:00 to 11:00 o'clock at night, seven days a week, two years. Now, I'm young. I don't know any better, and I'm enthusiastic and all that stuff. I'm newly married but we don't have kids. I'm 22, 23, 24. You take a 28-year-old that's got a wife, three kids, etc., and you put him in that environment, the pressure on him is terrible.

My best friend had a wife and a child, a couple years old. He calls me one morning -- he calls me at 3:30 -- and he says, Will you take my watch today? Because he and I were back to back doing something on a shift and I said, Yeah, I'll do it. And he says, also, there's some paperwork that needs to be done. He says, don't ignore the top things in my inbox, but the XO needs the third thing down today. And I said, Okay. And he says, Thanks. And I hear the phone hit the floor and I hear his wife screaming. He's taken a straight razor and he's cut his throat. But first he called me to have me do what he needed to turn in that day.

He and I had gone on the previous day to the XO -- he asked me to go along with him -- he wanted to have Sunday morning off to go to church. And the XO said no, tomorrow's work is too important. My friend cut his throat.

There are not enough good leaders in the world, even in the Navy which works at it better than anybody. Actually, all the Services work at it, in my opinion, better than anything else. And still it's hard because there's all sorts of things kids don't believe or people don't understand. In my belief you have to give kids jobs they can do so they get

success, and that means that nobody's ever going to pull at the same level. And the good guys you load down like the warhorses they are, and the guys that are not as capable you put into jobs where they can be successful. Because everybody wants to be successful, and everybody tries, but there's just a lot of difference in individual capabilities. You know, it's like in Washington. It always astounds me and guys will say, You know, so-and-so is the dumbest senator in the Senate. Well, I know so-and-so, and that sucker's a lot smarter than me and he's a lot smarter than a lot of people. I mean, it all turns out the men and women in the Senate are brilliant. But everybody compares them and they say, Well, so-and-so is dumb. He ain't dumb. Give me a break. There's no Congressman or Senator that's dumb. At whatever level you get to there's always differences between individuals. But each one of them has his own talents, so you've got to assign them different roles. And if you have -- and this is the hardest thing to do -- someone who you don't have a place for, you've got to transfer him someplace else so he can be happy in his life, because he'll never be happy if he can't succeed. The ones who never succeed will be those who eventually kill themselves.

I used to tell everybody, I don't care if you send a kid home to his mother, but you don't send him home in a box to his mother. You don't break the kid down to the point that he kills himself.

DG: I was unaware of suicides. I just never thought about it.

DO: Big deal. Because kids are trying, and unless you're really alert to it, it can happen in the submarine force -- I don't remember the accurate number. I used to know a lot about this. There's a certain age, something like 16 to 24 or 27 is the prominent time for suicides.

DG: This is universal?

DO: Universal. Because it's the time that a kid, trying to find him or herself-- hasn't succeeded in anything yet and his parents or his peers are telling him he's not worth a crap. At one point, I think suicides in the submarine force were an extraordinary number. It was a huge number. And what had happened was I had had three sailors-- when I was running personnel for the Pacific Fleet -- three kids killed themselves on Christmas Eve. And one of them went to the chaplain asking for help, and the chaplain said, Can you come back in a couple days. I'm writing my Christmas Eve sermon. Okay, and the kid killed himself that night. And one of them made a suicide attempt and they found him still alive, hadn't hurt himself, and they didn't want to bother the psychologist at the base, and so they handcuffed him to the base watch so that they could make sure he was okay. The base watch, of course, falls asleep and when he wakes up to a loud noise, the guy has gotten his gun and blown his brains out while he was handcuffed to him. And what the hell was the other one? Anyway . . .

DG: You know, you couldn't make stuff like this up.

DO: Anyway, I had a wonderful admiral who gave me lots of leeway, I got into it and drove the suicides in submarines down to below the national average by getting rid of those COs and leaders that were bad. I went away to do other jobs for ten years and came back and the numbers were back up. I drove it down again. If you care you can do it, but you have to understand what the hell's going on. You also have to be a leader, and willing to put your own butt on the line all the time for what you believe is right. If you or your career isn't in danger, you are loafing.

DG: Yeah, I read that, [laughing]. (In his book *Lead On!*)

DO: I truly believe that. I just do. If you can't get killed, if you can't get fired over something, then screw it. It's just not worth getting up in the morning. If there's no risk, the job is not worth doing.

*I am in no position to dispute the fact that there were suicides in the Navy and in particular the submarine force. Certainly the susceptible age group Dave Oliver mentioned (16 to 25, plus or minus) is nearly a perfect sample of a good portion of our naval forces' age profile. The main thing submariners in this age bracket have going for them is that they are highly screened both physically and psychologically, whereas that same group in the general population is not. It would seem, therefore, that what suicides there were in the submarine service would be far below that in the general population. Dave, I believe, would respond that the pressure to perform and the grueling work demands in building all those Polaris boats in such a short period of time, was vastly higher than the pressure the general population would experience.*

*Since this subject was completely new to me and it arose near the end of the Oliver interview (one of my last), I sent each of those interviewed, a letter asking if they had any knowledge of some disproportionate level of suicides among submariners. Here are their answers:*

Chuck Griffiths. "I do not remember an associated spike in the suicide rate if there was one. I cannot remember a single case on the Robert E. Lee (SSBN 60). I am willing to bet no crew worked harder."

Bob Gautier. He told me on the phone that he did not remember anything concerning suicides and further that he had contacted his friend from the same city – San Diego – Bob Wertheim on the matter. Admiral Wertheim was deeply involved in a leadership position in the Polaris Program and he has no knowledge on the subject either.

Mike Barr. He emailed me, "I don't have any input for the suicide issue."

Chuck Grojean wrote back. "The suicide peak you wrote to me about surprises me. Since I was XO on Patrick Henry, under construction simultaneously with George Washington, and therefore under great pressure to make this new weapons system work, I experienced the long hours and stressful times. I did not witness any deleterious fall-out in our ship in either the Blue or the Gold crew. I believe some commanding officers may have reacted badly under the kind of stress we experienced and could have exacerbated the situation. I really hesitate to make that assumption, however."

Navy investigating suicide on sub  
By Chris Barron, Sun Staff  
January 14, 2005

The Navy is investigating a suicide aboard the Bangor-based Trident submarine USS Nebraska that occurred last week while the sub was deployed.

A machinist mate third class committed suicide by hanging while he was at his duty station. The Sun does not identify suicide victims by name.

The suicide occurred Jan. 6, and the Nebraska made it back to port the following day, the Navy said.

Although the sailor was on duty at the time, there was no danger that his station was not monitored, the Navy said. The sailor was one of 13 assigned in the "engineering spaces" and monitoring the operation of steam plant machinery at the time.

"All of the key parameters monitored are available at other locations," Submarine Group 9 spokeswoman Lt. Herlinda Rojas said. "Watchstanders and their supervisors are trained to be forceful backups to provide redundancy and ensure safe operations."

The Naval Criminal Investigative Service is conducting a standard investigation to "determine or exclude the possibility of criminal activity," Rojas said.

Submarine Squadron 17, which oversees half of Bangor's Trident fleet, is conducting its own investigation into the death by interviewing all crew members. In addition, "there will be a thorough investigation that will include examining the ship's command climate," Rojas said.

Records show the sailor who committed suicide had no history of mental disorders or previous suicide attempts, Rojas said.

"The Navy has always been concerned with loss of any life and has established depression awareness and precautionary efforts to prevent suicides in the Navy," Rojas said.

After the sailor was discovered, the Nebraska sent a message requesting medical support and headed for Bangor. Resuscitation efforts "were initiated and did not cease until a physician was transferred on board" in the early morning hours of Jan. 7, Rojas said.

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## **U-boats, Hollywood, Rounding the Horn and Liberty in the Falklands**

*Pat Hannifin had the unique distinction having started on an S boat and ending up on an SSBN. Who better to talk about the topic of this book? I was amazed to hear him discuss his time on a U-boat!*

DG: After the *Balao*, did you end up a CO of a diesel boat?

PH: Yes, I had command of a diesel boat here in San Diego in the early fifties. *Diodon* SS 349. Before that I had served in a German U-boat. Yeah, in '46. U-858. It was a type 9C. We operated three, I think -- and the two others were the type 21s, the 3008 and the 2513 down at Key West.

At the end of World War II we took over several boats and we operated for quite some time the 2513 and 3008 and the 858, (it had surrendered off Cape May in New Jersey at the end of the German war). They brought it in to the Philadelphia Shipyard,

and with the help of the German crew translated a bunch of the operating manuals and we got to know it, did some repair work on it, and then took it to Key West, and we operated it down there, firing their torpedoes and comparing their equipment with our equipment.

In sonar they were so far ahead of us in underwater listening. So far ahead of us. At radar they were very far behind us, but their sonar was outstanding, I served in that for, I guess it was until about July of '46 when we took it up to Portsmouth and put it out of service. In fact, they used it as a target, sank it off of New London. But it was an interesting experience. Well, it helped me a lot because I later was the technical director of "U-571", the submarine movie. It helped because I'd served in both -- there's an old S-boat and a U-boat, and I'd served in both those submarines.

DG: Wow. Was that fun?

PH: It was fun. It was a blast, it really was. Good time. It's a very noisy movie. The first time I saw it, after we got back to the states -- we filmed in Rome and then Malta -- and the first time I saw it with sound in it was back in the editor's room with the director. And we got through and I said, Jonathan, you know I was depth-charged in the Yellow Sea in shallow water in World War II, and I remember being scared as hell, but I didn't remember it being that loud. And he said, Admiral, this is a movie, it has to be loud. And it was. Anyway, I served in a number of diesel boats. Oh, let's see, went to Sea Robin in Panama, put the Grampas in commission, put the Rasher back in commission as an SSR radar picket, and was exec on there, brought it to San Diego and then took over the Diodon as CO.

Go back to the U-571. My job was to train these actors to be sailors and then submariners, and so I really had to teach them what a submariner was and this business of being able to depend on your shipmate and all that sort of thing. But, as you remember the story is that Matthew McConaughey's character is the XO on the S-boat, and he gets turned down for a command.

DG: Right. I remember that scene.

PH: And as the movie moves along, all of a sudden he ends up on that U-boat as the commanding officer. But he was turned down for a command because the skipper didn't think that he really understood the difference between being a good officer, a good XO, and being a commanding officer.

DG: And that point was made well.

PH: Well, that was my point and I worked on the script for 18 months before we started filming that scene.

DG: So they would submit drafts to you?

PH: Oh, yes, the guy who wrote the screenplay was the Director and had a good background where he knew all about the Enigma machines. He really had a good background, but he didn't know anything about submarines. He really didn't, and that's why I was asked to come out to help him on the technical aspect of it. So he didn't know how submarines dived, why they dived, how they surfaced, how they shot torpedoes. He didn't know anything about it. And so we went through that whole thing.

DG: So you must have effectively written some of the script.

PH: Well, I helped an awful lot, but it was basically his story. And we talked a lot about this business of -- because when he first wrote the story, it was not about an XO being turned down. It was about a guy who had lost his boat during the war and was sort of drifting around and came back, and he had Michael Douglas scheduled to play the part

of an older guy. And we talked with Michael about it and he said, You know, I'm 50 years old. He said, I can play 45; I can't play 35 very well. Besides, he was busy, so they got Matthew McConaughey and we changed the story around to fit that.

DG: Well, I didn't know. That is interesting. That is a very interesting story, but I think the greatest submarine movie I've ever seen, was *Das Boot*, and it was because it was so authentic.

PH: Absolutely.

DG: There was one scene where they were up behind a splinter shield, you know, and they were going through this North Atlantic big, heavy weather, and they had the sou'westers on, water was coming over. And I said to my brother, you know, I remember exactly that same thing. I used to stand lookout watches and in big seas we had to lash ourselves to the splinter shield.

PH: We had a German crew, as you know in the U-571. The guy who played the part of the German skipper was great, Thomas Kreshman. He's an outstanding actor. So I was trying to help the German crew out in their stuff. I had to be on the set on every scene. But we got a German guy from the German Navy who had been in the post-war German submarines, so he didn't know anything about U-boats. What he really liked to do was to drink beer.

We were filming over in Rome because it was the largest sound stage in Europe, and they built a full-scale U-boat and most of the S-boat on that sound stage. And the guy who built the set for *Das Boot* built our set. It was actually about 15 percent larger than the U-boat. Absolutely identical, because they had all the information. Hell, I couldn't find that much information about S-boats at all, but he had it down cold. This German technical director that they had for that crew we finally had to fire him. And we got hold of Captain Hans Krug, who was the technical director for *Das Boot*. Eighty-one or eighty-two years old, he came down and he and I had a ball. We had a great time. It had been 50 years since I'd been on a U-boat. So we had to school the crew on the U-boat. He took me all through the thing and it all started coming back, showing me how the trim systems operate and all that sort of thing, so that my guys knew what the hell they were doing. For Harvey Keitel -- he was the Chief of the Boat -- he really wanted to know.

DG: He is a consummate actor.

PH: Oh, absolutely. He called me when he got asked for this thing. He called me and he said, "What the hell's the Chief of the Boat?" So I said, "Harvey"-- he lives in New Jersey -- I said, "You're going to find out because I want you to go up to New London." And I called the Admiral who was the group commander, who was the son of my roommate at the Naval Academy, Johnny Padgett, and I said, I'm going to send Harvey up there. Put him with your Command Master Chief and teach him what a Chief of the Boat is. He spent about three days up there with all the chiefs and then went back to New Jersey, came back up the next week because there was a meeting of the submarine veterans of World War II up there, so he wanted to get up and meet those guys, too. Harvey was great. Absolutely great.

DG: Did he become taken -- was he taken by these guys?

PH: Oh, absolutely. Yeah, absolutely.

DG: That would be hard not to. I mean, that's a special group.

PH: I was able to get Matthew McConaughey and Bill Paxton both on some of the SSNs down here, but we didn't get to go to sea. But I walked them through and then

they sat and talked in the chief's quarters and in the ward room and all, to talk with the guys to sort of get a feel. Harvey was the only guy who had any military experience in that crew. He'd been a Marine for two years during the Lebanon crisis. Well, he said it was the turning point in his life. He said, "I was a kid wandering around Brooklyn getting in trouble. But suddenly two or three of my friends and I decided to join the Marine Corps," and he said "I have no idea why we did that," but he said it changed his life.

DG: Oh, sure. That's not unusual at all.

PH: No. It was interesting.

DG: Oh, so did they have an opening? I mean, you worked 18 months on this project.

PH: Oh, yeah. Well, 18 months before we started filming. This started in the summer of '97 until January of '99 when we went over to Rome and started filming. And filmed there until April or May, and then down to Malta. And in Malta they had built a full-scale U-boat in a shipyard that we took to sea. It didn't submerge, but we did all of the surface shots from that. There was nothing inside it except some diesel engines. But it had the gun up there and the whole thing.

DG: Did they build a set for the control room scenes?

PH: Oh, they built the whole submarine, the entire submarine for the control room area. Yeah. So you filmed it all in the set. And they built a gimbal system that you could take two compartments and put on this gimbal system and a tank in there and do the shakes and rolls and all that sort of thing, full of water. The way they build those sets you can take a whole side out and get the camera in from there. Or you could take the other side out and get it from that angle. Yeah. It's amazing. The way those Italian workers over there built those sets is just absolutely astonishing. It is so realistic, you couldn't believe it.

DG: Are they made out of metal?

PH: Metal and plastic and -- but piping is all plastic, and their painters are so good that it looks like metal. It really is astounding. I was so impressed with that bunch. I've got the DVD for U-571.

In Malta there's a big tank that was built for the movie the *Gladiator*. We used that. One side of it, a side along the Mediterranean was a flat wall, so it looked like the water just continued on out into the sea. They built two submarines in there, the old S-boat and the U-boat, and they used that for the boarding scene. You remember when they rode over in the rubber boats from one boat to the other? And they used that. And they had 200 foot pipes going up with water coming down, rain, so that they created rain. They had big machines to create the wind. One of the actors was John Bon Jovi, and he played the part of the engineer officer, the friend of McConaughey's.

DG: Oh, I didn't know that's who it was.

PH: Well, we cleaned him up. He looked real good. [Laughter] He's a great performer, but he's a damned good actor. And he loves to do these things. He's acted in five or six movies. But he came from New Jersey, married to his high school sweetheart, absolute regular guy. But, you know, we cut his hair and cleaned him up and put him in a uniform, and he's really very good. But he wanted a much larger part in this thing. He gets killed in the scene when the S-32 is blown up. At any rate, Jon wore a wetsuit under his uniform when he was doing this rowing across it, because they did it at night and it



was cold and wet and pretty miserable. And he said, “God dammit, I make several million dollars a year. Why the hell am I doing this kind of stuff?” [Laughter] But he was good and a fine actor.

DG: You know, I’m going to go rent that movie or buy the DVD because I want to see your work. What a fun thing.

PH: You know, the Brits were very pissed off at us about that movie because they had actually done this. Not in the same way. The way they got the Enigma machine is that a British destroyer and I think it was the Canadian Corvette, depth charged, the U-110, I guess it was. And they thought they had sunk it but it actually survived and got on the surface. And so the HMS Bulldog skipper was going to ram it and sink it. But decided instead to come alongside and put a boarding party over under a young sub-leutenant named David Balme, and they rowed over in a whale boat and got aboard. He told them, “Pick up anything that’s loose, equipment, documents, anything you can, and then get the hell off because there may be scuttling charges set.” And so David took this group over and they went down there and they found, among other stuff, the Enigma Machine. But while they were down there, there was another submarine scare and Bulldog took off. And David said he was afraid that they wouldn’t find their way back to him, but they did. They didn’t know about the Enigma Machine, anyway, except the very high level. And they didn’t know that they had it until they got back and the intelligence people got a hold of it. And so they swore them all to silence. I don’t know what they did with the German crew, but they were never heard of after that, as far as I know. They were taken prisoner.

DG: And they must have been put in the slammer somewhere.

PH: They didn’t want the Germans to know that the U-110 had not been sunk. And David got, I think, the Victoria Cross. Anyway, when this hit the news that we were making this movie. The headlines in the English papers were, We did it but the Yanks have taken credit and Hollywood is now the hero. People in Parliament were writing letters about it. It finally got up to the Prime Minister and the President talking about this business. What happened in this movie, and the reason why it was set the way it was, is that after the U-110 incident and they got the Enigma Machine, the Germans put another rotor in the machine and so, for a period of time, they weren’t able to break anything. And it was during this period of time that the “U-571” scene was set. So we needed to get another Enigma Machine, and so this is why this whole story was written in the way it was. But we brought David Balme down to Malta, he and his wife, to watch the filming down there. And then Universal brought him and his wife over to the States and brought him out to Universal. And, in fact, the DVD has an interview with him and one with me on the background stuff, which is pretty interesting. But the one with him is particularly interesting. He got out of the Navy after the war was over and took over his family’s cotton importing business. A wonderful man, a delightful man, and he said he thought this was a great movie. He said, “We Brits would never have made a movie like this anyway.” [laughs].

DG: So he remained friendly, I mean after you showed him what you were doing and everything?

PH: OH, yeah, he liked it.

DG: Was he reticent at first?

PH: Oh, no, not at all. Not at all. He was very interested in relating the story and things that happened, and he does this on the DVD. Yeah, it's worthwhile. Take a look at it. And there's a big interview with Jonathan Mostow of *Das Boot*, who was the director and also wrote the screenplay, too; a short one with me. But it was a lot of fun.

*Jack McDaniel allowed me to use this funny piece which I thought was particularly apropos following Pat Hannifin's comments about advising on the film U 571. Jack was concerned that I leave the impression that he thought all these up. In fact, he gathered them from various people.*

### **Submarine Movie Clichés**

With the help of a few friends, I've been collecting a list of things you can expect to see in submarine movies. Most of them will slip right by the average viewer at the same time they're causing those who know to groan in agony.

- 1) The Fathometer will be operated continuously from the moment the boat leaves the pier until it returns. Everyone aboard will hear it, but the enemy never will.
- 2) No matter which torpedo tube the captain orders fired, when we go to the cutaway shot it will come out of tube # 2.
- 3) There are no fuses or circuit breakers anywhere in a submarine, so if there's a short you will get spectacular sparks. (This also applies to Star Trek.)
- 4) The CO and XO will never get along. If the XO happens to like the CO, the CO will develop an unreasoning dislike of his former best friend.
- 5) The awkward, very-lovable young seaman will die.
- 6) A Mark-14 torpedo weighs about 3300 pounds, and has a warhead containing 10,000 pounds of Torpex. If it hits it will make a truly spectacular explosion.
- 6a) If this is a "serious" movie, at some point one of the torpedoes will fall off the rack on top of someone. (Probably the kid in rule 5.)
- 7) Depth charges have to touch the hull to sink the boat.
- 8) The above notwithstanding, if a depth charge explodes anywhere within 500 feet of the sub, every light bulb and gauge face in the boat will shatter.
- 9) You can tell you've reached your proper depth when equipment starts falling off the bulkheads.
- 10) The radar is broken.

- 11) The civilians in the audience can't tell one ribbon from another, so pick the most colorful and pin them on. How many people in the audience are going to notice that an admiral in 1993 has medals for service in the Spanish American War?
- 12) Fairbanks-Morse diesels should always be run with the upper crankshaft covers open, because it looks cool to have stuff moving.
- 13) Angle on the bow and target bearing are the same thing as far as most of the audience knows, so why worry about which is which?
- 13a) It is perfectly normal to fire a bow tube at a target bearing 175°.
- 14) Someone will get appendicitis, and the PhM (the sub's Doc) will operate using a scalpel a MMC made out of an old spoon.
- 15) World War II subs were perfectly able to shoot it out with each other while both were submerged at 150 feet.
- 16) The captain's family will inevitably be aboard the Japanese transport he has to sink.
- 17) The knob in the middle of the (WWII era) torpedo tube breech door is the lock.
- 18) COB is a crusty sea dog who knows more about submarines than any officer who ever lived. (Okay, so once in a while they get something right.)
- 19) All Japanese freighters will be hit in the one hold that contains the entire artillery shell inventory of the 4th Imperial Marines.
- 20) When the dive officer reports, "steady at 300 feet, sir," the depth gauge in the background will indicate the boat is on the surface.
- 21) If a film tosses out the entire plot of a famous sub novel, the one thing it will keep will be the QM operating the periscope with a pickle switch. The periscope they show will, of course, be hydraulic.
- 22) Submarines are steered by the planes operators.
- 23) On the rare occasion when an actual position is mentioned, the coordinates will be somewhere on the outskirts of St. Louis.
- 24) Female submariners don't have to qualify to wear dolphins.
- 25) When racing through the water at the enemy, war shots have bright yellow warheads.

26) The technical advisor on a submarine movie will ideally be able to append the designation (SW...Surface Warfare) to his rank. Any technical advisor who has an (SS) qualification will be ignored.

*I sent the above to Pat Hannifin. Here was his predictable response.*

Dan

They are great! I hope that you did not see any of them in my "U-571"!

Pat

### **Diesel boat COs**

*Chuck Grojean was one of a handful of diesel submariners who did not go through Nuclear Power School.*

DG: Well, you were a CO. And then you were, I guess, recruited for nuclear power school?

CG: I sought out nuclear power. I didn't go to nuclear power school, those of us who had had command of a diesel boat went directly to Admiral Rickover's staff, and we served for one year, all of us who had had command of a diesel boat all went to Washington, D.C., for a year and served on Rickover's staff. When I was there there were about eight of us that were in that category, and we were tutored from 8:00 in the morning until 5:00 every night with a staff of about six or eight brilliant PhDs, post-graduate mathematicians, physicists and chemists - thermodynamics, nuclear physics, nuclear engineering guys. And we took those subjects at a very compact, heavily pushed course. We went to classes all day long and then we were given about five hours of homework every night.

DG: So this was before there was an actual nuclear school.

CG: The nuclear power school was there, but that was for all of those who had not had command. If you came from a command capacity -- I had command of the Angler when I was selected, so I went directly to that, along with about seven other ex-commanders.

### **Jacuzzi in Silo 15**

*Master Chief Jeff Vanblaracum, as I write this, is COB (Chief of the Boat) on USS Santa Fe SSN-763. Here he is talking about the conversion of USS Kamehameha*

JV: I became a torpedoman on *Stimson* -- a striker, left there as an E5, did nine patrols onboard her, went to Orlando for instructor duty, and then I went to the USS *Kamehameha*. And that was after she was converted from being a boomer into a fast-attack, for SEAL deployment.

DG: Did they take out the silos?

JV: No, they left them in. In fact, we made use of them for our trim system to help compensate for the weight and buoyancy that was added by the dry-deck shelters that we use with the Seals. And so there were some of them tied into the trim system, some of them were used as magazines and smaller-end stowage for the Seals, and then we actually had a Jacuzzi in tube 15. Yeah, pretty interesting.

*Note: I inquired and found out the hot tub was not for recreational purposes, but to warm up the Seals following cold water operations.*

### **The Fifty Ton Gyro Rotor**

*Chuck Grojean's, I am sure, little known fact.*

DG: You know, one of the aspects of being on a diesel boat that I liked was the fact that we were really a surface ship and subject to storms, seeing whales and sunsets and being salty and all that. I mean, a mariner, really. And that was absent from the nuclear power submarines.

CG: Yes, yes. Because you went out and as soon as you got in deep enough water you dived. You didn't come up until you got to your destination. You were never really associated with being on the surface of the sea. You were very much associated with going where the bottom was, of knowing salinity, temperature gradients, and all of that. But you didn't have the weather to contend with except if you were on a missile submarine and you get an order to fire, and it's very rough; you've got state seven or state six seas, and you've got 20-foot waves. That wave action, of course, is felt down at a hundred feet, and so you sway a lot back and forth. On the first three missile submarines we had a big fifty-ton gyro that stabilized the ship, so that we could fire missiles from a stable platform.

DG: *Fifty tons!??*

CG: Yeah, fifty tons. Oh, it was a huge thing - size of this room. And you spun it up and the idea was that it would keep the ship from rolling back and forth so that you could fire missiles. We found that we didn't need it, and so we didn't put it on any subsequent ships. It was a horrendous monster that was always. If it had ever broken free it would have ripped through the ship and torn everything apart. It was a dangerous thing.

DG: Fifty tons. The whole thing was fifty tons?

CG: Fifty-ton rotor.

DG: *The rotor!??* Wow. And it was high-speed naturally.

CG: High-speed. Yeah. And we had a lot of things, of course, in the first missile submarines that were highly technical, like trying to hover. We finally developed an automatic hovering system, but we didn't have it initially. The same way with inertial systems, we had three huge monsters, but why you had three instead of two was because if one was bad and you had two, you wouldn't know which of the two was bad. So you had to have three to -- if the two were right and one was different from it, you knew it was wrong.

### **Test Depth**

*Test depths of nuclear submarines are secret. Those of the old diesel boats are, I am confident, no longer so. Obviously the modern, nuclear power submarines can dive much deeper than my old boat – U.S.S. Barbero SSG-317, made in 1943. The thing which most of us have considered often, particularly following an 'episode', is at what depth does the submarine crush and kill everyone? What margin of safety did BUSHIPS add to determine the test depth? Two hundred percent? One hundred percent? Fifty percent? What does the age of the submarine do to that number? Does it diminish with age? I never met anyone who knew or would tell. It is obvious that if they let that 'safety factor'*

*be known then submarine operators would be fairly comfortable going deeper than they should, confident that they can get away with it. In the Preface I mentioned an incident my shipmates and I experienced. I have the feeling that similar losses of depth control happened often. I am confident of this since the depth ranges were narrow for the old diesels - for example in our case it was 412 feet, a mere 100 feet more than the length of the submarine. It was fairly easy to get out of control particularly if you were deep and going fast. Like flying an air plane at 200 feet...no margin for error. The following are two other depth 'episodes' I found interesting. One is from Walter Bell on Rasher, the other is by Don Walsh, also on Rasher who experienced a completely unique 'episode.' Two stories from the same boat is coincidental and indicates to me that such things were not uncommon.*

Walter Bell YN1 (SS)  
1960 – 1962

Rasher was my first submarine, and like a first love holds a special place in my heart. I recall the time that we were operating out of San Diego and at two in the morning we dove and almost lost her.

I was asleep in the FTR (Forward Torpedo Room) and woke up thinking I was standing up. I was not; Rasher had one hell of a down angle and was headed down. The door to the Control Room was open and I could hear Albia Ness, the COW (Chief of the Watch) give orders to blow Safety, blow Negative, blow the Forward group and the after group, all back emergency and we were still going down. All of us in the Forward Room were watching the depth gauge in total silence. Somewhere around 1200 feet, far below our test depth, metal was groaning and the boat was shaking. I figured we had best ask God for forgiveness for our sins one last time since it looked like the end was imminent. BUT, then she started back up stern first and popped out of the water. Inspections revealed that there was no damage to the boat, and not a man left the boat as 'no longer volunteer.'

Investigations indicated that a valve had malfunctioned in the forward group and had allowed water to fill the tanks making her heavy forward when the dive started. The Good Lord was looking out for us that night.

*Since 1200 feet sounded unbelievable to me, I emailed Walter to be sure he remembered that episode correctly, being careful not to offend him. We both concurred that such an emergency would probably remain in anyone's mind crystal clear for life!  
Walter later emailed me the following;*

“Thinking about the incident, I remembered that Albie Neiss did a wonderful job that night and I am sure the stress was tremendous. Right after the incident, a young reservist who was on board for training walked up to Albie and said, "Hey Chief, that was fun. Let's do it again." Albie smooth decked him - I'm sure as a reaction of that stress. As I said in the article, God was looking out for us that night.”

*Don Walsh is a good friend who was kind enough to agree to an interview and write the Foreward to this book. His incident, which he relates here, surely is unique among submarines and belongs here, just following “Test Depth.”*

## Those Stout Manitowoc Boats: A Personal Testimony

By Don Walsh, former C.O. Bashaw (AGSS-341)

During WWII the Manitowoc Shipbuilding Company built 28 submarines at Manitowoc Wisconsin. The first 10 were Gato Class, “thin skin boats” with test depths of 311 feet. Initial sea trials were done in Lake Michigan, they were then sent down the Mississippi River to New Orleans for final completion and loading out.

Founded in 1902, Manitowoc was an old and well-established shipyard with a long history of building excellent ships for Great Lakes service. By 1940 they had built 306 ships of various types, but never a warship.

As the Navy’s fleet buildup began in the late 1930’s, the yard hoped to find work building small warships up to destroyer size. They were turned down as work went to larger shipyards on the Atlantic, Pacific and Gulf coasts. However, top Navy officials certainly knew about Manitowoc’s fine reputation for quality work. In early 1940 Manitowoc was asked to undertake building of the most complex ship: submarines. This was a radical, almost unimaginable, proposal for a company of shipbuilders most of whom had never seen a submarine. Initially, the yard’s management did not want to do it but the Navy insisted. In September 1940, the yard was awarded a contract for an initial run of 10 subs.

Teams of experts from the Electric Boat Company came to Manitowoc under contract to the yard to help with the early stages of this program. Also some Manitowoc personnel visited Electric Boat and the Portsmouth Naval Shipyard to observe submarine construction underway at those sites.

The first “Manitowoc boat”, USS *Peto* (SS-265), was laid down in June 1941. She was launched in April 1942, 228 days ahead of schedule and went off to war just a year after the Pearl Harbor attack. Early delivery of subs was to be a way of life for this fine shipyard. And as they got out into the fleet, their crews began to send the yard thank you letters for the quality and strength of those subs. Satisfied ‘customers’, the best kind of praise for the Manitowoc employers who won Navy Department production “E” awards every year during the war.

USS *Rasher* (SS-269) was the fifth sub from this yard. Her keel was laid down in May 1942, four days after *Peto* had been launched. Commissioned in 1943, she became the second highest scoring US submarine in WWII. She missed the top spot, earned by USS *Flasher*, by only 750 tons of Japanese shipping.

In 1956, fresh from sub school, I reported aboard *Rasher*. A few years earlier she had been converted to a radar picket submarine of the “Migraine III” type. Now SSR-269 would be where I would qualify for my dolphins and be my home for the next two years.

The Migraine III subs, *Rasher*, *Raton* and *Rock*, had a 30 foot section inserted forward of the control room to hold the combat information center (CIC). The long bow was great for the bridge watch on the surface. However, you had to watch it when diving as that long bow could pitch you down quicker than a conventional length hull. When your test depth was 311 feet, you could get there in a hurry.

In February 1957 *Rasher* was deployed to a wintry Bering Sea to assist with a firing test of a Regulus I missile. The idea was to test it in the worst possible weather conditions.

Tunny the launching sub was located in the ice near the Pribilof Islands; I believe

*Carbonero* was the guidance vessel. She was downrange towards the Aleutians. As a radar picket sub, *Rasher* had the capability to track the missile flight from launch to impact area.

The test went well and mission completed, *Rasher* headed south through Unimak Pass in the Aleutians. The seas were heavy in the North Pacific so the captain, Commander 'Flag' Adams, ordered the boat submerged to test depth so we could all get a good night's sleep.

It was about 0300, with chief engineer LT Gib Carter as conning officer, when the boat was shaken by a substantial blow. The diving gage quickly went to 700 feet though the sub remained at its same distance beneath the surface. Gib called the captain who had slept through the whole thing. Flag's opinion was that we had hit a whale. While that did not make much sense, it was the best 'theory' we had at the time. All compartments reported to control that everything was o.k. so we resumed our previous course and depth.

The 'what' of it was answered the next morning when we surfaced and were able to get radio traffic. *Rasher* had been right above the epicenter of an underwater earthquake just south of Unimak Pass in the Aleutians. The overpressure (like a depth charge) made the depth show 700 feet and the hull did experience that depth. It was exciting and the first reported case of a submarine experiencing this type of natural event.

But that was life on board *Rasher*. During my two years on board I saw more diverse casualty events there than all the rest of my subs put together. It is not that it was a hard luck ship, we just did a lot of different things with a high operating tempo during my time there. Fires, flooding, etc., all were experienced. It was great 'school of the boat' for me. We had a magnificent crew and wardroom and all casualties were handled quickly, efficiently and safely. I never had the feeling that personnel error was ever an element. Much of our equipment and 'plumbing' was old, worn and broke easily. But we fixed and move on. I don't think we ever missed a commitment due to material problems. *Rasher* was always "on station and ready for work". We even got a couple of "E's" doing it. She was a great ship.

In 2003 I went to my first *Rasher* crew reunion. It was at Manitowoc where we celebrated the 60<sup>th</sup> anniversary of her commissioning. I took some time away from the celebrations to drive down to the weed covered and abandoned site of Manitowoc Shipbuilding. All was quiet, the last ship built there was nearly thirty years ago. Many of the buildings had been pulled down but you could still see the large covered assembly building where the hull sections had been fabricated. Nearby were remnants of the building ways and sideways launching sites. I may not have been exactly at the point where *Rasher* had been launched six decades earlier but I was close. Close enough for me to offer a silent thanks to those men and women who long ago built those tough Manitowoc boats.

### **Leak Proof Valves – A Class A Oxymoron**

*When Chuck Griffiths mentioned 'leak proof' valves I began to laugh.*

DG: Admiral Grojean told me that in the early, early days the training was eight guys around a table with PhD's teaching. When was the school more formal?

CG: Well, it was after my time. I went to school in Rickover's headquarters, in his offices, not necessarily with PhD's but I guess maybe most of those guys were. For



example, I worked out of the shop of the guy who was in charge of valves for the whole program.

DG: Valves?

CG: Valves. And you can imagine. Well, you know, we had a whole new industry because they needed leak-proof valves, which didn't exist then.

DG: [Laughter] I don't even know how to define that.

CG: It didn't exist, and so you can imagine when you're handling steam and when you're handling the radioactive water, when you're stopping radioactive water, you just needed absolute foolproof zero leakage valves.

DG: Nothing like old valves.

CG: Oh, no. Nothing like that existed anywhere. So all the materials, everything was different and that was a whole industry.

DG: Was this guy a civilian? You're talking about the valve guy.

CG: Oh, yeah, he was a civilian at the time but had been a naval officer.

Actually, it was a guy by the name of Rick Clayter whose brother later was the secretary of the Navy. His brother was the head of Southern Railroad, and later he was brought in to be the Secretary of the Navy. But Rick Clayter was the valve guy. One guy was in charge of each of these various segments of the program.

DG: And while they were conducting their job, they were also training you?

CG: Yeah, we had a syllabus to follow. I'd spend so much time in Clayter's office, so much time in Griggs' office on the electrical plant, so much time in Rakowski's office on the core, you know, that sort of thing. But we were trained by the guys that were in charge of each aspect of the plant. Then, of course, we took our exams like everybody else, and then we also went out to the prototype. We had to go to the prototype. Then it was Idaho. And we all had to qualify on every position in the prototype just like everybody else does in the program including enlisted guys. So we had a year's training program and it was different. They had started a nuclear power school by now but the PCOs weren't going to it. And Grojean and all of the PCOs went to PCO school in those days.

## **Nuclear Safety**

*Apart from commenting on the rigid procedures Rickover initiated and insisted upon, there was very little discussion in either the interviews or submissions concerning nuclear safety and accidents – surprising given the civilian record including Chernobyl and Three Mile Island and the Soviet's loss of several nuclear submarines due to reactor problems/disasters. Below is a comment from the only contributor who chooses to remain anonymous.*

“My initial impression of "nukes" was they were too serious about their jobs, and didn't really "enjoy" their occupation. With the passage of years I came to understand that they were probably reacting to the extreme amount of "damage" that they could cause if things didn't go properly. As a diesel boat CO about the worst thing that I could do would be to kill some 100 crew members if I screwed up. As a nuke CO I could be responsible for contamination of somewhere like Pearl Harbor with enough Cobalt 60 to screw that place up for 30,000 years. Quite a different order of worry.”

*The following came up in my interview with Mike Barr. He was not responding directly to the above comment since he was unaware of it. Mike Barr's comments on the subject gave me considerable comfort and I thought the juxtaposition of the two points was interesting and informative.*

DG: This is another thing that comes up and I was never aware of it, but some people were very, very conscious of the fact that somebody in the program could screw up and cause a nuclear accident.

MB: It would have been very, very difficult for a single person to do that.

DG: I don't mean by sabotage or something, I'm talking about just not handling it properly.

MB: Right, and that's what I meant. Even by some failure, advertent or inadvertent -- and I'm not talking about sabotage -- to do things correctly.

DG: Was that because of mechanical, procedural or both reasons?

MB: Well, I mean, it would take hours to explain what made it so that our ships then and now operate so safely. It is a careful design that takes into account what might happen, and then protects against problems by the design. It's the fact that the ships are constructed to the design and constructed well and checked all along the way. It's very careful configuration control throughout the life of the ship. It's modernization when appropriate, as-built drawings and technical manuals and procedural manuals so that the crew and support people know how things work and what you need to do to repair or operate them. It's the careful selection of people, the training of the people, continuing training of the people, the qualifications that you have to go through, the rigor of the formality of the way you operate the ship. All of that, and many other things, make the ships safe. There is "defense in depth" at every turn so that if any one thing, or several things, don't work right, the chances of you having a serious problem are very slim.

DG: What about THRESHER?

MB: The loss of THRESHER was *not* a nuclear issue. It was almost certainly a failure of piping in the engine room. At that time, Admiral Rickover's organization (called Naval Reactors) was not responsible for the engine room design. They took responsibility for it shortly thereafter, and there hasn't been a problem like that since.

Now, of course, we also lost SCORPION, but that had nothing to do with the engineering department at all. One person making a mistake could not cause a significant reactor accident.

DG: Well, that's nice to know.

MB: Now, you can have a series of people making mistakes. Things don't always go perfectly, but even in such circumstances, a serious reactor plant problem is not going to happen.

I've now had six years working in the civilian world as a support service contractor at the Laboratory (Los Alamos), and I also had a tour at DOE headquarters, 1989 to 1991, and I will tell you that there is just no comparison. I mean, you can't even start to compare the professionalism and the way that the nuclear Navy operated to what I observed.

I'm not saying that the civilian area doesn't have dedicated people. There are many dedicated, intelligent, talented people. I know a lot of them. But you need somebody like Rickover to pull it all together. To have the vision, the intelligence to get good people around him and to make all the necessary things happen: proper design,

construction, configuration control, maintenance, training, qualification, procedures etc. The Admiral's long tenure leading the Navy nuclear propulsion program (about 30 years) was a major factor in setting consistent policy and then following it. Changing policymakers every year or two makes consistency difficult. The nuclear program did have enough funding to do things right (Admiral Rickover saw to that) and that helped. You *did* get bright people. Even with the rigorous selection of personnel, there *were* off-ramps as you went along. Not everybody made it. For example, when I was CO at Nuclear Power School, only about half the enlisted people who entered the Navy in the nuclear power program actually made it to a submarine or nuclear surface ship. Many who didn't get through nuclear training stayed in the Navy, and went on to be very successful in other parts of the Navy. There were check points all along a career in the nuclear Navy, and at every step there were people who didn't get through.

You know, I had something to do with Rocky Flats when I was at DOE (Department of Energy), and one of the buildings where they did plutonium operations had been in operation since 1954 or thereabouts. They were still trying to operate. It had lots of problems and eventually got shut down and didn't start up again. Now look at the nuclear Navy. The first nuclear powered warship, USS NAUTILUS (SSN-571) went to sea for the first time in 1955. By the time I was at DOE (Department of Energy), NAUTILUS had been in a museum for several years. You can't pull together an operation that works the way the nuclear power Navy does in a few years. It takes a commitment to begin with and continued effort for years and years and years. And I watched that happen. I wasn't always smart enough to recognize what was happening at the time, but the standards that we operated to when I started on SNOOK - and they were very, very high at that time - much higher than anybody else's - would have been unacceptable 20 years later.

DG: Really?

MB: Oh, absolutely. From a formality point of view, from an operational capability point of view, from a propulsion plant operation point of view, from a maintenance point of view. From almost any point of view.

DG: So you did things way, way better years later.

MB: Yes. It was the continuous improvement as you went from year to year. And the product of that, as I mentioned earlier, was exemplified by the ship that I commanded first, which, at 16 years old, was in substantially better material condition than my first ship was when it was 1 year old. The improvement came from various sources, but a lot of it came from the people who manned the submarines and surface ships, saying "We can do this better. Here's how."

### **Sanitary #1**

*No book involving diesel submarines is complete without a story or an explanation about the Sanitary System. Interestingly, for the layman at least, here is where diesel and nuclear powered submarines are alike. Both types need to, while submerged, get rid of the accumulated sanitary waste. So, I will explain the logistics, procedures and problems surrounding, as we diesel boat sailors called it, "Blowing Sanitary #1."*

*The following is from an earlier piece I had written.*

Sanitary #1 was a large tank inside the pressure hull topped by a pair of stainless steel commodes. There was a lever on the side of each commode controlling a spool valve in the bottom and a seawater valve to help flush. When you finished your business in the head, you had to open the door since you could not turn around otherwise. Well, you may be able to turn around and face the commode, but you could not bend at the waist due to the size of the tiny “compartment.” Then you would *slowly* pull the lever toward you until the holes lined up and everything dropped into the tank.

When the tank was close to full the man on watch would open a high pressure air valve and put a pressure in the tank until it exceeded that of the surrounding seawater – specifically at the keel. The deeper we were, the more pressure was needed. The watch was aided by two pressure gauges right over the commode. One displayed the pressure inside the tank, while the other displayed the pressure of the sea just outside the pressure hull. Once having put a higher pressure in the tank than the sea, he opened a large valve at the bottom of the tank and the contents would be expelled into the sea. When he heard air escaping through this valve, he knew the tank had been completely blown. So he would close it and shut off the high pressure air to the tank. Part number one...so far, so good.

The second part was a problem since now there was a greater pressure in old Sanitary Tank #1, than what existed inside the submarine. The commodes could not be used until *we equalized the tank and the atmosphere inside the boat* by venting it into the submarine. In spite of charcoal filters at the vent, the air bleed back into the boat smelled VERY badly.

There was a problem – I believe unique to diesel boats – with Sanitary Tank #1 and snorkeling. This part requires a quick primer on snorkeling.

When snorkeling we ran our big diesel engines which sucked huge \* quantities of air out of the boat. The replacement air was drawn down through the snorkel just above the surface of the sea above us. This worked well until either a wave would cover the head valve or the diving party on watch would inadvertently dip the boat and the snorkel head valve under water. When that occurred the head valve would automatically slam shut with the main engines still running, thus pulling a vacuum in the boat. This was very hard on the ears and would wake you from a deep sleep. When that wave receded or the snorkel was back where it belonged – above the surface, the head valve would open up and the pressure ride of seconds before would reverse back to normal. We even had airplane type altimeters throughout the boat which displayed our “altitude”. One in the engine room would shut down the diesel engines at the equivalent of 6000 feet as I recall. I wondered at the time how civilians would react to an elevator in a mile high building which got you to the top in a few seconds!

The problem with the ears paled by comparison to that which the cycling back and forth had on the sanitary system. Every time the snorkel head valve would slam shut, creating a vacuum in the boat, it also created a differential pressure between the sanitary tank and that inside the submarine, with a greater pressure inside the sanitary tank. If you did not keep your wits about you when you went to the head while snorkeling, you ran the risk of vaporizing what you had just left in the commode all over yourself and the head. This, of course, would not kill you, you would just wish it had.

\* *Gene Robinson of Becuna SS-319 commented on snorkeling:*

“I knew when the order to snorkle was given that the After Battery was not a good place to sleep. On several occasions my blankets were ripped away from my rack and deposited in either the passage way or on another rack. Also, when the water tight door was opened in the Forward Engine Room the air was so cold I gave up sleeping and joined in a card game.”

Fred Starr  
EM1(SS)  
USS Rock SSR-274  
1953-1958

In April or May 1958, the Rock paid a visit to Vancouver, British Columbia. After operating with the Canadian Navy, we moored in Vancouver and held an open house where thousands of Canadians stood in long lines to visit the boat. After an exhausting two days of liberty and sheparding visitors through the boat, we got underway for Mare Island, CA. When we got out to sea, the sea was really rough and there were quite a number of hung-over, seasick sailors in the stern room who desperately needed to use the head. Unfortunately we found that we couldn't flush the head! We blew the sanitary tank and still the damned toilet bowl wouldn't flush! Finally the auxiliarmen figured out that there was something jammed beneath the flush flapper valve and the only way to clear it was to blow the sanitary inboard! The auxiliarmen found some wood or metal, covered the toilet and had an unsuspecting sailor stand on the cover. Then they opened the toilet flapper valve and opened the air valve! There was a hellacious roar of air pressure accompanied by an indescribable smell and the distinct thump of a solid object striking the improvised cover beneath the sailor's feet. When the inboard blow terminated and the temporary cover removed, there was a lovely glass perfume bottle resting in the toilet bowl! That occurred fifty years ago and I can still smell it and get a queasy feeling in my stomach when I think about it! I'm sure it was an unforgettable experience for the sailor who stood on the cover. Just another day at sea in a good old diesel boat!

### **Jake Laboon**

*I am including this one out of respect for a WWII submariner – Mike Walsh (thank you for your service). Also because this fellow Jake Laboon was a colorful submariner and a buddy and football teammate of my big brother John at the Naval Academy.*

Michael Walsh  
RM2/c  
U.S.S. Peto (SS 265)  
January 26, 1943 to January 6, 1946

During our 10th & last patrol while on lifeguard duty we picked up a downed flier who informed us his wingman was also downed but the area he landed at was in a minefield. A young LT. by the name of Jake Laboon volunteered and with a rope tied to his waist swam to the area of the downed airman and pulled him to safety. LT. Laboon was given the Silver Star for this heroic deed. This same LT. was a Naval Academy

graduate of the class of 1944 and excelled at football at the Academy and was also an All American Lacrosse player. After the war he joined the Jesuit Order and was ordained a priest in June 1956. He then entered the Navy and served as a Chaplain with the 3rd Marine Div. in Vietnam. He became North Atlantic Fleet Chaplain and after retiring became pastor of St. Alphonsus Rodriguez Church in Woodstock, MD He passed away Aug. 1, 1988. On March 18, 1995 a destroyer, the U.S.S. Laboon (DDG 58) was commissioned at Norfolk, VA in honor of this outstanding man.

I was honored to attend his first mass after his ordination in 1956 and have videos of the re-enactment of his rescue of the downed flier and of his appearance on the old T.V. program, "To Tell The Truth" way back on April 21, 1959, along with a video of the U.S.S. Laboon commissioning ceremony in 1995. I've made many copies of these events and passed them on to some of my former U.S.S. Peto shipmates. An interesting footnote is our Captain Hugh Caldwell is still living with his wife in Chapel Hill, NC.  
Regards and Good Cheer, Mike Walsh

### **Ship Christening**

*During my interview with Chuck Griffiths at the Army Navy Country Club in Arlington, his wife interrupted us briefly to say hello.*

CG: My wife has a meeting today, a board meeting of the Society of Sponsors. She's president of the Society of Sponsors. These are ladies who have cracked the bottles and christened ships of the United States Navy. And so she's got a board meeting today and then she's got a luncheon here that she's throwing for her board. So she and her crowd are here today.

DG: So there's actually a society of those people who've christened ships?

CG: Oh, yeah. Teddy Roosevelt started it. So it's pretty old. It's a very distinguished group of ladies. All the presidents' wives and some members of Congress, senior members of the Navy who are lucky enough to have had their wife christen a ship.

DG: Has that been traditionally a womans function?

CG: Hundred percent. Only women.

### **Submarine Tour**

David Barry Vanderhoff

STS/SS RET

Hawkbill SSN-666, Kamehameha SSBN-642, Daniel Boone SSBN-629,

Swordfish SSN-579,

September 1977 to December 1998

On the brow stands a young man with a forty-five-caliber pistol and a giant book full of security clearances. "You won't have to worry about those because I'll vouch for you!" As we crawl down the ladder, you realize the drop to the deck is about fifteen feet. There are meters, levers and a bunch of pipes and contraptions, which tell you we are no longer in Kansas! About halfway down, you detect a strange smell. Don't worry; it's just amine and hydraulic fluid! (Amine is the chemical used to collect CO2, and the smell will wash out of your clothes in about two months.) Looking forward, you will see the Control Room. At the very front is the Ship's Control Panel. To the left of that is the Ballast Control Panel (the place where the Chief of the watch moves the fluids and gases

to ensure a smooth ride). To the right is the Fire Control area. The guy sleeping on the locker is the one responsible for flipping the switches required to launch an attack.

See that guy hunched over the chart table to the back on the port side of the control room? He's responsible for the navigation of the ship. Ok! In the center of the control room is the periscope stand; that's where the captain makes his safety sweep prior to diving the ship or coming to periscope depth. Watch out! The periscope rings (a circular metal bar used for raising or lowering the periscope) will catch you in the forehead if you're not careful. You can see a number of repeaters in the overhead and at the back of the stand. The one that looks like a small television is the "periviz" (short for perivision, a monitor for the periscope) and the ones in the back are for sonar (short for Sound Navigation and Ranging) The captain can double-check on most of the major evolutions from his station here.

Let's head towards the back of Control (we're going aft now.) Down the stairs, and you notice that there is barely room for two people to squeeze by each other. Yeah, it gets pretty funky in here after a couple of months under the water. Not everyone showers as frequently as they should.

OK! Heading forward and to the right, we can see the galley; that's where we eat. Can you imagine squeezing two football teams' worth of guys into these tables? It looks pretty small, but when you have only a couple of minutes, complaining about the space is the last thing on your mind. Meals here are served every six hours around the clock. And you were wondering why so many of us have a weight problem? Have you ever tried to work a six on - twelve off schedule? Especially, when most of your off time is taken up with paperwork and drills? (A drill is an exercise where you practice for an emergency situation.) Didn't think so! The best thing about the galley is that no matter what time of day it is, or what's going on, you can always have a semi-intelligent conversation about current affairs. You probably didn't realize that most of the guys here have an above average intelligence.

OK! Keep going back, and duck down through this watertight door. Watertight door? Oh! Between every major compartment there is a door, which can isolate each compartment from the other compartments. What's the little window in the middle called? It's called a Deadman! Ha Ha!

In case of an emergency, you can look through the window to check for survivors or floaters.

Moving on, notice that little board with all the slimy-looking globs on it? It's called a booger board! Our Machinist Mates like to keep themselves amused on long patrols by seeing who can come up with the longest booger. Gross, huh! Most of the forward equipment for keeping us alive is in this space: The O<sub>2</sub> generator, the CO<sub>2</sub> burner, the CO<sub>2</sub> scrubbers and some of the smaller motor generator sets, etc.

You're look'n a little sleepy, so to the right and down that hatch and we'll be in twenty-one man berthing! Watch your head cause this space has a low overhead! Notice how this space is shaped like a giant U? It covers the battery compartment. If any seawater gets in here, we'll be the first to die. How do I sleep? Get used to it! The next mission is going to take place in water so deep, that if we have any emergencies, we won't be able to recover, anyway!

Yeah! That's your bunk on the bottom, about the size of a coffin, and no room to move. Hey! You better get some sleep! I hear we're having a major drill in a couple of hours. Sweet dreams!

### **Dolphins, Wings, Pins and Medals**

*Bob Gautier interview.*

DG: Can I tell you a quick little anecdote that Admiral Hannifin talked about? There were just three admirals who were qualified to wear the War Patrol pin *and* a Deterrent Patrol pin, you know that Polaris thing? And he said there was a regulation that you could only wear one device down there under your ribbons. And these three got together and said, 'We're just not going to pay attention to that regulation.' So I guess they wore both. But he said there were only three of us, so it was a pretty easy decision.

BG: That's right. As a matter of fact, about the time I got to be an amphibious squadron commander, they came up with the Surface Warfare pin. So I had my yeoman check into it and they said, 'Yeah, you rate the Surface Warfare pin. Yeah, you can wear that, but you have to give up your Dolphins.' I said, 'Screw it. You're not going to get my dolphins.' And today they let you wear both. As a matter of fact, there are a few guys - a few submariners - who have wings and dolphins, and for awhile you had to wear whichever one that you were -- whatever service you were in.

DG: When it related to your job.

BG: Yeah, related to the job. So Chuck Larsen, who later became Superintendent of the Naval Academy, he was an aviator and a submariner. So when he got to be -- I guess he was CINCPAC, he came to make a speech, and Chuck, he'd had the DEV group -- he'd been the DEV group commander about four or five after me, and so he came to do the speech and I talked to him and everything, and he had both his wings and his dolphins on. And we got this one guy in town, Jack Bennett, who was my XO on a submarine. And Bennett was on a boat with Elliott Laughlin when they sank the Red Cross ship. So Bennett told me, he said, 'You know, Larsen has got those dolphins and wings interchanged. He's got them wrong.' I said, 'I think that's a good idea. Why don't you go tell him that?' I mean, what the hell difference does it make?

DG: Did you ever hear why? I mean, what would possess someone to go from pilot to subs?

BG: Most of them go the other way. Most of them go from submarines to flying. I don't know why it is. Yeah, but Chuck has both of them. But I figure for a four-star, if he wants to wear -- Christ, he can wear them on either side as far as I'm concerned.

DG: Or on his shoulders.

BG: Yeah, or put them in his pocket. This is like the new commandant of the Marine Corps. Evidently, there's two or three medals that he wears, but he can't find the authorization to wear them. I mean, he's got a whole chestful of ribbons. And when Gene Flucky was SUBPAC, Gene Flucky used to wear three ribbons. He wore the Congressional Medal, the Navy Cross, and a Silver Star. That's all he wore, just those three. So I thought, that's pretty cool. So when I got a personal decoration, and I got three, that's what I'd wear. I wore the three. So I figured the Commandant of the Marine Corps, he didn't -- you know, all you got to do is take them off.

DG: Yeah, it didn't look any different.



BG: Nobody knows what the hell they are, anyway. But I think that Commandant is the first guy who doesn't have a World War II Victory ribbon. That's how young he is. Yep. I'm to the point that I've got almost as much retired time as I did active duty time. And that's pretty good.

DG: Count your blessings.

### **Pancake Diesels**

*Chuck Griffiths on the 'lousy' design. In this part of the interview I could detect the frustration still in his voice after 40 years!*

CG: You remember, they re-engined that whole class, the whole *Tang - Trigger* class. They all got new engineering plants because the ones they were designed with were failures. I was XO of 563, which was *Tang*, and she had the old engineering plant. And, for example, we didn't have an electrician that shipped over on the *Tang* because they figured they would spend all their time swabbing generators and working around the clock . . .

DG: Trying to make them work?

CG: Trying to make them work. And because it was a lousy design, BUSHIP's design, and it was a terrible failure. They changed the whole plant to the *Barbel* plant on all those ships, which was a very good design. And, again, the bad design was those high-speed pancake engines, which were high-speed diesel engines built to reduce weight and size so as to be able to make the engineering plant smaller.

DG: But what did they sacrifice?

CG: They sacrificed everything and it was just lousy. It was a terrible failure. We carried spare crankshafts in our torpedo racks when we went to WestPac because we were changing crankshafts so frequently in the engines. We never had four engines up. You were lucky if you could get two up. Almost every boat in that class was towed back to port at some time during their career. It was that bad a design.

DG: How embarrassing. Do you remember that ditty, "*Harder, Darter, Trigger, Trout*. Never came in 'cause they never went out"? Were they examples of this?

CG: They were all examples.

DG: I never did understand, until now, why they never went out!

CG: They were examples. Along with *Wahoo* and *Tang*. And so I was an XO of *Tang* with that horrible plant and then CO of *Wahoo* with a wonderful plant. You know, there couldn't have been a happier ship. It was just a wonderful ship and, of course, everybody shipped over on *Wahoo*. Yeah, it was great. I even had Bill Crow as my XO, for example.

DG: I never thought of a relationship between a mechanical thing and retention rates.

CG: Oh, tremendous. Tremendous correlation, and very understandable, totally understandable.

DG: I could certainly understand the negative side. Why somebody would just bail and get out as soon as he could.

CG: Well, he just wouldn't ship over. Electricians just wouldn't ship over because it was a miserable life on that class ship. It was not just that ship, it was the whole class. Of course, after they were all re-engined, it was a totally different picture because they were re-engined with three Fairbanks Morris engines, and the ships had to

be lengthened by 40 feet to do that. They were end to end, just like they were in the old diesel boats. The only thing is they were all three in the same room, and one was in the center down in a well and the generators were in tandem, like they were in the fleet boats. But with the pancakes, the engine sat vertically on top of the generator and, of course, they never could design a seal that would hold oil in a situation like that. And so that's why the generators were flooding out all the time with the oil from the engine. Well, it was a vertical connection, you know, went right through from the crankshaft to the engine, right through the seal into the generator. And so the generators were flooding out all the time, *all* the time.

### **Jim Watkins**

*Jim Watkins had an amazing career which went way beyond the Navy portion where he reached the position of CNO. When I asked his long time assistant for a biography and a picture for this project, she asked, "Do you want the one pager, or the five paged one?" He was my XO on Barbero SSG-317 and he generously agreed to an interview in his office in DC. I was struck by how many people I interviewed who had a very high opinion of both his leadership abilities and his personality. Many comments among the submissions spoke favorably about Snook's morale (Watkins was XO on this submarine) and the lack of friction between the diesel and nuke crew members. So, I decided to include these accolades and anecdotes.*

*Bob Gautier*

DG: Did you know Watkins well?

BG: He put the Snook in commission in Pascagoula. This is right after I was down there. And so he and his family lived down there and one of my younger cousins saved Charlie from drowning. They lived right next to him down on the sound at Ingals. Jim was a great guy. He really was.

DG: Well, he went all the way. I mean, CNO, that's not chopped liver.

BG: No, and they had several children, and the girl, when the Prince of Wales came over here, they lined up and had him dating Watkins' daughter back in Annapolis. But his wife died about five or six years ago.

DG: I'm going to interview him. I'm going to D.C. next month and I'm going to see several people, three, actually, and he's one of them. He was my old XO on Barbero.

BG: No, let me tell you, he's a fine speaker and he presents well and he's alright.

*Mike Barr called him, "an unbelievably fantastic CO"*

DG: So you went aboard SNOOK as a JG and Watkins was then the CO?

MB: No, he was not. Actually, the CO when I got there, for about three weeks, was a CDR Howard Bucknell. Then, for the first roughly half of the three years I was on that ship the CO was CDR Bill Yates, who was a wonderful human being and an excellent CO. For the last half of my tour, the CO was CDR Jim Watkins, who was also a wonderful human being and an unbelievably fantastic CO. So I was very lucky. I had people as COs and XOs who were great people, and our Ward Room was great too. For example when CDR Watkins was CO (he later became CNO and Secretary of Energy) the XO was LCDR Ron Thunman, who became a three-star, and the MPA was LT Bruce

DeMars, who became a four-star admiral. There were six future flag officers in the ward room while I was there.

**Watkins, Trost and Kelso – Twelve years in a row as submariner CNOs**

*The following letter from me to those I interviewed speaks for itself. It is a question which did not occur to me until all the interviews were finished. I list their responses after my letter.*

Dear Admiral (sent to all those interviewed),

2-11-04

I hope I am not wearing out my welcome but I had a subject which I wanted to ask you about concerning the disproportionate number of CNOs who were submariners – particularly in that string beginning with Admiral Jim Watkins (followed by Trost and Kelso). If you could, let me know if you wished to opine and then through which method. Either you can write your response or let me know and I can call you and interview you over the phone.

My thoughts may be a bit naive and romantic, since I take considerable pride in this. I assumed that since submariners did such a splendid job and had such a profound effect particularly during the Cold War, that it was perfectly natural that they be put in that position in spite of being from a tiny naval community. I mentioned this to a friend who responded, perhaps a bit cynically, that it was more a function of Rickover making sure there were a disproportionate number of submariner candidates for the position. The second person I posed the question to disagreed and had yet another slant which was that Rickover had such a fine filter that only the very, very best submariners made it to the top echelon and were, therefore, the best candidates for the CNO position.

I think it is an extraordinary circumstance that a community of 2% of the Navy could produce a string of some 12 years of CNOs. I intend to work this into the project but I am, once again, way over my head and simply speculating. It is a worthy subject and I would love to have your views on the matter.

Thanks again.

*Mike Barr's response via e-mail;*

Dan,

I'm not sure what I can add about the three submarine CNOs. Certainly they were all absolutely superb naval officers and superb people as well. As you know I know Jim Watkins fairly well. I have never met a finer man or naval officer in my life - and I've known a lot of **very** fine ones! There are many people who feel the same way about ADM Trost and ADM Kelso. It is certainly true that ADM Rickover had a good deal to do with selecting great people for his program and then helping those he felt were worthy to reach flag rank and beyond. I do not know how effective he was in the latter effort. For most of his tenure there were many senior officers who detested him and would block his efforts out of spite, if for no other reason. Also remember that Rickover left active service reasonably early in Watkins' term as CNO and died relatively early in Trost's term. Thus, at least for Trost and Kelso becoming CNO, I would think Rickover's input would be marginal at best. It is much more likely that they had the support of people like SECNAV.

I think the truth is more that Rickover choose excellent people, which should lead to a proportionately higher fraction of "his" people reaching high rank, but the people

who rose to the highest positions did it on their own merits. Undoubtedly all nuclear trained officers learned a great deal about how to be effective from Rickover, which helped. Also the fact that submarines were so important in the cold war helped. However, all three CNOs (and lots of other submarine flag officers) performed in non-submarine billets (e.g. fleet commands, senior OPNAV positions) and competed with flag officers from other branches directly and successfully. Also, one should remember that there are superb non-submarine flag officers too. Rickover did not get them all.

So, at least from my point of view, the three submariner CNOs earned the job themselves and it was an unusual combination of events that put them in that job in sequence. Don't try to make too much of it. I'd be happy to talk more about this if you wish, as long as you keep in mind I was not privy to what really happened!!

Mike

*Bob Gautier called me on the phone to respond. His conclusion was simple, "They were selected for CNO because they were just good naval officers. Had nothing to do with their submarine background. Look at Vern Clark (the current CNO. A surface warfare officer). He is doing a hell of a job and is not squirrely like Tom Haywood."*

*Bob took this opportunity to point out that sometimes the great candidate is not selected. He mentioned Mike Moore, class of '43, who had earned his PhD in nuclear physics, being turned down by Rickover, "because he was too smart and would be dangerous for the program." I am still unclear as to what that meant exactly.*

*The other example was Jim Bradley class of '45 who was an intelligence specialist, debriefing returning patrols. According to Gautier, Hal Shear, then Vice Chief, asked Bradley for intelligence for which he had no clearance. Bradley properly refused to give the information to this very senior admiral, and was told, "As long as I am in the Navy you will never make flag." It is disturbing that the man kept his promise.*

*I interviewed Chuck Grojean on the phone. Here is his take on the matter.*

DG: It seemed, on the face, that that was an extraordinary thing for a community that represents two percent of the Navy to produce three CNOs in a row.

RG: Prior to that you'd had Bob Long, who was a Vice CNO. And you had an inordinate number of four stars who were submariners.

The situation arose during the seventies that the submariners had had more admirals selected than they ever had in the past. And this was directly related to the importance of nuclear power to the Navy and the importance of Rickover in terms of controlling. Ultimately he was the supreme controller of everybody who had anything to do with nuclear power. So he was instrumental in getting more people selected for flag rank.

The next part of the equation is the fact that they were all very good men, not that there weren't equally good men in other areas such as Naval aviators and surface Navy and in the Seals and all the other, but they were good men and they were representing what had become in the Navy a brand new powerful part of the Navy. And because of that these guys rose to the top in terms of power, and a lot of it had to do with -- as it always has in the Navy -- how much money in the Navy budget goes to what. And a lot of the money in those days went to the submarine force, whereas previously it had not

gone to the submarine force. The money prior to that had always gone to the carriers, and that's the reason that you found so many flyers getting the money because there was much more money that went there. So I think that the control of the Navy, to a great degree, goes to the allocation of money that's in the Navy budget.

But, Watkins, Trost and Kelso - those guys were superb people. They all stood very high in their Naval Academy class. They all were outstanding submariners before nuclear power came along, and they shone when the nuclear power era came into being. And that's my take on it.

DG: But it seems to me that during the Cold War the Marine Corps wasn't asked to do much, nor was the Army, except just practice over there in Germany. But the submariners were the ones who were really producing the effect of deterrence and scaring the hell out of the Russians. Is that fair?

RG: The day-to-day war was fought by the submariners, doing all that they did. From the time when you had a hot spot and when you had crises here and there, you found the aircraft carriers going to the spot, as they do today. But conducting the day-to-day operations, and when I was Commander of the Submarine Force Mediterranean, I found that the Secretary of the Navy, the Secretary of Defense, they wanted to know what was happening in the Mediterranean vis-à-vis Soviet submarines. We were the ones who had most of the answers.

### **Deterrent Patrols**

*Hugh Smith obtained the following statistics from Ms. Judy Hallmark – Strategic Systems Programs, Public Affairs Office:*

Polaris – 1245 patrols  
C – 3 - 1182 patrols  
C – 4 - 397 patrols  
“41 For Freedom” total 2824 patrols

Trident I – 387 patrols  
Trident II – 186 patrols  
Trident total patrols – 573  
Assuming 65 days per patrol that is 604.9 years of patrols.

*How quickly we forget. In 1995 or so, I found out what those little devices were which submariners wore beneath their ribbons. I was informed that they were Deterrent Patrol pins. Well, I asked the question, “Where the hell is my pin? Why didn't the people who came up with this device start from the beginning...with Barbero and Tunny both of which performed quite arduous patrols with the Regulus I missile, in old WWII fleet boats, probably in a lot more danger than any of them experienced?” In a dark and righteous mood I fired off a letter to the then Secretary of the Navy calling the oversight to his attention and admonishing him for not watching out for his men. Weeks later I received a letter from some four striper aide to the Secretary informing me that they had fixed that problem two years earlier by awarding the device to the crews of Barbero and Tunny for particular, stipulated patrols. Of course they had no way of informing any of us, having lost track of us decades before. I felt good about us receiving that recognition*

*and for their having reached back and corrected the 35 year oversight, but I had the feeling that whoever initiated the device may have held us in some contempt in our rickety old diesel boats with our dinosaur Regulus I missiles. Maybe someone who reads this book can enlighten us via the web site. Stay tuned.*

*I decided to end this chapter – and the book – with the following Kipling poem. In a time when changes, particularly in the technical side of our society, are happening nearly at an exponential rate, it is refreshing to re-read a poem like this one. It describes us today the same way Kipling described our submarine predecessors in 1916.  
“Unseen they work, unseen they win” ...WOW.*

### **The Trade**

**They bear in place of classic names,  
Letters and numbers on their skin.  
They play their grisly blindfold games  
In little boxes made of tin.  
Sometimes they stalk the Zeppelin,  
Sometimes they learn where mines are laid  
Or where the Baltic ice is thin.  
That is the custom of ‘The Trade’.**

**Their feats, their fortunes and their fames  
Are hidden from their nearest kin;  
No eager public backs or blames,  
No journal prints the yarns they spin  
(The Censor will not let them in!)  
When they return from run or raid.  
Unseen they work, unseen they win.  
That is the custom of ‘The trade’**

**1916, Rudyard Kipling (1865 – 1936)**