INTERVIEW WITH WILLIAM ANDERSON
MARCH 15, 2000

Q. Today is March 15, 2000. This is Raimund Goerler and I am interviewing Captain William Anderson in his home in Virginia. The purpose of this interview is for the Byrd Polar Research Center Archival Program on a grant sponsored by the National Science Foundation. Captain Anderson, I’d like to begin this interview with some basic questions about what attracted you to a career in the military, specifically the Navy. Who and what do you think were the principal influences and determining events?

A. I think two factors. I grew up during the depression and it was not at all certain in my family how much money would be available for us for college and that led my father to ask one time would I be interested in trying to get an appointment to one of the service academies. And I had done reading sea faring type books and had also seen a movie or two that glamorized the Naval Academy, so my response was that yes, I would like to give it a try and the first choice would be the Naval Academy.

Q. So it was principally an economic decision. Why did you choose submarine duty. What attracted you to submarine duty?

A. Well, a couple of things. One, our class at the Naval Academy, class of 1943 was speeded up. It graduated after three years because of the war and accordingly we made only one summer crews while at the academy. Normally you would make at least two. During that summer crews, which was on one of the old battle ships,
the USS Arkansas in this case, I grew less than fond of big ship duty. It was rather overwhelming in many respects and somewhat crowded with all the midshipmen aboard and so on. So I made up my mind that a smaller ship would be preferable from my point of view. And then of course the submarine service being entirely consisting of volunteers was another factor. The fact that there’s extra pay for submarine duty, like there is for naval aviation. And then finally, when our class was about to graduate, the word came out that a goodly number of my classmates would be accepted directly to go to submarine school right out of the Academy, whereas normally one would have to serve two years out in the fleet before you’d be eligible to go to submarine school. So this looked like an avenue to get things going so to speak rather quickly. And so I put in my application as first choice to go into submarines. It was accepted, so that’s how I started.

Q. Can you discuss for the record a little bit about your sub experience in World War II?

A. Well, upon graduation from submarine school, that was in the fall of 1942, I was assigned directly to the Pacific and in very short order was headed out on what amounted to my first experience in a submarine and combat on a war patrol. During the war, I served on three different submarines and made a total of 11 war patrols. Some of these were directly against enemy shipping. Some of these were doing resupply missions to the Philippines in support of the guerilla warfare effort being carried out in the Philippines and also the evacuation of Americans including women and children that had been left in the Philippines and who had
hid out in the hills in the Japanese invasion. So it was a variety of experiences and
I was fortunate to come through all that without a scratch.

Q. Can you discuss your advancement to the command of the Nautilus?

A. I was nominated by the Navy Bureau of Personnel and others too, to go to
Washington and be interviewed by Admiral Rickover for a job that was not
defined at that time, being a submarine line officers. Of course my ambition was
that it had something to do with the growing of new Navy nuclear submarine
program, but I had no assurance that that was the case. I was interviewed by the
Admiral. This was on a Saturday afternoon in Washington at his headquarters. I
had waited all day long to see the Admiral and his interview technique was rather
straightforward I found. For example, as I recall, he started out asking where I
had gone to school. And I mentioned that I had attended various schools because
my family had moved around quite a bit. And he broke into that and said “I didn’t
ask for your life history. Where did you go to high school?” Well, I went to two
different ones, but I think you get the point that he was rather impatient. This was
late in the day. After a bit he asked me to name all the books that I had read in the
prior two years, listing the title of the book, the author and then a one sentence
resume of what the book was about. By then, he had me in a situation where I’m
not quite sure I knew my own name, much less being able to reel off this type of
information under that type of pressure. The fact was that I had read a great deal,
but he concluded the interview when I showed some hesitation and said “Good-
bye. That’s it.” So I left the interview feeling that I had shot any possible chance
of being accepted into his program. I got back home, back up in Connecticut, and
I told my wife about it of course and was very dejected over the outcome. And she suggested that “Well you read this book and that book and so on and so forth,” looking around the house. And she suggested “Why don’t you write Admiral Rickover and respond to his questions with a letter?” And I thought well, it probably won’t do any good, but it won’t do any harm I guess. So I did that. To make a long story short, I was accepted into his program and then in a training status and after some months, I was the only non-officer there for a while, became rather impatient to know what he had in mind and he let me know finally after some months that for purposes of training, let’s assume that it might be to relieve Captain Wilkinson of the Nautilus. And of course that was wonderful news and I went to work very concertedly to learn all the history and all the other details that could prepare me for a command of that first nuclear submarine.

Q. What happened to Captain Wilkinson who was the first commander of the Nautilus, the first nuclear powered submarine?

A. Captain Wilkinson had done a superb job putting all of us into commission and shaking her down and demonstrating her capabilities. He was in demand to be the skipper of the first nuclear powered ______ ship, the cruiser Longbeach. So after his command was due to be over, he was assigned as commanding officer out to the Longbeach and went onto, not just a successful commander, but also a very successful naval career, retiring eventually as a vice admiral.

Q. I’d like to turn our attention now to the events leading to the Nautilus going under the ice to the North Pole. Can you describe the rationale and the context of the
decision to send the Nautilus across the Arctic and under the North Pole? What led up to it, what were the objectives of the mission?

A. Okay. As you know the U.S. Navy had done some shallow ice, under ice penetration work in the early 50’s with conventional submarines. These were very limited because when you’re relying on a battery for propulsion, you’re submerge range is rather limited. When nuclear power came along, many of us had the thought that with that mode of power and the ability to stay fully submerged for literally weeks or months on end without connecting to the atmosphere, that here might be the main spot to operate extensively under the polar ice. We had in mind too the report, whether it’s completely true or not I’m not sure, that the German U-boats in the north sea lanes would occasionally, when subjected to counter attack from opposing antisubmarine warfare forces, would occasionally duck under the fringes of the ice pack in order to escape the attack. We were also very sensitive to the fact that Sir Hubert Wilkins in 1931 I believe, had the idea of traveling under the ice with a submarine and also incidentally named Nautilus. And he had the right idea about the submarine was fitted for that task and in that respect he was very much ahead of his time. But he had the right idea, that it would be possible to perhaps battle extensively by submarine under the ice. So when I took command, which was in the summer of 1957, I was looking for an opportunity to do some different with the Nautilus. Captain Wikinson had done a superb job in every category and I was impatient to the extent that I didn’t want to be just a repeat, down this path or road, I was looking for something new. I started reading everything I could about the Arctic and the icepack and during my
tour of training under Admiral Rickover and was on the look for an opportunity of perhaps giving Nautilus a try in that area. Nautilus in the fall of, I should say the late summer of 1957, shortly after I had taken over, was promised and was used to participate in a large NATO naval exercise and I put forward the proposal that since we were going up north in the northern waters off of Europe anyway, that here would be an opportunity to perhaps take a little time and to make some probes under ice with the ship. After promoting that concept for some time, I was finally able to persuade the powers that be that we could have a ten day period to do that, provided we were accompanied by a conventional submarine to stand by while we were going to the icepack, a buddy submarine so to speak, which turned out to be the USS Trigger. We made three penetrations of the icepack. My operation order had originally stated that we could proceed to latitude 87 north, excuse me 83 north, which was about 180 miles inside the icepack. I had convinced the powers that be that to let me put the word approximately in there because we don’t know exactly what we’re going to expect and of course I had hoped that if things went well, we might go further than 83 north, maybe even to the pole. It looked like during our second penetration that that might be a possibility. We proceeded past 83 north and we were doing well, everything was working well until we got to our position about 180 miles from the pole. And then due to something that’s common place as a blown circuit breaker, all of a sudden we lost all power to all navigation equipment except for the magnetic compass which was useless in that area because it was swinging back and forth in an arc of about 90 degrees. So about all it would tell you was that north was somewhere
over there. It was evident with that loss of power to compasses that we could no longer navigate with accuracy. We couldn’t really tell where the North Pole was and that we were in severe danger of getting into a situation of longitude roulette, where we wouldn’t know how to find our way to the Pole or even back out to open water. So reluctantly we turned around with great disappointment and we did get ourselves pretty well lost in one respect in that we ended up going into a shoal, chilling water situation, which in retrospect was sort of a pass lock situation on the coast of Greenland. Fortunately we made the correct decision to turn left and eventually found our way out to open water. It was the experience of that mission which told us a lot in regards to ________________, it provided the motorized measuring equipment, top side upward being ____meters that monitored the profile of the ice, maps. We mapped the underice profile over hundreds and hundreds of miles that hadn’t been covered before. We mapped the undersea profile, the bottom profile along routes that had never been sounded out before except here and there by the early explorers and airplane landings in the ice and so forth. Well we returned from that trip convinced that with some modifications to the ship, with improved compasses and particularly with the addition of an inner______ navigation system which would be vastly more comfortable in northern latitudes near the poles than where we had had in ’57, that a further exploration of the under ice would be indicated.

Q. So this planted the idea in your mind that you could do more than you had accomplished?
A. Definitely so. The timing was very crucial. Here was what was going on: we returned from that Arctic mission and the NATO exercise, getting back to our home port at New London shortly after the Russian Sputnik had gone up. And I was called down to Russians to brief a group of officers and the Pentagon about what Nollis had been doing and I found that there was actually more interest among that group on what we had done with the NATO exercise than there was the under ice adventure, although there were two or three notable exceptions. It had great interest and enthusiasm for the under ice potential on a submarine like the Nautilus. But the attitude generally in the Pentagon was about the Arctic and under ice. What have we lost up there? So we had sort of an uphill fight. But coming out of the Pentagon, just by chance, God-given chance, who did I run into but Captain Pete Aran, who was Naval Aid to President Eisenhower. We had met before briefly at Admiral Rickover’s headquarters where he paid a courtesy call on the Admiral when I was there. So he recognized me and asked if … obviously I was waiting for a taxi or something, he asked if he could give me a lift into town and since I was heading back to the train station to go back to New London, I of course accepted and during the car trip to the other end of town he asked what we had been up to, what we had been doing, and I told him briefly about the Arctic work. He asked if I could stay over and come to see him at his office the next morning. Of course I agreed and was free to do so because our ship was in port on upkeep. So I went to see Captain Aran the next morning and he had a large chart of the world on the wall in his office and his question to me was “Would it be possible for you to take the Nautilus all the way around the world submerged in
one trip?” And I told him after a brief reflection that “Sure, we could do it.” It would just be a matter of allowing enough time and enough fuel to do so. But then he said “Well, President Eisenhower was very upset with the Pentagon for not giving him the opportunity to mention your just completed ice work.” What had happened was an individual Navy personnel in the Pentagon had given a speech and had released the fact that USS Nautilus had operated extensively under the Polar ice pack at a time when part of that release, that mission had been classified secret. When President Eisenhower heard about the fact that this had been released, he hit the ceiling so to speak and said in effect, my goodness or some other words perhaps, is this ever a time when I need to be talking about something positive among U.S. technical capabilities is now, with the Sputnik flying by overhead and with our own missile failures blowing up on the launching pad.

Q. Let me interrupt for purposes of clarification. Eisenhower was upset that the Pentagon hadn’t informed him earlier …

A. Exactly.

Q. So he wasn’t so much upset about the press release that released classified information, it was the fact that he hadn’t been told in the first place?

A. Well that’s exactly right. We felt that he should have been given the option of making the announcement himself, particularly in light of the Sputnik and the missile failures. So I came back in conversation with Captain Aran to talk about a trip all the way around the world submerged and with his comment had the flavor that the president himself was very interested in demonstrating something in the
area of where we were definitely ahead, not just ahead but way ahead, of the Soviets. And that was in the field of nuclear submarines. I looked at Captain Aran’s chart and I said “Well now, it might be around the world in one trip would be fine but there might be something that would be a greater challenge and have a greater impact and that would be, it might be possible for Nautilus to go from one ocean to the other by way of the Arctic and by way of the North Pole. And he agreed that that would have greater impact and told me to let him work on it, treat it as absolutely very, very secret, the very idea of it. And that we keep in touch. So that was the genesis of what turned out to be the successful crossing in 1958.

Q. Can you elaborate a little more on why you emphasized the secrecy in the planning. Why do you think this had to be kept so secret?

A. It was on orders of the president himself, he being upset because he wasn’t given the option of announcing a 1957 work in the Arctic. He directed in very strong terms the chief of Naval operations, Admiral Burk, and the officers who worked under the admiral, to the effect that if this thing goes to the successful or not successful, that he was to make the announcement himself from the White House. And he put that word out in no uncertain terms. And as you can imagine, my direction from my own bosses, my own chain of command going right up to the top Navy admiral, Admiral Burk, was that this thing was to be kept absolutely top, top secret. No word could leak on this. It had to be secret.

Q. From what your telling me, it really didn’t seem to have anything to do with Soviet activities, but rather more that Eisenhower wanted the opportunity to announce the event if there was in fact going to be a special event.
A. Right and they even said whether successful or not, even if you fail, he still wanted the opportunity to be the one that announced the situation.

Q. And it was the Sputnik environment that very much covered …

A. Sputnik and our own difficulty getting launched into the space airfare. That is correct. We were not really very much concerned about running into Soviet opposition with their own submarines. We were pretty cocky. We were way, way far ahead of them and we could outdo them in anything that we wanted.

Q. Captain Anderson, if we can talk a little bit more about the planning of the operation.

A. Okay. The first question of course is if one is going to go from ocean to ocean by way of the Arctic icepack, underneath it, is whether or not you go from the Atlantic to the Pacific or vice versa. We knew from our experience in 1957 that there’s good deep water all the way from the Atlantic side up to the Poles, or at least as close to the Pole as he had gotten. And there was some soundings available at the Pole itself from other explorations. The question was negotiating the Berring Strait, the region off Alaska and the approaches from the Pacific to the Arctic Ocean, where you have shallow water and you have ice that has been adrift along the coast and can be quite deep. In other words, you’re bound to have a squeeze problem. Well, to us it made sense to let’s get the tough part over first when we have great navigational accuracy and go from the Pacific to the Atlantic. So that was how the mission was planned. One of the other things that we did, Dr. Lyon, Waldo Lyon, who was the chief scientist and who was a real scientist pioneer in submarine under ice work throughout his entire professional history,
we wanted to take a look at the route that Nautilus would follow. We wanted to fly up over it to get some kind of feel on the ice thickness and so on. So Waldo Lyon arranged for the two of us to go up to Alaska incognito and my old civilian clothes and with a fake ID card on both parts and he arranged for a charter flight by a small aircraft flown by a bush pilot to take us out over the coastal region or a little bit off the coast, where Nautilus would be trying to make a penetration and go through. This told us a certain amount, but flying over the ice, there’s a lot of information you can determine as far as what’s really going to happen underneath.

Q. And I believe there was also the point that the airplane itself had some mechanical difficulties, so you didn’t get out as much as you had planned.

A. Oh you’ve got a good memory. Yes, here we were in this small, very limited aircraft and Waldo and I wanted to fly more off the coast, which would be more where Nautilus would be going. So we coached the pilots to fly up, they were a very friendly group, fun group and this ran a little low on fuel. And the pilot said “Well I think we’ve got some gas stashed away over at the little Eskimo village over here and so he landed on the beach. And a group of Eskimos came down to meet the plane and he was conversing with them and they started brining down five gallon cans of aviation gas. And loaded it into the aircraft. Well, Waldo and I thought that our career might come to a rather short situation with the secrecy that was imposed and here we were, the pilot revved up his engines and he couldn’t move. His wheels had marred down into the sand to the extent that even through an outpour of power he couldn’t get the aircraft to move. So you can imagine what was going on in Waldo’s mind and ours. Here we were potentially stranded...
at a remote Eskimo village, two guys with fake ID cards and so on. So this pilot, resourceful as he was, and which is characteristic of bush pilots, they learn how to operate under very strange circumstances, he conversed with the Eskimo group and he lined up two or three on each wing to physically give a push to the airplane and they were successful in getting just a little bit motion and finally we got some acceleration and took off. As I recall, we just barely cleared a ledge of a ______ on the beach by maybe a couple of feet. But we got airborne again. Well that’s a sidelight to the whole story.

Q. Okay. You made more than one effort to cross the ocean. Your first to cross from Pacific to Atlantic. Your first effort was not successful. Can you comment on why it was not successful and can you also go over a little bit more about why the decision was made to cross from the Pacific to the Atlantic?

A. On our first effort to make the crossing, we expected to have a squeeze problem off Alaska because of deep ice and shallow water. It proved to be even more severe than we had estimated. We got into a situation rather abruptly where we had almost a collision with unexpectedly deep ice. After moving down to cruise just as close as we safely could to the ocean floor, as I recall maybe fifteen or twenty feet clearance between the keel and the bottom of the sea, we cleared a deep ridge of ice by about five feet and it was getting deeper as it looked on sonar. I had no choice, I felt I had no choice at the time to take any further risk. We were rushing the season somewhat and this is how we call it within June. So we had great disappointment and reluctantly we turned around and reported to the chain of command and the Pentagon what had happened and made recommendations
that we lay over in Hawaii, make another effort a little bit later when the ice
would have retreated to the maximum extent that could occur in late July. This
was a bad time for us. I was very fearful that the reaction at the Pentagon would
be that well this thing is just too risky. Let’s just call it off and tell Anderson to
proceed as indicated, go back south, go back through the canal and come home.
Fortunately Admiral Burk and the Pentagon and his submarine officers on his
staff were sympathetic to giving it another try and that’s what we did on the
second try which occurred in late July. Although we still had the squeeze
problem, we were able to find our way to what’s known now or maybe then as the
Barrow Sea Valley which you might say is the magic submarine route into the
Arctic from the Pacific side. Once we got into deep water, we had no problems
whatsoever. We had an initial navigation system, we navigated with great
accuracy and on August 3, 1958 crossed underneath the Pole and emerged from
the edge of the pack two days later, having completed as I recall 830 miles under
ice.

Q. Would this Barrow Sea Valley, was that known at the time?
A. I believe it was. I can recall I believe discussions with Dr. ________ …

Q. Captain Anderson, you were talking about the successful traverse from the Pacific
to the Atlantic by way of the Barrow Sea Valley and the question was had that
been previously known?
A. Well I’m not certain. I believe but the first word about an underwater channel of
greater depth may have come from the Eskimo fishing people up around Point
Barrow and pursuing the best fishing, had found that there was a channel or area
where the water was a good bit deeper than elsewhere. I could be wrong on that as far as precisely how that knowledge came about. But I think that Waldo had the thought that there could be such a feature and we were looking for it.

Q. Okay. So no one knew exactly where it was, but its existence may have been known.

A. Except perhaps the Eskimos. But of course they would not know the extent of it or exact measurements or whatever. We probably were the first to get definitive measurements regarding it.

Q. Okay. So that was, the publicity of course was reaching the North Pole, but in terms of an accomplishment that was one to both science and aviation, probably was it fair to say that mapping Barrow Channel was of long term usefulness?

A. Well, very possibly. That channel has been used now many times by submarine operations in the Arctic, not just by the U.S., but by the Russians. Five years after our trip I read that the Russians had their first transpolar crossing, in their case from the Atlantic side to the Pacific, vice versa to what we did. And I feel confident that they read about Nautilus and other U.S. Arctic operations with great interest regarding that sea valley.

Q. Okay, very good. You were commanding the USS Nautilus in Arctic waters during some of the coldest periods during the cold war. Did you have any concerns about Soviet activities in the area?

A. Well we certainly did. We didn’t expect to encounter Russian nuclear submarines because they weren’t in existence at that time. We were sensitive to the fact that in approaching the Berring Straits we would be traveling reasonably close to
Soviet controlled waters. So we were quite cautious to make sure that we were not detected by anyone, either under the sea or on he surface or in the air.

Q. Okay. I wanted to talk to you a little bit about Dr. Waldo Lyon who was your chief scientist on the crossing. Do you have any idea what types of research he conducted and of course he developed instrumentation to measure the ice and map the ice that made the whole crossing possible. Can you talk a little bit about Dr. Lyon?

A. Yes, I’d be happy to. Waldo Lyon was the scientific glue that held the U.S. submarine Arctic operations together for virtually his entire professional career. He was the gentleman who, when U.S. conventional submarines made a few penetrations under the shallow edge of the icepack in the early 50’s, he was the gentleman who developed the under ice sonar, upward being pathometers so to speak that were capable of measuring the ice thickness and we allowed us to actually trace the under ice profiles. So I view Lyon as being absolutely key to the successful launch of nuclear submarine operations in the Arctic. He had already designed equipment and without that equipment one would be rather hesitant to venture under ice because you would be quite blind.

Q. Okay. So he really made navigation possible under ice?

A. Made navigation possible and reasonably safe. Now I might point out that Nautilus was in effect a new bred of submarine. We could travel for weeks, months on end completely submerged with travel at much, much higher speed than the older submarines had that were battery powered unsubmerged. So it was a situation where our power plant was more capable than our electronics and
Waldo Lyon played a key role in further development of his gear to be compatible with a rapid moving nuclear submarine. So he went on with Nautilus and then with virtually all of our other submarine missions to the Arctic in a continual state of further development of equipment and mapping extensively throughout the Arctic, to the extent now that I’m sure we have superbly accurate underneath profile of the ocean floor and we have a vast store of knowledge on the ice characteristics.

Q. None of that would have been possible without the instrumentation that Lyon developed?

A. Well let me put it this way. If you didn’t have something to give you some definitive information on the characteristics of the ice that you were traveling underneath, it would be somewhat like if you were driving your car and you had your windshield completely covered with mud and you had to navigate by looking out the side and saying “Well, I just missed that curve or I missed that other car.” In this case, you might find that you could tell a little bit about what you just missed, but that’s not a very safe way to do things.

Q. Okay. Very good. Captain Anderson, can you comment on your crew and their reactions to the crossing the North Pole?

A. They were absolutely magnificent. I don’t think that any ship has ever put to sea that had a more superb crew than I enjoyed having on the Nautilus. They were thrilled with this opportunity, they responded superbly to the absolute need for secrecy despite the fact that we were in port laying over after our first try. We were in part, many of them had short leaves to go back home. The mission did not
leak and I’ve always been thankful and proud and a great admirer of my officers and men for reacting so superbly. They were absolutely thrilled with the passage at the Pole. We had given some thought to maybe surfacing at the Pole, but found at this particular time the ice thickness was compact, ranging around thirty-five feet and we perhaps could have found an opening somewhere near the Pole, but my mission was such that the number one thing was to make the crossing and to do so with absolute minimum of risk. The crew planned quite a bit of a celebration at the Pole itself. I had one crew member that had developed enough material to make up his own Santa Claus suit and presumably he had come aboard and had complained that Nautilus had been dumping some garbage on his front yard and he didn’t like that. Well you get the picture that we took full advantage of the fact that we were the first ship of any sort to get to the North Pole. We had one crew member that was due to re-enlist and I swore him into this new enlistment at the Pole, so he could say, he could say he was the first sailor to ever ship over to the North Pole. And that led to any sort of range of comments, different sailors hearing that, observing that, saying “When the skipper gave his comp down I was back taking a shower and I was probably the first guy to take a bath at the North Pole.” And then that went on, you can imagine your group of sailors what the comments might be.

Q. Very good. Captain Anderson, what role if any did the Naval Arctic Research Laboratory play in the crossing?

A. Absolutely key role. Dr. Waldo Lyon, who was our chief scientist and as I mentioned was the scientific glue that held our submarine Arctic operation
together, he was the head scientist of the submarine section of that research lab in San Diego.

Q. Okay. So there’s the link to the lab. Excellent. Can you think of any other specific examples, did you work with the lab or was Lyon?

A. Well, all of our work was with Dr. Lyon. He was, I had no need to work directly because he was the key figure in under ice technology.

Q. And for clarification, this was the office of Naval Research, correct?

A. Yes.

Q. I may have misled you because I asked about the Naval Arctic Research Laboratory which was at Point Barrow.

A. Oh, okay.

Q. The lab reported to the office of Naval Research.

A. I’m not sure … our total work was for Dr. Lyon and his activity in San Diego, not at Point Barrow.

Q. Okay. Captain Anderson, one of the things that we’re interested in is relations between civilians and military personnel in the process of discovery and exploration. Dr. Lyon was your chief scientist on the crossing. What other kinds of military, civilian personnel were there and can you comment on how civilians and military interacted in the rather confined quarters of the sub?

A. Okay. In the case of Nautilus and Dr. Lyon, he had one assistant with him, so there were two people involved in the scientific effort in that regard. The relationship really couldn’t be better. We were not just joyous to have Dr. Lyon aboard, but we relied very heavily on his equipment and his measurements to
make the voyage as safe as possible. There were two other civilians aboard. In this case, both from what has been known as North American Aviation, the company that provided our inertial navigation equipment that we used in our crossing in 1958. This was the first ship board application in a full scale sense of an inertial navigator and the equipment that was available was not designed for a ship, but for a missile. So these two gentlemen led by a gentleman by the name of Tom Curtis, successfully adapted and ran the inertial navigator which performed superbly and was a great access to navigation accuracy during that trip. Now I might point out that on the flip side there’s the inevitable, I wouldn’t call it conflict, but there’s the inevitable cleavage between what the scientists wants and needs to do during a trip like this and what the skipper’s problem may be in regard to what limitations he might impose on himself and on the ship. Now generally, they worked out very well, but I’m sure, unfortunately Dr. Lyon is no longer alive to speak for himself, but I’m sure that Waldo may have felt frustrated at times because I didn’t see fit to pause during the trip and go back and check information or whatever. There’s always going to be that type of conflict, but there were no harsh words between the two of us and I think it worked out very well.

Q. Do you have any sense of what kind of experiments Lyon was carrying out or was it your sense that he was so busy with the monitoring equipment, that that was the extent of it?

A. Well, of course he and his assistant were very busy. They in effect did watch and watch. One of those was always monitoring the under ice measuring equipment,
the upward being the ______ometers. They were also highly interested but the ship’s crew themselves took care of recording and tracing the ocean floor characteristics and turning those charts over to Dr. Lyon. I believe also we were taking seawater samples at certain intervals, that he could take and later have analyzed to find out any useful information regarding ________ and we were of course measuring water temperature as we went along.

Q. Okay. Very good. Captain, could you talk a little bit about the crew of the Nautilus. Submarines are known for having rather close relationships. Have you maintained ties with the crew of the Nautilus since the crossing?

A. Yes, very much so. There’s a very active Nautilus alumni association which consists of everyone who wants to be a member who has previously served in the Nautilus. And that includes of course everyone from her very earliest days in the mid-50’s to the time she was ultimately retired, which I believe was in the late 70’s. And of course it consisted of people who served during the Arctic work and elsewhere. There’s a publication put out to keep members of this association abreast of what’s going on and there’s a reunion every two years. These are well attended. Most of them have been on the East Coast, but the next one is to be in San Diego, which will come up this coming fall of 2000.

Q. Okay. Very good. How did your service in the Arctic impact your career in the Navy? More specifically, was it a career enhancement?

A. Well I’d have a halfway answer on that. I had no idea that the amount of attention given to this trip would be as great as it was. Not just herein the United States, but actually as a matter of fact sometimes even more so. Internationally among
the seafaring nations such as England, France, Italy, so on and so forth. As a result of being thrown into a situation where there was unexpectedly great attention given to this trip, and due to the natural human tendency to focus on the guy in charge, the skipper in this case, no matter how much I tried to point out that the skipper really had the easiest job on board, when you have a crew like the Nautilus crew, the skipper’s job is very, very easy. Because these officers and men were so thoroughly outstanding. And I say that, I’m not being falsely modest, I had the pleasure to command that ship and to have this opportunity to make that crossing, but there’s a human tendency sometimes for a little jealousy to creep in I suspect. And I think there were those individuals in the Navy who may have resented the amount of publicity that Anderson got. That was not generally true, but I think there were examples of that. So I didn’t view it in the long run as a career enhancement. I considered it possibly to be more a liability.

Q. I don’t have a resume here. When did you leave the Navy? Was the Nautilus your last command?

A. Yes. Nautilus was my last command. I left there after the standard two year command tour in 1959, going to Washington to work first on Admiral Rickover’s staff and then later I was assigned to the Pentagon to ______ the Navy and completed my twenty years at that post, twenty years being the earliest time of voluntary retirement.

Q. Twenty years was when?

A. That would be in 1962. So I did go ahead and retire. I had some interest in politics in my home state of Tennessee, ran for Congress in my home congressional
distract in 1964, and was successful in getting elected. I served four terms, then the U.S. House, between 1965 and 1973. After that, I’ve done various things, primarily in terms of a business career.

Q. Captain Anderson, you mentioned a moment ago that the Nautilus expedition did not prove to be a career enhancement for you, but yet it may have been a career enhancement for Admiral Rickover. Please explain.

A. Right. My recollection of the president, I was lifted off the Nautilus, after our under ice trip, this was off of Iceland, and going down to the White House when the president made the announcement at a press conference that a U.S. nuclear submarine had made a voyage across the Arctic by way of the North Pole. A historic first. A number of senior military Naval officers, civilian and military side, were invited to this press conference and when I was briefed on who was going to be there, I found that Admiral Rickover, the father of the nuclear submarine, had not been invited. And I mentioned that fact that I thought he should be there because this voyage across would never have been possible except for his nuclear power. Well, it proved to be too late to correct the error. There was some comment about “Well, there was only so much room in the briefing room,” and so on and so forth. Well the press got ahold of the fact that the Admiral had not been invited and one would interpret it as being a snub. There was an effort on the White House part to compensate by the president asking the admiral to represent him in the New York ticker tape parade to welcome the Nautilus back soon after our return to the states. And I feel confident that this was also an effort to make up for that snub, inadvertent as it may have been, that
caused the Navy to add a third star to the Admiral’s rank and to make him a Vice Admiral. So one might say that it was thanks to Nautilus and power plant and Waldo Lyon and the vision of early explorers such as Wilkins and so on that Admiral Rickover got his promotion.

Q. Okay. Very good. Captain Anderson, you are the author of Nautilus 90 North published in 1959. Can you talk about the origins of the book, whose idea was it, was there anything left out in the writing and editing process?

A. Yes. Okay. There is a wonderful author named Clay Blair, who himself had been a World War II member of submarine combat patrols in the Pacific. Clay and I had become acquainted following our 1957 under ice probes and at that time he was writing for the Saturday Evening Post. He wanted to do an article or two and as I recall, did a series, maybe it was two or three articles, about Nautilus and her under ice work. These were published in the Post. When it was announced that there would be press conference concerning submarine operations in the White House, he was there at the press conference. And afterwards said to me “Why don’t we all do a book?” Having worked with him before, and the fact that he himself had been a submariner, made him an absolutely ideal gentleman to work with in terms of a book. And he arranged for the publication and he and I worked together and in rather short order came up with what was to be titled Nautilus 90 North.

Q. Okay. And you’re satisfied that that is an accurate and comprehensive narrative of the events. What I’m getting at is, is there anything left out?
A. Well, of course we left out anything that smacked whatsoever of being classified. We also made every effort to leave out anything that would step on toes. We didn’t want to put anyone on the spot, so we were sensitive to that. Also left out and due to the limitations of time and resources, we were unable to write definitely on exactly what went on in Washington in terms of work getting this trip launched. And what I mean by that is because of the secrecy directed by the president, we were not aware in any full detail about the maneuvering that had to be done in Washington to overcome any opposition and to get this trip approved and scheduled. Unfortunately, Captain Aran, a suburb naval officer, naval aviator, he is no longer alive much to my regret, and therefore unable to be interviewed but intricate maneuvering was necessary and from what I do know now, some very intricate and political fast foot work was required to get this thing on the tracks and get it actually approved as a Naval operation.

Q. As an explanation as to why there might be opposition to the Nautilus venture under the ice, can you comment on the role of the Nautilus at that time in terms of military support?

A. Yes. Nautilus at that particular time was the only fully operational nuclear submarine in the U.S. and the world for that matter. There were others coming along, but she was the only one that was in full scale operations at that time. So there was tremendous demand for her service, both in terms of exercises with fleet units, not just U.S. but NATO. Also to demonstrate to lots of Navy and civilian personnel, other military service personnel, what the capabilities were of a nuclear powered submarine. So some of the opposition occurred because there was a
feeling among some individuals that Nautilus ought to stick to her knitting so to speak and play her conventional military role, rather than messing around up in the Arctic.

Q. As you said earlier you were elected to Congress after you left the Navy. Did you have the opportunity there to play a role in promoting and funding submarine operations and research in the Arctic?

A. Well I did in an informal sense. I was not a member of the committees that had to do with that, either the Armed Services committee or whatever. However, in an informal sense in terms of supporting legislation that might have some impact, I of course was an avid supporter in that regard. I also tried to be a salesman among my colleagues for support of nuclear submarines including their deployment in the cold war.

Q. Were you involved at all in support for basic research in the Arctic and Antarctic?

A. Well again, not in terms of a formal definitive official role in that regard, but as unofficial supporter and salesman and as a person who would always vote for legislation that benefited those programs. Certainly I was, yes.

Q. Okay. Can you elaborate a little more about your informal support for scientific research?

A. Yes. One thing that comes to mind, a very pleasant memory is that I lived in the same apartment building when I was on the hill in Congress with Dr. Phil Hamler, who at that time was the distinguished president of the National Science Foundation. And he and I had many pleasant conversations about his work and about my formal work and my current work on the hill. And he was interested in
the Navy nuclear program including the Arctic aspects, but avidly interested and 
an enthusiastic supporter of continued work in that area.

Q.  Okay. Very good. What do you remember as the most important accomplishment 
of your career?

A.  Well without question commanding the Nautilus during her under ice work, 
particularly the voyage all the way across from Pacific to Atlantic by way of the 
Pole. Being the first to accomplish that, which resulted during a crucial time 
during the Cold War, very height of the Cold War, of favorable reaction 
internationally.   And has subsequently proved to be of great interest and concern 
to the Soviets on the count that here the U.S. was operating in their own, what 
they considered to be their own back yards. And the potential that that had for 
staging missile launching submarines, deterrent submarines, literally in their own 
back yard. And having the potential among those who are interested in ocean 
commerce to point out that one day maybe we will have huge ocean going cargo 
submarines, where you could cut the sea distance, say from Japan to Europe 
almost in half by going under ice by way of the Pole. And still further, the fact 
that the United States has to occupy itself in two directions, one being the Atlantic 
and so forth, the other being the Pacific. We have to have two fleets, two groups 
of submarines. Suppose you have a serious military situation develop in the 
Atlantic area or in European waters. There could be a great benefit if you could 
take some of your Pacific fleet submarines and quickly get them to the scene of 
action over on the Atlantic side. Well how do you get them there? Of course you 
could send them by way of the Panama Canal but that is way out of the way.
Plus, the Panama Canal might not still be available. So you’re around a really long way. Great delight. What do you do? Well thank heaven you’ve got a history of Arctic operations, you send them up under ice by way of the Pole, thereby considerably increasing the effectiveness of your entire submarine force.

Q. We’ve already covered the fact that you really can’t identify any disappointments that stand out, other than the brief period of time on the night of 1957 where you had some concerns that the Pentagon might not renew a second effort.

A. Right. That was a concern. Of course when we made our first effort to negotiate the shallow regions off of Alaska on our first try to get through which proved to be unsuccessful, not only was it a disappointment but also I was very fearful that the whole idea might be scrapped as being too risky or that Nautilus was urgently needed in a military role, that the powers that be might say “Well, let’s defer this til some future date.”

Q. We’ve gone over a lengthy set of questions. I’m at the final one which is are there any questions that you wish I had asked?

A. Well doctor, you have been a suburb interviewer and you’ve covered the situation superbly. I just want to add this and that is that during this interview, this oral history, I need to point out that there are many, many reasons why this undertaking was successful. In reacting to your superb line of questions, I want to say that I’m privileged to be talking on behalf on 150 superb officers, crew and civilian scientists and technical personnel who made that trip a safe reality.

Q. That bring us to the end of the interview and I thank you very much for your cooperation and making a lasting contribution. Thank you.